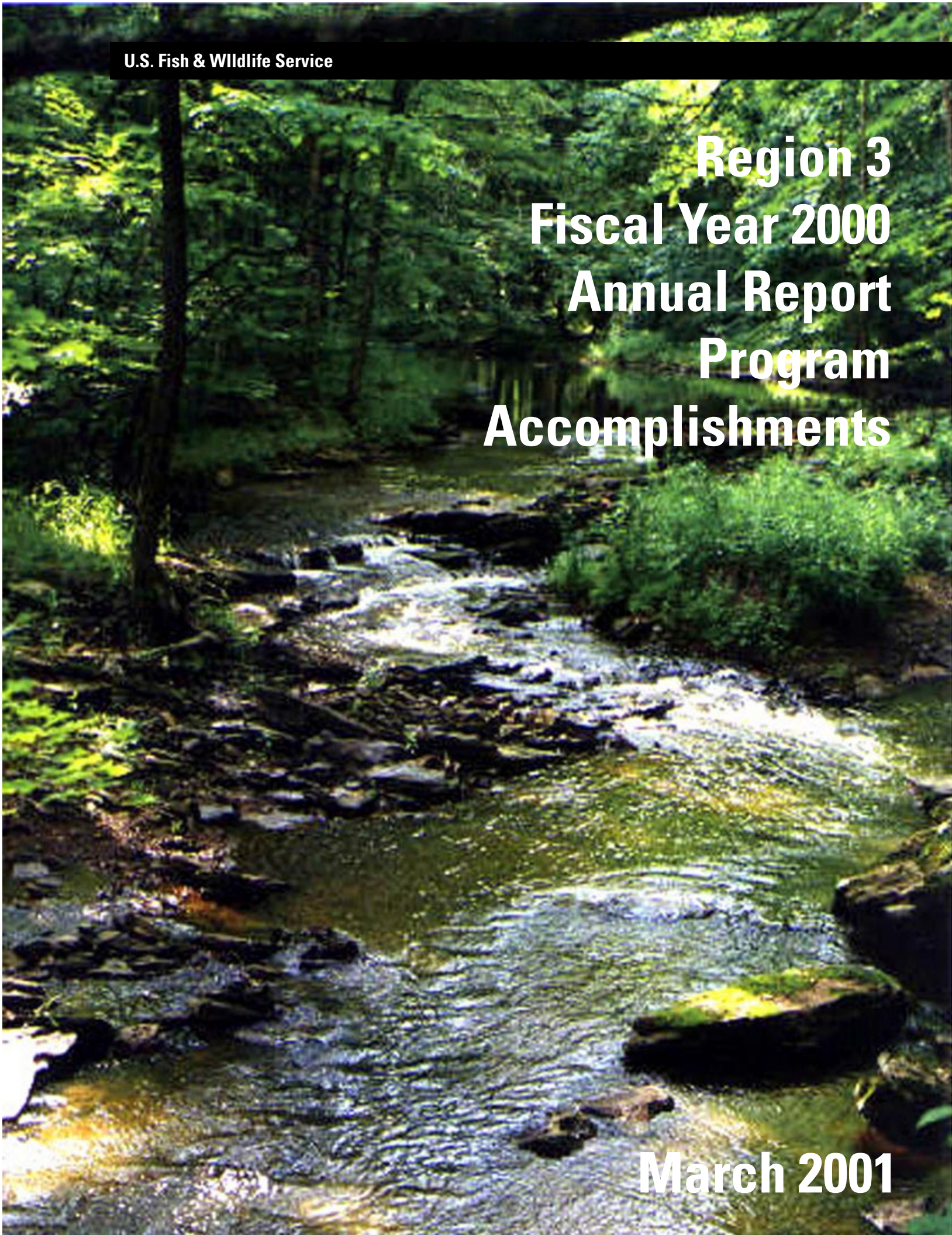
U.S. Fish & WIldlife Service

Region 3 Fiscal Year 2000 Annual Report Program Accomplishments



March 2001

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U.S. Fish & Wildlife Service

Fiscal Year 2000 Annual Report

About The Report

The Fiscal Year 2000 Annual Report is produced by the Region 3 External Affairs Office. The Report details accomplishments and activities of Region 3 from Oct. 1, 1999 to Sept. 30, 2000. Supporting accomplishments are submitted via the Region's Accomplishment Reporting System. The Report is designed to be published electronically, and can be viewed or downloaded in portable document format (.pdf) on the Region 3 Web site @ http://fws. midwest. gov Public requests for printed copies cannot be honored. Comments concerning content of the Report should be addressed to the editor at 612-713-5309 or by electronic mail at: scott_flaherty@fws.gov.

About The Cover

--Photo by Scott Flaherty

Little Otter Creek winds its way through Big Oaks National Wildlife Refuge in southern Indiana. At more than 50,000 acres, Big Oaks was a significant addition to the National Wildlife Refuge System in 2000.

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Introduction

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Region 3

--Photo by Scott Flaherty
Regional Director Bill Hartwig

From the Regional Director

This Fiscal Year 2000 Annual Report highlights the outstanding work and accomplishments by dedicated members of the Great Lakes-Big Rivers Region, and our region's commitment to the resource and to the people who continue to enjoy the resource. Reports of individual station and program accomplishments contained in this report are at an all-time high, numbering more than 1,500 accomplishments. I welcome this opportunity to share these with you. Also, I want to thank everyone for your hard work, dedication and continued commitment to the mission of the U.S. Fish and Wildlife Service.

The number and quality of our accomplishments is a source of pride and inspiration for continued achievements in our work with fish, wildlife and plant resources in the Midwest. Our successes are the result of cross-program, interagency efforts and through partnerships both in and outside of the Service. The cultivation and sustainment of our partnerships is a major component of our success in conserving natural resources in the Midwest. Field and regional office staff have documented accomplishments involving our work with more than 450 partners and cooperators -- from Fortune 500 corporations to small town kindergarten classes-- during the year. The value of partnerships to accomplishing our mission cannot be overstated. Accomplishments reported via the Region's Accomplishment Reporting System shows that during Fiscal Year 2000, our Region took part in on-the-ground accomplishments totaling more than $150 million. The Service's financial contribution to these resource accomplishments amounted to just over $16 million.

There were many notable achievements in 2000. We continued to take the management lead with two endangered species–the gray wolf and the American bald eagle-- that are making their way off the Endangered Species List. We have worked with state, tribal and non-governmental groups to author the Service's proposal to reclassify the gray wolf from "endangered" to "threatened" in the lower 48 states. We also sought to designate critical habit for the Great Lakes' populations of the endangered piping plover. We worked to restore and protect habitat for other species such as the Karner blue butterfly, Eastern massasauga rattlesnake and Indiana bat.

Summary of Fiscal Year 2000 Accomplishments

--Photo by James R. Fisher

Regional Director Bill Hartwig (sunglasses), joins U.S. Fish and Wildlife Service Director Jamie Rappaport Clark and Big Oaks Refuge Manager Lee Herzberger to discuss refuge with Indiana Congressman Baron Hill (back to camera).

--Photo by Scott Flaherty

Conservation Partnership. *The Service partnered with commercial and conservation interests to raise more than $785,000 to fund a prairie wetlands conservation initiative. Pictured from left Kelly Joe Weiner, operations manager for Ron Schara Enterprises; Regional Director Bill Hartwig; Steve Jensen, Gander Mountain marketing specialist and Joe Duggan, public affairs director, Pheasants Forever.*

Removal of PCB-contaminated sediment from the Saginaw River in Michigan began in April, funded by a $28.2 million Natural Resource Damage Assessment (NRDA) settlement with General Motors. Wildlife habitat also benefitted from other NRDA settlements with American Chemical Services, and the Gary Lagoons in Indiana. The settlement will also restore coastal wetlands and lake plain prairies around Saginaw Bay. The Region also received more than $255,000 from the National Fish and Wildlife Foundation to help fund an experimental project to reintroduce migratory whooping cranes to the Eastern United States.

The National Wildlife Refuge System saw the addition of Big Oaks National Wildlife Refuge, a 50,000-acre parcel of unfragmented forest, grassland and stream habitat that is being managed for 120 species of breeding birds, 41 species of fish and 46 species of rare plants. Volunteer support to our region's refuges is envied throughout the Service as demonstrated by the Friends of Rydell NWR Association, which was named 1999 Friends Group of the Year by the National Wildlife Refuge Association. Two groups, the Friends of the Upper Mississippi River Refuges and the Friends of the Cache River Watershed helped raise more than $37,000 for restoration projects.

We can also count among our accomplishments the continued recovery of lake trout populations in the Great Lakes. Our lake trout and coaster brook trout restoration efforts are also being supported by our tribal partners. We are also working with our tribal partners to restore self-sustaining populations of lake sturgeon to Native American fisheries in northern Wisconsin and Minnesota.

This year also saw a major restructuring of the Service's management structure. Service-wide surveys of employees and managers initiated a return to Program management from Geographic area management. The restructuring created new opportunities for Region 3 with the creation of a new program area that merged Migratory Birds, formerly a part of Refuges, and Federal Aid. Our emphasis on the ecosystem approach to conservation was elevated with the creation of a new Special Assistant to the Regional Director for Ecosystems.

As we enter 2001, we are prepared for a new millennium of achievement. Working together as a team, engaged with our partners and our stakeholders, we have compiled an enviable record of achievement in our work to conserve our nation's precious natural resources. Our efforts in 2000, coupled with accomplishments of previous years, helped set new standards of excellence in fish and wildlife conservation. It is a pleasure to work with you. I congratulate you all for a job well done.

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Midwest Natural Resources Group

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Description and Mission

The Midwest Natural Resources Group (MNRG) is a partnership effort to bring focus and excellence to federal activities in support of the health, vitality and sustainability of natural resources and the environment. The purpose of the Group is to develop processes, marshal resources among agencies and partners, seek opportunities for collaboration and communication, and provide timely assistance where it is needed. The agencies within the Group are committed to bringing results to the American public in communities of the Midwest.

In 1998 the Group was formally established. The agencies agreed on the need to attain proactive coordination, eliminate duplication and clearly establish the proper role for each federal bureau or agency within the 12 geographical area focus areas of the Big Rivers and the Great Lakes basins.

While many issues are dealt with on an inter-agency basis by agency staff, the MNRG is unique in that it is comprised of regional executives who have the authority to focus their agency's respective resources onto specific areas. For Region 3, the Group represents a source of multi-agency support and coordination for each of the Region's ecosystems. Ecosystem team leaders can use the Group to help build support for their team's goals.

The group consists of senior agency executives from 14 federal agencies with responsibility and authority throughout the Midwest. Approximately 200 natural resource professionals from these agencies also participate in the MNRG. Regional Director William Hartwig and 20 Service natural resource professionals are members of the MNRG. From May 1999 through June 2000 the Service was the lead agency and Mr. Hartwig was the MNRG Chair.

Description and Mission (continued)

The Group's membership includes regional executives of:

- Bureau of Indian Affairs
- Bureau of Land Management
- Department of Energy
- Federal Highway Administration
- National Oceanic and Atmospheric Administration
- National Park Service
- Natural Resources Conservation Service
- Office of Surface Mining
- U.S. Army Corps of Engineers
- U.S. Coast Guard
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- U.S. Forest Service
- U.S. Geological Survey

The mission of the Group is to provide an opportunity for federal agencies to:

- Coordinate, identify and enhance the accomplishments of existing efforts being undertaken by federal and non-federal partners.

- Explore and commit to, new opportunities for cooperation and collaboration.

- Achieve better reporting procedures to Congress and the public regarding federal progress and results within the Government Performance Results Act (GPRA).

- Better utilize limited resources ro reap maximum benefits for the natural resources and people of the Midwest.

Summary of Fiscal Year 2000 Accomplishments

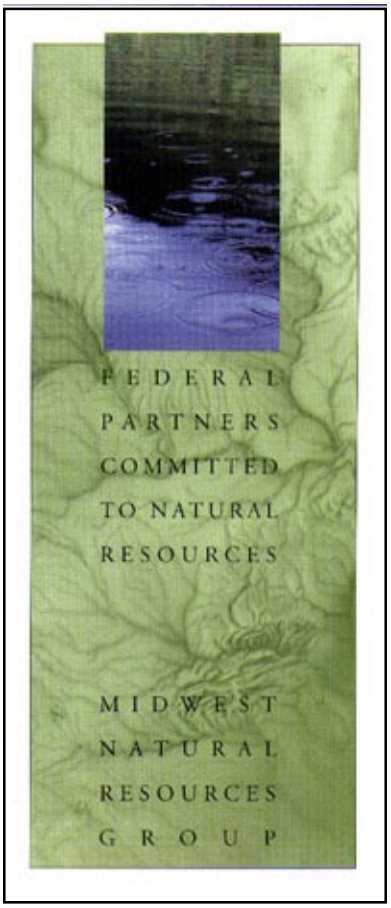
In order to facilitate its specific, on-the-ground, objectives, the Group decided to concentrate its efforts on 12 Midwest "focus areas," each of which fall within either the Great Lakes or Big Rivers basin. Focus areas within the Big Rivers basin are the Illinois River, Minnesota River, Missouri River, Ohio River, Ozark Plateau, and Upper Mississippi River. Focus areas within the Great Lakes basin are the Detroit River/St. Clair River, Fox River/Green Bay, Great Lakes (general), Saginaw River and Bay, Southern Lake Erie and Southern Lake Michigan.

During Fiscal Year 2000, the U.S. Fish and Wildlife Service, Region 3, took over as the lead coordinating agency for the Midwest Natural Resources Group (MNRG). The Region 3 External Affairs office was in charge of coordination and communications for the approximately 200 natural resource professionals who participated in the Group throughout the Midwest. Service activities included establishing a multi-agency Communications Sub-Committee; developing, organizing and maintaining a contact database for MNRG members; and, coordinating and hosting November and June MNRG Meetings and organizing the February MNRG Meeting.

The External Affairs Office developed and disseminated the following products: MNRG Charter; Operations Guide; draft Focus Area Map; Tribal Contacts for the MNRG; Focus Area Executive Summaries (and three updates); four MNRG Meeting Reports; Contact List by Membership; Contact List in Alphabetical order; 12 Focus Area Fact Sheets; Charge for Focus Areas; and Agendas for the Focus Area, Communications Sub-Committee, and Senior Leaders meetings. Additionally, the External Affairs manages and provides technical assistance for the MNRG Accomplishment Reporting System and manages five MNRG Contributed Fund Accounts.

The Service, in coordination with other MNRG agencies, developed a MNRG Communications Plan, Logo, final MNRG and Focus Area Maps, Accomplishment Reporting System, MNRG Brochure, MNRG Website, and the ACE Award (Award for Conservation Excellence).

On June 14, 2000, Senior Leaders of the seven federal agencies represented by the MNRG signed an Intergovernmental Partnership Agreement to work in partnership with state and local governments, non-governmental organizations, private landowners and individuals to restore and protect the ecological integrity of the Illinois River Basin. Specifically, the Group decided to focus initial efforts on the Crow Creek watershed of the MNRG Illinois River Focus Area. The Region 3 Office of External Affairs, in coordination with the MNRG Communication Sub-Committee, assisted the focus area with the Agreement, as well as coordinating a press conference and site tour, notifying local media, notifying the local congressional delegation and developing press packets.



Communicating Goals. *The Group produced a full color brochure that described its mission, focus areas and lead agencies.*

Additionally, more than 100 staff members from the Group's member agencies met as a general group, as well as within the specific focus areas they participate in, to discuss issues and projects at a staff level. At the end of this meeting, each focus area reported their progress and discussed any issues they had with the senior agency leaders. This unique feature of the Group allows members from all agencies, executives and staff, to gain a clear and concise understanding of current issues and efforts within the Midwest.

Goals for Fiscal Year 2001

The Midwest Natural Resources Group will advocate excellence in federal activities to support economic and natural resource vitality in the Midwest. The Group's key goals are:

- To report cooperative accomplishments in order to bring an understanding and awareness to the high economic, environmental and cultural value and needs of the Midwest.

- To focus on the fluid change and sustainability of natural resources, particularly in relation to continued economic development and urban growth.

- To garner federal focus and fiscal support toward the enhancement of these resources.

- To support demonstration projects in the Illinois River, Detroit River/St. Clair River, and Upper Mississippi River Watershed Focus Areas.

- To emphasize the Clean Water Action Plan's Focus on Healthy Wetlands.

- To focus on urban sprawl and the MNRG.

The Group aims to achieve its goals through ensuring that processes are developed, resources are identified and coordinated between agencies and partners, opportunities are sought for collaboration and communication, and timely assistance is provided, where needed, for the benefit of the American public in the metropolitan areas, communities, towns and farms of the Midwest.

Budget and Administration

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Program Description and Mission

The Budget and Administration team is composed of the functional areas of Engineering and Safety, Personnel Management, Computer Support, Finance, Contracting and General Services, Diversity and Civil Rights, and Youth Training and Education (Mingo Job Corps).

The missions of the team's sub-components are:

Engineering and Safety: Provide quality and timely engineering services and maintain a motivated staff through training and use of up-to-date available technology. Provide proactive safety support for the Region, with timely guidance and oversight of Regional safety practices.

Personnel: Provide quality customer-focused consultant and technical services, in the areas of human resource management and development, that support the U.S. Fish and Wildlife Service mission.

Computer Support Group: Provide quality customer service to Region 3 computer users by supporting and enhancing existing systems, and researching and planning transitions to new automated information systems and technologies.

Finance: Provide financial management services to field and Regional Office employees so they can understand financial implications while accomplishing the mission of the Service.

Contracting and General Services: Provide professional, high quality services to the Regional Office and field stations congruent with the mission of the Service, and contribute to its fulfillment through a motivated, well trained staff using up-to-date technologies and methods.

Diversity and Civil Rights: Provide technical and consultant assistance to Regional managers and supervisors in accomplishing their responsibilities in the areas of civil rights; recruitment, development and retention of a diverse workforce, accessibility; and promotion of a work environment that values and supports all employees.

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Mingo Job Corps: Establish and maintain a safe, positive instructional environment which encourages the educational, vocational, and social growth and development of Mingo students and staff.

Summary of Fiscal Year 2000 Accomplishments

Engineering and Safety

The Division completed plans and specifications for 35 construction and maintenance projects with an estimated value of $7.6 million. Division personnel participated on a national team to develop service wide design standards for bridges. Seismic assessments were completed on all moderate zone facilities. The Division of Engineering is continuing to improve customer service by conducting regular status meetings with Refuge and Fisheries personnel.

The Safety Division conducted a Regionwide survey to identify Regional safety needs and implemented an aggressive proactive Regional Safety Action Plan.

A web page was established for Safety, Occupational Health, and Environmental Compliance. The page is set up to assist Stations with safety and compliance information, generic plans, links to regulatory reference web pages, and information on training opportunities. The page provides timely dissemination of Safety information, and monthly safety topics.

Safety coordinated and conducted OSHA 600 Collateral Duty Safety Officer (CDSO) training, CPR classes, First Aid classes, and defensive driving classes for personnel from the Regional Office and Minnesota Valley NWR. Safety personnel assisted with the organization of three water craft safety training sessions, and the hosting of a national instructors training course for water craft safety. They coordinated and assisted with SMIS training presentation at AO/PL workshop.

Throughout the year Safety tracks, monitors and assists with station safety inspections, and accident reporting. Safety examined all Regional tort claims and assisted the Solicitor's Office on these cases.

Environmental Compliance coordinates the Regional compliance auditing program. The program reached the goal of completing the initial cycle of Regional audits. This includes formal and informal audits conducted on 120 organizational codes within the Region over the past five years.

Personnel

Employees of the Division worked on completing the Federal Employees Life Insurance Program open season by processing the changes which were effective in April. Marketed the use of Employee Express which allows employees the capability to make some personnel changes themselves. Provided information to employees on the proposed changes in Thrift Savings Plan (TSP) and administering TSP and Federal Employee Health Benefits open seasons. The FPPS T&A System was updated for changes in chain of command due to reorganization. Developed basic queries to assists tracking statistical information for the Region.

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In the Employee Relations area, reviewed and commented on draft information that was distributed on CORE and worked toward encouraging interest among bargaining units in Region 3 in entering into a Memorandum of Understanding so the employees they represent could participate in CORE. Also participated in an all employee meeting to help employees understand the differences between the administrative grievance process, EEO complaint process and CORE. A new website covering Employee Relations was established that has guidance on the different types of employee discipline and performance-based actions with sample letters. Information on the Region's Work/Life Initiative was added to Region 3 Personnel's Website. New Work/Life Initiatives have been implemented for the employee transportation and fitness center subsidy.

The Division presented updates on various Division activities during the Administration/Project Leaders Workshop.

Personnel participated in customer service training and have identified specific areas where customer service can be enhanced. Projects have been identified to improve customer service and improve processes for enhanced customer service provided by this office.

Division employees updated the web guide on the Preparation of Standard Position Descriptions. New standard position descriptions and job analyses were added to the Region 3 Personnel Website for use by all Region 3 managers/project leaders.

As part of the Service's initiative to re-engineer internal and external hiring processes based on merit using state of the art technology, Region 3 Personnel Staff participated in a Service-wide demonstration using Quick Hire and provided an assessment of the system. In addition, the Service's Staffing Counterpart Group, of which Region 3 is an active participant, is leading the initiative to successfully implement the Quick Hire system to automate all of our recruiting and examining processes.

Personnel recommended to the Regional Management Team that the Student Temporary Experience Program (STEP) be the primary vehicle used by Project Leaders to fill temporary positions, except for the SLC Program. This past Fiscal Year 50 STEP students were hired, while only 9 new employees have been hired from other temporary activity.

Computer Support Group

Members of the Computer Support Group (CSG) worked very hard this year on several large, interrelated initiatives. The primary initiative to convert all Region 3 e-mail users from cc:Mail to Lotus Notes required the group to push forward with efforts to improve field office connectivity, field office networks, and user workstations. Accomplishments in all of these areas resulted in completing

approximately 90% of the Region 3 Lotus Notes conversion in Fiscal Year 2000. Reliable high speed Wide Area Network (WAN) connections were installed at 10 field, with 2 more pending completion in early Fiscal Year 2001. The CSG worked closely with the FWS National Communications Center (NCC) to develop a very cost effective plan for implementing WAN connections at an additional 12 Region 3 field offices in Fiscal Year 2001. The CSG researched various software and hardware solutions for sharing modems across small field offices networks without WAN connections. A new hardware solution was implemented at these offices prior to their Notes conversions. The CSG researched and planned for improvements of field office networks, including plans for converting from the Lantastic network operating system to Windows NT. Windows NT was installed on 10 of the field office networks in preparation for the transition. Security was enhanced on a Regional level by improving the method of distribution of McAfee Antivirus signature files down to workstations. The CSG provided general customer support by processing approximately 2,500 Help Desk calls, completing efforts required for a successful Year 2000 rollover, coordinating the distribution of WO IRM IT Modernization Funding, upgrading the RO network backup system, producing a quarterly CD for field office distribution, providing on-site visits to 12 field offices, installing approximately 50 new computers, and researching new technologies such as the "Pocket PC".

Budget and Finance

The Division of Budget and Finance (Budget and Finance) coordinated the development of 22 capability statements for the Fiscal Year 2001 budget. Throughout the year, Budget and Finance provided Region 3 management with updates on the status of the Fiscal Year 2001 appropriation bills. Budget and Finance also prepared a formal response to the proposed themes for Fiscal Year 2002 budget.

Tools for Spending Resources. Budget and Finance continued its support of the Region's Remote Data Entry (RDE) users by:

- Implementing a FFS Coordinator position (responding to approximately 40 calls per week.
- Developing and distributing RDE manuals to more than 120 locations.
- Updating vendor information included in the accounting system.
- Issuing fast pay, field payment, obligation, and web report policies.
- Maintaining better than 97 percent compliance with Prompt Payment Act.
- Implementing procedures to ensure payments are fully documented.
- Increasing the percentage of payments made electronically by 13 percent.

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Budget and Finance (continued)

Budget and Finance also manages the Region's credit card program. Accomplishments included updating station information in Bank of America credit card database (120+ locations) and assisting in the reissue of 968 credit cards.

Budget and Finance coordinated over 46 Permanent Change of Station (PCS) moves and assisted in updating and distributing the "Employees on the Move" handbook, the Service's policy for PCS. As required by policy, Budget and Finance coordinated formal reviews of all 67 imprest funds in the Region.

Budget and Finance implemented the Region's Corporate Master Table (CMT). The CMT is the official listing of all Service organization information. Implementing the CMT included verifying and maintaining a wealth of information on all 166 organizations within the Region. Instructions for using the CMT were developed and distributed throughout the Region.

Other tools provided to Budget and Finance customers included:

- Developing an intranet site with budget and finance information (http://r3ftp.fws.gov/aba/finance).
- Providing presentations at the administrative workshop.
- Providing assistance in migration to new travel management company (Omega World Travel).
- Assisting in updating the Region's delegation of authority document.

Budget Execution. Budget and Finance regularly provided Regional management with status reports showing Fiscal Year 1999 and Fiscal Year 2000 resource management balances. The Fiscal Year 2000 resource management obligation rate improved significantly from Fiscal Year 1999 (from 93.9 percent to 97 percent).

Contracting and General Services

Implemented the Interior Department Electronic Acquisition System (IDEAS) in the Regional CGS office to acquire goods and services and implemented the electronic commerce module for certain commercial items.

Utilized procedures authorized by Federal Acquisition Streamlining Act and Federal Acquisition Reform Act to award significant contracts under design/build criterion. The contracts were awarded on time and within budget.

Emphasized continuous quality improvement by using quality improvement teams to address specific elements of our operation to ensure that tasks are necessary and being performed in the most efficient way possible .

Placed increased emphasis on customer service. All CGS staff attended customer service training and worked with our field stations

to identify their needs and implement actions to meet those needs such as electronic notification when contracts are awarded. Conducted a customer service survey of our field stations by telephone to determine level of satisfaction with the services we provide and identify areas we could improve upon.

Diversity and Civil Rights

Diversity and Civil Rights (DCR) staff provided Dr. Peggy Riley of Diversity Dynamics International for Equal Employment Opportunity training at the AO/PL conference held in Minneapolis, Minn. Dr. Riley's presentation was titled "Diversity in the New Millenium".

A senior trial attorney from the Equal Employment Opportunity Commission provided information to the Regional Management Team about supervisors' responsibilities to maintain a work environment free from sexual harassment and their responsibilities if they receive a sexual harassment complaint. The Office for Diversity and Civil Rights Programs has purchased three Sexual Harassment training videos that are being circulated throughout all offices and field stations. This training is mandatory for all employees.

Lis Evans, director of the Environmental Justice Program with U.S. Environmental Protection Agency, presented an overview of environmental justice and how it relates to the U.S. Fish and Wildlife Service to approximately 85 project leaders in Region 3.

The Human Resource Advisory Committee provided the Cultural Awareness Forum to members of the Regional Office. Approximately 215 employees attended during the three dates of the Forum. The Forum provided employees with information on different cultures, perceptions and barriers of diverse groups.

The Sexual Orientation Special Emphasis Program Manager and the Federal Women's Program Manager provided leadership to the Federal Executive Board's Diversity Council for the Federal Women's Program Clothing Drive. Local Federal Agencies participated and provided 1208 clothing items for a value of over $4,300.00 using price estimates from Good Will.

The Human Resource Advisory Committee held the 10th Annual Cultural Diversity Luncheon on March 21, 2000. The luncheon featured Tou Ger Xiong, a Hmong comedian. The luncheon provided a wide variety of diverse dishes for 53 employees from the Service, Bureau of Indian Affairs and the Federal Executive Board of Minnesota.

A briefing on issues surrounding sexual orientation was provided to the Regional Management Team by a representative from

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Diversity and Civil Rights (continued)

OutFront Minnesota, a local organization supporting gay, lesbian, bixesual, and transgender issues.

EEO Specialist provided training to Region 1 outdoor recreation specialists on Department of Interior regulations, legislation, the Service-wide Accessibility Team and the Accessibility Tracking System.

EEO specialist and landscape architect provided a briefing on the status of the Service's Accessibility Tracking System to the Washington Office for External Programs staff in April.

EEO specialist and landscape architect provided a briefing on the status of SWAT and the Service's Accessibility Tracking System to Washington Office Administration (ABA) and Refuges (ARW) staffs, as well as the newly appointed Director for Diversity and Civil Rights Programs in June.

The Human Resource Advisory Committee provided the Cultural Awareness Forum to employees from Ottawa NWR, Michigan Private Lands Office, Great Lakes Coordination Office and East Lansing Field Office in East Lansing, Michigan. The Forum provided employees with information on different cultures, perceptions and barriers regarding diverse groups.

The Sexual Orientation Special Emphasis Program Manager and two other Region 3 employees participated in the Minnesota AIDS Walk and raised over $300 in donations.

A presentation was provided to the Regional Management Team regarding the history, accomplishments, work-plan and by-laws for the Region 3 Human Resource Advisory Committee in an effort to provide guidance on recognizing Special Emphasis Observances throughout the year.

As vice chair of the Federal Executive Board Diversity Council, the Native American Special Emphasis Program Manager provided a presentation to the U. S. Postal Service regarding the responsibilities of an SEPM and membership of the FEB Diversity Council.

The Native American SEPM and the ARD-ABA provided presentation at the Federal Women's Fall Training Day co-chaired by the Region 3 Federal Women's Program Manager.

Mingo Job Corps Center

The Center staff received training on time management and team building. The training was provided by a dynamic speaker from Florida. During the past summer the Center has remained at full capacity (224 students). This has enabled the Center to bring students in every two weeks instead of once per week. U.S. Congresswoman Jo Ann Emerson visited the Center this year and spoke

with students. The Center was selected as a Satellite One-Stop Center for Service Delivery 11. Individuals are allowed to seek assistance on Internet job searches, resume writing, letter writing, typing test, and labor market information.

Administration

During the past Fiscal Year, a new training plan was completed and a new Standard Operating Procedure was developed. The Center director is on the Service Delivery 11 Work Investment (WIA) Act Board and the Youth Council Board. The Mingo Job Corps joined partnerships with the Susanna Wesley Family Learning Center, Spirals, Caring Communities, and Missouri Mentoring to write a grant proposal for a WIA Grant. (The Center received the grant.) A new telephone system was installed. This new system has features such as voice mail. A staff is being utilized to drive Mingo students to and from their STW sites.

Behavior Management

The Behavior Management was revised and implemented. Students are now called Student Employees, Center Review Boards are called Employee Hearing, Center Standards Officer is the Student Employee Personnel Officer, etc.

Counseling

The Jr. JACS Club works with the local nursing homes and other community service projects. This group participated in the Make A Difference Day and planted over 5,000 daffodils in the community. They have assisted the United Gospel Rescue Mission in enhancing their kitchen facilities. The P/PEP system was improved to prepare students for employment and actual performance appraisals. Students are reviewed on employability factors and are counseled on the achievement of those goals established at the PEP. The evaluation form has been revised to reflect such employability skills. A "Speakers Bureau" has been developed on Center and local agencies and professionals have volunteered time to come and talk about real life issues with students. (Examples: dating violence, esteem issues, etc.) The Mingo Job Corps Alumni Charter is being developed and the first induction ceremony of alumni will take place August 25. Community Service projects for the charter are beginning as well. The Center is above capacity and is presently on biweekly input. The orientation dorm has been reinstated and is allowing for greater emphasis on Mingo's new student population.

Education

A new curriculum was developed. This has allowed all instructors a planning period in the day. The applied academics class has been developed. The education and vocational instructors work together to assist students in obtaining the necessary reading and math skills for their vocation.

Placement

Conducted a successful Job Shadow Day. This was coordinated with the Puxico High School. Approximately 25 students came on Center and participated. One Mingo student was selected to fly to Washington D.C. to shadow Congresswoman Jo Ann Emerson. One Mingo student was chosen to shadow Program manager,

Krista McCracken in St. Louis, Missouri. A Job Fair was held on Center. Approximately 500 individuals came on Center and toured the campus. About 25 businesses participated. During Make A Difference Day, Jay Altman, staff, and a group of students went to Haven House in Poplar Bluff. These individuals painted, raked leaves, etc. During National Youth Services Days the entire Center worked on community and refuge projects. Mingo Community Relations Council received a runner up certificate from the Alpha Awards. Mingo Job Corp has conducted a successful Industry Council meeting and Vocational Trade Review.

Residential Lights for the softball field were installed. Many items were purchased through modernization funding (mountain bikes, ping pong tables, paintball equipment, weight equipment, safety pads for the gym, and board games.) Recreation Supervisor position was filled.

Vocation The vocational department has completed miscellaneous community vocational skills training projects for the Poplar Bluff Park Service (e.g., the construction of a road to the sports complex.) Utilized modernization funds of $42,240 to bring vocational trades up to industries standards. Completed the roofing on the new education building. Completed work on the water treatment plant. Completed HVAC work on the recreation hall and Dorm 1. Completed the concrete work on the Paint Mock Up. Maintenance position was filled. The installation of door closures for Dorm 5 was completed. The warehouse alarm system was completed.

Wellness Center The Wellness Center, formerly Health Services, has geared to making students accountable for their time. They have successfully implemented an appointment system. Students are now required to make appoints to see the doctor or nurses. The vacancies for this department have been filled.

Goals for Fiscal Year 2001

Priorities for Budget and Administration in Fiscal Year 2001 include:

Customer Service: Continue to explore ways to provide seamless administrative support to the field and Regional Office.

Streamlining: Continue to explore ways to improve and streamline the Regional administrative process.

Employees: Recruit, train, reward, and retain a quality workforce that reflects the diversity of this Nation's population.

Division Specific Priorities

Engineering Vision

Provide quality and timely engineering services and maintain a motivated staff through training and use of up-to-date available technology.

Resource Management. Complete planning and design for Refuge, Fisheries, and Job Corps resource management projects, identified and funded, in accordance with written criteria provided by the appropriate Programs.

Construction. Complete planning and design for construction funded projects, in accordance with criteria provided in approved Project Data Sheets (PDS's), and within agreed schedules.

Construction Management. Provide construction management and inspection services for all resource management and construction projects.

Realignment. Continue efforts to adjust workload to meet changing project criteria. Look for opportunities to utilize outside sources to meet peak demands for design, drafting and construction management services.

Information. Create engineering web page to provide better customer service.

Safety Vision

Provide proactive safety support for the Region, with timely guidance and oversight of Regional safety practices.

Safety. Complete a review of all Station inspections and implement an internet accessible data base tracking system for inspections and findings. Assist Stations to address safety findings, and close inspection findings to greatest degree possible.

Update existing Station inspection protocol for CDSOs. Develop and implement a Station Safety inspection by Regional Safety Office personnel program. Conduct 10 formal Regional Office Safety inspections, using developed program.

Goals for Fiscal Year 2001 (continued)

Implement accident reduction program to reduce Regional safety incidence, by the national goal of 3 percent (targeting strains, and sprains).

Coordinate and conduct CPR, First Aid, Defensive Driving Course, BBP, and assist Refuges with Heavy Equipment Operators Training. Coordinate additional training classes for collateral duty safety personnel who have not taken the OSHA 600 class.

Information. Enhance safety web Page for CDSO usage, exchange of information, and to provide managers with up-to-date electronic information to report station inspections, accident and injury statistics, and training.

Technical Assistance. Assist supervisors, managers, and collateral safety officers so they can better manage their facilities and implement pro active safety programs.

Environmental Compliance. Complete a review of all compliance audits conducted to date and close audit findings to greatest degree possible. Conduct 20 formal compliance audits and provide environmental compliance guidance to all field stations and Regional Office program management. Assist Stations with compliance issues relating with new Executive Orders and initiatives. Conduct and coordinate Resource Conservation and Recover Act (RCRA) training for Regional Personnel.

Prepare Regional Management for Environmental Management Review (EMR) to be conducted with cooperation of Environmental Protection Agency (EPA).

Boat Operator's Training. Work with the Fisheries and Refuge Supervisors to meet the training requirements for boat operators.

Personnel Vision

Provide customer-focused consultant ant technical services, in the areas of human resources management and development, that support the U.S. Fish and Wildlife Service mission.

Benefits and Employee Express. Market Employee Express to increase employee usage for actions allowed in the system. Communicate new Thrift Savings Plan options and other benefits information to employees. Administer open seasons and accomplish work expected due to Retirement Error Correction Legislation.

Employee Relations. Participate with DCR and the Region's Conflict Resolution Specialists to pursue resolution of employee issues at the lowest possible level and continue to work with the Region's Conflict Resolution Specialists to encourage the unions

Goals for Fiscal Year 2001 (continued)

to participate in the new CORE program. Expand the Employee Relations website to include samples of other commonly used correspondence such as leave restriction letters, informal grievance decision, etc. In the area of Work/life Initiatives market existing and additional initiatives that are implemented. Finally, pursue additional options for employees to obtain ethics training such as additional videos, and broader use of NCTC downlinks.

FPPS. Establish and maintain new route paths in FPPS. Update e-mail addresses in FPPS, so everyone will be aware via Lotus Notes when they receive a new action. Add and update FPPS users. As additional information becomes available assess the new FHRIS (Federal Human Resources Information System) project to integrate its use into the Region.

Pay Administration and Improving Customer Service. Complete customer service improvement projects initiated in Fiscal Year 2000.

Staffing. Actively participate in Service-wide Projects such as Quick Hire implementation, USAJOBS announcement enhancements, and minimum education course requirement standardization via the Staffing Counterpart Group. In addition, provide increased quality improvements to the SCEP and STEP hiring process, student evaluation process, and continue to partner with Diversity and Civil Rights (DCR) in these efforts.

Classification. Establish a procedure to maintain current Position Description (PD) files and purge the inactive PD files in a consistent and timely manner.

Computer Support Group Vision

Provide quality customer service to Region 3 computer users by supporting and enhancing existing systems, and researching and planning transitions to new automated information systems and technologies.

Regional Networks. Transition field office networks to industry standard network operating systems according to Region 3 network configuration standards. Enhance network security throughout the Region. Research and plan for the direction Region 3 networks will move in the next several years.

Connectivity. Improve network connectivity through implementation of new technological solutions. Continue to work with the Service Network Communications Center to implement the Region 3 cost savings plan for conversion of field offices from modem dial-ups Internet access to WAN connections.

Electronic Mail. Complete the Region 3 field office transition from cc:Mail to Lotus Notes.

Goals for Fiscal Year 2001 (continued)

Customer Service. Enhance user support customer service. Provide technical advice, policies, guidance, and instructions. Research and implement methods for improved efficiencies in delivery of customer support, including remote management options.

Finance Vision

Provide financial management services to field and Regional Office employees so they can understand financial implications while accomplishing the mission of the Service.

Financial. Assist programs in obtaining additional financial resources. Coordinate Region 3 budget requests and provide information on pending appropriations.

RDE Support. Maintain 90 percent or better compliance in obtaining taxpayer identification numbers, maintain 97 percent or better compliance with Prompt Payment Act, increase number percentage of payments made electronically, and provide quarterly training for FFS-RDE users.

Credit Card Program. Provide training on use of EAGLS, manage delinquencies, and do a statistical sampling of purchases.

PCS Coordination. Implement move management services and formulate and disseminate new PCS guidance.

Imprest Fund Management. Implement Headquarters process for reducing imprest funds and coordinate reviews of each fund.

Information. Continue to update web page with relevant information.

Financial Commitments and Obligations. Provide training for managers on budget issues, implement standard Budget Tracking Reports, and develop and issue monthly benchmark report.

Contracting and General Services Vision

Provide professional, high quality services to the Regional Office and filed stations congruent with the mission of the Service, and contribute to its fulfillment through a motivated, well trained staff using up-to-date technologies and methods.

Customer Service. Reorganize Contracting staff into teams which will work with a defined set of field stations for all acquisition and related transactions to improve communications between the CGS staff and field stations and enhance the rapport among the personnel through continuous interaction with the same people.

Space Management. Establish a database for all leases of space in the Region so managers have up-to-date information..

Goals for Fiscal Year 2001 (continued)

Information. Establish Web Page to improve the dissemination of information to field stations and the general public.

IDEAS. Implement Interior Department Electronic Acquisition System (IDEAS) Federal Financial System interface module to enable Contracting Officers to obligate funds at the finance center with a press of a button in the IDEAS system.

Diversity and Civil Rights Vision

Provide technical and consultant assistance to Regional managers and supervisors in accomplishing their responsibilities in the areas of civil rights; recruitment, development and retention of a diverse workforce; accessibility; and promotion of a work environment that values and supports all employees.

Customer Service. Partner with the Division of Personnel Management through monthly partnership meetings to promote greater effectiveness and efficiency in the development and delivery of human resource and diversity services.

Enhanced Services. Enhance the selection approval process by developing procedures to provide statistical information on under represented groups to selecting officials.

Accessible Web Site. Expand coverage of the Diversity and Civil Rights (DCR) web site to include information regarding accessibility, complaint process information, and additional resources.

Mingo Job Corps Center Vision

Establish and maintain a safe, positive instructional environment which encourages the educational, vocational, and social growth and development of Mingo students and staff.

Retention of Students. Maintain a weekly termination rate below 3.2.

Employability. Ensure all areas are focused on employability of students and the quality factors of the DOL Assessment Guide.

School-to Work. Continue to strengthen the School-to-Work process.

Placement. Place students in quality jobs and careers.

Staff. Recruit and retain a diverse work force of staff who have high expectations for themselves and the students.

Community Links. Continue to strengthen community links.

Facilities: Improve the Center's facilities, such as the new education building and paint shop, and enhanced additions to Dorm 4 and the Administration Building.

Fiscal Year 2000 Accomplishments

1. **Regional Office Converted to Lotus Notes**

Computer Support Group

Regional Office staff bid farewell to their old email software in October 1999 when they were converted to Lotus Notes, the Service's new standard email package. Staff from the computer support group helped convert and train Regional Office staff during early October. Very few technical problems were encountered, with most users commenting positively on Notes' new features and ease of use. New, shared calendars have been setup that help offices manage personnel coverage, annual leave, training, etc. Conference rooms and multi-media devices are also being setup to be scheduled. Discussion groups are being setup for employees and state partners. The field can also access any Notes resource via a Web browser. **(10/8/99)**

2. **Region 3 Provided Lantastic Network Training at NCTC**

Computer Support Group

The Region 3 Computer Support Group worked with the National Conservation Training Center (NCTC) to design and develop a customized Lantastic network training course for Region 3 field office network administrators. The five- day course was taught by Region 3 and NCTC staff the week of Nov. 16th, 1999. Twenty-five field office network administrators attended. The course provided hands-on training specific to the networks and cc:Mail systems in place at Region 3 field offices, as well as an opportunity for "networking" among field office staff. **(11/20/99)**

3. **Standard Position Descriptions and Job Analyses Added to Web**

Division of Personnel

All of the standard position descriptions in Region 3 and their corresponding job analyses were added to the Region 3 Personnel website during Fiscal Year 2000. All of the position descriptions are classified with a signed OF-8 attached, and can be readily used to save time in the staffing and recruitment process and to aid in Regional position management. **(9/30/00)**

Ecological Services

Fiscal Year 2000 Annual Report
Region 3

--Photo by Scott Flaherty

Gray Wolf Recovery. *Region 3 Ecological Services staff led the national effort to reclassify the status of the gray wolf (Canis lupus) from "endangered" to "threatened" on the endangered species list.*

Program Description and Mission

The Ecological Services mission is to ensure healthy fish and wildlife populations and the health of their environments. This mission is accomplished by protecting and conserving migratory birds, endangered species and their ecosystems. The following programs carry out the Ecological Services mission.

The Habitat Conservation Program within Ecological Services helps other federal agencies plan projects (e.g. roads, flood control projects, navigation projects) to avoid or minimize harm to fish, wildlife and their habitats. This program helps implement the Clean Water Act by reviewing projects that may affect wetlands and then provides assistance in the design of projects to avoid impacts to fish and wildlife. The Habitat Conservation Program also ensures fish and wildlife impacts are considered and addressed when federal power projects are licensed or relicensed, so that fish and wildlife benefits to people are not lost.

The Endangered Species Program within Ecological Services identifies species that are or could become endangered and protects them under the Endangered Species Act. This program then works to recover these rare and declining species. The Endangered Species Program also works with government and private partners to find ways to conserve species of concern.

The Environmental Contaminants Program within Ecological Services works with partners to prevent contamination and maintain healthy ecosystems for fish and wildlife. Service biologists in the program identify contamination that adversely affects the health of fish, wildlife and their ecosystems. As a federal trustee, the Service negotiates settlements from polluters to restore areas affected by contaminants so that they once again support fish and wildlife and the associated benefits to local citizens.

The Private Lands Program within Ecological Services gives private landowners financial and technical assistance in restoring wetlands, prairies, woodlands and other areas on their land. This program guides wetland and natural area restoration efforts on private lands to achieve multiple benefits, such as floodwater storage, water quality improvement or migratory bird conservation. The Private Lands Program also builds partnerships with other agencies,

Continued next page.

Summary of Fiscal Year 2000 Accomplishments

organizations and corporations to pool resources needed to assist in restoration projects.

Endangered Species

Gray Wolf

--Photo by Joel Trick

Public Meetings. *Regional staff conducted a series of wolf informational meetings in Minnesota, Wisconsin and Michigan*

With continuing progress in wolf recovery in the Great Lakes states and other areas, Region 3 developed and published a proposed rule to reclassify wolves from endangered to threatened in Wisconsin and Michigan, as well as the Dakotas. The gray wolf's status in Minnesota remained unchanged, pending completion of the state's management plan by the Department of Natural Resources. The proposed rule was published in the Federal Register in July 2000, and addressed the status of not only Region 3 wolves, but those in the northeast, Rocky Mountains and west. A round of public information meetings was launched in the affected states in this region and across the country to help the public understand the proposal and facilitate the public comment process, and preparations were made for public hearings in the fall. Outreach efforts continued with development of an informational display, ongoing updates of fact sheets and publication of "Wolf Tracks," and development of Website materials.

Piping Plover

--National Park Service Photo

A Call for Habitat. *Region 3, in concert with other Service Regions, proposed designating areas of the Great Lakes, southeastern United States and the Gulf of Mexico as critical habitat for the federally listed piping plover.*

In June Region 3, in coordination with other regions, prepared and published a proposal to designate critical habitat for the piping plover, an imperiled shorebird that inhabits the shorelines of the Great Lakes, southeastern states and Gulf of Mexico. Critical habitat for the breeding populations of piping plovers on the Great Lakes was proposed along approximately 189 miles of shoreline. This includes areas that support, or have the potential to support, open, sparsely vegetated sandy habitats such as sand spits or sand beaches associated with wide, unforested systems of dunes and inter-dune wetlands, and the plover's prey species. In the wintering areas, critical habitat is being proposed along 1,672 miles of coastline in North and South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana and Texas. These include coastal areas with intertidal beaches and flats and associated dune systems and flats above annual high tide. Intertidal sites offer foraging and roosting sites while areas above high tide provide refuge from high winds and cold weather. The Service held informational hearings in the affected states during the summer to receive public comments before developing a final rule on critical habitat designation.

In addition to these efforts, Region 3 personnel also worked on a wide variety of other projects that contributed to recovery and conservation of listed and candidate species. Generally, the work is a result of many small projects scattered over the range of the species. In combination, these small projects are the backbone of recovery progress for listed species. Examples include surveys and habitat protection for the endangered Kirtland's warbler; mussel monitoring in the St. Croix River; and development of an educational video in partnership with the state of Missouri on the endangered Topeka shiner and threatened Niangua darter.

Section 6 Funding

Region 3 made available to Midwest states a total of $418,387 in Section 6 funds for implementation of 14 conservation projects aimed at recovering a number of rare or declining species or preventive measures for species at risk. Targeted species include one threatened and one special concern snake; two endangered birds; one endangered butterfly; one endangered and two candidate fish; five endangered, two special concern and several other mussels; and one threatened and one special concern plant.

Region 3 also continued work on a number of new and revised recovery plans, the blueprints which help the Service, states and other partners in recovering listed species. Species included the Karner blue butterfly, piping plover-Great Lakes population, Illinois cave amphipod, Lake Erie water snake, Indiana bat, white cat's paw pearly mussel, Hines emerald dragonfly, Pitcher's thistle, eastern prairie fringed orchid, running buffalo clover, Higgins' eye pearly mussel, and purple cat's paw pearly mussel.

Other highlights:

Least Tern Habitat Conservation

--USFWS Photo

Tern Habitat Protected. *Interior Least Terns will benefit from Indiana's first habitat conservation plan developed in cooperation with Cinergy Corporation.*

Endangered least terns will benefit from provisions of Indiana's first habitat conservation plan, developed by Cinergy Corporation. Cinergy, Indiana's largest electric supplier, operates Gibson Generating Station in southern Indiana, with a cooling lake that has become a favored nesting site for the least tern. Since 1986, when terns were discovered nesting on the dike at Gibson Lake, Cinergy has undertaken intensive efforts to ensure the safety of tern nest sites and enhance habitat. Populations climbed through the years, with the population topping out at 85 nesting adults and 72 fledglings in 1998. The expanding population began using ash disposal ponds and gravel access roads as nest sites, as well as the dike. With this expansion came concern by Cinergy that incidental take might occur, and officials approached the Bloomington Field Office for advice. The result is a habitat conservation plan under which Cinergy commits to continuing efforts to protect and enhance habitat on the Gibson Lake dike, the tern colony's primary nesting area. Cinergy is also cooperating with the Service and other partners to develop and maintain Cane Ridge Wildlife Area, a unit of the Patoka River National Wildlife Refuge. The net result will be increased nesting opportunities for this easternmost – and Indiana's only – colony of least terns.

Upper Mississippi River Section 7

Region 3 completed work on a biological opinion for the U.S. Army Corps of Engineers after consulting with the Corps on operation and maintenance of the 9-foot navigation channel on the Upper Mississippi River from Minneapolis to Cairo, Illinois. The consultation focused on ensuring that federally listed endangered and threatened species in the Upper Mississippi River are protected while allowing other activities, such as commercial shipping, to take place. The consultation examined the impacts of operating the lock and dam system, channel maintenance dredging and material

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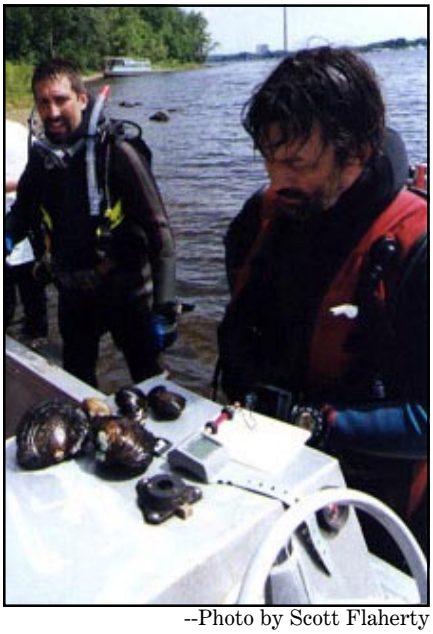

--Photo by Scott Flaherty

Searching for Zebra Mussels. *Twin Cities Field Office staff joined other federal and state agencies to form a zebra mussel task force aimed at controlling the spread of the invasive species in the St. Croix and Upper Mississippi Rivers.*

disposal, construction/maintenance of channel training structures, and of activities such as navigation, on several endangered and threatened species. These species included the endangered Higgins' eye pearly mussel and winged mapleleaf; the threatened bald eagle and the endangered least tern; the endangered Indiana bat; the endangered pallid sturgeon; and one threatened plant, the decurrent false aster.

The Service's biological opinion concluded that operation and maintenance of the nine-foot navigation channel is likely to jeopardize the continued existence of the Higgins' eye pearly mussel and the pallid sturgeon. Because of this finding, the two agencies developed alternatives that would both conserve the species and allow continued operation of the nine-foot channel.
The Higgins' eye pearly mussel is jeopardized because of continued commercial barge transportation in the Upper Mississippi River with vessels and equipment infested with zebra mussels. The "reasonable and prudent" alternative for the Higgins' eye pearlymussel includes development of a plan to relocate Higgins' eye to suitable zebra mussel-free, historically occupied habitats, and conducting a reconnaissance study to control zebra mussels in the Upper Mississippi River.

The pallid sturgeon is jeopardized because of the expected continued degradation of its habitat. The reasonable and prudent alternative for the pallid sturgeon includes implementation of a long-term habitat restoration program and conducting a pallid sturgeon habitat/life history study in the Middle Mississippi River.

The Service's biological opinion concluded that incidental take is anticipated for the winged mapleleaf mussel and least tern, and reasonable and prudent measures to minimize take were recommended. The opinion also found that while the project may affect individual bald eagles and Indiana bats, the impacts will be offset by management actions proposed by the Corps or will be negligible and will not rise to the level of incidental take. Adverse effects will result for the decurrent false aster, but the species will not be jeopardized.

Gray Bat

Consultation between Region 3's Bloomington Field Office and the U.S. Army resulted in a plan to manage the gray bat at the Indiana Army Ammunition Plant in southern Indiana. The plan helps maintain and enhance gray bats on the installation, which encompasses a cave system supporting Indiana's only gray bat colony. Key points of the plan are protection of karst features, forested stream corridors, and water quality. Conservation of gray bats at the installation is of particular concern because the Army is in the process of leasing and excessing the base; portions will be used for Charlestown State Park while other areas will be developed for commercial use.

Lake Erie Water Snake

--USFWS Photo

Lake Erie water snake.

Lake Erie water snake recovery and conservation includes public education, population monitoring and Section 7 consultation. The Service and the Ohio Division of Wildlife work with the Corps of Engineers, developers and private landowners to avoid or minimize habitat loss and improve existing habitat for the water snake. The public information campaign is successful thanks to ongoing communication with landowners, local businesses, and agencies along with posters, brochures, and media articles. An annual children's poster contest competition is held on Lake Erie island schools. The Service also produced Lake Erie water snake conservation signs for landowners to post on their property. The sign has been extremely popular. Out of 900 residents who live on four Lake Erie islands in Ohio, over 400 have requested and received the sign from the Service's Reynoldsburg Ohio Field Office. The Service believes the Lake Erie water snake can recover quickly if people learn to "live and let live" while sharing the islands with Lake Erie water snakes.

Purple Cat's Paw Pearly Mussel

--USFWS Photo

Mussel Recovery. *The Service is working with federal, state and non-governmental partners in Ohio to conserve the nation's only reproducing population of the purple cat's paw pearly mussel.*

The Service's Reynoldsburg, Ohio, field office is working with the Ohio Division of Wildlife, Otterbein University, Natural Resource Conservation Service, local officials, and landowners to reverse the decline of the highly endangered purple cat's paw pearly mussel. The Service and Ohio Division of Wildlife formed a watershed partners group to conserve the country's only reproducing population of purple cat's paw pearly mussels. The Watershed Group tracks important watershed issues and implements projects important to purple cat's paw mussel recovery. The Service, Ohio Division of Wildlife, and Ohio River Valley Ecosystem Mussel Subgroup pooled funds to implement habitat improvement for landowners, implement landowner contacts, map the mussel's habitat, and define the mussel's population's size and geographic distribution in Ohio.

Survival and recovery of the purple cat's paw pearly mussel may be possible due to work of the Service and its partners in Ohio. Side benefits include public understanding of the importance of mussels, fish, and high quality aquatic habitats. The public better understands the devastating effects of stream alteration, sedimentation, and pollution on streams and rivers.

Eastern Massasauga Rattlesnake

While developing the status assessment for the Eastern massasauga rattlesnake, it became clear that most of the remaining populations were on public or other protected lands. Management of those lands would be the key to saving or losing the species. Therefore, Region 3 developed a management strategy centered on ensuring that public lands are managed to avoid harm to massasaugas, at a minimum, and if possible, to improve habitat for the species. A handbook for land managers was prepared and distributed through the Ecological Services field offices to Refuges, the state natural resource management agencies and to other land managers such as nature reserves and The Nature Conservancy. Because

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--USFWS Photo

Eastern massasauga rattlesnake.

management for a poisonous snake is controversial, emotional, and easily misunderstood, the ES field offices are working individually with land managers and owners to build support for beneficial practices.

In another massasauga conservation effort, the Marion, Illinois suboffice continues to participate as part of an interagency team to develop a management plan for the Eastern massasauga rattlesnake at Carlyle Lake in Southern Illinois. Carlyle Lake is a Corps of Engineers reservoir managed primarily for flood control and recreation. The Illinois DNR also manages two state parks and a state fish and wildlife management area located on Corps' lands. Potentially the largest remaining population of Eastern massasaugas in the country occurs at Carlyle Lake. However, the species may be threatened by continued development for recreational use around the lake. The management plan should specify the research and management actions necessary to maintain a healthy, viable massasauga population and allow for continued recreational development and use at appropriate sites.

Loggerhead Shrike

The Service's Bloomington, Indiana, Field Office is cooperating with Canadian researchers in their study of loggerhead shrike genetics. The research will assess patterns of genetic differentiation in Canadian populations of loggerhead shrikes, including differences relative to U.S. populations. The loggerhead shrike is listed by the Committee on the Status of Endangered Wildlife in Canada as a threatened species in western Canada and an endangered species in eastern Canada. There are nine recognized subspecies of the loggerhead shrikes in the United States. The San Clemente loggerhead shrike is listed as endangered under the Endangered Species Act. Other U.S. subspecies are not listed, but have experienced large scale and widespread declines. To date, 75 samples of genetic material have been obtained from U.S. researchers. The Service recognizes the loggerhead shrike as one of 30 migratory nongame birds of management concern in the U.S., and the species is listed as State endangered, threatened, or a species of concern in at least 28 states. Specifically, researchers will compare patterns of genetic diversity among populations, characterize hybrid zones, compare genetics of Canadian and U.S. populations, and use genetic information to aid in the identification of wintering grounds for migratory populations. Ultimately, the research will aid in the development of more effective conservation and management strategies for the species. The study will also improve understanding of loggerhead shrike subspecific variation, which has been identified as a research need for this species.

Environmental Contaminants

When natural resources are harmed or destroyed as the result of pollution, the Superfund law, or CERCLA, provides that federal, state, and tribal resource agencies may act as trustees for natural resources. As trustees, the Service and other agencies document the injuries, recover damages from polluters for those injuries, and then use the money for habitat restoration.

Region 3 continues to implement the Natural Resources Damage Assessment program on behalf of the Department of the Interior. Region 3 evaluated several dozen contaminated sites for which clean-up by the EPA is under way. Working in close coordination with other trustees – other Interior bureaus, states and tribes – Region 3 assisted EPA in designing cleanups under CERCLA that would be more beneficial to endangered species, migratory birds and fish, and the habitats that support them. The Service also achieved legal settlements at several sites which will result in more complete restorations and more productive habitats. Highlights of Contaminants Program for the past year include:

Investigations

Contaminants personnel from the Reynoldsburg, Ohio, field office investigated a kill of native and zebra mussels in a 4-mile reach of the Ohio River, and also participated in a frog deformity study at Ottawa National Wildlife Refuge. Reynoldsburg staff are also participating in the Duck and Otter Creek Partnership to improve habitat and water quality in these two Lake Erie tributaries.

The Rock Island, Illinois, field office completed a study report for the Union Slough contaminants investigation. The investigation provided water quality data and information that was used by the refuge manager to create an artificial chemical treatment wetland. Over 3,000 acres of refuge wetlands will benefit from improvements to tile water quality. These refuge wetlands, it is hoped, will become more productive with increased forage resources for thousands of migratory birds that nest, overwinter and stage at the refuge during spring and fall.

Rock Island staff also led an interdisciplinary team study that suggests that shovelnose sturgeon from the Middle Mississippi River are adversely affected by contaminants. The team included members from Region 3's Rock Island field office and Marion suboffice, LaCrosse Fish Health Lab, U.S.G.S.-Gainesville Fish Contaminants Science Center and George Washington University Department of Pathology. The team investigated the health of shovelnose sturgeon as a surrogate species for the federal- and state-listed endangered pallid sturgeon, a closely related species with a similar life history. Male sturgeon from a polluted reach of the Mississippi River south of St. Louis had intersex characteristics including female reproductive parts. Many different types of contaminants are suspected of being sex hormone mimics and can disrupt normal biological processes. Biologists from the Marion, Illinois, Fisheries Resource Office and Neosho National Fish Hatchery will join the study team for an advanced investigation. The study information is especially important because the Service has determined that Mississippi River navigation projects proposed by the U.S. Army Corps of Engineers will jeopardize the survival of the pallid sturgeon.

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--Photo by Lisa Williams

PCB Cleanup. *The first barge load of contaminated sediment from Michigan's Saginaw River was removed in April 2000. The cleanup is part of a $28.2 million settlement with General Motors and other parties.*

Ecological Services and Refuge biologists worked together to transfer the former Savanna Army Depot to the National Wildlife Refuge System. Contaminant specialists provided technical assistance to pollution response agencies for the Superfund remediation project and served as lead federal natural resource trustee. Endangered species biologists provide consultation services to the federal action agencies to protect listed species. Refuge operations specialists and habitat conservation biologists from Ecological Services help plan for the reuse of the former military installation for conservation. These efforts will result in the preservation of about 3,000 acres of bottomland hardwood forest and backwater wetlands along the Upper Mississippi River and nearly 9,000 acres of upland sand prairie and savanna. The upland prairies contain many state listed endangered plant species that are beneficial for federally listed insect species. The planning effort at the depot includes many disciplines from several federal and state agencies working together.

Other investigation and cleanup activities included work by the East Lansing Field Office on a possible hazardous site along the Saginaw River – discovered by a staff member walking through the site; work by the Rock Island and Marion offices to assist the Superfund Project Team at Crab Orchard National Wildlife Refuge; and efforts by the Chicago Field Office as part of the Joliet/Midewin Ecological Work Group. The group was organized to recommend soil contaminant remediation levels at the Midewin Tallgrass Prairie that are protective of the environment and compatible with development of the prairie. The Joliet Army Ammunition Plant, which contains hazardous waste contamination, is being transferred to the U.S. Forest Service as the Midewin National Tallgrass Prairie. The work group compiled available scientific information and estimated contaminant levels which would be safe for plants, wildlife and the environment.

Restoration and Settlement

The first barge load of PCB-contaminated sediment from Michigan's Saginaw River was removed April 13, 2000, which begins the removal of contaminated sediment funded by the $28.2 million Natural Resource Damage Assessment settlement with General Motors and other parties. Contaminants dredged from the river near Bay City and Essexville, Michigan will be placed in a confined disposal facility operated by the Corps of Engineers. The Service, the State of Michigan, and the Saginaw Chippewa Tribe reached the settlement with General Motors in the fall of 1998. The settlement also provided for restoration of coastal wetlands and lake plain prairies around Saginaw Bay. Also, the settlement funds will purchase 1,677 acres of wildlife habitat, restore fish spawning grounds at Tobico Marsh and fund operation of the Green Point Learning Center in Saginaw, Mich; fund construction and operation of two boat launches on the river, and improvements to one on the bay, and future monitoring. The dredging project will remove approximately 90 percent of the PCBs remaining in the lower river.

Gary Lagoons

Bloomington, Indiana, Field Office participated as a trustee in a settlement that resulted in the Indiana Department of Natural Resources receiving the deed to the restored Gary Lagoons clean-up site in northwestern Indiana. This was the last step in a long, tedious process to protect this rare dune and swale habitat that the Chicago-Gary Regional Airport wanted to pave in anticipation of a future airport expansion. In the 1970s, this site was used to illegally dispose of hazardous wastes into a wetland associated with a relatively large tract of remnant dune and swale habitat. In 1996, the U.S. Environmental Protection Agency (EPA) spent $4.0 million removing 10,250 tons of toxic wastes from the wetlands at Gary Lagoons site. In addition, more than 500,000 gallons of contaminated water was treated and removed. NRDA settlement negotiations began in 1997 for this site. The 7-acre site will be managed by the DNR's Division of Nature Preserves as a new addition to its two nearby nature preserves.

The Bloomington Indiana Field Office also participated as trustee in two other settlements for natural resource damages resulting from contamination, including the Fort Wayne Reduction Dump Superfund site in Fort Wayne, Indiana and the American Chemical Services site in northern Indiana. The Fort Wayne dump had been an uncontrolled hazardous waste dump on the banks of the Maumee River, approximately 115 miles upstream of Maumee Bay, Lake Erie. The responsible parties have prepared a restoration plan and will be implementing this restoration under the oversight of the trustees. Under the settlement, title to 75 acres of agricultural land adjacent to the Maumee River will be conveyed to the Indiana Department of Natural Resources. The responsible parties will also implement reforestation efforts on the property and pay the trustees $90,000 in past costs and up to an additional $8,000 for future oversight costs.Under the settlement for the American Chemical Services site, responsible parties will assist the Lake County Parks and Recreation Department with a major acquisition project ($955,000) of 243 acres. Project partners in that effort include Indiana Heritage Trust ($400,000), Lake Co. ($150,000) and North American Wetland Conservation Act (NAWCA) ($150,000). The responsible parties have contributed $250,000 to complete this acquisition, and will give the trustees $50,000 for wetland restoration costs on this property, and pay up to $30,000 for Bloomington's assessment costs. The Service and other trustees will be preparing a restoration plan in cooperation with Lake County in the coming months to determine how to best utilize these settlement funds to seek restoration on this 243 acre acquisition.

The Reynoldsburg, Ohio, Field Office is involved in a $2 million settlement for the Southern Ohio Coal Company that includes a water quality management plan for Leading Creek. The plan has been completed, a watershed coordinator has been hired, and the first two meetings of the Leading Creek Advisory Council have been held. Actual projects should be on the ground next year. In

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another project of the Reynoldsburg office, as a result of informal NRDA negotiations, 884 acres of the Fernald Environmental Management Project will be dedicated to natural resources restoration. These restorations will include wetlands, prairie, forest, and stream corridor protection and restoration. The Service will maintain a continuing interest in these.

Habitat Conservation

Ecological Services biologists conserve biological diversity by representing natural resources during planning for federal construction actions such as building roads, bridges, or levees. These biologists review projects to minimize the amount of natural resources destroyed or harmed, to ensure that the least harmful option is selected, to ensure that impacts are thoroughly documented, and to ensure that those impacts are mitigated. Such reviews have a variety of benefits to the resources, such as protection of natural areas, preserving outdoor recreation opportunities, and improving water quality. They also provide a thorough and realistic analysis of project impacts and mitigation costs, reflecting the true cost of construction projects versus the benefits supplied.

Service biologists worked on a variety of habitat conservation projects across the region, including efforts by the Marion, Illinois, suboffice on a planning team to develop the Middle Mississippi River Side Channel Rehabilitation Plan. The team also includes the U.S. Army Corps of Engineers, the Illinois Department of Natural Resources and the Missouri Department of Conservation. The Middle Mississippi, that part of the river between the mouth of the Missouri and the mouth of the Ohio, is home to the endangered pallid sturgeon and least tern and has been degraded by the operation of the 9-foot navigation channel. With fewer than half of the river's historic side channels remaining, the side channel rehabilitation plan serves to focus agency resources to maintain and enhance these important aquatic habitats.

The Reynoldsburg, Ohio, office is continuing efforts to help restore habitat along Cincinnati's Mill Creek. Working with other resource agencies, the Service and its partners hope to salvage some of Mill Creek's natural attributes. An earlier Corps of Engineers project changed the lower reach into a concrete-lined channel; initial efforts have focused on the upper reaches.

The Chicago Field Office provided the Corps of Engineers with technical assistance in a field review of the wetland delineation for a 404 permit request, and of the project plans which called for filling all 20-plus acres of wetland on the property. With this assistance and backing from the Service and US Environmental Protection Agency, the Corps denied this permit application. The developer, through a series of interagency meetings, finally crafted a plan that preserved the highest functioning wetlands on the property in a complex that preserves the existing wildlife habitat. This process exemplified a unified federal agency position in protecting high quality aquatic resources.

The Habitat Conservation Program also reviews impacts on fish and wildlife resources when federal projects are licensed or relicensed. The Columbia, Missouri, field office is participating in a review of the Osage Hydroelectric Relicensing Project, specifically Bagnell Dam which created Lake of the Ozarks in Missouri. The office is participating in stakeholder meetings and working closely with the Missouri Department of Conservation, the Federal Energy Regulatory Commission, and others to identify studies that will address dam operation and the loss of mussels below the dam, including the endangered pink mucket pearly mussel.

Federal Energy Regulatory Commission Licensing/ Relicensing

Green Bay, Wis., Field Office participated in several relicensing projects. A draft hydroelectric settlement agreement was completed August 31, 1999, for six hydropower projects on Wisconsin's lower Chippewa River. That settlement will result in substantial improvements to fish and wildlife habitat when implemented. The settlement involved three Northern States Power company projects undergoing relicensing through the Federal Energy Regulatory Commission and included modifications to project operations for three other projects currently licensed. The settlement involved 12 stakeholders and resulted in substantial environmental benefits to the resource.

Highlights of the settlement include:
•Modification of project operations resulting in improved fish and wildlife habitat in approximately 120 miles of river;
•Termination of annual winter drawdowns at Lakes Holcombe and Wissota thus, preventing shoreline habitat from being dewatered and stranding aquatic organisms;
•Creation of a fish protection fund to escrow funds to install fish exclusion devices in project intakes to prevent turbine mortality;
•Implementation of comprehensive land management plans and recreational facilities plans for approximately 2,500 acres of licensee owned-land within the project boundaries;
•Protection of federal and state-listed threatened and endangered species; and improvement of recreational facilities at each hydro project.

The public will benefit from economical power production, fish and wildlife protection, and improved recreation opportunities. Substantial improvements to fish and wildlife habitat in the lower Chippewa River will be realized when the hydro settlement agreement is implemented, as explained in the executive summary.

The entrainment of fish at hydroelectric projects and the subsequent turbine mortality of a portion of the entrained fish is a major issue of concern for the resources agencies during relicensing of hydro projects through the Federal Energy Regulatory Commission. The Fish and Wildlife Service and Wisconsin and Michigan Departments of Natural Resources are working with the Wisconsin

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Federal Energy Regulatory Commission Licensing/ Relicensing (continued)

Electric Power Company and the Alden Research Laboratory (Holden, Mass.) to develop a prototype fish exclusion system that, if effective, could be installed at the intakes of the White Rapids and Chalk Hill Hydro Projects on the Menominee River. The Alden Research Lab. is nearing completion of flume tests with many riverine fish species including lake sturgeon, shortnose sturgeon, smallmouth bass, walleye, and American eel. The experiments measure the capability of angled bar racks and louvers to guide fish along these structures to a bypass facility. As proposed, the appropriate bar rack or louver configuration would be installed at the White Rapids and Chalk Hill Hydro Projects to guide fish around the hydro turbines and safely back to the Menominee River, downstream from the dam. Preliminary results indicate that louvers hold promise as an effective fish exclusion measure. If an effective fish exclusion system can be installed at the White Rapids and Chalk Hill Hydro Projects, the technology will likely be able to be retrofitted (and modified if necessary) to other hydro projects. Effective fish exclusion systems are needed and, when developed, will help considerably to protect riverine fish resources in numerous rivers and streams in North America where hydro power is generated.

As a requirement for the Shawano Hydroelectric Project license, the Federal Energy Regulatory Commission ordered the licensee to establish a Fish Enhancement Fund. Annually, funds must be deposited in that account for the U.S. Fish and Wildlife Service, Wisconsin Department of Natural Resources and the Menominee Indian Tribe of Wisconsin to use for resource improvements in the Wolf River in the vicinity of the hydro project. The fund was established by the Federal Energy Regulatory Commission as means to help compensate for entrained fish killed by hydro turbines. The agencies and tribe developed a fish enhancement plan for placing riprap on the shoreline. This first habitat improvement project to be funded was completed in August, 2000. Four hundred feet of severely eroding shoreline along the Wolf River, on the Menominee Indian Reservation, was stabilized with granite riprap. Terrestrial habitat that was being lost along the shoreline is now protected and silt and sand is no longer being deposited on the riverbed nearby. High quality smallmouth bass habitat in the vicinity of the riprap project will be restored.

Private Lands Program

The Service's Wisconsin Private Lands and Ecological Services Offices have assisted about 20 private landowners including The Nature Conservancy in the restoration or enhancement of about 713 acres of prairie or oak savanna habitat. These projects provide habitat for the Karner blue butterfly, a federally listed endangered species. All the properties are near existing Karner blue sites and those not currently occupied by the Karner blue are expected to support them in the future. The butterfly has taken up residence on four of these sites and TNC plans to reintroduce the Karner blue to select sites on their lands once sufficient restoration is completed.

Conservation Partner Award

The Green Bay, Ecological Services Field Office, along with the Service's Wisconsin Private Lands Office, received a Conservation Partner Award from The Nature Conservancy during its 40th Annual Meeting held at Lulu Lake Preserve in Walworth County, Wisconsin. The award was presented to both offices in recognition of the Service's guidance and support of Karner blue butterfly habitat restoration and enhancement work on TNC lands and other private lands in Wisconsin, in recognition of Service involvement in the development and implementation of the Wisconsin Statewide Habitat Conservation Plan for the Karner blue, and for joint conservation efforts taken with the Hine's emerald dragonfly in Door County, Wisconsin.

The Fish and Wildlife Service's Partners for Fish and Wildlife program has been actively restoring habitat on private lands in Wisconsin for the federally endangered Karner blue butterfly since 1998. Verification has now been received that a site restored for Karners by biologists from the Wisconsin Private Lands Office in 1998 is being used by the butterfly. The property, located in east central Wisconsin on private lands was in proximity to a known Karner population. A grassland restoration was completed in 1998 to provide Karner habitat, and observations conducted during the Karner's first flight of 2000 confirmed that Karners are using the site. Karners have lost extensive amounts of their savanna habitats throughout their range across the north central part of the country. A 5-acre site was restored in 1998 in Waushara County that is now being used by Karners as verified during the spring of 2000. The Service's restoration activities are focusing on privately owned lands where there is the greatest potential for habitat restoration.

The Partners for Fish and Wildlife Program ended the year on a high note in southern Illinois. The Marion, Illinois suboffice provided assistance for the restoration or creation of approximately 95 acres of wetland and associated habitat. Much of this work was accomplished in the Kaskaskia River focus area. The Kaskaskia River corridor is home to the largest contiguous tract of bottomland hardwood forest remaining in the state of Illinois. The Marion suboffice prioritizes projects that reduce/stop fragmentation of the forest and restore/enhance the valuable aquatic habitats in the area. This year the Fish and Wildlife Service contribution to private land restorations was $25,000.00 with landowner and other contributions (primarily Illinois DNR) totaling $63,386.00.

Also in 1999, the Marion suboffice entered into a cooperative agreement with the Illinois Department of Natural Resources to construct gates on caves occurring on private lands which are used by endangered Indiana bats and/or gray bats. Gate construction was recently completed at Toothless Cave in Jackson County, Illinois. A population of approximately 1,500 Indiana bats hibernate at this site. However, it is also frequented by recreational users which disturb the bats. The gate will ensure the bats wintering at this

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location are protected from disturbance during this critical time.

Coastal Program

As part of the Service's Coastal Program in the Great Lakes, Region 3 participated in several efforts to conserve coastal resources. The East Lansing Field Office initiated work to develop a strategy to control highly invasive exotic plant species in the Grand Sable Dunes and other coastal areas. About 300 acres of spotted knapweed, red clover and various ground cover species were mapped using GPS technology. About 80 acres of federal- and state-listed plant populations, including the Pitcher's thistle and Lake Huron tansy, were also mapped to help assess the current threat to critical habitat by exotic plants. The East Lansing office also participated in a project to restore streambank habitat and reduce sediment in Antrim Creek, a tributary of Lake Michigan. The Service, with local and state partners, have developed a plan to improve habitat and water quality in this stream, a major spawning ground for numerous species of native fish. A fish-restricting culvert will be replaced, and numerous erosion sites will be restored along the creek.

The Twin Cities Field Office began a partnership with the St. Louis River Citizens Action Committee to advance natural resource conservation in the Lower St. Louis River (Duluth-Superior Harbor) and its watershed. The St. Louis River forms a 12,000-acre freshwater estuary as it flows into Lake Superior at Duluth, Minnesota and Superior, Wisconsin. This lower portion of the St. Louis River has been significantly impacted by decades of industrial, commercial and residential use; yet, the estuary continues to provide important breeding, rearing and migratory habitats for a variety of fish and wildlife species. The Service and the committee have a common interest in protecting, enhancing and restoring the fish and wildlife habitat in the Lower St. Louis River. The Service recognizes the significance of the area for lake sturgeon and piping plover reintroduction (FWS species of concern and federally listed species, respectively), migratory bird habitat, and for Great Lakes coastal wetlands. The committee represents key conservation partners in the implementation of recommendations identified by the St. Louis River System Remedial Action Plan, which was developed to address degraded water quality and related fish and wildlife problems in the lower St. Louis River. The committee has initiated the development of a *Lower St. Louis River Habitat Plan* which is intended to document a desired vision in which the ecological integrity and function of the estuary is sustained; the Habitat Plan is also intended to provide the basis for coordinated conservation actions to achieve the desired vision.

Goals for Fiscal Year 2001

Strengthen Organization

Build strong Regional and field offices. Actively manage the fiscal and staff resources of the field offices and Regional Office toward reaching Region 3's minimum goal of 80/20 for uncontrollable and discretionary base funds.

Ecosystem Teams

Maintain and expand active participation on the Service's ecosystem teams to ensure coordination and collaboration with other ES field offices, programs, regions, and stakeholders in identifying and addressing the teams' resource priorities and goals.

Coastal Program

Implement the Service's Coastal Program in the Great Lakes through active involvement of the Great Lakes Basin Ecosystem Team to ensure the team's goals, objectives and priorities are fully considered and integrated.

Natural Resource Damage Assessments

Manage the damage assessments or restorations for Fox River/ Green Bay, Northwest Indiana, Ottawa River, Tri-state mining district, Ashtabula River, Kalamazoo River, St. Louis River Harbor, and others, seeking opportunities to involve the ecosystem teams and/or address the teams' goals , objectives and priorities.

Endangered Species Recovery

Implement recovery tasks leading to recovery and delisting of species by facilitating partnerships, education, and conservation at an ecosystem level, emphasizing the use of Habitat Conservation Plans and Safe Harbor Agreements, with particular attention to supporting efforts to reintroduce a second migratory flock of whooping cranes that would breed in Wisconsin and overwinter in Florida, finalizing revisions to the Indiana bat recovery plan, and implementing the Karner Blue Butterfly HCP and Lake Erie water snake recovery plans.

Habitat Conservation

Participate actively in federal projects, such as the Upper Mississippi River System Navigation Study, Ohio River Mainstem Study, and St. Francis Floodway Project, non-federal hydroelectric projects administered by the Federal Energy Regulatory Commission, and others that significantly affect Regional Resource Conservation Priorities or that have significant Congressional interest.

Regional Resource Conservation Priorities

Continue to proactively apply Ecological Service's authorities and programs to address issues associated with those federal trust species identified in Region 3's Resource Conservation Priorities.

Endangered Species Listing-Candidate Conservation

Determine the status of species and develop Conservation Agreements and proposals for federal candidate status, listing, or reclassification.

Endangered Species Consultation

Complete interagency and intra-Service consultations under Section 7 of the Endangered Species Act, focusing particularly on the consultation for the gypsy moth, Lower Missouri River, Indiana bat Section 7 guidelines, and monitoring implementation of the consultation for the Upper Mississippi River System Navigation Study,

coordinating with other Service regions, as needed.

Crab Orchard Cleanup

Continue to plan and implement remediations (cleanup) of the Crab Orchard NWR Superfund site, working closely with U.S. EPA and Illinois EPA to ensure compliance with all applicable environmental laws while providing for the long-term mission of the Refuge system.

Contaminants

Continue to implement the CAP manual and provide technical assistance with the CERCLA process on Service-lands and for potential acquisitions, conduct contaminant investigations, and provide spill response.

Employee Development

Maintain a productive work environment by providing timely and constructive feedback on performance, access to job-related training, improved office connectivity, and by fostering a safe, cooperative, and respectful work environment.

Continue to actively and efficiently implement the Regional Office and field office outreach plans to ensure recruitment of a talented and dedicated, diverse work force.

--Photo by Rick Julian

Frog Study. *Region 3 joined other Service regions in a nationwide study to investigate the cause of frog deformities and determine the prevalence of abnormalities on National Wildlife Refuges. The frog above is from Rydell NWR in northwest Minnesota, and is missing its right calf and foot.*

Fiscal Year 2000 Accomplishments

October 1999

1. Kelley's Island Planning Commission Protects Threatened Lake Erie Water Snake

Reynoldsburg Field Office, Ohio

Service wildlife biologists Kent Kroonemeyer, Buddy Fazio and Angela Boyer of the Reynoldsburg Field Office; Special Agent Dan LeClair of the Sandusky Law Enforcement Office and Ohio Division of Wildlife Biologist Carolyn Caldwell, met with the Kelley's Island Planning Commission Oct. 1, 1999, to discuss the threatened Lake Erie water snake. The Service summarized conservation actions to date including listing the Lake Erie water snake as threatened on Aug. 30,1999. Shoreline and inland development issues were discussed. The Group also discussed future actions, and the need to develop a Lake Erie Water Snake Recovery Plan. As a result of this meeting, the Commission voluntarily integrated Lake Erie water snake conservation measures into their permitting procedures. (**10/1/99**)

2. Ohio Seeks to Comply With Section 7 on Nelsonville Bypass Over Concern For Indiana Bats

Reynoldsburg Field Office, Ohio

Ken Lammers of the Reynoldsburg Field Office met with Ohio Department of Transportation and other resource agencies Oct. 4, 1999, to discuss Section 7 compliance on the proposed Nelsonville bypass for U.S. Highway 33 and the Athens-Darwin limited access project (also U.S. 33) in Athens County, Ohio. The Ohio DOT (ODOT) has already inspected all coal mine openings along the three proposed corridors for the bypass. The Service recommends that ODOT prioritize the openings and begin inspecting the highest priority mine with a remote camera. The group concluded that many of the openings could be discounted from further consideration for the Indiana bat. If some mines appear favorable for bats, the Service will recommend netting the openings in the spring. Indiana bats have been netted in the area by Wayne National Forest, so ODOT is assuming that this endangered species is present in the project areas. Also, ODOT will be evaluating the Athens-Darwin project relative to the Indiana bat. Earlier coordination did not address this species, since it was not listed for Athens County until recently. (**10/4/99**)

3. East Lansing Field Office Continues Partnership With Eco-Explorers Science Club

East Lansing Field Office, Mich.

Annette D. Williams of the East Lansing Field Office has continued to serve as the coordinator for the Eco-Explorers Science Club (Eco-Explorers), in Lansing, Mich.. The East Lansing Field Office initiated partnerships with Minorities in Agriculture and Natural Resources Association (MANRA) and the Young Spartan Program at Michigan State University.

Eco-Explorers interacts with second and third graders at Grand River and Walnut Elementary Schools. Eco-Explorers is an enrichment program, designed to allow under-represented students hands on experience with environmental issues impacting our world today. Students learn basic ecological concepts through activities centered around the food web, birds of prey, water quality, wetlands, endangered/threatened species and watershed management. The enrichment program has received rave reviews from parents, teachers, administrators, and most importantly students who attest to an increased interest in science, improvement in school achievement, and new found appreciation for the earth and environmental concerns. Positive student feedback includes the following comments: 'When I have homework, I think about the science club, then I get all the answers right,' and 'Science club helps in science and now we know more than the other kids because of science club.' As a result of these partnerships, this program has exposed over 100 elementary school children to environmental quality issues.

The College of Agriculture and Natural Resources at Michigan State University donated $450 for T-shirts during the Spring 1999 semester. In addition, the Young Spartan Program at Michigan State University has committed to donating $50 per semester for the program. (**10/6/99**)

4. Federal and State Endangered Species Coordinators Meet

Reynoldsburg Field Office, Ohio

Service biologists Buddy Fazio and Angela Boyer from the Reynoldsburg, Ohio, Ecological Services Field Office attended the Region 3 Endangered Species Coordinators Meeting Oct. 7, 2000, in Dubuque, Iowa. This meeting is held annually for federal and state coordinators throughout Region 3 to meet and discuss endangered species issues and to coordinate regional strategies and recovery efforts. Federal and state coordinators reported on activities in each state. Ohio topics of discussion this year included the Karner blue butterfly, Eastern fringed prairie orchid , Indiana bat, several freshwater mussel species, and the Eastern massasauga rattlesnake. Approximately 40 state and federal partners attended the meeting. (**10/7/99**)

5. Bloomington Field Office Brings Bat Outreach Message to Television

Bloomington Field Office, Ind.

A Service biologist from the Bloomington Field Office helped promote public participation and support for bat conservation by appearing on a new live children's television program on WTIU, in Bloomington, Ind.. The biologist got minimal camera time, however, as the cameras focused on the live, Eastern pipistrelle that appeared with the biologist. The five-minute 'program' on Bloomington's public television station helped dispell many misconceptions about bats, while communicating the more fascinating aspects of bat biology. The program's producer was so pleased with the appearance that the Service is being invited back for future programs. (**10/8/99**)

6. Service Discusses NRDA Processes With Kalamazoo River Watershed Public Advisory Council

East Lansing Field Office, Mich.

Lisa Williams of the East Lansing Field Office met with the Board of Directors of the Kalamazoo River Watershed Public Advisory Council October 18, 1999, to discuss Natural Resource Damage Assessment (NRDA), and how it may be implemented in the Allied Paper Inc./ Portage Creek/Kalamazoo River Superfund Site. Williams presented an overview of the NRDA process and the Superfund Remedial Investigation/Feasibility Study process; how the two processes can be coordinated; and what the outlook is for the Kalamazoo River Site. The Public Advisory Council provided Williams with information on some recent local developments and leads on some reports likely to be useful to the NRDA. The Council discussed possible actions to facilitate early involvement of all trustees in the NRDA process. The meeting was an important step in initiating public involvement in the Kalamazoo River Natural Resource Damage Assessment. This NRDA will address injuries to natural resources in an 80-mile section of the Kalamazoo River, a five-mile section of Portage Creek and their watersheds. (**10/18/99**)

7. Waste Inc. Natural Resource Damage Settlement Received

Bloomington Field Office, Ind.

The Bloomington Field Office (BFO) received notice on Oct. 18, 1999, that the Potentially Responsible Parties for Waste Inc. Superfund site in Michigan City, Ind., sent $599,500 to the Department of the Interior's Natural Resource Damage Assessment and Restoration Fund, fulfilling a September 1999 court decree.

Waste Inc. was an uncontrolled hazardous waste dump on the banks of Trail Creek, less than two miles upstream of Lake Michigan. BFO's involvement began at Waste Inc. in 1987 by providing technical assistance to EPA's Superfund program. Natural Resource Damage Assessment (NRDA) settlement negotiations began in 1995 for this site.

This settlement was largely the result of the efforts of the Indiana Attorney General's Office to advocate for natural resource damage claims through many years of legal wrangling. The persistence of BFO, and the co-trustees Indiana Department of Environmental Management (IDEM) and Indiana Department of Natural Resources (IDNR) staff also helped. This is the 16th Superfund/Oil Spill site in Indiana to achieve settlement of natural resource damage claims.

The Bloomington Field Office, IDEM and IDNR will prepare a restoration plan in the coming months to determine how to best utilize settlement funds to seek restoration in the Trail Creek watershed. Wetland restoration, and/or acquisition will be the focus of this restoration effort.

The purpose of these NRDA settlement funds is to give the trustee agencies the funding necessary to restore, replace, rehabilitate, and/or acquire the equivalent of the lost natural resources. The restoration goal in this particular case is to restore 56.36 acres of palustrine wetlands. Reaching a settlement on this case was a significant milestone, and now we look forward to implementing restoration. The restoration process includes restoration plan development, NEPA compliance, public comment, seeking and finding suitable restoration options, restoration site design, contracting, implementation, and follow-up monitoring. (**10/18/99**)

8. Service Attends Public Trust Doctrine Workshop in Ohio

Reynoldsburg Field Office, Ohio

Field Office staff attended a one day workshop on the Public Trust Doctrine in Ohio presented by Coastal States Organization, University of Toledo College of Law, and the Ohio Department of Natural Resources (Coastal Zone Management). One scession of the workshop was held in Toledo, Ohio, and another in Lorain, Ohio. The workshop material was very informative and covered the historic common law rights of the public in trust lands and waters as related to navigation, commerce and fishing. There was also discussion as to how the courts have expanded the trust doctrine to include recreation, environmental protection and recre-

ation. The role of the State was also discussed regarding its responsibility to not permit an activity which may limit the public use of an area. The speakers cited numerous studies to illustrate how the Public Trust Doctrine applies to different situations and how it continues to evolve. (**10/21/99**)

9. Indiana Bat Study Progressing in Ohio's Wayne National Forest

Reynoldsburg Field Office, Ohio

Buddy B. Fazio of the Reynoldsburg Field Office met with state and federal conservation officials Oct. 22, 1999, to discuss an Indiana bat habitat use study underway in the Wayne National Forest in southeast Ohio. Fazio met with officials from Wayne National Forest, Ohio Division of Wildlife and from Eastern Kentucky University. This year, 2000, is the second year of the study in which federally-endangered Indiana bats are captured, outfitted with radio transmitters, and followed to summer roost trees. The results of the study will be used to help plan forest management activities on the Wayne National Forest. (**10/22/99**)

10. Service Assesses Proposed National Forest's Land Exchange and Sale For Affect on Indiana Bats

Reynoldsburg Field Office, Ohio

Reynoldsburg Field Office staff met with Wayne National Forest biologists to assess the impact its proposed land exchange and sale of forest property on the Indiana bat. In one proposal, the Wayne National Forest proposes to exchange several lots near a lake to improve its management opportunities and control development. In the other case, Forest staff proposes to sell land to a local school district for construction of a school. We concluded that the proposed actions would not adversely impact the Indiana bat, if land of equal or greater value to the bat would be secured. The Service's goal is that the proposed land exchange and sale result in a no-net loss of Indiana bat roost/nursery habitat. (**10/22/99**)

11. Biologists Contribute to EPA's Critical Ecosystems Effort

East Lansing Field Office, Mich.

Jenny Wilson, Mark Hodgkins and Lisa Williams of the East Lansing Field Office met with Environmental Protection Agency's (EPA) Critical Ecosystem Team Oct. 26, 1999, to review and refine the Service's contributions to EPA's database on ecosystems needing special protection and restoration efforts in Michigan. The EPA is compiling data from natural resource management agencies and organizations throughout the Midwest in order to focus EPA's efforts and to provide its staff with spatially-organized information about what natural resources of concern are present in the vicinity of any given project. East Lansing Field Office staff are contributing narrative information on several large watersheds; digital maps of sensitive areas for piping plovers, Kirtland's warblers, and coastal plants; general distributions of rare or sensitive habitat types including calcareous fens and lakeplain prairies; appropriate watershed boundaries around Service lands; and a narrative description of the Service's concern about mercury contamination across all inland lakes and impoundments. The EPA plans to incorporate the Service's information and distribute a report for us to review by the end of the year. (**10/26/99**)

12. Ohio Office Reviews Private Forest Land with Ohio Division of Forestry

Reynoldsburg Field Office, Ohio

Buddy B. Fazio, Ken Lammers, and Kent Kroonemeyer of the Reynoldsburg Field Office met with Ohio Division of Forestry officials and a private landowner Oct. 26, 1999, to discuss private land forestry practices and the federally endangered Indiana bat. The landowner graciously showed and discussed numerous private forestry practices coordinated with the Ohio Division of Forestry private lands program. The visit resulted in greater understanding of private land forest management and how management practices may be integrated for species such as the Federally endangered Indiana bat. (**10/26/99**)

13. Environmental Concerns Aired at Ohio River Mainstem Study Meeting

Reynoldsburg Field Office, Ohio

Ohio River ecosystem restorations and navigation projects were key topics at at a recent meeting of the Ohio River Mainstem System Study Team (ORMSS). Ken Lammers of the Reynoldsburg Field Office attended a two-day meeting hosted by the Army Corps of Engineers in the Metro Cincinnati. Team members were updated on the status of interim navigation projects, ecosystem restoration projects, and to discuss the Service's concerns regarding the piecemealing of the interim projects prior to the development of an Environmental Impact Statement (EIS) to assess the river's navigation needs for the next 50 years and the cumulative impacts on the

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river's fish and wildlife resources. The Service has detailed its concerns to the Army Corps of Engineers and is awaiting a response. (**10/28/99**)

14. Service Briefs Leading Creek Enhancements, Planned for Meigs County, Ohio

Reynoldsburg Field Office, Ohio

Bill Kurey and Kent Kroonemeyer of the Reynoldsburg Field Office attended the monthly meeting of the Meigs County Soil and Water Conservation District Nov. 28 to meet District board members and inform them of the status of the Leading Creek Improvement Plan and funding.

The Grant Agreement between the Service and the District has been completed and Fiscal Year 2000 funds have been transferred to the District. These funds will pay part of a new employee's salary who will work part time on implementing the Plan. Job responsibilities will include contacting landowners regarding their interest in proposed projects, designing projects, overseeing contract for project implementation, and post project work.

Funds in the Natural Resources Damage Assessment Fund have increased from the initial $1.9 million to about $2.5 million. These funds are to be used for projects in the Leading Creek watershed that will enhance the aquatic values of Leading Creek. The funds and the Plan are part of a federal court approved Consent Decree resulting from the 1993 flooding of Meigs Mine #31 and resultant pumping of acid mine water into Leading Creek. Potential projects include riparian reestablishment, creek bank erosion control projects, conservation easements, conservation tillage practices, and acid mine land and acid mine drainage correction projects. (**10/28/99**)

15. Endangered Species Act Instruction Continues in Ohio for Transportation Employees

Reynoldsburg Field Office, Ohio

Buddy B. Fazio of the Reynoldsburg Field Office gave an Endangered Species Act Section 7 Consultation presentation Oct. 29, 1999, to 40 members of the Ohio Department of Transportation (ODOT) attending a training course in environmental regulations. During the past three years, Fazio has served as an instructor in the quarterly training course. The course is given to ODOT engineers, ODOT environmental staff, and consultants who work on ODOT projects. (**10/29/99**)

16. Safe Harbor Discussion with Ohio Division of Forestry

Reynoldsburg Field Office, Ohio

On October 21, 1999, Buddy B. Fazio of the Reynoldsburg Field Office met with officials in the Ohio Division of Forestry to discuss Safe Harbor agreements and Habitat Conservation Plans. The Division is considering such agreements for a State Forest in northwest Ohio near where the federally-endangered Karner blue butterfly occurs. The Division is also considering such agreements for its State forest lands with respect to the federally-endangered Indiana bat in southeastern Ohio. (**10/29/99**)

November 1999

17. Ohio River Valley Ecosystem Team Mussel Subgroup Meets

Reynoldsburg Field Office, Ohio

The Ohio River Valley Ecosystem Team's Mussel Subgroup held its annual meeting in Crittendon, Kentucky Nov. 3-4, 1999. Biologists from federal and state agencies and private organizations from Service Regions 3, 4, and 5 attended. In all, eight states were represented. Topics of discussion included holding and propagation of mussels, Ohio River zebra mussel monitoring, mussel research. and outreach programs. (**11/3/99**)

18. Midwest Resource Managers Establish Lake Michigan Monitoring Council

East Lansing Field Office, Mich.

The Midwest Natural Resources Group (MNRG) has succeeded in establishing the Lake Michigan Monitoring Coordination Council. In an unparalleled move, one year ago the southern Lake Michigan Focus Area Group called for the Council's establishment jointly by various federal, state, tribal and other signatory parties involved in environmental protection and resource management efforts in the Lake Michigan basin. The Council provides a forum for coordinating and supporting monitoring activities in the Lake Michigan basin and to make broadly available a shared resource of information, based on documented standards and protocols, that is useable across agency and jurisdictional boundaries.

The Council provides a forum for coordinating and supporting monitoring activities in the Lake Michigan basin and makes broadly available a shared resource of management information, from its website operated by USGS at the URL http://wi.water.usgs.gov/lmcc/index.html and other activities previously documented.

About 400 vistors have been to this site during its short tenure. A 'sign-in' feature allows recontact. Future facilitation will be handled by a Coastal Environmental Management grant to the Great Lakes Commission from one of the Partners, EPA Region 5, solidifying this

effort's start and its reach beyond the MNRG. Products will add value to the Lakewide Management Plan (LaMP 2000) for Lake Michigan due this coming April.

Several meetings have resulted since the Focus Area Group's first action, completing the objectives of formally establishing the Council at Milwaukee, Wisconsin on September 22, 1999. The Council Charter has been adopted, Council priorities have been identified, workgroups have been formed and coordination activities have begun. On November 3 and 4, 1999 the MNRG met again to celebrate and share this success with the all the Focus Area Groups at Delavan, WI. The East Lansing Field Office's Great Lakes Biologist, Bob Kavetsky and the Service's Great Lakes National Program Office Liaison, Rich Greenwood, serve on the Data Inventory and Assessment Workgroup. (**11/4/99**)

19. Northeastern Bat Working Group Discusses Bat Tracking Technologies

Reynoldsburg Field Office, Ohio

The Reynoldsburg Field Office, together with the Ohio Division of Wildlife and Bat Conservation International discussed tracking technologies at a meeting of the Northeastern Bat Working Group Nov. 2-4, 1999. The Group is composed of bat researchers, agency biologists, and educators from 22 States, stretching from Maine to Illinois, Kentucky, and Missouri. The Group coordinates management resources pertaining to all bat species in member states. Highlights of the meeting included an in-depth discussion of the feasibility of using Anabat technology to identify federally-endangered Indiana bats via echolocation calls. (**11/4/99**)

20. Great Lakes Protection Funds Recieved by Service

East Lansing Field Office, Mich.

The East Lansing Field Office received the first installment of a three year, $280,000 grant from the Great Lakes Protection Fund, a national non-profit organization devoted to protecting Great Lakes resources. These funds will soon be distributed to several 'Partners', consisting of four Michigan conservation groups, and the University of Minnesota. The Partners will launch a coordinated effort to preserve Michigan's Great Lakes shoreline habitat and the species that depend on them, including endangered species such as the piping plover, dwarf lake iris, Houghton's goldenrod, and Pitcher's thistle.

The various Partners will be using many approaches to protect lakeshore habitat. These include public awareness and contact programs, piping plover research and nest protection, and development and preparation of educational materials. Some groups will work with local governments to assist in developing laws and ordinances that would protect habitats from unregulated or uncoordinated use, growth, and development. (**11/5/99**)

21. Service Video Tapes Fish Protection Screens at Foote Dam Hydroelectric Plant

East Lansing Field Office, Mich.

The Service's East Lansing Field Office (ELFO) has been conducting underwater camera video taping of fish behavior at fish screens placed in front of turbine intake structures at Foote Dam Hydro on the AuSable River, Mich. Bob Seppala of ELFO has led this investigation with the assistance of Scott Koproski, Alpena Fishery Resources Office (FRO).

Consumers Energy, the owners of Foote, is required by Feder Electrical Regulatory Commission (FERC) to investigate fish protection at their hydro facilities. A horizontal bar stoplog screen with .75-inch spacing between bars has been installed at this hydro. The FERC also ordered Consumers to determine the effectiveness of the screen in preventing fish from entering the turbines.

This test began in April 30, 1999 and continued twice monthly through Nov. 19, 1999. The design for the effectiveness test is paired sampling of an unscreened and a screened turbine to compare fish passage. Fish collections are made full tailrace nets. Because the horizontal bar screen is new for Michigan hydros, ELFO needed to know more about fish behavior at the face of this screen. The underwater video work added another dimension to the paired sampling of the turbines, an 'eye' so to speak, and one of the questions we hope to evaluate is whether this type of screen should be considered on other hydro projects. (**11/5/99**)

22. Fernald NRDA Restorations Begin

Reynoldsburg Field Office, Ohio

On Oct. 21, 1999, a Service representative from the Reynoldsburg Field Office met with other federal NRDA trustees at the Fernald Environmental Management Project (FEMP) for a tour of a completed wetland restoration (12.87 acre site with 6.24 acres of constructed wetland) and to inspect the sites of future restoration projects. A main focus of the meeting was the finalization of a planting list so that trees and shrubs could be purchased for planting in the spring. As a result of informal NRDA negotiations, 884

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acres of the FEMP will be dedicated to natural resources restoration. These restorations will include wetlands, prairie, forest, and stream corridor protection and restoration. The Service will maintain a continuing interest in these restorations. (**11/5/99**)

23. Service Participates in Stream Management Field Day in Ohio

Reynoldsburg Field Office, Ohio

On Nov. 9, 2000, Ken Lammers of the Reynoldsburg Field Office attended a Fairfield County Soil and Water Conservation District-sponsored field day on stream management for landowners and agency representatives. The District contracted with a company that specializes in river and stream restoration to remove a logjam in a tributary of Walnut Creek and use the material to rebuild an eroded meander. Approximately 100 people attended the seminar and listened to presentations on stream restoration and riparian corridor management. We were impressed with the quality of the presentations, which we believe were given from an environmentally responsible viewpoint. Service biologists could not have done any better!
(**11/9/99**)

24. Meeting Held To Discuss the Purple Cat's Paw Pearly Mussel

Reynoldsburg Field Office, Ohio

On Nov. 9, 1999, Biologists Buddy Fazio and Angela Boyer met with Dr. Michael Hoggarth, Otterbein College, to discuss the endangered purple cat's paw pearly mussel. Dr. Hoggarth is the malacologist who discovered the Purple Cat's Paw Pearly Mussel population in Killbuck Creek, Coshocton County, Ohio, in 1994. This population is the only known reproducing population of this species. Service biologists will meet early in 2000 to review the current Recovery Plan and determine if a revision is warranted. (**11/9/99**)

25. Public Informed of Saginaw River Environmental Dredging

East Lansing Field Office, Mich.

Lisa Williams of the East Lansing Field Office presented an overview of upcoming environmental dredging project on the Saginaw River at a public information meeting in Bay City, Mich., Nov. 10, 1999. Representatives from the Michigan Department of Environmental Quality, the Army Corps of Engineers, and Luedtke Engineering helped in answering questions during the discussion of the project. The dredging will remove 345,000 cubic yards of river sediments contaminated by PCBs. The dredging is the result of the Saginaw River and Bay Natural Resource Damage Assessment settlement obtained by the Service, the State of Michigan and the Saginaw Chippewa Tribe with General Motors and the Cities of Bay City and Saginaw.

The project will be managed by the U.S. Army Corps of Engineers (Corps) with oversight responsibility to be provided by Service, Michigan Department of Environmental Quality and the U.S. Environmental Protection Agency. The Corps awarded the contract for the dredging project to Luedtke Engineering. They will be using a specially-designed gasketted clamshell dredge and the dredging operation will be enclosed by silt curtains. Turbidity in the water and PCB concentrations in the water and air will be monitored. The dredged material will be transported by barge to a nearshore Confined Disposal Facility (CDF) which was designed to contain sediments dredged from the navigation channel in the Saginaw River. The contractor is currently constructing a subcell to contain the material from this project within one part of the CDF.

Once the subcell is completed, dredging in the river will begin. We expect that one of the five areas will be completed this fall before the weather halts work. The remaining areas are scheduled to be completed by mid-October of 2000.

In addition to dredging, the Saginaw River and Bay Natural Resource Damage Assessment settlement includes the following major components: creation, restoration, or enhancement of lakeplain prairies and other coastal wetlands around the bay; restoration of marsh habitat in the Tobico Marsh area; acquisition of land to provide protected habitat for threatened and endangered species; establishment of an account for the restoration, study and monitoring of the Saginaw River and Bay watershed into the future; construction of boat launches; funds and property use for the Green Point Environmental Learning Center in Saginaw; and reimbursement to state and federal governments for costs relating to studies and analysis of the watershed. (**11/10/99**)

26. Lake Trout Egg Stocking In Artificial Incubators In Lake Michigan

Green Bay Field Office, Wis.

The Green Bay Fishery Resources Office (FRO) helped the Michigan Department of Natural Resources (DNR) with the loading and deployment of lake trout eggs in artificial incubators in Lake Michigan near Charlevoix, Mich.

Three million eggs were stocked in 150 artificial incubators on Big Reef, roughly eight miles northwest of Charlevoix. The lake trout eggs were provided by Pendills Creek National Fish Hatchery and

Saratoga National Fish Hatchery. This stocking method was developed to imprint lake trout on historic spawning reefs so they return to spawn as adults. Many other agencies were involved with the loading and deployment effort including the Chippewa and Ottawa Treaty Fishery Management Authority, Grand Traverse Band of Chippewa and Ottawa Indians, Little Traverse Band of Odawa Indians, Pendills Creek National Fish Hatchery, Michigan DNR - Oden and Thompson hatcheries,and Law Enforcement, and the U.S. Coast Guard.
(**11/10/99**)

27. Endangered Species Act Discussed at Capitol Law School, Ohio

Reynoldsburg Field Office, Ohio
Buddy Fazio, Endangered Species Biologist at the Reynoldsburg, Field Office gave a joint presentation with Jacqueline Brown, Assistant Ohio Attourney General for Transportation, to approximately 100 law students of the Capitol Law School in Columbus, Ohio. The two-hour presentation discussed key sections of the Endangered Species Act and processes under the Act which need improvement via positive reinforcement. Consultation, listing, recovery, habitat conservation plans, and permits were discussed. The presentation was invaluable due to combined perspectives of an agency biologist (Fazio) and an agency lawyer (Brown) who specialize in the Endangered Species Act. (**11/15/99**)

28. Ridge Park Restoration: Chicago Natural Area Provides Habitat and Education for City Dwellers

Chicago Field Office, Ill.
The Chicago Field Office recently participated in an urban weltand restoration project that helped improve habitat for fish and wildlife while educating Chicago residents on the value and importance of natural resources.

Ridge Park is located in southwest Chicago and is owned by the Chicago Park District. A 1.5- acre seep area on the site was enhanced by excavation of fill material, removal of an asphalt pad, and removal invasive/exotic plant species. Students from a local high school and a Boy Scout troop got hands on experience with restoration by helping clear ground litter and removing invasive species. Ultimately, Ridge Park Wetland will be established as a nature sanctuary and education area.

Urban restoration efforts, such as Ridge Park, are especially critical in that they not only serve to increase biodiversity and improve fish and wildlife habitat but also serve as education tools. Public involvement or use of an area before, during, or after restoration helps educate them on the importance of our natural resources and instills a conservation ethic. The Chicago Park District has a unique opportunity to establish a system of natural areas that are accessible to city residents of all ages, races, and socio-economic levels.

Partial funding for this project came from the U.S. Fish and Wildlife Service, The Conservation Fund, and the Corps. of Engineers' northeast Illinois wetland conservation account (**11/15/99**)

29. Cat's Paw Pearly Mussel Recovery - A Partnership Effort

Reynoldsburg Field Office, Ohio
Biologists Buddy Fazio and Angela Boyer of the Reynoldsburg Field Office held a conference call on Nov.17, 1999 to discuss recovery issues for the federally endangered white cat's paw pearly mussel. The conference participants included the U.S. Fish and Wildlife Service's Reynoldsburg, Ohio and Bloomington, Indiana field offices, Ohio Division of Wildlife, Indiana Department of Natural Resources, Natural Resources Conservation Service, The Nature Conservancy, and malacologists from Ohio Biological Survey and Otterbein College. Topics discussed were recovery plan task implementation and recovery plan revision. (**11/17/99**)

30. White Cat's Paw Pearly Mussel Recovery - A Partnership Effort

Reynoldsburg Field Office, Ohio
Biologists Buddy Fazio and Angela Boyer held a conference call on November 17, 1999 to discuss recovery issues for the federally-endangered white cat's paw pearly mussel. The conference participants included the U.S. Fish and Wildlife Service's Reynoldsburg, Ohio and Bloomington, Indiana field offices, Ohio Division of Wildlife, Indiana Department of Natural Resources, Natural Resources Conservation Service, The Nature Conservancy, and malacologists from Ohio Biological Survey and Otterbein College. Topics discussed were recovery plan task implementation and recovery plan revision. (**11/17/99**)

31. Endangered Species Act Weighed at Bowling Green State University in Ohio

Reynoldsburg Field Office, Ohio
Buddy Fazio of the presented an overview of the Endangered Species Act (ESA) and lead subsequent discussions with students and faculty at Bowling Green State University in northwest Ohio. The strengths and weaknesses of the ESA were discussed. The presentation and discussions were spon-

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sored by the University's Center for Environmental Programs. (**11/18/99**)

32. Proposals Ranked For Freshwater Mussel Conservation Fund
Reynoldsburg Field Office, Ohio
Biologist Angela Boyer of the Reynoldsburg Field Office was one of 11 reviewers who ranked 63 freshwater mussel proposals submitted to the Freshwater Mussel Conservation Fund. This fund resulted from a settlement with a commercial shell company for violations of Federal and State law, prosecuted in a Ffderal court. The money is to be used for the enhancement and protection of the mussel resource and for the restoration and cultivation of mussel shell populations allegedly affected by illegal acts. Approximately $150,000 will be disbursed at this time. This will be the first of several disbursements from the fund. (**11/18/99**)

33. Wetland Classification System in Ohio
Reynoldsburg Field Office, Ohio
Ken Multerer and Ken Lammers (Reynoldsburg Field Office) attended an Ohio EPA training session Nov. 16-18, 1999, regarding the use of the Ohio Rapid Assessment Method (ORAM). Ohio EPA uses ORAM as part of the process to grant Water Quality Certification (WQC) for development impacts to wetlands. The ORAM classifies wetlands into one of three categories: Category 1 for the lowest quality; Category 2 wetlands have good habitat features; and Category 3 wetlands are the highest quality, such as bogs. This classification system is used, in part, to determine if a Section 401 permit is granted and to determine mitigation ratios. Following the training session, the four Corps of Engineers districts in Ohio held a session with the resource agencies to discuss the proposed Regional Conditions for the Nationwide Permit program. As a result of the discussions, minor changes were made to the program. (**11/18/99**)

34. Developer Group Interested in Small Lake Erie Water Snake Habitat Conservation Plan
Reynoldsburg Field Office, Ohio
Staff from the Reynoldsburg Field Office met Nov. 22-23, 1999, with representatives of a landowner group to discuss Lake Erie water snakes on Long Point, Kelleys Island, Ohio. The landowner group wants to build eight small homes on 17 acres of potential hibernation habitat of the federally-threatened Lake Erie water snake. Some residents on Kelleys Island wish to retain Long Point as strictly a natural area. The owner group has expressed interest in pursuing a Safe Harbor agreement and/or Habitat Conservation Plan. Discussions will continue into the calender year 2000. (**11/22/99**)

35. Partners Program Preserves Ionia County Wetland
East Lansing Field Office, Mich.
The East Lansing Field Office Partners for Fish and Wildlife Program partnered with the Ionia County Drain Commission and a private landowner to protect a 3-acre scrub-shrub wetland from degradation. Plans for a new county drain ditch required excavation in a portion of the wetland, which would have effectively removed the water.

Biologist Tom Eitniear offered to pay for non-perforated tubing if it were installed instead of excavating an open ditch. The drain commission agreed to the plan alteration, which required 420 feet of 18-inch diameter tubing. The tubing allows adequate drainage for the upstream watershed, yet provides a water tight conduit in the wetland portion of the project.

The landowner was pleased because the tube installation reduced landscape disruption through the forested portion of the property. The project also was designed to allow flows beyond the tubes capacity to spill into the wetland, helping to reduce downstream flooding. (**11/22/99**)

36. The East Lansing Field Office Initiates Partnership with the Black Child and Family Institute
East Lansing Field Office, Mich.
The East Lansing Field Office (ELFO) initiated a partnership with the Black Child and Family Institute (BCFI) Nov. 24, 1999, in Lansing, Michigan. BCFI is a nonprofit organization whose primary goal is to service the Lansing community. The BCFI provides academic enrichment programs for children and adults, such as tutoring and leadership development. In addition, BCFI has also formed partnerships with local Lansing School District Schools. The ELFO meets with BCFI on a monthly basis to conduct various fisheries and wildlife activities to not only make students aware of their impacts on the environment, but to make better decisions regarding the environment as well. The ELFO's involvement with BCFI has provided a more hands-on environment which has enhanced the BCFI curriculum.
(**11/24/99**)

37. Service Invited to a Field Review of Ohio DNR Managed Forests for Indiana Bats
Reynoldsburg Field Office, Ohio
Reynoldsburg Field Office staff met with members of the Ohio Division of Forestry and a land owner to review his State-managed forest for

wildlife, including the Indiana bat. The land owner is an award winning tree farmer in Perry County. This was the first meeting of this type with the Division of Forestry, and it was a learning experience for both agencies. Our staff observed the Division's varied forest management efforts, and the meeting provided excellent opportunities for us to talk about the Indiana bat and its habitat needs. Also, we pointed out many examples of excellent bat habitat (both intentional and unintentional) to the Division staff and the tree farmer. Subsequent meetings are planned. (**11/26/99**)

38. Army Helping Service to Recover Federally-Endangered Running Buffalo Clover

Reynoldsburg Field Office, Ohio

Service staff from Reynoldsburg, Ohio, and Cookeville, Tenn., met Sept. 29-30, 1999, with officials at the Blue Grass Army Depot near Lexington, Kentucky, to discuss recovery of the federally-endangered running buffalo clover. The Depot is home to the second largest population of running buffalo clover in the United States, and is thus a vital partner in overall recovery of the clover. Service staff discussed the Depot's new endangered species management plan and new land use management plan with the Kentucky Nature Preserves Commission, The Nature Conservancy, Gulf Engineers (consultants) and numerous local and national U.S. Army officials. The endangered running buffalo clover will receive high management priority to the maximum extent practicable with respect to the Depot's primary military mission. (**11/30/99**)

39. Pre-Acquisition Survey of Baillorgeon Property Completed

Green Bay Field Office, Wis.

At the request of Region 3 Realty staff, the Green Bay Field Office undertook a Level 2 contaminant survey at a 392-acre property under consideration for acquisition by the Service. Soil and water samples were taken and the results of chemical analysis indicated that there was no contaminant problem present. The property was subsequently acquired by the Service. (**12/3/99**)

40. Leading Creek Improvement Plan Approved by the Service

Reynoldsburg Field Office, Ohio

Tthe Service approved the "Leading Creek Improvement Plan" (LCIP) Dec. 3, 1999. The plan was created by Dr. Donald Cherry and staff of Virginia Tech University. The LCIP was required as part of a court settlement that awarded the Federal Government $1.9 million, the result of a flooded coal mine being pumped to Leading Creek in 1993 killing most aquatic life. The settlement required that the LCIP be approved by the Service before the $1.9 million award could be spent. The money awarded in the court settlement will be used to fund the "improvement" projects described in the LCIP. The intent of these projects is to improve water quality in Leading Creek and allow aquatic biota to flourish at levels beyond the restoration requirements established by the Ohio EPA in their "Ecological Endpoints Document." The Service, with the participation of other government agencies and the public, may now begin to implement LCIP projects. (**12/3/99**)

December 1999

41. 720-Acre Deer Lake Wetland Restored in Illinois

Chicago Field Office, Ill.

Redwing Slough-Deer Lake State Natural Area is a resource rich area of 720 acres located within the Des Plaines River Watershed in Lake County, Ill.. The site consists of a palustrine emergent wetland dominated by broad-leaved cattail with good water interspersion(hemi-marsh).

Six species of state endangered or threatened birds have been documented as nesting on site: black tern, common moorhen, least bittern, pied-billed grebe, sandhill crane, and yellow-headed blackbird. In addition, one state endangered plant, the little green sedge (Carex viridula) has been identified on site. The project focused on the enhancement and conservation of the Deer Lake Wetland.

Benefits of this project will accrue not only to state threatened and endangered birds, waterfowl and other wildlife, but will improve other wetland functions such as flood control, water quality, ground water recharge, and will increase and sustain important recreational opportunities such as bird watching, hunting, and wetland appreciation at Deer Lake.

Deer Lake wetland was maintained via an old berm and water control structure built in the early 1900s as part of a waterfowl hunt club. The berm and control structure were in need of repair, having eroded and rusted to the point that the marsh was in jeopardy.

The project restored the berm and control structure, and built a new emergency spillway that will permit water level management so that the excellent

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wetland plant diversity and wetland wildlife use will be sustained. Without these improvements, the wetlands at Deer Lake would not have been maintained, and losses would have occurred to the existing biodiversity on site.

Funding and other support for this project came from Ducks Unlimited, Illinois Department of Natural Resources, the Service and The Conservation Fund's northeast Illinois wetland conservation account. (**12/6/99**)

42. Saginaw NRDA Restoration Group Decides Approach

East Lansing Field Office, Mich.

The Trustees and Defendants in the Saginaw River and Bay Natural Resource Damage Assessment (NRDA) settlement decided how they are going to proceed with restoration planning at their meeting on Dec. 9, 1999, at the Service's East Lansing Field Office.

The Trustees and Defendants include the Service, Michigan Department of Environmental Quality, Michigan Attorney General, Saginaw Chippewa Tribe, General Motors, and the cities of Bay City and Saginaw. They were joined at the restoration planning meeting by experts from the Michigan Department of Natural Resources, Ducks Unlimited, and consultants hired by General Motors.

The parties agreed to assemble technical work groups for different restoration projects required by the settlement agreement. The technical work groups have specific restoration planning charges and will report back to the Trustees and Defendants at the end of February, 2000, with descriptions of alternatives and prioritizations of projects. The public will then have an opportunity to review and comment on the alternatives. The restoration planning approach arrived at will be used to restore coastal wetlands and lakeplain prairie on over 200 acres near Saginaw Bay, Lake Huron, Michigan, restore hydrology and northern pike spawning at 350 acre Tobico Marsh, construct two public use areas (including nature walks, interpretive signage and boat launches) along Saginaw River and improve a public use area on Saginaw Bay. (**12/9/99**)

43. Ohio Streams Nominated As Focus Areas For Mussels

Reynoldsburg Field Office, Ohio

Biologist Angela Boyer of the Reynoldsburg Field Office, met with biologists from the Ohio Division of Wildlife, Ohio Biological Survey, Otterbein College, and Hiram College Dec. 10, 1999, to nominate Ohio streams as focus areas for the Mussel Sub-group of the Ohio River Valley Ecosystem Team. The six Ohio focus areas nominated were: Killbuck Creek, Walhonding River, lower Muskingum River, Pymatuning Creek, Little Miami River, and the Darby Creek watershed including Big and Little Darby Creeks. These streams were chosen because of there ability to support a high diversity of mussels species including federally endangered mussels. (**12/10/99**)

44. Fish and Wildlife Service Working With Wayne National Forest to Manage for Endangered Species

Reynoldsburg Field Office, Ohio

During fall 1999, Buddy B. Fazio of the Reynoldsburg Field Office continued to serve on a Wayne National Forest (U.S. Forest Service) ID Team to identify endangered species management issues on the Forest. The purpose of the ID Team is to identify forest management improvements beneficial to endangered species that will be implemented on the Forest via Forest Plan Amendment. The endangered Indiana bat, bald eagle, American burying beetle and other sensitive species such as the cerulean warbler and timber rattlesnake are currently under consideration. (**12/15/99**)

45. Service Aquires Charity Islands in Michigan's Saginaw Bay; 255 Acres of Habitat Protected

East Lansing Field Office, Mich.

The Service now owns most of Big Charity Island and all of Little Charity Island in Lake Huron's Saginaw Bay, Michigan. General Motors purchased the islands from private landowners, then transferred ownership to the Service as part of the Saginaw River and Bay Natural Resource Damage Assessment (NRDA) Settlement. The islands are approximately seven miles from the mainland in an area of rocky shoals that support popular yellow perch, smallmouth bass, and walleye fisheries. Little Charity Island is a 5.4 acre island that serves as a nesting colony for great egrets, great blue herons, double-crested cormorants, herring gulls, Caspian terns, and black-crowned night-herons and as a migration stopover for numerous bird species including neotropical migrants. Big Charity Island consists of over 250 acres of upland hardwood forest, a small interior lake, coastal marsh and both sandy and rocky shorelines. Big Charity provides habitat for Pitcher's thistle (federally listed threatened plant species), bald eagles, and neotropical songbirds. The islands will be managed by Shiawassee National Wildlife Refuge as part of the Michigan Islands National Wildlife Refuge. Approximately 250 acres of Big Charity Island has been protected from proposed developement and can con-

tinue to provide habitat for threatened and endangered species and migratory birds. The 5.4 acres of Little Charity Island are also protected along with its nesting colonies of colonial waterbirds. (**12/20/99**)

46. Indiana's First Habitat Conservation Plan Benefits Endangered Interior Least Tern

Bloomington Field Office, Ind.

The Service is partnering with Indiana's largest supplier of electricity in an effort to protect the federally-endangered interior least tern. Cinergy Corporation is the parent company of PSI Energy, Inc, Indiana's largest electric supplier serving 655,000 customers in 69 of the state's 92 counties. However, the company is now helping to produce more than electricity. Cinergy's Gibson Generating Station in Gibson County, Indiana, is also home for interior least terns (Sterna antillarum)an endangered species.

In 1986 a single pair of least terns was discovered nesting on the dike at Gibson Lake, a 1,200-acre shallow impoundment constructed as the source of cooling water for the plant. When the terns were discovered, Cinergy immediately began a cooperative program with the Indiana Department of Natural Resources (IDNR) to protect the nesting birds, and later to conserve and enhance their habitat. Cinergy's efforts were successful in attracting nesting terns to return to Gibson Lake in subsequent years and, while the level of nesting activity varies annually, the population has increased.

The largest population ever observed at Gibson Lake was in 1998, when 85 adults produced a total of 72 fledglings. This is most easterly known colony of interior least tern and the only colony in Indiana. As the colony expanded, terns not only nested on the dike of Gibson Lake, but also began nesting in ash disposal ponds and on gravel access roads associated with ash ponds.

Cinergy was concerned that conditions could arise when incidental take of terns associated with ash disposal areas would be unavoidable. Company officials approached the Service for advice on how to deal with the potential for take. The solution that Cinergy decided on was to develop a Habitat Conservation Plan (HCP), the first in Indiana, for the Gibson Lake least tern colony.

In its HCP, Cinergy commits to continue efforts to protect and enhance habitat on the center dike of Gibson Lake, which remains the primary nesting area for the tern colony. In addition, Cinergy is cooperating with the Service and other partners in development and maintenance of the Cane Ridge Wildlife Area. The restoration of the 463-acre Cane Ridge Wildlife Area, which will be managed as a unit of the Patoka River National Wildlife Refuge, is a North American Waterfowl Management Plan project. A unique feature of the restoration is the construction of least tern nesting islands in shallow impoundments.

As a result of their HCP and application for an incidental take permit, the Service issued Cinergy a permit that allows for the incidental take of least terns at the Gibson Generating Station for the next five years. The level of take in a given year will not exceed 5 percent of the maximum adult population of least terns present at the facility in that year. The net result of activities proposed in the Cinergy HCP will be increased nesting opportunities for the interior least tern. (**12/21/99**)

January 2000

47. Reynoldsburg Field Office Assists State Manage Federally-Listed Species

Reynoldsburg Field Office, Ohio

On January 6, 2000, Angela Boyer and Ken Lammers participated in a Habitat Management Worktrip with the Ohio Deparment of Natural Resources, Division of Natural Areas and Preserves (DNAP). DNAP is managing a potential well field site, that is owned by the City of Dayton, for the Federally listed endangered eastern prairie fringed-orchid. Management efforts include the removal of woody vegetation (primarily sapling willow) from the wetland portions of the site. A new Bobcat with attached bush-hog greatly increased the size of the area cleared. Unfortunately, some of the area was too wet and saplings were too large for using the Bobcat. These areas were cleared with a chainsaw and the cut saplings were loaded on the Bobcat trailer and carted off (some of the saplings will be used for stream bank stabilization). Cut "stumps" were painted with a herbicide to kill the willow roots . This was a great opportunity for the Service office to assist DNAP in its management efforts to protect federally listed species. (**1/6/00**)

48. Ohio River Mussel Poster Will Soon Be Completed

Reynoldsburg Field Office, Ohio

The Ohio River Valley Ecosystem Team's Mussel Poster Committee held a conference call on January 19, 2000, to make final revisions to its poster "Freshwater Mussels of the Ohio River". Ten thousand of these posters will be printed using funds donated from 10 state and federal partners. The posters should be

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completed and ready for distribution in March 2000. Distribution of the posters will initially focus on educators. (**1/19/00**)

49. Prairie Jewels of the Refuge System Take the Spotlight in Fargo

Ecological Services

Service staff from 40 Wetland Management Districts of the Refuge System met in Fargo, North Dakota, January 19-21, 2000, to share ideas and challenges facing the Service's Small Wetlands Program. The meeting, a first of its kind in terms of scope and attendance, attracted Service employees from the Prairie Pothole Regions of Minnesota, Wisconsin, Iowa, North and South Dakota, Montana, and Nebraska.

The meeting helped foster communication and consistency in management of the Service's Small Wetland Program across Regions 3 and 6, representing an ecosystem stretching from the Rocky Mountains to Wisconsin and the Canadian Border to Nebraska. This area includes over 3,000 Waterfowl Production Areas (WPA) preserving over 1,000 square miles of wetland and prairie habitat; and 25,000 easements protecting 1.6 million acres of wetlands and grassland on private lands. Duck Stamp funds add 60-100,000 acres to these totals annually.

Discussions topics included monitoring techniques for grassland communities, prairie restoration techniques, prescribed fire, GIS applications for both small units and entire landscapes, consistency in district management, easement enforcement, realty issues, Partners for Fish and Wildlife Program, comprehensive conservation plans, improving local support, and making Wetland Management Districts and Waterfowl Production Areas better known within and outside of the Service. (**1/21/00**)

50. Purple Cat's Paw Pearly Mussel: Recovery Efforts Continue

Reynoldsburg Field Office, Ohio

Biologists at the Reynoldsburg Ohio Field Office held a conference call on Jan. 24, 2000, with Region 4 biologists in the Asheville, North Carolina and the Cookeville, Tennessee Field Offices to discuss the federally-endangered Purple Cat's Paw Pearly Mussel (*Epioblasma obliquata obliquata*).

The topic of the meeting was revision of the current recovery plan. All of the call participants agreed that the current recovery plan should be revised. A discussion of transfer of national recovery lead for the Purple Cat's Paw, from Region 4 to Region 3, was initiated by Region 4 recovery Biologists. Transfer of the national recovery lead to Region 3 is now proceeding.

The Reynoldsburg Field Office will be designated as the lead recovery office for the Purple Cat's Paw. Recovery plan revision should occur in Fiscal Year 2000. (**1/24/00**)

51. Region 3 to Lead Service's National Recovery Effort For Purple Cats Paw Pearly Mussel

Reynoldsburg Field Office, Ohio

Biologists in Region 3 will now lead the Service's national recovery effort for the federally-endangered Purple cats paw pearly mussel. Biologists at the Reynoldsburg Field Office discussed the transfer of lead agency responsibilities and other recovery issues with Service biologists in Region 4 (Southeast United States) Jan. 24, 2000. Region 4, which had previously been the lead agency, agreed to transfer national recovery lead for the endangered mussel to Region 3. The only known reproducing population of the Purple cats paw pearly mussel occurs in Region 3. Biologists also discussed Revising the mussel's recovery plan. Revisions will be coordinated by the Reynoldsburg Field Office during 2000. (**1/24/00**)

52. Landowners, Developers and Service Achieve Low Effect HCP for Lake Erie Water Snake

Reynoldsburg Field Office, Ohio

The Reynoldsburg Field Office is currently working with a group of landowners and developers to achieve a low-effect Habitat Conservation Plan (HCP) for the federally-theatened Lake Erie water snake. Development of the HCP began after months of discussions, meetings and a site visit and is expected to be completed this year. The HCP addresses proposed development on a 20-acre subdivision in an area of prime Lake Erie water snake habitat on Long Point, Kelleys Island, Ohio. Once completed, the HCP will likely be a good example of how developers, residents and Lake Erie water snake conservation can coexist. (**1/25/00**)

53. Employees Receive Rabies Vaccinations In Preparation For Bat Survey

Reynoldsburg Field Office, Ohio

Angela Boyer and Megan Sullivan of the Reynoldsburg Field Office began receiving pre-exposure rabies vaccination shots Jan. 25, 2000, in preparation for their work with the federally- endangered Indiana bat. The vaccination involves a series of three injections each over four weeks. Boyer and Sullivan will be working on a survey project with the bats at the Wayne National Forest this summer and involves netting and handling of bats. Approximately three percent of bats carry the rabies virus. Pre-exposure rabies vaccinations are re-

quired for the safety of the handlers. (**1/25/00**)

54. Karst Subgroup Sets Priorities, Strategies For Ohio River Valley Ecosystem

Reynoldsburg Field Office, Ohio

Buddy B. Fazio of the Reynoldsburg Field Office attended the Karst Subgroup meeting of the Ohio River Valley Ecosystem (ORVE) Jan. 26-27, 2000. The Karst Subgroup addresses ORVE Resource Priority 4 which emphasizes cooperation with partners to protect and restore karst/cave habitat supporting species which are federally listed, candidates, or species of concern. Identified baseline inventory needs, including threats to species and cave systems, basic topgraphic data and maps, monitoring, and educational materials. The Group identified remediation of threats and restoration measures for certain sites located within the ORVE. Prioritized karst/cave projects within the ORVE for further consideration and funding by the ORVE Team. The meeting was held in preparation for the ORVE Team meeting set for early February 2000. (**1/26/00**)

55. Green Bay Field Office Staff Helps Develop Conservation Plan for the Canada Lynx

Green Bay Field Office; Green Bay, Wis.

Green Bay Field Office staff participated in multi-agency effort to draft a strategy for conservation of the Canada lynx on federal lands. Green Bay staff represented Region 3 as a member of the Biology Sub-Team, along with representatives of the U.S. Forest Service, National Park Service, Bureau of Land management, and two other Service Regions.

The Canada Lynx Conservation Assessment and Strategy (LCAS) will be implemented to allow for fulfillment of Forest Service and Bureau of Land Management obligations to conserve listed species, to remove existing threats to the species, and to contribute towards recovery of the lynx in the contiguous 48 states.

The effort to draft the LCAS began more than a year prior to the lynx being listed as a threatened species, in anticipation of the listing. Conservation Recommendations contained within the LCAS will be incorporated into Forest Plans and BLM Land management Plans. (**1/28/00**)

56. Northeast Illinois Wetland Account Awards $240,000 in Grants for Wetland Restoration.

Chicago Field Office; Chicago, Ill.

Six wetland resoration projects that will restore or enhance 700 acres of wetlands and 400 acres of uplands will be funded in Fiscal Year 2000 with the help of grants from the Northeast Illinois Wetland Account (NIWCA). The $240,000 provided by NIWCA will be matched by more than $1.3 million in funds or in-kind contributions from other partners including the Service's Chicago Field Office.

The Northeast Illinois Wetlands Conservation Account (is an innovative partnership program among the Chicago Illinois Field Office (CIFO), The Conservation Fund, and the Army Corps of Engineers. Created in 1996 and maintained by The Conservation Fund, the account uses settlement monies from a corporate wetlands infraction to provide matching grants to local groups committed to the conservation of wetland ecosystems. The Conservation Fund and CIFO solicits, reviews, and funds wetland restoration, enhancement, preservation, or education projects. Projects are selected on a competitive basis depending on the quality of their plans to restore and conserve degraded wetland areas and their ability to provide matching support.

To date NIWCA has contributed over $1.6 million to local groups working on 42 wetland restoration, enhancement, education and acquisition projects which directly impacted over 3,000 acres of habitat in the greater Chicago metropolitan area (Cook, Lake, McHenry, Kane, DuPage, and Will counties). These projects have an approximate total cost of over $5.3 million. (**1/31/00**)

February 2000

57. Coded Wire Tags Used to Evaluate Trout Restoration Efforts in Lake Michigan

Green Bay Field Office, Wis.

National Fish Hatcheries in Region 3 have been stocking lake trout with coded wire tags (CWT) into Lake Michigan since 1985. Tags are retrieved from lake trout caught by sort anglers, commercial fisher, and provide critical information to Service lake trout restoration efforts. Spcifically, data gathered from the tags evaluates which lake trout strain is best suited for restoring two of the most productive spawning areas in Lake Michigan, for determining which size of yearling lake trout stocked from federal hatcheries will best survive, and the ability of stocked lake trout to return to the reefs on which they were stocked.

The Green Bay Fishery Resources Office (FRO) started processing all lake trout CWTs from Lake Michigan in 1994. Between 1994 and 1999, more than 22,000 lake trout CWTs have been processed. During Fiscal Year 2000, more than 2,700 lake trout CWTs

Continued next page.

were processed from seven partner agencies. Each agency was provided with the biological information upon completion. The Green Bay FRO continues to provide technical assistance to ongoing strain, size-at-stocking, and movement studies.

Lake trout are provided by: Michigan Department of Natural Resources, Wisconsin Department of Natural Resources, Indiana Department of Natural Resources, Illinois Department of Conservation, Illinois Natural History Survey, Chippewa Ottawa Treaty Management Authority, U.S. Geological Survey, Grand Traverse Band of Chippewa and Ottawa Indians, and the Service.
(**2/1/00**)

58. Interagency Coordination on 404 Permit Review
East Lansing Field Office, Mich.
East Lansing Field Office met with the Corps of Engineers, EPA, Michigan Department of Environmental Quality, NPS (Sleeping Bear Dunes NL) to discuss an alternative design to the Homestead Golf Course on the Crystal River in Leelanau County, Mich. As initially proposed, the development would impact approximately 14 acres of wooded dune and swale habitat. The Service provided comments regarding the potential adverse environmental impacts of the proposal. (**2/1/00**)

59. Service Careers Explained at Ohio State University Job Fair
Reynoldsburg Field Office, Ohio
On Feb. 2, 2000, Ken Multerer joined staff members from the Ottawa NWR at the 10th annual Ohio State University School of natural Resources Career and Internship Fair in Kottman Hall on campus. We talked to a number of students, got names, numbers and addresses and a number of resumes. Several of the students were aware of the Reynoldsburg Field Office, and had positive comments on our attempts to establish the Darby Prairie NWR. However, most of the students were not aware that the Service had a Division of Ecological Services. (**2/2/00**)

60. Wolves and Other Wild Critters Presented to African Americans in Science
Ecological Services
Service biologist, Carlita Payne presented "Wolves and Other Wild Critters" on February 4, 2000, at the Eighth Annual African-Americans in Science family event, cosponsored by the Science Museum of Minnesota, the Minneapolis Spokesman and St. Paul Recorder newspapers, and several local radio stations. Fifteen African-American scientists, engineers, and other professionals (including Ken Wolfford, an original Tuskegee Airman) revealed rewarding and exciting aspects of their careers to kids of all ages through fun, hands-on activities. Ms. Payne's Internet activities included various wolf howls, video clips of the Service's Mexican Wolf re-introduction, wolves communicating during mealtime (courtesy of the T.W.I.N. website), and the Service's Kids' Corner 'Risky Critters!' game. The 'Conserving the Nature of America' display was in the midst of coloring pages featuring endangered and threatened species, an endangered species maze game, posters, brochures, and career opportunity freebies. Participants were excited to hear and view wolves in their natural habitat, and learn interesting facts about other endangered species. The three hour event was a great success with over 1000 visitors attending. (**2/4/00**)

61. East Lansing Staff Participates in Science Day at the Mall
East Lansing Field Office, Mich.
The East Lansing Field Office formed partnerships with the Department of Fisheries and Wildlife, Fisheries and Wildlife Club and Minorities in Agriculture and Natural Resources Association (MANRA) at Michigan State University for Science Day at the Mall, Feb.5, 2000. Science Day at the Mall took place a few miles away from the campus of Michigan State University at Meridian Mall in Okemos, Mich. The event provided a number of hands-on activities dealing with science and technology. Field Office staff supplied posters, animal skins such as the muskrat and beaver, a buffalo costume and other information regarding the Fish and Wildlife Service. The Department of Fisheries and Wildlife supplied materials for fish printing. Participation in activities such as Science Day at the Mall increases visability of the Service presence and mission among hundreds of children and adults. (**2/5/00**)

62. Prairie Wolf Slough II Wetland Restoration Completed
Chicago Field Office, Ill.
Prairie Wolf Slough is part of a 431 acre Lake County Forest Preserve site in Northeast Illinois. It's found within the urban Chicagoland area along the middle branch of the north branch of the Chicago River. The site is a mix of oak woodlands previously farmed uplands and wetlands. The project site is directly across from the 45 acre wetland restoration project (Prairie Wolf Slough I)on the west side of the river.

The area was restored by identifying/removing drain tiles and planting native vegetation. Within an urban setting such as this, it is important to determine if any off

site impacts might occur as a result of hydrological alterations. A Natural Resource Conservation Service engineer designed a plan which allowed for the flow through of stormwater while restoring the hydrology to the 11 acre agricultural field. The plan included a catch basin which received off-site stormwater flow and utilized a non-perforated tile line to convey this water to the Chicago river. The non-perforated tile does not allow for drainage of the agricultural field therefore restoring the hydrology. After the hydrology was restored, native wetland and prairie vegetation was planted. Approximately 30,000 wetland and prairie plants with volunteers and a Youth Conservation Corps. crew. This project restored six acres of wet prairie and five acres of mesic prairie.

Funding and other support for this project came from Lake County Forest Preserve District, Natural Resource Conservation Service, Youth Conservation Corps., and U.S. Fish and Wildlife Service and National Fish & Wildlife Foundation's Northeast Illinois wetland restoration fund. (**2/5/00**)

63. Bloomington Field Office Attends Middle School Career Day
Bloomington Field Office, Ind.
Mike Litwin of the Bloomington Field Office gave presentations on careers with the U.S. Fish and Wildlife Service during a career day at Jackson Creek Middle School in Bloomington, Ind. Litwin spoke to two groups of students interested in natural science careers. The Service has participated in this annual event for the past two years. (**2/8/00**)

64. Freshwater Mussel Conservation in Ohio
Reynoldsburg Field Office, Ohio
Reynoldsburg Field Office biologist Angela Boyer assisted the Ohio Department of Transportation in developing consultation guidelines for federally endangered freshwater mussels in Ohio to be included in the Ohio Department of Transportaiton (ODOT) Ecological Guidelines manual. This is an annual publication the ODOT Office of Environmental Services provides to ODOT employees and other agencies for guidance on environmental policy. (**2/10/00**)

65. Technical assistance on EPA's proposed rule on use of biosolids
East Lansing Field Office, Mich.
Lisa Williams of the East Lansing Field Office reviewed EPA's Proposed Rule revising the standards for use and disposal of biosolids with respect to dioxin-like compounds. She provided comments informally to both the Michigan Department of Environmental Quality and the Service's EC staff in Washington. EPA's proposal includes a risk assessment for humans, but not for any other species. The proposed rule, if enacted, will affect all publicly, privately, or government owned treatment works that treat domestic seqage, prepare sewage sludge, and/or apply sewage sludge to the land.
(**2/14/00**)

66. East Lansing Field Office Submits Reports to USEPA on Grassy Island, Wyandotte NWR, Michigan.
East Lansing Field Office, Mich.
The Service's East Lansing Field Office, Shiawassee NWR and Region 3 Regional Office recently submitted to the U.S, Environmental Protection Agency four reports authored by the U.S. Geological Survey, Water Resources Division and Biological Resources Division on studies conducted on Grassy Island, Wyandotte NWR, in the lower Detroit river. Staff from East Lansing's Environmental Contaminants Program provided an overview of the results of the four reports. From 1962-83, the island was used by the U.S. Army Corps of Engineers as a confined disposal facility (CDF) for over 3 million cubic yards of contaminated sediments dredged from the Rouge River, a Detroit river tributary and one of 43 Areas of Concern designated by the International Joint Commission for impairments to beneficial uses of Great Lakes waters. The studies were designed to investigate the concentrations and types of contamination in water and sediments/soils contained within the diked CDF, both vertically and horizontally, and determine if contaminats are reentering the river via structural leakage, and groundwater and surface water discharge. Copies of the reports are available from the East Lansing Field Office.

The studies show that the contained sediments are contaminated and worthy of confinement so as to minmize exposure to biota. The groundwater on the island is perched above the river with a hydraulic gradient directed toward the river. The dikes of the CDF and the substrate underlaying the island are composed of a high percentage of native clays with generally low hydraulic conductivities, minimizing the potential for leakage. Overall, the studies suggest that the facility is not leaking in significant amounts through the dikes or the bottom, but does pose a risk to wildlife inhabiting the surface of the island where the sediments remain exposed to the environment.

The reports were submitted to the USEPA to initiate a review of federal regulatory programs and to

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solicit recommendations and assistance for site remediation and restoration of high quality fish and wildlife habitat in the lower Detroit River. (**2/15/00**)

67. Consumers Settlement Agreement Steering Committee

East Lansing Field Office, Mich.

Craig Czarnecki and Bob Seppala attended the annual Steering Committee Meeting on Feb. 16, 2000 for the Consumers Settlement Agreement on 11 hydros in Michigan. This was Craig's first meeting as Service representative on the Committee. The Committee was briefed on projects accomplished in 1999. Some of these included the intensified bald eagle monitoring on Tippy Pond for assessing eagle activity and the success of road and camp site closures to reduce human disturbances to eagles (Eagle productivity in the Tippy Pond area improved in 1999.); soil erosion projects to reduce sediment loads entering river systems; updates on the removal of Stronach Dam on the Pine River and on the effectiveness test of the horizontal bar fish protection screen at Foote Dam on the Au Sable River; and numerous fishing, hiking and camping recreational projects. Funding expenditures for the 1999 projects were also presented and compared to projected funding levels agreed to in the Land Management Plans for the Settlement Agreement.

The Federal Energy Regulatory Commission (FERC) was also represented at the Steering Committee. We discussed FERC's narrow focus when determining which projects qualify for implementation under the Settlement Agreement. For example, FERC refused a soil erosion project on Bear Creek, a tributary to the Manistee River downstream of Tippy Dam. Gravel beds and pool areas in Bear Creek have been covered and filled by excessive sediment loads that have entered the stream. The Service and Michigan Department of Natural Resources selected the Bear Creek project for the opportunity it offered to mitigate the destruction and degradation of similar habitat caused by Tippy Dam. Steered by Consumers objection to accepting the project, FERC focused on the erosion and refused to look at the fish habitat replacement that could have been achieved. FERC's determination was that Consumers is not causing the erosion and therefore the project is disqualified.

Another interesting development which Consumer indicated they intend to request FERC to reconsider is the amount of Consumers annual payment of funds to the MDNR for fish losses at Foote. Consumers indicated they found 'very few fish passing through Foote Dam during the 1999 effectiveness testing of the horizontal bar fish screen. In 1990, intake hydroacoustic monitoring was used to determine fish entrainment abundance. This was combined with a tailrace net monitoring program to obtain information on species representation and size distribution. The 1990 sampling provided the basis for determining the annual 'contribution of funds' Consumers provides to the Michigan DNR. Although we have not seen the 1999 data yet, Consumers is now questioning the results of the 1990 study. (**2/16/00**)

68. Ohio Division of Wildlife Presents Fiscal Year 1999 Projects

Reynoldsburg Field Office, Ohio

Reynoldsburg Field Office biologists Angela Boyer and Buddy Fazio attended the Wildlife Diversity Project Review Feb. 17, 2000, for the Ohio Department of Natural Resources, Division of Wildlife and the Ohio Biological Survey. Twelve of the Ohio Division of Wildlife's projects for Fiscal Year 1999 were featured. A brief presentation was delivered on each project by personnel from several Ohio agencies and organizations including the Ohio Biological Survey, Ohio Department of Natural Resources - Division of Natural Areas and Preserves, Hocking College, Miami University, Ohio Historical Society, Cincinnati Museum of Natural History, Westerville North High School, and the Midwest Biodiversity Institute. (**2/17/00**)

69. Service Helps Judge Local Science Fair Projects

Reynoldsburg Field Office; Reynoldsburg, Ohio

Staff from the Reynoldsburg Field Office helped judge science fair projects Feb. 17, 2000, at the Bloom-Carroll Junior High School in Fairfield County, Ohio. Ken Lammers has served as a judge at science fairs in Ohio for about 15 years. In addition to judging at school district levels, he's has judged at the District and State level as well. Besides enjoying the science fairs, he is providing a needed service to the schools' science programs. (**2/17/00**)

70. GIS Training Assists Reynoldsburg Staff With Ohio River Mainstem Study

Reynoldsburg Field Office, Ohio

Ken Lammers of the Reyoldsburg Field Office attended a three-day "GIS Introduction for Conservation Professionals" course at the National Conservation Training Center in Shepherdstown, W. Va. The training will assist Service staff in evaluating data layers available from the Louisville District of the Army Corps of Engineers. The Reynoldsburg staff is copying digitized maps of the Ohio River and

adjacent lands to assess existing habitat and to help them make recommendations for habitat restorations in the river floodplain. Copies of this information will be provided to Service stations who have management responsibilities of the Ohio River Ecosystem in Region 5. (**2/17/00**)

71. Lake Erie Water Snake Poster Session

Reynoldsburg Field Office, Ohio

A poster session on the Lake Erie water snake outreach/education project was presented at the 40th Annual Fish and Wildlife Conference, Columbus, Ohio. The purpose was to show how the Service and Ohio Department of Wildlife have conducted their successful outreach/education effort on the islands in the western basin of Lake Erie where the federally threatened snake is found. The result of the outreach has been a noticeable positive change in the attitudes of landowners and residents on the islands in favor of conserving the snake. This positive change in attitude has been instrumental in helping the Service and Ohio DOW start the recovery process for the snake which will ultimately result in its population increasing to a point where it will be possible to remove it from the list of federally threatened species. (**2/18/00**)

72. Service Partially Funds Wildlife Specialist at Meigs SWCD

Reynoldsburg Field Office, Ohio

During February 2000, Kent Kroonemeyer, Supervisor at Reynoldsburg Field Office participated in the personnel selection process for a Wildlife Specialist position with the Meigs Soil and Water Conservation District. The Service will fund about half of the position using money from the Federal court approved Consent Decree related to the Southern Ohio Coal Company's discharge of acid mine drainage into Leading Creek during the summer of 1993. This was precipitated by the accidental flooding of the Company's underground Meigs Mine 31. The selection process included reviewing 29 written applications, interviewing the top 6 applicants, and listening to presentations by the final 2 applicants and discussions with the District Board. The Wildlife Specialist will spend about half of his time coordinating the implementation of environmental enhancement rojects identified in the Leading Creek Improvement Plan. The Plan was prepared by the Southern Ohio Coal Company as part of the Consent Decree. The Service has made a longterm committment to fund this position for a number of years as long as the objectives of the Leading Creek Improvement Plan are being achieved.

The Ohio Division of Wildlife will fund the other ½ of the Wildlife Specialist's salary as part of their Private Lands Program. This portion of the job will involve helping landowners with wildlife depradation problems and wildlife enhancement projects throughout Meigs County. (**2/18/00**)

73. Region 3 Endangered Species Coordinators Meet to Discuss Regional Issues

Reynoldsburg Field Office; Reynoldsburg, Ohio

Reynoldsburg Field Office biologist Angela Boyer facilitated the February Region 3 endangered species coordinators bimonthly conference call Feb. 22, 2000. Agenda items discussed included Section 6 project selections for 2000, cooperative agreements, Great Lakes Water Quality Initiative consultation, listing and critical habitat work, consistency in jeopardy calls, the Fiscal Year 2000 budget, and work updates on several species including the Indiana Bat, Cerulean Warbler, Gray Wolf, and the Karner Blue Butterfly. (**2/22/00**)

74. Service Participates in Partnership Review of Wayne National Forest in Ohio

Reynoldsburg Field Office; Reynoldsburg, Ohio

Ken Lammers of the Reynoldsburg Field Office met with members of the U.S. Forest Service Feb. 23, 2000, as part of a partnership team discussion on management issues concerning the Wayne National Forest. The team heard comments about the Forest and its staff from interested parties. More than 50 people attended the meeting, held at Hocking College in Nelsonville, Ohio. About half the attendees gave a short statement about Forest issues to the entire group. Comments were equally pro and con, and included statements from the State representative in the area of the Wayne National Forest. Ken Lammers commented about the Service's good working relationship with the Forest Service staff, and about the Service's desire to see more progress on the federally-listed species amendment to the Forest Plan, and our support for improved funding of biologists on the Wayne National Forest. (**2/23/00**)

75. Columbia Field Office Contributes to Missouri's Endangered Species Video

Columbia Field Office; Columbia, Mo.

The Columbia Field Office—Private Lands Program produced a video in conjunction with the Missouri Department of Conservation about two of Missouri's federally-

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listed aquatic species and the habitat improvement practices that landowners are utilizing to protect these species on private lands in our state. The video highlights the cooperative spirit that conservation agencies have to restore habitat on private lands for federally-listed species, however, our primary goal was to have the landowners who have participated in conservation programs like the Partners for Fish and Wildlife Program, and other federal and state programs, explain what it has meant to them to: 1) have an endangered species on their property, and; 2) have technical and financial assistance provided to them by federal and state agencies in order to further protect and improve habitat for the species.

The Service and the Missouri Department of Conservation have been working with private landowners within the range of the federally threatened Niangua darter and the federally endangered Topeka shiner in order to promote recovery for these species. Our efforts are beginning to pay off but it is unknown, to date, the effects our restoration efforts are having on the populations because the restorations are still in their early stages. Monitoring is being planned.

The video was created as an outreach tool to educate many more landowners in the range of these two fish. Though the Niangua darter is an endemic fish to Missouri, the Topeka shiner has a wider range extending into Minnesota, Iowa, and Kansas. Private Lands Offices in these states are welcome to utilize this video for landowners in their area. Many landowners are leery of having government involvement on their property, especially where an endangered species is concerned. This video conveys the intent that agencies have in working with landowners and the landowners in the video express a positive relationship between themselves and the agencies.

Monies for the video were obtained through the Service's Challenge-Cost-Share program and were matched by the Missouri Department of Conservation. The video is being distributed to local Soil and Water Conservation Districts, Natural Resources Conservation Service Field Offices, Missouri Department of Conservation Regional Offices, and U.S. Fish and Wildlife National Wildlife Refuges and Hatcheries in Missouri. A smaller Service distribution outside of Missouri is also being conducted.

If you would like more information about the process of producing a video, the private lands work being conducted to improve habitat for these species, or if you think you would like a copy of the video, please contact your Region 3 State Private Lands Coordinator or Ms. Kelly Srigley Werner (573) 876-1911 ext. 112. (**2/24/00**)

76. Service to Address Wildlife and NRDA in Revised Cleveland Area Plan

Reynoldsburg Field Office, Ohio

Staff from the Services Reynoldsburg Field Office attended a February meeting of the Cleveland Area Committee to dicuss upcoming major revisions to the 'Cleveland Area Plan,' a plan that governs response to oil and hazardous materials spills in the Cleveland, Ohio, area. The Service will be involved in the revision process, providing input to sections pertaining to wildlife and Natural Resource Damage Assessments (NRDA). The Service has also been asked to help plan a PREP exercise to be conducted in the fall. In preparation for the exercise, the U.S. Coast Guard will be offering Incident Command System training. (**2/24/00**)

March 2000

77. Wetlands Improved at Wisconsin's Big Eau Pleine Reservoir

Green Bay Field Office, Wis.

The Big Eau Pleine Reservoir is owned and operated by the Wisconsin Valley Improvement Company (WVIC), and is one of 21 reservoirs in its Wisconsin River Headwaters Reservoir Storage System. In 1996, the WVIC received a new license from the Federal Energy Regulatory Commission to continue to operate its storage system. The Big Eau Pleine Reservoir is one of the five larger storage reservoirs that, when drawn down seasonally, serves to augment flows in the Wisconsin River to increase hydroelectric power production. During relicensing proceedings, the resource agencies observed that a Palustrine Emergent Wetland of approximately six acres was being dewatered when the reservoir was in drawdown. The wetland was hydrologically connected to the main reservoir through a road culvert. As a condition of the new license, the agencies recommended that a water control structure be installed in place of the culvert to control the water level in the wetland and prevent it from being dewatered when the reservoir was drawn down. The project was completed in the spring of 2000. The local Wisconsin Department of Natural Resources wildlife manager will control water levels in the wetland to promote aquatic plant diversity and enhance waterfowl nesting and feeding habitat. (**3/1/00**)

78. The Service attends the Ohio Natural Resources Coordinating Committee meeting

Reynoldsburg Field Office, Ohio

Ken Lammers of the Reynoldsburg Field Office attended the Ohio Natural Resources Coordinating Committee meeting Mar. 1, 2000 in Columbus, Ohio. Lammers joined directors and chiefs (or their representatives) of other state and federal resource agencies at the meeting. The meeting fosters cooperation and coordination of resource activities, shares expertise,and helps define agency roles as part of a total resource management approach (pre- "ecosystem management approach") to improve and protect natural resources in Ohio. At this meeting the group reviewed the Committee's Memorandum of Understanding and found that it needed serious updating. A large portion of the meeting was designated to presentations by each agency representative. Ken summarized Service activities in Ohio, such as the proposed little Darby NWR, Threatened and Endangered Species, Environmental Contaminants, and several major projects: Ashtabula River Partners and Ohio River Mainstem Study. (**3/1/00**)

79. Two Great Lakes Lakewide Management Plans Assisted by the Service

East Lansing Field Office, Mich.

Two Lakewide Management Plans (LaMPs): The LaMPs for Lakes Michigan and Superior are scheduled to move from draft to a more final stage shortly, in preparation for an Earth Day Week release. Prior to the February Great Lakes Basin Ecosystem Team meeting, all team members were requested to comment, on any 'show stoppers' seen on the on the FTP site containing the drafts for both Lakes. No comments received before the meeting, therefore East Lansing Field Office Supervisor Craig Czarnecki will sign off on a letter of support at the end of the comment period as the Service's representative on the Lake Michigan Management Committee and Lake Superior Task Force. The effort on Lake Michigan culminates over ten years of involvement by the East Lansing Great Lakes Biologist, Bob Kavetsky, the previous East Lansing Contaminants Supervisor, Jenny Wilson and other staff, the Great Lakes Program Office Liaison, and Green Bay Offices. East Lansing's Great Lakes Biologist has also been assisting the Lake Superior Binational Program since 1992, along with the previous Field Supervisor, and 3 staff members and the Project Leader from the Ashland Fishery Resources Office. These efforts are committing Canadian and U.S. Federal, State, Tribal and local organizations who are cooperating to protect wild places, and ensure a healthy environment for these basins' citizens. The drafts have identified problems and opportunities to reach shared program goals, as well as list strategies and projects to remedy problems. The plans will be available for public review soon after Earth Day (April 22, 2000). (**3/2/00**)

80. Biologists Receive First Aid/ CPR Training

Reynoldsburg Field Office; Reynoldsburg, Ohio

In March 2000, Angela Boyer, Ken Lammers, and Buddy Fazio of the Reynoldsburg Field Office received training and were certified in workplace First Aid and CPR from the Greater Columbus office of the American Red Cross. (**3/2/00**)

81. Service Helps Keep Ohio Up-to-Date on Endangered and Threatened Species

Reynoldsburg Field Office; Reynoldsburg, Ohio

The Reynoldsburg Field Office is keeping Ohio's government and conservation agencies updated on federally threatened and endangered species found in Ohio. On March 3, 2000, Reynoldsburg staff sent out threatened and endangered species lists to more than 65 Ohio agencies. The list mailings help increase visibility and awareness of Ohio's federally listed fish and wildlife, provide agencies with helpful and convenient resources, and ensure everyone has the most accurate, current information. To receive a copy of Ohio's federally threatened and endangered species list, send an email request to megan_sullivan@fws.gov. (**3/3/00**)

82. Meeting Examines Relaxing Dredge Windows in Southeast Michigan

East Lansing Field Office, Mich.

Biologists from several agencies met to discuss low water conditions in Lake St. Clair, the St. Clair River, and the Detroit River. Boaters in this area will be requesting dredging permits from Michigan Department of Environmental Quality and the Army Corps of Engineers in record numbers this year. Attendees discussed ways to respond to permit applicants, while still protecting the delicate ecosystem of the area. The dredge windows were modified for two years (2000-2001)in areas where their modification would cause no long term adverse environmental effects. Each modified dredge window was conditioned to prevent harm to aquatic resources where feasible. The new temporary guidelines were put into

Continued next page.

a document to be transmitted to the Army Corps of Engineers and the Michigan Department of Environmental Quality for use in wetland permitting. (**3/3/00**)

83. Draft Status Assessment Completed for Wabash Belted Skimmer

Reynoldsburg Field Office, Ohio

The Reynoldsburg Field Office is currently evaluating the status of the Wabash belted skimmer (dragonfly). A draft status assessment report of this species has been completed and is being review by the regional office. (**3/6/00**)

84. Project Friends Involved in Sportfishing Heritage

East Lansing Field Office, Mich.

Annette D. Williams of the East Lansing Field Office has joined the Steering Committee for Project Friends Involved in Sportfishing Heritage (F.I.S.H.) for the State of Michigan. Williams will instruct aquatic ecology workshops for teachers, volunteers and individuals interested in starting programs for young people. Project F.I.S.H. promotes involvement of students in fishing and the outdoors by holding workshops for teachers, sharing their outdoor education curricula while promoting mentoring relationships. For more information regarding Project FISH, please contact Mark Stephens at Michigan State University, (517)432-2700 or http://www.projectfish.org. (**3/7/00**)

85. East Lansing Field Office Submits Reports on Grassy Island, Wyandotte NWR, Michigan

East Lansing Field Office, Mich.

The East Lansing Field Office and Shiawassee NWR submitted to the Michigan Department of Environmental Quality four reports authored by the U.S. Geological Survey, Water Resources Division and Biological Resources Division on studies conducted on Grassy Island, Wyandotte NWR, in the lower Detroit River. The East Lansing's Environmental Contaminants Program provided an overview of the results of the four reports.

From 1962-83, the island was used by the U.S. Army Corps of Engineers as a confined disposal facility (CDF) for over 3 million cubic yards of contaminated sediments dredged from the Rouge River, a Detroit River tributary and one of 43 Areas of Concern designated by the International Joint Commission for impairments to beneficial uses of Great Lakes waters. The studies were designed to investigate the concentrations and types of contamination in water and sediments/soils contained within the diked CDF, both vertically and horizontally, and determine if contaminats are reentering the river via structural leakage, and groundwater and surface water discharge. Copies of the reports are available from the East Lansing Field Office.

The studies show that the contained sediments are contaminated and worthy of confinement so as to minmize exposure to biota. The groundwater on the island is perched above the river with a hydraulic gradient directed toward the river. The dikes of the CDF and the substrate underlaying the island are composed of a high percentage of native clays with generally low hydraulic conductivities, minimizing the potential for leakage. Overall, the studies suggest that the facility is not leaking in significant amounts through the dikes or the bottom, but does pose a risk to wildlife inhabiting the surface of the island where the sediments remain exposed to the environment. (**3/7/00**)

86. 2000 Northeast Wisconsin Teacher's Convention

Green Bay Field Office, Wis.

Cathy Carnes and Jeff Hemming from the Green Bay Field Office participated in the 2000 Northeast Wisconsin Education Association's Teacher's Convention in Green Bay, Wis., March 10, 2000. More than 2,000 teachers and educators from northeast Wisconsin attended. The Service booth provided over 400 posters and about 100 resource inventories to teachers detailing the educational resources available at the Green Bay Field Office. The materials include study/activity guides, videos, books and other materials on threatened and endangered species, wetlands, habitat conservation, wildlife and migratory birds. Those teachers who have taken advantage of Service resources have made very positive comments on this outreach effort. (**3/10/00**)

87. Outreach Program Continues for Lake Erie Water Snake

Reynoldsburg Field Office, Ohio

The Reynoldsburg Field Office staff discussed various outreach projects for Lake Erie water snake during a conference call Mar. 10, 2000. Participants included personnel from the Service and the Ohio Division of Wildlife. The topics discussed included the upcoming poster/essay contest for Lake Erie island students from grades K-12. A Lake Erie water snake sign declaring the snake as federally and state protected, a new snake poster and brochure, news releases, and an upcoming mass mailing to island residents. (**3/10/00**)

88. Presentation to Oakland County Audubon Society
East Lansing Field Office, Mich.
Mike DeCapita of the Service's East Lansing Field Office, gave a presentation to more than 60 members of the Oakland County Chapter of the Michigan Audubon Society in Southfield, Mich. Mar. 14, 2000. DeCapita presented a slide show with information regarding the current status of the Kirtland's warbler, piping plover and the bald eagle. (**3/14/00**)

89. Presentation to a Freshman Class at Michigan State University
East Lansing Field Office, Mich.
Annette Williams and Christine Lousias of the East Lansing Field Office were invited by Dr. Hebron of Michigan State University to present a slide show to 20 students in an introductory fish and wildlife class. The topic covered Endangered Species Recovery Plans and the East Lansing Field Office's role in the Kirtland's warbler recovery effort; in particular the brown-headed cowbird removal program. (**3/20/00**)

90. NRDA and Ecological Risk Assessment Explained to MSU Class
East Lansing Field Office, Mich.
Lisa Williams of the East Lansing Field Office used the Saginaw NRDA case to illustrate the use of ecological risk assessment in the real world to the Topics in Toxicology class at Michigan State University on March 22, 2000. Lisa spoke to nine upper level undergraduates and one graduate student for 70 minutes about the Service mission, its contaminant program, natural resource damage assessment, and the assessment and settlement processes for the Saginaw NRDA. (**3/22/00**)

91. Service Biologists Attends Ohio Odonata Society Meeting
Reynoldsburg Field Office, Ohio
Biologist Angela Boyer, Reynoldsburg, Ohio field office, attended the annual meeting of the Ohio Odonata Society March 25, 2000, at the Ohio Historical Society museum in Columbus, Ohio. The Ohio Odonata Society promotes knowledge and appreciation of dragonflies and damselflies in Ohio. Several presentations were given on current and upcoming Odonate research and survey work throughout the state including a statewide survey for the federally-endangered Hine's Emerald dragonfly scheduled to begin in June 2000. (**3/25/00**)

92. Service Signs Bird Conservation Treaty With City of Chicago
Chicago Field Office, Ill.
The Chicago Field Office, in cooperation with the Service's Migratory Bird Management Office and many local partners, developed the terms an Urban Conservation Treaty for Migratory Birds with the City of Chicago. The treaty was signed by Mayor Richard M. Daley and Service Director Jamie Rappaport Clark in March 2000.

The treaty, which carries a $120,000 matching grant, commits the Service to a long-term partnership with the City of Chicago and its conservation partners for the benefit of migratory birds. Specific projects under the treaty that are underway include a campaign to persuade downtown building owners to turn out lights during bird migration, identifying important bird areas within the metropolitan area for special conservation measures, developing bird habitat in city parks, promoting native landscaping for homes and businesses, and ongoing bird programming and festivals in parks and forest preserves. Bird conservation messages and habitat restoration opportunities will also be incorporated into school curricula.

Urban birds are among the nation's most vulnerable bird groups. Many are neotropical migrant songbirds, which as a group are experiencing serious population declines worldwide. These declines reflect the cumulative effects of habitat loss, deaths from improper pesticide application, and predation from domestic cats. In addition to making the City of Chicago more bird friendly, the treaty will help publicize the plight of migratory birds in urban settings and develop public support for bird conservation initiatives. (**3/25/00**)

93. Occasional Problems With Wetland Mitigation Bank Proposals in Ohio
Reynoldsburg Field Office, Ohio
Staff biologists have attended a number of recent meetings to review proposals to develop wetland mitigation bank sites in Ohio. Most of the sites that have been developed have been successful; however, we have an increasing number of proposals for sites which the resource agencies consider marginal. For example, on March 27, Ken Lammers attended a meeting to discuss the attributes of a proposed bank in Carroll County. Last year we made an on-site review of the site. It was readily apparent that some wetlands could be restored on the site. A few months ago we received a proposed plan which clearly maximizes the acreage of wetlands on the land parcel. Much of the wetland development would be on non-hydric soils, thus considered wetland creation. Also, the proposal would impact the floodway adjacent to a perennial stream that

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flows through a corner of the parcel. Other problems exist, such as who would manage the wetland and who would hold the conservation easement on the parcel. Besides guaranteeing the maintenance and preservation of the wetland bank, we want to maximize its high quality. Landowners or developers usually want to maximize profits. We believe a compromise is necessary which would result in a smaller, yet high quality wetland, or none at all. Sometimes the wetland mitigation bank must be pursued elsewhere. (**3/27/00**)

94. Sharing Expertise with Lithuanian Professor of Environmental Studies

East Lansing Field Office, Mich.

Contaminants staff of the East Lansing Field Office shared information and Service perspectives on ecological risk assessment, contaminants work, and Great Lakes issues with Dr. Pranas Mierauskas, Associate Professor of Environmental Studies at Vilnius University, Lithuania, and Project Manager for the Lithuanian Fund for Nature, March 24th and 27th. Dr. Mierauskas is collecting information on how the United States and Canada deal with environmental issues. We discussed procedures for ecological risk assessment at hazardous waste sites, introduced him to the concept of natural resource damage assessment, explained the role of the Service in many arenas, and took him into the field to see bald eagle nest sites, contaminants study sites, and the impacts of fluctuating water levels in the Great Lakes. The International Joint Commission coordinated Dr. Mierauskas' Great Lakes Commission-sponsored visit to the U.S. and Canada. (**3/27/00**)

95. Fernald NRDA Site Restoration Update

Reynoldsburg Field Office, Ohio

Natural resource restoration activities at the Fernald Natural Resource Damage Assessment (NRDA) site include a seven-acre wetland that was restored and vegetated last year in Area 1, Phase 1. This year's work in Area 8 Phase 2 (A8P2), an area of about 20 acres, has already begun with the construction of a staging area/pad for stockpiling trees, other plant material, and mulch; construction of a wetland; repair of eroded areas, and reforestation. The Service, as a member of the trustee council, continues negotiations over some other areas of the project to be restored. Trustees include the Ohio EPA, Department of Energy, and the Service/Department of the Interior. When completed, the former Department of Energy Site will have restored natural resources on 840 acres and made them available for public use. (**3/31/00**)

April 2000

96. Natural Resource Damage Settlement Reached for American Chemical Services Site

Bloomington Field Office, Ind.

A Natural Resource Damage Settlement agreement has been reached with the Potentially Responsible Parties for the American Chemical Services (ACS) Superfund site in Griffith, Indiana. This settlement is embodied in a Consent Decree that will soon be lodged in the Northern District Court in Hammond. This facility had operated as a chemical recovery facility with limited chemical manufacturing capacity. During the course of its operations, ACS dumped and buried unrecoverable solvents, sludges, and oils on its property and in the adjacent municipal landfill. Approximately 40 acres of a larger wetland complex associated with Turkey Creek had been adversely impacted by the sites activities.

The Bloomington Field Office's involvement at the ACS site began in 1989, when it provided technical assistance to EPA's Superfund program. Natural resource damage assesssment (NRDA) settlement negotiations originally began in 1993 for this site. After almost six years, negotiations began again in April 1999.

This is another example of how persistently advocating for natural resource damages within all available channels to the regulatory agencies and the PRPs (including bankruptcy proceedings) can result in protection and restoration of natural resource values. BFO, the Co-Trustees (IDEM and IDNR) and the Field Solicitor's Office worked very hard over the course of the last 3 months making this settlement a reality under some difficult circumstances. This is the 19th Superfund/Oil Spill site in Indiana for which we have achieved settlement of natural resource damage claims.

This settlement consists of the PRPs assisting the Lake County Parks and Recreation Department (Lake Co.) complete a major acquisition project ($955,000) of 243 acres. Project partners in that effort include Indiana Heritage Trust ($400,000), Lake Co. ($150,000) and North American Wetland Conservation Act (NAWCA) ($150,000). The PRPs have contributed $250,000 to complete this acquisition, and will give the trustees $50,000 for wetland restoration costs on this property, and pay up to $30,000 for our assessment costs. BFO, IDEM and IDNR will be preparing a restoration plan in coop-

eration with Lake Co. in the coming months to determine how to best utilize these settlement funds to seek restoration on this 243 acre acquisition. (**4/4/00**)

97. Fort Wayne Reduction Dump Natural Resource Damage Settlement Lodged

Bloomington Field Office, Ind.

The Bloomington Field Office (BFO) received notice that the signed Consent Decree with the Potentially Responsible Parties for the Fort Wayne Reduction Dump Superfund site in Fort Wayne Indiana was lodged with the Northern District Court on April 11, 2000. This dump had been an uncontrolled hazardous waste dump on the banks of the Maumee River, approximately 115 miles upstream of Maumee Bay, Lake Erie. BFO's involvement began at Waste Inc. in 1986 by providing technical assistance to EPA's Superfund program. Natural Resource Damage Assesssment (NRDA) settlement negotiations began in 1994 for this site.

The opportunity to get invited into settlement negotiations was the result of the efforts of the Indiana Attorney General's Office to advocate for our natural resource damage claims. Once that door was opened, hard work and persistence on the part of BFO and our Co-Trustees (IDEM and IDNR) brought this settlement to an agreement in principle in late 1998.

This is the 18th Superfund/Oil Spill site in Indiana for which we have achieved settlement of natural resource damage claims. The PRPs have prepared a restoration plan that was approved by FWS, IDEM and IDNR and is an attachment to the Consent Decree. The PRPs will be implementing this restoration under the oversight of the trustees.

The settlement consists of the PRPs conveying title of 75 acres of agricultural land adjacent to the Maumee River to the IDNR. In addition, the PRPs will implement reforestation efforts on this property. As part of the settlement, the PRPs paid to the trustees $90,000 in past costs ($70,000 of which went to Service) and will be paying up to an additional $8,000 for future oversight costs. (**4/11/00**)

98. Cleanup of PCB Contaminated Sediment From Michigan's Saginaw River Begins

East Lansing Field Office, Mich.

The first barge load of PCB-contaminated sediment from Michigan's Saginaw River was removed April 13, 2000, beginning the removal of 345,000 cubic yards of contaminated sediment funded by the $28.2 million Natural Resource Damage Assessment settlement with General Motors and other parties.

Luedtke Engineering, under supervision of the Service, U.S. Army Corps of Engineers, Michigan Department of Environmental Quality and the U.S. Environmental Protection Agency, will dredge contaminants from river near Bay City and Essexville, Mich. The dredged sediment is being placed in a confined disposal facility operated by the Army Corps of Engineers.

The Service, the State of Michigan, and the Saginaw Chippewa Tribe reached the settlement with General Motors in the fall of 1998. The settlement also proved for the restoration of coastal wetlands and lake plain prairies around Saginaw Bay. Additionally, the settlement funds the purchase of 1,677 acres of wildlife habitat, resotration of fish spawning grounds at Tobico Marsh and operation of the Green Point Learning Center in Saginaw, Mich; construction and operation fo two boat launches on the River, and improvements to one on the bay, and future monitoring.

The dredging project will remove approximately 90 percent of the PCBs remaining in the lower river. The project should be completed by November 2000. (**4/13/00**)

99. East Lansing Staff Continues Service Partnership with MANRA at Michigan State University

East Lansing Field Office, Mich.

Craig A. Czarnecki and Annette D. Williams of the East Lansing Field Office attended Minorities in Agriculture and Natural Resources Association's (MANRA) annual End of the Year Banquet at Michigan State University, April, 15, 2000. MANRA also invited the participants of the Eco-Explorers Science Club (Eco-Explorers) and their parents to this event, and provided free transportation. Eco-Explorers interacts with second and third graders at Grand River and Walnut Elementary Schools, Lansing School District, Lansing, Michigan. Eco-Explorers is an enrichment program, designed to allow under-represented students hands on experience with current environmental issues. Students learned basic ecological concepts through activities centered around the food web, birds of prey, water quality, wetlands, endangered/threatened species and watershed management. The event provided the Service to an opportunity to express its continuing interest in its partnership with MANRA and Eco-Explorers. East Lansing Field Office announced its plans to become more involved with MANRA by cosponsoring MANRA's participation in the 2001 Minorities in Agriculture, Natural Resources and

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Related Science (MANRRS) professional conference in Washington, DC. For more information regarding MANRRS, please refer to http://www.manrrs.org. (**4/15/00**)

100. Natural Resource Trustees Inform Parties of NRDA Plans on the Kalamazoo Rive

East Lansing Field Office, Mich.

On April 18, 2000, The Service, Michigan Department of Environmental Quality, Michigan Attorney General, and the National Oceanic and Atmospheric Administration (collectively known as "Trustees") informed the potentially responsible parties at the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site of their plans to conduct a Natural Resource Damage Assessment (NRDA) for the site. The U.S. EPA also attended because all parties appear interested in coordinating the NRDA process with the ongoing Superfund Remedial Investigation/Feasibility Study and selection of remedies. The goal of the proposed NRDA is to restore approximately 80 miles of the Kalamazoo River and Portage Creek and their associated floodplains to the condition they would have been had the releases of hazardous substances not occurred. (**4/18/00**)

101. Service Review of Manuscript on Biomarkers for Chemical Exposure in Fish Accepted

East Lansing Field Office, Mich.

Lisa Williams of the East Lansing Field Office provided an in-depth review of a manuscript entitled 'Ethoxyresorufin-O-deethylase (EROD) Activity in Fish as a Biomarker of Chemical Exposure' by J.J. Whyte, C.S. Schmitt, R. Jung, and D.E. Tillit of the U.S. Geological Survey - Biological Resources Division. The authors revised their manuscript in response to her comments, and the manuscript has now been accepted for publication in the CRC Critical Reviews of Toxicology. The authors of the manuscript incorporated all of Lisa's suggestions into their manuscript. The manuscript summarizes and tabulates current information for the measurement of EROD activity in fish and assesses the usefulness of this biomarker to both researchers and field biologists investigating chemical exposures to fish. Service biologists across the country will be able to make use of this document. (**4/24/00**)

102. Wetland Restoration from Saginaw NRDA Described to University Students

East Lansing Field Office, Mich.

On April 24, 2000, Dr. Lisa Williams of the East Lansing Field Office discussed the Natural Resource Damage Assessment process in Saginaw River and Bay with students and faculty in Fisheries and Wildlife 443 (Ecological Restoration) at Michigan State University. The class was particularly interested in how decisions on sediment clean-up and wetland restorations were made. The discussion of the Service's important contributions to natural resource restoration through the NRDA program was held with approximately 15 upper level undergrads and graduate students and two MSU faculty members. (**4/24/00**)

103. Service Educates Michigan Analytical Chemists on PCBs

East Lansing Field Office, Mich.

The East Lansing Field Office's Dr. Lisa Williams presented a two-hour lecture, "Where toxicology meets analytical chemistry, or why do we measure PCBs anyway?" to the Michigan Environmental Laboratory Association (MELA) at its PCB Technical Workshop in East Lansing, Mich., April 26, 2000. Mich. Dr. Williams was invited to speak by the organizers from MELA and the Michigan Department of Environmental Quality because of her ability to relate the details of the analytical chemistry of PCBs to the questions being asked by natural resource managers on the hazards, fate, and effects of PCBs and related compounds. In addition to the presentation, Dr. Williams participated in a panel discussion at the close of the workshop. (**4/26/00**)

104. Fishing Lake Proposed by Ohio DNR Division of Wildlife

Reynoldsburg Field Office, Ohio

During the spring and summer of 2000, Ken Lammers of the Reynoldsburg Field Office attended on-site meetings with other resource agencies to view the site of a proposed impoundment on the Ohio Division of Wildlife's Egypt Valley Wildlife Area in Belmont County. Ohio's largest Wildlife Area is reclaimed strip-mine land and by now harbors areas with excellent wildlife habitat. Unfortunately, some of the excellent habitat includes more than 40 acres of wetlands within the proposed impoundment. We believe most of the wetland impacts can be mitigated, however, we are concerned with justification of the proposal, considering the fact that several fishing lakes surround Egypt Valley. We have asked for alternative and justification analysis.
(**4/27/00**)

105. Gary Lagoons Natural Resource Damage Settlement Finalized

Bloomington Field Office, Ind.

The Bloomington Field Office (BFO) was notified April 28, 2000 that the Indiana Attorney General's

Office has received the deed to the restored Gary Lagoons clean-up site in accordance with an Administrative Order of Consent with the Potentially Responsible Party and former owner of the property. It is our understanding that the Attorney General will be recording this deed soon on behalf of the Indiana DNR. This was the last step in a long, tedious process to protect this rare dune and swale habitat that the Chicago-Gary Regional Airport wanted to pave in anticipation of a future airport expansion. In the 1970s, this site was used to illegally dispose of hazardous wastes into a wetland associated with a relatively large tract of remnant dune and swale habitat. In 1996, the U.S. Environmental Protection Agency (EPA) spent $4.0 million removing 10,250 tons of toxic wastes from the wetlands at Gary Lagoons site. In addition, more than 500,000 gallons of contaminated water was treated and removed.

The Bloomington Field Office, a natural resources trustee, became involved in the site in 1993, when it provided technical assistance to EPA's Superfund program. Natural resource damage assesssment (NRDA) settlement negotiations began in 1997 for this site. The Service and the Indiana Department of Environmental Management helped the EPA develop its site closure plan. The site was graded to appropriately re-create the previous dunes and planted with native prairie vegetation conistant with the oak savannah nature of the adjacent rare dune and swale habitats.

This is the 17th Superfund/Oil Spill site in Indiana for which we have achieved settlement of natural resource damage claims. The settlement, signed in October 1999, consists of the Potentially Responsible Parties conveying the title of this seven-acre property to the Indiana DNR. The site will be managed by the DNR's Division of Nature Preserves as a new addition to its two nearby nature preserves. (**4/28/00**)

106. Management Plan Will Protect Endangered Gray Bat at Indiana Ammunition Plant

Bloomington Field Office, Ind.

The U.S. Army, in consultation with the Service, completed the Endangered Species Management Plan (ESMP) for the Indiana Army Ammunition Plant at Clark County, Indiana (INAAP). The plan creates a framework for the management of the federally-endangered gray bat, which occurs on the installation. The INAAP Endangered Species Management Plan helps to maintain and enhance the gray bat population on the installation. The cave system at INAAP supports the northern-most known maternity colony of gray bats, and is part of the only gray bat colony in Indiana. Key features of the plan are the protection of karst features, forested stream corridors, and water quality. The plan addresses the management of the gray bat in concert with the mission and other land-use objectives on the installation. Conservation of gray bats at INAAP is of particular concern because the Army is in the process of leasing and excessing the base; portions will be used for Charlestown State Park and portions will be used for commercial purposes. The ESMP will facilitate Army compliance with the Endangered Species Act during the process. (**4/28/00**)

107. Service Staff Help State DNR Care For Eagle Nests During Prescribed Burning at Itasca State Park

Twin Cities Field Office, Minn.

The Service's Twin Cities Field Office assisted the Minnesota Department of Natural Resources protect two active bald eagle nests during a prescribed burning of 3,500 acres at Itasca State Park in northern Minnesota. The burn started April 26, 2000, and continued through the weekend.

The area around each nest was blackened (prior to ignition of the 3,500 acre wildlife sanctuary) to prevent the nesting trees from burning. During the blackening operation, the adult eagles abandoned their nests, leaving eggs exposed to possible avian predation. Roger Marks, from the Twin Cities Field Office protected the nest using 'scare-away' rounds. The eagles did not abandon the nests for long; both returned within an hour. No rounds were used and the blackening operation was a success. The nests will be observed further to determine if the nests were productive. (**4/28/00**)

108. Rock Island Field Office Creates Upper Mississippi and Illinois Rivers Natural Resource Inventory

Rock Island Field Office, Ill.

The Service's Rock Island Field Office has compiled a computerized map-based inventory of fish and wildlife resources for the Upper Mississippi and Illinois Rivers for analytical use associated with the Army Corps of Engineers Upper Mississippi River - Illinois Waterway System Navigation Study. The Department of the Interior's Upper Midwest Environmental Sciences Center in Onalaska, Wis., provided the base maps for the project and produced the final version of the database containing 8635 records.

The inventory contains point locations representing the following categories: bald eagle roosting and feeding areas, bald eagle nests,

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heron and egret nesting colonies, waterfowl, migratory and resident birds, mussel resources and fingernail clams, commercial fisheries, sport fisheries, fish over-wintering areas, fish spawning areas, other important fish habitat, reptiles and amphibians, mammals, unique habitats, areas with potential for enhancement or restoration, areas already restored, and navigation impact areas. Staff are currently working toward making the data available to other interested Federal and State resource agencies. For more information, contact Lauri Walters at 309-793-5800 (ext 513). (**4/30/00**)

May 2000

109. U.S Policy Committee Celebrates Lakewide Management Plans

East Lansing Field Office, Mich.
The completion and release of the Lakewide Management Plans (LaMPs) LaMPs for several Great Lakes were toasted at the U.S. Policy Committee Meeting May 3, 2000. Craig Carnecki represented Charlie Wooley with Bob Kavetsky, and the membership acknowledged the Service's efforts in making a significant difference in publishing the plans.

The Service effort on Lake Michigan culminates over ten years of involvement by the East Lansing Field Office's Great Lakes Biologist, Bob Kavetsky, the previous East Lansing Contaminants Supervisor, other staff, the Great Lakes Program liaison, and Green Bay Offices. East Lansing's Great Lakes Biologist has also been assisting the Lake Superior Binational Program since 1992, along with the Charlie Wooley, and three staff members and the Project Leader from the Ashland Fishery Resources Office.

These efforts are committing Canadian and U.S. federal, state and local organizations who are cooperating to protect wild places, and ensure a healthy environment for citizens in these basins. The process has identified problems and opportunities to reach program goals, as well as strategies and projects to remedy problems. The plans are available for public review and the Service will participate in public meetings. Additional items from the agenda included EPA's five-year strategy, areas of concern, Great Lakes Water Quality Agreement Review, and the U.S. Policy Committee's Charter. Further progress will be made on these items before the next semiannual meeting. (**5/3/00**)

110. East Lansing Field Office Staff Contributes to Service Coastal Program Video

East Lansing Field Office, Mich.
On May 4, 2000, Craig Czarnecki, Tameka Dandridge and Bob Kavetsky of the East Lansing Field Office worked with Stefan Dobert Productions Inc. to film project plans on Belle Isle May 4, 2000. Video was shot as part of Region 3's contribution to an upcoming Service Coastal Program documentary.

Two City of Detroit employees, Suzan Campbell, Belle Isle naturalist and Marcel Magee, Parks and Recreation Supervisor, attended and explained the proposed projects on film and and the Service's involvement. John Hartig, Detroit American Heritage River Navigator, provided an introduction to the value of the Detroit River as part of the Great Lakes ecosystem.

All who spoke on camera used the working River or Belle Isle Park in the background and explained the exciting prospects of the two habitat restorations and native plant census to be conducted on this island park in the Detroit River with Service Coastal Program funding. The testimonials also brought out the great new value of the Coastal Program in leveraging funding from other partners as well as benefits to the ecosystem and often forgotten inner-city natural resource users.

The Belle Island restorations include a five acre wetland area restored using native wetland plants and deer exclusion to protect them. A floating boardwalk is to be included that will provide up-close access for wetland watchers and fishermen. A native plant census of the island will provide the information needed for local seed sources in future restoration attempts. An oak opening savannah will be restored from a mowed parkland area of five acres. (**5/4/00**)

111. Green Bay FRO Helps Sponsor Kids Fishing Day for Oneida Nation

Green Bay Field Office, Wis.
The Green Bay Fishery Resources Office and the Oneida Tribe of Indians of Wisconsin participated in the first annual Oneida Youth Fishing Day May 6, 2000. The event was held at a six-acre lake owned by the tribe near Green Bay, Wis.. More people attended than was anticipated with over 225 parents and children participating. Local organizations donated various items including bait, charcoal, beverages and prizes.

Food and additional prizes were purchased through gift certificates and donations. Each family received a t-shirt, fishing pamphlets, and a small tackle box filled with essential fishing gear. The Wisconsin Department of Natural Resources loaned its 600 gallon aquarium for the event. It was filled with several species from the area including bowfin, longnose gar, smallmouth bass, channel catfish

and various other species. It was a big hit with children and adults throughout the day.

The Oneida Environmental, Health and Safety Department set up a solar station featuring a hand washing area. Most of the kids were able to catch largemouth bass, including a 24 inch lunker caught by a young man near the end of the day. (**5/6/00**)

112. East Lansing Field Office Participates in Festival Day 2000

East Lansing Field Office, Mich.

Christine Lousias, of the East Lansing Field Office, participated in a workshop at the Springfield Plains Elementary school's Festival Day 2000 in Clarkston, Mich., May 9, 2000. The festival's theme was 'A Journey in Time,' and focused on the past, present and future of Michigan's natural heritage.

Ms. Lousias talked about Michigan's threatened and endangered species. Six groups of first through fifth graders (58 students total) participated in the endangered species workshop. The children played games, drew pictures and wrote stories about Michigan's threatened and endangered species. At the end of each forty-minute session, the children went away with the understanding of why species become endangered and what can be done to protect and recover threatened and endangered species. (**5/9/00**)

113. Reynoldsburg Field Office Partners with Columbus Zoo for IMBD

Reynoldsburg Field Office, Ohio

The Columbus Zoo in Columbus, Ohio, expanded its celebration of International Migratory Bird Day to two days this year. More than 8,000 students participated in the many imaginative activities relating to birds. This year, the Zoo received a grant from the Lazarus Foundation allowing it to expand its activities and teacher packets. Next year, the Reynoldsburg Field Office hopes to increase its support to the zoo's celebration by providing more Partners in Flight educational materials and iformation about other Service programs. (**5/12/00**)

114. Service Helps Columbus Zoo Expand Celebration of IMBD to Two Days

Reynoldsburg Field Office, Ohio

With any luck with the weather this year, IMBD 2000 at the Columbus Zoo will be twice as big as any in past years. This is the first year that the Zoo has extended the migration celebration to two days, May 12 and 13. To date the Columbus Zoo has enrolled 66 schools and more than 5,000 students for IMBD 2000. Some of the details regarding the activities for this event follow in a notice from the Zoo.

As we have said in past years, we at the Reynoldsburg Field Office are proud to have initiated this event at the Columbus Zoo in 1995 and 1996. However, we are most pleased to report that the Zoo staff has "picked up the ball" and expanded the IMBD each subsequent year. The U.S. Fish and Wildlife Service continues to partner with the Zoo by providing posters and brochures, as well as assisting where needed. We plan to capture this year's event on both camcorder and still camera.

International Migratory Bird Day celebrates the return of millions of neotropical migratory songbirds from their non-breeding grounds in Central and South America, Mexico and the Caribbean to their North American nesting habitats.

In 2000, funding from the Lazarus Fund of the Federated Foundation will allow the Columbus Zoo and Aquarium to expand its IMBD celebration to a two-day event. The focus of the first day will still be school groups; the second day will allow us to target our activities to families.

In addition, as in years past, Teacher Resource Bags will be made available to teachers who bring their students to the Zoo May 12. The bags will contain a Partners In Flight reference guide, a hummingbird feeder, a seed feeder, binoculars, a field guide to eastern birds, a feeder bird ID poster, a purple coneflower and various conservation posters, including the 2000 IMBD poster.

On both days, all children participating will receive an activity sheet featuring a coloring page, a migration maze, a passport section which children will have stamped as they migrate through the activities, and a variety of fun, colorful stickers. Also, an 8 page migration booklet will be available to students who successfully collect all their passport stamps.

A coloring poster will be mailed out to all schools that will be visiting the Zoo on May 12th. Students may enter a coloring contest by sending their posters back to the Zoo. Winners will receive a one-year Zoo membership, a pair of binoculars and a field guide. (**5/13/00**)

115. Public Air Concerns Over Rising Population of Double-Crested Cormorants at Green Bay Meeting

Green Bay Field Office, Wis.

The Service hosted a public meeting in Green Bay, Wis. May 15, 2000, to hear public concerns about record high population levels of double-crested cormorants in Green Bay and western Lake Michigan. Approximately 80 people attended

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the meeting with 27 making statements for the record. The predominant concern is that cormorants have increased to levels that are in conflict with other resource uses by the public. Twenty-seven of 80 statements for the record called for cormorant populations to be reduced, but few spoke in favor of lethal control measures. The results of the meeting will be combined with results from nine other regional meetings to help develop a management plan for this species. The plan will be developed over the next year. (**5/15/00**)

116. Dangerous Mines Won't Get Inspected for Bats

Reynoldsburg Field Office, Ohio

Ken Lammers attended a workshop on mine safety May 20, 2000 by the Wayne National Forest and Mr. James Myer, Surface Mine Safety Manager for the Ohio Department of Natural Resources Division of Mines and Reclamation. Other representatives of Ohio DNR participated, as well as Dr. Jackie Belwood, bat researcher with the Ohio biological Survey, and Lynda Andrews, wildlife biologist with the Wayne National Forest.

Safety managers convinced the audience that mines are dangerous, however, the managers believe no mines may be inspected for bats. While all bat researchers and surveyors attending the workshop do not want to enter unsafe mines, they do want to inspect mines that are considered safe by mine inspectors. At the end of the workshop the group agreed that entering mines should only be done with the approval of a mine inspector. It is our hope that inspecting safe mines for bats will be authorized in the future. (**5/20/00**)

117. Region 3: Federal Aid Sponsors An Intra-Service Consultation Workshop

Reynoldsburg Field Office; Reynoldsburg, Ohio

Endangered species biologists from the Reynoldsburg, Ohio field office attended the Region 3 Section 7 Workshop in Red Wing, Minn. May 22-23, 2000. The workshop brought together state and federal staff responsible for the protection and conservation of Federally listed species, and administration of the Federal Aid programs to discuss a process to attain compliance with Section 7 of the Endangered Species Act of 1973. Outcomes of the workshop included participant understanding of how compliance with Section 7 can be accomplished as well as improved communications and understanding of the various state and federal roles included in the process. (**5/23/00**)

118. Improved Resource Agency Coordination Helps Ohio Mussels

Reynoldsburg Field Office, Ohio

On May 23, 2000, the Huntington District of the Army Corps of Engineers held its first meeting with the resource agencies to improve its coordination regarding the dredging program for operation and maintenance of the navigation system on the Ohio River and tributaries. Poor coordination in the past has resulted in the placement of dredge spoil on mussel beds in the Ohio River and Muskingum River. Since then, we have toured sites where dredging is to occur this fiscal year. We anticipate that the improved communication with the Service and the states will greatly minimize impacts the imperiled mussels in the Ohio River Valley Ecosystem. (**5/23/00**)

119. Service Assists in Monitoring Endangered Running Buffalo Clover

Reynoldsburg Field Office, Ohio

From May 22-24, 2000, Megan Sullivan of the Reynoldsburg Field Office joined biologists from The Nature Conservancy of Kentucky, Kentucky Nature Preserves Commission, and Eastern Kentucky University to monitor the second largest reproducing population of running buffalo clover in the world. The clover population is located on the Bluegrass Army Depot near Richmond, Kentucky. The clover thrives in partially shaded areas that are disturbed by grazing or scouring. The population at the Depot has been subjected to grazing pressures in the past, but in the last several years many of the cattle on the Depot's land have been removed. At many sites the clover is dying out due to competition with other species, especially coralberry and chickweed. A full report on the status of the running buffalo clover population at the Bluegrass Army Depot will be available later this year. For a copy of the report, contact the Kentucky Nature Preserves Commission at (502) 573-2886. (**5/24/00**)

120. Environment Day at Youngstown Air Force Reserve Base

Reynoldsburg Field Office, Ohio

On May 24, 2000 Bill Kurey represented the Service for "Environment Day" at the Youngstown Air Force Reserve Base, Vienna, Ohio. About 20 pounds of brochures covering endangered species, migratory birds, water quality, wetlands, refuge maps, and posters were distributed. The "Bats of the United States" booklet was very popular. (**5/24/00**)

June 2000

121. LEWS News Informs Public About Lake Erie Watersnake Issues

Reynoldsburg Field Office, Ohio

The very first issue of LEWS News, the Lake Erie water snake (LEWS) Newsletter, is scheduled for publication in mid-June. The newsletter provides the latest information about the threatened species to more than 1,000 residents of Lake Erie islands that are home to the snake. LEWS News is part of a joint effort between the Service and the Ohio Division of Wildlife. The newsletter will provide information about the Lake Erie water snake, its habitat, ways to protect the snake, and other available outreach materials. The first issue of LEWS News contains articles on shoreline construction, the Endangered Species Act and how it relates to the snake, yard signs in support snake conservation, status of snake under state and federal law, and the Lake Erie Water Snake Hibernation Study scheduled for the islands this summer. Also included in this mass mailing is a factsheet on the Lake Erie Watersnake and Service Interim LEWS Guidelines for shoreline projects. The next issue will include the winning entries from our essay and poetry contest for island schools, as well as snake observations and pictures from island residents. We hope to provide islanders with several issues of LEWS News each year.

To subscribe to the LEWS News mailing list please email megan_sullivan@fws.gov. (**6/1/00**)

122. Service Partners With Minnesota and Wisconsin to Preserve Higgin's Eye Pearly Mussel

Twin Cities Field Office, Minn.

In May, biologists from the Wisconsin and Minnesota Departments of Natural Resources and Service began efforts to help the federally-endangered Higgins' eye pearlymussel (*Lampsilis higginsi*).

Zebra mussels, an exotic species, have infested nearly all important mussel beds where Higgins' eye occur and are a serious threat to all native freshwater mussels. Biologists recently captured gravid female Higgins' eye from the St. Croix River; walleye and largemouth bass (host fish) were exposed to their glochidia in a laboratory setting. Glochidia attach to the gills of these host fish and in a few weeks will drop off and settle to the bottom of holding tanks where they will hopefully grow into juvenile mussels. These activities are taking place at the Genoa National Fish Hatchery in Wisconsin. In a similar manner, largemouth bass were recently infected with glochidia from female Higgins' eye and will be transferred to holding cages in Lake Pepin where they will grow. This technique was used many years ago by commercial clammers to commercially raise other species of mussels and hopefully it will also work for Higgins' eye.

On a different track, biologists will soon relocate adult Higgins' eye mussels from known beds in the Upper Mississippi River to areas which have a low risk of infestation from zebra mussels in the future. One potential relocation site is the lower Wisconsin River, and other candidate sites are the St. Croix River and areas of the Upper Mississippi River upstream of Lake Pepin. It is hoped that the hatchery/holding cage techniques will be successful in providing a reliable source of juvenile Higgins' eye for stocking at the relocation site(s). (**6/2/00**)

123. Planned Drawdown of Mississippi River's Pool 8 Postponed By Poor Water Conditions

Twin Cities Field Office, Minn.

Unusually dry weather conditions this spring and low water flows on the upper Mississippi River at LaCrosse, Wis., have helped postpone the planned Pool 8 Pilot Pool Drawdown for at least one year. Plans originally proposed an experimental 1.5-foot drawdown at Lock and Dam 8 from June 15 to September 15, 2000. The purpose of the drawdown is to enhance the growth of aquatic vegetation in Pool 8 and determine if the technique has merit for consideration in other navigation pools. However, it is not possible to conduct the drawdown during periods of high or unusually low flows. The National Weather Service and other agencies are predicting drought conditions for Minnesota/Wisconsin and other midwestern states this summer. The final decision to conduct the drawdown will be made by the St. Paul District Corps of Engineers in early June. If the project cannot be accomplished this summer, it will be rescheduled for next summer. (**6/2/00**)

124. Service Divers Join Zebra Mussel Task Force for St. Croix Surveys

Twin Cities Field Office, Minn.

The Service's Twin Cities Field Office and LaCrosse Fishery Resources Office are joining the National Park Service and Departments of Natural Resources from Minnesota and Wisconsin to monitor the St. Croix River for zebra mussels. The federal and state

Continued next page.

agencies have organized the Zebra Mussel Task Force, an interagency group that monitors the spread of the unwanted zebra mussels in the St. Croix River. In May, the Service's Region 3 entered into an agreement with the National Park Service authorizing Nick Rowse of the Twin Cities Field Office, and Scott Yess of LaCrosse Fisheries Resources Office, to participate in scuba diving monitoring in the river. In previous years, the task force has employed contract divers. But, after evaluating the costs involved, it was determined that the underwater surveys could be accomplished in-house by task force divers, that include Rowse and Yess. Specifically, the Service members will assist the task force with zebra mussel monitoring and conservation activities for two endangered mussels - the Higgins' eye pearlymussel and the winged mapleleaf. The two Service divers will also be part of the Task Force's quick response team. On May 26 and May 30, the dive team checked out two reports of zebra mussels in the St. Croix River. The task force's five-member dive team will be conducting three week-long surveys of zebra mussel on the St. Croix River June 12, August 14, and October 3, 2000. (**6/5/00**)

125. Motion to Enter Fort Wayne Reduction Dump Natural Resource Damage Settlement Consent Decree Filed

Bloomington Field Office, Ind.

The Bloomington Field Office (BFO) received notice June 6, 2000, that the Department of Justice filed a motion to enter the natural resource Damage Assessment Consent Decree for the Fort Wayne Reduction Dump Superfund site in Fort Wayne, Ind. The Consent Decree was lodged with the Northern District Court April 11, 2000.

The dump had been an uncontrolled hazardous waste dump on the banks of the Maumee River, approximately 115 miles upstream of Maumee Bay, Lake Erie. Bloomington Field Office involvement at Waste Inc. began in 1986, when it provided technical assistance to EPA's Superfund program. In 1986 and 1987, BFO conducted a comprehensive environmental contaminants investigation of the St. Mary, St. Joseph and Maumee Rivers in the Fort Wayne area. This report was finalized in 1991 and concluded that the Ft. Wayne Reduction Dump had adversely impacted the Maumee River. Natural resource damage assesssment (NRDA) settlement negotiations began in 1994 for this site.

The Service's involvement in settlement negotiations began at the invitation of Indiana Attorney General's Office, an advocate for natural resource damage claims. Once that door was opened, hard work and persistence on the part of BFO and our Co-Trustees (Indiana Department of Environmental Management and Indiana Department of Natural Resources) brought the settlement to an agreement in principle in late 1998. This is the 18th Superfund/Oil Spill site in Indiana for which natural resource damage claims have achieved a settlement.

The Potentially Responsible Parties (PRPs) have prepared a restoration plan that was approved by the Service, IDEM and IDNR and is an attachment to the Consent Decree. The PRPs will be implementing this restoration under the oversight of the trustees.

The settlement consists of the PRPs conveying title of 75 acres of agricultural land adjacent to the Maumee River to the IDNR. In addition, the PRPs will implement reforestation efforts on this property. As part of the settlement, the PRPs paid to the trustees $90,000 in past costs ($70,000 of which went to Service) and will be paying up to an additional $8,000 for future oversight costs.

This NRDA settlement is an agreement with the PRPs for them to actually implement the restoration work that they and the trustee agencies reached agreement on after several years of negotiation. This agreement meets the statutory requirements to restore, replace, rehabilitate, and/or acquire the equivalent of the lost natural resources. The restoration effort agreed to will retire approximately 75 acres of agricultural land in the Maumee River floodplain. Palustrine forested wetlands will be restored on approximately 47 acres of this property. Reaching a settlement on this case was a significant milestone, and oversight on restoration implementation will begin soon with follow-up monitoring continuing for several years. In addition, the PRPs are reimbursing the Service for $70,000 which we invested in this project. (**6/6/00**)

126. Green Bay Field Office Joins Wisconsin DNR to Monitor Bald Eagle Health

Green Bay Field Office, Wis.

The Green Bay Field Office and Wisconsin Department of Natural Resources have been cooperating in a long-term study to monitor the health and productivity of bald eagles nesting near Green Bay, Wis. This spring, staff biologits visited eight nests which are associated with the Bay or Lake Michigan.

Nestling eagles were weighed, measured, banded, and blood samples were taken for contaminants analysis. Blood samples were also taken to determine parentage in order to measure how frequently new adults enter the breeding

population. This year was a good one for bald eagles. All but one of the nesting pairs in our study produced at least one young eagle. In addition, two of the nests studied were in new territories.

The continued expansion of the breeding population around the shores of Green Bay is encouraging, however, we still do not know if this expansion is due to immigration from the abundant population in interior Wisconsin, or is the result of a healthy breeding population in territories on the Bay. The results of genetic testing might answer this question in the future. Egg and blood samples collected during the 10 years of this study have been prepared for chemical analysis to determine whether or not the chemical health of bald eagles nesting adjacent to Green Bay has improved. This detailed health assessment would not have been possible without the cooperation of many individuals and organizations over the years beyond the principal investigators. Most notably, Mr. David Evans who climbs into eagle nests to band young and the many landowners who have provided access over the years to nest trees on their lands.

The results of this long term study will provide valuable information regarding why the bald eagle population near Green Bay and western Lake Michigan has been so slow to recover from chemical pollutants released during the post-World War II era. In addition, this study may suggest additional management actions that might hasten the recovery of bald eagles in this area. (**6/8/00**)

127. State Conservation Projects for Imperiled and 'Special Concern' Species

Ecological Services

Region 3 awarded $418,387 in Fiscal Year 2000 Section 6 funds to Midwest states for implementation of 14 conservation projects. Activities ranged from those that assisted in recovering rare and declining species, to preventive measures that may preclude the need to protect 'special concern' species under the Endangered Species Act. The proposals targeted one threatened and one 'special conern' snake; two endangered birds; one endangered butterfly; five endangered, two 'special concern' and several freshwater mussels; one endangered and two candidate fish; and, one threatened and one "special concern" plant species. (**6/12/00**)

128. NRDA Settlement Reached for American Chemical Services Superfund Site

Bloomington Field Office, Ind.

A natural resource damage settlement agreement has been reached with the Potentially Responsible Parties (PRP) for the American Chemical Services (ACS) Superfund site in Griffith, Indiana. The ACS facility had operated as a chemical/solvent recovery facility with limited chemical manufacturing capacity. During the course of its operations, ACS dumped and buried unrecoverable solvents, sludges, and oils on its property and in the adjacent municipal landfill. Approximately 40 acres of a larger wetland complex associated with Turkey Creek had been adversely impacted by activities at the the sites. The Bloomington Indiana Field Office's (BFO) involvement began at the ACS site in 1989 when it provided technical assistance to EPA's Superfund program.

Natural Resource Damage Assesssment (NRDA) settlement negotiations originally began in 1993 for this site. After almost six years, negotiations began again in April 1999. The settlement consists of the PRPs assisting the Lake County Parks and Recreation Department (Lake Co.) complete a major acquisition project ($955,000) of 243 acres. Project partners in that effort include Indiana Heritage Trust ($400,000), Lake Co. ($150,000) and North American Wetland Conservation Act (NAWCA) ($150,000). The PRPs have contributed $250,000 to complete this acquisition, and will give the trustees $50,000 for wetland restoration costs on this property, and pay up to $30,000 for our assessment costs. BFO, IDEM and IDNR will be preparing a restoration plan in cooperation with Lake Co. in the coming months to determine how to best utilize these settlement funds to seek restoration on this 243 acre acquisition.

This is another example of how persistently advocating for natural resource damages within all available channels to the regulatory agencies and the PRPs (including bankruptcy proceedings) can result in protection and restoration of natural resource values. BFO, the Co-Trustees (IDEM and IDNR) and the Field Solicitor's Office worked very hard over the course of the last 6 months making this settlement a reality under some difficult circumstances. This is the 19th Superfund/Oil Spill site in Indiana for which we have achieved settlement of natural resource damage claims. (**6/16/00**)

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129. Inside Washington Publication Talks NRDA With East Lansing Field Office

East Lansing Field Office, Mich.

Lisa Williams of the East Lansing Field Office talked with Merav Pick of Inside Washinton Publishers for 25 minutes on the Kalamazoo River NRDA Preassessment Screen and the NRDA process in general. Merav is working on an article for one or more of their 30 newsletters (e.g. 'Inside Superfund') (**6/21/00**)

130. Rare Fen Wetlands Restored in Northeast Illinois

Chicago Field Office, Ill.

The Chicago Field Office partnered with the State of Illinois and several non-governmental resource organizations to restore 68 acres of rare fen wetlands in northeast Illinois. Fen wetlands are one of the rarest wetland communities in the continental United States.

Of the 335.3 acres of surviving high-quality fen wetlands identified on the Illinois Natural Area Inventory, 328.6 acres (98.1 percent) survive in northeast Illinois. However, these fen wetlands have suffered from woody encroachment and invasion by exotic species that threaten their continued survival. This project allowed the Illinois Nature Preserves to continue brush removal and control of exotic species on seven fen wetlands dedicated as Illinois Nature Preserves. A total of 68 acres were restored or enhanced as a result of this project.

The project restores fen wetland functional values, especially the floristic quality of degraded fen wetlands. Wetlands were restored or enhanced by removing invasive exotic or native woody species,controlling exotic species (purple loosestrife, reed canary grass, giant reed), and restoring groundwater hydrology.

Funding and other support for this project came from the Illinois Nature Preserve Commission, Service Challenge Grant Program, Fox Valley Land Foundation, Illinois Department of Natural Resource, Crystal Lake Park District, St. Charles Park District, The Nature Conservancy, and U.S. Fish and Wildlife Service and The Conservation Fund's northeast Illinois wetland conservation account. (**6/23/00**)

131. Service Biologist Discovers Possible Hazardous Site

East Lansing Field Office, Mich.

Early June 23, 2000, Lisa Williams of the East Lansing Field Office was walking across a vacant land between a lumberyard and the Saginaw River to inspect a dredging project in the river when she noticed that no plants were growing in several areas. She also found chunks of bright yellow material in these areas. The yellow chunks ranged in size from a few millimeters to a few centimeters in diameter. Lisa returned to the site later that afternoon with a colleague from the Michigan Department of Environmental Quality (MDEQ). The two of them then noticed a sulfur smell and collected several of the yellow chunks. A surface test of pH indicated that the chunks were very acidic (pH= 1-2). MDEQ located and contacted the owner of the property, Pressure Vessel Services, who immediately dispatched someone to inspect the site. MDEQ is leading the response.

The pH of the material discovered presents a direct contact hazard for wildlife and for humans, all of whom have complete access to the site. The nature and extent of contamination in time and space are unknown at this time, but the field containing the barren spots is approximately 5 acres and includes shoreline of the Saginaw River. (**6/23/00**)

132. Woodland Restoration and Education Project Completed at Chicago Nature Center

Chicago Field Office, Ill.

The North Park Village Nature Center, operated by the City of Chicago Department of Environment, is the only nature center and interpretive preserve in the city of Chicago. It consists of approximately 60 acres of wetland, woodland, and prairie remnants in various stages of restoration. With more than 60,000 children and adults visiting the Nature Center annually, the opportunities for ecologically based educational activities in the city are tremendous.

This project focused on the restoration of 15 acres of degraded woodland, situated next to the primary pedestrian trail in the preserve. Restoration activities in this area included the removal of exotic trees which had completely suppressed vegetation in the understory and ground layer portions of the woodland. Volunteers assisted with exotic plant removal, hand sowing of native woodland seed, and planting native trees and shrubs.

Urban restoration efforts, such as at North Park Village, are especially critical in that they not only serve to increase biodiversity and improve fish and wildlife habitat but also serve as education tools. Public involvement or use of an area before, during, or after restoration helps educate them on the importance of our natural resources and instills a conservation ethic. Due to its location, North Park Village Nature Center, also has a unique opportunity to reach a very diverse audience - all ages, races, and socioeconomic levels.

Funding and other support for this project came from Services' challenge grant program and Chi-

cago Field Office, and the City of Chicago Department of Environment. (**6/23/00**)

133. Endangered Migrating Songbird of Jack Pine Forests Recieves International Assistance

Ecological Services

Responding to recommendations from the Kirtland's Warbler Recovery Team, the East Lansing, Field Office and several partners (who work cooperatively to conserve the songbird), Mr. Eric Carey of the Department of Agriculture, Nassau, Bahamas, was recently appointed to the recovery team. Mr. Carey attended the July 2000 recovery team meeting in Mio, Michigan, where he engaged in discussions with recovery team members, and other Federal, state, and nongovernment office representatives. The Midwest Region's recovery team appointment of this international member is one of many steps necessary to achieve the Kirtland's warbler (*Dendroica kirtlandii*) recovery plan goals.

Mr. Carey's participation will provide needed information about the bird's requirements during the winter months. Data and information obtained will lead to the development of effective cooperative conservation activities and processes for the endangered warbler in the Carribean habitat.

Kirtland's warbler is listed as endangered under the Endangered Species Act. The songbird nests and breeds exclusively in large stands of young jack pine ecosystems in the Midwest, and migrates south to spend winters in the Bahamas and other Caribbean islands. Mr. Carey's expertise and involvement on the recovery team will benefit the conservation of the warbler while addressing the recovery plan goals and the Midwest Region's Resource Conservation Priorities by obtaining valuable information about the songbird's life cycle and habitat needs during the wintering months in the Bahamian islands. (**6/26/00**)

134. Service Evaluating Underground Mining Threat to Shorebirds and Waterfowl Habitat

Marion Sub-Office, Ill.

One of the most important waterfowl and shorebird migration stopover areas in Southern Illinois may be jeopardized by underground mining at Rend Lake, an Army Corps of Engineers reservoir in Southern Illinois. The Marion, Ill., Sub-Office continues to participate in an interagency team evaluating the impacts of mine subsidence and to develop mitigation recommendations to protect/enhance important migratory bird habitats. An important outcome of this effort has been the development of a shorebird habitat evaluation model. This model will be utilized to evaluate pre and post-project effects of mine subsidence on shorebird habitats. (**6/26/00**)

135. Service Monitors Status of Colonial Birds on Green Bay and Gravel Island Refuges in Lake Michigan

Green Bay Field Office, Wis.

Green Bay Ecological Services Field Office staff visited the three Lake Michigan, Wisconsin National Wildlife Refuge islands during May and early June to monitor changes in nesting populations of colonial birds. The most numerous species on the two northern islands, Hog and Gravel, was the herring gull.

On the southern island, Spider, both herring gulls and double-crested cormorants were extremely abundant. A new colony of ring-billed gulls was discovered on Spider Island. Single pairs of great black-backed gulls were found on each of the islands. The pair on Spider Island had an active nest with one intact egg.

The expansion of great black-backed gulls and ring-billed gulls onto these refuge lands demonstrates the value of these protected areas for bird species which are dependent on isolated locations for successful reproduction. (**6/27/00**)

136. Service Surveys Savanna Army Depot Lands for Contaminants

Rock Island Field Office, Ill.

The Rock Island Field Office completed two realty surveys for contaminants at the Savanna Army Depot, Savanna, Ill. in June 2000. The Army installation closed in March 2000, and a part of it is scheduled to be transferred to the Service as the Lost Mound Unit of the Upper Mississippi National Wildlife Refuge.

The initial survey identified the presence of chemical solvents, explosives related hazardous wastes, and metals dispersed in washout areas, ammunition burning grounds, pistol ranges, abandoned landfills, detonation areas, leach fields, storage areas, burial areas. Additionally, railroad tie disposal areas, insecticide burial areas, and other miscellaneous contaminant problems were identified. These areas are spread throughout the depot, and present hazards to human health and/or the environment.

The second survey further delineated these findings, and determined that no cleanup costs are to be incurred by the Service. The US Army is responsible for the cleanup under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), which serves to guide the cleanup of

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sites where hazardous substances have been released to the environment. The Army is currently in the process of cleaning up the depot under the guidance of the U.S. Environmental Protection Agency (USEPA) and the Illinois Environmental Protection Agency (IEPA).

A pre-purchase agreement with state and federal regulatory agencies is recommended prior to assuming land management responsibility and accepting fee title transfer from the Department of Defense. The pre-purchaser agreement would reduce the Service's liability resulting from residual pollutants remaining after the Army completes cleanup activities. (**6/27/00**)

137. Service Cooperates in Canadian Study of Loggerhead Shrike Genetics

Bloomington Field Office, Ind.

The Service's Bloomington Field Office is cooperating with Canadian researchers in their study of loggerhead shrike genetics. The research will assess patterns of genetic differentiation in Canadian populations of loggerhead shrikes, including differences relative to U.S. populations.

The loggerhead shrike is listed by the Committee on the Status of Endangered Wildlife in Canada as a threatened species in western Canada and an endangered species in eastern Canada. There are nine recognized subspecies of the loggerhead shrikes in the United States. The San Clemente loggerhead shrike is listed as endangered under the Endangered Species Act. Other U.S. subspecies are not listed, but have experienced large scale and widespread declines

To date, 75 samples of genetic material have been obtained from U.S. researchers.

The Service recognizes the loggerhead shrike as one of 30 migratory nongame birds of management concern in the U.S., and the species is listed as State endangered, threatened, or a species of concern in at least 28 states.

Specifically, researchers will compare patterns of genetic diversity among populations, characterize hybrid zones, compare genetics of Canadian and U.S. populations, and use genetic information to aid in the identification of wintering grounds for migratory populations. Ultimately, the research will aid in the development of more effective conservation and management strategies for the species. The study will also improve understanding of loggerhead shrike subspecific variation, which has been identified as a research need for this species. (**6/28/00**)

138. Illinois Cave Gated to Protect 1,500 Hibernating Indiana Bats

Marion Field Office, Ill.

An Illinois cave used by Indiana bats was gated by the Illinois Department of Natural Resources in June 2000 to provide added protection to federally endangered species. The gate construction is the result of a cooperative agreement between the Service's Marion, Illinois Sub-Office and the Illinios DNR to gate caves used by the Indiana bat and/or gray bat located on private lands. Gate construction was recently completed at Toothless Cave in Jackson County, Ill. A population of approximately 1500 Indiana bats hibernate at this site. However, it is also frequented by recreational users which disturb the bats. The gate will ensure the bats wintering at this location are protected from disturbance during this critical time. (**6/30/00**)

139. Indiana Partner Receives National Wetland Conservation Award

Bloomington Field Office, Ind.

Dick Blythe of Merrillville, Ind., was selected by the U.S. Fish and Wildlife Service as co-winner of this year's National Wetland Conservation Award to the private sector, which recognizes outstanding wetland conservation efforts by non-governmental partners. Dick was nominated by the Bloomington Field Office for his leadership and dedication as Chairman of the Indiana Grand Kankakee Marsh Restoration Project (IGKMRP), a partnership effort through the North American Waterfowl Management Plan (NAWMP) to acquire, restore, and enhance at least 26,500 acres of wetlands and associated upland within the Kankakee River watershed in northwest Indiana.

Since 1994, the project has acquired more than 4,500 acres, restored more than 3,000 acres, and enhanced nearly 3,000 acres, with partnership contributions and NAWMP funds totaling more than $12 million. Dick received the award from Service Director Jamie Rappaport Clark at a June 30, 2000 ceremony at the National Postal Museum in Washington, D.C., held in conjunction with the First Day of Sale Event for the 2000-2001 Federal Duck Stamp. (**6/30/00**)

July 2000

140. Developing Capture Techniques for Modeling Double-crested Cormorant Populations

Green Bay Field Office, Wis.

In order to predict the possible future size of double-crested cormorant populations, information on the survival rates of various ages of this bird is needed.

Until now, bird banders have mostly banded young cormorants

still at nesting colonies. For mathematical reasons, returns of these bands do not enable us to estimate adult survival rates; in order to determine the adult survival rate, bands must either be placed on adults, or birds banded as nestlings must be recaptured as adults and released unharmed back into the population.

Staff of the Green Bay Field Office and the Wisconsin Department of Natural Resources investigated a variety of techniques to capture adult cormorants at Spider Island, part of the Gravel Island National Wildlife Refuge in Lake Michigan, Wis. We captured 84 unbanded and 17 adults that had been banded as nestlings over the course of three nights. We also banded more than 1,200 nestlings in 3 subsequent nights. The most successful way to capture adults was by dazzling them with an extremely bright spotlight and restraining them with a large dipnet. Using state of the art night vision goggles proved unsuccessful. Our capture rate was approximately 10 birds per man hour for techniques which worked at all. This compares to a capture rate of about one per unit hour reported to us by Canadian investigators who tried padded leg hold traps. (**7/5/00**)

141. Last Change to Salvage Cincinnati's Mill Creek

Reynoldsburg Field Office, Ohio

Ken Lammers attended a meeting and on-site review of the Mill Creek Restoration Project in Hamilton and Butler Counties with other resource agencies, Louisville District of the Corps of Engineers, and consultants. An earlier Corps project basically changed the lower reach from a natural (albeit ravaged by development in the watershed) stream into a concrete lined channel. The initial phase of the project will deal with the upper reaches of the watershed where uncontrolled development in the floodplain has left little space for restoration and little hope to salvage natural attributes of Mill Creek. The Service will provide Coordination Act reports for this proposed project as the plans are developed. (**7/12/00**)

142. Rehabilitation Plan Developed for Middle Mississippi River Side Channels

Marion Sub-Office, Ill.

The Marion, Ill., Sub-Office participated joined a planning team made up of representatives of the U.S. Army Corps of Engineers, Illinois Department of Natural Resources and Missouri Department of Conservation, July 12, 2000, to develop the Middle Mississippi River (MMR) Side Channel Rehabilitation Plan. The MMR is that portion of the Upper Mississippi River that stretches from the mouth of the Missouri River to the mouth of the Ohio River and is home to the endangered pallid sturgeon and least tern.

The MMR has been significantly degraded by Army Corps of Engineers activities to operate and maintain the nine-foot navigation channel. The number of side channels in the MMR has declined from 55 in 1797 to only 25 remaining today. The side channel rehabilitation plan will serve to focus agency resources to maintain and enhance these important aquatic habitats and will serve as a starting point for a larger restoration plan for the entire MMR. (**7/12/00**)

143. Service Partners Join Conservation Agencies to Sponsor Hine's Emerald Dragonfly Workshop

Green Bay Field Office, Wis.

The Service's Green Bay and Chicago Field Offices, with assistance from Region 5, partnered with seven other agencies and individuals including The Nature Conservancy, Illinois Natural History Survey, Illinois State Museum, and the Wisconsin Department of Natural Resources to help sponsor a Hine's Emerald Dragonfly (HED) Workshop July 12-14, 2000, in Door County, Wis.

The workshop was held to implement one of the recovery tasks in the HED Recovery Plan, namely to train field biologists across the potential range of the dragonfly to identify the species and its habitat in the hopes of discovering the full extent of its range.

Thirty-eight biologists from 10 states attended the workshop. The biologists represented states across the dragonfly's potential range. The workshop was a success in that all the attendees saw adult and larval dragonflies and their habitats during the workshop, gained an appreciation for the species, and can now help to locate new HED populations and assist in the conservation of this species. (**7/14/00**)

144. Public Meeting on Kalamazoo River NRDA

East Lansing Field Office, Mich.

Lisa Williams of the East Lansing Field Office and Anne Pulley of Michigan Department of Environmental Quality facilitated a public meeting on the Kalamazoo River Environment Natural Resource Damage Assessment (NRDA) in Plainwell, Mich., July 19, 2000. They described the NRDA process in general, compared it to the ongoing Superfund cleanup process, and described the status of the NRDA process for the Kalamazoo River Environment, including an overview of the recently released Preassessment Screen for the site.

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Approximately 50 people attended, including reporters from the Kalamazoo Gazette, TV-41 from Battle Creek, and WKZO AM 590 News Talk Radio, Kalamazoo. Attendees had a variety of questions and many continued discussions following the public meeting. (**7/19/00**)

145. American Burying Beetle Recovery in Ohio

Reynoldsburg Field Office, Ohio

The third year of American burying beetle reintroduction in Ohio commenced on July 19, 2000. The Service partnered with Ohio Department of Natural Resources Division of Wildife and Ohio State University Department of Entomology to obtain and transplant pairs of beetles from to the Waterloo Wildlife Area in Athens County, Ohio. After tagging the beetles, participants in the release dug small holes and placed a dead quail in each hole. One male and one female beetle were placed on the quail and sod was laid over the hole. Nursery pots were staked down over the holes to prevent raccoons and possums from disturbing the insects while they ate and mated. Since the project began in 1998, pairs of beetles have been released. The success of the project is unknown, and beetles have been re-captured in Ohio since the release. Service biologists Buddy Fazio and Megan Sullivan participated in this effort. (**7/19/00**)

146. Green Bay Field Office Contributes to Baraboo Hills Protection Effort

Green Bay Field Office, Wis.

Green Bay Field Office staff continue to participate on a steering committee that will guide a multi-agency land preservation effort in the Baraboo Hills, the largest remaining contiguous block of upland forest in southern Wisconsin.

The Baraboo Hills have a very high level of biodiversity and provide significant habitat for interior forest-nesting migratory birds. Habitat preservation in the region is part of a formal agreement between state and federal agencies involved with the expansion of U.S. Highway 12 between Madison and Sauk City, Wis.

In what is believed to be a precedent-setting move, Wisconsin Department of Transportation (DOT)committed to providing up to $1 million annually for five years to fund land protection in the Baraboo Hills. A Baraboo Range Land Protection Plan required by the Agreement was prepared by the parties (Sauk County, Wisconsin DOT, Wisconsin Department of Natural Resources, National Park Service, U.S. Fish and Wildlife Service and The Nature Conservancy) and adopted by the Sauk County Board July 20, 2000. The plan defines which lands are eligible for reimbursement, through either fee title purchase, or some purchase of development rights.

Service involvement will ensure the protection of the unique resource values of the Baraboo Hills, especially interior forest-nesting bird habitat. (**7/20/00**)

147. Recovery Plan For Hine's Emerald Dragonfly Completed

Chicago Field Office, Ill.

The Chicago Field Office has completed the recovery plan for the Hine's emerald dragonfly (*Somatochlora hineana*). This completed plan is the result of contributions from the Hine's Emerald Dragonfly Recovery Team, several federal, state, and local agencies, and organizations that are committed to conserving and protecting this endangered species. The recovery plan delineates reasonable actions needed to restore and/or protect the federally endangered Hine's emerald dragonfly. The final copy was sent to the Region 3 Regional Office on July 26, 2000. This is the first recovery plan for a federally-listed dragonfly. (**7/26/00**)

August 2000

148. Service Helps Update Water Strategy for Northeastern Illinois

Chicago Field Office, Ill.

Chicago Illinois Field Office Staff participated in an effort lead by the Northeastern Illinois Planning commission to update its water strategy for the region. The Service's efforts focused on water quality and how maintaining good riparian, wetland and aquatic habitat is integral to maintaining water quality. This work should result in sounder development decisions and a greater effort to use best management practises, as well as using buffers around preserved habitat. (**8/1/00**)

149. Summer School Students Study Proposed Darby Refuge

Reynoldsburg Field Office, Ohio

School children at Beck Street Elementary in Columbus, Ohio, learned something extra this summer. Third and fourth grade students interested in attending a summer school program spent a week learning about the Darby Creek watershed, site of the proposed Little Darby National Wildlife Refuge.

Service biologist Megan Sullivan visited the school early in the week to explain what a wildlife refuge is, activities on a refuge, and the general ideas behind the proposed refuge. The students enjoyed learning about animals that may inhabit the area, and asked many questions about the proposed refuge. Student

activities for the rest of the week included a trip to the Ohio State House, a trip to Battelle-Darby Creek Metropark, and a speaker in opposition to the refuge. (**8/7/00**)

150. Region 3 Begins Series of Public Meetings on Wolf Reclassification Proposal

Ecological Services

The Region 3 Endangered Species, External Affairs, and Twin Cities Ecological Services Field Office staffs completed the first set of public informational meetings on the Service's recent proposal to reclassify the gray wolf under the Endangered Species Act.

Attendance at the first two meetings, held in St. Paul and Grand Rapids, Minn., was low. However, we were able to discuss the proposal with important leaders and members of stakeholder groups, including the Minnesota Cattlemen's Association, Minnesota Lamb and Wool Producer's Association, Minnesota Conservation Federation, Sierra Club, Humane Society, and Animal Rights Coalition. This gave us an excellent opportunity to describe the proposal, explain why we are taking no action to delist Midwestern wolves at this time, and describe what events (primarily the development of a Minnesota wolf management plan) would cause us to initiate such a delisting proposal in the future.

Some attendees submitted written comments, which will be included in the public record and used in making our final decision on the proposal. In addition to discussing the proposal with Service staff, those that attended the meetings were greeted by a eight-foot-tall wolf display which described the proposal, viewed an 18 minute slideshow on wolf recovery, and gathered written information on wolves. Compliments were received on our outreach materials and the many documents on our Wolf Web Page. Minnesota Department of Natural Resources representatives staffed a table at both meetings; Minnesota Tribes, the Great Lakes Indian Fish and Wildlife Commission, and the 1854 Authority were also invited but did not attend. (**8/8/00**)

151. Hydro Vision 2000 Conference Highlights the Wilderness Shores Hydroelectric Settlement Agreement

Green Bay Field Office, Wis.

On August 11, 2000, Jim Fossum of the Green Bay Field Office participated on a panel discussion at the Hydro Vision 2000 national conference (Charlotte, North Carolina) relative to the Federal Energy Regulatory Commission's new Collaborative Licensing Process (CLP). Fossum was invited to share his experience with the CLP, which was used successfully in completing the Wilderness Shores Hydroelectric (hydro) Settlement Agreement (WSSA).

Eight of Wisconsin Electric Power Company's hydro projects in the Menominee River Basin (Wisconsin and Michigan) are currently undergoing relicensing. The WSSA resulted in agreements between the licensee and six stakeholder groups that will make major changes to hydro operations and will result in substantial improvements to fish, wildlife, and recreational resources in the Menominee River, in the vicinity of the hydro system. The audience asked the panel many questions on the advantages and disadvantages of using the CLP instead of FERC's traditional licensing process. There is keen interest by many representatives of utilities to go the settlement route. (**8/11/00**)

152. Region Participates in National Study of Frog Deformities on National Wildlife Refuges

Green Bay Field Office, Wis.

Region 3 joined other Service regions this year in a nationwide study to investigate the cause of frog deformities and determine the prevalence of abnormalities on National Wildlife Refuges. The study examined 43 Refuges in 31 states. All were surveyed by Environmental Contaminants and Refuge staff.

Each region selected an amphibian coordinator to provide consistency on a regional and national basis, and five to six field stations were selected and sampled per region. Standards and protocols for this study were based on those developed in a 1997 preliminary survey of malformed frogs in Regions 3 and 5, with some improvements and modifications made for this year's study.

Field stations selected for Region 3 were based on previous abnormalities/malformations reported from the 1997 survey, probability of collecting an adequate sample size for a given frog species, documented or suspected contaminant problems, coverage of a broad geographic area for each region, and availability of refuge staff to assist in sampling.

The following field stations were sampled in Region 3: Fergus Falls Wetland Management District (WMD), Mark Twain NWR - Annada District, Mark Twain NWR - Brussels District, Ottawa NWR, Rydell NWR, and Union Slough NWR.

Two locations were sampled at each field station. One location was an "impacted" site where known or suspected contaminant sources were nearby, and the second location was a relatively "unimpacted"

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site where contamination was not expected or contaminant sources were somewhat removed. Frogs were collected, measured, and examined for abnormalities and deformities at each site. All normal frogs were released, while abnormal frogs were anesthesized and preserved in ethanol.

Site water quality information, including pH, temperature, dissolved oxygen, conductivity, hardness, nitrates/nitrites, ammonia, and phosphates, was recorded using custom HACH kits and YSI meters. Finally, surrounding land use and site characterization features were noted.

A total of 1,605 frogs (Rana spp.) were collected from the six field stations in Region 3. The majority of these frogs were leopard frogs (northern, southern, and plains). Thirty-seven (2.3 percent) frogs with abnormalities were found; common abnormalities included missing limbs, shortened or clubbed limbs, shortened or clubbed digits, and missing one eye. Abnormality rates for five of the six field stations ranged from 0.7 to 3.4 percent. Union Slough NWR had an abnormality rate of 6.5 percent, however this rate is misleading due to sampling difficulties and a small sample size.

Each region will submit a report on its sampling effort and forward results to the National Amphibian Coordinator in the Service's Washington office. A final report compiling data and results from each regional report will be created by the National Amphibian Coordinator.

Results from this study may affect management plans and activities for Service Refuges in order to protect amphibian trust resources. Ultimately, results from this study will combine with research conducted by other agencies and even other countries to determine the cause(s) of amphibian malformations and declines.

This consolidated nationwide study enables the Service to inform the public through media routes about the serious issues of amphibian declines and deformities. A second year of study is planned with more intensive and frequent sampling, and the addition of contaminant analysis. (**8/14/00**)

153. Cerulean Warbler Status Assessment Completed, Posted to Web Site

Reynoldsburg Field Office, Ohio

A status assessment for the cerulean warbler (*Dendroica cerulea*) was completed during Fiscal Year 2000 by staff from the Reynoldsburg Field Office. The assessment is now available on the Service's Region 3 web site: http://www.fws.gov/r3pao/eco_serv/endangrd/birds/cerwasa.pdf.

The report will assist the Service in deciding whether or not candidate species status is warranted for the warbler under the Endangered Species Act of 1973, as amended. The assessment report was written by Paul Hamel of the U.S. Forest Service and editted by Steve Lewis and Randy Dettmers of Migratory Bird offices in the Service Regions 3 and 5, respectively. Additional coordination and partial funding was provided by endangered species coordinators from Service offices in Rock Island, Ill., and Reynoldsburg, Ohio. (**8/15/00**)

154. Watershed Coordinator Hired for Duck and Otter Creeks

Reynoldsburg Field Office, Ohio

The future for fish and wildlife returning to two polluted streams in Ohio took a step forward recently with the hiring of a new watershed coordinator by a partnership formed to improve water quality in the streams. Duck and Otter creeks flow through residential and industrial areas of Oregon, Ohio (Toledo area) before entering Lake Erie. The two streams have a history of pollution and habitat degradation that limit their usefulness to fish and wildlife. The Duck and Otter Creek Partnership is a recently organized watershed improvement group consisting of representatives from local industry, citizenry, and government. The Service and Ohio EPA have been serving in a non-member technical advisory capacity to the group.

The group recently was awarded a grant from the Ohio Department of Natural Resources that will allow it to hire a full time Watershed Coordinator. The group has raised over half of the $61,000 necessary for the grant local matching funds. The Watershed Coordinator will be instrumental in accomplishing sediment/water quality projects and fish and wildlife habitat improvement projects. The watershed coordinator was scheduled to be hired by the end of September 2000. The group is also preparing a charter and articles of incorporation as a nonprofit group. (**8/17/00**)

155. New Lake Erie Water Snake Signs Posted in Ohio

Reynoldsburg Field Office, Ohio

In August 2000, Service biologists Angela Boyer and Megan Sullivan, from the Reynoldsburg, Field Office, visited Kelleys Island and South Bass Island in western Lake Erie to meet with local landowners and distribute the new Lake Erie water snake law enforcement signs.

The signs say, "Lake Erie Water Snakes and Habitat Protected by Federal and State Law." Included on the 18-inch by 30-inch metal sign is a colorful photo of the federally-threatened and Ohio endangered Lake Erie water snake. Federal and State law enforcement tele-

phone numbers have been printed on the signs to encourage island visitors and residents to report endangered species violations.

The law enforcement sign was modeled after the Service's first island snake sign "Water Snakes Welcome Here; Help Us Save the Rare Lake Erie Water Snake - A Unique Part of Our Island Heritage. Please Do Not Kill or Harass this Non-poisonous Snake" These 11-foot x 14-foot metal signs have been very popular since their initial distribution in 1999. These signs are still available for island residents, at no cost, and are now seen on docks, trees, and cottages throughout the western Lake Erie islands.

The Lake Erie water snake (*Nerodia sipedon insularum*) was listed as a federally threatened species on August 30, 1999. This subspecies of the northern water snake is only found along western Lake Erie shorelines in the U.S. and Canada. (**8/17/00**)

156. Federal, State, and Local Agencies Partner to Conserve Lake Erie Water Snake

Reynoldsburg Field Office, Ohio

Service biologists Angela Boyer, Megan Sullivan, and Buddy Fazio, from the Reynoldsburg Field Office met with the Army Corp of Engineers, Ohio Department of Natural Resources, and the Put-in-Bay Port Authority Aug. 18, 2000, to discuss sea wall and dock designs on the western Lake Erie islands. The agency partners will develop consistency in the issuance of federal, state, and local permits for island construciton projects that may affect the federally-threatened and state-endangered Lake Erie water snake. (**8/18/00**)

157. Ohio DOT Mitigation Wetlands Receive High Marks From Resource Agencies

Reynoldsburg Field Office, Ohio

On August 20, 2000, Ken Lammers attended an on-site review of the third-year monitoring of two wetland mitigation sites that Ohio Department of Transportation (ODOT) developed to mitigate for wetland impacts due to highway projects in Pike, Logan, and Union Counties, Ohio. The restored wetlands, that exceed ten acres, have also exceeded expectations of the resource agencies. Both sites have established diverse wetland flora, have good interspersion of emergent, aquatic bed, and open water classifications. Consequently, they provide a haven for a good diversity of wildlife species.

Beavers have challenged the ODOT biologists desires for water levels. We anticipate these to become Category 3 wetlands (highest quality according to Ohio EPA's Rapid Assessment Method) by the end of the required five-year monitoring period. (**8/20/00**)

158. Study Shows Contaminants Changing Sex of Mississippi River Sturgeon

Rock Island Field Office, Ill.

An ongoing study of shovelnose sturgeon by the U.S. Fish and Wildlife Service (Service) show that sturgeon taken from the Mississippi River near St. Louis, Mo., are being adversely affected by contaminants in the river. Results of the study, which began in 1997, have implications for recovery of the federally-endangered pallid sturgeon inhabiting the Mississippi River.

An interagency team led by the Service's Division of Ecological Services, studied pollutants and its effects on shovelnose sturgeon downstream from St. Louis, Mo. Sturgeon specimens were collected from the river during the summer of 1997. Tissue samples, chemical analysis and other tests were performed over the next two years. Initial results of the study were published last summer. Male sturgeon from a polluted reach of the Mississippi River south of St. Louis showed intersex characteristics, including female reproductive parts. Many different types of contaminants are suspected of being sex hormone mimics and can disrupt normal biological processes. The team investigated shovelnose sturgeon as a surrogate species for the endangered pallid sturgeon. The shovelnose sturgeon is closely related to the pallid sturgeon and has a similar life history.

The five-member team, led by Mike Coffey, contaminants specialist at the Service's Rock Island Field Office, included fish health specialists from the LaCrosse Fish Health Center, U.S. Geological Survey scientists and George Washington University fish pathologists. The team plans to add biologists from the Service's Carterville Fisheries Resource Office and Marion Ecological Services Sub Office in southern Illinois, and Neosho Fish Hatchery in southwest Missouri, when it continues advanced studies next year. The team plans to begin next spring in order to study sturgeon spawning activity and to confirm results from previous years' data.

Current information on sturgeon and other species that use the river provide critical data for Service input to proposed U.S. Army Corps of Engineers projects on the river. The Service has recently determined that some Mississippi River navigation projects proposed by U.S. Army Corps of Engineers will jeopardize the survival of the

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pallid sturgeon. Additional information on limiting factors such as contaminant stresses is needed by the Service to guide pallid sturgeon recovery. (**8/25/00**)

159. Rock Island Helps Streamline Cellular Tower Consultations in Iowa and Illinois

Rock Island Field Office, Ill.

The Rock Island Field Office is working to develop a review system for cellular tower construction projects—a burgeoning area of predevelopment consultation for the office during the past two years.

Many of the consulting firms that contact the Service for coordination under National Environmental Policy Act (NEPA) guidelines are inadequately informed regarding the NEPA process. To provide more information to these firms, Heidi Woeber created an information package explaining what the Service requires from the consulting/contracting service during its review. The package also includes threatened and endangered species data, including habitat requirements, by county for either Illinois or Iowa, along with a county map for quick reference.

For the most part, the consulting firms respond quickly to our suggestions and provision of information. As a result, processing time is greatly reduced. (**8/28/00**)

160. Upper Mississippi River Updates- Monitoring Vegetation Sites and Relocating Higgin's Eye Pearlymussels

Twin Cities Field Office, Minn.

Since 1982, Bob Anfang, Forester with the St. Paul District, Army Corps of Engineers and Gary Wege, Twin Cities Field Office, have been involved in a variety of vegetation projects on the Upper Mississippi River (head of navigation to Lock and Dam 10). The vegetation projects and monitoring activities started on dredged material placement sites and expanded in 1988 to include Habitat Rehabilitation and Enhancement Projects and monitoring activities started on dredged material placement sites and expanded in 1988 to include Habitat Rehabilitation and Enhancement Projects (HREP) constructed under the Environmental Management Program. Common objectives at vegetation sites are to control erosion, provide wildlife habitat, and improve the aesthetic appearance of dredged material sites (usually large piles of bare sand) and newly constructed islands. In general, establishing native prairie habitat conditions at these sites is the desired outcome. Last week, they completed vegetation monitoring of Stoddard Bay HREP project near Stoddard, Wisconsin. Monitoring results will be included in a soon-to-be finished report 'Summary of Vegetation Changes on Dredged Material and Environmental Management Program Sites in the St. Paul District, Corps of Engineers.

This summer, biologists from the Wisconsin and Minnesota Departments of Natural Resources and Service began efforts to help the federally-endangered Higgins' eye pearlymussel (*Lampsilis higginsi*). Zebra mussels, an exotic species, have infested nearly all important mussel beds where Higgins' eye occur and are a serious threat to the survival of all native freshwatrer mussels on the Upper Mississippi River.

A successful experimental project to culture Higgins' eye mussels at the Genoa National Fish Hatchery was initiated earlier this summer; several thousand juveniles were recently stocked in the Lower Wisconsin River. Cage culture of Higgins' eye is also being accomplished in Lake Pepin on the UMP by the Minnesota Departmenrt of Natural Resources. Now, biologist from the Wisconsin Department of Natural Resources are diving and collecting live Higgins' eye for relocation to areas of the UMR and/or tributaries which are not infested with zebra mussels. To date, 206 Higgins' eye have been collected, cleaned of zebra mussels, and placed at a location in the UMR near Cassville, Wisconsin, where they can be subsequently collected for relocation this fall or next spring.

For more information, please contact Gary Wege (612) 725-3548, ext. 207. (**8/28/00**)

161. Service Joins Harbor Citizens Action Committee

Twin Cities Field Office, Minn.

The greater Saint Louis River Estuary system is a focis area within our Great Lakes Ecosystem Team structure and it represents a unique assemblage of natural resources (a freshwater estuary). Historically, there have been numerous industrial developments that have shaped the harbor as it exists today; a busy, international port with related industrial developments that serve the energy, agriculture, timber, and mining industries. There also exists a remarkable array of aquatic and terrestrial resources, including species of concern, state-listed threatened species, federally-listed threatened species, migratory birs, anadromous fish and a significant tributary to the Mississippi flyway.

The Twin Cities and Green Bay Field Offices and the Ashland Fisheries Resources Office are coordinating with the numerous federal, state, local, tribal, and commercial and non-governmental organization interests to address natural resource issues in this focus area. We

have recently entered into the development of a Cooperative Agreement with the Harbor Citizens Action Committee to work toward a comprehensive natural resources plan and to extend both our financial support and our technical assistance capabilities toward this effort.

For additional information, please contact Paul Burke, (612) 725-3548, ext. 205. (**8/28/00**)

162. Kirtland's Warbler Protected Through Cowbird Control Efforts

East Lansing Field Office, Mich.

To aid in the recovery of Kirtland's warbler, biologists from the East Lansing Field Office have trapped and removed brown-headed cowbirds from Kirtland's warbler nesting sites since 1972. By removing brown-headed cowbirds from nesting sites, Kirtland's warblers are free to nest without the risk of having their nest predated upon by the cowbirds.

In 2000, 68 traps were activated in eight counties located in northern lower Michigan. Trap locations are determined by habitat structure and presence of signing Kirtland's warbler males. Live cowbirds were placed in the traps with adequate food and water to attract other cowbirds. Between April 17 and June 28, biologists removed 4,345 cowbirds from Kirtland's warbler nesting areas.

Since 1973, Kirtland's warbler has been listed as an endangered species. This songbird nests only in northern Michigan and nowhere else in the world. Continued survival of Kirtland's warbler is dependant on two main factors, intense habitat management and brown-headed cowbird control.

Kirtland's warbler has very specific habitat requirements. It depends on young jack pine forests growing in a specific type of sandy soil found in northern lower Michigan. Natural regeneration of jack pine forests occurs only after the area has been cleared by fire. Over the years, humans have changed the structure of the forest, creating a shortage of prime nesting habitat.

Nest parasitism by brown-headed cowbirds has also drastically impacted Kirtland's warbler's reproductive success. Once confined to the Great Plains, the cowbird extended its range into Michigan with the large scale habitat changes attributed to logging and agriculture. Brown-headed cowbirds are obligate nest parasites that lay eggs in the nests of the Kirtland's warbler and other songbird nests. The host birds then raise cowbird chicks instead of their own. Prior to 1972, cowbird parasitism reduced the annual Kirtland's warbler production to less than one young per pair.

Since the start of the cowbird trapping program began in 1972, over 117,000 cowbirds have been removed. Without the trapping program, nest parasitism would most likely occur and the reproductive success of Kirtland's warbler would greatly decline. As a result of the continued brown-headed cowbird control program, and the intensive habitat management by the U.S. Forest Service and the Michigan Department of Natural Resources, the population of Kirtland's warbler has increased from less than 200 pairs in 1972 to almost 900 pairs in 2000. (**8/30/00**)

163. Michigan Population of Kirtland's Warbler Declines Over Last Year's Numbers

East Lansing Field Office, Mich.

Recent surveys of the endangered Kirtland's warber show that populations in Michigan are down slightly over last year's record high. This year's annual warbler census, conducted Aug. 30, 2000, counted 891 singing males, the second highest total recorded, but slightly less than last year's tally of 905.

The Kirtland's warbler is a highly endangered bird that depends on intense habitat management and continued brown-headed cowbird control for survival. Kirtland's warbler requires young jack pine forests for nesting habitat, which historically was created through periodic wildfires. The brown-headed cowbird, an obligate nest parasite, limits the reproductive success of this endangered bird.

Each year the U.S. Fish and Wildlife Service, U.S. Forest Service, Michigan Department of Natural Resources, Michigan Audubon Society and many volunteers carefully count and map all signing male Kirtland's warblers. This gives a representation of the entire population. The first census of Kirtland's warbler occurred in 1951, when 432 singing males were counted. The population increased to 502 singing males in 1961. In 1971, however, only 201 singing males were counted. Biologists attributed this decline to increased nest predation by the brown-headed cowbird, and fire suppression which limited nesting habitat.

In 1972 biologists from the Service's East Lansing Field Office started a cowbird removal program in Kirtland's warbler nesting sites. Nest parasitism decreased from 70 percent to less than 6 percent in the first year. The population of the Kirtland's warbler did not increase significantly, but remained stable from 1972 through 1987. A wildfire in 1986 created new stands of jack pine which allowed for the population to increase. Since then, the population of the Kirtland's warbler has risen to all-time highs.

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While this year's total is down slightly from the record high of 905 males in 1999, but biologists are not concerned with the decrease, because slight fluctuations in a species' population is normal. Also, with continued habitat management and cowbird control programs, ideal nesting habitat will be available for increased numbers of Kirtland's warbler. (**8/30/00**)

164. Service Provides Opportunites to View the Endangered Kirtland's Warbler
East Lansing Field Office, Mich.
The Kirtland's warbler is one of the nation's rarest songbirds with fewer than 900 pairs in existence. Each year, hundreds of tourists visit the jack pine forests of northern lower Michigan to view Kirtland's warbler in its natural habitat. In order to protect Kirtland's warbler nesting sites and enhance viewing opportunities, biologists from the Service's East Lansing Field Office conduct guided tours on known breeding sites.

This year 641 visitors from 40 states, two Canadian provinces, England, Germany, and Italy participated in the Service's Kirtland's warbler tour. Between May 15 and July 4, 2000, two tours were offered daily, with 80 percent of the tours observing a Kirtland's warbler. Since 1976, over 17,000 people have taken advantage of this opportunity to learn about and see the Kirtland's warbler.

Public recognition of the importance of this species is a step on the road to recovery for the Kirtland's warbler. The guided tours are one way the Service is able to educate people about the Kirtland's warbler and involve the public in the recovery of this endangered species. (**8/30/00**)

165. Monetary Compensation for Fish Turbine Mortality Used to Improve the Environment
Green Bay Field Office, Wis.
As a requirement of the license for the Shawano Hydroelectric (hydro) Project (No. 710), the Federal Energy Regulatory Commission (FERC) ordered the licensee to establish a Fish Enhancement Fund (FEF).

Annually, funds must be deposited in that account for the U.S. Fish and Wildlife Service, Wisconsin Department of Natural Resources (Agencies) and the Menominee Indian Tribe of Wisconsin (Tribe) to use for resource improvements in the Wolf River in the vicinity of the hydro project. The FEF was established by the FERC as means to help compensate for entrained fish killed by hydro turbines.

The Agencies and Tribe developed a fish enhancement plan for placing riprap on the shoreline. This first habitat improvement project to be funded from the FEF was completed in August, 2000. Four hundred feet of severely eroding shoreline along the Wolf River, on the Menominee Indian Reservation, was stabilized with granite riprap. Terrestrial habitat that was being lost along the shoreline is now protected and silt and sand is no longer being deposited on the riverbed nearby. High quality smallmouth bass habitat in the vicinity of the riprap project will be restored. (**8/31/00**)

166. Hydropower Settlement Results in Environmental Benefits
Green Bay Field Office, Wis.
A draft hydroelectric settlement agreement was completed Aug. 31, 2000, for six hydro projects on Wisconsin's Lower Chippewa River that will result in substantial improvements to fish and wildlife habitat when implemented. The settlement involved three Northern States Power company projects undergoing relicensing through the Federal Energy Regulatory Commission and included modifications to project operations for three other projects currently licensed.

The settlement involved 12 stakeholders and resulted in substantial environmental benefits to the resource. Highlights of the settlement include: modification of project operations resulting in improved fish and wildlife habitat in approximately 120 miles of river; termination of annual winter drawdowns at Lakes Holcombe and Wissota thus, preventing shoreline habitat from being dewatered and stranding aquatic organisms; creation of a fish protection fund to escrow funds to install fish exclusion devices in project intakes to prevent turbine mortality; implementation of comprehensive land management plans and recreational facilities plans for approximately 2,500 acres of licensee owned-land within the project boundaries; protection of federal and state-listed threatened and endangered species; and improvement of recreational facilities at each hydro project.

The public will benefit from economical power production, fish and wildlife protection, and improved recreational opportunities. (**8/31/00**)

September 2000

167. Twin Cities Field Office Focuses on Northwoods Ecosystem
Twin Cities Field Office, Minn.
Within Region 3, Minnesota provides the largest, continuous ecotone for the north woods (boreal forest and lakes) ecosystem. This is an ecosystem that is undergoing change - with shifts in average annual temperatures, average annual precipitation, species composition,

and levels of human development and influence.

Historically, the Service monitored such conditions only from a distance, staying well within the bounds of federal responsibilities (e.g.; listed endangered and threatened species.

Most of the federally-listed species have, to date, been larger, more charismatic syecies such as wolves, eagles, falcons, and lynx. But in more recent years, the Service had adopted an ecosystem approach to resources management which has contributed to broadening our focus on declining species to include less well known plants and animals. The immediate benefit of this change is that we are now better able to monitor change in the ecosystem in time to affect corrective measures.

One example of this re-focus effort is the recent work done in Minnesota, Wisconsin, and Michigan to improve our understanding of the size and distribution of the native worts and foerns belonging to the genus Botrychium. There are three species of Boyrychium in Minnesota, two of which are uncommon and one of those (*Botrychium mormo*) is found nowhere else in the Great Lakes Ecosystem. To this end, the Twin Cities ES Field Office, in support of an initiative by the Leech Lake Tribal Department of Natural Resources, contributed funding and logistical support for a workshop that was held in Bemidji, Minn., in April 2000. This workshop was attended by both the resource biologists in Minnesota and the experts from academia who are recognized across the globe for their knowledge of these organisms. The result of this effort are proceedings that identify the species involved, the characteristics of this genus, suggests trends in population size and distribution, and identifies priority tasks for conservation.

For further information, please contact Paul Burke in the Twin Cities Field Office at (612) 725-3548, ext. 205. (**9/1/00**)

168. Management Plan Under Development for Eastern Massasauga Rattlesnake

Marion Field Office, Ill.

The Marion, Illinois Sub-Office continues to participate as part of an interagency team to develop a management plan for the eastern massasauga rattlesnake, a candidate species, at Carlyle Lake in Southern Illinois. Carlyle Lake is a Army Corps of Engineers (Corps) reservoir managed primarily for flood control and recreation. The Illinois Department of Natural Resources also manages two state parks and a state fish and wildlife management area located on Corps' lands. Potentially the largest remaining population of eastern massasaugas in the country occurs at Carlyle Lake. However, the species may be threatened by continued development for recreational use around the lake. The management plan should specify the research and management actions necessary to maintain a healthy, viable massasauga population and allow for continued recreational development and use at appropriate sites. (**9/5/00**)

169. Ohio Island Residents Learn More About Lake Erie Water Snake

Reynoldsburg Field Office, Ohio

In a continued effort to teach island residents and visitors about the threatened Lake Erie water snake, Service biologist Megan Sullivan set up a outreach display featuring the snake during Historic Weekend on South Bass Island, Ohio, Sept. 9,2000.

The Service display was located in the center of the town park and included handouts, signs, LEWS Newsletters, photos of snakes, habitat and a model snake. Many adults stopped by the booth to ask questions and share their snake stories, while the children were very interested in petting the "snake.""

Historic Weekend occurs annually the weekend following Labor Day on South Bass Island, located north of Sandusky, Ohio, in Lake Erie. The event typically draws large crowds. This is the fifth year the Service has participated in this event. (**9/9/00**)

170. Development Permit Denied to Obtain Better Project

Chicago Field Office, Ill.

A local development company applied for Section 404 permits from the Chicago District, U.S. Army Corps of Engineers (Corps). The Chicago Field Office provided the Corps with technical assistance in a field review of the wetland delineation, and of the project plans which called for filling all 20 plus acres of wetland on the property. With this assistance and backing from the Service and U.S. Environmental Protection Agency, the Corps denied this permit application. The developer, through a series of interagency meetings, finally crafted a plan that preserved the highest functioning wetlands on the property in a complex that preserves the existing wildlife habitat. This process exemplified a unified federal agency position in protecting our high quality aquatic resources. (**9/12/00**)

171. Wolf Reclassification Proposal Presented to Native American Biologists

Ecological Services

During the opening day's session of the Midwest meeting of the Native

Continued next page.

American Fish and Wildlife Society, Region 3 Endanganered Species Listing Coordinator Ron Refsnider presented the details of the Service's July 13 proposal to reclassify gray wolves under the Endangered Species Act.

Because of the cultural and spiritual importance of the gray wolf, Native American and tribal biologists are quite interested in the current reclassification proposal, as well as a delisting proposal, expected in another year. Most questions concerned how tribes could go about influencing state management of off-reservation wolves after delisting. The Region's wolf display was used to draw attention to the proposal, and numerous copies of our outreach materials were distributed, including a new one that focuses on Service-tribal interaction on future wolf management.

The presentation helped ensure that Native American and tribal biologists are aware of the details of the proposal and its potential impacts on tribes so they can provide comments and more fully participate in the Service's decision process on the reclassification proposal. (**9/12/00**)

172. Workshop Dispells Myths, Provides Facts on Canada Goose Management

Chicago Field Office, Ill.

The Chicago Field Office joined the Palatine, Ill., Park District to host a free Canada Goose Management Workshop Sept. 12, 2000, in Palatine, Ill. The workshop was designed to benefit anyone in the Chicago area responsible for managing lands that are used by Canada geese.

Among the 35 people attending the workshop were golf course superintendents, grounds keepers, forest preserve and park district staff members, members of homeowners associations, and goose control specialists. The workshop covered Canada goose biology, population status of Canada geese in the Chicago region, managment strategies and techniques, federal/state laws and regulations and natural landscaping tools.

The workshop was held in response to the growing numbers of resident Canada geese which has resulted in a rise in the number of conflicts with humans. Palatine, Illinois was the site for one of the nine national public scoping meetings that will provide public input to an Environmental Impact Statement (EIS) on resident Canada geese management.

The goose management workshop helped dispel popular myths and answer questions about the urban goose situation. Attendees got direct answers from Resource agencies on what legal actions they can and cannot take to address problems with urban geese. The workshop should help reduce the number of inappropriate actions taken against geese by land managers, and reduce the number of phone calls fielded by Service law enforcement offices. (**9/12/00**)

173. Service Dive Safety Manual

Twin Cities Field Office, Minn.

Nick Rowse (Twin Cities Field Office) represented Region 3 at the National Dive Control Board meeting in Ventura, Calif. The Service's Dive Safety Manual was finalized during the meeting. (**9/14/00**)

174. Preliminary Remediation Goals Developed for Joliet Ammunition Plant / Midewin Prairie

Chicago Field Office, Ill.

Edward Karecki, Contaminants Specialist at the Chicago Field Office, is a member of the Joliet/Midewin Ecological Work Group. The work group was organized in April 1999 for the purpose of recommending, by consensus, soil contaminant remediation levels which are protective of the environment and compatible with the development of the Midewin Tallgrass Prairie.

This Joliet Army Ammunition Plant is listed on the U.S. Environmental Protection Agency's National Priorities List due to hazardous waste contamination. The property is being transferred to the U.S. Forest Service for management as the Midewin National Tallgrass Prairie. Participants in the workgroup included state and federal agencies responsible for environmental protection and habitat management at Midewin. The group compiled available scientific information and performed risk calculations to estimate contaminant levels which would be safe for plants, wildlife, and the environment. The preliminary remediation goals will be published and available for distribution.

The workgroup, and the ecological remediation goals, represent the culmination of years of effort by the Chicago Field Office to ensure that the hazardous waste cleanup at Joliet/Midewin is protective of the environment. (**9/14/00**)

175. Service Partners With Army and Illinois to Develop Middlefork Savannah Trail System

Chicago Field Office, Ill.

Staff from the Chicago Field Office worked with the Army Corps of Engineers and the Lake County, Illinois Forest Preserve District to develop a trail system for the Middlefork Savannah, an area where a few hundred acres of wetlands will be restored next year. At issue was the need to protect a globally rare and important ecosystem,

and to provide the public with an opportunity to enjoy the site. Agreement was reached on a route and width for the trail which should accomplish both. (**9/15/00**)

176. Field Offices Receives Nature Conservancy's Conservation Partner Award

Green Bay Field Office, Wis.

The Green Bay Field Office and Wisconsin Private Lands Office received a Conservation Partner Award from The Nature Conservancy (TNC) during its 40th Annual Meeting Sept. 16, 2000, at Lulu Lake Preserve in Walworth County, Wis..

The award was presented to both offices in recognition of the Service's guidance and support of Karner blue butterfly habitat restoration and enhancement work on TNC lands and other private lands in Wisconsin, in recognition of Service involvement in the development and implementation of the Wisconsin Statewide Habitat Conservation Plan for the Karner blue, and for joint conservation efforts taken with the Hine's emerald dragonfly in Door County, Wisconsin.

Both Service offices have assisted about 20 private landowners including TNC in the restoration or enhancement of about 713 acres of prairie or oak savanna habitat with the goal of providing habitat for the Karner blue butterfly, a federally-listed endangered species. These properties are near existing Karner blue sites and those not currently occupied by the Karner blue are anticipated to support them in the future. The butterfly has taken up residence on four of these sites and TNC plans to reintroduce the Karner blue to select sites on their lands (TNC lands) once sufficient restoration is completed. TNC surveys for the Hine's emerald dragonfly (a federally-listed endangered species) in Door County Wisconsin are assisting in the understanding of the range of this species.

Both Service offices received a beautiful framed print of the Karner blue from the TNC, a great partner in both our private lands and endangered species programs. (**9/16/00**)

177. Planning for American Bottoms Ecosystem Restoration Continues

Marion Field Office, Ill.

The Marion, Illinois Sub-Office continues to participate in the American Bottoms Aquatic Ecosystem Restoration Project planning efforts. This once large expanse of prairie and forested wetlands in Madison and St. Clair Counties, Illinois, has been signficantly degraded by floodplain development, agriculature and inadequate stormwater management in the uplands. Even so, this area continues to provide habitat for a tremendous number of migratory birds, including one of the largest heron rookeries in the state. An interagency team has completed extensive analyses utilizing Habitat Evaluation Procedures to evaluate alternatives for habitat restoration with flood control benefits. Potential alternatives include combinations of different sediment detention scenarios, channel configurations and restoration/development of some 4,000-5,000 acres of habitat which would concurrently provide temporary flood storage. (**9/18/00**)

178. Additional Habitat Restoration and Enhancement Work Planned for the Kaskaskia River Watershed

Marion Field Office, Ill.

The Partners for Fish and Wildlife Program ended Fiscal Year 2000 on a high note in Southern Illinois. The Marion Sub-Office provided assistance for the restoration or creation of approximately 95 acres of wetland and associated habitat. Much of this work was accomplished in the Kaskaskia River focus area. The Kaskaskia River corridor is home to the largest, contiguous tract of bottomland hardwood forest remaining in the state of Illinois. The Marion Sub-Office prioritizes projects that reduce/stop fragmentation of the forest and restore/enhance the valuable aquatic habitats in the area. This year the Service's contribution to private land restorations was $25,000 with landowner and other contributions (primarily Illinois DNR) totaling $63,386. (**9/18/00**)

179. Recovery of Eastern Massasauga Rattlesnake Gets International Attention

East Lansing Field Office; East Lansing, Mich.

Craig Czarnecki and Tom Eitniear of the East Lansing Field Office participated in a meeting of U.S. and Canadian Conservation organizations Sept. 20-21, 2000, to discuss preservation of the Eastern massasauga rattlesnake. In addition to the Service, participants included the Michigan Department of Natural Resources (DNR), Ontario Parks and Ministry, the Audubon Society, and other interested parties. The Michigan DNR is developing a plan for preserving and managing rattlesnake populations in Michigan in order to improve the species' probability for long term survival. Discussion ranged from habitat characteristics of the species to the current population status in Michigan. The meeting provided the opportunity for U.S. and Canadian coordination, which is seen as essential for recovery of the species across its range. (**9/20/00**)

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180. Service to Revise Recovery Plans For Two Freshwater Mussel Species

Reynoldsburg Field Office, Ohio

Updated Recovery Plans for the white catspaw pearlymussel and the purple catspaw pearlymussel are being revised by biologists at the Reynoldsburg Field Office. New information about both Ohio species' made current plans out of date. The current recovery plan for the white catspaw pearlymussel was published in 1990. The plan for the purple catspaw pearlymussel was published in 1992, when biologists believed the state's populations of the species were old, non-reproducing mussels. In 1993, Dr. Michael Hoggarth, a malacologist from Westerville, Ohio, discovered a mussel bed containing viable (reproducing)purple catspaw pearlymussels. The new recovery plans are being revised through a contract with Dr. Hoggarth and will include species information that has been discovered since the original plans were published. The technical/agency draft revised recovery plan for the white catspaw should be available for public review in November 2000. The technical/agency draft revised recovery plan for the purple catspaw pearlymussel should be available for public review in the spring of 2001. (**9/20/00**)

181. Chicago Field Office Helps EcoPartnership Implement Watershed Plan

Chicago Field Office, Ill.

The Chicago Field Office, through its roles on Fox River Ecosystem Partnership executive committee, grant review committee and as chair of the habitat committee, is helping implement the Partnership's integrated watershed management plan. The Service has provided technical assistance in reviewing grant applications totalling over $2.6 million in potential funding through the Conservation 2000 program or the Clean Water Act-Section 319.

In 1999 and 1998, the Partnership received over $700,000 in grants used to implement its watershed plan. In addition, the Eco-Partnership obtained a $50,000 grant from the Grand Victoria Foundation to market its watershed plan, particularly to local decision makers.

A local consultant has been retained to work with the volunteer agency team to get the plan considered by local units of government for endorsement or adoption.

The Integrated Management Plan for the Fox River Watershed in Illinois contains recommended actions to benefit wildlife and aquatic resources throughout the watershed. By assisting the Partnership in finding and funding projects that implement components of the watershed plan, the Service helps the entire watershed and the trust resources within it. This project embraces and acts upon the concept of ecosystem and watershed based resource management. (**9/21/00**)

182. Research Ongoing to Exclude Lake Sturgeon, Other Fish Species From Hydroelectric Turbines

Green Bay Field Office, Wis.

The entrainment of fish at hydroelectric (hydro) projects and the subsequent turbine mortality of a portion of the entrained fish is a major issue of concern for the resources agencies during relicensing of hydro projects through the Federal Energy Regulatory Commission. The Fish and Wildlife Service and Wisconsin and Michigan Departments of Natural Resources are working with the Wisconsin Electric Power Company and the Alden Research Laboratory (Holden, Mass.) to develop a prototype fish exclusion system that, if shown to be effective, could be installed at the intakes of the White Rapids and Chalk Hill Hydro Projects on the Menominee River.

The Alden Research Lab. is nearing completion of flume tests with many riverine fish species including lake sturgeon, shortnose sturgeon, smallmouth bass, walleye, and American eel. The experiments measure the capability of angled bar racks and louvers to guide fish along these structures to a bypass facility. As proposed, the appropriate bar rack or louver configuration would be installed at the White Rapids and Chalk Hill Hydro Projects to guide fish around the hydro turbines and safely back to the Menominee River, downstream from the dam. Preliminary results indicate that louvers hold promise as an effective fish exclusion measure.

If an effective fish exclusion system can be installed at the White Rapids and Chalk Hill Hydro Projects, the technology will likely be able to be retrofitted (and modified if necessary) to other hydro projects. Effective fish exclusion systems are needed and, when developed, will help considerably to protect riverine fish resources in numerous rivers and streams in North America where hydro power is generated. (**9/21/00**)

183. Service Responds During Exercise Simulating Oil Spill in Detroit River and Lake Erie

East Lansing Field Office, Mich.

Contaminants biologists from the East Lansing Field Office participated in a two-day, multi-agency exercise Sept. 21, 2000, that simulated agency responses to contaminant spills from collision and off-loading of a tanker barge and

freighter in the lower Detroit River. Service biologists worked with Michigan Department of Natural Resources, Tri-State Bird Rescue, and local rehabilitators to organize a response to oiling of coastal marshes and hundreds of waterfowl. Service biologists also worked with Michigan Department of Environmental Quality and other agencies in the Department of the Interior to collect data and develop a claim for natural resource damages resulting from the simulated releases.

The exercise simulated the spill of more than 200,000 gallons of fuels into the Detroit River. Had the spill been real, the releases of 100,000 gal of #6 fuel and 1,000 gal of #2 fuel in the lower Detroit River could have resulted in the oiling of over 16 miles of shoreline including Humbug Marsh and Pt. Mouilee State Game Area, oiling of several thousand birds, and closure of commercial and recreational boating and fishing.

The Service response would have been critical to minimizing losses of habitat and waterfowl through technical advice and input on prioritization of response to the on-scene coordinator for the response and through collection of oiled birds for rehabiliation. The Service response would also have been instrumental in developing a claim for natural resources damages which is likely to have been several million dollars for such an event. In a real event, the Service response would have needed to include staff for shoreline surveys and bird recovery in addition to the trained contaminants biologists working with the unified command to coordinate response and NRDA activities. (**9/21/00**)

184. Service Planning For May 2001 Conference on Urban Wetlands

Chicago Field Office, Ill.

The Chicago Field Office is providing the co-chair leadership for the 22nd annual conference of the Society of Wetland Scientists planned for Chicago, May 27 - June 1, 2001. The theme will be urban wetlands. The Service is coordinating the efforts of a planning committee that includes representatives of federal, county, state, and local agencies, private consultants, and academic institutions. The committee is finalizing all arrangements. The Call for Papers and Posters is out, and abstracts are due by Jan. 15, 2001. For more information see our web site at http://www.SWS.org and click on "Chicago 2001."

This international conference will attract an estimated 500-700 wetland scientists and policy makers from across the world. It will facilitate information exchange through technical sessions, poster sessions, vendor exhibits, and field trips. It will be an opportunity to showcase the innovative wetland restoration efforts the Service is involved with and has funded in the Chicago region. (**9/21/00**)

185. Kane County, Ill., Begins Advanced Identification Study (ADID)

Chicago Field Office; Ill.

Using newer technology than was available in its previous Advanced Identification (ADID) studies, Kane County (west suburban Chicago area) has requested an ADID study. Funded and authorized through the U.S. Environmental Protection Agency, ADID studies identify in advance of specific projects those wetland and waters of the United States that are of highest function and importance in the county.

Through its participation on the Technical Advisory Committee and Policy and Planning Committee, the Service is providing leadership and technical assistance. Base inventory maps are currently being completed using projected GIS images of digital ortho quadrangle photographs. The Service will lead the biological functions assessment team in screening and assessing all wetlands in the county greater than one acre.

This project will take at least one or two years to complete, but will result in an assessment of wetlands in another of the suburban counties with tremendous development pressure in the Chicago region. The product will give predictability to wetland permitting in the county and provide landowners with information on the wetlands on their property. The county also plans to include the results of the study and protect high quality aquatic resources through their new stormwater ordinance. (**9/21/00**)

186. Federal Agencies Partner to Update Lake County, Ill., Wetlands Inventory

Chicago Field Office; Ill.

An inventory of wetlands in Lake County, Ill., is being updated through an interagency agreement between the Service, U.S. Environmental Protection Agency, Army Corps of Engineers, USDA's Natural Resources Conservation Service, and the Lake County Management Services division. The project uses projected GIS (Geographic Information System) technology to update the inventory maintained by the county using standardized federal methodology. The project has completed the first phase of aerial photograph review and map updat-

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ing. The project will result in an inventory that has greater public credibility. The updated inventories will be available for the participating agencies to use in their work in a digital form. Additional updates will also be completed using newer, higher resolution aerial photograph recently flown by the county. (**9/21/00**)

187. Service Divers Locate Young Zebra Mussels in St. Croix Near Hudson, Wis.

Twin Cities Field Office, Minn.

Nick Rowse of the Service's Twin Cities Field Office dived in the St. Croix River as a member of the National Park Service-U.S. Fish and Wildlife Service dive team to monitor the extent of zebra mussel infestation in the lower St. Croix River. The dive began near Stillwater, Minn., at River Mile 25 and ended near River Mile 6. Young zebra mussels (less than 3mm) were found on riprap, native mussels, and debris from the Interstate 94 bridge south. The monitoring dive confirms that zebra mussels are now reproducing in the river from the City of Hudson, Wis., south to the Mississippi River. The dive team monitoring of the St. Croix is part of the Service's effort to conserve Higgin's eye pearlymussels and winged mapleleaf mussel, two federally-endangered freshwater mussels in the river. (**9/21/00**)

188. Coastal Program Assists Native Aquatic Species Habitat Restoration in Antrim County, Michigan

East Lansing Field Office;, Mich.

Restoring streambanks replacing culverts to reduce sediment load in Antrim Creek are underway in Michigan, directed by the Antrim Conservation District with funding from the Service's Coastal Program. Located in the Northern part of Antrim County, this creek is a tributary of Lake Michigan.

The creek is a major spawning ground for numerous species of native fish. The top quality stream is only five miles in length. A major fish-restricting culvert eliminates 99-percent of fish reaching the upper four miles of prime habitat. Erosion is of major concern to stream quality. Unstable banks from foot traffic and sandy soils deliver many tons of sediment yearly. The sediment has covered spawning habitat and eliminated invertebrates from parts of the stream.

The partners have developed and are implementing a plan to improve the quality of Antrim Creek. With the Service's Coastal Program funding, over three acres of riparian landowner property will be improved. The first step is to replace the fish-restricting culvert on Old Dixie Highway with a wooden box culvert or a galvanized open bottom culvert. The second step involves restoring numerous erosion sites located throughout Antrim Creek. Additionally, project funds will be used to eliminate many tons of sediment covering spawning grounds.

Bio-technical erosion control will be the focus of restoration. Living and non-living materials will be used to help direct the water force to eliminate toe and upper bank erosion. Overall, stream improvements increase the fish population and spawning habitat for a variety of fish species. (**9/22/00**)

189. Coastal Program Assists Detroit River Lake Sturgeon Telemetry Project

East Lansing Field Office, Mich.

The Coastal Program provided partial support to Alpena Fishery Resources Office (FRO) to conduct capture, radio-telemetry, and contaminant work to further progress in the recovery of the lake sturgeon in the Detroit River. This fiscal year a total of 30 lake sturgeon were captured and ten were implanted with sonic transmitters. All fish were tagged with monel tags and biological data was collected from each fish. The sonic tags allowed movement patterns of the fish to be monitored and revealed habitats in the Detroit River that are critical for lake sturgeon survival.

The Coastal Program's $10,000 were matched by Alpena FRO with $70,500 in non-Service funds. Excellent partnerships were forged by the project participants and numerous other entitities on both sides of this international waterway. (**9/22/00**)

190. Coastal Program Assists Michigan Natural Features Inventory Outreach Publications

East Lansing Field Office, Mich.

The Coastal Program aided Michigan Natural Features Inventory by editing distributing and supporting publication of 'Borne of the Wind,' an overview of dune processes and values.

A second publication, yet untitled, will provide critical information to coastal marsh owners contemplating manipulations of these areas as a result of lower Great Lakes water levels. Six thousand copies of each publication will eventually be distributed primarily in the Great Lakes community.

The publication is available on the Web at: http://www.dnr.state.mi.us/wildlife/heritage/mnfi/dunes/index.html. (**9/22/00**)

191. Coastal Program Aids Feasibility Study for Great Lakes Discovery Center

East Lansing Field Office, Mich.

Coastal Program funds partially supported professionally contracting for a credible and urgent message of support and action plan for the Great Lakes Discovery Center in Michigan. The Center will identify, quantify, map and characterize 400 acres of accessible migratory bird habitat on the Cass River, Michigan. Located on a major driving corridor (Interstate 75), connecting the population center of Michigan and northern Ohio with the trust resource-rich northern Michigan and Great Lakes coasts, this hands-on Center will provide outreach for the Service and Great Lakes community. Wetlands restoration plans in partnership with Ducks Unlimited are awaiting future funding and $13,000 in non-Service matching funds have been generated to match the Coastal Program's $5,000. (**9/22/00**)

192. Service Joins Partners to Restore Lakeplain Prairies in Michigan, Prairie Fringed Orchid Benefits

East Lansing Field Office, Mich.

Together with its partners, the Service Coastal Program is helping remove woody vegetation from 200 acres of lakeplain prairie to benefit the Eastern prairie fringed orchid, a federally-threatened and State-endangered species.

The Service cooperated with the Michigan Natural Features Inventory in conducting a baseline survey, providing management guidelines for woody vegetation removal treatments, and in continuing to monitor results. Actual treatments on Michigan Department of Natural Resources lands are funded by the Coastal Program through the Saginaw Bay Resource Conservation and Development Council.

The outcomes of this $18,000 Service project are $10,300 in matching funds, and 3 formal written agreements, two with the Service and one on the part of the Watershed Initiative Network. Treatment begun this fiscal year will be completed when the onsite soil is sufficiently dry or frozen. (**9/22/00**)

193. Service's Coastal Program Helps Control Invasive Speciesl on Grand Sable Dune, Other U.P. Lands

East Lansing Field Office, Mich.

Grand Sable Dune is one of the jewels of Pictured Rocks National Lakeshore (PRNL) in Michigan's Upper Penninsula on Lake Superior. With the hehlp of Coastal Program funding, the National Park Service began an invasive species control effort for spotted knapweed and baby's breath to preserve native plant assemblages on the dune.

With partners, the Service has initiated work in Fiscal Year 2000 to develop a strategy to control highly invasive exotic plant species in the Grand Sable Dune and other coastal areas. Approximately 300 acres of spotted knapweed, red clover and various ground cover species were mapped using geographic positioning system (GPS) technology.

Exotic plant species were removed from three acres of land. Approximately 80 acres of federally- and state-listed species populations (Pitcher's thistle and Lake Huron Tansy) were also mapped to help assess the current threat to essential habitat by exotic plants. Funding for activities during Fiscal Year 2000 was comprised of $5,000 from the Service's Coastal Program and $5,710 in matching funds from PRNL.

Partnerships were formed for cooperative efforts in Fiscal Year 2001. A supervisory biological technician will be hired, equipment purchased, and a vehicle leased with $5,000 from the ServiceS Coastal Program and $8,000 in matching funds from PRNL. The labor force will be made up of interns, volunteers, and some staff from Hiawatha National Forest (HNF), Seney National Wildlife Refuge (SNWR), and PRNL. The supervisory biological technician will be responsible for organizing available labor and conducting exotic plant removal/control efforts on HNF, SNWR, and PRNL lands. Also, in conjunction with this project, spotted knapweed occurrence and distribution in the Grand Sable Dune will be modeled using GPS locations, geographic information system (GIS) technology and statistical analysis by PRNL staff to predict the probability of dune communities invasion by this highly invasive species. (**9/22/00**)

194. Landowner Going to Bat for the Endangered Indiana Bat (Myotis sodalis)!

Reynoldsburg Field Office, Ohio

A private landowner and businessman in west central Ohio is contributing significantly to Indiana bat recovery. The landowner is working with the Service and the Ohio Division of Wildlife to protect 10,000 Indiana bats and 15,000 other bats that hibernate in an underground mine on the landowner's property.

The landowner allowed the Ohio Division of Wildlife to construct large, protective bat gates on each of 12 entrances to the enormous limestone mine. The landowner actively looks after the bats while allowing some commercial activity in the mine. The landowner is discussing a variety of conservation options with the Service, Ohio Division of Wildlife, and Ohio Biological Survey. (**9/22/00**)

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195. Conserving Ohio's Only Native Population of Brook Trout (Salvelinus fontinalis)

Reynoldsburg Field Office, Ohio

The Reynoldsburg Field Office is working with the Ohio Division of Wildlife and other partners to help conserve habitat for the state's only remaining native population of brook trout.

Both the Reynoldsburg Field Office's Endangered Species and Habitat Conservation Divisions are working with the Ohio Division of Wildlife, Army Corps of Engineers, Ohio Environmental Protection Agency and private partners (Burlington Group developers, Geauga Metroparks, Chagrin River Land Conservancy) to avoid and minimize adverse affects to the habitat from a proposed development. The partners signed a land purchase and easement agreement which transfers land ownership to Geauga Metroparks for protection. The same partners will educate the public about the trout and also discussing a partnership with the Ohio Division of Wildlife to captive rear, expand, and reintroduce the existing brook trout population to nearby native headwater streams.

The partners' efforts will enhance the survival of Ohio's only native brook trout population and prevent the need to list as 'federally threatened' under the Endangered Species Act. (**9/22/00**)

196. Service Joins Partners to Conserve Purple Cat's Paw Pearly Mussels in Ohio

Reynoldsburg Field Office, Ohio

The Reynoldsburg Field Office is working with partners from the Ohio Division of Wildlife, Otterbein University, Natural Resource Conservation Service, local officials and landowners to conserve the country's only reproducing population of purple cat's paw pearly mussels, (Epioblasma obliquata obliquata) in Ohio. The Service and Ohio Division of Wildlife formed a watershed partners group to track important watershed issues and implement projects important to purple cat's paw mussel recovery. The Service, Ohio Division of Wildlife, and Ohio River Valley Ecosystem Mussel Subgroup pooled funds to implement habitat improvement for landowners, implement landowner contacts, map the mussel's habitat, and define the mussel's population's size and geographic distribution in Ohio.

Survival and recovery of the purple cat's paw pearly mussel is being greatly enhanced in Ohio. Public awareness about mussels, fish, and aquatic habitat is building. Members of the public better understand the devastating affects of stream alteration, sedimentation, and pollution on streams and rivers. (**9/22/00**)

197. Flexing Mussels; Conserving the High Mussel Diversity of Fish Creek, Ohio

Reynoldsburg Field Office, Ohio

The Service is cooperating in numerous partnerships and watershed restoration efforts to protect the high diversity of Fish Creek, an Ohio/Indiana tributary to the St. Joseph and Maumee Rivers that empty into Lake Erie. The Service is partnering with the Natural Resources Conservation Service, local soil and water conservation districts, The Nature Conservancy, private landowners, and natural resource departments from Ohio and Indiana. Efforts to protect the Fish Creek watershed include voluntary habitat improvement and easements on farm land, restoration using Natural Resource Damage Assessment (NRDA) funds, management of pollution and sediment sources, and consultation under the Endangered Species Act.

Fish Creek travels through farm land in northwest Ohio and northeast Indiana. Fish Creek is a small stream which contains approximately 30 mussel species with State or Federal status. Three of these mussels, the Clubshell mussel (*Pleurobema clava*), Northern riffleshell (*Epioblasma torulosa rangiana*), and White cat's paw pearly mussel (*Epioblasma obliquata perobliqua*) are federally endangered. Fish Creek also supports the Federally threatened copperbelly water snake (*Nerodia erythrogaster neglecta*).

Protecting the Fish Creek watershed greatly enhances the survival of many important aquatic species in both Ohio and Indiana. Landowner/farmer contacts are successfully educating people about mussels and delicate aquatic ecosystems, and allowing the acquisition of land and easements which allow effective management of mussels and other Fish Creek resources. (**9/22/00**)

198. Water Snakes Welcome! Conservation of Ohio's Lake Erie Water Snake (*Nerodia sipedon insularum*)

Reynoldsburg Field Office, Ohio

Since 1994, the Reynoldsburg Field Office has partnered with the Ohio Division of Wildlife to implement an ongoing Lake Erie water snake conservation effort composed of public education, population monitoring, and consultation. Both agencies are working with the Army Corps of Engineers, developers, and private landowners to avoid or minimize habitat loss and actually improve existing habitat for the water snake.

The public information campaign is showing good success thanks to landowner contacts, business owner contacts, agency con-

tacts, posters, brochures, media articles, and a children's poster contest competition on Lake Erie island schools. Out of 900 residents who live on four Lake Erie islands in Ohio, approximately 400 have requested and received very popular Lake Erie water snake conservation signs provided free to island landowners by the Service's Reynoldsburg Field Office.

The Service believes the Lake Erie water snake can recover quickly if people learn to "live and let live," while sharing the islands with Lake Erie water snakes.

The Service and its partners must stabilize the Lake Erie water snake population after 150 years of decline resulted in a vulnerable small population level. The Service and its partners continue to educate the public, island landowners, and private partners, and work to reduce habitat loss. These activities are ongoing, showing success, and have occurred for six years. The Lake Erie water snake was listed as "federally threatened" on August 30, 1999. (**9/22/00**)

199. Early Cooperation - Forest Management for Near Candidates

Reynoldsburg Field Office, Ohio

The Reynoldsburg Field Office is working with the U.S. Forest Service's Wayne National Forest to enhance overall species diversity that benefits species that are near candidates, listed species, and other species of concern that may have federal status in the future. Forest management practices are being integrated into the Wayne National Forest Management Plan and other Wayne National Forest actions that involve planning or ground activity. These efforts include many species that currently have no federal status, such as the Cerulean warbler (*Dendroica cerulea*), loggerhead shrike (*Lanius ludovicianus*), timber rattlesnake (*Crotalus horridus horridus*), and butternut tree (*Juglans cinerea*).

Species of concern to the Forest Service and Fish and Wildlife Service can be identified, undergo discussion, and be incorporated early into Forest Service management practices. Addressing such issues early in the Forest planning process avoids major conflicts and leads to successful management of both species and timber. (**9/22/00**)

200. Ohio Partners Study How Endangered Indiana Bat Uses Forest Habitat

Reynoldsburg Field Office, Ohio

The Service's Reynoldsburg, Ohio, Field Office is working with partners from the Ohio Division of Wildlife and U.S. Forest Service to study how federally endangered Indiana bats use habitat on forested land in southeast Ohio. During calendar years 1999 and 2000, male and female Indiana bats were outfitted with radio transmitters which allow biologists to follow the bats as they move around in the forest. This allows biologists to examine which parts of the U.S. Forest Service's Wayne National Forest are used by the bats for roosting, raising young, and hibernation.

Determining how endangered Indiana bats utilize forested land in Ohio will help us learn how best to manage national forests for both Indiana bats and timber harvest. Such knowledge will significantly contribute to overall recovery of the Indiana bat. Partners in the project include the U.S. Forest Service, Ohio Department of Natural Resources-Division of Wildlife. (**9/22/00**)

201. Endangered American Burying Beetles Returning to Ohio!

Reynoldsburg Field Office, Ohio

Project Challenge: Establish endangered American burying beetles in Ohio as part of a national effort to recover the species.

Ecological Service's Work to Meet the Challenge: The Service's Reynoldsburg, Ohio, field office is working with partners from the Ohio Division of Wildlife, Ohio State University, and the Service's New England field office to reintroduce American burying beetles (Nicrophorus americanus) to southeast Ohio. The beetles are supplied by the State of Arkansas and collected in Arkansas by the Oklahoma Biological Survey. So far, approximately 105 pairs of beetles were released into southeast Ohio during three consecutive years planned.

Benefits: Successful establishment of American burying beetles in Ohio will mean the national recovery objective of establishing the beetle in three of four regions in the United States will be achieved. This achievement will eventually lead to reclassification of the beetle from endangered to threatened status, an important step closer to eventually removing the beetle from the list altogether. (**9/22/00**)

202. Karner Blue Butterfly Successfully Reintroduced in Ohio

Reynoldsburg Field Office, Ohio

The Reynoldsburg Field Office is working with many public/private partners in northwest Ohio to reintroduce the Karner blue butterfly. Specifically, the Service is working with the Ohio Karner Blue Butterfly Recovery Team and the Oak Opening Working Group. Members of these groups include the Toledo

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Port Authority, Toledo Zoo, Toledo Metropolitan Park District, The Nature Conservancy, Ohio Division of Wildlife, and the Ohio Division of Natural Areas and Preserves.

Team members developed a state-based recovery plan for the butterfly in northwest Ohio. The plan includes a strategy for captive rearing and reintroduction of the Karner blue for several years, including the calendar year 2000. The plan emphasizes an oak savannah, multi-species community approach in the Oak Openings region of Northwest Ohio. Ohio's Oak Openings contain Ohio's highest species diversity and comprise 150 square miles covering three Lake Erie counties. The Oak Openings region contains sand dune/oak habitat mixed with prairie, forest, and wetlands.

Endangered species must survive on both public and private land in order to recover to the point of not needing protection under the Endangered Species Act. Public/private partnerships are essential to achieving recovery of the endangered Karner blue butterfly (*Lycaeides melissa samuelis*) in Ohio. The Karner blue butterfly recovery effort in Northwest Ohio will benefit the entire Oak Openings ecosystem by enhancing biodiversity across three Ohio counties. The survival and recovery of the Karner blue butterfly will be greatly enhanced. (**9/22/00**)

203. Service Helps Integrate Protections For Indiana Bat Into National Forest Management in Ohio

Reynoldsburg Field Office, Ohio

The Service's Reynoldsburg Field Office is working with the U.S. Forest Service's Wayne National Forest to enhance recovery of the federally-endangered Indiana bat. Forest management practices that benefit the Indiana bat are being integrated into the Wayne National Forest Management Plan and other Forest actions. The Indiana bat is being addressed early in the Wayne National Forest's Management Plan revision process in an effort to ensure sufficient protection and recovery for the Indiana bat before, during, and after timber harvest in designated locations.

Early consultation between the U.S. Fish and Wildlife Service and the Forest Service on endangered species issues in national forests leads to successful management of both species and timber on national forest lands. (**9/22/00**)

204. Digging Deep in the Wells of Cooperation; City Helps Protect Endangered Orchids

Reynoldsburg Field Office, Ohio

The City of Dayton, Ohio, is working with the Service's Reynoldsburg Field Office and the Ohio Division of Natural Areas and Preserves to explore protection measures for the federally-threatened Eastern prairie fringed orchid (*Platanthera leucophaea*). The city proposes constructing deep water wells at a location in west/central Ohio that contains the federally threatened Eastern prairie fringed orchid (*Platanthera leucophaea*).

Water pumps on the proposed wells will remove millions of gallons of water from the water table daily, causing the local water table to be much lower. This means bogs and wet meadows containing the orchid may disappear, unless the wellfield is designed in a way that protects the orchids. The proposed water well field is approximately 1,240 acres in size. The area affected consists of wet meadow, riparian, riverine, bogs, and crop land.

Ohio's second largest population of this orchid occurs on a proposed water well field site owned by the City of Dayton. The City of Dayton has agreed to build a fence around the property to protect the orchid and the land. Consultations between all agencies is ongoing. The Service, City of Dayton, and Ohio Division of Natural Areas and Preserves will continue to work toward a solution that will protect the orchids while at the same time allowing the City of Dayton to manage its land and water resources. (**9/22/00**)

205. It's Coming Up (Lakeside) Daisies in Ohio

Reynoldsburg Field Office, Ohio

The federally-threatened lakeside daisy (*Hymenoxys herbacea*) occurs primarily in Ohio on limestone quarry land owned by one corporate landowner. The daisy is vulnerable to rapid destruction due to quarry activities. Public/private partnership is essential to conservation and recovery of the Lakeside daisy. The Lakeside daisy occurs primarily on land owned by the corporate landowner called Standard Slag Lafarge Corporation of Paris, France. The land is actively quarried using dynamite and heavy equipment.

A successful three-way partnership engineered by the Ohio Division of Natural Areas and Preserves (Division) includes the Lafarge Corporation and the Service's Reynoldsburg, Ohio, field office. Ohio's Lakeside daisies are successfully monitored, managed, rescued, and relocated by the Division with cooperation and Endangered Species Act funding from the Service's Reynoldsburg Field Office. To protect additional daisies, many daisy plants in the quarry are relocated to safe Lake Erie island locations. The Division has also purchased a small preserve to protect additional daisies present along the periphery of the quarry. The

Lafarge Corporation cooperates regularly to work with the Service and the Division to save and relocate daisies before blasting occurs. (**9/22/00**)

206. Curves Ahead! Meandering the Nippersink Creek Restores Fish and Wildlife Habitat.
Chicago Field Office, Ill.
After excavating 165,000 cubic yards of fill, laying 22 miles of erosion control matting and planting 225,000 plants, a three-mile section of Nippersink Creek in northeastern Illinois has been brought back to life. The project, located in Illinois's Glacial Park and managed by McHenry County Conservation District, was started in 1998, and included tree removal, re-meandering or regrading three miles of creek, restoring 290 acres of floodplain wetlands, and rebuilding three glacial kames (large sand and gravel deposits left after the glaciers retreated). By re-meandering the creek water velocity was slowed resulting in a reduction in erosion and an improvement in water quality, a goal of the Clean Water Action Plan.

This project is believed to be the largest dechannelization/restoration project in Illinois and may be the largest in the Midwest.

The restored wetlands and creek channel will provide new spawning and feeding habitat for declining fish, herpetiles, and birds dependent on these communities. Many of these species, such as Blanding's turtle, blacknose skinner, and black-crowned night heron, are endangered or threatened in Illinois and adjacent Midwest states. Numerous resident and migratory waterfowl and wading birds will benefit from the extensive recreated marsh, pond, and stream pool habitat complexes.

On August 26th, McHenry County Conservation District held a "Grand Opening" celebration at which time water was diverted from the old channelized section to the newly remeandered section of the Nippersink. Over 100 people attended the event and participated in the "mussel shuffle" and "fish fling" - a rescue operation to relocate mussels, fish, and amphibians from the drying channelized section to the newly invigorated meandered section. Parents and children alike got wet and muddy searching for mussels on the stream bottom or scooping up bull frogs. (**9/22/00**)

207. Coastal Program and Volunteers Restore Belle Isle Habitats
East Lansing Field Office, Mich.
The Service and its partners restored a one-acre wetland at Blue Heron Lagoon in an island park that recieves 8 million visitors annually, primarily from the inner-city. A wetland viewing platform for this restoration is in the works, as well as a census of native plant species to develop an island seed bank, and a one-acre restoration of lakeplain oak opening habitat.

Belle Isle is highlighted as a keystone project site, (the only one in the Great Lakes) in the soon-to-be-released national Coastal Program video. Besides the upland and wetland acres restored, 250 acres of significant habitats are being inventoried and mapped (200 acres of wetland forest and 50 acres of prairie remnant). A total of $25,500 in non-Service matching funds were generated to match the Coastal Program's $19,000, involving the Service's and three other entities partnership agreements. The volunteer hours generated will be very substantial when totaled, as over 200 volunteers have participated in the 'The Big Help' and 'Kickoff Volunteer Stewardship Day' phases of the project so far. Our Cooperative Agreement with the Friends of Belle Isle remains in effect until July 31, 2001.

The objectives of the Service's Coastal Program Project on Belle Isle Park in the Detroit River are to restore a wetland at Blue Heron Lagoon, census native plant species to develop an island seed bank, and restore lakeplain oak opening habitat (**9/23/00**)

208. Horicon NWR Contaminant Assessment Process (CAP) completed
Green Bay Field Office, Wis.
A Contaminant Assessment Process (CAP) was completed for Horicon National
Wildlife Refuge (NWR) Sept. 25, 2000. The CAP identifies potential sources and pathways of contaminants, and assesses the overall danger of contaminants to the Refuge and all trust resources.

Environmental contaminants staff from the Green Bay Field Office conducted the assessment working with members of University of Wisconsin-Stevens Point, Dodge County,Wis., and Wisconsin state agencies (Geological and Natural History Survey, Department of Natural Resources, and Department of Agriculture, Trade, and Consumer Protection), and the U.S. Geological Survey.

References and personal contacts included in the CAP provide communication and information routes for future management activities. This will help avoid and minimize future contaminant concerns for the Refuge, and facilitate the smooth coordination between various agencies in a contamination event.

The CAP concluded that non-point source pollution is the great-

Continued next page.

est threat to the Refuge, and indicated potential management activities to monitor and assess this contaminant issue.

A completed Contaminant Assessment Process (CAP) for Horicon NWR can be accessed at the following Service webpage: http://ecos.fws.gov/cap_98/ .

The CAP consists of 10 sections: 1) Primary Investigator Information; 2) Background Information - Literature References, Contacts, Meetings; 3) Assessment Considerations - General Information, Species Assessment, Land Cover/Land Use, Management Activities; 4) Local Off-Interior Areas Important to Trust Resources; 5) Transport Pathways - Surface Water, Ground Water, Air, Biotic; 6) Contaminant Source Information - from various EPA databases; 7) Field Reconnaissance; 8) Potentially Contaminated Areas; 9) Areas Subject to Spills; and 10) Narrative Report of Contaminant Issues. The CAP concluded that nonpoint source pollution is the greatest threat to the refuge and indicated potential management activities to monitor and assess this contaminant issue (**9/25/00**)

209. Fish Creek NRDA Restoration Making Progress

Bloomington Field Office, Ind.

The Bloomington Field Office (BFO) serves as lead administrative trustee for the Fish Creek NRDA Restoration project. Agencies represented on the Trustee council include: Ohio Environmental Protection Agency (OEPA), Ohio Department of Natural Resources (ODNR), Indiana Department of Environmental Management (IDEM), and Indiana Department of Natural Resources (IDNR).

The trustees work with landowners, local governments, other State and federal agencies and non-profit conservation organizations to implement terrestrial and aquatic habitat restoration efforts in the basin. This work began in May 1997 and is continuing. To date we have spent approximately $1,150,000 on the following restoration work in the Fish Creek watershed:

1) Completed 3 years of endangered mussel research that was called for in the white catspaw pearly mussel recovery plan. A report is due out next month.

2) Reforested 247 acres of riparian and floodplain corridor of Fish Creek.

3) Acquired in fee title 155 acres of properties containing more than 3.0 miles of Fish Creek riparian corridor in a portion of the creek known to be inhabited by the endangered mussels.

4) Acquired in fee title 19 acres of riparian properties in cooperation with the Parks Department of Hamilton Lakes, Indiana. Habitat restoration, protection and public outreach / education opportunities are continuing on this project.

5) Restored 7.7 acres of wetlands in the Fish Creek watershed.

6) Acquired 29 acres of conservation easements containing more than 0.5 miles of River bank in an area known to be inhabited by the endangered mussels.

7) Funded a large stream bank erosion control project on private lands in order to prevent the continued release of soil resulting in sedimentation and reduced freshwater mussel habitat values.

Additional acquisition of conservation easements, fee-title purchase, wetland restoration and reforestation work are in progress or in the planning stage. We have $1,761,700 available for additional restoration activities on this project. (**9/26/00**)

210. Summary of Fiscal Year 2000 NRDA Restoration Activities in Indiana

Bloomington Field Office, Ind.

The Service's Bloomington Field Office (BFO) has been actively seeking restoration opportunities associated with several Natural Resource Damage Assessment (NRDA) settlements sites in this past year. The Service works closely with the Indiana Department of Environmental Management (IDEM), and Indiana Department of Natural Resources (IDNR) in this effort. The trustees work with potentially responsible parties, landowners, local governments, other State and federal agencies and non-profit conservation organizations to implement terrestrial and aquatic habitat restoration efforts at or near cleaned up hazardous waste sites throughout Indiana. Here we summarize our efforts to date on eight NRDA restoration projects throughout Indiana:

1) The recent NRDA settlement for natural resources injuries at American Chemical Services site resulted in the acquisition of 63.6 acres of restorable wetlands in Lake County, Indiana.

2) The trustees implemented habitat restoration measures on approximately 38 acres of degraded dune and swale wetlands on the Clark and Pine East nature preserve property. This property was purchased the PRPs in 1996 as part of the NRDA settlement for the Midco I and Midco II Superfund sites (Lake County).

3) Purchased in fee-title 4 additional acres of globally rare dune and swale wetlands in Lake County with funds from Ninth Avenue Dump bankruptcy settlements.

4) The Indiana DNR received in fee-title 7 acres of restored dune and swale wetlands at the Gary Lagoons site in Lake County as part of

a recent NRDA settlement. The US Environmental Protection Agency spent $4 million to remediate this site and worked with the trustees to restore this property to its original condition as dune and oak savannah.

5) We have worked with private landowners and local nonprofit organizations to restore 41.5 acres of wetlands using funds from the Wayne Reclamation and Recycling NRDA settlement (Whitley County). We are working with these landowners and local land trusts to protect approximately 40 acres of wetlands and surrounding grassland habitats via a perpetual conservation easements.

6) We have reforested 20 acres of floodplain in Boone County under an agreement with a private landowner with settlement funds from the Northside/EnviroChem NRDA settlements. We are working with this landowner and the Central Indiana Land Trust in an attempt to protect these and 10 additional acres of forested bottomland via a perpetual conservation easement. We also assisted the Patoka River National Wildlife Refuge in completing an acquisition of high quality bottomland hardwood wetlands by paying for 7.1 acres of a 27.1 acre parcel.

7) The Indianapolis Parks and Recreation Department has began implementing a habitat restoration and trail building project in Juan Solomon Park. This work is being funded by the trustees using Marathon Oil Spill (Marion Co.) NRDA settlement funds. Crooked Creek, which had been impacted by the spill in 1992, flows through this 46-acre park.

8) The PRPs purchased 78 acres of agricultural land in the floodplain of the Maumee River to be donated to the Indiana Department of Natural Resources to settle NRDA claims at the Fort Wayne Reduction Dump Superfund site (Allen County). In addition, 47 acres of this site has been replanted to bottomland hardwoods.

The purpose of the NRDA restoration effort is to restore, replace, rehabilitate, and/or acquire the equivalent of the lost natural resources. We are improving and protecting the terrestrial and aquatic habitats of damaged ecosystems at several locations in Indiana through the acquisition (easements and fee-title) of over 159 acres of riparian and wetland habitats and restoring more than 192 acres of wetland habitats. In addition, we have cost-recovered more than $80,000 this year through these settlements. (**9/26/00**)

211. The Service Helps Evaluate "Final" Version of Wetland Assessment Tool ORAM

Reynoldsburg Field Office, Ohio

On Sept. 27, 2000, Ken Lammers attended an introductory critique and training session regarding the newest version of the Ohio Rapid Assessment Method (ORAM) for Wetlands, a method created by the Ohio EPA staff. The Reynoldsburg Field Office has been on a technical committee for more than five years while Ohio EPA has been working on the evolution of ORAM. The method quantifies the values of any wetland. The quantifications are then used by Ohio EPA in its Section 401 Permit program. The method is increasingly used by the Corps Districts, as well, in their Section 404 Permit programs. The method has similarities to Ohio EPA's nationally known Index of Biotic Integrity that the agency uses for evaluating water quality in streams and lakes. (**9/27/00**)

212. Service Represented at Ohio Technical Committee Meeting

Reynoldsburg Field Office, Ohio

On Sept. 28, 2000, Ken Lammers participated in a meeting of the State Technical Committee in Columbus, Ohio. This meeting is attended by all the state and federal resource agencies, as well as non-governmental organizations in Ohio. Topics that were covered in this meeting were the various conservation programs administered by the state and federal governments, such as CRP, EQIP, CREP, and WHIP. A representative of Ohio EPA also gave an update on its TMDL (Total Maximum Daily Load) developments in response to requests from U.S.Environmental Protection Agengy. The committee voted for the continuation of the EQIP Priority Area Proposals. (**9/28/00**)

213. Chicago Field Office Provides Teacher Training Regarding Wetlands, Watersheds, and Water Quality

Chicago Field Office, Ill.

The Chicago Field Office provides teacher training as part of its mission to accomplish the conservation of fish and wildlife and their habitats. Training involves conducting 4-8 hour workshops, with teachers participating in a variety of indoor and outdoor activities. In addition, the teachers receive numerous educational materials which help them develop units of study that correlate to the state learning standards. These workshops are hosted by local partners who can provide facilities such as classrooms and natural areas. Partners include county forest preserves, village park districts, local school districts, and nature centers throughout the 6 - county metro area.

During Fiscal Year 2000, the

Continued next page.

Office's Environmental Education Specialist conducted eight workshops for 210 educators. Workshop attendees included elementary, middle, and high school teachers; forest preserve and park district staff; and scout leaders. These educators could conceivably teach thousands of students each year of their careers in this metro area. (**9/28/00**)

214. Indiana Bat Habitat Conservation Plan Under Development in Indiana

Bloomington Field Office, Ind.

In 1992, the Bloomington Field Office (BFO) issued a Biological Opinion resulting from formal Section 7 consultation on a project involving improvements at the Indianapolis International Airport. An incidental take permit was issued for take of federally-endangered Indiana bats (Myotis sodalis) that was anticipated as the result of proposed activities.

Under the terms of the permit, the Indianapolis Airport Authority (IAA) committed to measures to avoid and minimize impacts to bats, and to a bat monitoring program. The Indiana bat maternity colony on the site has been intensively studied since 1994. This is the longest term monitoring of an Indiana bat maternity colony ever conducted. Data collected through this monitoring program are now being used to develop a Habitat Conservation Plan (HCP) which will allow for additional development, while at the same time ensuring the conservation of bat habitat. This project is occurring in an area just outside Indianapolis where land is being rapidly developed. The potential for the Indiana bats at this site to relocate is very limited, because there is no alternative habitat available to this colony over a large geographic area. The IAA and other HCP partners are working closely with BFO to ensure long-term conservation of bat habitat in the area. Project partners are expected to submit a draft HCP to the Service in October 2000. (**9/29/00**)

215. Chicago Field Office Assists Students with Environmental Field Studies

Chicago Field Office, Ill.

The Chicago Field Office is instructing school students (most in grades 5-12) involved with a variety of outdoor field studies which relate to the Service mission of conservation of fish and wildlife and their habitats. The field studies are designed to enhance existing curriculums of local schools and correlate to the state learning standards.

Students are provided hands-on experiences in the use of equipment and techniques routinely used by environmental scientists. Many school districts are able to use nearby sites eliminating the need for all-day field trips which require expenses for buses and substitute teachers.

During Fiscal Year 2000, the Office's Environmental Education Specialist served as an instructor for 18 field studies which involved approximately 570 students throughout the metro area. Field studies included macroinvertebrate sampling to determine water quality, site assessments to analyze habitat quality and wildlife use, and surveys of plant communities. (**9/29/00**)

216. Chicago Field Office Represents the Service at Special Events

Chicago Field Office, Ill.

The Chicago Field Office receives numerous requests to participate in special events throughout the Chicago area. The Chicago metropolitan area is home to approximately 8 million Americans, providing the Service with various opportunities to inform people about the agency and its mission.

In addition to participating in special events, the Chicago Field Office is often involved with planning events and providing funding to ensure these events happen. During Fiscal Year 2000, the Office participated in 15 special events such as International Migratory Bird Day sponsored by the Forest Preserve District of Cook County and the City of Chicago-Department of Environment; Stewardship Days sponsored by the Chicago Park District; Youth Environmental Summit sponsored by The Field Museum; It's Wild in Chicago sponsored by Chicago Wilderness; Envirothon (four local competitions and state competition) sponsored by the Soil and Water Conservation Districts of Illinois; Becoming an Outdoors Woman sponsored by Illinois Department of Natural Resources; Federal Junior Duck Stamp Contest sponsored by Illinois Department of Natural Resources and Fall Festival sponsored by The Nature Conservancy. Staff of our office communicated with approximately 2,500 people total at these special events regarding our agency's programs. (**9/29/00**)

217. Chicago Field Office Participates in Federal Resource Partnership to Promote Community Projects

Chicago Field Office, Ill.

The Chicago Field Office has participated for seven years in the Chicago Urban Resources Partnership. This partnership was one of the first four established by USDA in large urban areas. Our partnership includes seven federal agencies, one state agency, and three local agencies. As a partnership, we select community-based natural resource projects thru a proposal process and

provide funding and technical assistance to the grantee. In Fiscal Year 2000, our partnership selected 17 projects to be funded with $350,000; the recipient must provide a minimum 50 percent match. The selected projects included a watershed education program, riverbank stabilization using native plants, forest and prairie restorations on park district and forest preserve lands, and various schoolyard habitat projects. (**9/29/00**)

218. Chicago Field Office Provides Guest Speakers for Metro Area Schools

Chicago Field Office, Ill.

The Chicago Field Office receives numerous requests from area teachers to serve as guest speakers for their classes. Teachers have stated that an expert reinforces what they have taught; the students hear the information again and from another source. In addition, we have the ability to travel to the schools and the teachers do not have to arrange for a field trip. During Fiscal Year 2000, the office's environmental education specialist conducted 25 presentations for approximately 760 students throughout the metro area. Presentation topics included wetlands/watersheds, migratory birds, endangered species/biodiversity, wildlife/habitat restoration, Service programs, and natural resource careers. (**9/29/00**)

219. Illinois STEP/SCEP Internship Program Provides Work Experience

Chicago Field Office, Ill.

Chicago Illinois works with four schools during Fiscal Year 2000 to provide college students with valuable work experience, and offers some the opportunity for permanent full time employment. Chicago State, Governors State, Roosevelt, and Northeastern Illinois Universities have curricula that prepare students for work in our agency, and have diverse student populations. Students are receiving valuable work experience which should result in better resource outcomes in the future. (**9/30/00**)

220. Funding of Endangered Species Projects in Iowa and Illinois

Rock Island Field Office, Ill.

In Fiscal Year 2000, the Service's Rock Island Field Office funded a wide variety of studies and projects benefitting threatened, endangered and candidate species in Iowa and Illinois. A total of $211,700 were transferred to or through the Iowa and Illinois Departments of Natura Resources for work related to the conservation of the massasauga rattlesnake (*Sistrurus catenatus catenatus*), Illinois cave amphipod (*Gammarus acherondytes*), northern monkshood (*Aconitum novaboracense)*, Iowa pleistocene snail (*Discus macclincocki*), Topeka shiner (*Notropis topeka*), Indiana bat (*Myotis sodalis*), prairie bush clover (*Lespedeza leptostachya*), eastern prairie fringed orchid (*Platanthera leucophaea*), Mead's milkweed (*Asclepias meadii*), and the decurrent false aster (*Boltonia decurrens*).

A total of $70,900 was obligated for projects and studies in Iowa and $140,800 in Illinois. In spite of this, an additional $100,000 in unmet needs could have been spent in these states.

More specifically, funding was earmarked for a landowner contact program and telemetry study of the massasauga rattlesnake in Illinois and a survey for the snake in Iowa; stabilization of a mine entrance containing the Indiana bat; population and respiration studies for the Illinois cave amphipod; surveys for the Topeka shiner in Iowa; a genetics study and canarygrass control to benefit the eastern prairie fringed orchid; and data analysis and update of the driftless area database.

The studies and projects will provide greater understanding of the needs and requirements of threatened and endangered species in Iowa and Illinois, enhance habitat for certain species, or provide protection for certain populations currently being threatened. (**9/30/00**)

221. Chicago Field Office Developing Cleanup Levels For Midewin National Tallgrass Prairie

Chicago Field Office, Ill.

Chicago Illinois Field Office Staff have entered into the second phase of developing cleanup levels for the Midewin National Tallgrass Prairie, formerly the Joliet Army Arsenal. The Contaminants of concern include mostly explosives and metals. Two workgroups have finished their efforts-selecting cleanup levels that would be protective of human health and protective of ecological receptors. Sometimes several orders of magnitude exist between the two levels. (**9/30/00**)

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External Affairs

Fiscal Year 2000 Annual Report
Region 3

--Photo by Joan Guilfoyle

Migrations and Media. *External Affairs provided extensive support to the Whooping Crane Eastern Partnership's efforts to establish a whooping crane migration route from Wisconsin to Florida. National and international media followed the story of an ultralight-led fall migration of sandhill cranes from Necedah NWR in Wisconsin to St. Martius Marsh Aquatic Preserve in Florida.*

Program Description and Mission

The Office of External Affairs serves as the key advisor to the Regional Director for all matters involving public affairs, legislative and intergovernmental affairs, media relations, accomplishment reporting and Native American affairs as well as Service identification, integrated marketing in outreach delivery and products, interactive technology, partnerships and internal communications. The Office supports Service-wide and regional missions and priorities through the delivery of quality communications in order to position the Service and the Great Lakes-Big Rivers region as the recognized Federal leader regarding fish and wildlife issues. The Office is responsible for the public affairs development, improvement and integration of programs and policies relating to these matters, including the agencies' priorities in working with specific program efforts, species, ecosystems, and organizational stabilization and vitality, The Office is also responsible for the identification of issues related to the public's view and opinions of the region's work and for developing and providing new or alternative means of information that will enhance public understanding of, and support for, agency programs, activities, issues and efforts. Additionally, the Office is fully responsible for evaluating the overall effectiveness of the region's outreach capabilities, effectiveness, challenges and accomplishments.

Summary of Fiscal Year 2000 Accomplishments

An Intranet site for use by all Service employees was developed to provide useful information about the External Affairs Office and how its professional staff can help regional employees. The Intranet site hosts a wide variety of easily accessible and useful information for employees, including Regional Director's Orders, Regional Briefing Papers, Congressional Affairs links, and information on developing and printing official Service outreach publications. The address is

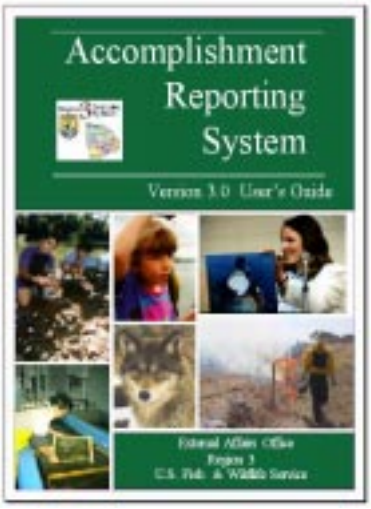
A new regional Information Dissemination System (IDS) designed to provide efficient, cost-effective information dissemination to the media, Congress and the public was developed in Fiscal Year 2000. The IDS was designed to replace both the previous fax/e-mail system and currently used "wire" services. This system will allow the Region to quickly dissemination information to specifically targeted audiences. The system is also designed to reach smaller media outlets that "wire" services do not reach.

In its continuing effort to keep the public informed about Service activities and programs, staff from External Affairs wrote and disseminated 51 news releases and four media advisories during Fiscal Year 2000. News releases ensure that members of the media, Congress, partners, and other interested stakeholders are informed of upcoming activities or recent developments within the Region. News releases and media advisories are the basic tools, used by all media, to gather information before developing a story and covering an event. The office uses standard 'wire' services, an internal fax/email system, the World Wide Web, List Servers and personal contacts to ensure the Service message gets to the correct audience in a timely and efficient manner. Once a news release or media advisory has been sent, the External Affairs staff provides support to media representatives who contact us for additional information.

Twenty-seven articles were written and published about events and activities in the Region in Fiscal Year 2000. Twenty-one of the articles were published in either Fish and Wildlife News or People, Land and Water. The development and dissemination of articles describing the activities of Region 3 personnel are a critical part of the Service's National Outreach Strategy. These articles help to improve the Service's image and increase the awareness of the American public—which improves our ability to carry out the Service mission.

Three "Special Edition Inside Region 3" publications were developed to highlight the following programs or activities - Ecosystem Approach: Fulfilling the Promise: The National Wildlife Refuge System - A Distinctly American Story; and, Division of Federal Aid: Preserving our Hunting and Fishing Heritage. These publications were developed to provide employees, partners and the public with a greater understanding of how these specific Region 3 programs help the Service to better perform its mission and serve the public.

Accomplishment Reporting System



The Accomplishment Reporting System Version 3.1 Users Guide introduced field staff to extensive upgrades to the Accomplishment Reporting System, answers frequently asked questions and offers tips for writing reports.

The Accomplishment Reporting System (ARS) and its associated information products enjoyed increased use and visibility during the year. The ARS, an Internet-based information acquisition, dissemination and data management system, is a tool that captures the breadth of activities and on-the-ground accomplishments in Region 3. To date, the ARS is used by more than 340 employees in Region 3. During Fiscal Year 2000, approximately 1, 500 reports were filed, an increase of about 175 from the previous year. Accomplishments can be viewed at: http://ars.fws.gov

The ARS has been used successfully for the past four years to support outreach and inreach efforts in Region 3. The system gathers information about Service accomplishments, activities and initiatives and organizes the information in an easy-to-use database. Information contained in ARS reports are used for media/congressional advisories and/or various information products. The on-line database allows managers to tie accomplishments to regional performance goals, national Government Performance and Results Act (GPRA) goals as well as recognize the contributions of numerous conservation partners to the Service mission. The ARS helps keep the public and Service employees informed about resource accomplishments inside the region. The system can also report Service accomplishments to members of the news media and Congress in "real time".

The ARS was also upgraded this year to enhance user friendliness and data management. The upgraded features were accomplished by the contractor (Minnesota Computer Programming, Inc.) in coordination with External Affairs. The upgrade was completed and tested prior to the end of Fiscal Year 2000, but not implemented until mid-October 2000.

This year, the capabilities of ARS received attention outside the Region 3. Other federal agencies, the Army Corps Engineers, St. Louis District, U.S. Forest Service in Milwaukee, Wis., and U.S. Geological Survey Regional Office in Reston, Va., requested presentations and demonstrations of the system for use by their respective agencies.

The Midwest Natural Resources Group, a collection of 13 federal agencies operating in the Midwest, adopted the ARS during Fiscal Year 2000. The MNRG, initiated a "cloned" version of the Service's ARS to report Group accomplishments. The site is managed by the Region 3 External Affairs Office as part of its ongoing support to the Group. The U.S. Forest Service's Region 9 also adopted the ARS. Using the ARS programming architecture and files, the Forest Service named its version of the ARS, "Success Stories." In addition, Service Regions 5 and Region 2 made decisions to adopt the ARS. The regions sent representatives to Region 3 for training by the External Affairs' ARS Manager.

The ARS helped produce numerous information products during the

Inside Region 3

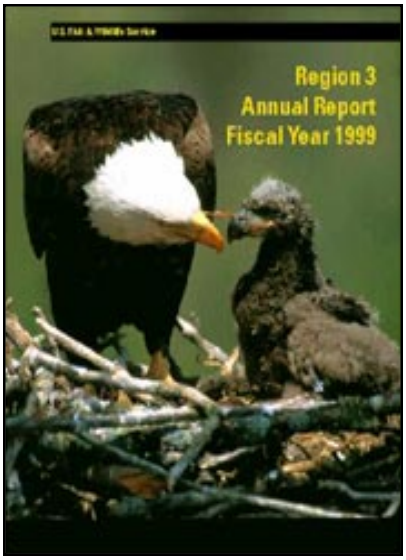
An information product from the Accomplishment Reporting System

Volume 2, No. 10 External Affairs Office September 27, 2000

Region 3 Partners Receive $2.6 million For Wetlands

Projects by Pheasants Forever, Ducks Unlimited and Iowa DNR Will Enhance Habitat on 14,000 Acres

Informed Employees. *The electronic newsletter "Inside Region 3," contains accomplishment report summaries and photos from throughout the region.*



Annual Report. *External Affairs published the Region 3 Annual Report for Fiscal Year 1999. The 500-page report included the year's accomplishments for both Region 3 programs and ecosystems.*

year. The Fiscal Year 1999 Annual Report contained approximately 1,300 individual accomplishment reports detailing a wide array of field accomplishments. The Annual Report was published in March 2000. Because of its large size, the Annual Report was created in individual chapters and published in portable document format (pdf file format) to the Region 3 web site. A limited number of Annual Report summaries for both ecosystems and programs were also printed and distributed to the respective Programs and Ecosystem teams.

Inside Region 3, an electronic newsletter containing noteworthy items selected from the Accomplishment Reporting System, enjoyed increased popularity during the year. Field office staff demonstrated support for the newsletter through increased ARS submissions, and the forward of numerous photographs to support accomplishment report submissions. Ten issues of Inside Region 3 were published this year. Inside Region 3 is distributed via email to all employees in the Region. This year, at the Regional Director's direction, distribution was expanded to include all Service Regional Directors and Washington Office staff.

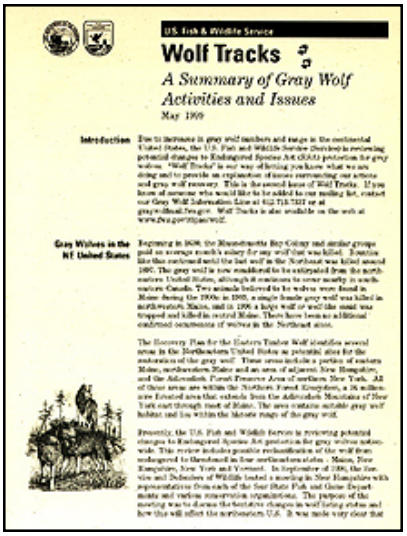
External Affairs supervised the renovation of the Regional Director's conference room during the year. External Affairs was responsible for renovation and improvements to the room's physical appearance, amenities and audio visual presentation capabilities. Specifically, External Affairs conceptualized, selected and coordinated installation of carpet, directional lighting, wallpaper, artwork, vertical blinds, and chairs. EA also coordinated the refinishing of the conference table and podium. Under a separate action, EA served as contract office representative for a contract to upgrade the audio-visual capabilities of the conference room. Aging AV equipment was removed during the room's remodeling. After investigating and exploring several audio visual solutions and vendors, EA joined contracting staff to work with a private consultant, who wrote design specifications and provided schematic drawings based on EA's concepts. EA also selected a local contractor, (Tierney Brothers) from three contractors who bid on the conference room . Installation of the AV equipment began in September. The RD conference room is now a 'state of the art' conference and presentation facility. Computer network connections and connection hubs are now installed at the conference table. Computer presentations (Powerpoint, Corel Presentations, etc.) can be given from the podium or at the table. The room also supports 35mm slide presentations, audio and video cassettes, DVD and a portable color document camera. All presentations can be recorded to video tape. The audio system was upgraded as well to include digital stereo surround sound with subwoofer.

Midwest Natural Resources Group

The Midwest Natural Resources Group (MNRG) is a collection of 13 federal agencies who have joined efforts to improve the natural resources of the Midwest. To better define their role, the MNRG has identified 12 focus areas to concentrate their efforts.

During Fiscal Year 2000, the U.S. Fish and Wildlife Service, Region 3, took over as the lead coordinating agency for the Midwest Natural Resources Group (MNRG). The Region 3 External Affairs office was in charge of coordination and communications for the approximately 200 natural resource professionals who participated in the Group throughout the Midwest. Service activities included establishing a multi-agency Communications Sub-Committee; developing, organizing and maintaining a contact database for MNRG members; and, coordinating and hosting November and June MNRG Meetings and organizing the February MNRG Meeting.

The External Affairs Office developed and disseminated the following products: MNRG Charter; Operations Guide; draft Focus Area Map; Tribal Contacts for the MNRG; Focus Area Executive Summaries (and three updates); four MNRG Meeting Reports; Contact List by Membership; Contact List in Alphabetical order; 12 Focus Area Fact Sheets; Charge for Focus Areas; and Agendas for the Focus Area, Communications Sub-Committee, and Senior Leaders meetings. Additionally, the External Affairs manages and provides technical assistance for the MNRG Accomplishment Reporting System and manages five MNRG Contributed Fund Accounts.



U.S. Fish & Wildlife Service

Wolf Tracks

A Summary of Gray Wolf Activities and Issues

May 1999

Introduction

Gray Wolves in the NE United States

Wolf Tracks. *Produced jointly by External Affairs and Ecological Services Offices, "Wolf Tracks" updates the public and interest groups on issues relating to the delisting of the gray wolf.*

The Region 3 Office of External Affairs is part of the MNRG Communications Sub-Committee and assists in developing products and process to help get the messages of the MNRG to our partners. To assist in this goal, External Affairs developed single page fact sheets for each focus area. These fact sheets highlight the background, activities, partners and on-the-ground projects of each focus area. The sheets are designed to be used in conjunction with the overall MNRG brochure to help MNRG members explain to partners and Congress how agencies are working together to benefit the natural resources of the Midwest.

On June 14, 2000, senior leaders of the seven federal agencies represented by the MNRG, signed an Intergovernmental Partnership Agreement to work in partnership with state and local governments, non-governmental organizations, private landowners and individuals to restore and protect the ecological integrity of the Illinois River Basin. Specifically, the MNRG decided to focus initial efforts on the Crow Creek watershed. The Region 3 Office of External Affairs, in coordination with the MNRG Communication Sub-Committee, assisted in the development of, and obtained signatures for, the Agreement, as well as coordinated a press conference, a site tour, notified local media and developed press packets. External Affairs personnel served as the MNRG Planning Committee Chair, with responsibility for hosting three MNRG meetings and coordination and communication between 200 natural resource professionals, representing 14 Federal agencies.

Public Affairs and Outreach Coordination

The outreach coordinator responsible for the Upper Mississippi River ecosystem worked with the consultation team from the Regional Office, Rock Island Field Office, Marion Suboffice and Twin Cities Field Office to develop an outreach strategy for release of the biological opinion resulting from Section 7 consultation with the Corps of Engineers. The consultation examined the effects of the operation and maintenance of the 9-foot navigation channel on the Upper Mississippi River on several listed species, including the pallid sturgeon, Higgins' eye pearly mussel, bald eagle, least tern, Indiana bat and decurrent false aster. Because jeopardy opinions for the pallid sturgeon and Higgins' eye were part of the final biological opinion, the need for outreach was a principal element in release of the opinion to the Corps. An initial outreach plan was developed by the outreach coordinator and revised and refined by the team as plans progressed. The outreach coordinator also drafted an initial press release and fact sheets, which were modified by the team as needed. The team conferred periodically to stay abreast of the attitudes of various stakeholders, including states, NGO's, members of Congress, the navigation industry, and the media. The final announcement was coordinated to release the opinion to the public via the website along with the Service's news release and background material. An article by the Washington Post just prior to the release of the opinion generated considerable media interest. The outreach coordinator handled numerous media inquiries, as did other team members upon release of the opinion. The field and regional office team members carried out elements of the outreach plan, such as conducting constituent and Congressional briefings.

The outreach coordinator responsible for the Upper Mississippi River ecosystem participated in the Service's efforts to develop a habitat needs assessment for the Upper Mississippi River under the Corps of Engineers' Environmental Management Program. The outreach coordinator served as chair of the Public Involvement Team, whose responsibility it was to ensure that development of the needs assessment included mechanisms for public input and review. The public involvement team consisted of members of state resource agencies, river resource groups, and other river stakeholders. The purpose of the team was to assess public attitude within the Upper Mississippi River Basin concerning existing, predicted future, and desired future conditions of the river over the next 50 years relative to fish and wildlife habitat. The outreach coordinator, as chair of the team, developed a scope of work to design a public involvement effort using focus groups to give the team the required public input into the effort. The resulting scope of work was submitted to the Corps of Engineers and awarded to a contracted consulting firm to conduct the focus group meetings in the summer of 2000 and prepare a final public involvement report which was included with the completed Habitat Needs Assessment.

The outreach coordinator responsible for the Lower Missouri River worked with the Regional Office and Columbia Missouri Field Office on outreach for the development of a biological opinion for the ongoing

Public Affairs and Outreach Coordination (continued)

Section 7 consultation with the Corps of Engineers on the operation of the Missouri River. While Region 6 has lead for the consultation, Region 3 is actively involved. Region 3 has been involved in providing input and comments on Region 6's outreach plan, as well as providing such Region 3 components as media and constituent contacts. The outreach coordinator will continue to serve as media contact for Region 3 inquiries concerning the consultation and work with Ecological Services colleagues in the regional and field offices, as well as outreach counterparts in Region 6.

External Affairs assisted Crab Orchard National Wildlife Refuge with the public information/participation portion of their Comprehensive Conservation Plan (CCP) development process. The Office developed and disseminated several news releases clarifying information and ensuring the public was aware of upcoming informational meetings. External Affairs also served as the main media contact for the CCP and participated in six radio interviews, one television interview and three newspaper interviews. Other related activities included media packet development, additional media interviews and refuge staff assistance at two public information meetings. External Affairs continues to be part of the CCP Planning Team and will continue to provide assistance as the CCP moves forward.

The outreach coordinator responsible for the Mississippi River Headwaters ecosystem served as the national outreach lead on the gray wolf reclassification announcement, which was made by the Director on July 11. A national news release, national talking points, more than a dozen fact sheets and a national contact list were prepared and distributed to all other Service regions in preparation for the announcement. Additionally, arrangements were made for interviews with Service staff for numerous national media outlets, such as New York Times, Los Angeles Times, Detroit News, NBC Nightly News, and National Public Radio. The outreach coordinator also gave over 25 interviews to national and regional media representatives in the days following the announcement. Publicity for public information meetings was also coordinated by the outreach coordinator, who attended four Midwest meetings and handled media duties at each. Despite the controversy surrounding the issue and the national spotlight focused on Minnesota, the success of the announcement rollout stemmed from the careful work and coordination between our regional Endangered Species and External Affairs staffs.

The refuge outreach coordinator for accepted a Washington Office detail to assist with the development of the National Centennial Campaign, complementing similar work performed in the Region. Continued work on this project at the regional and local level have resulted in the passage of the National Wildlife Refuge System Centennial Act, which was signed into law Nov. 2, 2000. Additionally, working with regional refuge managers, the outreach coordinator solicited names for and then selected one of the first Regional Refuge

Public Affairs and Outreach Coordination (continued)

--USFWS Photo by James R. Fisher

Outreach Success. *Service Director Jamie Rappaport Clark, Regional Director Bill Hartwig and Big Oaks NWR Manager Lee Herzberger talk with Indiana Congressman Baron Hill following ceremonies opening Big Oaks NWR in southern Indiana.*

Centennial Teams in the nation, which will meet quarterly to advance Regional Centennial Projects. Region 3 also hosted the National Centennial Team in September for their bi-monthly meeting. As national coordinator of the Centennial Public Service Announcement Campaign, the outreach coordinator has spent considerable time obtaining commitments from celebrities, coordinating script development, scheduling Public Service Announcements, and exploring national distribution methods via the Ad Council.

The refuge outreach coordinator developed an outreach plan and strategy for the rollout of a new refuge proposal in northwestern Minnesota on June 26, 2000. This strategy, in coordination with The Nature Conservancy, resulted in favorable coverage from the area's largest daily newspaper which was later picked up by statewide newspapers. Subsequent feedback from local residents and elected representatives has remained remarkably positive, thanks both to the initial positive publicity and complementary messages from the Service and The Nature Conservancy.

External affairs also provided outreach and public affairs support to the opening of the Big Oaks National Wildlife Refuge in July in southern Indiana. The 50,000-acre Big Oaks NWR was created on the Army's Jefferson Proving Ground, a former munitions testing site. Public affairs coordination was accomplished with several federal and state agencies, including the Department of Defence, U.S. Army, U.S. Air Force, Indiana Congressional staffs, Indiana Army and Air National Guard as well as the Service's Washington Office. Media interviews, news releases and site visits were conducted by External Affairs and Big Oaks NWR staff in advance of the opening ceremonies July 8, 2000. Service Director Jamie Rappaport-Clark and Regional Director Bill Hartwig joined Army and Air Force dignitaries and Congressman Baron Hill to speak at the opening ceremony.

Region 3 has coordinated more Federal Duck Stamp Hometown events than any other Region in the country, the latest being the Millennium 2000 Duck Stamp of a mottled duck, won by Adam Grimm of Elyria Ohio. At age 21, Adam is the youngest winner in the Federal Duck Stamp Program's 66-year history. The Office of External Affairs brought together approximately twenty individuals from the private sector, conservation organizations, the state of Ohio, other Federal agencies, and Adam's entire extended family to form a Hometown Event Team, which hosted a day-long event at Adam's former high school on July 22, 2000. In addition to offering the local community an opportunity to celebrate Adam's success, the Team coordinated auctions and fund raising events which to date have raised $15,000 for the Adam Grimm Habitat Restoration Project. When completed, the project will restore over 100 acres of wetlands and grasslands that will offer new opportunities for birding, hiking, nature photography and waterfowl hunting for the citizens of Ohio.

Public Affairs and Outreach Coordination (continued)

Duck Stamp Outreach. *External affairs helped coordinate a duck stamp outreach event in Elyria, Ohio, hometown of Adam Grimm, the 2000 Duck Stamp artist. Fund raising events helped raise $15,000 the the Adam Grimm Habitat Restoration Project.*

The Region's Office of External Affairs outreach coordinator for eastern states serves as Outreach Team Leader for a project that has potential to be the most visible conservation and endangered species recovery effort in the 21st century. Four Regions of the Service have joined with non-profit organizations, State agencies, and other Federal agencies to create the Whooping Crane Eastern Partnership (WCEP). WCEP's goal is to reestablish a second wild migrating flock of whooping cranes in the eastern United States, a species whose low numbers (21 individual birds) in the 1940s have dramatically improved, but whose future survival is not yet assured. WCEP conducted an experiment during 1999 with the more abundant sandhill crane, raising and training a flock to follow ultralight aircraft between Necedah National Wildlife Refuge in central Wisconsin to Chassahowitzka National Wildlife Refuge in central Florida. An on-the-road Service team coordinated media interviews, website updates and environmental education efforts during the six-week migration, the success of which is reflected by extensive media coverage in key United States and Canadian media, as well as overseas. Key messages were delivered by Director Clark and other WCEP partners. A partnership website that provided daily stories and maps tracing the team's progress, as well as links to partner sites, was used by media, school teachers and individuals as they followed the story throughout the seven state flyway. Partnerships were developed with outreach personnel in key states who are expected to directly participate and assist during subsequent experiments with whooping cranes. By avoiding urban areas in the migration, WCEP has the potential to effectively bring strong environmental messages to citizens of rural communities, which are key to long term recovery for countless species of plants and animals.

Region 3 has led the national communications effort for recovery and reclassification of the bald eagle since 1994, when the eagle was upgraded from endangered to threatened status. Through the team leader in the External Affairs Office, a coordinated effort to network with conservation organizations and private citizens to bring messages about the Endangered Species Act, recovery and partnerships has been sustained. The national team of 25 individuals have established a goal for using the bald eagle in environmental education efforts as well as the key to a national celebration when it is finally removed from the endangered species list. This is expected in the year 2001.

The airfield at Oshkosh, Wisconsin, is transformed for 10 days each summer into an 100-acre education and demonstration-oriented outdoor conference and airshow, drawing an estimated 785,000 aviation enthusiasts from all over the world. For the last three years, Region 3 has coordinated a large free-standing exhibit in the Federal Pavilion, hosted by the CAN AM Partnership, comprised of 16 federal Canadian and United States agencies that use aviation in the accomplishment of their mission. Through this venue, Region 3 has increased visibility of the Service's Aviation, Waterfowl Survey and Migratory Bird Programs. Service pilots from Region 2, 3 and 9, and field office supervisors and staff have actively participated in this

continued next page.

unique opportunity to reach a non-traditional audience. Region 3 is poised to enter into another three-year agreement with CAN AM, with exhibit themes on Horicon National Wildlife Refuge (2001), the Whooping Crane Eastern Partnership (2002) and The Refuge Centennial (2003).

Native American Liaison

The Region's tribal trust responsibilities encompass 35 tribes, 11 each in Minnesota and Wisconsin, 12 in Michigan and one in Iowa. The Region also coordinates programs, activities and issues with 4 multi-tribal groups which include: the Minnesota-Chippewa Tribe in Minnesota; the 1854 Treaty Authority in Duluth, Minn; The Great Lakes Indian Fish and Wildlife Commission (GLFWIC) which includes the Voigt Task Force in Wisconsin, and the Chippewa-Ottawa Treaty Fishery Management Authority(COTFMA) recently changed to Chippewa-Ottawa Resource Authority (CORA) in Michigan. The tribal groups represent treaty interests on behalf of the member tribes. The Minnesota-Chippewa tribe represents six Chippewa nations in Minnesota. The1854 Authority represents natural resource issues related to the 1854 Treaty for the Bois Forte and Grand Portage Bands, CORA represents five Michigan tribes included in the 1836 Treaty. The GLFWIC represents 11 tribes included in the 1837 and 1842 Treaties with the Voigt task force providing a forum for natural resource issues related to the 1983 Voigt decision affirming that hunting, fishing and gathering rights were reserved by the Chippewa in the Treaties of 1837, 1842 and 1854.

--Photo by Joel Trick

Tribal Communication

External Affairs and Ecological Services staff met with Native American tribes to discuss status of the gray wolf during public information meetings in Ashland, Wis., where tribes participated in the outreach effort.

In 2000, Native American Liaison projects and activities featured increased coordination and communication between Service Regional Director and members of tribal governments and multi-tribal agencies. There was a significant increase in special projects benefitting individual tribes but demonstrating a broad range of opportunities for additional tribes.

Endangered species issues involving the wolf, bald eagle, lynx, piping plover and other species were ongoing and increased as letters were sent to tribal governments providing the status of individual recovery efforts and explaining the opportunity for tribal input. As a result increased tribal input occurred to support requests for Service coordination and information. Tribal response to our letters was included in the formulation of appropriate endangered species documents and tribal representation at wolf informational meetings and hearings provided a substantial basis to determine tribal positions relative to the proposed rule.

During the past year Regional Director Hartwig met with the tribes in Minnesota and the 11 tribes represented by GLIFWC to obtain a list of tribal needs. Service tribal partnership received a boost as the planning session at Mystic Lake directly contributed to a new tribal partnership goal in the Service's strategic plan. Service Tribal Partnership was strengthened at the Conference of the Great Lakes Regional Native American Fish and Wildlife Society where the

Native American Liaison (continued)

--USFWS Photo

Simulated Hunt. *Young members of the Menominee Tribe in Wisconsin were introduced to hunting safety and ethics through use of the Service's Hunter Safety system.*

Regional Director led a group of 11 Service attendees. Twenty two of the thirty three tribes had members attending the three day Conference hosted by the Lac Courte Oreilles Band of Lake Superior Chippewa Indians of Wisconsin. Regional Director Hartwig honored the request of the conference organizers by presenting information on the international transportation of eagle parts and feathers by tribal members. Other presentations by Service personnel included: Ron Refsnider (RO/ES) - Wolf population status information and display; Mary Henson (Marquette SLC) - Monitoring Sea Lampreys in the Great Lakes; Mark Maskill (RO/FH) joining Mike Donofrio (Keweenaw Bay) - The Keweenaw Bay Fish Hatchery Isolation Partnership Project; Pam Dryer (Ashland FRO) joining Greg Fischer (Red Cliff) - Migratory Bird Surveys at Red Cliff through the use of Volunteers; Maureen Gallagher (Big Muddy NWR)- Workshop on Tools for Building Successful Partnerships; Steve Kufrin (RO/WH) - Workshop Presentation on Private Lands Partnerships and Cost Share Opportunities; and John Leonard (RO/EA) joining Adrian Miller (Menominee) - Demonstration of the laser DART system tool for Youth Hunter Safety Education.

Service coordination and partnerships with Tribal governments on natural resources increased. Tribal ecosystem maps were completed and distributed to Service field stations and tribes responded to the Service invitation to attend the ecosystem team meetings. Over 20 projects were conducted under the North American Wetland Conservation Act, challenge cost share and fish and wildlife assistance programs. While the tribal participation in each of these programs remains strong there was some reduction in the degree of tribal financial commitment.

Specific projects conducted at the request of individual tribes included: Review and coordination of Red Lake Nation Draft Integrated Resource Management Plan, coordination and demonstration of Federal Aid Hunter Safety system as part of the Menominee Nation youth tribal education, and coordination of a fishing event for inner city youths at the Minnesota Valley National Wildlife Refuge as part of National Fishing Week. Twelve cooperative sponsors joined the Service for the fishing event which involved more than 160 inner city youths. The Saturday event introduced youths, ages 6 to 12, to recreational fishing and the environmental theme associated with the refuge. The young anglers were instructed in the "Pathway to Fishing" system by expert volunteers and were provided equipment to enable them to test their newfound knowledge against the wily fish in the refuge ponds. Contributions by the 1854 Authority, the Bureau of Indian Affairs and culinary efforts of the Red Lake Band fry crew and personnel from the Holiday Inn provided a shore lunch for the youth and over 50 fish day volunteers.

Strengthening our partnership with tribal organizations is a high priority and the "power of the press" is an excellent tool. Service activities relevant to tribal tradition and values are featured in articles

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contained in Native American publications. For example, a "Ghost Shirt" article was coordinated and published in the Masinaigan and Eagle's Nest, a feature on the Federal Aid SAFETY youth hunter education system was also carried in several tribal publications. Many specific Tribal/Service fish and wildlife assistance projects, such as the fish health diagnostic activities provided by Service personnel on tribal hatcheries, also received press.

The Native American Liaison office provided support to vacant positions in the Washington Office and the Region, acting as the Service's National Native American Liaison for about one month.

Intergovernmental Affairs

During this past year over 1,000 congressional contacts were made, congressional tours were provided in every state, Capitol Hill briefings were conducted, and briefings were provided for the Vice President and the Secretary of the Interior. All 107 field offices were provided current congressional contact information, 24 pieces of legislation that may effect the Region were tracked and 14 laws were researched.

Congressional outreach plans were developed for the proposed Glacial Ridge NWR, Crab Orchard NWR, proposed Minnesota Valley NWR expansion, Missouri River Section 7, and the Kankakee NWR outreach plan was updated. Congressional outreach plans were implemented for the Canada lynx, gray wolf, bald eagle, piping plover, Upper Mississippi River Section 7, and the Missouri River Section 7.

Whooping Crane Congressional Outreach Plan was developed and a total of 240 Congressional offices representing 20 states were informed of progress being made to reestablish a migratory flock of whooping cranes in the eastern U.S.

External Affairs staff served as the MNRG Planning Committee Chair, with responsibility for hosting three Group meetings and coordination and communication between 200 natural resource professionals, representing 14 federal agencies.

Interactive Media

The entire Region 3 Website was recognized by the Association for Conservation Information (ACI) for being accessible for those with visual and hearing disabilities. External Affairs' Web Manager managed the production and development of websites with embedded coding that allows reader software to interpret Internet pages for access by those with disabilities, a first for the Fish and Wildlife Service and the first in Interior to meet the Section 508 standards of the Americans with Disabilities Act. The Region's website has grown to over 2,700 individual webpages.

External Affairs managed and directed an effort to make the Region's website first in the Service as a two-way communications tool for people to access and provide formal comments on items such as EA's, Draft Recovery Plans, NRDA reports, and EIS's. These documents

are often provided in PDF format for online review and include e-mail contact links that encourage Service customers to provide input. In the example of NRDA materials, reports are being downloaded at a pace of 2,000 reports per month. This saves in administrative efforts to mail copies and simplifies the review for the public so they don't have to purchase reports or make a special trip to a reading room to review items of interest.

External Affairs Office was responsible for the development of more than 1,500 accessible webpages which more than doubled the size of the Region's website from around 1,200 pages to over 2,700 now online. Review of all pages to insure they met regional and national policy considerations, website production, training and guidance to field offices, marketing strategy guidance, and overseeing the production of various contractors around the region.

Regional External Affairs produced the first Internet/Intranet outreach plan in the Service. The plan provides an outline for future development of the website, identifies target audiences, and remains a living document to keep pace with the rapidly changing technologies we can tap into to better serve our online customers.

The Region's External Affairs Office serves as Chair of the Public Affairs Committee for the Twin Cities Federal Executive Board. Activities this past year include a very successful media breakfast hosted by the VA and included members of the media to provide Public Affairs professionals and interested managers the opportunity to hear from media members how we can improve our chances of getting activities covered by local media.

Training and Conflict Resolution

On July 1, 2000, Region 3 joined all other U.S. Fish and Wildlife Service Regions and all Department of Interior Agencies by offering CORE services to all employees. CORE uses alternative dispute resolution (ADR) techniques to resolve workplace disputes at the earliest opportunity and at the lowest organizational level. CORE increases communication and reduces destructive conflict. This is a new program for Region 3 employees to protect against abuse, bias, and other improper treatment or unfairness. It assists employees in a confidential, expedient manner to work the issues together to find an equitable solution. Two CORE Specialists, including one External Affairs staff member, were trained in Region 3. Employees and managers are using the CORE program more and more, as it is able to quickly respond to workplace conflict issues prior to taking them to a higher level.

Region 3 maintained strong support for its employees in continuing education by fostering the 40 hour per year training requirement for each employee. The Region's External Affairs Office presented over 38 Distance Learning programs. Over 642 Region 3 employees attended the National Conservation Training Center and numerous

Training and Conflict Resolution (continued)

others attended non-government training programs. Region 3 remains very active in the federal training community by co-chairing the "Inter-Agency Training Council." This council presents high quality "on time" training for all federal agencies while making the courses extremely cost effective.

External Affairs took a very active role in the 62nd Midwest Fish and Wildlife Conference - partnering with the Minnesota Department of Natural Resources and the University of Minnesota. Every 10 years Minnesota hosts this conference, and this year External Affairs actively participated in hosting the registration portion of the conference.

Goals for Fiscal Year 2001

The Region's External Affairs Office will support National, Regional and field office mission and priorities through the delivery of quality communications in a variety of print, video and electronic media; strengthen its liaison with Native American representatives; serve as a clearinghouse on current legislative issues; through interactive technology maintain capabilities to report and market Service accomplishments; and, provide training opportunities for a knowledgeable and current workforce.

Annual Work Plan

In keeping with this mission, External Affairs will strengthen its commitment with implementation of the following Annual Work Plan:

Overall

Support Service and Regional mission and priorities through the delivery of quality communications in order to position the Service in the Great Lakes-Big Rivers Region as the recognized Federal leader regarding fish and wildlife issues. These communications will focus on the Director's priorities, Regional Director's priorities and ecosystem team priorities; legislative and congressional, Native American and Regional workforce training issues; Law Enforcement, Federal Aid and resource programs' media issues; Service identification and integrated marketing in its outreach delivery and products; interactive technology (especially accomplishment reporting and marketing); partnerships; and in-reach (that serves to enhance outreach, retention and employee morale).

Field Issues

Outreach Coordinators and other External Affairs staff will serve to strengthen ties with field offices, strengthen field office (including ecosystem team) outreach capabilities, strengthen recognition of field offices' accomplishments, clarify and promote field office outreach priorities, and facilitate communication with partners.

Work Teams

Build effective and harmonious work teams (including Regional Outreach Team comprised of both regional office and field office employees) in the Regional Office which support pro-active, unified outreach and in-reach.

Realignment

Restructure roles and responsibilities and workload among External Affairs Office personnel to efficiently and effectively complete priority work assignments and exploiting new ways of doing business.

Communication and Training

Improve the effectiveness of outreach and in-reach communications and training opportunities Region wide; implement increasingly effective communication methods and workforce training; support all training and communications Region wide, especially among programs, ecosystems and geographic areas.

Planning

Use the Annual Work Plan to prioritize work for the Office of External Affairs for the coming year. Develop a pro-active strategic plan to use as a guide for evolving the External Affairs Office of the future.

Fiscal Year 2000 Accomplishments

November 1999

1. **Service Contaminants Group Learns About Region 3's Accomplishment Reporting System**
External Affairs
Contaminant specialists from throughout the Service were introduced to Region 3's Accomplishment Reporting System during a November meeting in Washingon, D.C. Scott Flaherty, Accomplishment Reporting System manager, presented a 45-minute slide presentation, followed by a 30-minute question and answer session. The contaminant specialists were interested in the ARS as a possible reporting tool to collect contaminants-related accomplishments, and serve as an online database. (**11/1/99**)

2. **Fourteen Member Group Focuses on Midwest Natural Resources**
External Affairs
Fourteen federal agencies with distinct purposes have formed the Midwest Natural Resources Group (MNRG). The Service is the lead agency for the MNRG (May 1999 - May 2000) and the Regional Congressional and Legislative Affairs staff is in charge of the coordination and communication with approximately 200 natural resource professionals throughout the Midwest. On Nov. 17-19, 1999, 130 people representing the 14 federal agencies attended the MNRG Meeting in Lake Geneva, Wis. This year, a joint charter was signed, an operations guide was developed, 13 Focus Areas and Teams were identified for the 12 Midwestern states, a Planning Sub-Committe and Communications Sub-Committe were formed, and Focus Area Executive Summaries were developed. A press release titled 'Unique Federal Partnership Combines Resources to Improve the Midwest Environment' was issued on June 23, 1999. All 13 Focus Areas were involved in the U.S. Fish and Wildlife Service Ecosystem Team Meetings during the Fiscal Year. (**11/17/99**)

3. **Region 3 Celebrates Native American Month**
External Affairs
Mr. Dwight 'Bucko' Teeple, vice president of the Tribal Council of the Bay Mills Indian Community, was the featured speaker at a Native American Month event at the Service's Regional Office at Ft. Snelling, Minn. The event, sponsored by the Service's Diversity Committee and Native American Liaison, included a forum and luncheon to support and promote Native American Month. Bucko joined Service employees with Native American backgrounds to discuss issues including representation, recruitment and retention of Native Americans within the Service. The second part of the event included Bucko's presentation following a luncheon of traditional fry bread and a variety of Native American soups. Nearly 100 federal employees enjoyed Bucko's presentation which portrayed traditional and ceremonial items and beliefs of the Native American culture. He also shared the traditional meaning, history and use of tobacco, sweet grass, sage and leather and explained how spiritual traditions are incorporated into ceremonial activities. Information and guidance was provided to enable individuals who were not familiar with the Native American customs to act appropriately if they had the opportunity to be included in a ceremony. He also shared details of his vision quest resulting in his recognition and responsibilities as a pipe carrier within his tribe. An article was written and printed in the Bay Mills News Vol.2, No.1, Jan 1999 issue (**11/19/99**)

January 2000

4. **Region 4 GARDs Learn About Accomplishment Reporting**
External Affairs
Geographic Assistant Regional Directors (GARDs) for the southeast United States learned about the benefits of the Accomplishment Reporting System during an afternoon briefing Jan. 18, 2000, in Atlanta, Ga. Scott Flaherty, ARS manager for Region 3, provided a two hour presentation, including a live demonstration of the ARS to GARDS and other managers at the Region 4 headquarters. The Service's Region 4, together with Region 5, is preparing to implement the Accomplishment Reporting System this year. The ARS briefing provided managers with an understanding of the system's information gathering and dissemination capabilities and ease of operation. Region 4's next step is to brief its project leaders on the ARS in mid-February. Region 3 External Affairs is acting as a consultant to Region 4's External Affairs Office during the implementation. (**1/18/00**)

Continued next page.

Overall

5. **Upper Mississippi River Task Force Endangered Species Briefing**
External Affairs
Richard Nelson, field supervisor, Rock Island Field Office; Russell Peterson, field supervisor, Twin Cities Field Office; Lynn Lewis, Ecological Services program supervisor; and Mike Horton, Division of Endangered Species, Washington Office, briefed the Upper Mississippi River Congressional Task Force staff on endangered species issues on the Upper Mississippi River, including the ongoing Section 7 consultation on the operation and maintenance of the nine-foot channel by the Corps of Engineers. The Task Force consists of 16 members of the House of Representatives. The Task Force staff have requested periodic updates on Fish and Wildlife Service activities in the Upper Mississippi River basin. The briefing was held on Jan. 19, 2000, at 2 p.m. in the Rayburn House Office Building, Room 2222. (**1/19/00**)

6. **Great Lakes Fisheries Legislation Roundtable**
External Affairs
Charles Wooley, program assistant regional director (Fisheries PARD) participated in the Great Lakes Task Force - Great Lakes Fisheries Legislation Roundtable hosted by the Northeast Midwest Institute. He provided the Task Force staff with an overview of the Service's Great Lakes mandate, fisheries activities, Federal legislation authorizing the Service's Great Lakes fisheries activities, and the role of the Service within the Great Lakes. The Great Lakes Task Force consists of 8 members of the Senate and 19 members of the House of Representatives. The Roundtable was held on January 20, 2000, 9:30 - 4 p.m. in Russell Senate Office Building, room 188. (**1/20/00**)

7. **St. Louis Engineers Explore Region's Accomplishment Reporting System**
External Affairs
Leaders and staff of the St. Louis District, U.S. Army Corps of Engineers learned about the Region's Accomplishment Reporting System (ARS) during a two-hour presentation and demonstration at the District's headquarters in St. Louis, Mo., Jan. 27, 2000. Scott Flaherty, Region 3 ARS manager, explained the the system's information acquisition, dissemination and management capabilities to District Commander, Col. Michael Morrow, and members of the District staff. Following the presentation, a 90-minute demonstration of ARS information management capabilities was provided to the District Information Management staff. The St. Louis District is responsible for 28,000 square miles of watershed in Missouri and Illinois, including 300 miles of the Upper Mississippi River and 85 miles of Illinois river. Because of the geographic dispersion of the District's field offices, gathering information about Corps' activities and accomplishments has been a challenge. The ARS demonstration was inititated by the District, and offered as one method of helping them meet that challenge. Following the presentation, Col. Morrow presented Scott Flaherty with a St. Louis District Commander's coin. (**1/27/00**)

February 2000

8. **Capitol Hill Briefing on Shiawasse - Rep. Dingel's Office**
External Affairs
Doug Spencer, refuge manager, Shiawassee National Wildlife Refuge and Craig Czarnecki, field supervisor at East Lansing Field Office, briefed Dan Beattie of Representative Dingel's (D-16th Mich.) office on the contaminant issues affecting Grassy Island in the Wyandotte NWR and Mud Island in the Detroit River. The Representative has requested periodic updates on the issue. The briefing was held on Feb. 2, 2000, at 10 am in Rayburn House Office Building, room 2328. (**2/2/00**)

9. **Capitol Hill Briefings - Rep. Camp**
External Affairs
Doug Spencer, refuge manager, Shiawassee National Wildlife Refuge, and Craig Czarnecki, field supervisor at East Lansing Field Office, briefed Tim Wineland of Representative Camp's (R-4th Mich.) office on the status of the Warner Tract, an important bottomland hardwood area along the Saginaw River, provided an update on Shiawassee NWR activities, and discussed the spring 2000, dedication of the Warner Tract. The briefing was held on Feb. 2, 2000, in Cannon House Office Building, room 137. (**2/2/00**)

10. **Capitol Hill Briefing on Charity Islands - Rep. Barcia's Office**
External Affairs
Doug Spencer, refuge manager, Shiawassee National Wildlife Refuge, and Craig Czarnecki, field supervisor at East Lansing Field Office briefed Hans Hess of

Representative Barcia's (D-5th MI) office about the Charity Islands and future activities on these Islands. The Charity Islands were recently transferred to the Service as part of the NRDA settlement against the General Motors Corporation. The briefing was held on Feb. 2, 2000, at 11:15 am in Rayburn House Office Building, room 2419. (**2/2/00**)

11. **Accomplishment Reporting, Midwest Natural Resources Group, Presented to Forest Service at Milwaukee**
External Affairs
Assistant Regional Director for External Affairs was invited to speak to the U.S. Forest Service staff at its regional office (Region 9) in Milwaukee, Wis., about the Accomplishment Reporting System (ARS) and the Midwest Natural Resources Group (as well as the Group's Planning Sub-Committee and Communications Sub-Committee). Forest Service staff expressed an interest in piloting the Accomplishment Reporting System regionally, and are following up with a detailed conference call of hardware and software requirements as well as brainstorming exactly how they want to format the ARS form for its data gathering/data dissemination needs. Regarding the presentation of the Midwest Natural Resources Group, Forest Service staff expressed a very positive interest in having more of their people involved in Focus Area teams, the Planning Sub-Committee and the Communications Sub-Committee. They have a representative who has been added to the Communications Sub-Committee since this presentation. As the Forest Service is hosting the May, 2000 meeting in Illinois, they are already pro-actively involved in this effort. (**2/10/00**)

12. **Missouri River Master Manual Hill Briefing**
External Affairs
Mark Wilson, field supervisor, Columbia Field Office; Michael Olson, Missouri River coordinator; Gary Frazer, assistant director, Ecological Services; and Christine Eustis , Legislative Affairs, Region 9, joined Dan Sakura and Bill Leary from CEQ and Mike Davis from the Corps of Engineers in a briefing for Eric Washburn (Legislative Director) for Senator Daschle (D-SD) and Jo Ellen Darcy and Peter Washburn from the Senate Environment and Public Works Committee Minority Staff (Senator Baucus (D-MT)). They discussed the new preferred alternative for the Army Corps of Engineers Master Manual for the Missouri River. The briefing was held on Feb. 14, 2000 at 2 p.m. in Senate Hart Building, room 509. (**2/14/00**)

13. **External Affairs Vision Maps Program's Future in Information Age**
External Affairs
External Affairs Office staff created a 'Vision' of how they want the office to meet future challenges in this 'information age'. As part of the shaping of the Office, a Functional Statement and a Goals and Objectives document were created as well. The 'Vision', which will be used as a roadmap to the future, includes functions incorporating knowledge management; human dimensions; media relations and outreach in a global information environment; strengthened internal communications; and increasingly improved relationships with tribes, members of congress, partners, states, counterparts and many others. The Vision also incorporates development of a more diverse regional outreach team; professional development; and a staff that reflects diversity of talent, skills, experience, thought, and culture. (**2/24/00**)

March 2000

14. **Great Lakes Task Force Round Table**
External Affairs
Charles Wooley, Region 3 Program Assistant Regional Director (PARD) for Fisheries-Ecological Services, participated in the Great Lakes Task Force's Fisheries Roundtable March 16, 2000, hosted by the Northeast Midwest Institute. The Roundtable was attended by Great Lakes Task Force staff (includes eight members of the Senate and 19 members from the House) and discussed Great Lakes fishery programs. The Roundtable met on Mar. 16, 2000, 9:30-4 p.m. in the Senate Russell Building, Room 188. (**3/16/00**)

15. **Great Lakes Day in DC**
External Affairs
Charles Wooley Program Assistant Regional Director for Fisheries-Ecological Services will be participating in the Great Lakes Day-Congressional Breakfast and Great Lakes Issues Briefing cosponsored by the Great Lakes Commission and the Northeast Midwest Institute. The breakfast will include presentations by members of the Great Lakes Congressional Delegation (includes eight members of the Senate and 19 members from the

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House). The objective of the Issues Briefing is to present Congressional staff and regional leadership with information on Great Lakes Commission priorities. The breakfast is scheduled for March 23, 2000, 8:00-9:30 a.m. House Rayburn B-339 and the Issues Briefing is scheduled for 10:00-12:00 House Longworth 1539. (**3/23/00**)

16. **Region Briefs New Members of Upper Mississippi River Task Force**

External Affairs

John Blankenship (Regional Geographic Assistant Regional Director (GARD), met with Allen Hance, the new Sea Grant Fellow for Wisconsin Representative Ron Kind's office and George Dusenbury, Northeast Midewest Institute employee and Task Force member, March 24, 2000. Hance is working as the coordinator for the Upper Mississippi River Task Force. Blankenship explained the Service's role in the Environmental Management Program (EMP), discussed the Service's response to the Upper Mississippi River Task Force letter and discussed the Service's letter to the Army Corps of Engineers about the EMP. The briefing helps provide the new employees (with the Upper Mississippi River Task Force and the Northeast Midwest Institute) with information on Service activities that will help them accurately brief Members of Congress and respond to the public. (**3/24/00**)

17. **Upper Mississippi River Task Force**

External Affairs

John Blankenship, geographic assistant regional director (GARD) will meet with Allen Hance, the new Sea Grant Fellow for Representative Kind (D-3rd Wis.), and George Dusenbury, the new Northeast Midwest Institute employee. Blankenship introduced himself, explained the Service's role in the Environmental Management Program (EMP), and discuss the Service's letter to the Corps of Engineers about the EMP. The meeting is scheduled for March 24, 2000, at 11 a.m. House Longworth 1713. (**3/24/00**)

April 2000

18. **First Tribal Certification of Federal Aid's SAFETY Training**

External Affairs

Two training sessions were held April 6-8, 2000, on the Simulated Action Firearms Education Training for Youth (SAFETY) system. SAFETY simulators combine live-fire interactive situations with teaching students basic and advanced hunter education skills including safe handling of firearms, hunter ethics and judgement, laws and regulations, game identification, life history and management. The 120,000 dollar system was purchased with the sole purpose of using it as a tool for hunter education. A total of 19 people were trained to operate the system including a tribal officer from the 1854 Authority and the Regional Native American Liaison. To date, 37 people have been trained to operate the system and this was the first tribal representative to be certified as a trainer. The system was demonstrated to a group of tribal supervisors April 13 and 14 with high interest for another demonstration duct at a larger meeting (**4/8/00**)

19. **Menominee Indian Tribe of Wisconsin First Tribe to Use Federal Aid Hunter Education System**

External Affairs

On Saturday April 8, 2000, the Menominee Tribal Conservation Department invited the Service to participate in the tribal Hunter Safety Program to certify youth and tribal members to obtain hunting licenses. Service Native American Liaison, John Leonard and Refuge Program Specialist, Bill Hutchinson teamed with 1854 Authority Conservation Officer, Lieutenant Allen Neveau to present the Simulated Action Firearm Training System (SAFETY) as part of the tribal hunter education program. The system certified trainers provided six hours of interactive hunting scenarios to challenge the young hunters while Tribal Conservation Officers and hunter education instructors provided guidance and direction.

The system, developed and maintained with funds provided by the Service Federal Aid Program, challenged eager young hunters with a variety of shoot or don't shoot situations. Participants were offered stationary targets and a variety of moving game birds and animals in realistic hunting situations projected on a large screen. Hunters used real rifles and shotguns that were modified to fire electronic shots instead of powder and bullets. The firearms were connected to carbon dioxide pressured tanks to deliver recoil action and the computer system provided "realistic" sounds of the firearms being discharged.

The system console operator provided meaningful training to

the youth on the firing line by selecting the "sporting" imagery based on the demonstrated knowledge of the hunters. The system can also evaluate the accuracy of the shooter and trace the aim, location and impact of each shot. Five shooters "hunted" at one time and a seating gallery was provided for family members and friends to observe the activities. Tribal Conservation Officers and instructors coached and guided the youth as they handled the firearms during the simulated hunt. After the hunt; each group was critiqued by Walter J. Cox, Menominee Hunter Education Coordinator, then given a second opportunity to demonstrate their new knowledge by returning to the firing line.

About 70 people participated in the six-hour program, hosted by the Menominee Nation. A complementary breakfast and lunch buffet was provided to graduating students, families and guests. The cooperative efforts of the tribe and the Service resulted in a quality educational experience in a recreational atmosphere. (**4/8/00**)

20. **House and Senate Staff Briefed on Progress With Whooping Cranes**

External Affairs

On April 14, 2000, Region 3's John Christian and Jane West joined Noreen Walsh, Region 4 Ecological Services Program Supervisor, Barb Zellmer, chief of endangered species, Wisconsin DNR, George Archibald, director, International Crane Foundation and Joe Duff, project director, Operation Migration to brief House and Senate staff on whooping cranes. Congressional staff from the seven migration route states and 13 adjacent states (representing 240 congressional offices)were invited to the briefing. The briefing covered progress being made by the partners to reestablish a migratory flock of Whooping Cranes to the Eastern United States. (**4/14/00**)

21. **Region 3 Annual Report and Summary Completed, Posted to Website**

External Affairs

The Region 3 Annual Report for Fiscal Year 1999 is complete and being released to members of the Region and the public. The 500-page Report is a comprehensive record of the Region's efforts in managing and maintaining ecosystems, refuges, fishery resources and hatcheries, private lands and waters, partnerships and restoring and preserving the delicate balance of species in America's heartland. The Annual Report, and Annual Report Summary, were posted to the Region 3 Website April 14, 2000. The 121-page Annual Report Summary highlights the accomplishments, activities and goals for Ecosystems and Programs in Region 3, including the Midwest Natural Resources Group. The Summary is presented in two parts, Part One: Ecosystems, and Part Two: Programs.

The complete, unabridged version of the Fiscal Year 1999 Annual Report is a comprehensive report containing more than 1,300 individual accomplishments in addition to the highlights described in the Report Summary. The Report details accomplishments for both Ecosystems and Programs as reported by field offices through the Region's Accomplishment Reporting System. The Ecosystem/Program chapters, backed by detailed accomplishment reports provide a detailed record of the Region's daily accomplishments. The production of this year's Report was complicated by unexpected technology hurdles. Last July, the Service server in Denver was compromised by an unknown 'hacker' who entered Service Web pages, including the Accomplishment Reporting System. As a result, the ARS was immediately taken off-line, and all ARS files and reports were lost. Two months later, we recovered some 800 accomplishment reports. Special thanks to Jean Collette, Pat Kimble, Tana Reimer and Kathy Mock who volunteered their word processing skills to help reformat and edit mountains of garbled, unformatted text.

This year, numerous color photos help illustrate accomplishments in the Report. The wealth of photos are a by-product of 'Inside Region 3' and the ARS, as field personnel are now submitting photos to supplement accomplishment reports.

The Annual Report can be viewed at the Region 3 Website http://midwest.fws.gov (**4/14/00**)

22. **Regional Director's Conference Room Gets Audio-Visual Facelift**

External Affairs

Continuing renovation of the Regional Director's conference room entered its final phase April 14, 2000, with the award of a contract to install audio-visual equipment and other technology enhancements in the presentation facility. Minnesota-based Tierney Brothers, Inc., was awarded the contract to install new audio-

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visual equipment and other enhancements in the conference room.
Renovation of the conference room became necessary after reconfiguration of office space on the Region's sixth floor headquarters forced a change to the dimensions of the room. Renovations began last fall, and include new walls, carpeting and wallpaper, high-quality track lighting, refurbishment of the conference table and podium, computer network connections and new conference table chairs.
In addition to routine staff meetings, the Regional Director's conference room provides Regional employees with a quality meeting and presentation facility. The room is host to numerous visitors from through the Region and the Service. Additionally, the conference room hosts meetings between the Service and other government and non-governmental partners. The room also serves as the Region's Distance Learning classroom.
Audio visual enhancements planned include a state-of-the art presentation system with digital surround sound; slide-to-video recording and playback capability, voice amplification and other improvements. Other presentation enhancements will allow presenters to conduct video presentations from their chair at the conference table via network connections at the conference table.
The audio-visual phase of the renovation should be complete by mid-summer. (**4/14/00**)

May 2000

23. **External Affairs Coordinates Upper Mississippi River Section 7 Outreach**
External Affairs
External Affairs worked with Regional Office and field staff at Rock Island and Marion Field Offices in Illinois, and the Twin Cities Field Office in Minnesota, to develop and implement an outreach plan in conjunction with completion of the formal consultation and final biological opinion for the Army Corps of Engineers' operation of the Upper Mississippi River system.
The outreach plan, developed by the team of biologists from the Regional Office, field offices and External Affairs, allowed the Service and Region 3 to disseminate its message regarding the importance of the Endangered Species Act, the value of listed species, the benefits of alternatives recommended in the biological opinion, the value of Section 7 consultation, and the Service's working relationship with the Army Corps of Engineers.
Implementation of the plan allowed this message to reach media, elected officials and the general public. Media interest was high and garnered national attention to the consultation; the issue was featured in the Washington Post, St. Louis Post-Dispatch, Associated Press, and Fox News Chicago Bureau sent a crew to Upper Mississippi NWR and Genoa to cover the story. (**5/18/00**)

24. **External Affairs Coordinates Public Involvement for EMP/HNA**
E*xternal Affairs*
External Affairs Outreach Coordinator for Geo 2 serves as chair of the public involvement committee for the joint Service/Army Corps of Engineers Habitat Needs Assessment(HNA) being carried out under the Environmental Management Program for the Uppper Mississippi River. In 1999 and 2000, External Affairs assisted Rock Island Field Office, the Region's lead office for HNA, in convening members of the team to proceed with activities aimed at gathering public input into the HNA. Meetings and teleconferences were held to develop plans for the second public involvement phase, that of assembling focus groups to gauge public reaction to the HNA process; obtain public input on desired future conditions for the UMR; and develop ideas for future opportunities for public involvement. External Affairs, working with RIFO and the Corps, developed a scope of work to enable a private consulting group, through the Corps, to carry out the focus group exercise and develop a final report compiling all aspects of public involvement. (**5/29/00**)

June 2000

25. **Inner City Youth Celebrate National Fishing Week at Minnesota Valley NWR**
External Affairs
The Minnesota Valley National Wildlife Refuge in Bloomington, Minn., hosted a fishing event for inner city youths as part of National Fishing Week. Twelve cooperative sponsors joined the

Service for the event June 3. More than 160 inner city youths including Native Americans (65 percent), African Americans (15 percent), Asians (10 percent) and others 10 percent. The Saturday event introduced youths, ages 6 to 12, to recreational fishing and the environmental theme associated with the Refuge. The young anglers were instructed in the "Pathway to Fishing" system by expert volunteers and were provided equipment to enable them to test their newfound knowledge against the wily fish in the refuge ponds. Contributions by the 1854 Authority, the Bureau of Indian Affairs and culinary efforts of the Red Lake Band fry crew and personnel from the Holiday Inn provided a shore lunch for the youth and over 50 fish day volunteers. The presence of a fully operational National Wildlife Refuge in the shadow of a major metropolitan area proved a unique opportunity to instruct, educate and demonstrate the Service ethic and benefits of recreational fishing to a very intense group of young anglers from a variety of cultures and backgrounds. (**6/3/00**)

26. **Midwest Natural Resources Group Highlights Illinois River Focus Area**

External Affairs

On June 14, 2000, Senior Leaders of the seven federal agencies, represented by the Midwest Natural Resources Group (MNRG), signed an Intergovernmental Partnership Agreement to work in partnership with state and local governments, non-governmental organizations, private landowners and individuals to restore and protect the ecological integrity of the Illinois River Basin. Specifically, the Group decided to focus initial efforts on the Crow Creek watershed.

The Service's Region 3 External Affairs staff, in coordination with the MNRG Communication Sub-Committee, helped develop and obtain agency signatures for the Agreement. External Affairs staff also coordinated a press conference and site tour, notified local media and developed press packets. (**6/14/00**)

July 2000

27. **External Affairs Provides Outreach, Event Support to Big Oaks NWR**

External Affairs

Public affairs and outreach specialists from External Affairs helped staff from Big Oaks NWR with numerous outreach and event planning activities leading up to the dedication of the Indiana Refuge July 8.

Outreach Specialist Georgia Parham and Public Affairs Specialist Scott Flaherty wrote and distributed news releases concerning the negotiated agreement that allowed the creation of Big Oaks NWR, and followup releases informing the media and public of the dedication event. Additional support was provided during a site visit in June. Outreach plans, question and answers and a refuge fact sheet were created, coordinated and distributed. In addition, EA staff helped prepare guest lists, invitations for the RD signature and consulted with Refuge Manager Lee Herzberger on event protocal and media matters. Several newspapers and at least one live NPR Radio interview were conducted by Flaherty. Washington office public affairs specialist Chris Tollefson assisted with the event at Big Oaks NWR July 7-8. (**7/8/00**)

28. **Service Announces Schedule for Gray Wolf Public Meetings**

External Affairs

The U.S. Fish and Wildlife Service has scheduled a series of public information meetings to provide information on a proposal to reclassify most gray wolves in the Great Lakes area from "endangered" status under the Endangered Species Act to the less protective "threatened" status.

Public hearings, designed to capture comments and information relevant to the Service's proposal, have also been scheduled.

These public information meetings and hearings follow a national announcement made on July 11, 2000, which addressed the reclassification and delisting of gray wolves across the lower 48 states. Under the proposal, wolves in Michigan, North Dakota, South Dakota and Wisconsin would be reclassified from endangered to threatened, joining Minnesota wolves in that status. Additionally, Endangered Species Act protection would be removed from any wolves in Illinois, Indiana, Iowa, Missouri and Ohio entirely.

The information meetings are designed to explain the details of the Service's proposal and discuss its potential impact in the Great Lakes region. Service staff will also answer questions and accept comments people might have about the proposal. Formal comments may also be sent to the Service via the Service's gray wolf web site at:

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http://midwest.fws.gov/wolf

Comments can also be submitted by mail and by facsimile, and must be received by the Service no later than November 13, 2000. More information on submitting comments can be obtained by calling the gray wolf information number (612-713-7337) or on the web site.

All meetings will use an open house format, including a slide presentation beginning every half hour. Service endangered species program staff will be available to answer questions and discuss the proposal. The Service will hold public information meetings at the following locations in the Midwest:

Public Information Meetings

Minnesota:

St. Paul, Aug. 7, 4 to 9 p.m. in the Upper Lobby of the Earl Brown Center, 1890 Buford Avenue, on the University of Minnesota St. Paul Campus.

Grand Rapids, Aug. 8, 4 to 9 p.m. at the Sawmill Inn, 2301 S. Pokegama (State Route 169).

Wisconsin:

Black River Falls, Aug. 15, 4:30 to 9:30 p.m. at the Lunda Theater in the Black River Falls Middle School (behind Black River Falls High School), 1202 Pierce Street.

Madison, Aug. 16, 4:30 to 9:30 p.m. at Mitby Auditorium in the Madison Area Technical College (near Madison Airport), 3550 Anderson Street.

Ashland, Aug. 17, 4:30 to 9:30 p.m. at the Northern Great Lakes Center, 29270 County Highway G (three miles west of Ashland).

Michigan:

Watersmeet, Aug. 28, 2 to 4 p.m. and 6 to 9 p.m. at Ottawa National Forest Visitor Center, U.S. 2 and Hwy. 45.

Escanaba, Aug. 29, 2 to 4 p.m. and 6 to 9 p.m. at Bay de Noc Community College, 2001 N. Lincoln Road.

Sault Ste. Marie, Aug. 30, 2 to 4 p.m. and 6 to 9 p.m. at the Cisler Center, Lake Superior State University, 650 W. Easterday Avenue.

East Lansing, Aug. 31, 2 to 4 p.m. and 6 to 9 p.m. at the Breslin Student Center, Michigan State University, 1 Birch Road.

Public Hearings

The Service will hold formal public hearings and accept comments on the gray wolf reclassification proposal at the following locations in the Midwest:

Wisconsin:

Madison, Oct. 10, 6 to 9 p.m. at Mitby Auditorium in the Madison Area Technical College (near Madison Airport), 3550 Anderson Street.

Michigan:

East Lansing, Oct. 16, 6 to 9 p.m. at Communication Arts and Sciences Bldg., Room 147, Michigan State University, southeast corner of Wilson Road and Red Cedar Road.

Marquette, Oct. 17, 6 to 9 p.m. at Holiday Inn, 1951 U.S. Hwy. 41 west.

Minnesota:

Duluth, Oct. 18, 6 to 9 p.m. in Room 175 of the Life Sciences Building, Oakland Avenue, on the University of Minnesota Duluth Campus.

For more information on the gray wolf reclassification proposal, see the Service's gray wolf web site at http://midwest.fws.gov/wolf (**7/11/00**)

29. **Region 3 Launches National Gray Wolf Announcement**

External Affairs

On July 11, 2000, the Service announced the proposed reclassification and delisting of the gray wolf across the lower 48 states. This announcement represented the culmination of over 24 continuous months of work by members of Region 3 Ecological Services and External Affairs, both of which were the lead offices nationally for the proposal. The successful rollout of this proposal, perhaps the most wide-ranging and controversial in the history of the Endangered Species Act, can be directly attributed to the cross-functional teamwork and coordination efforts of Region 3 staffers, both within the region and with their peers nationally. (**7/11/00**)

30. **Year's Worth of Reporting Captures Region's Accomplishments**

External Affairs

Since August 1999, the Accomplishment Reporting System (ARS) has been collecting and disseminating a wealth of information about resource and outreach activities in Region 3. Since the new, upgraded version 3.0 was fielded, more than 1,000 reports have been filed from field offices. The reports reveal some interesting statistics about Service activities in the Midwest. An informal sampling of reports filed over the past 12 months show the Region is successfully engaged with numerous partners in government, non-government organizations and private industry. Field offices have documented accomplishments involving more than 425 partners. Included in this total are 20 international agencies, 25 federal agencies, 21 Tribal agencies, 151 State agencies, 133 non-governmental organizations and 74 private businesses. During the

period, more than $47 million was reported to have been spent on resource and conservation projects, outreach events, activities and other accomplisments. The Service (Region 3) contribution to this total was less than $3.6 million. The figures indicate the Region is truly committed to 'working with others' to accomplish its natural resource goals in the Midwest.

Over the past year, the value of the ARS has continued to grow. The online database (keyword searchable) is available to most managers and employees. The database contains information from more than 1300 reports, and provides managers and employees a documented record of regional accomplishments. Access to the complete database is restricted to members of the Regional Management Team and employees) A capable search engine is also provided on the ARS Web site (http://www.fws.gov/ars) that allows the public to perform data searches. The Accomplishment Reporting System is a dynamic information, dissemination and data collection system. The accumulated reports, based on accomplishments and activities of Service field offices, are stored in a searchable online database to assist regional managers in their decision making. Noteable accomplishment reports are provided electronically in 'real-time' to members of Congress and the news media, bringing recognition to Region members for their work with the nation's natural resources in the Midwest. Noteworthy reports, often illustrated by photographs and other graphics, are provided to members of the Region in Inside Region 3, an electronic 'inreach' publication. (**7/19/00**)

31. **Piping Plover Critical Habitat Public Hearings are Conducted in the Great Lakes Region**

External Affairs

Staff members from Endangered Species, External Affairs programs, and the staff from eight Ecological Services Field Offices in Regions 3 and 5 recently conducted seven public hearings on the proposal to designate critical habitat for the Great Lakes population of the piping plover. The hearings were held in Ashland, Wis., July 17; Green Bay, Wis., July 18; Newberry, Mich., July 19; Traverse City, Mich., July 20; Indiana Dunes, Ind., July 24; Cleveland, Ohio July 25; and Watertown, New York July 27. An informal informational session was held prior to each hearing. Athough the attendance at the hearings was low (ranging between 5 and 38 people) Service representatives were able to discuss the proposal with important leaders and members of stakeholder groups, as well as with concerned private landowners. More than 100 people were contacted during the meetings. This gave us an excellent opportunity to explain what critical habitat is and how it might affect other federal agencies, States, Tribes, and private landowners. All oral and written comments submitted at the hearings will be included in the record and used in our decision-making process. (**7/27/00**)

32. **Region's Online Communications on Par With Private Industry**

External Affairs

Online electronic communication between the Service's Region 3 and its employees and public is keeping pace with similar efforts by private industry and in some cases, may be slightly ahead. These conclusions were reached following a two-day seminar on Online Communications sponsored by Ragan Communications July 27-28, 2000, in New York City. Scott Flaherty and Chuck Traxler of the Region 3 External Affairs Office were among 66 corporate and government communications professionals at the seminar, which covered the latest computer-oriented communications techniques for corporate America.

Surprisingly, many corporate communications departments are only beginning to leverage technology to improve internal communications. In addition to refinements in corporate Web sites, the latest techniques include greater use of Intranets, online databases, electronic newsletters and online discussions including employee 'chats'. Companies are also moving toward implementing Intranet 'portals' that contain tools and applications that employees need to do their jobs. Many coporations, including some big, well known companies, are beginning to utilize online communications vehicles to communicate with employees, something that Region 3 has been working at for more than two years. The seminar provided excellent ideas for improving Regional 'inreach' processes and products, including improvements in the Regional Intranet and online publications (Inside Region 3). (**7/28/00**)

Continued next page.

August 2000

33. **New Information Dissemination System Increases Reach, Reduces Costs**
External Affairs
The Region 3 External Affairs Office has developed a new Regional Information Dissemination System (IDS) that provides efficient, cost-effective information dissemination to the media, Congress and the public. The IDS replaces the Region's previous fax/email system while drastically reducing reliance on commerical news dissemination services. The new IDS should save the Region $18,000 to $25,000 annually. IDS allows the region to quickly disseminate information to specifically targeted audiences. The system is also designed to reach smaller media outlets that 'wire' services do not reach. (**8/2/00**)

34. **External Affairs Intranet Site Provides Valuable Information**
External Affairs
The Region 3 External Affairs Office has developed an Intranet site for use by all Service employees that provides useful information about the External Affairs Office and how its professional staff can help regional employees. The Intranet site (accessable to employees only)hosts a wide variety of easily accessible and useful information, including Regional Director's Orders, Regional Briefing Papers, Congressional Affairs links, and information on developing and printing official Service outreach publications.
The address is http:// r3ftp.fws.gov/aba/ea (**8/2/00**)

35. **ARS Adopted by Forest Service, EA Demonstrates Upgrades**
External Affairs
Scott Flaherty, ARS manager for Region 3 met with members of the U.S. Forest Service's Region 9 Aug. 3-4, 2000, to address technical issues and provide assistance to the Milwaukee office staff following their decision to adopt Region 3's Accomplishment Reporting System. Three members of the Forest Service public affairs and information systems staffs were provided a demonstration of the system and learned how to apply the ARS to their specific needs. The Forest Service Region is planning to adapt the Service's ARS to its own uses. Flaherty, one of two ARS managers in the Service, is acting as a consultant to the Forest Service office. (**8/3/00**)

36. **Waterfowl Season Primer Breakfast Held in Regional Office**
External Affairs
The second annual Preseason Waterfowl Season Primer was held August 10 at the Regional Office at Fort Snelling, Minn. The meeting, hosted by Regional Outreach Coordinator Dan Sobieck, pulled together media representatives and waterfowl experts from Service, the Minnesota Department of Natural Resources, Ducks Unlimited and the Minnesota Waterfowl Association to offer comprehensive information about the status of waterfowl in the Midwest, hunting regulations, and future management actions. A Question and Answer session following presentations by federal and state agencies prompted informal dicussion of waterfowl issues between media representatives and biologists. (**8/10/00**)

37. **Service Messages Delivered to Nation's Black Journalists**
External Affairs
The Service and Centennial messages were delivered to America's best and brightest African-American journalists at the 25th annual National Association of Black Journalists conference Aug. 16, in Phoenix, Arizona. The Service presence was part of the Refuges Centennial Outreach Campaign. The Service had the only Department of Interior booth at the conference, which was attended by more than 500 of the nation's top black journalists as well as all the major networks and media chains.
The Service booth was a popular site during the conference, as it quickly exhausted its supply of of press kits, Refuge books, pins and Centennial summary documents. In addition to offering information about the Refuge Centennial, Service staff discussed Service careers and attended an African Americans and the Environment workshop. Based on our contacts at the conference (the first Service-attended NABJ conference), we plan to refocus, refine our message and have an even greater impact at the 2001 NABJ Conference. (**8/16/00**)

38. **Service Wolf Proposal Offers Closer Ties to Tribal Conservation Efforts**
External Affairs
In July, the Service proposed changing the classification of the gray wolf (Canis lupus) from endangered, to threatened under the Endangered Species Act. The proposal, which is open for public comment until Nov. 13, 2000, would designate four distinct

populations of gray wolves (Western Great Lakes, Western, Northeastern and Southwestern)in the continental U. S. and reclassify wolves from endangered to threatened in all but the Southwestern distinct population.

In addition to proposing four distinct population segments and reclassifying from endangered to threatened, special conditions are proposed for gray wolves in Michigan, North Dakota, South Dakota and Wisconsin. The special regulations are proposed under section 4(d) of the Act to expand the current Minnesota wolf depredation program into Michigan, North Dakota, South Dakota and Wisconsin.

Although many of the parts of the Minnesota 4(d) rule are included in the proposed 4(d) rule, there are additional special conditions that address tribal issues and promote increased interaction between the tribes in these states and the gray wolves that occur in the states.

Major proposed actions under review include: (1)the authority of Federally recognized American Indian tribes to designate individuals to take wolves within the reservation, (2) a priority that applies to salvage of dead specimens for traditional, cultural, or spiritual purposes by Indian Tribes along with scientific study.

The importance of the gray wolf to tribal culture and tradition is well established and some tribes such as the following activities by Bad River Band have advanced the knowledge of wolf populations through management studies.Members of the Bad River Tribe, Great Lakes Indian Fish and Wildlife Commision and the Chippewa Ottawa Treaty Fishery Management Authority met with Service personnel during wolf informational meeting August 17, 2000, at the Great Lakes Science Center in Ashland, Wis. Bad River and all Tribal governments and organizations are encouraged to submit written comments or testimony which address the content of the proposed rule. Issues may relate to the cultural and traditional importance of the wolf or other features such as the management and scientific aspects of wolf population. (**8/17/00**)

39. **Wisconsin Residents Get Facts About Proposed Gray Wolf Reclassification**

External Affairs

Wisconsin residents were able to get the facts about the U.S. Fish and Wildlife Service's proposed reclassification of the gray wolf to a threatened species under the Endangered Species Act during information meetings at three Wisconsin cities Aug. 15-17. About 65 visitors attended the evening meetings, held from 4:30 - 9:30 p.m. in Black River Falls, Madison and Ashland, Wis.. The open-house style meetings included an 18-minute slide presentation on gray wolf biology, predation, and facts about the proposed reclassification. Subject matter experts from the Service and Wisconsin Department of Natural Resources staffed information tables, addressing specific questions from the public and local news media. Written comments were also accepted from the public. Regional Office staff from External Affairs, Ecological Services joined members of the Green Bay Field Office to operate the meetings. Wisconsin is one of three states with wolf populations in the Great Lakes region affected by the Service proposal, which will reclassify the status of the gray wolf to a threatened species under the Endangered Species Act. State and federal conservation agencies estimate their are about 250 gray wolves in Wisconsin, located primarily on public lands in the northwest part of the state.

The Wisconsin meetings followed similar meetings held earlier in St. Paul and Grand Rapids, Minn. The Service's informational meetings are scheduled for Watersmeet, Mich. Aug. 28, and Escanaba, Mich. Aug 29. (**8/17/00**)

40. **Service Website Featuring Lewis and Clark Bicentennial Introduced at Annual AFS Meeting**

E*xternal Affairs*

Sixty members of the American Fisheries Society were introduced to a website being developed by Region 3 that combines the work of explorers Lewis and Clark with conservation work of the U.S. Fish and Wildlife Service during the annual meeting of the Society's history section August 21 in St. Louis, Mo.

John Leonard, Region 3 Native American Liaison and past History Section President of the American Fisheries Society, introduced the site's developer, Scott Eckert, Region 3 computer support group, who demonstrated the still-evolving Service web site. The web site includes numerous links to the natural resource web sites on sturgeon, endangered species, location of Service facilities and cooperators. This presentation was conducted

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at the invitation of Society History Section President, Carlos Fetterolf and was consistant with the conference theme, 'Reflections'. The Service web site is still be developed by Eckert, and focuses on natural history with the theme, 'Then, Now and in the Future'. (**8/21/00**)

41. **Service Hears Tribal Needs, Discusses Opportunities at Tribal Partnership Harmony Conference**

External Affairs

The Service joined other federal Agencies in the First Annual Partnership Harmony Conference Aug. 24, in Onamia, Minn. The three day conference, themed 'Creating Partnerships to Build tribal Sustainability - Enhancing the Circle' was hosted by the Mille Lacs Band of Chippewa. John Leonard, Native American liaison, represented the Regional Director on the planning committee and coordinated Service attendance. Six Service staff also attended the conference: T.J. Miller, Ecological Services; Russ Peterson and Paul Burke, Twin Cities Field Office, Greg Brown, chief, Private Lands; Margie Maldonado, Visitor Services and outreach. The conference agenda included six concurrent sessions where tribes presented needs and identified specific experiences in talking circles. Federal participants listed to Tribal members during the circles, clarifying issues and identifying opportunities for tribal-federal cooperation. After consolidating tribal needs and issues, representatives of federal agencies addressed areas where federal assistance and coordination was available. Specific Service assistance included cost share programs, endangered and threatened species, fish and wildlife technical assistance, natural resource damage assessment and wetland permit issues. (**8/24/00**)

42. **50,000-Plus Learn About Migratory Birds, Service Programs at Cabela's Fall Expo**

External Affairs

Service programs were showcased during Cabela's Fall Expo Aug. 25-27, 2000, at Cabela's in Owatonna, Minn. The Service booth emphasized Migratory Birds, and hosted the talented wildlife artists Becky and Bonnie Latham, winners of recent Minnesota Junior Duck Stamp contests. The sisters painted and and promoted the Jr. Duck Stamp program while working at the Service booth. A kestrel, provided by Minnesota Valley NWR along with handler Deanne Endrizzi, also entertained and educated shoppers Aug. 27. An estimated 50,000-60,000 people saw the Service National Wildlife Refuge exhibit, took our migratory bird quiz, and received information on Service programs. Service Rep Chuck Traxler also took part in a live radio broadcast from the store Aug. 26. Calling it the 'best Service display' we ever had, Cabela's store managers were very pleased with our attendance at the event. Another great high profile, proactive event for the Service and Service programs. (**8/25/00**)

43. **Media, Public Attend Gray Wolf Public Meetings in Michigan**

External Affairs

Four public open houses to provided the public with the facts about the Service's Gray Wolf reclassification proposal were held across Michigan during the week of Aug 28, 2000. An average of about 24 people attended each of the four meetings; held in Watersmeet, Escanaba, Sault St. Marie, and East Lansing. While public turnout was light, media attendance was especially notable, with 10 print and broadcast media outlets attending and filing stories. The wolf meeting in Escanaba, Mich., was the lead story on the Escanaba eventing television news. The open house style meetings were staffed by regional office staff from Ecological Services and External Affairs, along with staffers from Michigan field offices.

The Michigan meetings conclude a series of nine meetings held across Minnesota, Wisconsin, and Michigan. Similar meetings will be held in the West and Northeast United States prior to the end of the public comment period Nov. 13. (**8/28/00**)

44. **Michigan Residents Learn About Proposed Reclassification of Gray Wolves**

External Affairs

Michigan residents had the opportunity to learn about the U.S. Fish and Wildlife Service's proposal to reclassify the gray wolf to a threatened species under the Endangered Species Act during recent information meetings at four Michigan cities. About 85 people, including local landowners, tibal members, interested public, livestock producers, and members of conservation organizations attended the meetings, held from 2-4 p.m. and 6-9 p.m., Aug. 28-31, 2000, in Watersmeet, Escanaba, Sault Saint Marie, and East Lansing, Michigan. The open-house style meetings included an 18-minute slide presentation on

gray wolf biology and facts about the proposed reclassification. Subject matter experts from the Service and Michigan Department of Natural Resources staffed information tables, addressing specific questions from the public and local news media. Written comments (six) were also accepted from the public. Regional Office staff from External Affairs, Ecological Services joined members of the East Lansing Field Office to conduct the meetings. Michigan is one of three states with wolf populations in the Great Lakes region affected by the Service proposal, which will reclassify the status of the gray wolf to a threatened species under the Endangered Species Act. State and federal conservation agencies estimate therer are about 250 gray wolves in the upper peninsula of Michigan. The Michigan meetings followed similar meetings held earlier in Minnesota and Wisconsin. (**8/31/00**)

September 2000

45. **Service Participates in Great Lakes Regional Native American Fish and Wildlife Society Conference**

External Affairs

Regional Director Bill Hartwig led a group of 11 Service staff, eight of which presented, during a September meeting of the Great Lakes Regional Native American Fish and Wildlife Society. Twenty two of the 33 member tribes attended the three day Conference, hosted by the Lac Courte Oreilles Band of Lake Superior Chippewa Indians of Wisconsin. After Regional Director Hartwig's presentation on "International Transportation of Eagle Parts and Feathers by Tribal Members," other Service staff members conducted presentions. Presenters and topics include: Ron Refsnider - Wolf population status information; Mary Henson (Marquette SLC) - Monitoring Sea Lampreys in the Great Lakes; Mark Maskill joining Mike Donofrio (Keweenaw Bay)-The Keweenaw Bay Fish Hatchery Isolation Partnership project; Pam Dryer (Ashland FRO) joining Greg Fischer (Red Cliff) - Migratory Bird Surveys at Red Cliff through the use of Volunteers; Maureen Gallagher (Big Muddy NWR)- Workshop on Tools for Building Successful Partnerships; Steve Kufrin (RO)- Workshop Presentation on Private Lands Partnerships and Cost Share Opportunities; and John Leonard (RO/EA) joining Adrian (Dusty) Miller (Menominee) - Demonstration of the laser DART system tool for Youth Hunter Safety Education. Over 110 people registered for the meeting including representation from three inter-tribal groups and youth from the LCO Boys and Girls Outdoors Club. (**9/14/00**)

46. **External Affairs Assists Crab Orchard NWR With Comprehensive Conservation Plan**

External Affairs

The Region 3 External Affairs staff assisted Crab Orchard National Wildlife Refuge with the public information/participation portion of their Comprehensive Conservation Plan (CCP) development process. The Office developed and disseminated several news releases clarifying information and ensuring the public was aware of upcoming informational meetings. The Office also served as the main media contact for the CCP and participated in six radio interviews, one television interview and three newspaper interviews. In addition, the Office developed media packets, coordinated additional media interviews and assisted refuge staff at two public information meetings. The Office continues to be part of the CCP Planning Team and will continue to provide assistance as the CCP moves forward. (**9/27/00**)

47. **External Affairs News Dissemination in Fiscal Year 2000**

External Affairs

In its continuing effort to keep the public informed about Service activities and programs, staff from External Affairs wrote and disseminated 51 news releases and four media advisories during Fiscal Year 2000. News releases ensure that members of the media, Congress, partners, and other interested stakeholders are informed of upcoming activities or recent developments within the region. News releases and media advisories are the basic tools, used by all media, to gather information before developing and story of covering an event. The External Affairs staff develops news releases and media advisories to quickly disseminate essential (who, what, where, when, why and how) information in the proper (Associated Press) format. The office uses standard 'wire' services, an internal fax/email system, the World Wide Web, List Servers and personal contacts to ensure the Service message gets to the correct audience in a timely and efficient manner. Once a news release or media advisory has been sent, the

Continued next page.

External Affairs staff provides support to media representatives who contact us for additional information. (**9/27/00**)

48. **Office of External Affairs Develops 27 Articles Covering Region 3 Activities**
External Affairs
In Fiscal Year 2000, the Region 3 External Affairs staff wrote 27 articles about events and activities in the Region. All articles were submitted to Internal publications such as "Fish and Wildlife News;" "People, Land and Water;" and numerous other governmental and commercial publications. Because of budget and personnel constraints, External Affairs is unable to track articles appearing in commercial or other governmental publications. Therefore, we rely on our coverage in Fish and Wildlife News, and People, Land and Water to measure our publication rates. Of the 27 articles submitted, 21 were published in either Fish and Wildlife News or People, Land and Water. The development and dissemination of articles describing the activities of Region 3 personnel are a critical part of the Service's National Outreach Strategy. These articles help to improve the Service's image and increase the awareness of the American public—which improves our ability to carry out the Service mission. (**9/29/00**)

49. **External Affairs Develops Outreach Plans for Grand Kankakee NWR**
External Affairs
External Affairs staff worked with members of Realty/Ascertainment divisions and the Chicago and Bloomington Ecological Services Field Offices on preliminary outreach strategies in conjunction with creation of Grand Kankakee NWR and the process to develop a Comprehensive Conservation Plan. While efforts are ongoing, this interim team began developing messages, tactics and strategies to address outreach needs for the CCP process and the refuge in general. Development of an outreach plan and strategy will enable Service and Region to meet goals for public input and involvement into the development of plans for the refuge, in accordance with commitments made during the process to develop an environmental assessment. This outreach process will also enhance the Service's ability to work with partners, landowners, elected officials, conservation organizations, and others interested in the development of the new refuge. (**9/30/00**)

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Migratory Birds and State Programs

Fiscal Year 2000 Annual Report
Region 3

Program Description and Mission

The Division of Migratory Birds and State Programs was established by the Service during Fiscal Year 2000. The division merges two pre-existing programs: Federal Aid, and Migratory Birds, formerly a part of the Refuges and Wildlife program. Migratory Birds and State Programs oversees such migratory bird conservation functions as the North American Waterfowl Management Plan, Partners in Flight for nongame birds, population and habitat surveys for migratory species, and a permit program for birds of federal responsibility.

The goals of the migratory bird management program are to maintain and enhance migratory bird populations and habitats, and to provide people with opportunities to learn about and enjoy these species. The Service enforces the Migratory Bird Treaty Act (protecting bird populations from overexploitation), coordinates and conducts bird surveys, bands birds, supports research, sets hunting regulations, issues permits for the take of certain birds, and protects and restores migratory bird habitats.

Approximately 1,000 species of birds occur in the United States. About 450 species are found in the Upper Midwest; 48 of these are game birds (waterfowl, rails, woodcock, snipe and mourning doves), while the remainder are nongame species. Forty-three species (10 percent) are of concern to the Service because they are rare or declining. These and other species of special interest

Description and Mission (continued)

are listed in the Service's Fish and Wildlife Resource Conservation Priorities document.

The division also administers the Federal Aid program, an important grant program which provided $89.8 million to state conservation departments within the region during Fiscal Year 2000. Federal Aid works with state fish and wildlife agencies in mutually responsible, cooperative and creative grant partnership to protect and enhance fish, wildlife and habitat resources for present and future public benefit.

The major grant programs, Sport Fish Restoration and Wildlife Restoration, are recognized nationwide for the positive impacts they have had on the quality of habitat and species management and the efficiency of program administration.

Other grant management programs administered by Federal Aid are the: Coast Wetlands Planning, Protection and Restoration Act; Anadromous Fish Conservation Act (currently inactive); Partnerships for Wildlife Program; Section 5 of the Endangered species Act; and Clean Vessel Act and Boating Infrastructure Grant Program. While these grant programs are smaller in terms of dollars, they are major contributors to providing benefits to our fish and wildlife resources.

Summary of Fiscal Year 2000 Accomplishments

Migratory Birds

Bird conservation was taken to a higher level in 2000 when Region 3's Division of Migratory Birds and the North American Waterfowl Management Plan (NAWMP) Joint Venture Office took a leadership role in the development of several nongame bird conservation plans to complement the NAWMP. The Upper Mississippi Valley/Great Lakes Shorebird Conservation Plan, which is a component of the U. S. Shorebird Conservation Plan, was completed, initial planning was undertaken for regional components of the North American Waterbird Conservation Plan, and input was provided on several Partners in Flight landbird conservation plans. The Division's Habitat and Population Evaluation Team digitized data for a Geographic Information System that will be used to identify important habitat for grassland songbirds in the Prairie Pothole Region and overlay this with maps of priority waterfowl habitat to highlight focus areas for multi-species bird conservation.

In Fiscal Year 2000, the Region's Migratory Bird program provided $483,000 for 51 nongame bird monitoring, research, habitat management, and education projects, including 27 done on national wildlife refuges. Funding was also provided for research and management projects relating to Canada geese, duck nesting success, woodcock, ingestion of spent shot pellets by ducks in the Mississippi Flyway, lesser scaup, GIS mapping of upland cover in the Prairie Pothole Region of Minnesota and Iowa, and for

wetland management.

At the national level, the Division played a major role in addressing the management of double-crested cormorants, including coordinating three public scoping meetings for the cormorant Environmental Impact Statement (EIS), contributing papers to a symposium on cormorant biology and management, funding research on cormorant-fisheries relationships, and coordinating the preparation of a rangewide cormorant status assessment and 3 Great Lakes cormorant fact sheets. A comprehensive, rangewide status assessment on the cerulean warbler, a species of high national and regional concern, was completed in 2000 and distributed to partners throughout North America.

Field work was completed for a three-year survey of colonial waterbirds in the U. S. Great Lakes and data from this effort are now being combined with land ownership information to identify important waterbird colonies in need of protection. Migratory Birds biologists conducted the "ground" portion of the annual breeding waterfowl survey in Minnesota, and coordination was furnished for the Woodcock Singing Grounds Survey, the Mourning Dove Call Count Survey, and the mid-winter waterfowl survey. The Habitat and Population Evaluation Team (HAPET) produced duck breeding population and production estimates and completed breeding duck density distribution maps (thunderstorm maps) for all Region 3 Wetland Management Districts. HAPET also conducted a duck nesting success study in western Minnesota in cooperation with the Minnesota Waterfowl Association.

Region 3 Migratory Birds Permits staff was instrumental in the on-going development and implementation of the new Servicewide Permit Issuance and Tracking System.

The Migratory Game Bird program partnered with several states, U.S. Geological Survey Biological Resources Division (USGS-BRD), Illinois Natural History Survey, the Wildlife Management Institute, Minnesota Waterfowl Association, other non-governmental organizations, universities, Canadian Provinces of Ontario and Manitoba, the Mississippi Flyway Council, the Division of Migratory Bird Management, and other Service offices to conduct surveys, research, management, and outreach for migratory birds.

Joint Venture

The Joint Venture Office in Region 3 is responsible for implementing the North American Waterfowl Management Plan (NAWMP) in the eastern Prairie Pothole Joint Venture (Iowa and Minnesota), and in the Upper Mississippi River and Great Lakes Region Joint Venture (Illinois, Indiana, Iowa, Kansas,

Michigan, Minnesota, Missouri, Nebraska, Ohio, and Wisconsin). The objectives of the NAWMP include protection, restoration, and enhancement of wetlands and associated upland habitats to improve conditions for breeding and migrating birds, particularly waterfowl.

The mission of the Joint Venture Office is to work with Service and non-Service partners, combining resources and strategies to achieve the habitat objectives mentioned above. Our activities are prioritized through Joint Venture Implementation Plans, Ecosystem Team prioritization exercises, and frequent state steering committee meetings of project partners. In addition, we work with the North American Wetlands Conservation Act (NAWCA) grant programs, which are open to all and favor projects with multiple partnerships and resource values.

In Fiscal Year 2000, the Joint Venture Office provided $200,000 to Service field stations for NAWMP projects on Service lands, as well as on private lands, in both Joint Ventures. The Joint Venture contribution was matched by partner contributions totaling $285,000. These projects resulted in the restoration of 1,000 acres of wetlands and the restoration or enhancement of 3,500 acres of grasslands. We also supported youth educational activities, GIS mapping of grasslands in the Prairie Pothole Joint Venture, and research projects to look at Bird Conservation Areas in Minnesota and mallard productivity in Wisconsin.

Region 3 partners were very successful in competing for Fiscal Year 2000, NAWCA grants. Fourteen projects were awarded NAWCA grants, for a total of $6.6 million in new federal project money. This amount was matched by partner contributions of $35 million. The projects will take place in Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri and Wisconsin. Resource accomplishments will include 29,000 acres of wetlands and associated uplands protected; 11,000 acres restored; and 11,000 acres enhanced. The Joint Venture Office provides advice and technical assistance to Service and non-Service partners applying for these grants.

In Fiscal 2001, the goal of the Upper Mississippi River and Great Lakes Region Joint Venture will be to begin implementation of the North American Bird Conservation Initiative (NABCI). This will involve securing and improving habitat for a variety of bird species covered by national and international plans, including shorebirds, land birds, and colonial waterbirds, in coordination with the continuing habitat work for waterfowl on behalf of the NAWMP. The Joint Venture Management Board will engage in multi-species mapping efforts and project prioritization as we embark on this expanded mission to be the habitat improvement arm of the NABCI.

Federal Aid

Audits

Audits of U.S. Fish and Wildlife Service Federal Aid Grants to Region 3 States was a major activity during Fiscal Year 2000. This included pre-audit preparation, over-all audit coordination, assistance provided to the Defense Contract Auditing Agency (DCAA) and the States during audit field work, and audit resolution. Staff also conducted programmatic reviews in response to audit findings and served on a national audit policy implementation team.

Illinois

Coordination activities with the Defense Contract Auditing Agency (DCAA) were maintained throughout the year. Field work for the Fiscal Year 1996 and 1997 Illinois audit has been completed and a final audit report from OIG is scheduled for December 2000. The Region completed a programmatic review and issued a final report on field trials and put and take shooting activities at Green River State Wildlife Area in October 1998 in response to concerns identified in the draft audit report. There were major findings of noncompliance with Federal laws, regulations, and grant provisions that resulted in significant corrective actions. Coordination and monitoring of corrective actions has continued during the year. Benefits of these actions have been increased hunting opportunities, increased use of the area by school children for conservation education and nature study, increased habitat restoration activities for unique prairie wetland habitats, and improved conditions for both game and nongame wildlife.

Indiana

A final audit report for Fiscal Years 1994, 1995 and 1996 was completed. Final resolution of audit findings, completion of a corrective action plan, and testing and acceptance of the new accounting system for the Division of Fish and Wildlife was completed in December 1999. The new accounting system will provide for adequate tracking, internal control, and reporting for Federal Aid grant funds and represents a major benefit of this audit.

In March 2000, the Region started a programmatic review of field trials at Indiana Fish and Wildlife Management Areas as follow up to an audit finding and resolution. A draft report was issued in September 2000 and a final report is scheduled for November 2000.

Iowa

Audit resolution for Fiscal Years 1995 and 1996 was completed in Fiscal Year 1999. Questioned costs of $723,257 were resolved with implementation of an installment repayment plan. The second of three installment payments was made to the Iowa DNR Fish and Wildlife Trust Fund on schedule in July 2000.

Michigan

Extensive communication and coordination activities were ongoing throughout the year with Michigan DNR administrators and DCAA auditors for the purpose of obtaining audit information

and achieving early resolution of audit issues. A draft audit report for Fiscal Year 1996 and Fiscal Year 1997 was issued by DCAA in April 2000 and an audit close out meeting with the Michigan DNR and DCAA was attended in June 2000. In August 2000 further meetings were held with Michigan DNR and DCAA to obtain additional audit information and achieve resolution of audit issues identified in the draft report. These meetings led to re-opening of field work for the audit to examine previously unavailable information that was determined to be pertinent to one of the major issues identified in the draft report.

Minnesota Staff completed preliminary audit work for audit of Fiscal Years 1998 and 1999 grants. The audit was initiated with the audit entrance conference in April 2000. Field work is on schedule. In August 2000, staff participated in site visits. This included interviews of various fish and wildlife program staff and law enforcement staff plus reviews of several fish hatcheries, fisheries lands, and wildlife management areas throughout the state. Coordination activities with DCAA and the DNR were ongoing throughout the year.

Missouri Staff completed preliminary audit work for audit of Fiscal Year 1998 and Fiscal Year 1999 grants. The audit was initiated with the audit entrance conference in February 2000. Field work is on schedule. In June 2000, staff participated in site visits. This included interviews of various fish, wildlife, and forestry program staff plus reviews of fisheries lands, wildlife management areas, and boating access sites throughout the state. Extensive communication and coordination activities with DCAA and the Department of Conservation were ongoing throughout the year.

Staff served on this national team which drafted six chapters for inclusion in the Fish and Wildlife Service Handbook to establish audit policy and address problems associated with the Federal Aid Audit Program. Chapter titles are: 1) Policy, Responsibilities, and Scope for Grantee Audits; 2) Scoping of Grantee Audits; 3) Planning for Grantee Audits; 4)Conducting and Reporting on Grantee Audits; 5) Audit Resolution; and 6) Audit-Related Appeals.

Grant Activities

States use Federal Aid grants for work across the full spectrum of their management responsibilities. Grants account for one-fourth to one-half of the states' fish and wildlife management budgets. In Fiscal Year 2000, restoration grants for the eight states of Region 3 totaled $89,814,204–$39.8 million in Wildlife Restoration grant funds and more than $50 million in Sport Fish Restoration grant funds. Region 3 states garner approximately 21 percent of these grant funds apportioned nationally.

Partnerships for Wildlife Program

Region 3 was again successful with projects selected for funding under the Partnerships for Wildlife Program. In Fiscal Year 2000, there was $764,200 available for funding from which 33 projects were selected nationwide. Of this 33 projects selected, 13 were from Region 3 for a total of $302,535. This is nearly half of total funding available. Some of the projects selected in Region 3 included a yellow-headed blackbird study in Illinois, a bat study in Wisconsin, grassland bird surveys and studies in Missouri and Wisconsin, prairie chicken management in Wisconsin, and prairie insect distribution in a six state area.

Hunter Education

Wisconsin DNR hosted its First Hunter Education Instructor Academy with two goals in mind: deliver a curriculum on how instructors can better maximize their efforts and minimize their time, but still product a quality student, and demonstrate how to deliver a hunter education program with a hands-on approach. A total of 50 instructors were trained during this very successful two-day session. Federal Aid provided training about the Wildlife Restoration Program. Other topics covered included instructor liability, shooting positions, zones of fire, ethics and responsibility, tree stand safety, and bow hunting. This course was primarily all hands-on with very little lecture. Feedback from the instructors regarding this teaching method were very favorable.

Realty Reviews

Iowa and Minnesota realty reviews were conducted in Fiscal Year 2000. Post Award Compliance Review was accomplished in Michigan.

Outreach

The Sport Fish Restoration (SFR) program has distributed more than $4 billion to states nationally. The dollars are used to further recreational fishing and boating opportunities. Over the past 10 years, 3.8 billion fish have been stocked, fishing and aquatic ecology education classes were provided to 4.7 million students, research projects were financed to aid fish management , 1,700 new boat access areas were constructed along with 3,300 new fishing access sites.

Indiana State Fair

What would the Federal Aid program have in common with the Indiana State Fair? The Sport Fish Restoration Program funded the enhancements to the aquariums at the DNR State Fair facility along with developing kiosks that inform and educate the state fair participant about aquatic ecology and the SFR program. This was an opportunity to reach thousands interested in their fisheries program within their state. Federal Aid was a part of a grand opening to recognize the changes and how SFR was a part of reaching anglers about their contributions to aquatic education.

Cabela's Retail stores and the Sport Fish and Wildlife Restoration programs have common customers–those buying excise taxed items. Federal Aid placed program information on the end of the aisles in the Cabela's store in Owatanna, Minn. "Cycle of Success" literature illustrated how the purchase of ammunition, guns, and tackle, rods and reels are working to benefit the hunter and angler. Federal Aid was also a part of the Spring and Fall Expo's held in the Owatanna store. The staff was also invited to provide information and education about the programs to Cabela's product specialists. Federal Aid currently has signs in the aquarium area regarding the Sport Fish Restoration program that reaches thousands of visitors to Cabela's stores in Owatanna and Michigan.

Bass Pro Working with the corporate sales and promotions manager at Bass Pro, Federal Aid has started discussions on how best to put the Sport Fish Restoration and Wildlife Restoration program in front of anglers and hunters who visit the Bass Pro website and retail outlets. Through our ongoing dialogue and commitment from Bass Pro, we have been a part of a new Wonders of Wildlife museum being built in Springfield, Mo.. The museum is dedicated to hunters and anglers. Co-chairpersons for the non-profit effort are past President's George Bush and Jimmy Carter. Federal Aid information will be included in kiosks within the museum with an individual area to be developed later dedicated to the programs.

Regional Efforts Federal Aid, working with External Affairs, developed an "Inside Region 3 Special Edition" dedicated to informing and educating staff regarding the Wildlife and Sport Fish Restoration program. It covers not only how the program works but specific examples within each state on successes and it includes pictures. In addition Federal Aid has developed and designed a new website which will provide an additional outreach tool to reach the public interested in the Federal Aid program and can be found at www.fws.gov/r3pao/fed_aid.

Federal Aid has also been a part of a National Outreach Team for Federal Aid. Region 3 was responsible for coordinating and developing a tackle manufacturer initiative focused on reaching the product packager. As part of this effort, Federal Aid personnel staffed a booth at the 2000 ICAST (International Convention of Allied Sportfishing Trades) Show, July 19-23, 2000, at McCormick Place, Chicago. Communications objectives included:

- Recognize that the Sport Fish Restoration Program is administered by the U.S. Fish and Wildlife Service.

- Associate the Sport Fish Restoration logo with accomplishments and benefits of the Sport Fish Restoration program.

• Identify the industry's role in the Sport Fish Restoration Program

With 383 exhibitors and over 1,800 booths, this show offers this initiative potential to reach our goal of increasing the Sport Fish Restoration logo on tackle product packaging.

-USFWS Photo by Chuck Traxler

The Wildlife Restoration Grant is one of two major grant programs administered by the Division of Federal Aid.

Goals for Fiscal Year 2001

- Provide leadership in integrating and implementing migratory bird management throughout the Region.

Migratory Birds

- Coordinate the development of the Upper Mississippi Valley/ Great Lakes Waterbird Conservation Plan.

- Participate in updating the Service's list of nongame birds of conservation concern and revise the Region 3 Resource Conservation Priorities document to be consistent with the national list.

- Participate in national efforts to develop Memoranda of Understanding with other federal agaencies as directed by the Executive Order on Migratory Bird Conservation.

- Continue to assist in the standardization of migratory bird permitting activities across the country.

Federal Aid

- Improve our grant process and completion of them in a timely manner.

- Work towards implementation of the Federal Aid Information Management System.

Fiscal Year 2000 Accomplishments

November 1999

1. Region's Migratory Bird Programs Posted to New Web Page

Joint Venture

Region 3 now has a new and improved Migratory Birds Web Page, accessible from Regional Home Page. This site gives an overview of the Regional Migratory Birds Program, and provides links to many national bird initiatives, including the North American Waterfowl Management Plan and Partners In Flight. The 'Frequently Asked Questions' section will answer many common questions about birds and people's relationship with them. The new Web site will provide the public with greater awareness of migratory bird issues an access to current information about Service programs. The site can be accessed at URL: www.fws.gov/r3pao and selecting 'Birds' under the 'Wildlife and Habitat' heading. (**11/01/1999**)

December 1999

2. Great Lakes Lake Sturgeon Genetics: Status, Needs, and Standardization

Federal Aid

State, federal, and provincial fishery managers, biologists and lake sturgeon genetics researchers from throughout the continent met Dec. 8-9, 1999, to coordinate and standardize lake sturgeon genetics work in the Great Lakes. Managers reviewed current research information, discussed management needs, and assessed techniques to establish a coordinated effort for future lake sturgeon genetics work. Outcomes included an agreement to share current genetics capabilities/technologies between researchers (e.g. new microsatellite genetic markers); identification of best methods of collection and analysis; establishment of a communication network between management agencies and research geneticists; identification of future information/research needs, and a process to accomplish those needs.

The workshop was sponsored by the Service's Region 3 Federal Aid through a cooperative agreement with the Michigan DNR; Great Lakes Basin Ecosystem Team Kitty; and the Great Lakes Fishery Trust. (12/9/1999)

March 2000

3. Region Partners Receive $283,000 in Small Wetlands Grants

Joint Venture

The North American Wetlands Conservation Council awarded seven North American Wetlands Conservation Act (NAWCA) totaling $283,000 to grants to Region 3 partners March 9, 2000. Only 22 such small grants were awarded nationwide. Successful projects in the Prairie Pothole Joint Venture were the Giese Waterfowl Production Area (WPA) (Minn.-$50,000), Wolf Creek WPA (Minn.-$40,000), Straight River WPA (Minn.-$27,000), and the Jim Hautman Restoration Project (Minn.-$33,000). In the Upper Mississippi River & Great Lakes Region Joint Venture, grants were awarded to the Nahant Marsh Preserve (Iowa-$33,000), the Rose Lake Property Acquisition (Wis.-$50,000), and the Missouri Bootheel Partners Program (Mo.-$50,000). Several Service field offices were involved in planning these habitat projects, and many of those will be involved in completing them. These include the Morris Wetland Management District (WMD), the Detroit Lakes WMD, Minnesota Valley National Wildlife Refuge, Rock Island Field Office, and the Madison Private Lands Office. Other major partners in these projects include Ducks Unlimited, Inc.; Minnesota Pheasants, Inc.; Minnesota Deer Hunters Association; Minnesota Waterfowl Association; River Action, Inc.; Jefferson County Parks Department; and Bootheel Resource Conservation and Development, Inc. This $1 million-plus NAWCA small grant program is open to all applicants every fall, for grant requests up to $50,000. Larger requests must go through the NAWCA large grant program, which accepts applications in March and July. (**03/09/2000**)

4. Region 3 Receives $3 Million in Large Wetlands Grants

Joint Venture

On March 22, 2000, the Migratory Bird Conservation Commission approved three North American Wetlands Conservation Act (NAWCA) large

Continued next page

grants to Region 3 partners, totaling $2,998,788. These successful projects were the south-central Wisconsin Prairie Pothole Initiative, the Northern Tallgrass Prairie Restoration Project phase II, and the Indiana Four Rivers Project phase III. In addition to other partner activities, these grants may purchase lands for the National Wildlife Refuge System at Leopold Wetland Management District, and Patoka River National Wildlife Refuge. Partner wildlife habitat acquisition, restoration and enhancement activities will be accomplished by groups including Ducks Unlimited, Wisconsin Department of Natural Resources, Madison Audubon Society, The Nature Conservancy, Minnesota Department of Natural Resources, Pheasants Forever, the White Earth Band of Chippewa, the Red Lake Band of Chippewa, Indiana Department of Natural Resources, and Indiana Heritage Trust. The NAWCA large grant program is open to all applicants every March and July, for grant requests up to $1 million. Successful projects are generally matched by a non-federal dollar to grant ratio of at least 2:1. **(03/22/2000)**

4. **Federal Aid: Fiscal Year 2000 Iowa Realty Review**
Federal Aid
Region 3 Division of federal aid conducted realty reviews in Iowa to discuss common concerns and review the state's land acquisition procedures that pertain to Federal Aid reimbursments. The reviews also help assure continued compliance, per U.S. Fish and Wildlife Service requirements, with the Uniform Standards of Professional Appraisal Practice (USPAP), Fish and Wildlife Region 3 Supplemental Appraisal Report Specifications, Uniform Appraisal Standards for Federal Land Aqcuisitions (UASFLA), and the Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (PL 91-646). (3/28/2000)

May 2000

5. **Federal Aid Programs Highlighted in Special Issue of "Inside Region 3"**
Federal Aid
Federal Aid, in partnership with External Affairs has produced a special issue of "Inside Region 3" that focuses exclusively on Federal Aid programs. The special issue of the electronic newsletter can be found on the Region 3 website (http://midwest.fws.gov) and can be downloaded. The publication provides information that helps people understand the Federal Aid program, and its benefits to sportsman. (5/1/2000)

6. **Bass Pro Working with Federal Aid to Promote Programs**
Federal Aid
Federal Aid, in conjunction with the Bass Pro offices, is working to promote federal aid programs. Various mediums have been identified and are being developed, such as posters, bag flyers, interactive displays, hang tags, catalogues, and the Internet. One medium, the Concert for Conservation, aired May 30, 2000. (5/1/2000)

7. **Compliance Review Completed For State of Michigan**
Federal Aid
Federal Aid and the Office of Diversity and Civil Rights met with the Michigan officials to conduct an on-site compliance review in May 2000. State Federal Aid Coordinator Eric Sink, Michigan DNR Accessibility Executive Officer Cordree McConnell and Michigan DNR Accessibility Coordinator Kay Miller helped conduct the review. The final report was generated on July 18, 2000. Post award compliance review is required under the Title VI of the Civil Rights Act of 1964; Title IX of the Education Amendments of 1972; Section 504 of the Rehabilitation Act of 1973; the Age Discrimination Act of 1975; Title II of the American with Disabilities Act of 1990 and Department of the Interior implementing Regulation in 43 CFR Part 17 (5/11/2000)

8. **Federal Aid Sponsors Section 7 (ESA) Workshop**
Federal Aid
Region 3 Federal Aid sponsored a Section 7, Endangered Species Act workshop May 22-23, 2000, in Red Wing, Minn. Participants included Federal Aid staff, Ecological Services biologists State Endangered Species biologists and state Federal Aid coordinators. All partners involved in compliance issues reviewed the process and suggested improvements. The agenda included a brief history and background on the Regional Section 7 protocol. The group completed several

examples and exercises that helped furthered their understanding of the Section 7 process. (5/22/2000)

9. Website Takes Public Comments on Patoka Boat Launch Environmental Assessment

Federal Aid

A new website was created to allow the public to comment on an Environmental Assessment (EA) of a boat launch site on the Patoka River in Indiana. The boat launch is funded by a Federal Aid grant. The web site also provides information about the site. This was the first effort for Federal Aid to provide an Internet site for the public to review EA information. This is a valuable service to our state partners and could be developed further in the future. (5/26/2000)

July 2000

10. **Federal Aid Staff Helps Educate Product Specialists at Cabela's**

Federal Aid

Staff from Region 3's Federal Aid office met July 11, 2000, with product specialists from Cabela's in Owatonna, Minn., to train and educate them about Federal Aid programs. Cabela's, a popular retailer with outdoorsmen, has worked with Service Federal Aid programs in the past. Cabela's product specialists communicate significant information to customers who buying excise-taxed products that support the Federal Aid program. Federal Aid staff has also been invited to provide the company with new wording for its bronze plaque at the store's wildlife mountain. The plaques are being reworked to encompass more of a Federal Aid message. (7/11/2000)

August 2000

11. **Federal Aid to be Featured in Fish Exhibit at the Indiana State Fair DNR Booth**

Federal Aid

The Indiana Department of Natural Resources is renovating its fish exhibit at the Indiana State Fair, replacing aquariums and adding multimedia displays. The improvements, paid for by a federal grant, also includes independent kiosk stations, one of which will be devoted to the Sports Fish Restoration Program. (8/12/2000)

September 2000

12. Region 3 Partners Receive $2.6 Million From NAWCA

Joint Venture

On September 13, 2000, the Migratory Bird Conservation Commission approved three Region 3 habitat proposals for funding under the North American Wetlands Conservation Act. They included the Prairie Wetland Heritage Conservation Initiative, phase II, for $1 million; the Saginaw Bay Wetland Initiative, phase II, for $1 million; and the Upper Wapsi Wetlands, for $600,000. Grantees were Pheasants Forever, Ducks Unlimited, and Iowa Department of Natural Resources, respectively. Together these proposals will acquire, restore and enhance over 14,000 acres of wetlands and associated uplands. Service offices involved in these projects include the East Lansing Private Lands Office, and the Shiawassee National Wildlife Refuge. The Prairie Heritage project will acquire 1,932 acres, restore 2,000 acres, and enhance 2,243 acres of habitat in southwestern Minnesota. The Saginaw Bay project will acquire 1,646 acres, restore 997 acres, and enhance 580 acres of habitat in east-central Michigan. The Upper Wapsi project will acquire 3,716 acres, restore 450 wetland acres, and enhance 479 wetland acres in northeastern Iowa. (**09/13/2000)**

13. **Federal Aid Information Goes In at Cabela's**

Federal Aid

Signs communicating information about the Sport Fish Restoration Program and the Wildlife Restoration Program will soon be posted to kiosks at the popular aquarium and mountain area at Cabella's in Owatanna, Minn. The signs were developed to tell Cabela's customers how excise taxes from their equipment purchases help fund wildlife programs. The signs also communicate how the U.S. Fish and Wildlife Service administers the grant program in partnership with state departments of natural resources. More than one million people annually visit Cabela's in Owatanna. (9/28/2000)

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Fisheries

Fiscal Year 2000 Annual Report
Region 3

--USFWS Photo

Paddlefish. *Biologist Joel Trick holds this rare and declining species.*

Program Description and Mission

The Region 3 Fisheries Program focuses on a broad range of aquatic resource management and aquatic habitat conservation issues, opportunities and partnerships in an eight-state area encompassing 450,000 square miles with a population of over 54 million people. Primary deepwater aquatic resource features include four of the Great Lakes and connecting waters including the St. Mary's River and Detroit River - Lake St. Clair system, and most of the upper Mississippi River Basin, including portions of the Missouri and Ohio Rivers.

National Fish Hatcheries in Region 3 produced more than 23 million fish (700,000 pounds) and 55 million eggs during Fiscal Year 2000.

The mission of the Service's Fishery Program is to provide the leadership to conserve, restore and enhance aquatic ecosystems and perpetuate their many benefits for future generations. The Fishery Program operates with several national priorities: restoration and management of interjurisdictional fisheries and habitats; recovery of threatened and endangered species; recovery of candidate species; fulfillment of Federal mitigation obligations; and providing technical assistance on Service lands and to Native American Governments.

There are 16 fisheries field stations in Region 3: five national fish hatcheries (NFH); six fishery resources offices (FRO); two fishery coordination offices; two sea lamprey control biological stations; and one fish health center.

National Fish Hatcheries

National Fish Hatcheries in Region 3 develop and maintain brood stocks of selected fish strains, provide technical assistance and sources of fish and eggs to cooperating agencies in pursuit of their aquatic resource management goals, provide fish and eggs for research purposes, stock fish and eggs as part of native fish restoration programs, stock fish in fulfillment of Federal mitigation obligations, and provide refugia for native freshwater mussels.

Fishery Resources Offices

Fishery Resources Offices perform key monitoring and control activities related to invasive aquatic species, survey and evaluate native fish stocks and aquatic habitats to identify restoration opportunities, play a key role in targeting and implementing native fish and habitat restoration programs, work with private land owners, states, local governments and watershed organizations to complete aquatic habitat restoration projects under the Service's Private Lands program, provide coordination and technical assistance toward the management of interjurisdictional fisheries, maintain and operate several key interagency databases, provide technical assistance to other Service programs addressing contaminants, endangered species, Federal project review and hydropower operation and relicensing, evaluate and manage fisheries on Service lands, and provide technical support to 38 Native American tribal governments and treaty authorities.

--Photo by David Radloff

Assisting Tribes.*The Service provides assistance and hatchery stock to tribal hatcheries in support of Native American fishery restoration. This brook trout was one of 280 provided to the Lac Vieux Desert Indian Reservation in Michigan.*

Fishery Coordination Offices

Fishery Coordination Offices provide crucial facilitation and interagency coordination functions affecting the management of native fishes and aquatic habitats working both independently and through organizations such as the Great Lakes Fishery Commission (GLFC) and the Great lakes Indian Fish and Wildlife Commission (GLIFWC).

Sea Lamprey Control Stations

Sea Lamprey Control Stations implement sea lamprey population assessment and control activities throughout the Great Lakes in a program administered through the State Department and the Great Lakes Fishery Commission.

The Fish Health Center

The Fish Health Center provides specialized fish health evaluation and diagnostic services to Federal, state, tribal, and private hatcheries in Region 3, conducts extensive monitoring and evaluation of the health status of wild fish stocks throughout Region 3, examines and certifies the health of fish taken from wild stocks for addition to captive brood stocks, and performs a wide range of special services helping to interface the National Fish Hatcheries, Fishery Resources Offices, Fish Technology Centers and outside organizations such as the U.S. Geological Survey providing technical input to the Service's Fishery Program.

Summary of Fiscal Year 2000 Accomplishments

Native Fish Restoration

--Photo by David Radloff

Restoring Native Fish. *National fish hatcheiries in Region 3 help support restoration of native brook trout and lake trout in the Great Lakes.*

The Fishery Program's leadership role in restoration of nationally significant native fish stocks continued during 2000. Personnel focused on expansion of self-sustaining lake trout in Lake Superior and efforts to establish self-sustaining populations in Lakes Michigan and Huron. Lake sturgeon restoration activities continued in Lake Superior, Green Bay of Lake Huron, and the lake Huron - Detroit River - Lake St. Clair - lake Erie areas. Lake sturgeon activities on the Detroit River were initiated to describe habitat use patterns and identify spawning habitats. Native brook trout restoration activities continued in Lake Superior with further evaluation of the status and restoration potential in northern Lake Huron. Paddlefish restoration work also continued, with more fish coded-wire tagged, additional radiotelemetry studies in the Mississippi, Illinois, Wisconsin and Chippewa Rivers, fingerling stocking in the Upper Mississippi River, Lower Missouri River and Arkansas-Red River Ecosystems, and full operation of the Mississippi River Tagging Center under agreement with MICRA and its 28 member states.

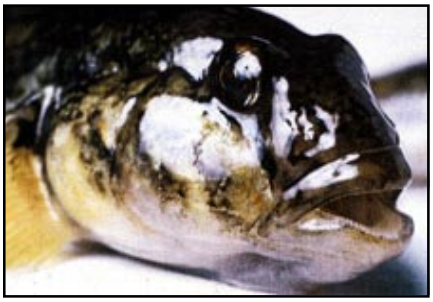
Fish and Mussel Production and Stocking

We continued to operate five National Fish Hatcheries producing 15 species of fish and one species of freshwater mussel as part of 132 propagation programs serving Region 3 waters. Region 3 facilities produced over 23 million fish (700,000 pounds) and 55 million eggs during 2000. Our Great Lakes stations produced and stocked over 4 million yearling lake trout as part of restoration programs in Lakes Superior, Michigan, and Huron. Our Iron River, Wisconsin and Hiawatha Forest, Michigan facilities continued to manage extensive lake trout brood stocks. Isolation of fish taken from wild lake trout and brook trout stocks continued at Genoa NFH, Wisconsin. The Genoa NFH initiated development of a captive propagation program for the federally endangered Higgins' eye pearlymussel in response to increasing displacement of native mussels within the St Croix River system.

Sea Lamprey Control

The Service's Sea Lamprey Control Program, administered through the State Department and the Great Lakes Fishery Commission (GLFC), is presented in detail in a bi-national annual report to the GLFC. Highlights for 2000 include the continued aggressive control measures for sea lamprey; assessment of adult and juvenile sea lamprey populations in tributaries and offshore areas in the Great Lakes; treatments for control of sea lamprey in many other Great Lakes streams and the release of sterile male sea lampreys for control purposes continued.

Invasive Aquatic Species Control



--Photo by Lloyd DeGrange

Round Goby. *The Fisheries program is part of a multi-agency effort to control the spread of invasive species such as the Round Goby.*

Our fisheries stations continued to survey Eurasian ruffe and round goby populations throughout the upper Great lakes and to develop and implement control measures. The stage is now set for the installation of an invasive species barrier in the Chicago Waterways in an attempt to stop the spread of harmful species from Great Lakes waters into the Mississippi River Basin; the multi agency round goby sampling program, organized and led by our La Crosse Fisheries Resource Office, continued in 2000. We continued our efforts with the U.S. Coast Guard in managing ballast water exchange in the Great Lakes to eliminate the introduction of new exotic species. Staff continued to monitor the spread of zebra mussel within Region 3, and associated impacts to native mussels. Each of our four large rivers stations continued involvement in surveying the occurrence of Asian carp in the Mississippi River Basin, with heightened concern for the potential introduction of black carp due to an increased interest in producing this species by commercial fish farmers.

Fish Health Operations

The LaCrosse (Wis.) Fish Health Center continued its work in evaluating fish health case histories for our national fish hatchery system. The Center collected and examined feral fish from throughout the region for diseases of concern as part of the ongoing national wild fish health survey. The Center also continued their role in conducting training courses to students from federal, state, tribal and commercial agencies, universities and members of the public. The Center continued ongoing efforts to monitor the health status of brood stock and production fish at five National Fish Hatcheries in region 3 and to ensure disease free status of wild fish transferred to Region 3 Hatcheries for addition to brood stocks.

Private Lands and Watershed Restoration

Fishery Resources Office staff at Ashland and LaCrosse, Wisconsin, Alpena, Michigan and Carterville, Illinois lead watershed restoration projects on riverine systems throughout region 3. Our Ashland FRO was instrumental in establishing the Lake Superior Coastal Wetlands Initiative and continued invovlement in the establishment and management of the Whittelesey Creek NWR in northern Wisconsin, as well as overseeing establishment of the Coastal program in the Lake Superior watershed.

Fish Passage

The Alpena Fishery Resources Office conducted fish passage activities in Western Lake Erie coastal wetlands and the Sandusky River. The Ballville Dam, located on the Sanduskey River in Fremont, Ohio, has been proposed for removal and would restore access to 22 miles of spawning habitats for walleye and lake sturgeon. The Columbia Fishery Resources Office conducted a fish passage project in Western Iowa involving approximately 448 bridge crossings on Missouri River tributary streams thought to be functioning as barriers to native fish.

Goals for Fiscal Year 2001

Support and achieve national fishery program priorities conducted in this region including: restoration and management of interjurisdictional fisheries and aquatic ecosystems; recovery of listed aquatic species; restoring depleted fish populations to preclude listing; providing technical assistance on Service lands and to Native American tribal governments; and fulfilling Federal mitigation responsibilities.

-USFWS Photo by Robert Pos

Region 3 Fishery staff move hatchery produced stocks aboard the Regions vessel M/V Togue for stocking in the Great Lakes.

Conceptualize and develop, to the Washington Office, fishery activities and initiatives that support intra-program, inter-agency, state, tribal, and public partnership efforts promoting national fishery priorities and aquatic conservation leadership.

Maintain Hatchery, Fish and Wildlife Management Assistance, Sea Lamprey Control, and Fish Health programmatic continuity, connectivity and technical capability across the Region.

Seek to strengthen existing internal resources and external partnerships, to more effectively address fish and wildlife conservation efforts, especially the priority aquatic species of concern in Region 3.

Market our fishery program products and accomplishments, issues and opportunities, and budget initiatives directly to and in support of National aquatic priorities.

Support the Regional Director, Fishery Field Stations, Special Assistant to Ecosystems and Region 3 Ecosystem Teams in pursuing resource conservation priorities identified by Region 3.

Maintain, monitor and support Regional information systems including: Fishery Maintenance Management, Construction and Fishery Information Systems and associated databases.

Increase partnerships with other regional office programs especially Ecological Services and Refuges and Wildlife.

Provide the leadership to conserve, restore and enhance aquatic ecosystems and perpetuate their many benefits for future generations.

- Mission of the Fisheries Program

Fiscal Year 2000 Accomplishments

October 1999

1. Carterville FRO Conducts Biological Assessment Of Kankakee River

Carterville Fishery Resourcess Office

The Service's Carterville Fishery Resources office is presently conducting research on the Kankakee River Basin that will contribute to comprehensive conservation planning and NEPA documentation for the proposed Grand Kankakee Marsh National Wildlife Refuge.

Carterville staff, together with the Indiana and Illinois Departments of Natural Resources, will determine the presence/absence of status fish and mussel species; develop comprehensive species lists for the basin; examine recreational fishing within the basin and eliminate data gaps. Information obtained from this study will be used to develop a Comprehensive Conservation Plan (CCP) and NEPA documents for the proposed refuge, located in the Kankakee watershed in northeast Illinois and northwest Indiana.

Staff from Carterville FRO, in partnership with state agencies, other Service offices and the Nature Conservancy, identified information gaps and eliminated them through field work and literature searches. The nature of these gaps varied from determining the population status of endangered and threatened species, to compiling comprehensive species lists for fish and mussels. Recreational fishing is popular within the Kankakee basin, generating considerable income for people in the surrounding area. The river is ranked as one of the best channel catfish, smallmouth bass, and walleye streams in Illinois.

The study evaluates recreational fishing within the basin and identifies quality fishing reaches. Partners in the project include Illinois Department of Natural Resources, Division of Fisheries, Illinois Natural History Survey, Region 3's Chicago Field Office, Indiana Department of Natural Resources, Southern Illinois University and The Nature Conservancy. **(10/1/99)**

2. Carterville FRO Conducts Pallid Sturgeon Study

Carterville Fishery Resources Office

During the summer and fall of 1999, the Carterville Fishery Resources Office conducted sturgeon sampling on the lower Ohio River. The objectives of the study were to determine the distribution and abundance of the pallid sturgeon (Scaphirhynchus albus) and lake sturgeon (Acipenser fulvescens) within the lower Ohio river system; Investigate and define pallid sturgeon habitat needs within the lower Ohio river; and to collect data and tissue to determine genetic make-up of Ohio River sturgeon stocks.

This study is still in its introductory stages and minimal information is available at the present time. To date several hundred sturgeon have been collected, of which all but one have been shovelnose sturgeon (Scaphirhynchus platorynchus). One specimen of a pallid / shovelnose hybrid was collected indicating there is a strong possibility that pallid sturgeon reside within the lower Ohio River. Ohio River habitat data suggests that resident sturgeon populations prefer to inhabit deep areas with strong currents. Preliminary findings are consistent but are based on limited information; additional data is needed to obtain reliable results. Sampling is scheduled to continue throughout 2000.

During the summer and fall of 1999, tissue was collected from twenty-three shovelnose sturgeon for use in DNA analysis. This analysis is currently underway at Southern Illinois University, Carbondale **(10/1/99)**

3. Service Partners Produce Coaster Brook Trout Brochure

Ashland Fishery Resources Office

Working with members of the subcommittee on brook trout in Lake Superior, The U.S. Fish and Wildlife Service's Ashland Fishery Resources Office and the Minneapolis Regional Office recently completed a final version of an informational brochure on coaster brook trout. The brochure has been reviewed several times by all of the cooperating agencies (Wisconsin, Michigan, Minnesota, Ontario and all of the Lake Superior tribal governments) and a format and content acceptable to all parties has been achieved. The full color brochure describes the history and biology of the unique, giant "coaster"brook trout of Lake Superior and lists contact agencies for people interested in coaster restoration. It also includes a striking reproduction of noted wildlife artist Greg Alexander's painting, "Return Of The Coasters."

The brochure has been delivered to Trout Unlimited to be printed. Trout Unlimited is providing funding to cover all costs of publishing. After printing, copies of the brochure will be made available, free to the public, at all tribal, provincial and state fisheries management agencies on Lake Superior as well as the Ashland FRO Office. **(10/2/99)**

4. Lake Michigan Lake Trout Stocking Strategies to be Evaluated

Green Bay Fishery Resources Office

The impact of lake trout stocking strategies in Lake Michigan is the object of a three-year study initiated recently by the Service's Green Bay Field Office. The multi-agency study will include four tribal agencies, the Michigan Department of Natural Resources and the U.S. Geological Survey's Great Lakes Science Center. The agencies will sample the abundance of mature lake trout at 31 reef locations in Lake Michigan over the next three years. The Service rears and stocks most of the lake trout planted in Lake Michigan. Since 1985, the majority of the trout have been transported by boat to offshore reefs that were heavily used by the native lake trout fishery before their collapse. The goal of the stocking is to recolonize these important traditional spawning sites. The study, will evaluate how successful the lake trout stocking strategies have been to recolonize not only the reefs that have been stocked, but also nearby reefs that have not been stocked. Results will be shared with Lake Michigan fishery managers to assist in directing future efforts to restore lake trout in the Lake. Funding for the project was provided by the Great Lakes Fishery Trust and matching funds from each of the participating tribal, state, or federal agencies. The Great Lakes Fishery Trust was created to mitigate the lost use and enjoyment of fishery resources as a result of the operation of the Ludington Pumped Storage Hydroelectric Generating Facility. Partners in the study include the Michigan DNR, Sault Ste. Marie Tribe of Chippewa, Little Traverse Bay Band of Ottowa, Grand Traverse Bay Band of Ottawa and Chippewa and Little River Band of Ottawa and USGS/ BRD - Great Lakes Science Center and Wisconsin DNR. **(10/ 4/99)**

5. Sikes Act Fishery Management at Scott Air Force Base, Illinois

Carterville Fishery Resources Office

For the past 14 years, the Service's Carterville Fishery Resources Office has helped manage Scott Lake, a small lake located on Scott Air Force Base in southeast Illinois. Carterville's partnership with U.S. Air Force resource managers is accomplished by reimbursable agreement with the Department of Defense as permitted by the Sikes Act. Management efforts have focused on providing quality fish opportunities on the lake. Due to the lakes size and physical characteristics a variety of techniques and methods have been employed in its management. A continual program of stocking, weed control and aeration have been implemented over the years. **(10/4/99)**

6. Alpena FRO Staff Participate in Public Planning For Great Lakes Visitor Center

Alpena Fishery Resources Office

Biologists Tracy Hill and Anjanette Hintz traveled to Saginaw Michigan Oct. 6, 1999, to participate in a public planning meeting for proposed Great Lakes Visitor Center. During the meeting, the general public provided input on what attractions they'd like included in the Center, which will be located in Bridgeport, Mich. Meeting participants also listed things they'd like to see at the center. All suggestions were written on flip charts and then participants were asked to rank the listed suggestion. Two public input sessions were held at the Castle Museum in Saginaw. The meetings were attended by a number of individuals represent both government and non-government organizations. **(10/6/ 99)**

7. Alpena FRO Collects Walleye Young For Lake Huron Stocking Study

Alpena Fishery Resources Office

Staff from the Alpena Fishery Resources Office is helping the Michigan Department of Natural Resources in its study of hatchery contributions to walleye populations in the State's waters. Service staff collected young-of-the-year and yearling walleye from the Saginaw River, Au Gres River, and Thunder Bay for a Lake Huron walleye for the study, which will evaluate the contribution of stocked fingerlings to walleye populations in Saginaw Bay, the Au Sable River, and Thunder Bay of Lake Huron. Stocked walleye were marked in the hatchery with oxytetracycline hydrochloride (OTC) which leaves a fluorescent mark on the fish's bony structures. The Michigan DNR will examine walleye otoliths for signs of OTC marking to determine which fish are hatchery stocks. Information collected allows the DNR to determine the impact of fingerling walleye stockings in these areas and evaluate the extent of the fish's natural reproduction in these areas. Results of the study will contribute to future stocking methodologies (stocking densities, timing of stocking, size of stocked fingerlings, and location of

stockings). Alpena FRO has been assisting Michigan with this project since 1998, and is able to provide walleye for the study that otherwise would not be collected. **(10/7/99)**

8. Service Exotic Species Survey Tracks Growth of Ruffe and Goby in Lake Huron

Alpena Fishery Resources Office

Alpena Fishery Resources Office conducted its annual survey for Eurasian ruffe, round goby, and other exotic species at Lake Huron shipping ports in Michigan, September - October 1999. Ten ports were sampled from Port Dolomite near Cedarville to the Saginaw River mouth in Essexville. The survey was conducted with bottom trawling gear, and approximately 30 minutes of effort was concentrated at each location. Ashland FRO helped in the surveillance effort, providing its trawling vessel for the survey.

The survey revealed no new locations of ruffe. However, the ruffe population in the Thunder Bay River near Alpena, Mich., persists. Ruffe were first found there in 1995 by the Ashland FRO. In 1999 the relative abundance of ruffe from the Thunder Bay River was 12 times that found in 1998 - an extreme increase from population growth in past years.

Round goby were captured at two new locations and continue to persist at one location. Round goby were newly captured from the Thunder Bay River and from the National Gypsum port near Tawas; their population in the Saginaw River appears to be growing as multiple year classes were captured this year.

Exotic species surveys are used to determine the current range and status of ruffe and goby populations in Lake Huron. This survey is conducted as part of the Ruffe Control Plan. Information gained by surveys includes the presence of ruffe and goby, their population characteristics including age composition, and baseline information on the native fish community present. Baseline information on the fish community is important to provide data prior to exotic species invasion that will aid in determining the affect or potential impact exotics have on these native fish communities. **(10/8/99)**

9. Sea Lamprey Control Participation in International Symposium During 1999

Marquette Biological Station

The Marquette and Ludington Biological Stations are currently preparing scientific manuscripts to contribute to the Sea Lamprey International Symposium scheduled for August 2000. A first Sea Lamprey International Symposium was held during 1979 and resulted in a 2,214 page special issue of the Canadian Journal of Fisheries and Aquatic Sciences. The symposium of 1979 and resultant special issue of publications set the stage for the many advances of sea lamprey control and research during 1979-1999. During 1999, 16 of the biological staff are lead or contributing authors to more than 25 manuscripts. The symposium of 2000 will set the stage for a long-term continuation of advances in sea lamprey control and research for the decades ahead.

The international sea lamprey control program ensures continued rehabilitation of the Great Lakes fishery valued at more than $4 billion. Under contract with the international Great Lakes Fishery Commission, the Fish and Wildlife Service, Department of Fisheries and Oceans Canada, and U.S. Geological Survey – Biological Resources Division jointly conduct an ongoing sea lamprey control and research program. **(10/13/99)**

10. Sea Lamprey Control Sterile Male Release Technique Evaluation During 1999

Marquette Biological Station

The Service's Marquette Biological Station conducts a program of the sterile male release technique, an alternative control technology to the use of lampricides. Crews at the Marquette Biological Station recently completed a study on four streams that is evaluating the effect of the Sterile Male Release Technique on larval sea lamprey populations. The Sterile Male Release Technique is an experimental control technique and a component of the integrated pest management program of Sea Lamprey Control. Personnel from the U.S. Fish & Wildlife Service and Canadian Department of Fisheries and Oceans harvest adult sea lampreys for sterilization and release in Great Lakes tributaries. The study is evaluating density dependent survival of yearling larvae in streams targeted for sterile male release. Information from this study will be used to enhance the integrated pest management program and contribute to the rehabilitation of the Great Lakes fishery. The international sea lamprey control program ensures continued rehabilitation of the Great Lakes fishery valued at more than $4 billion. Under contract with the international Great Lakes Fishery Commission, the Fish and Wildlife Service,

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Department of Fisheries and Oceans Canada, and U.S. Geological Survey – Biological Resources Division jointly conduct an ongoing sea lamprey control and research program. **(10/13/99)**

11. Sea Lamprey Control for Adult Assessment (Spawning and Parasitic Phase) During 1999

Marquette Biological Station

The Marquette Biological Station conducts assessment of adult (spawning and parasitic phases) sea lamprey populations to determine the long-term effectiveness of past control actions throughout the Great Lakes. During 1999, assessment traps placed in 49 tributaries of Lakes Superior, Michigan, Huron, Erie, and Ontario captured 54,000 adult lampreys. Spawning populations in the Great Lakes were estimated at about 440,000 sea lampreys during 1999 (Lake Superior-80,000, Lake Michigan-85,000, Lake Huron-180,000, Lake Erie-15,000, and Lake Ontario-80,000).

The international sea lamprey control program ensures continued rehabilitation of the Great Lakes fishery valued at more than $4 billion. **(10/13/99)**

12. Integrated Sea Lamprey Control in the St. Marys River During 1999

Marquette Biological Station

The Marquette Biological Station conducts a program of alternative control technologies in the St. Marys River that includes the trapping and removal of adult sea lampreys and the release of sterilized male sea lampreys. During 1999, the reproductive potential of the spawning population was reduced by an estimated 92%. Trapping removed about 53% of the spawning population of adult sea lampreys (about 10,000), and the release of about 26,000 sterilized male sea lampreys further reduced reproduction by an additional 39%. These alternative control technologies integrated with the granular Bayluscide treatment of more than 2,000 acres of the St. Marys River during 1998-1999 contribute to the rehabilitation of the fishery of northern Lakes Huron and Michigan. **(10/13/99)**

13. Alpena FRO Assists Lake Superior Ruffe Surveillance

Alpena Fishery Resources Office

Alpena FRO provided staff to assist Ashland FRO in conducting surveillance for aquatic invaders, including the Eurasian ruffe and round goby, in Michigan areas of Lakes Superior and Michigan during September and October. The Alpena office assisted with bottom trawling surveys conducted in the Escanaba and Marquette areas and the Keweenaw Waterway near Houghton and Chassel. No ruffe were captured. Round goby continued to persist and were found to have spread within the Escanaba area. Baseline information was recorded on all fish captured. Alpena FRO provided assistance toward determining the range of Eurasian ruffe and round goby expansion in Michigan areas of Lakes Superior and Michigan. Baseline information on fish communities will be useful should exotics become established in these areas. **(10/13/99)**

14. Sea Lamprey Control Larval Assessment During 1999

Marquette Biological Station

The Marquette and Ludington Biological Stations conduct sea lamprey larval assessments to determine when and where future control actions are required and the effectiveness of past control actions.

During 1999, assessments were focused in 162 tributaries and nine offshore areas of Lakes Superior, Michigan, Huron, Erie, and Ontario. Assessments primarily determined the need for lampricide treatment during 2000 and collected information on reestablished populations of sea lamprey larvae. Additionally, information was obtained on density, age, length, weight structure, and geographic distribution of sea lamprey larvae. Surveys were conducted to map densities of sea lamprey larvae in the St. Marys River through use of deepwater electrofishing gear and global positioning technology to assess effectiveness of application of the lampricide granular Bayluscide to more than 2,000 acres of the river during 1998-1999. **(10/13/99)**

15. Ashland Staff Surveys of Red Lake River

Ashland Fishery Resources Office

Between June 24-Oct. 13, 1999, the Ashland FRO conducted four surveys of the Red Lake River system to collect species diversity information on fish populations on the river, located on the Red Lake Indian Reservation, Red Lake, Minn.

A total of 15 hours of effort were recorded using a pulsed DC electrofishing boat that resulted in the collection of 2,335 fish. Yellow perch, white sucker and northern pike were the most abundant fish species captured, however, no carp were captured during this study.

The Red Lake Tribal Council has expressed concerns of the possible presence of carp in the Red Lake River and the potential for introduction of this exotic into the

Red Lakes via upstream passage. No recent fishery's surveys have been conducted within this 13-mile river system (within the Reservation) to determine the presence of carp. The information gained from this project will be used by the Red Lake Department of Natural Resources to establish management options for both the Red Lake River and the Red Lake fishery. **(10/13/99)**

16. Sea Lamprey Control Risk Assessment During 1999

Marquette Biological Station

The Marquette and Ludington Biological Stations conduct sea lamprey control risk assessment activities to determine effects to the environment of control actions, and during 1999 work was focused on compliance to regulatory agency permits and protection of lake sturgeon and federally listed endangered, threatened, or candidate species. Permits for use of lampricides were secured from Wisconsin, Michigan, Indiana, Ohio, Pennsylvania, and New York. Several reports were filed with the Environmental Protection Agency in compliance with Section 6 (a) (2) of the Federal Insecticide, Fungicide, and Rodenticide Act. Staff served in international working groups with other management agencies to assess and develop rehabilitation plans for lake sturgeon in the Great Lakes and walleye and brook trout in Lake Superior. Staff also prepared technical operating procedures and policy statements for protection of lake sturgeon and populations of federally listed species during the use of lampricides, and for the responsible handling of sea lampreys and other aquatic organisms in the sea lamprey control program. **(10/14/99)**

17. Volunteers Contribute 12,750 Hours to Projects at the Alpena Fishery Resources Office

Alpena Fishery Resources Office

One hundred and thirty-one volunteers contributed a total of 12,750 hours to projects at the Alpena Fishery Resources Office during Fiscal Year 1999 and contributed an estimated $120,750 worth of labor to Service fishery projects during the year. Volunteers worked on lake sturgeon restorations, wetland and watershed habitat restorations on private and Service lands, aquatic nuisance species monitoring, and Refuge fishery management. Michigan-state licensed and Tribal commercial fishers collected biological data from lake sturgeon they encountered during normal operation of their trap net fisheries. Boy Scouts and Saginaw, Mich., area conservation clubs angled to detect presence of exotic round goby on the Shiawassee National Wildlife Refuge. Members of the Thunder Bay River Watershed Restoration Committee trained and supervised work crews restoring stream bank erosion sites. Most of these projects would not have been possible without the assistance of dedicated volunteers. **(10/18/99)**

18. Service Continues Coaster Brook Trout Restoration at Isle Royale

Ashland Fishery Resources Office

In September and October 1999, Ashland FRO and Iron River NFH continued efforts to restore a depleted population of coaster brook trout at Isle Royale and develop a broodstock for rehabilitation efforts throughout Lake Superior. Three projects were conducted in cooperation and consultation with Isle Royale National Park and Michigan Department of Natural Resources.

The first was a survey of young-of-the-year (YOY) coasters in Tobin Harbor to determine if natural reproduction occurred during gamete collection activities in 1998. Another project was to assess the abundance of fingerling coasters stocked into Siskiwit Bay and the Big and Little Siskiwit rivers in early September. Fingerlings stocked were progeny of Siskiwit Bay strain coasters being reared at Iron River NFH. All fish stocked were marked with a fin clip and a portion stocked in tributary streams also received a coded wire tag to facilitate assessment. The third project was to collect gametes for continued development of brood stock to be used for rehabilitation stocking.

We captured a total of five YOY coasters in Tobin Harbor during fyke net efforts from Sept. 20-22. Capture of YOY confirmed that successful natural reproduction took place in fall of 1998. We surveyed four tributaries to Siskiwit Bay for stocked fingerlings. Over 300 stocked fish were captured from three tributaries and none from a fourth tributary. Only one naturally produced fingerling coaster brook trout was captured indicating that the 1998-year class was limited by environmental conditions in fall 1998. The ratio of fingerlings captured with coded wire tags to those with a fin clip was similar to the ratio at which they were stocked. A total of 27 naturally produced brook trout were captured in the Big and Little Siskiwit rivers. Nine of these were captured twice.

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Gametes were collected from one female and one male and transported to the isolation facility at Keweenaw Bay Indian Community for rearing. Due to low numbers of adult brook trout captured, milt was collected from one male and transported off Isle Royale to be used to fertilize eggs from a female at Iron River NFH. The fertilized eggs were also transported to Keweenaw Bay Indian Community for rearing. **(10/22/99)**

19. Round Goby Pass Beyond Chicago Waterways Barrier Site

LaCrosse Fishery Resources Office

Annual round goby surveillance activities coordinated by the La Crosse FRO last summer indicated the range of this small but aggressive nonindigenous fish had doubled in a portion of the Illinois Waterway System during the past year. From mid-summer 1998 to 1999, round goby were found to have expanded their range in metropolitan Chicago at least 15 miles further downstream and were now distributed over a 30-mile reach of inland waters that included portions of the Calumet and Little Calumet Rivers, as well as the entire Calumet Sag Channel. Though round goby had yet to be found in the Chicago Ship and Sanitary Canal (the next successive downstream link in the Illinois Waterway System) by summers' end, they were known to be less than 7 miles upstream of the site where an electrical barrier designed to impede the movement of fish between the Great Lakes and Mississippi River basins will be installed by June 2000.

Due to the round goby's close proximity to the barrier site and its apparently accelerated rate of downstream movement in the past year, several stakeholders recently expressed concern that additional complimentary management strategies may be needed to increase the effectiveness of the electrical barrier. In order to evaluate some of these options in a timely manner, it would be necessary to determine the current relative abundance of round goby in portions of the Calumet Sag Channel, the Chicago Ship and Sanitary Canal, and the Des Plaines River. With this task as its primary objective, the La Crosse FRO coordinated another week of round goby surveillance activities in October 1999. Other Service offices participating in the fall survey included Ashland, Chicago, and northern Indiana. Service staff and volunteers were joined in this effort by partners from the U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, Illinois Environmental Protection Agency, Illinois Department of Natural Resources, Illinois-Indiana Sea Grant, Metropolitan Water Reclamation District of Greater Chicago, and Perch America.

Efforts to capture round goby with a variety of gears (bottom trawl, baited minnow traps, and angling) were quantified and the subsequent catch of round goby was tallied for each river mile within a 50-mile reach of the Illinois Waterway System near Chicago. Comparable levels of fishing effort at most locations during the week resulted in a combined catch of 384 round goby in a 24-mile reach of the Little Calumet River and Calumet Sag Channel. Meanwhile, only four round goby were captured throughout a 26-mile reach of the lower Chicago Ship and Sanitary Canal and upper Des Plaines River.

Minnow traps were judged to be the most effective and efficient gear used to sample for round goby in the Illinois Waterway System because they accounted for more than half (58%) of the total round goby catch for the week and were able to capture these fish at several locations where the other gears either did not, or, could not be used. Both the minnow trap and angling results indicated the relative abundance of round goby peaked at river mile 318 of the Calumet Sag Channel (near the Little Calumet River confluence) where mean catch rates were 3.5 goby/24 hours and 7.4 goby/1 hour, respectively. Meanwhile, trawling results indicated a peak in goby abundance (4 fish/1 minute) two miles further upstream in the Little Calumet River (mile 320), as well as a similar peak further downstream in the Calumet Sag Channel at river mile 305.

Three of the four round goby captured in the Chicago Ship and Sanitary Canal were caught at river mile 302, about one mile downstream of the Calumet Sag Channel confluence. However the remaining fish was captured at river mile 290, just one-quarter mile upstream of the Des Plaines River confluence. This location now represents the known downstream leading edge of the round goby's distribution in the Mississippi River basin and is nearly six miles downstream of the site where a channel-wide electrical barrier will be installed by mid-2000 that is designed to slow the spread of round goby and other nonindigenous species of fish between the Great Lakes and Mississippi River basins. Continued downstream movements of the pugnacious round goby may soon threaten certain members of the diverse assemblage of native fishes

that inhabit the Des Plaines River and some of its more pristine tributary streams.

Periodic surveys using consistent, standardized sampling methods to determine the range and relative abundance of round goby in the Illinois Waterway System will be necessary to evaluate the effectiveness of the electrical barrier once it is installed and to identify reaches where other management strategies may be needed to limit the spread of this exotic nuisance species in the Mississippi River basin. **(10/22/99)**

20. Ashland FRO Assists Iron River NFH

Ashland Fishery Resources Office

During the month of October, the staff at the Iron River NFH needs to gear up for a workload that is difficult to maintain even under the best of conditions. Besides the normal fish culture operations of a hatchery, the cool winds of fall also introduce the start of the lake trout spawning season. With the absence of two fishery biologists from the station, the hatchery crew was short the help that would be needed for an expanded workload.

At the request of Dale Bast (Hatchery Project Leader) the Ashland FRO was asked to help during this difficult period. Frank Stone was detailed (over a four-day period) to assist during the peak spawning period. This type of assistance is just one example of the 'Team' spirit exhibited by these two Service facilities. **(10/26/99)**

November 1999

21. Eurasian Ruffe Continue to Increase Numbers in Thunder Bay, Ontario

Ashland Fishery Resources Office

For the third straight year, the Ashland Fishery Resources Office (FRO) has assisted the Ontario Ministry of Natural Resources - Lake Superior Unit with Eurasian ruffe surveillance in Thunder Bay Harbor. Using a 16-foot bottom trawl, FRO staff completed 23 five minute tows, collecting 117 ruffe. The catch rate of 61 ruffe per hour is almost eight times greater than the 1998 catch rate with 69 percent of the ruffe captured from one site.

Anglers reported catching ruffe in the Kaministiquia River as far as old Fort William, 11 kilometers upriver from the Harbor. Although ruffe abundance continues to increase, expansion within the Harbor is occurring at a slower rate; ruffe were only collected from one new station in 1999, 100 meters from where they were detected in 1998. **(11/5/99)**

22. Keweenaw Bay Indian Community Continues Great Lakes Trout Restoration Partnership

Ashland Fishery Resources Office

Lake trout and coaster brook trout resources of the Great Lakes will benefit from an upcoming cooperative agreement between the Service and the Keweenaw Bay Indian Community in Michigan. The Service's Ashland Fishery Resources Office is scheduled to sign a third fish isolation cooperative agreement with the Keweenaw Bay Indian Community. The Keweenaw Bay Indian Fish Hatchery will once again serve as a broodstock isolation facility to help enhance fish restoration efforts in the Great Lakes. The new agreement continues the lake trout and coaster brook trout restoration partnership started by the Service and the Keweenaw Bay Indian Community four years ago, and continues the integration of fish health and fish genetics into the Service's captive broodstock program. The Keweenaw Bay Indian Fish Hatchery first initiated this two-year cooperative program in September 1995. During the first two years of the partnership, the Service asks for 2,000 fish of each year class. The tribal hatchery has isolated seven different lots of fish, making an estimated 14,000 broodstocks available to the Service. The agreement also continues the partnership efforts include the operation of a lake trout and coaster brook trout broodstock isolation facility at the Keweenaw Bay Fish Hatchery, and the production of 100,000 lake trout yearlings at the Iron River National Fish Hatchery in Iron River, Wis. The partnership also includes Service support to the fish stocking priorities of the Keweenaw Bay Indian Community.

Fish hatcheries play an important role in co-managing inter-jurisdictional fishery resources and lake restoration efforts. Midwestern tribes have responded to the modern day challenges of multi-jurisdictional resource management in their unique role as users and managers of over 900,000 acres of reservation inland lakes, treaty ceded territories and the Great Lakes. **(11/12/99)**

23. American Indian Science and Engineering Society

Ashland Fishery Resources Office

This year the Annual National Conference of the American Indian Science and Engineering Society (AISES) was held Nov. 18-20, 1999 in Minneapolis, Minn. and included a day dedicated to a Career Fair with more than 200 exhibition booths. Frank Stone

Continued on next page.

was one of the U.S. Fish and Wildlife Service personnel that worked at the Native American Fish and Wildlife Society/US Fish and Wildlife Service exhibition booth. The focus of the questions from students at the conference centered on employment, and what can the U.S. Fish and Wildlife Service do for them and our natural resources.

AISES' ultimate goal is to be a catalyst for the advancement of American Indians. The AISES National Conference offers career and educational opportunities to American Indian college students and professionals in the science, engineering and business fields. The Career Fair is a great opportunity for outreach to Native Americans already in the Science and Natural Resources fields. **(11/19/99)**

24. Lake Trout Restoration Activities at Hiawatha Forest NFH

Pendills Creek National Fish Hatchery

The Hiawatha Forest National Fish Hatchery (NFH) holds seven genetically distinct strains of Lake Trout and one strain of Coaster Brook Trout. The fish are spawned each fall and eggs used to support lake trout restoration efforts and other priority programs. This year 6.4 million Lake Trout eggs were collected and are being incubated at Pendills Creek and Hiawatha Forest National Fish Hatcheries. The eggs at Hiawatha Forest NFH will be used for the fingerling restoration program and will be shipped to Service production facilities after the eyed egg stage is reached. The eggs at Pendills Creek (1.73 million) were transferred to Charleoviox, Mich., and used for the multi-agency Astroturf program. Future broodstocks of the Green Lake strain of Lake Trout were developed from 200 paired matings and will be transferred to Allegheny NFH in December. Future broodstocks of the Siskiwit Bay and Tobin Harbor strains of Brook Trout were developed from 100 paired matings of each respective strain and transferred directly to the Genoa NFH. **(11/23/99)**

25. Ashland FRO Assists Red Cliff Tribe With Coaster Brook Trout Assessment

Ashland Fishery Resources Office

Lake Superior fish management agencies have recommended marking brook trout stocked into Lake Superior or its tributaries to allow managers to identify stocked fish and evaluate restoration efforts. Stocking of early life stages such as eggs and fry will require development of new marking techniques for brook trout.

The Red Cliff Tribal Fish Hatchery and Iron River National Fish Hatchery developed a fish marking study to determine the feasibility and retention of oxytetracycline and thermal marks on coaster brook trout otoliths. Red Cliff Tribal Fish Hatchery stocked marked fingerlings, yearlings, and adult Lake Nipigon strain coaster brook trout into Lake Superior waters adjacent the Red Cliff Reservation during 1999.

Ashland Fishery Resources Office provided assistance through fishery surveys to recapture stocked fish in September and November. A total of seven adult brook trout were captured in Lake Superior's Raspberry Bay in November. Length ranged from 414 - 447 mm. Despite capture effort with boat and backpack electrofishers, and fyke nets, no juvenile brook trout were captured in 1999. The Red Cliff and Iron River hatcheries have sent samples from marked fish reared at the hatcheries to Southern Illinois University and the Minnesota Department of Natural Resources for analysis. **(11/25/99)**

December 1999

26. New Information on Exotic Ruffe Populations in Lake Huron Presented at Midwest FW Conference

Alpena Fishery Resources Office

Biologist Hintz presented information on the status of Eurasian Ruffe in the Thunder Bay River, tributary to Lake Huron, at the 61st Midwest Fish and Wildlife Conference Dec. 7, 1999 in Chicago. The relative abundance of ruffe has increased in bottom trawling surveys from 1996 to 1999. Ruffe was the most abundant fish captured in 1998 and 1999 surveys and comprised the largest portion of the total catch. Information was also provided on the relative abundance of yellow perch, trout-perch, and spottail shiner captured in the same surveys.

New information on the dynamics of the native fish population following the discovery and increase in abundance of the ruffe in the Thunder Bay River in Alpena, Michigan is valuable in predicting potential effects of this invader should it spread to new areas. The Midwest Fish and Wildlife Conference provides for sharing of this information with the management agency biologists, research biologists, and the public. **(12/7/99)**

27. Great Lakes Basin Ecosystem Team Sponsors Symposium on Ecosystem Approach

Alpena Fishery Resources Office

The Great Lakes Basin Ecosystem Team sponsored a symposium titled 'Ecosystem Approaches to Fish and Wildlife Conservation on the Great Lakes' during the 61st Midwest Fish and Wildlife Conference in Chicago. The symposium began with an introduction and overview of the Service's ecosystem approach to fish and wildlife conservation and, specifically, activities of the Great Lakes Basin Ecosystem Team. Eighteen invited presenters then gave presentations focusing on the use of partnerships to address priority issues identified by the Ecosystem team. The papers centered on Great Lakes fishes of management concern; migratory birds of management concern, including federally- and state-listed species, and colonial-nesting species; invasive exotic species management; conservation of unique fish and wildlife habitats, including near-shore islands; and environmental contaminants. Presentations also highlighted collaborative research and management efforts of Service partners throughout the Great Lakes. **(12/7/99)**

28. Results of Fish Passage Study Presented at the Midwest Fish and Wildlife Conference

Alpena Fishery Resources Office

Biologist Tracy Hill of the Service's Alpena Fishery Resources Office (FRO) presented information about Service fish passage initiatives during the 61st Midwest Fish & Wildlife Conference Dec. 7, 1999, in Chicago. Hill's presentation, titled 'The U.S. Fish and Wildlife Service's Fish Passage Initiative' was given during the conference's Fish Passage and Dam Removal Symposium. The symposium was an excellent forum to inform partners about the Fish Passage Program. Following the presentation, several partners were eager to get more specific information about the program. The Fish Passage Program is expected to function as a 'field-up' national program to address passage in a systematic approach involving a National coordinator, Regional coordinators, ecosystem teams, and Service partners. The Program is designed to achieve consistent results in a structured way to ensure that pristine systems are protected and that passage barriers are identified and systematically corrected where appropriate and as resources become available.

Biologist Hill also co-authored on a poster presentation titled 'Evaluation of Lake Sturgeon in the Detroit River as Reported by Sport Anglers.' The presentation detailed how Alpena FRO staff are working with sport anglers in the Trenton, Mich., area to gather information on lake sturgeon captured in the Detroit River. The conference provided the FRO staff an opportunity to interact with fisheries professionals from across the Midwest. **(12/7/99)**

29. Pendills Creek NFH Participates in Public Relations Events

Pendills Creek National Fish Hatchery

The Pendills Creek National Fish Hatchery was recently involved in two outreach activities this past Fall. Robert H. Pos, fishery biologist, was asked to participate in National Hunting and Fishing Day at the Seney National Wildlife Refuge and he was also asked to work the U.S. Fish and Wildlife booth at the 4th Annual Great Lakes Lighthouse Festival in Alpena, Mich.

On Saturday Sept. 25, 1999, about 350 people attended National Hunting and Fishing Day sponsored by the Seney Natural History Association and the U.S. Fish and Wildlife Service at the Seney National Wildlife Refuge in the Upper Peninsula of Michigan. The full day of activities, displays, and presentations included a wild edibles table, a fly tying table, a decoy carving table, a crafts table, fish and wildlife tables, an archery range, etc. The displays and presentations included hunting with a camera, fly casting, outdoor survival, bird watching, etc. A special highlight of the day was a Jr. Duck Stamp Art Display showing the State of Michigan top 10 winners and the Best of Show winners from the National Competition. In addition, local Girl Scouts and Boy Scouts were invited to join in the celebration and work on their Interest Projects and Merit Badges. Special scheduled sessions dealt with orienteering, wilderness survival, photography, birds, artistic crafts, etc.

Specifically, Bob Pos brought along the hatchery displays, posters, pamphlets, leaflets, brochures, bio-plastic display, etc., from Pendills Creek that dealt with fishes, fishing, and fish culture. Poster boards dealing with the Federal fisheries programs were especially constructed for the occasion. The major highlight of the presentation was two colorful male coaster brook trout and two male lake trout in an aquarium. Visitors, especially children, really enjoyed viewing these live fishes.

Over 10,000 people attended Alpena's 4th Annual Lighthouse Festival during the 2nd weekend in October. The three-day event brought together staff from Michigan Fishery Resources Office, Hatcheries, Refuges, and ES programs into one booth. There were also volunteers from

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Shiawassee NWR and the East Lansing Field Office.

Our booth, which took up half a tent at the festival, was a great success due to the various displays contributed from the many offices and the participation of many diverse employees. Some of the other activities and events at the festival included vendors, artist, photographers, live performances, dinners, dances, parties, helicopter tours, lighthouse tours, boat tours (including the lake trout stocking vessel M/V Togue),etc. **(12/8/99)**

30. Black Carp, Latest Asian Carp Invader a Threat to Native Mollusks

Large River Fisheries Coordination Office

The Large River Fisheries Coordinator prepared an article for 'River Crossings', the newsletter of the Mississippi Interstate Cooperative Resource Association, describing the threat of Asian carp to Mississippi River Basin fisheries resources. The article documented an October 1999 fish kill investigation conducted by Chuck Surprenant of the Service's Carterville Fishery Resources Office (FRO) in the backwaters of the Mark Twain National Wildlife Refuge in Illinois.

Surprenant reported that 97 percent of the kill consisted of four Asian carp species (i.e. grass, silver, bighead, and common carps). Only four native species were identified in the kill, and these were represented by only one individual each. In recent years, Asian carp have been increasingly used by fish culturists for various pond and lake applications. This Mississippi River fish kill documents escapement of these species to the wild and establishment of wild populations. Their shear numbers pose a significant threat to native fish species as evidenced by the lack of native fish in the fish kill.

The black carp, yet another Asian carp species, is just now beginning to be used to control grubs in catfish culture ponds. Its use should be banned before it also escapes to the wild and establishes wild populations which will threaten the Basin's threatened and endangered native mollusk (snail and mussel) populations. **(12/10/99)**

31. MICRA Working on Solutions to Stop Invasive Species

Large River Fisheries Coordination Office

The Large River Fisheries Coordinator prepared three articles: 'Round Goby Invasion', 'International Organism Exchange,' 'Mass Extinctions,' for the Mississippi Interstate Cooperative Resource Association (MICRA) newsletter, 'River Crossings, Vol. 8, Nos. 5 and 6' addressing concerns about invasion of the Mississippi River Basin by exotic species from the Great Lakes.

In August 1999, MICRA Chairman Bill Reeves sent a letter to the Aquatic Nuisance Species (ANS) Task Force, co-chaired by the Service's Cathlene Short, requesting support in the use of toxic chemicals to kill round gobies that had entered the Cal-Sag and Chicago Sanitary and Ship Canals (CCSSC) before the gobies could move downstream past a proposed electric barrier site, and reach the Mississippi River Basin. Unfortunately, the gobies were able to move further downstream toward the headwaters of the Illinois River.

MICRA continues to work toward solutions that eliminate the CSSC as a point source of biological contamination of the Mississippi River Basin. MICRA continues to push this issue by preparing research proposals to acquire funding to find a solution to this dilemma. As a result of MICRA's continued action, Great Lakes interests are now becoming informed and concerned that similar contamination by Asian carp which may soon be moving upstream and entering the Great Lakes in the opposite direction from the Mississippi River Basin.

The issue of exotic species introduction and spread will continue to be a major issue in decades to come. All Mississippi River Basin congressionals were copied on MICRA correspondence to the ANS Task Force and all regularly receive 'River Crossings.' **(12/10/99)**

32. Lake Huron Commercial Fishers Recognized For Contributing to Lake Sturgeon Study

Alpena Fishery Resources Office

Service biologists joined 45 commercial fishers for the 3rd Annual Commercial Fishers Appreciation Dinner at Bay City, Mich., Dec. 14, 1999. Alpena Fishery Resources Office (FRO) hosted the dinner for Michigan state-licensed commercial fishers that are assisting the Service with lake sturgeon work in Lake Huron. The fishers encounter lake sturgeon as by-catch during their normal fishing operations. The fishers volunteer time to tag and collect biological information on the encountered lake sturgeon. Currently, 11 commercial fishers operating 17 boats are participating in the study. Approximately 200 lake sturgeon have been tagged since the program began in 1995. Bob Adair, GEO 1 Fisheries Program Supervisor, representing the Regional Office, presented awards and tokens of appreciation to each of the fishers present at the

dinner. Approximately 45 individuals representing the different Fishers participating in the project were present. This bi-national, multi-agency lake sturgeon tagging project began in 1995. The goals of the project are to gather crucial information on lake sturgeon population status, early life history, habitat use and interbasin movement. The information will be used to develop restoration plans for this depleted Great Lakes Native Species. Since 1995, approximately 200 lake sturgeon have been tagged in Lake Huron with the voluntary assistance of these Commercial Fishers. The Service's Volunteer program allows the Alpena FRO to host this dinner for the fishers. **(12/14/99)**

33. Lake Superior Elder Group Learns About Service's Lake Trout Restoration Efforts

Pendills Creek National Fish Hatchery

Bob Pos, fishery biologist at the Pendills Creek National Fish Hatchery, recently spoke to approximately 25 members of the Lake Superior Elders at Lake Superior State University. His 90-minute presentation titled 'Lake Trout Culture and Restorations' provided the group information about with the Great Lakes lake trout rehabilitation programs.

The program began with an 11-minute video produced by the U.S. Fish & Wildlife Service titled 'Your National Fish Hatchery' (Lake Trout Version). Although this video is now somewhat outdated and strongly emphasized the Lewis Lake strain of lake trout from Wyoming, it gave the group a good introduction to the lake trout restoration program. There was a short question and answer period followed by a slide show which lasted about one hour.

The slides began with the history of the collapse of the lake trout due to the invasion of the parasitic sea lamprey, overfishing, and pollution. It ended with our most modern efforts to bring back the lake trout (i.e., astroturf eggs and fry plants). Besides the federal hatcheries involvement with raising fingerling lake trout for the Great Lakes, we are now also involved with two other efforts. Both efforts include many partners. The first program is the deployment of astroturf bundles, which contain pre-eyed lake trout eggs, in Lake Michigan. These eggs, which are provided from federal hatcheries, will incubate between astroturf mattings out in the lake on their own and will hatch out in the lake on a historical spawning site.

The second program involves hatching swim-up fry at the Pendills Creek hatchery to be stocked on a historical spawning site in Lake Huron. These non-feeding, young fry are stocked in April as soon as the weather permits. Since both programs are relatively new to the public, it drew much curiosity and questions from the audience. **(12/17/99)**

34. Black Carp Threaten Native Mississippi River Basin Mussel Species

Large River Fisheries Coordination Office

The Large River Fisheries Coordinator drafted, coordinated comment, prepared finals, and submitted letters to the governors of Mississippi and Arkansas under the signature of the Mississippi Interstate Cooperative Resource Association (MICRA) chairman requesting that the use of black carp be banned in their states and that all existing stocks be destroyed.

The black carp poses a significant threat to native mussel species (many of which are threatened and endangered) because its food of choice is mollusks. The black carp is being used by fish farmers in Arkansas and Mississippi to help control parasitic grub infestations in catfish rearing ponds. Snails living in the ponds serve as intermediate hosts of the grub, so by eating the snails, the black carp helps to control the grub infestation. MICRA points out in its letters that other control methods are available, and that the other states are willing to work with Mississippi and Arkansas biologists to develop these controls in their states. Pond environments are notorious for their inability to prevent escapement of captive fish, so if the black carp escapes it will pose a real threat to the basin's threatened mollusk species. Black carp, a native of southeast Asia, arrived in the U.S. as a contaminant in grass carp shipments. Grass carp, another Asian carp species, is widely used to control weed infestations in lakes and ponds. MICRA's letters were widely circulated to resource agencies basinwide and to the entire Mississippi River Basin congressional delegation. **(12/21/99)**

35. Service Turns Potential Project Problem Into Research and Monitoring Dollars

Columbia Fishery Resources Office

Columbia, Mo., Ecological Services Field Office initiated informal Section 7 consultation under the Endangered Species

Continued on next page.

Act with Missouri Department of Transportation for the scheduled replacement of the Route 19 bridge over the Missouri River. Concerns were raised that bridge replacement activities may effect pallid sturgeon habitat. Columbia Fishery Resources Office (FRO) had located the Endangered pallid sturgeon in similar habitat within one river mile of the bridge alignment a few months earlier.

The Missouri Department of Transportation is providing funds for Columbia FRO to conduct field surveys, analyze data and provide advice and recommendations to avoid and/or minimize potential impacts to pallid sturgeon. This work is being done in conjunction with the U.S. Geological Survey-Columbia Environmental Research Center that is mapping the physical habitat characteristics (substrate, bottom contours, water velocity)of the project site. Columbia FRO will correlate pallid sturgeon presence/absence with the Center's habitat data.

Fishery surveys conducted by Columbia FRO will evaluate potential impacts to the pallid sturgeon that may occur in conjunction with construction of a new Route 19 Missouri River bridge and subsequent removal of the existing structure. **(12/30/99)**

January 2000

36. Service Joins Partners to Develop New Lake Superior Aquatic Nuisance Display

Ashland Fishery Resources Office

Staff from the Services Ashland Fishery Resources Office (FRO), Wisconsin Department of Natural Resources (DNR), and Wisconsin Sea Grant provided advice to Minnesota Sea Grant to develop an aquatic nuisance species (ANS) display for Lake Superior. The display segregates older ANS from recent introductions into Lake Superior and includes: Eurasian water milfoil, purple loosestrife, sea lamprey, alewife, round goby, Eurasian ruffe, zebra mussels, and rusty crayfish.

The display consists of a short narrative accompanied by photographs of each of the nuisance species. Although slightly larger than a standard-size display, the ANS display is easily transportable. The display will be used by the Northern Great Lakes Visitors Center and others to help increase public awareness of common aquatic nuisance species in the Lake Superior ecosystem and the potential threat they pose to native fish and plant communities. **(1/3/00)**

37. Service coordinates with USGS researchers on Lake Superior

Ashland Fishery Resources Office

The USFWS Ashland Fishery Resources Office and the USGS Lake Superior Biological Station, a field station of the Great Lakes Science Center, held a coordination meeting on January 7, 2000. Sixteen participants discussed issues of common concern relating to the biological resources of Lake Superior and to the agencies' co-tenancy of the GSA-leased building. They developed lists of potential collaborative projects (e.g. biological surveys or community service); potential efficiencies (e.g. sharing equipment or personnel); needed remedial actions (e.g. safety and clean-up tasks) with assigned personnel for follow-up. The Ashland FRO and the Lake Superior Biological Station have shared facilities since the FRO was formed in 1972, and have a long-standing cooperative working relationship. **(1/7/00)**

38. Side Channel Restorations Help Maintain River Ecosystem Integrity

Large River Fisheries Coordination Office

The Large River Fisheries Coordinator (LRFC) Jerry Rasmussen, prepared an article for 'River Crossings,' the newsletter of the Mississippi Interstate Cooperative Resource Association, documenting the discovery last fall of larval pallid sturgeon by Jim Milligan, Columbia Fishery Resources Office, in a newly created side channel or 'habitat bead' of the Big Muddy National Fish and Wildlife Refuge (NFWR).

Rasmussen and Robin Welcomme, Food and Agricultural Organization (Rome) developed the 'habitat bead' concept for restoration of riverine habitats and integrity at an international conference held in La Crosse, Wis., in 1994. The idea is that you don't have to restore habitats along the entire river to restore and maintain river ecosystem integrity. But if you can restore enough key habitats, strung all along the river, most organisms will find some habitats of their choice and be able to survive and even thrive at these locations. A side benefit is that these habitats also provide space for flood water storage and conveyance, and thus enhance flood control benefits for river communities.

The LRFC emphasized the 'habitat bead' concept through numerous oral and written presentations after the Great Flood of 1993, including 'River Crossings.' All of this effort won

its acceptance as a viable method of habitat restoration that the Service and the States are using for establishment of the Big Muddy NFWR and state refuges. Discovery of these larval pallid sturgeon (an endangered species) documents the first known reproduction of this species in decades, and demonstrates that if we provide the opportunity for creation of the right kind of habitats, we can prevent extinction of our native species and hopefully even restore them to some semblance of their former abundance. The exact spawning location of these pallid sturgeon has not been documented, but the presence of these larvae documents that it is likely nearby the restored Big Muddy Refuge side channel. It also documents the importance of the Refuge, at least, as an important nursery and rearing habitat for young sturgeon that did not formerly exist. **(1/10/00)**

39. Service Assists With New Management Rules For Waters Along U.S.-Canada Border

Ashland Fishery Resources Office

Biologists from the U.S. Fish and Wildlife Service participated in an international workshop to develop protocols for monitoring the effects of new water management rules on the U.S.-Canada border. The International Joint Commission convened 60 experts from resource management agencies and academia to plan for monitoring fish, birds, and other ecosystem components in response to new dam operating guidelines at Rainy Lake and Namakan Reservoir near International Falls, Minn. and Voyageurs National Park. Paul Burke of the Service's Twin Cities Field Office, and Tom Busiahn of the Service's Ashland Fishery Resources Office, provided advice on monitoring birds and fish, respectively. A comprehensive long-term ecosystem monitoring plan will evaluate the ecological consequences of changing dam operating guidelines on Rainy Lake and Namakan Reservoir on the U.S.-Canada border. Changes in dam operations will affect sport, commercial, and Native American fisheries and natural resources within Voyageurs National Park. **(1/12/00)**

40. LaCrosse FRO Partners to Control Carp on Horicon Marsh

LaCrosse Fishery Resources Office

Staff from the LaCrosse Fishery Resources Office (FRO) assisted the Horicon NWR and the Wisconsin Department of Natural Resources with the carp control project on Horicon Marsh. Staff members attended project coordination meetings, assisted with water level and flow measurements to help determine the proper amount of rotenone to use, recruited staff from Genoa NFH, and assisted with the application of rotenone on both the Federal and State portions of the Marsh. **(1/19/00)**

41. LaCrosse FRO Assists in Horicon Marsh Carp Treatment

LaCrosse Fishery Resources Office

Staff from the LaCrosse Fishery Resources Office (FRO) assisted the Horicon National Wildlife Refuge (NWR) and members of the Wisconsin Department of Natural Resources with a carp control project on Horicon Marsh. FRO staff attended project coordination meetings, assisted with water level and flow measurements to help determine the proper amount of Rotenone to use, recruited staff from Genoa National Fish Hatchery, and assisted with the application of Rotenone, a pesticide, on both the federal and State portions of the Marsh. **(1/19/00)**

42. Genoa Hatchery Staff Assists in Rotenone Treatment of Carp on Horicon NWR

Genoa National Fish Hatchery

Staff from the Service's Genoa National Fish Hatchery (NFH) assisted staff from the LaCrosse Fishery Resources Office (FRO), Horicon National Wildlife Refuge, and Wisconsin Department of Natural Resources, Jan. 26, 2000, to chemically control carp population on the Refuge's Horicon marsh. In addition to chemical (rotenone) treatments, the hatchery will provide adult northern pike, as well as numerous other native game fish species, to the marsh to help keep the carp population in check for the future. Carp are an exotic species that destroy aquatic vegetation important to other native species of fish and wildlife. The use of rotenone, along with future fish stocking, will help to reduce the number of carp in the marsh allowing the vegetation to return. **(1/26/00)**

43. Service and Tribal agency meet to coordinate activities

Ashland Fishery Resources Office

The USFWS Ashland Fishery Resources Office and the Great Lakes Indian Fish and Wildlife Commission-Biological Services Division held a coordination meeting on January 27, 2000 in Ashland, Wis. Fifteen participants discussed cooperative projects and technical assistance relating to the biological resources of Lake Superior and the ceded territories. They developed lists

of unmet needs and potential collaborative projects, and action items to meet needs and pursue projects. The Ashland FRO and the Commission have a long-standing cooperative working relationship. **(1/27/00)**

44. Lake Trout Restoration Partners to Study Early Mortality Syndrome (EMS) in Lake Trout

Pendills Creek National Fish Hatchery

During November 1999, 60 excess Lake Trout broodstock (adults) of the Lewis Lake strain were transferred from the Service's Pendill's Creek National Fish Hatchery to the U.S Geological Survey lab in Wellsboro, Pa., for research into Early Mortality Syndrome (EMS). Early Mortality Syndrome is a non-infectious disease that results in variable mortality of the offspring of feral Lake Trout which may be linked to thiamine deficiencies. One exotic prey species in the Great Lakes is alewife which contain high levels of thiaminase, (a thiamine destroying enzyme) which may be causing low thiamine levels in Lake Trout resulting in EMS. A portion of the Lake Trout broodstock that were transported to Wellsboro will receive an alewife diet to provide a source of thiamine deficient eggs for further research. This project is being accomplished in cooperation with USGS labs in Wellsboro, Penn., and Columbia, Mo., together with the Service's Green Bay Fishery Resources Office in Green Bay, Wis. The Pendills Creek/Hiawatha Forest National Fish Hatchery Complex holds seven genetically distinct strains of Lake Trout and one strain of Coaster Brook Trout. The fish provide a source of disease free eggs for restoration programs on the Great Lakes. This research is an important factor in the Service's continuing efforts to restore Lake Trout in the Great Lakes. **(1/31/00)**

45. Lake Trout Restoration at the Hiawatha Forest NFH

Pendills Creek National Fish Hatchery

The Hiawatha Forest National Fish Hatchery holds seven genetically distinct strains of Lake Trout and one strain of Coaster Brook Trout. The fish are spawned each fall and eggs are used to support restoration programs in the upper Great Lakes along with other high priority Service programs.

This year approximately 5.2 million eggs were shipped to four national fish hatcheries and one research station including 1.73 million eggs provided for the Astroturf program. Astroturf is an experimental program which puts eggs directly into the lake on historical spawning reefs. **(1/31/00)**

46. Study of Lake Trout Recruitment Integral to Completing Stock Assessment in Great Lakes treaty waters

Green Bay Fishery Resources Office

Green Bay Field Office staff recently completed a model that will improve estimates of total allowable catch for lake trout and whitefish in preparation for Fall 2000 renegotiated settlement of the 1836 fishing rights treaty on ceded waters of the upper Great Lakes.

As part of this modeling effort, the Green Bay Fishery Resources Office (FRO) analyzed lake trout tag data to produce a needed description of the dispersal and recruitment of lake trout to all regions of Lake Michigan. The analysis revealed that 74 percent of the lake trout stocked on offshore reefs in northern Lake Michigan, and 50 percent of those stocked on the offshore reef complex in southern Lake Michigan eventually move permanently off the reef and into near shore waters prior to reaching sexual maturity. Conversely, no measurable number of fish stocked near shore moved offshore to take up residency on or around historic offshore spawning reefs. At present, the continued stocking of lake trout on offshore spawning reefs provides both the primary means of colonizing those reefs with some adult lake trout while also providing substantial numbers of lake trout for the near shore recreational fishery. **(1/31/00)**

February 2000

47. Jordan River Hatchery Completes Lake Trout Coded Wire Tagging

Jordan River National Fish Hatchery

The Jordan River National Fish Hatchery completed coded wire tagging of 697,650 lake trout Feb. 1, 2000. It took 754.75 temporary employee staff hours to complete the process. The fish will be distributed as follows during the spring of 2000: 322,950 in Lake Huron and 374,700 in Lake Michigan. **(2/1/00)**

48. Jordan River NFH Completes Lake Trout Coded Wire Tagging

Jordan River National Fish Hatchery

Staff at the Jordan River National

Fish Hatchery completed the coded wire tagging of 596,954 lake trout Feb. 1, 2000. The fish will be released into Lakes Michigan and Huron during spring distribution. Sixteen intermittent employees worked 580.5 hours at a cost of $8,755. **(2/1/00)**

49. Columbia FRO Introduces College Students to the Fish & Wildlife Service

Columbia Fishery Resources Office

Columbia Fishery Resources Office (FRO) staff participated in the 2000 student job fair at the annual Missouri Natural Resources Conference in Osage Beach, Mo. Service staff contacted more than 200 students. Students collected information on the STEP and SCEP programs, general Service employment, and Columbia FRO brochures. Several of the students applied for a summer STEP position at our station while others signed on to volunteer for some valuable big river field experience. **(2/2/00)**

50. Service Coordinates Fishery, Refuge Issues With Wisconsin DNR

Ashland Fishery Resources Office

Personnel from the U.S. Fish and Wildlife Service and the Wisconsin Department of Natural Resources held a coordination meeting at the Northern Great Lakes Visitor Center in Ashland, Wis., on Feb. 10, 2000. Twenty participants discussed issues of common concern relating to the newly-established Whittlesey Creek National Wildlife Refuge and the management of coaster brook trout in Wisconsin waters of Lake Superior. The agencies agreed to communicate and cooperate regarding management of the Whittlesey Creek NWR and adjoining state lands, the South Shore Fisheries and Wildlife Management Area. The Wisconsin DNR will convene a task force including the Service, tribal governments and interest groups to assist in developing plans for rehabilitation and management of coaster brook trout. **(2/10/00)**

51. Spearing Season 2000 Winnebago

Alpena Fishery Resources Office

Alpena FRO technician Scott Koproski traveled to Oshkosh, Wis., to assist Ron Bruch, Wisconsin DNR, with the annual lake sturgeon spearing season on Lake Winnebego. A total of 2,517 sturgeon were harvested during the two day spearing season. 648 juvenile (<55 inches) females, 412 adult (>55 inches) females, 1,453 males, and four unknowns (fish to frozen to be cut open) were harvested. The season length was determined by the harvest of either juvenile females (400) or adult females (400). Once 80 percent of the harvest cap (320 juvenile or adults females) was attained, Wisconsin DNR would close the season the following day at 6:00 p.m. The 80 percent mark was reached for both juvenile and adult females on opening day, 456 and 320 respectively. Each fish harvested must be registered in order for it to be considered legal. Information collected while registering fish included: weight, total length, maturity, age structures, and tag information. The critical component of information collected is the tagging information. This allows population estimates to be determine for lake sturgeon. Koproski worked at one of the 13 registration stations that were located throughout the system which included a chain of lakes (The Upper Lakes) between Lake Winnebego and the Wolf River where sturgeon spawning takes place. On the first day of the season Koproski's station checked 468 sturgeon and on the second day 141 sturgeon. At times, fishermen had a two hour wait to register their fish. Other Great Lakes FRO personnel included representatives from Green Bay FRO and Ashland FRO. **(2/12/00)**

52. Fish Health Analysis Completed For Lake Trout at Pendills Creek NFH

Pendills Creek National Fish Hatchery

The second quarter routine fish health and condition profiles for the Pendills Creek National Fish Hatchery were completed on six lots of lake trout fingerlings, Feb. 15, 2000. The profiles are an on-going program at federal hatcheries and Pendills Creek is asked to examine each lot of production fish three times each year during the production cycle, prior to their release into the Great Lakes. The first quality checks were completed in September 1999, and the third quality checks will be done in May 2000, before the fish are distributed. Pendills Creek produces approximately 700,000 lake trout yearlings and the primary objective of these checks are to monitor and assess the health and condition of the hatchery product. This data may also help fish culturists and fishery biologists in the development of guidelines for maintaining or improving the quality of the fish at the facility. Overall, these analyses help to guarantee that the healthiest and best possible fish are provided for the lake trout restoration program. It is hoped that this will lead to a greater survivability in the wild.

The health and condition profiles are based upon necropsying 20 fish per lot. Each sample of 20 lake trout fingerlings were randomly selected

from the ponds with a dip net, anesthetized with MS-222, and weighed and measured individually. The ratio of fish weight to the length cubed, the condition factor, is used to evaluate the general health and condition of the trout. Blood is drawn from each fish and the volume of red blood cells (erythrocytes), the volume of white blood cells (leucocytes), and the amounts of protein plasma were measured and recorded. After the blood was sampled, each lake trout was examined for evidence of external damage such as tail or fin erosion, scale loss, skin discoloration, etc. The gross appearance of the eyes, gills, pseudobranchs, thymus, and opercles were also examined at this time. After the external examinations, the fish were then carefully cut open and the internal examination proceeded. The amount of mesentery fat and the gross appearance of the organs such as the spleen, liver, kidney, and bile were observed and recorded. All observations were recorded on a standard form and then entered into a LOTUS 123 computer program. Data from these observations can be analyzed and evaluated for each lot, or compiled over time to yield baseline information which may permit detections of trends in the lake trout populations. For Pendills Creek, the most important and valuable data obtained are usually the condition factors, levels of mesentery fat, the percentages of eye cataracts, and the amount of fin erosions if any. **(2/15/00)**

53. Black Carp Petitioned for Listing as a Species of Injurious Wildlife

Large River Fisheries Coordination Office

The Region's Large River Fisheries Coordinator assisted in the development and coordination of a petition that could classify black carp as a species of injurious wildlife. Jerry Rasmussen also submitted the petition to the Director of the U.S. Fish and Wildlife Service, under the signature of the Mississippi Interstate Cooperative Resource Association (MICRA) chairman, petitioning the listing of black carp as a species of injurious wildlife under authority of the Lacey Act.

The black carp is being cultured in Arkansas, and is being used by fish farmers there and in Mississippi to control grub infestations in catfish rearing ponds. The black carp's primary food source is mollusks, so by eating pond snails (the intermediate host of the grubs) the black carp helps to control the infestation. However, pond environments are notorious for their inability to prevent escapement of captive fish, so the likelihood of the black carp escaping to the wild is high. If black carp populations are established in the wild they will pose significant threats to the Mississippi River Basin's threatened and endangered mollusk (mussel and snail) species.

Other methods of grub control are available, so MICRA recommends using the Lacey Act to ban the use and possession of black carp in the U.S. The black carp, a native of southeast Asia, entered the U.S. as a contaminant in grass carp shipments. Grass carp is another Asian carp species that is widely used for control of weed infestations in pond and lakes. Copies of the MICRA petition were sent to all Mississippi River Basin congressional staffs. **(2/24/00)**

54. Draft of Pool 12 Dredge Placement Report Completed

LaCrosse Fishery Resources Office

The draft progress report (2nd year) of the Dredge Placement study in Pool 12 of the Upper Mississippi River was completed and sent to the Corps of Engineers, Rock Island District for review. This project was called for by river resource managers in an attempt to identify impacts from dredging. Dredge placement occurred this year in October. This year La Crosse FRO will conduct the first full year of post-dredge sampling. This report described the second year findings from the project site for six months (Apr.-Sept.) prior to dredging and one month (Oct.) after dredging occurred. Results are to be held inhouse until the work group has a chance to review the draft. **(2/24/00)**

55. Genoa NFH Forms Partnership With Boy Scouts Council.

Genoa National Fish Hatchery

The Genoa National Fish Hatchery has formed a partnership with the Gateway Area Boy Scout Council. The hatchery will assist in the management of the Council's trout fishing pond at Camp Decorah. Surplus brood stock will be stocked into the pond for the boy scouts to catch and earn their fishing merit badge. In addition, scouts attending summer camp that wish to work on their fishing

merit badge, will be transported by the camp staff for part of a day each week, to learn more about fish. This partnership will result in the environmental education of hundreds of school aged boys who are in the boy scout program. **(2/25/00)**

56. Outreach at La Crosse FRO

LaCrosse Fishery Resources Office

La Crosse FRO has conducted several outreach items during the last few months. In January we held our volunteer banquet in conjunction with the La Crosse Dist. of the UMRWFR which was an uplifting event and coordinated primarily by Mary Stefanski. This years volunteer of the year was Bob Ruud who contributed over 200 hours again. Presentations were given at two area elementary schools on river issues and careers. A local high school requested our assistance with judging their science fair and we also worked together with the La Crosse Dist. to sponsor a booth at the La Crosse Outdoor Exhibit, which was very well attended. Key issues were water level management, paddlefish, habitat monitoring and refuge regulations. **(2/28/00)**

57. Fishery Assessment Report completed for Prairie Island Reservation

LaCrosse Fishery Resources Office

A fishery assessment report on Sturgeon and North Lakes (Miss.R backwaters) was completed for the Prairie Island Dakota Community. This report summarized the first five years sampling that was conducted by La Crosse Fishery Resources Office. Results indicated similar results as previous surveys. This information will be used to base management decisions on in the future by comparing abundance trends for key species. **(2/28/00)**

March 2000

58. Report Documents Lake Sturgeon Larval Growth and Distribution

Ashland Fishery Resources Office

A report describing studies of larval and juvenile lake sturgeon in the Bad River was completed recently by Henry Quinlan, Ashland Fishery Resources Office. Cooperators involved the Bad River Band of Lake Superior Chippewa, Great Lakes Indian Fish and Wildlife Commission, and the Service's Marquette Biological Station.

Larval lake sturgeon were captured in drift nets downstream of the spawning grounds over a two week period. Juvenile (young-of-the-year) lake sturgeon were captured with seine and bottom trawl, and also observed on pea gravel substrate. This study provided information on the extent and timing of larval drift and documented growth and distribution of larval and young-of-the-year sturgeon. Larval drift was shown to extend at least 18.5 km downstream of the spawning grounds. The studies found that catch per effort of larval lake sturgeon at the spawning grounds in the Bad River is comparable to that measured at the spawning grounds for other self-sustaining populations. **(3/3/00)**

59. Service Offices in Michigan and Ohio Combine For Outdoorama Outreach

Alpena Fishery Resources Office

The Alpena Fishery Resources Office, with the assistance of the Shiawassee NWR organized the Service exhibit at the Michigan United Conservation Club-sponsored Outdoorama held in Novi, Mich., March 5, 2000. Outdoorama is the largest annual outdoor show in Michigan annually attracting more than 200,000 visitors. This show is an excellent outreach opportunity for the Service. All Michigan and Northern Ohio field stations participated in the show by sending personnel to staff the booth, or by contributing outreach materials. The Great Lakes Basin Ecosystem Team's Nomadic Display was used, highlighted by a tundra swan display, aquatic nuisance species display, and the 'Great Lakes Discovery Center' project. Frequently asked questions focused on the Great Lakes double-crested cormorant populations, and the Service Federal Aid Program. **(3/5/00)**

60. Hatchery Contributes To Annual Sport and Travel Show

Pendills Creek National Fish Hatchery

The Pendills Creek National Fish Hatchery joined with other Service field stations to staff an information booth at the 27th annual Outdoorama in the Novi Expo Center, Mich., Feb. 26 to Mar. 5, 2000. Sponsored by the Michigan United Conservation Clubs and called 'Michigan's favorite outdoor show,' the event contained over 400 displays including fishing, hunting, and outdoor equipment, fishing and hunting seminars, live animal exhibits, travel destinations, boats and recreational vehicles. Employees and volunteers from many facilities did their part to help promote and educate the public about the programs and activities of the Service during the 10-day event. Uniformed employees worked three shifts each and volunteers from the Friends of Shiawassee and the Ottawa NWR Association also contributed of their time and efforts. It was great getting to

know them and we thank them for their help. Special thanks goes to Doug Spencer and Heather Enterline for the inspiration, leadership, and guidance. Pendills Creek NFH is proud again to have been a small part for the fourth straight year. **(3/5/00)**

61. Trail of Two Cities Receives First Major Grant

Large River Fisheries Coordination Office

The 'Trail of Two Cities', an American Heritage Rivers project linking the cities of MacGregor and Marquette, Iowa, with the Pikes Peak State Park, Upper Mississippi River National Wildlife and Fish Refuge - McGregor District (UMRNWFR-MD), and Effigy Mounds National Monument has received it's first major state grant. Steve Kolbach, public relations manager for the project informed the Large River Fisheries Coordinator (LRFC) that a $556,000 grant was recently approved for the project by the Iowa Department of Transportation. Kolbach said he was hopeful that federal grants will soon become available to the project because he has significant local support lined up for matching funds. Last year the LRFC and personnel at the UMRNWFR-MD assisted in preparation of a proposal for federal ISTEA funding. Although that funding attempt was unsuccessful, Kolbach said he is hopeful that a similar effort will occur this year. Kolbach also encouraged the Fish and Wildlife Service (FWS) to do what it could to begin enhancement measures at the McGregor District Headquarters (i.e. bridging the road and railroad tracks and placing a kiosk on the river). Plans for the trail now extend all the way to Harpers Ferry, IA, most of which will parallel the I&M Rail Link railroad tracks. I&M Rail Link officials will provide a railroad car and small crane to assist local volunteers in cleanup of track-side areas this spring. This project will not only provide for a bike trail, but also solve a local traffic congestion and safety (highway/railroad) problem; provide safe access for bike and pedestrian traffic between the two cities; enhance the area's economics; and most importantly to the FWS, enhance our visitor facility and provide a greater opportunity to reach a broader range of the public with information on river ecology and environmental issues. (3/6/00)

62. LaCrosse FRO Coordinates Annual Meeting of White Earth Tribe, Minnesota DNR and Service

LaCrosse Fishery Resources Office

LaCrosse Fishery Resources Office (FRO) coordinated and participated in the annual meeting between the White Earth Conservation Department(Doug McAuther, Randy Zortman), Minnesota Department of Natural Resources (Dave Friedl, Roy Johannes and Henry Drewes)and LaCrosse FRO (Scott Yess). Participants addressed 1999 and 2000 activities, lake sturgeon and fish passage. New projects concerning fish passage on the Red River Drainage and which will be considered for future funding. The annual coordination meeting has been a great method for improving relations between the three agencies and eliminate duplication of effort. The meeting was held at the Federal building in St. Cloud, thanks to Pat Kimbal for assisting on meeting logistics. **(3/8/00)**

63. Great Lakes Lake Sturgeon Web Page Updated

Alpena Fishery Resources Office

Fishery biologist Tracy Hill has completed a major upgrade to the Great Lakes Lake Sturgeon Web Page (www.fws.gov/r3pao/sturgeon). The page was created and is maintained through funding from the Great Lakes Basin Ecosystem Team (GLBET). The page consolidates information from numerous Service field stations, resource agencies and universities that are conducting lake sturgeon projects in the Great Lakes Basin. The web page also serves to educate the public and scientific community about the Service roles, responsibilities, and activities regarding depleted native species such as lake sturgeon.

The page now contains information from 11 Fish and Wildlife Service offices, three state agencies (Michigan, Ohio, and Wisconsin) three Ontario Ministry of Natural Resources Lake Management Units (Superior, Huron, and Erie), and four universities. In addition to the agency/university contacts, the page contains the research priority needs of the GLBET Lake Sturgeon Subcommittee, Great Lakes Lake Sturgeon Genetics Status Assessment and links to other sturgeon sites. The site has had approximately 7,500 hits/month since posting in April 1998. The page received over 10,500 hits in August and November 1999. **(3/9/00)**

64. Interjurisdictional Rivers Page of the Mississippi River Basin

Large River Fisheries Coordination Office

March 9, 2000 marks the first anniversary of establishment of the Interjurisdictional Rivers Page of the Mississippi River Basin. The Web Page was developed by the Large River Fisheries Coordinator (LRFC) as a site for posting useful information about Interjurisdictional river fisheries issues and management. The site is hosted by the USGS/BRD in Columbia, MO and can be accessed at wwwaux.cerc.cr.usgs.gov/MICRA. It provides many downloadable files (Adobe Acrobat), including the MICRA newsletter, 'River Crossings'. The site also is linked to all 28 states in the Mississippi River Basin as well as the BRD, BOR, TVA and to MICRA's tribal member web sites. The Large River Fisheries Coordination Office uses this as it's primary web site, rather than trying to maintain a duplicate, equal site on the U.S. Fish & Wildlife Service network. Since March 9, 1999, the site has recorded nearly 800 'hits', despite little effort being committed to advertising, other than listing it with a few web browsers. The site is continually being updated and improved, so visit us often! **(3/9/00)**

65. Native Fish Restoration/ Tribal Trust; United States versus Michigan

Fisheries

A series of intense negotiations between the five 1836 Treaty Great Lakes Tribes, the state of Michigan, and the United States concluded March 2, 2000, with guarded optimism over the progress made. Sport, commercial, and subsistence fishery and native fish conservation interests are working together to develop a new fishery management agreement between the five 1836 Treaty Tribes and the state of Michigan to replace the 15-year Consent Decree that ends this year. These most recent negotiations are especially critical as the court established litigation deadlines near. The Service's three upper Great Lakes Fishery Resources Offices (FRO), Alpena, Green Bay, and Ashland FROs, have been providing the technical expertise and guidance to attorneys for the Departments of Justice and Interior. On March 8, 2000, the Department of Interior solicitor reported that the services received by the U.S. Fish and Wildlife Service have been very helpful in guiding the difficult negotiations along. **(3/13/00)**

66. Neosho Hatchery Partners to Establish Paddlefish in Oklahoma Lake

Neosho National Fish Hatchery

Region 3's Neosho National Fish Hatchery (NFH) partnered this spring with Region 2's Tishimingo NFH in Oklahoma for a successful paddlefish spawning season, shipping more than 700,000 eggs and fry. The cooperative effort includes the Tishomingo Fishery Resources Office and is part of the Ark/Red Ecosystem Plan. Approximately 4,500 paddlefish, raised at Tishomingo NFH, will be shipped to Neosho NFH when they reach two inches in length. The paddlefish will remain at Neosho NFH until they reach 10 inches. The paddlefish originate at Tishomingo NFH as spring water temperatures at Neosho is too cold to initiate feeding. All fish will be coded wire tagged prior to release. This is a cooperative effort with Tishomingo NFH and Tishomingo FRO and Neosho NFH in an effort to reestablish a spawning population of paddlefish in Lake Oolagah, a federal reservoir in Oklahoma. **(3/15/00)**

67. Hatchery Staff Prepare to Culture Endangered Mussels.

Genoa National Fish Hatchery

Todd Turner and Roger Gordon, from the Genoa NFH, and Kurt Welke from the Wisconsin Department of Natural Resources, traveled to Ohio State University, Virginia Polytechnical Institute, and Tennessee Technological University, and the Buller State Fish Hatchery, to learn the latest technology in mussel propagation. Information learned will be used in the upcoming culture program, at Genoa, to restore the endangered Higgins eye pearly mussel. Funding for the project is provided through a grant by the National Fish and Wildlife Foundation from a legal settlement's restitution fund to benefit the freshwater mussel conservation. The Genoa National Fish Hatchery received a grant from the National Fish and Wildlife Foundation to propagate the Higgins Eye pearly mussel as part of the recovery efforts for this species. A portion of the grant is to be used for training for the individuals involved in this effort. The information gathered from this trip will be used to set up the culture facility for trials that have the best chance for success. **(3/17/00)**

Continued on next page.

68. Hatchery Creates Multi-media Presentation Describing Lake Trout Restoration Efforts
Pendills Creek National Fish Hatchery
A multi-media presentation developed by the staff at the Pendills Creek/Hiawatha Forest National Fish Hatchery Complex is helping communicate the Service's lake trout restoration efforts at the northern Michigan facility. Developed over 18 months, the presentation contains computerized images that can be customized for various outreach activities.

Highlights of the presentation include the history of lake trout decline, restoration authority, and role of the national fish hatchery system. Hatchery operations include spawning of fish, incubation of eggs, egg shipments, fry rearing, advanced fish culture, fish health, fish marking, and fish distribution.

Special projects also covered are the Astroturf program, early life history fry plants, outreach activities, and Youth Conservation Corps projects.

The Regional directorate recently viewed this multi-media presentation. Suggestions are currently being incorporated into the program. When completed we will be able to display all or parts of the presentation using a multi-media projector and laptop, VCR tape, or personal computer. A customized web page is also part of our future plans. **(3/21/00)**

69. Eighth Annual Ruffe Surveillance Report Published
Ashland Fishery Resources Office
Service Fishery Resources Offices in Ashland,Wis., Alpena, Mich., and Lower Great Lakes joined the Ontario Ministry of Natural Resources to publish the Eighth Annual Eurasian Ruffe Surveillance Report Mar. 22, 2000. The report details only one small, seven-mile expansion of ruffe along the south shore of Lake Superior.

The report also contained a chronological description of ruffe expansion since surveillance began in 1991. Descriptions of incidental and dedicated surveillance activities are included, along with identification of the most abundant species captured. With exception to the Ontonagon River, Mich., increases in ruffe abundance were observed in all peripheral locations during 1999.

Total reported surveillance effort in 1999, both dedicated and incidental, consisted of 52 hours bottom trawling, 5,104 trapnights, 31 nights gillnetting, 42 seine hauls, and 5.1 hours electrofishing. The effort resulted in a total catch of 11,316 ruffe, all within the known ruffe range.

In Lake Huron, ruffe were still only found near Alpena, Mich. No ruffe have been found in Lakes Erie or Ontario. No ruffe have been found in waters unconnected to the Great Lakes.

Other contributors to the 1999 ruffe surveillance report include Marquette Biological Station-Sea Lamprey Control, U.S. Geological Survey-BRD Lake Superior Biological Station, Departments of Natural Resources for Michigan and Wisconsin, and the Great Lakes Indian Fish and Wildlife Commission. **(3/22/00)**

70. Alpena Fishery Resources Office Presentation on Aquatic Nuisance Species at the GLFC Meetings
Alpena Fishery Resources Office
Biologists from Alpena Fishery Resources Office (FRO) presented current information on aquatic nuisance species in Lake Huron to the Lake Huron Committee at the Great Lakes Fishery Commission (GLFC) Upper Great Lakes Committee Meeting in Ann Arbor, Mich., Mar. 20-22, 2000.

The presentation was entitled "Aquatic Exotic Species in Lake Huron." Common Lake Huron aquatic nuisance species and their distributions were discussed. New information on the expansion of the round goby into new areas and deeper waters in the southern part of the lake was highlighted; as was the population dynamics of ruffe in the Thunder Bay area.

The Great Lakes Fishery Commission (GLFC) Upper Great Lakes Meetings gathers researchers and biologists from state, tribal, federal and provincial management agencies to disseminate new information. The presentation on invasive species was informative and updated biologists as to the current status of invasives in Lake Huron. **(3/22/00)**

71. Lake Trout Marking Program Completed
Jordan River National Fish Hatchery
1.45 million fish clipped for Lakes Michigan and Huron. 1,592.5 intermittent staff hours were used, costing $18,900. **(3/24/00)**

April 2000

72. Asian Carp Invade Mark Twain National Wildlife Refuge
Carterville Fishery Resources Office
Staff at Carterville Fishery Resources Office investigated a fish kill at Wilkinson Island on Mark Twain NWR during late October and early November 1999. Wilkinson Island Division of the Refuge is located between Mississippi River mile 88 and 94 on the east side of the Mississippi River, approximately 20 miles

south of Chester, Ill..

Primarily, the kill occurred within pools located along a three-mile section of the levee road. The inspection revealed that the majority of fish were Asian carp with very few native species present. To obtain an estimate of species composition, a single pool approximately 12-feet by 40-feet was selected, and all individuals within the pool were identified and counted. Contents of this pool consisted of: 157 silver carp (Hypophthalmichthys molitrix), 30 common carp (Cyprinus carpio), 18 bighead carp (Hypophthalmichthys nobilis), nine grass carp (Ctenopharyngodon idella), and five native fish representing four species.

Bighead, silver, and grass carp have the potential to cause major biological damage to the aquatic ecosystems of the United States. Silver carp can obtain a weight of five to six pounds in a single year enabling then to out compete native species and evade predation early on. Thousands of silver carp, possibly this years spawn, between 1.5 and 3.0 pounds, were examined at the Wilkinson Island kill. Reproduction and growth at this level represents a significant threat to the native species within the Mississippi River. If other backwater areas on the river support similar populations of Asian carp, the fish composition within the Mississippi River is going to change considerably.

The cause of the kill was determined to be the result of drought leading to low dissolved oxygen levels. **(4/4/00)**

73. Aquaculture Students Complete Work Placement at Pendills Creek NFH

Pendills Creek National Fish Hatchery

Two aquaculture students from Sault College in Sault Ste. Marie, Ontario, completed a work placement program April 9, 2000 at the Pendills Creek National Fish Hatchery. The students participated in four fish culture projects over a two-month period. The students logged 60 volunteer hours, providing staff with some relief from heavy workloads caused by staff vacancies.

Work assignments included fish culture activities and fish marking. Tours were provided at each station to acquaint the individuals with our facility. Due to the nature of the placement, one staff member dedicated about three hours to a review of our record keeping procedures relating to our fish production and broodstock programs. Textbooks and personal communication were provided to the students in order to fill a class commitment of preparing a report on fish health topics for the aquaculture class. **(4/9/00)**

74. Fin Clipping Operation Readies 708,000 Lake Trout For Great Lakes Stocking

Pendills Creek National Fish Hatchery

Five adult finclippers and two student-volunteers from Sault College, Canada, teamed up with staff from the Service's Pendills Creek National Fish Hatchery in northern Michigan, to painstakingly clip the fins of approximately 708,000 lake trout fingerlings this spring. Seasonal employees and volunteers worked approximately 1,000 hours to clip (painlessly) left pectoral fins (LP) on each fish. Beginning April 18, 2000, these six to seven-inch fish will be stocked into waters of Lake Huron and Lake Michigan. Annually clipping one or more fins on each fish allows fishery biologists and researchers to evaluate the lake trout's survival, growth, recruitment, and to track their movements. It also helps to differentiate between hatchery and wild lake trout populations.

During the clipping operations, quality control counts are performed twice daily and four times for each pond to ensure the majority of fish lose a fin. There are 16 ponds or raceways at Pendills Creek, each containing approximately 40,000-50,000 fish. Typically, 200 fish are sampled from each pond in four separate samples of 50 fish each. The fish are counted as clipped or not clipped based on the quality of the clip. Poor or partial clips are considered not clipped.

Sixty-eight quality counts, sampling 3,400 lake trout fingerlings were performed during the 2000 finclipping operation. Pendills Creek achieved a 98.3 percent finclipping efficiency. The rate was 96.1 % in 1999, 95.7 % in 1998, and 98.9 % in 1997. **(4/10/00)**

75. Columbia FRO Collects Two Endangered Pallid Sturgeon From Lower Missouri River

Columbia Fishery Resources Office

Columbia Fishery Resources Office staff collected two Endangered adult pallid sturgeon in the Lower Missouri River near Hermann, Mo., this spring as part of the Service's routine sturgeon monitoring. Both fish were in good health and tagged with Passive Integrated Transponder tags. Measurements were made to verify species identification and genetic samples were sent to Southern Illinois University for verification. Little information is available regarding pallid sturgeon in the Lower Missouri River as

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the fish hadn't been collected since 1978. These fish supply valuable information on sturgeon habitat use and health in the Lower Missouri River. This has brought the station's pallid sturgeon total to 8 fish over the last three years. **(4/11/00)**

76. Genetic Samples Taken From Hiawatha Forest NFH Broodstock

Pendills Creek National Fish Hatchery

Hiawatha Forest NFH is a broodstock facility with seven strains of lake trout broodfish on hand that contribute to Great Lakes restoration programs. On April 12, 2000, 70 fish were randomly selected from 970 of the Traverse Island strain for genetic sampling. A small piece of caudal fin was clipped from each fish and placed into individual scale envelopes. The fin clips were sent to Kevin Page, Department of Fisheries and Wildlife, Michigan State University, to assess the strain-specific differences among hatchery stocks used for stocking Lake Huron and Lake Michigan using microsatellite loci. This is part of an ongoing project for which numerous fin clips have been taken from several strains of lake trout at Hiawatha Forest and Iron River National Fish Hatcheries. **(4/12/00)**

77. Little Lake Wetland Restoration Will Provide Brook Trout Fishery

Ashland Fishery Resources Office

Stop logs were put in place and the Little Lake Wetland Complex at Grand Portage filled with water in April 2000. The complex includes about of 20 acres of open water and flooded timber and about 10 acres of marsh.

Originally created by highway construction through a wetland, the area had minimal wildlife or fisheries value because of widely fluctuating water levels. Ashland Fishery Resources Office assisted in development of this project and the cooperative group that completed construction. The project was funded by Tribal and Circle of Flight dollars and was engineered by Paul Sandstrom of the Soil Conservation Service in Duluth, Minn.

The impoundment and surrounding wetlands located in the Grand Portage Village, were enlarged and deepened by installation of a water control structure.

The initial response to the improved wetland by waterfowl has been very good. Black ducks, mallards, wood ducks, mergansers, blue bills and Canada geese are now using the pond/wetland complex and several species are probably nesting. Brook trout have been successfully introduced into the impoundment and thes population is expected to expand quickly and provide a recreational fishery. The Grand Portage Tribal Council and Natural Resources Department have expressed a high degree of satisfaction with both the attractiveness of the impoundment, and its environmental benefits. **(4/15/00)**

78. LaCrosse FRO Samples Dredge Affects on Upper Mississippi River's Pool 12

LaCrosse Fishery Resources Office

Staff from the LaCrosse Fishery Resources Office (FRO) completed the first sampling period for the Upper Mississippi River's Pool 12 Dredge Project near Bellevue, Iowa on April 18, 2000. This is the third year of work on this project and the goal is to determine fishery impacts from dredge placement. The data and information gathered from this study will assist river resource managers with decisions concerning dredge placement activities. **(4/18/00)**

79. Sault College Students Help Hatchery Complete Fish Health Analysis

Pendills Creek National Fish Hatchery

Six students from Sault College, Canada, volunteered 24 hours April 17-18, 2000, helping Service fishery biologists complete the 3rd quarter fish health and condition profiles at the Pendills Creek National Fish Hatchery. The profiles are an on-going cooperative program between the federal lake trout hatcheries and the LaCrosse Fish Health Center in LaCrosse, Wis. Each lot of production fish are examined three different times during the production cycle and the last one in the spring is the most crucial of the three quality checks. These checks monitor and assess the health and condition of the hatchery product prior to their release into the Great Lakes. Overall, federal lake trout biologists and fish health researchers try to guarantee that the healthiest and best possible fish are stocked.

As an introduction prior to the examinations, the students were given an information package, a walking tour of the facility, and an 11-minute video was shown. Six lots of lake trout fingerlings or 20 fish per lot were examined for external signs of damages or abnormalities. The internal gross appearances of the organs and the amount of mesentery fat were also observed and recorded. The blood works had already been done earlier by the La Crosse

Fish Health Center. All data were recorded on a standardized form and entered into a computer program. Data from these observations can be analyzed and evaluated for each lot each year, or compiled over time to yield baseline information which may permit detections of trends in lake trout populations. All information is available upon requests. **(4/18/00)**

80. Service Assists Indian Commission Survey Walleye Populations in Ceded Territory of Wisconsin

LaCrosse Fishery Resources Office

Staff from the LaCrosse Fishery Resources Office (FRO) assisted the Great Lakes Indian Fish and Wildlife Commission to survey walleye populations in 19 lakes in Northern Wisconsin. Service staff from Ashland FRO also participated during the three-week sampling effort completed April 19. The walleye were collected by night electrofishing, using a mark recapture technique. The walleye population data collected during this effort is used to set safe harvest levels for hundreds of lakes within the Ceded Territory of Northern Wisconsin. The walleye is one of the most popular fish species in Wisconsin. **(4/19/00)**

81. Service Hosted Workshop Examines Asian Carp Management and Control

Columbia Fishery Resources Office

Columbia Fishery Resources Office (FRO) and the Region 6 Aquatic Nuisance Species Coordinator co-hosted an Asian Carp Workshop in St. Louis, Mo., April 19-20, 2000, to begin gathering input for the development of a Mississippi River Basin Asian Carp Management and Control plan. The workshop reviewed the status, distribution, biology, ecological and economic benefits and impacts of Asian carp species, and identified management and control alternatives to reduce or mitigate these impacts. About 75 participants from state and federal natural resources agencies, universities, researchers along with aquaculturists and their trade association representatives met to review current information and formulate management and control alternatives for grass, bighead, silver and black carp species. Three of these exotic species have escaped and/or been stocked in the Mississippi River basin. They have become naturalized in many rivers and streams and are rapidly expanding their range and populations while producing adverse impacts to many native aquatic species and their habitats through competition and displacement. The forth species, black carp, are believed to be currently confined to culture facilities, but pose a major threat to already endangered freshwater mollusks should they escape.

Current status of target species was reviewed and facilitated breakout sessions identified economic and environmental impacts and benefits of each species. Additional sessions identified alternatives for reducing impacts and optimizing benefits through preventing spread, detection and monitoring and controlling populations.

Workshop proceedings are expected to be published and distributed by August and will serve as the basis for development of a Mississippi River Basin Management and Control Plan. **(4/19/00)**

82. Ashland FRO Assists Tribes With Spring Walleye Surveys

Ashland Fishery Resources Office

The Ashland FRO provided two electrofishing boats and crew leaders for spring walleye assessment projects April 24, under a three-year agreement between the Great Lakes Indian Fish and Wildlife Commission and the Service. The objectives are to estimate populations of adult walleye in lakes of northern Wisconsin. The adult population estimates are used to set safe harvest levels, on which tribal harvest quotas are based. This year's assessment activity was assigned to Frank Stone and Gary Czypinski. The surveys were conducted on 12 lakes over a three-week period. Much of the sampling occurred at night, when spawning activity and opportunities to collect fish are at maximum. Normally three-to five nights of fish collection are needed on each lake to obtain sufficient data. Fish population estimates are used to set safe harvest levels, on which tribal harvest quotas are based **(4/24/00)**

83. Service Monitors Return of Spawning Tribal Lake Sturgeon

LaCrosse Fishery Resources Office

The lake sturgeon has long been a major focal point of Menominee Indian culture. Historically, tribal members living in northeastern Wisconsin were nutritionally dependent upon an annual subsistence harvest of lake sturgeon each spring when large numbers of the fish swam upstream in certain Great Lakes tributaries to spawn. In the Lake Winnebago-Wolf River system, lake sturgeon were able to swim far upstream to traditional spawning sites located on the Menominee Indian Reservation

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until the early 20th century, when a pair of hydropower dams were built several miles downstream of the reservation. The swift and boulder strewn reach of river just below the dam located furthest downstream, in Shawano, is now the site of the most intensive lake sturgeon spawning activity. As a consequence of these barriers to upstream fish passage and continued harvest pressure, lake sturgeon were eventually extirpated from the river reaches upstream of the dams. Lake sturgeon remained a missing component of the native fish community here until 1995, when a long-term, multi-agency restoration and management plan was initiated for this ancient species. Since that time, a total of 66 feral Wolf River lake sturgeon have been captured at sites located downstream of the dams, surgically implanted with radio transmitters, and released at sites located upstream of the dams in reservation waters of the Wolf River. Although many of these fish remain in waters upstream of the dams and on the reservation, others have returned to waters downstream of the dams.

In order to evaluate the temporal desire of radio-tagged lake sturgeon that are now located downstream of the dams to return upstream in the vicinity of these structures, staff from LaCrosse Fishery Resources Office (FRO) recently established an automated radio-telemetry data logging station at each of the dams. Private partners in this effort include the Little Rapids Corporation and Northwoods Hydro Incorporated, the respective owners of the Shawano and Balsam Row dams, who have provided secure access and space to deploy telemetry equipment at the dams. In addition, staff from the Menominee Indian Tribe's Environmental Services Department maintain this equipment, download the electronic data it collects, and transmit this information to the LaCrosse FRO for validation and interpretation.

Several radio-tagged lake sturgeon were present near the Shawano dam when data collection began in early March and remained there intermittently throughout the month. A total of 11 different radio-tagged lake sturgeon were simultaneously observed near the dams when spawning peaked in late April. Nine of these fish were observed at the Shawano dam for several consecutive days. These observations indicate a continued desire among the previously relocated radio-tagged lake sturgeon to return upstream towards the Menominee Indian Reservation in the spring to spawn, despite their prior downstream movements that carried them off of the reservation. When combined with corresponding water temperature and discharge data, the automated telemetry observations may also indicate environmental cues that stimulate these fish to move upstream to a dam's tailwater zone, as well as downstream past a dam. Automated telemetry observations for radio-tagged lake sturgeon are expected to continue at the dams throughout the remainder of the year. **(4/26/00)**

84. Service Helps National Park Service Plan Resource Inventories

Ashland Fishery Resources Office

The Fish and Wildlife Service assisted the National Park Service by participating in an Inventory and Monitoring Workshop in Ashland, Wis., April 26-27, 2000. Participants developed plans for the nine units of the National Park System's Great Lakes Network to: document the occurrence of at least 90 percent of the species of vertebrates and vascular plants; describe the distribution and relative abundance of species of special concern; and to provide baseline information needed to develop a general monitoring strategy and design, tailored to specific threats and resource issues.

The National Park Service sponsored the workshop to build a peer-reviewed list of inventory needs for each of the nine parks in the network, formulate clear objectives for each of the inventory projects, and obtain peer evaluations of the importance and value of each project. **(4/27/00)**

May 2000

85. Service Supports Tribal Fisheries at Lac Vieux Desert Indian Reservation

Pendills Creek National Fish Hatchery

On Mar. 30, 2000 staff from the Hiawatha Forest National Fish Hatchery transferred 280 adult native brook trout to waters on the Lac Vieux Desert Indian Reservation. The fish averaged 3.0 pounds each. The reservation is located in the Western Upper Peninsula of Michigan which is in the historic range of native brook trout.

Brook trout and lake trout are held at the Hiawatha Forest National Fish hatchery to provide a source of disease-free eggs for restoration programs predominantly in the Great Lakes

Ecosystem. The fish stocked were over three years old and past their prime as a source of high quality eggs. New year classes of brook trout are started annually to provide the best quality eggs for native fish restoration programs. **(5/1/00)**

86. Service Provides Adult Lake Trout to USGS Fish Health Research

Pendills Creek National Fish Hatchery

The Pendills Creek/Hiawatha Forest National Fish Hatchery Complex in northern Michigan holds seven genetically distinct strains of Lake Trout. The fish provide a source of disease free eggs for restoration programs on the Great Lakes. In April, 120 excess Lake Trout broodstock (adults) of the Lewis Lake and Green Lake strains were transferred to the U.S. Geological Survey (USGS) lab in Wellsboro, Pa., where they will be used for Early Mortality Syndrome (EMS) research. Early Mortality Syndrome is a non-infectious disease that results in variable mortality of the offspring of feral Lake Trout which may be linked to thiamine deficiencies. One exotic prey species in the Great Lakes is alewife which contain high levels of thiaminase which is a thiamine destroying enzyme and may be a factor causing low thiamine levels in Lake Trout resulting in Early Mortality Syndrome. A portion of the Lake Trout broodstock that were transported to Wellsboro will receive an alewife diet to provide a source of thiamine deficient eggs for further research. The project is in cooperation with USGS labs in Wellsboro, Pa., and Columbia, Mo., together with the Green Bay Fishery Resources Office in Green Bay, Wis. This research is an important factor in our continuing efforts to restore Lake Trout in the Great Lakes. **(5/1/00)**

87. Aquaculture Class Tours Pendills Creek National Fish Hatchery

Pendills Creek National Fish Hatchery

An aquaculture class from Sault College in Sault Ste. Marie, Ontario, toured the Pendills Creek National Fish Hatchery April 11 and April 13, 2000. Project leader Faber Bland guided 32 students on the tour, which included a showing of the lake trout video and a discussion of fish culture practices. Many questions were answered which pertain to our federal role in fisheries management on the Great Lakes. Instructors in the fisheries department at Sault College have provided to us the majority of our volunteers and work placement positions over the last few years at minimal cost to our facility. **(5/1/00)**

88. Tree Plantings Help Slow Erosion on the Thunder Bay River

Alpena Fishery Resources Office

Biologist Heather Enterline of the Alpena Fishery Resources Office in Alpena, Mich., led a group of 12 volunteers to plant 3,000 trees at erosion sites along the Thunder Bay River, near Atlanta, Mich. The plantings, conducted May 12, occurred on sites not accessible by car. Volunteers canoed down four separate stretches of the river, planting trees along erosion sites along the way. Red osier dogwood and ninebark were two species planted in the lower parts of the erosion sites where the soil was saturated. Northern Bayberry was planted in the high sandy parts of the erosion sites. A barbecue for volunteers was held at Avery Township Park in Atlanta following the planting. **(5/2/00)**

89. LaCrosse FRO Staff Teach Conservation Topics at Winona Middle School

LaCrosse Fishery Resources Office

The LaCrosse Fishery Resources Office (FRO) joined forces with the Upper Mississippi Refuge staff during a May 3 visit to Winona Middle School. Over 150 students learned how to dissect fish and how organs functions, how to band birds, waterfowl identification and life history. The students from sixth grade science classes participated in demonstrations on fish dissection, bird banding and waterfowl identification. The main complement was that the kids had a hands-on learning experience. **(5/3/00)**

90. Service, Canadian Tribes Partner For Lake Sturgeon Spawning at Rainy River First Nations

LaCrosse Fishery Resources Office

Staff from LaCrosse Fishery Resources Office (FRO) and Genoa National Fish Hatchery (NFH) traveled to Emo, Canada, to assist the Rainy River First Nations Hatchery and the White Earth Biology Department with spawning lake sturgeon. The Rainy River First Nation tribe is rearing lake sturgeon in an effort to increase the population on the border waters. Joe Hunter, hatchery manager, is willing to sell surplus fish to the White Earth Reservation. It is the goal of the White Earth Biology Department and the Service to restore lake

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sturgeon to the Reservation. This project is also being accomplished in coordination with the Minnesota DNR's effort to restore lake sturgeon to the Red River drainage.

Approximately 40 quarts of lake sturgeon eggs will be hatched at the Rainy River First Nations Hatchery. The First Nations will stock fish into the Rainy River, some will be used for a genetics study, and 40,000 fry will be purchased by the White Earth Biology Dept. and shipped to Genoa NFH and Neosho NFH to be raised to six inches. These fish will then be tagged and stocked into White Earth and Round Lakes on the White Earth Reservation. This effort coordinates well with the Minnesota DNR's work on restoring lake sturgeon to the Red River drainage. **(5/6/00)**

91. Watershed Walk

Alpena Fishery Resources Office

Biologist Enterline of the Alpena Fishery Resources Office (FRO) in Alpena, Mich., gave a fisheries presentation May 7, 2000 to 15 high school students at the mouth of the Thunder Bay River. The presentation concluded a four-day canoe trip down the Thunder Bay River for the junior and senior high school students.

Five students were chosen from three local high schools to participate in the "Watershed Walk". Students begin canoeing in the headwaters and travel the majority of the watershed. Natural Resource professionals join them at certain intervals along the trip discussing water quality, land use, forestry, fisheries, wildlife, and local lore. Students also tour hydropower facilities and a sewage treatment plant, and test the river for water quality twice a day. The presentation Enterline gave showed the students how the fisheries species in Lake Huron utilized the Thunder Bay River, and discussed the Service role in the study of this valuable fishery. Aquatic nuisance species and means of fishery assessment were two of the many topics discussed. **(5/7/00)**

92. Keweenaw Bay Tribal Fish Stocks Get OTC Markings

Ashland Fishery Resources Office

Frank Stone of Ashland Fishery Resources Office (FRO) was issued an Investigational New Animal Drug (INAD #9033) permit to administer oxytetracycline (OTC) to fish and recently completed a brook trout marking project (using OTC) with fishery biologists from the Keweenaw Bay Tribal Fish Hatchery.

A means of evaluating stocked hatchery reared fish (regardless of life stages) is an important facet of fishery management. However, the actual contributions that stocked fish contribute to a fishery is often unknown. The information gained from this project will give tribal fishery managers a better means of estimating the survival of stocked brook trout fingerlings on the Reservation.

The treatment procedure with OTC (which is an antibiotic) involves keeping the fish in a small holding tank containing 700 parts per million (ppm) OTC for six hours. During the treatment period, the OTC is incorporated into the bony structures of the fish. When these structures (otolith) are viewed using a microscope and ultraviolet light, the presence of an OTC mark will be noted as a gold-yellow band within the otolith.

The Ashland FRO is also working with resource managers from the Red Cliff and Grand Portage Indian Reservations to evaluate the contributions of hatchery reared fish to the wild population. The use of OTC will hopefully serve as an inexpensive fish marking tool that will allow future assessments efforts to verify the recruitment levels of various life stages of coaster brook trout that originated from Tribal fish hatchery programs. Due to the recent Tribal interest of egg and fry stocking of coaster brook trout into Lake Superior, a means of identifying these fish as originating from specific stocking programs will provide valuable information for future coaster brook trout restoration efforts. **(5/11/00)**

93. Service Transfers Sturgeon Eggs to Help Restore Species on the Upper St. Louis River

Ashland Fishery Resources Office

Staff from the Service's Ashland Fishery Resources Office, Ashland, Wis., is working with the Fond du Lac Indian Reservation to restore a self-sustaining lake sturgeon population in the upper St. Louis River. Approximately 50,000 sturgeon eggs were recently transferred from the Menominee River to the St. Louis River, in cooperation with the Wisconsin Department of Natural Resources.

To maximize the recruitment potential, this project calls for the transfer of fertilized eggs from a riverine population that resides year around in a section of the Menominee River. Sturgeon eggs were stocked using egg nest boxes. These boxes are much like those used for the "off shore" stocking of lake trout eggs (these boxes help to protect the eggs from predation during the incubation process).

The sturgeon population in the upper St. Louis River system is virtually extinct. Records of a

remnant population relate how some sturgeon were caught about thirty years ago. However, the last sturgeon reported to be caught was in the mid 1970s. Hydroelectric dams have blocked any connection with the lower St. Louis River and Lake Superior since the construction of the first dam in 1908. In order to restore a self-sustaining lake sturgeon population on the upper St. Louis River system, a 'river resident' population must be used. **(5/12/00)**

94. New Fish Pumps Debut at Federal Lake Trout Hatcheries

Pendills Creek National Fish Hatchery

Looking like a giant vacuum cleaner on wheels and saving the backs of many employees, new fish pumps made their initial (if not tentative) debut on April 18, at the Pendills Creek National Fish Hatchery in Brimley, Mich. Manufactured by Magic Valley of Twin Falls, Idaho, three new fish pumps will be used by three federal lake trout hatcheries including Pendills Creek, Jordan River National Fish Hatchery in Elmira, Mich., and the Iron River National Fish Hatchery in Iron River, Wis. The pumps are used to move lake trout fingerlings from rearing ponds into trucks that carry the fish to the Service's vessel, M/V Togue, where they are stocked over rocky reefs and shoals of the Great Lakes. The three Service hatcheries are scheduled to stock over 3.4 million, or more than 250,000 pounds, of lake trout this year into the Great Lakes.

The stocking vessel M/V Togue can hold up to eight truckloads of fish. Each morning, two to eight truckloads of lake trout fingerlings are loaded by hatchery staff for the trip. Each load contains 1,000 to 1,300 pounds of fish, resulting in a daily load of 2,000 to 10,000 pounds of fish every morning for two consecutive months. Also included are about 800 gallons of water (6,600 pounds), 400 to 800 pounds of ice, and 21-25 pounds of salt that go into each truckload.

After some initial adjustments, repairs, and some initial trepidation, the fish pump at Pendills Creek seems to be working fine. With some further modifications and experimentation, it is hope that the fish pumps will not only save on labor, but also time in the future.

Since April 18, 2000, Pendills Creek has successfully produced 372,725 (20,190 lbs) of lake trout fingerlings for Lake Huron (averaging 18.5/lb.), and 343,260 (20,360 lbs.) of lake trout fingerlings for Lake Michigan (averaging 16.9/lb.). The grand total for Pendills Creek is 715,985 fish (40,550 lbs.) averaging 17.7 fish/ per pound. These fishes are about six inches in length. **(5/12/00)**

95. Ashland FRO Staff Assists Keweenaw Bay Indian Community Brook Trout Rehabilitation

Ashland Fishery Resources Office

Ashland FRO provided assistance to Keweenaw Bay Indian Community during the week of May 15, 2000, to determine the status of stocked coaster brook trout in two Reservation streams and survey remnant coaster brook trout in Huron Bay. Stocked brook trout were abundant in both streams surveyed. Density of recently stocked fingerlings was particularly high. Several naturally reproduced brook trout were also captured in the streams. A few fish from the 1999 and 2000 year classes were sacrificed to determine the presence/absence of oxytetracycline marks given to fish at the Iron River National Fish Hatchery. Only one coaster brook trout was captured in Huron Bay suggesting that abundance is very low, as expected. The lone remnant coaster measured 19 inches and three pounds. It is recommended that future surveys take place in fall to capture adults returning to spawn and after a summer of growth and distribution of stocked fish. **(5/19/00)**

96. Anglers Collect Goby for Piscicide Tests

LaCrosse Fishery Resources Office

The Great Lakes continue to be invaded by a variety of non-indigenous aquatic species, presumably as a result of ballast water releases from ocean-going ships. As these exotic organisms become more abundant and widely distributed in the Great Lakes region, it is increasingly likely that some will expand their range to suitable portions of other interior drainage basins.

The Illinois Waterway System (IWS), located near Chicago, is a part of the Upper Mississippi River System (UMRS) and provides a direct connection for the continuous transfer of water from Lake Michigan to the Mississippi River. This is the presumed route by which zebra mussels (Dreissena polymorpha) were transmitted to distant portions of the Mississippi River drainage basin in the past decade.

The round goby (Neogobius melanostomus) is yet another, more recently introduced aquatic nuisance species that is poised to follow the same path as the zebra mussel from the Great Lakes to the interior of North America. While this sedentary benthic fish resembles a sculpin (i.e., a native

fish) in its general appearance and certain other traits, its much more aggressive behavior and prolific reproductive capabilities are believed to be responsible for displacing populations of some native benthic fishes with which it competes for optimal spawning and feeding habitats. Although an electrical barrier will soon be deployed in a portion of the IWS in hopes of containing the range of this species to a small portion of the Mississippi River basin, performance tests of a prototype electrical barrier suggest that this strategy will be only partially effective. Therefore, the application of selective chemical piscicides may some day be warranted in particular locations as another means to help control the range and density of round goby. The FWS has been working cooperatively with the U.S. Geological Survey's Upper Midwest Environmental Science Center (UMESC) since 1998 to examine the potential use of certain piscicides for controlling round goby. To date, test results indicate that delayed-release formulations of Bayluscide and anitmycin provide the greatest species selectivity for the normally bottom-dwelling round goby by treating only the benthic zone of water rather than the entire water column.

In order to help meet some of the regulatory requirements necessary for the emergency use of these piscicides to control round goby in the UMRS, additional laboratory tests are needed to determine the influence of temperature and dissolved oxygen levels on the toxicity of these chemicals to goby. In preparation for this work, staff from the La Crosse FRO, La Crosse FHC, and Genoa NFH used hook and line gear to collect more than 900 feral round goby "test subjects" along Chicago's Lake Michigan shoreline in late-May. Also assisting in this collection effort were staff from the UMESC and the U.S. Army Corps of Engineers, as well as several local sportfish anglers. All but one of the fish caught throughout the nearly eight-hour collection period were round goby, indicating the serious threat this nonindigenous species represents to certain native fish species and sportfish anglers. With prior approval from the states of Illinois and Wisconsin, the round goby were transported to a secure containment facility at the UMESC in La Crosse, Wis., where they await use in the scheduled toxicity tests. **(5/22/00)**

97. Wild Trout Removal at Iron River National Fish Hatchery

Ashland Fishery Resources Office

Frank Stone of the Service's Ashland Fishery Resources Office (FRO) provided technical assistance to the Iron River National Fish Hatchery during its effort to remove (via back pack shocking) wild trout from Shacte Creek. Several years ago, bacterial kidney disease (BKD) was isolated from wild trout inhabiting this section of Shacte Creek that provides water for the Iron River hatchery. The hatchery sought to remove fish from the hatchery intake system to reduce the possibility of transmitting pathogens throughout the hatchery.

This wild fish removal practice will be repeated during the summer months and will hopefully lessen the number of BKD positive fish that would otherwise pass on this pathogen to the lake trout and brook trout broodstock and production fish being reared at this facility. **(5/24/00)**

98. Columbia FRO Presents Pallid Sturgeon Study Results at Missouri River Conference

Columbia Fishery Resources Office

Biologist Joanne Grady presented the results of three years of pallid sturgeon research conducted on the Lower Missouri and Middle Mississippi Rivers at the fourth annual Missouri River Conference in Bismarck, N.D.

Project results indicate that pallid sturgeon populations in the Lower Missouri and Middle Mississippi Rivers have declined in the last 20 years while the rate of sturgeon hybridization has increased. Results will have an immediate impact on the biological consultations being conducted with the U.S. Army Corps of Engineers on these rivers. The collection of hatchery raised fish supports the need for continued monitoring of federal and state hatchery origin fish and their habitat use within these systems.

The pallid sturgeon project was a multi-agency partnership which included the Columbia Fishery Resources Office, MICRA, USGS-BRD-Columbia Environmental Research Center, Iowa Department of Natural Resources, Nebraska Game and Parks Commission, Southern Illinois University, and the Missouri Department of Conservation LTRM Open River Field Station.

Six pallids were collected on the Lower Missouri River. Four of these fish were wild origin fish and two were hatchery origin fish. Seven hatchery origin pallids were collected in the Middle Mississippi River. Twenty hybrid sturgeon (pallid x shovelnose) were collected in the two rivers. Pallid sturgeon numbers have decreased and hybrid fish numbers have increased since the last work done in this area in the late 1970s. Project reports will be

available later this year. **(5/24/00)**

June 20000

99. Workshop Focuses on Native Fish Restoration in Lake Superior

Ashland Fishery Resources Office

Tom Busiahn, Project Leader, Ashland Fishery Resources Office, gave an invited presentation on "Native Fish Restoration in Lake Superior" at the annual general meeting of Great Lakes United, in Two Harbors, Minn., June 2-4, 2000. The presentation was part of a workshop on restoring Lake Superior's native fish, and was followed by a Trout Unlimited presentation on coaster brook trout restoration. Information presented in the workshop helped to inform the group's membership prior to their consideration of a resolution to promote native fish restoration and management in the Great Lakes.

Great Lakes United is a basin-wide international coalition of organizations concerned with natural resources and the environment in the Great Lakes. In 1999, GLU adopted a strong resolution in favor of restoration of coaster brook trout in the Great Lakes. **(6/3/00)**

100. Service Fishery Offices Team Up For Isle Royale Coaster Brook Trout Rehabilitation

Ashland Fishery Resources Office

Biologists from Genoa National Fish Hatchery (NFH) and Ashland Fishery Resources Office (FRO) fin clipped and tagged 500 Tobin Harbor strain coaster brook trout being reared at the Genoa NFH. The fish, averaging one pound in weight and 11 inches long, were then transported to Isle Royale, Mich., by Genoa NFH and stocked into Rock Harbor as part of a cooperative agreement with Isle Royale National Park and Michigan Department of Natural Resources to develop brood stock for rehabilitation of coaster brook trout in Lake Superior.

Ashland FRO, with help from the Ludington Biological Station, conducted surveys of coaster brook trout in Siskiwit Bay, Rock Harbor, and Tobin Harbor. Surveys in Siskiwit Bay assessed progress toward population goals outlined in the plan, "A Brook Trout Rehabilitation Plan for Lake Superior." Coasters from Iron River NFH stocked in 1999 were captured in several tributaries to Siskiwit Bay including the Big and Little Siskiwit rivers and Caribou Creek. Naturally produced coasters were captured in several locations at the east end of the island. **(6/9/00)**

101. Kentuck Lake - Walleye Restoration Project

Ashland Fishery Resources Office

Frank Stone of the Ashland Fishery Resources Office (FRO) assisted the Great Lakes Indian Fish and Wildlife Commission (GLIFWC) with a walleye restoration effort on Kentuck Lake in northern Wisconsin. Stone was issued an Investigational New Animal Drug permit to administer oxytetracycline (OTC) to fish and recently completed a walleye marking project with fishery biologist from the GLIFWC and the Genoa National Fish Hatchery. A total of 48,000 walleye fingerlings were marked and later transferred into Kentuck Lake.

The treatment procedure with OTC, an antibiotic, involves keeping the fish in a small holding tank containing 700ppm OTC for a period of six hours. During the treatment period, the OTC is incorporated into the bony structures of the fish. When these structures (otolith) are viewed using a microscope and ultraviolet light, the presence of an OTC mark will be noted as a gold-yellow band within the otolith.

A means of evaluating stocked hatchery reared fish regardless of life stages is an important facet of fishery management. However, the actual contributions that stocked fish contribute to a fishery is often unknown. The information gained from this project will give fishery managers a better means of estimating the survival of stocked walleye fingerlings.

The use of OTC will hopefully serve as an inexpensive fish marking tool. GLIFWC, the Service and many Tribal resource agencies involved with this effort are committed to monitoring this resource in hopes of bringing the walleye back to Kentuck Lake. **(6/14/00)**

102. Service Studies Northern Pike Production on Shiawassee NWR

Alpena Fishery Resources Office

Staff from Alpena Fishery Resources Office and the Shiawassee NWR in Michigan surveyed three wetland habitat types on Shiawassee NWR in June to assess northern pike spawning and production. A closed, managed wetland, breached wetland, and natural wetland were surveyed for northern pike use.

Trapnets were used to assess spawning northern pike in the three areas weekly from the end of February through early April. A seine and backpack electro-fishing unit were used to assess young-of-the-year and juvenile northern pike

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from mid-March through June. Adult spawning phase northern pike were captured from each of the three wetland types during late February and early April despite extremely low water levels.

The majority of pike were captured in late February at the natural wetland. Low water levels prevented sampling at some of the wetland areas. The closed managed wetland was opened to the river for fish passage only during one two- day period in early February, and could not be opened following this time due to low river water levels. Juvenile northern pike were captured in June at the breached wetland showing promise for natural reproduction.

The study will determine interjurisdictional northern pike use of various wetland types on the Shiawassee NWR for spawning and production, and may be applicable to other refuge lands. Efforts will be made to manage 630 acres of the refuge to benefit northern pike production by providing access to closed pools during critical life stages as a form of habitat restoration. Northern pike have been depleted due to lack of habitat as a result of coastal development. **(6/14/00)**

103. Workshop Helps Wisconsin Plan Brook Trout Rehabilitation in Lake Superior

Ashland Fishery Resources Office

The Wisconsin Department of Natural Resources (DNR) organized a Lake Superior brook trout workshop to help develop a plan to guide its brook trout rehabilitation efforts in the Wisconsin waters of Lake Superior. The workshop included a panel of experts to present scientific information on coaster brook trout research and management, and a task force comprised of agency and non-governmental sporting groups.

Biologists from the Service's Ashland Fishery Resources Office (FRO) participated on the expert panel and task force and a biologist from Iron River National Fish Hatchery was a task force member. Ashland FRO biologists presented information on coaster brook trout populations at Isle Royale, Mich., and lake-wide rehabilitation efforts.

Task force members outlined management options for consideration by the Wisconsin DNR. Wisconsin DNR indicated that a plan would be available for public review in late summer 2000. **(6/14/00)**

104. Monitoring the Spread of Goby, Sixth Goby Round-up Moves into North Central Illinois

Ashland Fishery Resources Office

After a round goby was detected in the Illinois waterways near Joliet, Ill., the Service's goby monitoring effort leaped ahead more than 50 miles to Ottawa, Ill., in an effort to identify the furthest expansion of this aquatic nuisance species. Ashland Fishery Resources Office (FRO) and many other agencies assisted LaCrosse FRO with trapping and angling on the Illinois River. No new range expansion was detected although efforts were hampered by high water from spring rains.

Despite the fact that the goby has been detected six miles past the barrier construction site, monitoring continues in order to track its progress toward the Mississippi River. Current range of the round goby is river mile 285 in the Illinois River, nearly 50 miles inland from Lake Michigan. The next goby round-up is already scheduled for the week of June 11, 2001. **(6/16/00)**

105. Sturgeon Bay Wisconsin Youth Learn About the Fun of Fishing

Green Bay Fishery Resources Office

Eighty-nine youngsters and parents participated in Kid's Fishing Day, June 18, 2000, in Sturgeon Bay, Wis.. This annual activity is sponsored jointly by the Sturgeon Bay Open Bass Tournament and the Service's Green Bay Fishery Resources Office (FRO). In addition to fishing with their parents, participants learned about the Pathways To Fishing program, fishing techniques, fish identification, measuring, and release. Lunch and refreshments were provided by the Tom Anschutz Foundation. At the conclusion, all kids received a certificate of participation and numerous fishing equipment prizes. The kids that caught the largest and smallest of each species also received a trophy and a fishing pole. Data on the fish captured has been maintained by the Green Bay FRO and demonstrates the success of recent stocking efforts in restoring four species of native fish to this lake. **(6/18/00)**

106. Lake Sturgeon Rehabilitation Needs Identified at Michigan Workshop

Ashland Fishery Resources Office

Henry Quinlan of the Ashland Fishery Resources Office participated in the Great Lakes Fishery Trust lake sturgeon workshop in Muskegon, Mich., the week of June 26. The Trust was formed as a result of a settlement between natural resource agencies and the Ludington Pump and Storage facility in Ludington, Mich.

The workshop brought together fishery managers and researchers from state, tribal, federal and

provincial natural resource agencies, private consultants and universities throughout the Great Lakes region who manage or conduct research on lake sturgeon. The attendees identified impediments to rehabilitation and information needed to further rehabilitation efforts. The Trust will utilize the recommendations provided to direct and prioritize selection of future grant proposals. **(6/28/00)**

107. Carterville FRO and Ohio River Valley Ecosystem Team Facilitate Ohio River Paddlefish Research

Carterville Fishery Resources Office

A Carterville Fishery Resources Office proposal that will help close a critical data gap in a national paddlefish research database has been adopted by the Ohio River Valley Ecosystem Team (ORVE) and funded through the ORVE cost-sharing program. The action will result in the purchase of needed coded-wire tagging equipment for field biologists doing paddlefish assessments in the Mississippi River basin.

The Mississippi Interstate Cooperative Resource Association (MICRA), an organization of 28 state natural resource agencies, initiated a Mississippi River Basin paddlefish stock assessment project in 1995. The lower-most 135 miles of the Ohio River have been identified as a critical data gap in that assessment. Kentucky Department of Fish and Wildlife biologists have expressed a desire to assist with closing this data gap. However, MICRA was unable to secure funds to purchase an additional set of coded-wire tagging equipment for the biologists.

Through cost-sharing via the Ohio River Valley Ecosystem Team, MICRA has acquired the needed set of tagging equipment, and will soon start collecting the data needed to close the data gap in the lower Ohio River. **(6/30/00)**

108. Carterville FRO Supports Natural Resources Management Program at Crane Naval Weapons Support Center.

Carterville Fishery Resources Office

The Carterville Fishery Resources Office (FRO) has a long history of assisting the Crane Naval Weapons Support Center (Crane) with its Natural Resources Management Program. Carterville FRO developed a fisheries management plan for Lake Greenwood and has cooperatively managed the 820-acre lake with Crane and the Indiana Department of Natural Resources (DNR) since the plan was developed in 1990.

During Fiscal Year 2000, Carterville FRO conducted a population survey of Lake Greenwood's fish fauna in order to provide management recommendations regarding the fishery of the lake. Twenty-seven thousand walleye fingerlings produced by Genoa National Fish Hatchery were stocked into Lake Greenwood in June to help expand recreational fishing opportunities. A joint fall survey with the Indiana DNR has been scheduled for Lake Greenwood to assess the success of the early summer walleye stocking. Fish shelters were placed in the lake during Fiscal Year 2000 to concentrate fish for anglers and improve the quality of recreational fishing experiences. At Crane's request, recreational fisheries management activities were expanded to include a second smaller lake that is heavily utilized by Scouts and other youth organizations. Staff from Carterville FRO also met with the base commander to discuss and assist Crane in defining future management goals and needs for the base's aquatic resources.

Management of Crane's aquatic natural resources is a cooperative effort between Crane, the Service, and the Indiana DNR, and is an excellent example of developing partnerships to benefit the resource and the public that utilizes these resources. **(6/30/00)**

July 2000

109. Educational Components Added to Alpena Fishery Resources Office Website

Alpena Fishery Resources Office

The Alpena Fishery Resources Office (FRO) website, located at midwest.fws.gov/alpena/index.htm, was expanded in January 2000 to include more educational information about Alpena FRO activities and accomplishments. The site includes information on lake sturgeon, lake trout, exotic species, and watershed restoration projects. Another new component of the site is the posting of all office reports. The site was updated to include new reports in July 2000 and is updated frequently. **(7/6/00)**

110. Challenge Cost Share Project: Vegetation Restoration Project on Crab Orchard National Wildlife Refuge

Carterville Fishery Resources Office

Staff from the Crab Orchard

Continued next page

National Wildlife Refuge joined Illinois Department of Natural Resources and volunteers the Carterville Fishery Resources Office to develop a plan to restore water willow and other vegetation at Crab Orchard Lake. Crab Orchard Lake, a 7,000 acre lake located within Crab Orchard National Wildlife Refuge, has experienced a decline in its water willow (Justicia americane) population for the past several years. Water willow is an important aquatic plant for stabilizing banks and providing critical breeding and nursery habitat for many species of fish. The systemic loss of water willow from the lake represents an environmental shift negatively affecting the fish, birds and invertebrate populations of the lake.

The goal of the restoration plan is to determine the best method and feasibility of transplanting water willow, develop guidelines for a larger restoration program and identify other plant species suitable for restoration purposes.

Seven physically distinct sites were selected along the shoreline of Crab Orchard Lake for revegetation. Preliminary results from these sites indicate that plots exposed to low or medium energy levels had varying degrees of success regarding plant growth, while plots exposed to high energy levels were less successful. Positive results from certain sites indicate that several of the planting configurations will provide the template for future restoration areas. **(7/12/00)**

111. Fishery Survey Completed at Trempealeau NWR

LaCrosse Fishery Resources Office

The LaCrosse FRO staff, assisted by Trempealeau NWR personnel and volunteers, conducted a three-day fishery assessment of Pool B. Since 1992, a fishery survey has been conducted at Trempealeau NWR in an effort to evaluate the habitat improvement project. This project has more potential for wildlife management however there may be some limited opportunities to improve the refuges fisheries also. **(7/12/00)**

112. Forest and Marsh Bird Surveys Conducted in Lake Superior Basin of Northern Wisconsin

Ashland Fishery Resources Office

For the third consecutive year, the Ashland Fishery Resources Office (FRO) completed point count bird surveys on the Whittlesey Creek National Wildlife Refuge and surrounding watershed. The Ashland, Wis., office also assisted the Red Cliff Band of Lake Superior Chippewa in conducting its second-year bird survey on the Red Cliff Reservation. Fifty-three points were surveyed at Whittlesey and 52 points at Red Cliff, with the help of several volunteers, Service staff and the University of Wisconsin Extension at the Northern Great Lakes Visitor Center.

Points were added this year to survey secretive marsh birds in Whittlesey Creek and Red Cliff coastal wetlands, as well as two other coastal wetlands in the vicinity. New protocols recommended by the Service and U.S. Geological Survey were used for the marsh bird survey. These surveys included 100 meter listening points, where surveyors listened for secretive marsh birds and played tape recordings of target species to elicit a response. Yellow rails and American bittern were two of the target species heard during the survey.

The information collected will help the Service track bird use at Whittlesey Creek NWR and improve its ability to manage and restore habitat for migratory birds. The Red Cliff Tribe will utilize the information during their integrated resource management planning effort. **(7/15/00)**

113. Outreach at La Crosse FRO

LaCrosse Fishery Resources Office

LaCrosse FRO personnel have conducted several outreach projects during the last two months which include presentations on fish dissection at two local schools involving over 200 students. This was a hands-on exercise that most kids appreciated and enjoyed. A presentation on paddlefish was given at Perot State Park and a new park was dedicated in Goodview, Minn., and information and handouts were provided at the FWS booth. A public meeting in Detroit Lakes, Minn., was attended to provide support and information to the White Earth Biology Dept. This agency has been under fire by local anglers upset with tribal netting. **(7/15/00)**

114. Assessing Aquatic Community Structure on the Kankakee River

Carterville Fishery Resources Office

The Carterville Fishery Resources Office conducted a survey of fish and mussel populations in the Kankakee River to help identify habitat restoration areas for the proposed Grand Kankakee Marsh National Wildlife Refuge in northern Indiana. A

1978 survey conducted by the Illinois Department of Natural Resources Natural History Survey found diverse fish and mussel communities, as well as several species of endangered fish and mussels, present in stretches of the river with high quality substrates.

The current study was designed to compare community structure between the 1978 and 2000 surveys to determine if increased sand and silt loading from upstream channelization, snag removal and bank clearing has decreased quality habitats and affected the associated fish and mussel communities.

The study identified changes in fish and mussel assemblages associated with alterations in substrate composition. The project also identified the presence of several state and federally endangered fish and mussel species. Current management practices should be adapted to prevent the loss of critical habitat and species diversity. Potential sites for habitat restoration within the focus areas of the proposed refuge have been identified based on the changes observed during this survey. The results of this unique temporal look at the fish and mussel communities of the Kankakee River will be useful in determining which biologically sensitive areas the Service may wish to protect and restore. **(7/17/00)**

115. Round Goby Surveillance Expanded in Illinois Waterway

LaCrosse Fishery Resources Office

The LaCrosse Fishery Resources Office (FRO) recently completed its fifth annual "Goby Round-Up" in the Illinois Waterway Waterway System (IWS) in metropolitan Chicago. This survey encompassed a nearly 110-mile continuous reach of waters from Chicago to Hennepin, and included portions of the Calumet Sag Channel, the Chicago Sanitary and Ship Canal, the Des Plaines River, and the Illinois River.

The survey covered nearly one-third the length of the IWS, and was the most geographically extensive survey for round goby thus far. Staff members from seven Service field offices participated in the effort, including the La Crosse, Ashland, and Carterville FROs, the LaCrosse Fish Health Center, and the Chicago, East Lansing, and northern Indiana Ecological Service Field Offices.

Nearly 450 baited minnow traps were deployed at approximately one-quarter mile intervals and examined the following morning for three successive days. Participants were also provided with suitable fishing tackle and bait to angle for goby during the remainder of the day. A total of four round goby were captured during the week. All of these fish came from the survey reach located furthest upstream, in portions of the Calumet Sag Channel and the Chicago Sanitary and Ship Canal. Round goby were not found beyond the site in Romeoville, where an electrical fish barrier is to be installed, nor the site located further downstream in Joliet, where they were confirmed to have penetrated to earlier this year. However, water stage and current velocity were abnormally elevated throughout the week due to intense regional precipitation. This made for less than optimal sample conditions, caused the loss of more than 25% of the traps, and may have transported some round goby (undetected) further downstream. Thus, while the limited number and distributional range of round goby found during this most recent survey is encouraging, it may yet prove to have been deceiving.

The Illinois Waterway System (IWS) in metropolitan Chicago connects the Great Lakes and Mississippi River drainage basins. This series of navigation channels facilitated the spread of the infamous zebra mussel, an exotic aquatic nuisance species, to environmentally sensitive portions of the several interior North American drainage basins during the past decade. Now there is concern that the round goby, a nonindigenous fish recently introduced to the Great Lakes from central Asia, may similarly expand its range across the mid-continent with adverse consequences for some native species of aquatic fauna.

The La Crosse Fishery Resources Office (FRO) of the U.S. Fish and Wildlife Service (Service) has coordinated annual surveillance activities to detect the apparent downstream leading edge of the round goby's distribution in the IWS since 1996. By spring 2000, round goby were known to inhabit a nearly 50-mile reach, representing the uppermost 15 percent of this 333-mile navigation corridor that flows diagonally across Illinois from Lake Michigan to the Mississippi River. A non-lethal, horizontal gradient electrified barrier should be installed by the U.S. Army Corps of Engineers at an IWS site in the Chicago Sanitary and Ship Canal (river mile 296.5) near Romeoville by the end of this year to slow the continued downstream movement of round goby and other nuisance species of fish from Lake Michigan to the Mississippi River basin. In addition, it will serve as an impediment to other nonindigenous species of fish that are moving upstream from the Mississippi River drainage to the Great Lakes

Continued next page

basin. By spring 2000, a total of only two round goby had been collected downstream of the barrier site.

Participating partners included the U.S. Army, U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, Illinois Department of Natural Resources, Illinois Environmental Protection Agency, Illinois Natural History Survey, Illinois-Indiana Sea Grant, Metropolitan Water Reclamation District of Greater Chicago, and Cook County Forest Preserve. Additional assistance was provided by the Friends of the Chicago River, Perch America, Equistar, and several volunteers. **(7/18/00)**

116. LaCrosse FRO Conducts Monthly Sampling as Part of Dredge Placement Study

LaCrosse Fishery Resources Office

LaCrosse FRO personnel finished their monthly sampling on the Dredge Placement Study in Pool 12 of the Upper Mississippi River. The study, in its third year, focuses on the impact of dredge placement on the upper Mississippi River fishery. The project is in its first year of post-dredge placement. Information from this study will assist river managers with decisions about dredge placement issues. This is an ongoing problem for resource managers along the river. The study will help answer some questions on dealing with dredge material. However additional research is needed. **(7/20/00)**

117. Broodstock Injections Decrease BKD in Fish at the Iron River National Fish Hatchery

Ashland Fishery Resources Office

Staff from Ashland Fishery Resources Office (FRO) assisted Iron River National Fish Hatchery (NFH) in its effort to reduce bacterial kidney disease (BKD) from hatchery fish stocks. The assistance was provided at the request of Dale Bast, Iron River NFH project leader.

Although fish mortality for lake trout and brook trout broodstock being held at the hatchery have been within normal limits, the presence of BKD jeopardizes the long term health of the fish and severely limits the management options for transferring eggs to other hatchery facilities. Frank Stone, of the Ashland FRO will assist in this broodstock injection program in July and August. The procedure involves injecting each fish with an antibiotic (Galamycin). Thirty days after the initial injection, a second shot is administered. **(7/25/00)**

118. Service Divers Assist MacAlaster College St. Croix Mussel Project

LaCrosse Fishery Resources Office

Divers from the Service and National Park Service, members of the Zebra Mussel Task Force, assisted Dr. Mark Hove of Macalester College in St. Paul, Minn., monitor native mussels on the St. Croix River July 26. This project will help determine the mussel status on the St. Croix and will support monitoring by the Zebra Mussel Task Force. **(7/26/00)**

August 2000

119. Unique Partnerships Help Restore Erosion Sites on 15 Miles of Thunder Bay River

Alpena Fishery Resources Office

A fishery biologist from the Alpena Fishery Resources Office in Alpena, Mich., recently co-presented with managers from Thunder Bay Power at the American Society of Civil Engineer's 2000 conference Aug. 1, in Minneapolis, Minn.

The conference theme was "2000 Joint Water Resources," and several of the symposiums focused on partnerships. The presentation was entitled 'Restoration of Thunder Bay River Erosion Sites', and highlighted a unique partnership between industry, natural resource agencies (state, federal and county), and local conservation groups. Through this partnership several stream bank erosion sites were restored on the Thunder Bay River.

Due to a unique partnership between private industry, natural resource agencies, and local conservation groups, 21 stream bank erosion sites have been restored on 15 contiguous river-miles of the Thunder Bay River in Montmorency County, Mich., during the 1999-2000 field seasons. **(8/1/00)**

120. Horicon Fish Survey Completed

LaCrosse Fishery Resources Office

The annual fish survey was conducted August 1 at Horicon NWR by staff from La Crosse Fishery Resources Office. Preliminary results indicated carp are present, however, their numbers are reduced after the winter rotenone treatment. This shows the importance of an integrated approach to manage the carp population. Additional steps to the program will be construction of a fish trap, stocking of predators, and possible spot treatments. **(8/1/00)**

121. Hatchery Raised Higgin's Eye Mussels Stocked

in Wisconsin River

Genoa National Fish Hatchery

Biologists from the Service's Genoa National Fish Hatchery (NFH) and the Wisconsin Department of Natural Resources recently stocked 1,100 juvenile Higgin's Eye pearlymussels into the Wisconsin River near Orion, Wis. The juvenile mussels were placed in cages, and placed on the bottom of the river Aug. 1. The mussels will continue to be monitored for growth and survival rates. These mussels were raised at the Genoa NFH as part of the recovery efforts for this federally endangered species. To date, 4800 Higgin's eye juveniles have been stocked into the Wisconsin River from the Genoa NFH. More will be stocked later this fall to evaluate stocking size and locations. **(8/1/00)**

122. Lake Superior Technical Committee Discusses Lake Trout Model, Status of Lake Herring

Ashland Fishery Resources Office

The Lake Superior Technical Committee (LSTC) of the Lake Superior Committee, and the Aquatic Community Committee (ACC) of the Lake Superior Binational Program met in Brimley, Mich., the week of August 1. Topics of the LSTC meeting included lake trout population model development, lake herring status, summary of lake-wide forage fish surveys, bio-energetics models for Lake Superior. Henry Quinlan participated and provided the LSTC an update on the Great Lakes Fishery Trust lake sturgeon workshop and recommended development of a Great Lakes wide lake sturgeon tag identification database. The LSTC supported database development. The ACC discussed prioritization of projects to address information needs in the Lake Superior basin, identification of individuals and organizations to solicit for ACC involvement, status of grant proposals, and future updates of the Lake-wide Management Plan. Ashland FRO, Bad River Band of Lake Superior Chippewa and Great Lakes Indian Fish and Wildlife Commission will conduct a lake sturgeon project supported by funds acquired through the ACC in spring 2001. **(8/3/00)**

123. Alpena FRO Joins Shiawassee NWR For Great Outdoors Festival

Alpena Fishery Resources Office

Alpena Fishery Resources Office (FRO) assisted Shiawassee NWR with a Service display at the "Great Outdoors Festival" held Aug. 5-6, 2000 in Birch Run, Mich. Alpena FRO provided a fish tank with native warm water and cool water fish (we seined a juvenile northern pike out of the Greenpoint Environmental Learning Center pond!), an aquatic nuisance species display with preserved ruffe, goby, rusty crayfish, sea lamprey, zebra mussels, and purple loosestrife. Pamphlets and posters were present for distribution. This was the first year of the festival, so it was not as well attended as hoped, but the smaller crowds allowed us to spend time with folks who were very interested in our organization. **(8/6/00)**

124. Zebra Mussel Monitoring Expands in Chequamegon Bay, Lake Superior

Ashland Fishery Resources Office

The Chequamegon Bay Zebra Mussel Task Force deployed 20 monitoring devices in the Ashland, Wis., harbor area near the Northern States Power Plant, the C. Reiss Coal Co., and the Ashland Marina. Laboratory slides were also attached to the devices to check for settled larvae. The devices will be lifted in early October.

Concern over zebra mussel infestations was raised during the spring of 1999, when a barge moored in Chequamegon Bay was discovered to be infested with zebra mussels. A task force was formed with biologists from the Service, U.S. Geological Survey, Bureau of Indian Affairs, Wisconsin Department of Natural Resources, Great Lakes Indian Fish and Wildlife Commission, and the Bad River Tribe's Natural Resources Department. The task force requested the owner to decontaminate the barge, implemented monitoring for the presence of zebra mussels in the bay, and is trying to block future pathways for zebra mussel infestation into Chequamegon Bay.

In the spring of 1999, the Bad River Tribal Natural Resources Department deployed a total of 14 monitoring devices in the eastern part of the bay near tribal waters. The devices were checked twice during 1999, and no zebra mussels were found. The tribe is concerned that zebra mussels may impact their wild rice crop. **(8/10/00)**

125. Chinese Scientists Learn Service Techniques For Habitat Restoration and Fisheries Management

Green Bay Fishery Resources Office

A five-member delegation of Chinese fishery scientists visited the Green Bay Fishery Resources Office (FRO) and Ecological Services Office, August 10-11, 2000, to learn and observe various

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techniques used to restore habitat, involve the public, and manage fisheries and wildlife resources in the Green Bay and Great Lakes area. The visit was part of the U.S.- Republic of China Nature Conservation Protocol exchange program and was designed to expose Chinese fishery scientists to numerous projects, technologies, and concepts important in resource management and habitat conservation in the United States.

Specific locations and projects visited included a hydroelectric facility up for FERC relicenseing in association with a sturgeon spawning site, a dredging demonstration project as part of the Fox River NRDA, the Cat Island chain habitat restoration site with associated nesting colonies of important Great Lakes migratory birds, a state fisheries research/management facility, a public property owners association research and education program to manage development in sensitive areas, designated natural areas protecting critical habitat, and an on-board trip with commercial fishers involved with cooperative research and restoration of lake trout.

The Chinese scientists represented five governmental entities in three provinces in China, and will subsequently be host to American scientists traveling to China. **(8/11/00)**

126. Report Describes Seasonal Variation in Lipid Levels in Lake Michigan Fish

Green Bay Fishery Resources Office

A paper co-authored by Robert Elliot of the Service's Green Bay Field Office is being published by the Journal of Great Lakes Research. The paper, describes the seasonal variation in lipid levels observed for a number of key Great Lakes fish including lake trout, coho salmon, alewife, smelt, bloater and sculpin.

The paper is co-authored by Dr. Charles Madenjian of the USGS-Great Lakes Science Center. Lipid concentrations in fish are often associated with fitness and may be very useful in understanding patterns in population dynamics of fish and trophic dynamics within the aquatic ecosystem. While the native species studied in Lake Michigan exhibited relatively stable lipid levels across seasons, the non-native coho salmon and alewife both exhibited wide seasonal fluctuations in lipid content with lowest levels measured following the winter months. This is further evidence of the difficulty some non-native species have in maintaining their energy through the cold winter months and relate to the increased level of stress these species experience when living in the Great lakes environment. These dynamics need to be factored into the bioenergetics modeling used to aid managers in selecting appropriate stocking levels of the various species of fish introduced into the Great lakes. Data for this study was gathered during the Lake Michigan Mass Balance study sponsored by U.S. Environmental Protection Agency. **(8/14/00)**

127. Ashland FRO Expands Bottom Trawling Walleye Assessments in Red Lake Fishery Survey

Ashland Fishery Resources Office

In cooperation with the Red Lake Band of Chippewa and the Minnesota Department of Natural Resources (MNDNR), Ashland Fishery Resources Office (FRO) continued bottom trawling to assess the abundance of juvenile walleye and forage fish in the Upper and Lower Red Lakes. In 2000, the third year of the program, trawling was expanded to include the eastern half of the Upper Red Lake, an area under the jurisdiction of Minnesota DNR. These surveys were prompted in order to determine the status of walleye recruitment in the wake of a declining walleye fishery and to determine the status of forage fish stocks for supporting walleyes.

A total of 60 five-minute tows were completed during the week of Aug. 14, 2000, averaging one juvenile walleye per tow. The three most abundant species captured were yellow perch, spottail shiner, and freshwater drum. Other species captured included emerald shiner, trout-perch, logperch, bluegill, largemouth bass, burbot, and lake whitefish.

In 1999, a total of 44 million walleye fry were stocked in the Red Lakes. Captured walleyes averaged 225mm in length indicating a good growth rate, and they will be checked for the presence of oxytetracyclinine. These annual assessments are being used to monitor the effectiveness a walleye restoration plan consisting of restocking and more restrictive catch regulations. **(8/18/00)**

128. Fisheries Program Exhibits Large River Success Stories at National AFS Meeting

Columbia Fishery Resources Office

Columbia FRO staff members contacted over 1,200 fisheries professionals at the recent national American Fisheries Society meeting. The FWS exhibit displayed a strong and successful Big River Fisheries Program.

Eighteen big river offices from four FWS Regions throughout the Mississippi River Basin (includes Missouri, Mississippi, Ohio, and Red Rivers basins) contributed photos and project reports to the exhibit. While photos of Service biologists with 150-lb paddlefish and six-foot long Alligator gars drew attendees to the exhibit, examples of project results and discussions of program objectives regarding the conservation and management of listed and rare interjurisdictional fishes kept their attention. Several current state partners complimented our efforts. The exhibit was funded by the WO fisheries program, and staffing assistance was provided by the Region 3 fisheries program. **(8/21/00)**

129. Revealing America's Hidden Treasure

LaCrosse Fishery Resources Office

Two La Crosse FRO outreach activities were conducted during the summer of 2000 to make more than 50 vacationing grade school students in the area more aware of one of America's hidden treasures: freshwater mussels. Using a variety of visual aids, including the Service-sponsored video entitled "Help Save America's Pearly Mussels" and the poster exhibit entitled "Freshwater Mussels: America's Hidden Treasure," more than 50 school children were educated in the biology of freshwater mussels, their ecological value, their cultural and economic importance, factors threatening their existence, and local Service efforts to protect and recover federally threatened and endangered mussel species in the Mississippi River basin. The highlight of these presentations was a concluding "tactile experience" when each child was able to handle and curiously investigate several different species of live mussels that were brought for display. The most memorable experiences occurred when some of the mussels would actively siphon (expel) a stream of water onto a child! Following the hour-long presentation, each child left with a greater appreciation for freshwater mussels, one of America's hidden natural treasures. **(8/22/00)**

130. Genoa NFH Stocks 4900 Lake Sturgeon Into Menominee Reservation Lakes

Genoa National Fish Hatchery

The Genoa National Fish Hatchery in southeastern Wisconsin stocked 4,900 lake sturgeon fingerlings into three lakes on the Menominee Indian Reservation Aug. 23, 2000. The fish were stocked as part of an ongoing state and federal effort to restore lake sturgeon populations to the Menominee reservation. In the early 1900's, upstream migration of the Lake Sturgeon were blocked by dam construction on the Wolf River, eliminating the sturgeon from this part of its range. Stocking of Lake Sturgeon into Menominee waters began in 1994 as part of a long-term restoration program involving the Service's Genoa and Neosho National Fish Hatcheries, LaCrosse Fishery Resources Office, Wisconsin Department of Natural Resources and the Menominee Nation. **(8/23/00)**

131. Columbia FRO introduces fisheries students to the Service's STEP and SCEP programs

Columbia Fishery Resources Office

Columbia FRO Biologist Jeff Finley, a recent graduate of the Service's Student Career Experience Program (SCEP), represented the U.S. Fish and Wildlife Service at the American Fisheries Society's (AFS) annual conference held in St. Louis, Mo. Finley attended the AFS student job fair following the student subsection meeting where he spoke with students about the Service's Student Temporary Employment Program (STEP) and SCEP programs. Following the job fair, a student social was held. During the social over 100 folders were distributed to students. These folders were assembled by Columbia FRO's current STEP student, Corey Lee, and contained various pamphlets detailing employment with the Fish and Wildlife Service and its STEP and SCEP programs. This effort has resulted in several student applications with the Columbia FRO and has generated a greater interest in the station's volunteer program. **(8/23/00)**

132. Columbia FRO presents pallid sturgeon habitat work at National AFS meeting

Columbia Fishery Resources Office

Columbia Fishery Resources Office biologist Joanne Grady presented results of recent pallid sturgeon habitat work at the national American Fisheries Society annual meeting. Grady was one of 30 sturgeon biologists presenting their work at a special Sturgeon Symposium. The pallid sturgeon habitat sampling was conducted on the Lower Missouri River in conjunction with the USGS-Columbia Environmental Research Center (CERC). The pilot project allowed fishery biologists to pair fish sampling

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with habitat mapping conducted by CERC staff. Through this initial project staff were able to establish protocols for future habitat mapping. **(8/23/00)**

133. Planning Continues for St. Louis River Restoration in Northern Minnesota and Wisconsin

Ashland Fishery Resources Office

Biologists from Ashland Fishery Resources Office (FRO) met with biologists from the Twin Cities Field Office and Green Bay Field Office in Duluth, Minn., Aug. 25, to develop strategies for assisting restoration of habitat in the St. Louis River in Wisconsin and Minnesota. Ashland FRO provided a vessel for an on the water orientation of the river.

Twin Cities Field Office staff provided insight into status of two sites targeted for Natural Resource Damage Assessment (NRDA) and potential habitat restoration projects. The participants also discussed options to assist the Citizen Action Committee (CAC) with development of restoration activities within the lower St. Louis River watershed. A product of this meeting was the cooperative agreement between the U.S. Fish and Wildlife Service and CAC which provided the CAC with Coastal Program funds for planning habitat restoration projects. **(8/25/00)**

134. Ashland FRO Conducts Experimental Bottom Trawling to Assess Walleye in Lake Mille Lacs

Ashland Fishery Resources Office

Staff from the Ashland Fishery Resources Office recently tested a new technique that could help determine whether bottom trawling can be used to effectively assess walleye populations on Mille Lacs Lake in central Minnesota. The pilot study, requested by the Great Lakes Indian Fish and Wildlife Commission (GLIFWC), was done to help assess 'young-of-the-year' strength of walleye in the lake and to compare with results of similar trawling assessments done on the lake by the Minnesota Department of Natural Resources. Service staff also explored the feasibility of trawling other areas of the lake.

Trawling was conducted during morning, afternoon, evening, and nighttime hours to determine when it is most effective. A total of 25 juvenile walleye were captured in 17 five-minute tows. Most walleye were captured during early morning hours, while still occupying the near shore areas from the previous night's feeding. Trawling was found to be feasible in the northwest and western portions of the lake, as well as in the northeast where Minnesota DNR has concentrated its efforts.

Obstructions (rocks) were encountered in the near shore areas at depths less than 18 feet, and it is recommended that any future trawling not be conducted in these areas. Results were comparable to the efforts made by Minnesota DNR and confirms the effectiveness of their equipment and technique. Reaction to the results was mixed, and it is not known if GLIFWC will adopt future juvenile walleye assessments by bottom trawling in Lake Mille Lacs. **(8/30/00)**

135. Service Fish Trucks Find A New Home With Wisconsin Tribes

Ashland Fishery Resources Office

Two tribal fish hatcheries in northern Wisconsin will soon be equipped with trucks to transport fish, thanks to efforts of Service's Ashland Fishery Resources Office (FRO) and the Tishomingo and Withrop National Fish Hatcheries. Two fish trucks were recently made available for transfer to tribal fish hatchery programs.

Frank Stone of the Ashland Fishery Resources Office in Ashland, Wis., arranged for the transfer of two tank trucks to the St. Croix and Bad River tribes for use by their hatcheries. A 1983 Chevrolet One-Ton (4x4) formerly used by the Tischimingo Hatchery in Oklahoma, and will be reassigned to the St Croix Indian Reservation. The truck is equipped with a Peterson 250-gallon fiberglass hauling tank (two compartments) plus an oxygenation life support system. A 1972 International One-Ton truck used by Winthrop NFH in Seattle, Wash., is being delivered to the Bad River Band of Chippewa. The truck has only 60,000 miles on it, and carries a 600-gallon aluminum tank. Both trucks and holding tanks are in good condition and will provide many years of use to the tribal hatcheries.

Both tribes paid travel expenses for Stone to drive the two vehicles back to northern Wisconsin (1,150 miles from Tishomingo, Oklahoma and 1,700 miles from Seattle, Washington). This kind of cooperation between resource managers has several benefits. The Tribes will use these vehicles to help transport hatchery fish to various stocking sites. And, by making wise use of surplus equipment, we can prolong the intended use of the equipment and help the tribal conservation agencies use funds for other

important natural resource areas.

Over the past 10 years, numerous Service field offices have teamed with Ashland FRO to assist Tribal resource programs through donation of unused equipment. The donations have put thousands dollars worth of much needed fish distribution trucks, vehicles, fish hatchery equipment, generators and computers into the hands of Tribal resource managers. **(8/31/00)**

136. Collateral Duty Safety Officer Trained

Ashland Fishery Resources Office

Ashland FRO sent Henry Quinlan to the Region 3 Regional Office organized OSHA 600 course held the week of August 28 at Minnesota Valley National Wildlife Refuge. This course introduces federal agency collateral duty (part-time) safety and health personnel to the Occupational Safety and Health Act, Executive Order 12196, 29 CFR 1960, and 29 CFR 1910. This course enables U.S. Fish and Wildlife (FWS) employees to recognize basic safety and health hazards in their own workplaces, and to effectively assist FWS safety and health officers in their inspection and abatement efforts. **(8/31/00)**

September 2000

137. Carterville FRO Remodels Aquatic Exhibit at Crab Orchard NWR Visitors Center

Carterville Fishery Resources Office

Staff from Carterville Fisheries Resources Office (FRO) remodeled an aquatic exhibit at the Crab Orchard Refuge Visitors Center. The exhibit was transformed into a miniature aquatic ecosystem mimicking the natural conditions of an oxbow. Carterville FRO produced a series of educational materials including life histories and pictorial representations of the fish within the exhibit. The project increased the information and education qualities of the exhibit. An improved filtration system was added to the exhibit, providing increased chemical stability and support to a larger number of organisms. The 280-gallon tank was repainted, giving it a newer look and the illusion of greater depth. Natural lighting conditions were simulated to allow for the establishment of aquatic macrophytes. The addition of living plants and a sand / rock substrate to the exhibit created a more realistic and natural environment . The exhibits displays a diverse group of live aquatic organisms including fish, crayfish, snails and other invertebrates. **(9/1/00)**

138. Carterville Staff Sample Fish at Crab Orchard National Wildlife Refuge

Carterville Fishery Resources Office

During 1999 and 2000, staff from Carterville Fishery Resources Office sample various aquatic environments within Crab Orchard National Wildlife Refuge to complete a comprehensive species list and distribution database. Thirty-two sites were sampled using a variety of gear types ranging from hand nets to electro-fishing. A literature search was conducted and museum records examined from local colleges. Stocking records were examined as far back as the 1960's. A total of 61 fish species where documented as current or historical components of the refuge's faunal community.

Crab Orchard NWR encompasses 43,600 acres of Williamson, Jackson, and Union counties in southern Illinois. Approximately one-third of the refuge is considered aquatic habitat including three reservoirs and numerous streams.

Several types of aquatic habitats are present within Crab Orchard National Wildlife Refuge. However, during our survey the aquatic environments displaying the most diverse fish assemblages were the streams. Eighty-five percent of the fish species collected were elements of a stream's community structure, compared to the 62 percent of the fish composing the lake's community structure.

The area just below the Crab Orchard spillway exhibited the highest species diversity, supporting 31 species of fish. The oxbow sloughs within the Refuge supported the most unique fish assemblages including fliers, bowfin, slough darters, and pirate perch. In all, 61 species of fish were found to be present or historical components of Crab Orchard National Wildlife Refuge. **(9/1/00)**

139. Genoa Hatchery Partners With Park Service to Stock 9,000 Coaster Brook Trout at Isle Royale National Park

Genoa National Fish Hatchery

Biologist from the Service's Genoa National Fish Hatchery (NFH) near LaCrosse, Wis., in cooperation with the National Park Service, released 9,000 six-inch Coaster Brook Trout into Lake Superior at Isle Royale National Park Sept. 5. The stocking effort is part of a five-year plan to boost native populations of this unique fish within the Park, as well as to stabilize spawning populations that have declined in the area

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during recent times. Transporting these rare fish to remotely located Isle Royale is challenging. The fingerlings originate at Genoa NFH in southwestern Wisconsin and must be trucked hundreds of miles to northern Michigan were they embark on a 12-hour, 70-mile boat ride to stocking locations within the park.

Coaster brook trout got their name from early European settlers who called the large form of Lake Superior native brook trout a 'coaster' because of its preference for shoreline habitat in the lake. Due to overfishing and habitat loss, coaster stocks in Lake Superior were reduced to scattered, small remnants by the early 1900's. **(9/5/00)**

140. Service Evaluates Lake Sturgeon in the Lower Detroit River

Alpena Fishery Resources Office

Staff from the Alpena FRO and Central Michigan University Biology Department are working to identify current lake sturgeon spawning reefs in the Detroit River as part of a project being funded by the U.S. Environmental Protection Agency Great Lakes National Program Office, the Ohio Division of Wildlife, and Detroit Edison.

A total of 30 lake sturgeon were captured during the 2000 field season, 10 of those fish were implanted with sonic transmitters. Five to six fish were routinely relocated in the Detroit River during tracking efforts each week. Two fish were relocated in Western Lake Erie and four fish traveled up to the 'sturgeon hole' in Lake St. Clair. Crews from the Michigan Department of Natural Resources working on a telemetry project in Lake St. Clair located these fish.

The project team will attach transmitters to 10 adult lake sturgeon annually through 2001. Lake sturgeon were captured with set lines, on average seven set-lines (25 hooks per line) were fished each day. Sampling protocol allowed for both set lining and sonic tracking of lake sturgeon. Set lines were deployed on Monday, lifted and reset on Wednesday, and pulled on Friday. Fish were tracked on Tuesday and Thursday.

The project has benefited from volunteers from the Service's East Lansing Field Office and Ann Arbor Law Enforcement Office, USGS Great Lakes Science Center, Ohio Division of Wildlife, Fairport Harbor Fisheries Station and the DownRiver Walleye Federation. **(9/6/00)**

141. Lake Superior Ecosystem Cooperative Update

Ashland Fishery Resources Office

Ashland FRO biologists participated in two meetings of the Lake Superior Ecosystem Cooperative. One meeting focused on the status of the Lake Superior Bi-National Program and included presentations by members of the Lake Superior Workgroup (LSWG) committees. Pam Dryer and Henry Quinlan of Ashland FRO gave presentations that described activities of the Terrestrial Wildlife and Aquatic Community committees. Participants provided summaries of agency activities that pertain to the Lake Superior ecosystem, decided to provide comments to LSWG committees for improvement of the LaMP, discussed membership renewal, and future direction of the Coop. **(9/6/00)**

142. The Lake Sturgeon: Dinosaurs of the Great Lakes

Alpena Fishery Resources Office

The Lake Sturgeon: Dinosaurs of the Great Lakes is one of a six volume video series "The Sturgeon Video Library". The series was produced by Earthwave Society which also produced "Sturgeon: Ancient Survivors of the Deep," a video detailing the nine sturgeon species endemic to the North American Continent. Service Biologist Tracy D. Hill coordinated production of the video with Earthwave Society representative Betty Wills and participating members of the Central Great Lakes Bi-National Lake Sturgeon Group (CGLBLSG).

The video highlights collaborative activities of the CGLBLSG and includes on-camera interviews by agency partners funding the project. Many unique aspects of the Group's work are captured on tape. The Service's lake sturgeon work on Lake Ontario and the Niagara River was documented. Filming also occurred in Mt. Clemens, Mich., to cover Service, Michigan Department of Natural Resources, Ohio Division of Wildlife, and Ontario Ministry of Natural Resources lake sturgeon activities on Lakes Huron, Erie and St. Clair Waterway.

The video is completed and available for distribution. The video represents a great outreach tool for explaining the Service's mission of protecting and restoring native fish populations in the Great Lakes. The video is available to state and federal agencies, public schools, universities/colleges and sport groups. **(9/7/00)**

143. U.S. Sea Lamprey Control Program Destroys 5.5 Million Sea Lampreys, Lake Trout Saved

Ludington Biological Station

The U.S. Fish and Wildlife Service conducts a sea lamprey control program under contract with the

Great Lakes Fishery Commission. Between May 1 and September 12, 2000, the Service's sea lamprey control program treated 34 Great Lakes streams (12 in Lake Superior, 14 in Lake Michigan, seven in Lake Huron, and one in Lake Erie) with lampricide to destroy sea lamprey populations. These treatments destroyed an estimated 5.5 million larval sea lampreys, including about 185,500 that would have metamorphosed in 2000 and entered the Great Lakes where each would have been capable of killing upwards of 40 pounds of lake trout during its year long life in the lakes. The successful control program continues to ensure sport fish rehabilitation in the Great Lakes and protect a fishery valued at over $4 billion. **(9/12/00)**

144. Alpena FRO Assesses Fish Community at Wyandotte NWR

Alpena Fishery Resources Office

Staff from Alpena Fishery Resources Office conducted a temporal fish community assessment of Grassy Island, part of the Wyandotte National Wildlife Refuge in the Detroit River. Shiawassee NWR manages Wyandotte NWR, the boundary of which extends out to the six-foot depth contour around the island.

Trapnet, seine, and nighttime boom electrofishing gear were used to sample the fish community during May, July, and September 2000. Information was gathered on 30 species of fish captured during the assessment. The largest number of species was present in May. The round goby, an invasive species, was captured during each sampling period. Lake sturgeon, a federal candidate species, has been captured from the Detroit River but was not captured during the fish community assessment.

The assessment of Grassy Island provides baseline information on the refuge fish community called for in the Shiawassee NWR draft Comprehensive Conservation Plan (CCP). Information gathered is also useful regarding invasive species present and their potential effects on the fishery and the presence of threatened/endangered species that may require protection, including the lake sturgeon. The data is also useful to refuge managers and to the U.S. Geological Survey for its database on fish and wildlife and their habitats on the Detroit River. **(9/13/00)**

145. Demand for Caviar Driving Possible Decline in Ohio River Sturgeon Population

Carterville Fishery Resources Office

Since the summer of 1999, the Carterville Fishery Resources Office has monitored the shovelnose sturgeon populations within the lower Ohio River. During 2000, the Service was concerned over increased fishing for shovelnose sturgeon within the Ohio River brought about by a growing demand for domestic caviar.

In the early 1990s, caviar production in the Caspian Sea sturgeon fishery began to decline due to the loss of centralized control. The decline translated into increased demand for North American caviar, increasing fishing pressure on Ohio River shovelnose sturgeon.

Staff at the Service's Carterville Fishery Resources Office documented a reduction in the average size of Ohio River sturgeon between the 1999 catch and the 2000 catch. This could be the first indicator of a fish stock being over harvested.

Between June 1999 and September 2000, 427-shovelnose sturgeon were collected from the lower Ohio River. Distributional data suggests that from river mile 975 through 918, shovelnose sturgeon prefer to inhabit areas 35 to 75 feet deep supporting deep currents. Catch per unit effort, length frequency, mean weight, and percent of catch were calculated from our data set.

The catch per unit effort for 1999 and 2000 were 14.12 and 6.76 (fish per net night) respectively. Length frequency by percent of catch revealed the following: in 1999 the percent catch for fish over 500mm was 87 percent, dropping to 57 percent in 2000. In 2000, the percent catch for sturgeon over 600mm was 28 percent, down from 68 percent in 1999.

Mean weight dropped from 807 grams in 1999 to 563 grams in 2000, and there was a significant difference ($P<.0001$) in the mean fork length between 1999 and 2000. Initial findings, indicating a size reduction in shovelnose sturgeon between years are reliable, but based on limited information. This size reduction is what would be anticipate if excessive fishing was occurring within the region. Sampling is scheduled to continue throughout 2000. **(9/15/00)**

146. Sea Lamprey Control Risk Assessment Conducted During FY2000

Marquette Biological Station

The Marquette and Ludington Biological Stations conduct sea lamprey control risk Assessment activities to determine effects to the environment of control actions. During 2000 work was focused on compliance to regulatory agency permits and protection of lake sturgeon and federally and state listed

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endangered, threatened, or candidate species.

Lampricide use permits were secured from Wisconsin, Michigan, Indiana, Ohio, Pennsylvania, and New York. Reports were filed with the Environmental Protection Agency in compliance with Section 6 (a) (2) of the Federal Insecticide, Fungicide, and Rodenticide Act. Staff served in international working groups with other management agencies to assess and develop rehabilitation plans for lake sturgeon in the Great Lakes and walleye and brook trout in Lake Superior. **(9/15/00)**

147. Sea Lamprey Control Larval Assessment During 2000
Marquette Biological Station
The Marquette and Ludington Biological Stations conduct sea lamprey larval assessment activities to determine when and where future control actions are required and the effectiveness of past control actions. During 2000, assessments were focused in 253 tributaries and 13 offshore areas of Lakes Superior, Michigan, Huron, Erie, and Ontario. Assessments primarily determined the need for lampricide treatments during 2001 and collected information on reestablished populations of sea lamprey larvae. Additionally, information was obtained on density, age, length, weight structure, and geographic distribution of sea lamprey larvae. Surveys to monitor recruitment and long term trends of abundance continued in the St. Marys River through the use of deepwater electrofishing gear and global positioning technology. **(9/15/00)**

148. Integrated Sea Lamprey Control in the St. Marys River during 2000
Marquette Biological Station
The Marquette Biological Station conducted a program of lampricide and alternative control technologies in the St. Marys River to aid in the rehabilitation of lake trout and other fish to northern Lake Huron and Michigan. During 1998-1999, the lampricide granular Bayluscide was applied to about 2,200 acres of the river in U.S. and Canada-areas of dense populations of sea lamprey larvae. Assessments during 1999-2000 showed these applications removed about 45 percent of the population of larvae in the river.

During 2000, alternative control technologies reduced the reproductive potential of the spawning population of adult sea lampreys in the river by about 90 percent. Traps at hydroelectric facilities in the U.S. and Canada captured and removed 50 percent of the spawning adults (about 19,000 of 38,000). In addition, about 43,000 sterilized male sea lampreys captured from 15 tributaries of Lake Superior, Michigan, and Huron were released into the river for an additional suppression of 40 percent of the reproductive potential. **(9/15/00)**

149. New Private Lands Program at Alpena FRO
Alpena Fishery Resources Office
The Alpena Fishery Resources Office's new Private Lands Program (Partners for Fish & Wildlife) was launched this year, accomplishing several successful wetland restorations in Northeastern Michigan. A Private Lands program was not previously used in the area due to lack of funding and staff. Two years ago a Fishery Biologist from the Alpena FRO expressed an interest in the program, and today the Alpena FRO has restored 40 acres of wetlands and completed eight projects. Two new restoration projects, totaling 13 acres, are scheduled for spring 2001. In addition, 300 feet of riverbank in the Black River watershed in Montmorency County, Mich., were restored, funded with Partners for Fish & Wildlife funds. Restorations were implemented in the following Michigan counties: Alpena, Iosco, Alcona, Presque Isle, and Montmorency. **(9/15/00)**

150. Sea Lamprey Assessment for Spawning and Parasitic Phase During 2000
Marquette Biological Station
The Marquette Biological Station conducts assessment of adult (spawning and parasitic phase) sea lamprey populations to determine the long-term effectiveness of past control actions throughout the Great Lakes. During 2000, assessment traps placed in 47 tributaries of Lake Superior, Michigan, Huron, Erie, and Ontario captured 74,000 adult sea lamprey. Spawning populations in the Great Lakes were estimated at about 525,000 sea lampreys during 2000 (Lake Superior-80,000 in U.S. waters only, Lake Michigan-90,000, Lake Huron-280,000, Lake Erie-15,000, and Lake Ontario-60,000). **(9/15/00)**

151. Sea Lamprey Control Participation in International Symposium during 2000
Marquette Biological Station
The Marquette and Ludington Biological Stations participated in the Sea Lamprey International Symposium II during August 2000, and are concluding manuscripts as contributions from the symposium. A first Sea Lamprey Symposium was held in 1979 and resulted in a 2,214 page special issue of the Canadian Journal of Fisheries and Aquatic

Sciences. The 1979 symposium and resultant special issue of publications set the stage for the many advances of sea lamprey control and research during 1979-1999. A total of six of the biological staff presented synthesis papers at the symposium during August 2000, and 16 are lead or contributing authors to more than 25 manuscripts that will be published during 2001. The symposium of 2000 will set the stage for a long-term continuation of advances in sea lamprey control and research for the decades ahead. **(9/15/00)**

152. Partners and Volunteers Join Service To Advance Knowledge of Lake Sturgeon in the Green Bay Basin

Green Bay Fishery Resources Office

With leadership from the Green Bay Fishery Resources Office and help from commercial and sport fishers, Biologists from the Service and state agencies recently began what may become an annual process of conducting surveys and collecting data and samples of lake sturgeon inhabiting the waters of Green Bay and several of its tributaries.

Overall, activities involved collection and release of over 250 sturgeon. Collection of 210 genetic samples from five potentially distinct spawning populations will help characterize remaining remnant stocks and identify their future and potential role in restoration efforts. Egg samples collected for contaminant analysis from three spawning females in the Fox River, and flesh samples from two harvested fish from the Menominee River, will help determine the potential for contaminant related reproductive effects.

The recapture of four fish, and the tagging of 35 newly captured fish from Green Bay tributary waters will continue to provide information on growth, distribution and movement of this species. Lake sturgeon appear to be increasing in the Green Bay basin and some of its tributaries in recent years, and they are becoming more visible and of growing interest to the public. **(9/15/00)**

153. Fishery Management Assistance Provided to National Park

Ashland Fishery Resources Office

Biologists from Ashland FRO, Iron River and Genoa National Fish Hatcheries, La Crosse Fish Health Laboratory, and the Region 3 Office evaluated options for rehabilitation stocking of coaster brook trout at Isle Royale, Mich. The Service continues to provide quality Lake Superior strain fish to Isle Royale National Park and Michigan DNR to carry out rehabilitation efforts at the Park. Field biologists also continued to prepare for another gamete collection effort at Isle Royale which will contribute to development of the Siskiwit Bay strain coaster brook trout brood stock. A total of 12,000 native Lake Superior coaster brook trout have been stocked to assist rehabilitation of a depleted population. **(9/18/00)**

154. New Fish Distribution Truck Adds Capability, Cuts Costs For Pendills Creek NFH

Pendills Creek National Fish Hatchery

Pendills Creek National Fish Hatchery has a new fish distribution truck that will allow staff to transport more fish using less manpower. The diesel truck, which arrived in August, has a three-compartment stainless steel tank that replaces the hauling capacity of three smaller trucks previously used by the hatchery. The new distribution truck cuts costs in labor and travel since it requires only one driver rather than three. This new fish transport unit will be ready for service in time for the annual fish distribution season in May and June 2001.

Each spring, lake trout fingerlings are transported from three federal fish hatcheries to the Service vessel M/V Togue where they are stocked on offshore reefs with a goal of restoring lake trout to Lakes Michigan and Huron. Approximately 3.4 million fish weighing over 250,000 pounds are stocked annually. The M/V Togue can hold up to eight loads of lake trout with each load averaging 1,000 to 1,300 pounds of fish. Each of the three hatcheries has one or more distribution units with personnel working cooperatively in stocking fish over a two-month period every year. **(9/19/00)**

155. Alpena Staff Conducts Juvenile Walleye Surveys For COFTMA-ITFAP

Alpena Fishery Resources Office

Staff from Alpena Fishery Resources Office (FRO) assisted the Chippewa-Ottawa Treaty Fishery Management Authority – Inter-tribal Fishery Assessment Program (COFTMA–ITFAP) with its annual fall juvenile walleye survey conducted Sept. 18-22, 2000, in treaty-ceded waters of the upper Great Lakes.

Nighttime boom electrofishing gear was used survey Munuscong Bay in the St. Mary's River, Back Bay on Lake Superior, and St. Martin's Bay on Lake Huron. Water levels were too low to sample Epoufette Bay on Lake Michigan. COFTMA-ITFAP conservation

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staff stocks walleye into some of these areas and the survey allows them to assess the success of their stocking efforts. Surveys were successful at catching juvenile and adult walleye, yellow perch, and northern pike, all of which were very healthy, likely due to the early spring and abundance of vegetation.

Providing management assistance to state and tribal management agencies is a priority for the Region 3 Fishery Program. Ongoing assistance to COFTMA-ITFAP also encourages good relations with tribal fisheries managers. **(9/22/00)**

156. Larval Pallid Sturgeon Identified on the Lower Missouri River

Columbia Fishery Resources Office

Staff at the Columbia Fishery Resources Office (FRO) have collected three Endangered larval pallid sturgeon during a four-year monitoring study on the lower Missouri River. Overall, 44 larval sturgeon have been collected from areas between River Miles 213 to 219 of the Missouri River. Three larval pallid sturgeon were recently confirmed and seven have been tentatively identified as pallid sturgeon. Two of the three confirmed larval pallids were collected in August 1998 in the upper end of Lisbon Chute, a naturally restored side channel of the lower Missouri River and part of the Lisbon Bottoms Unit of the Big Muddy National Fish and Wildlife Refuge. The third larval pallid was collected in August 1999 at the mouth of Lisbon Chute. This is the first known documentation of natural reproduction of the endangered species in the lower Missouri River.

We currently have little knowledge about the early life history of pallid sturgeon under natural conditions. Collections such as these provide general information on nursery habitat requirements needed by young pallid sturgeon for survival. This information is also important to the Service's ongoing consultation with the U.S. Army Corps of Engineers on the operation of the Missouri River. **(9/24/00)**

157. Wetland Restorations at Whittlesey Creek NWR Help Educate Local College Student

Ashland Fishery Resources Office

Two wetland basins restored in September at the Whittlesey Creek National Wildlife Refuge in northern Wisconsin are the subject of a vegetation monitoring program conducted by a student from nearby Northland College. The basins are approximately one and 1.5 acres in size, with varying bottom elevations that will create water depths of one inch to four feet. These are the first wetland restorations accomplished on the refuge. The wetlands incorporate design techniques recently recommended by the Natural Resource Conservation Service (NRCS), including curving dikes (instead of straight dikes) and shallow water in front of the dike (instead of a deep hole in front of the dike).

The restorations include a unique partnership with Northland College, a local private college that specializes in environmental curriculum. Some plots will be planted with wetland plant seeds and some will be left unseeded. The wetland ecology class at Northland will track vegetation changes in these wetlands over time, identifying plant abundance and diversity every two years. This allows the refuge to become part of the college's outdoor classroom and provides valuable data to the Fish and Wildlife Service.

This project is part of the Wisconsin Superior Coastal Wetland Initiative, a multi-partner project to protect and restore important coastal wetlands. The Great Lakes Indian Fish and Wildlife Commission provided partial funding for the restorations. **(9/27/00)**

158. Triploid Grasscarp Inspection and Certification Program Activities at Carterville FRO

Carterville Fishery Resources Office

The Service's Triploid Grasscarp Inspection and Certification Program protects aquatic resources throughout Region 3, the United States, and other countries by preventing the unwanted spread of fertile aquatic nuisance species. Inspectors from Carterville Fishery Resources Office (FRO) conducted 10 inspections at Region 3 grasscarp producers in Fiscal Year 2000. Producers failed two of the 10 inspections), which supports the Service's implementation of the program as a measure to protect our aquatic resources.

The Service's Triploid Grasscarp Inspection and Certification Program is a service offered to state natural resource agencies to assist in protecting the nations aquatic resources. The inspection program provides assurances to these agencies, and others concerned about protecting aquatic resources, that shipments of grasscarp alleged to be all triploids, do not, within the confidence limits of the inspection program, contain diploids. In all, 10,023 triploid grasscarp were certified for 18 shipments in four states. **(9/28/00)**

159. Service's Stream Surveys Help Tribal Fishery Management at Keweenaw Bay Indian Community

Ashland Fishery Resources Office

Staff from Ashland Fishery Resources Office (FRO) recently surveyed six streams near the Keweenaw Bay Indian Reservation. The surveys, near the Slate, Ravine and the Silver rivers were done at the request of the Keweenaw Bay Indian Community, and will provide tribal fishery managers with data to help them make informed management decisions about the reservation's brook trout populations.

The lack of historical brook trout surveys have made management recommendations difficult for the Keweenaw Bay Natural Resources Department. To adequately understand the species diversity and recruitment levels of these fisheries, the Keweenaw Bay Natural Resources Department and the Ashland FRO have been conducting stream surveys that would monitor several index stations.

Tribal biologist Mike Donofrio is primarily interested in knowing if any steam restoration measures are needed, where they can collect trout for possible relocation, and where the tribe can stock the brook trout fingerlings that are now being reared at the Keweenaw Bay Indian Fish Hatchery. The data gained from these surveys will give the tribe the additional information they need to make management decisions. By knowing the characteristics of each stream and where brook trout reproduction is occurring, the tribe can focus management efforts in areas where the trout habitat is available but few trout have been observed. **(9/28/00)**

160. Study of Eurasian Ruffe Shows Abundant Population Levels on Four Lake Superior Tributaries

Ashland Fishery Resources Office

The Ruffe Population Investigations Study began in 1995 as a long term study to monitor the relative abundance of Eurasian ruffe and native fishes in Lake Superior tributaries where ruffe have been discovered, or are likely to be discovered. Four south shore tributaries to Lake Superior in northern Wisconsin and Michigan (Amnicon,Iron, Flag, Ontonagon) are included in the study, and ruffe are present in all of the study rivers.

Ruffe are abundant but nearly stable in the Amnicon River. In the Iron River, ruffe are abundant and continuing to increase; however, abundance is projected to stabilize at a level comparable to the Amnicon. Ruffe abundance has probably peaked in the Flag River and should begin to stabilize at a very high level. Ruffe are not yet abundant, but slowly increasing in the Ontonagon River. As with the St. Louis River in Minnesota and Wisconsin, and the Flag River, ruffe seem to prefer more complex tributaries consisting of mixtures of dredged and natural channels complimented by sloughs which serve as a nursery for the young-of-the-year. Both the Amnicon and Iron rivers have nearly uniform substrates with few pools and natural channels and no dredged channels. The Ontonagon River is dredged near the mouth, but very uniform upriver from the mouth. Comparison of native fish catch rates is forthcoming, but from observation, there does not appear to be any significant trends taking place so far. **(9/28/00)**

161. New Reptile and Amphibian Records For Crab Orchard National Wildlife Refuge

Carterville Fishery Resources Office

The Carterville Fishery Resources Office conducted reptile and amphibian surveys throughout the year at Crab Orchard National Wildlife Refuge in southern Illinois. The study was conducted using search and seizure, drift fences, egg mass, and song survey methods. Sampling at 41 sites using the search and seizure method resulted in the collection of 30 species of reptiles and amphibians along with associated distribution and abundance data. The most noticeable specimen collected during the search and seizure phase of the study was a smooth earth snake (Virginia valeriae). Collection of this species represents a new county record. From February though March, egg masses were collected from 13 sites throughout the refuge. Egg masses were returned to the lab for hatching. The egg mass survey identified preferred breeding pools within the refuge and documented the first record of the spotted salamander (Ambystoma maculatum) within Williamson County. Frog call surveys began in March and continued through June. Nineteen sites were visited regularly resulting in the identification of eleven species of frogs and toads.

A comprehensive survey on reptiles and amphibians has never been done within the refuge. Information gained from this survey will provide baseline distributional and abundance data critical in the development of management plans. Partners in the sampling include Carterville Volunteers, Illinois Natural History Survey and Southern Illinois University - Carbondale. **(9/28/00)**

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162. Service Provides Summary Report on Lake Trout as Ecosystem Indicator

Green Bay Fishery Resources Office

Status, trends, and impediments to restoration success were articulated for lake trout in each of the Great Lakes in a summary report for the State of the Lake Ecosystem Conference (SOLEC) in October 2000 by fishery Biologist Charles Bronte, Green Bay Fishery Resources Office.

The international conference, hosted by Canada and the United States, is a biannual meeting to report on the health of the Great Lakes Basin ecosystem, as well as progress towards the goals of the Great Lakes Water Quality Agreement. At SOLEC 98, a comprehensive suite of 80 Great Lakes' ecosystem health indicators was presented for review, refinement and acceptance. The focus of SOLEC 2000 will be reporting on 25-30 of the suite of 80 proposed indicators, and the report by the Service will be highlighted and distributed to a wide variety of public and private agencies. Lake trout, a top predator in all the Great Lakes, can be used to infer the basic structure of cold water predator/prey communities and the general health of the ecosystem. **(9/29/00)**

163. Carterville FRO Manages National Paddlefish Database and Coded-Wire Tag Processing Center

Carterville Fishery Resources Office

During Fiscal Year 2000, the Carterville Fishery Resources Office (FRO) processed more than 5,000 coded-wire reference tags from wild captured fish and 152 reference tags for 76 stockings of more than 129,000 hatchery-reared fish, as part of its management of a national paddlefish database and coded-wire tag processing center for the Mississippi Interstate Cooperative Research Association (MICRA).

Coded-wire tags recovered from more than 200 recaptured paddlefish were processed and linked to release data. As of the end of FY00, the database contains individual records for nearly 1.5 million stocked paddlefish, 11,160 wild tagged paddlefish, and more than 1,200 tag recoveries. Long and short distance migrations between state management jurisdictions and between important paddlefish habitats have been documented.

Databases were developed to incorporate five years of sport and commercial harvest data. Individual data summaries were constructed and distributed to participating states. The 1998 Annual Project Report was completed and distributed to project partners. Carterville FRO is currently preparing a five-year completion report for the project, which will include data from 1995 - 1999. The project was extended beyond its initial five-year period and will continue during FY 2001.

MICRA is comprised of 28 state natural resource agencies, 23 of which contributed to the national paddlefish database through FY 2000. The national study was designed to assess the population status of paddlefish, formulate estimates of harvest and exploitation, and to describe their movement and migration patterns throughout the Mississippi River Basin. **(9/30/00)**

164. Annual Surveys for Exotic Species Underway in Lake Huron

Alpena Fishery Resources Office

The Service's Alpena Fishery Resources Office (FRO) is currently conducting annual bottom trawling surveys at Lake Huron shipping ports and shipping passageways to detect the current range of invasive fish species, mainly Eurasian ruffe and round goby. Surveys have been conducted at nine Michigan locations during September 2000, including Port Dolomite near Cedarville, three sites at Thunder Bay in Alpena, one site in the Thunder Bay River in Alpena, National Gypsum near Tawas City, and the Saginaw River mouth in Essexville. Two new locations were surveyed in 2000 – the St. Mary's River shipping channel in Sault Ste. Marie and DeTour Passage.

Eurasian ruffe continue to be present in the Thunder Bay River where they were first discovered in 1995. Ruffe have also been captured at a new location in Thunder Bay this year. Round goby continue to be found in Thunder Bay, National Gypsum, and the Saginaw River mouth and were captured from a new location at the Thunder Bay River.

Approximately 30 minutes of bottom trawling effort is conducted at each survey location. During early October, seven more

locations will be surveyed to complete annual exotic species surveillance for Lake Huron. Surveillance for exotic species in Lake Huron provides information on their spread within the lake, establishes baseline fish community information at ports where invaders are not currently found, and documents changes in fish communities where invaders become established. **(9/30/00)**

165. Alpena Fishery Resources Office Provides Education and Outreach on Exotic Species

Alpena Fishery Resources Office

The Alpena Fishery Resources Office (FRO) provided a variety of educational and outreach materials on exotic species during Fiscal Year 2000. Approximately 10,000 exotic species identification cards for Eurasian ruffe and round goby were provided to 60 bait vendors, sportfishing tackle vendors, and marinas for distribution to anglers. Anglers have responded by reporting ruffe and goby catches in Lake Huron. The feedback resulted in the identification of three new locations where goby are confirmed to exist. Exotic specimens and presentations were provided at a variety of educational events including sporting shows, schools, conservation organizational meetings, and professional meetings. Exotic species educational materials were revised on the Alpena FRO website and interviews provided to news media. All efforts help increase public awareness about exotic species and provide information on their effects on the native fishery and how to prevent their spread. **(9/30/00)**

166. Coded Wire Tags Contribute to Lake Huron Lake Trout Restoration

Alpena Fishery Resources Office

Staff from the Service's Alpena Fishery Resources Office recovered and read coded-wire tags from lake trout study fish in Lake Huron to gather information on lake trout movement, survival, and lamprey wounding in the lake. Fish are tagged and reared in national fish hatcheries on the Great Lakes and recovered from Lake Huron anglers by the Michigan Department of Natural Resources. Tags are also recovered from assessment activities conducted by state and tribal management agencies. Voluntary sport angler coded-wire tag data is entered into a database. The information is used to prepare a report to the Lake Huron Committee titled 'Lake Trout Rehabilitation in Lake Huron - Progress Report on Coded Wire Tag Returns.' **(9/30/00)**

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Law Enforcement

Fiscal Year 2000 Annual Report
Region 3

--USFWS Photo

Inspection Mission. *The Region's wildlife inspectors monitor the legal trade and intercept illegal importations and exportations of federally protected fish and wildlife. Uniformed wildlife inspectors are located at O'Hare International Airport in Chicago, and at the border ports of Detroit, Mich. and Minneapolis, Minn.*

Program Description and Mission

The Law Enforcement Program in Region 3 is comprised of 23 Special Agents, nine Wildlife Inspectors, and essential support staff located at the Service's Regional Office at Fort Snelling, Minn.. Law Enforcement field offices are located in each of eight states within Region 3. Wildlife inspectors serve the border ports of Detroit, Port Huron and Sault Sainte Marie, Mich., and Minneapolis/St. Paul, Grand Portage and International Falls, Minn. Inspectors are also stationed at O'Hare International Airport in Chicago.

The broad mission of the enforcement program is to protect foreign and native wildlife - both on and off Service lands - through the application of an assortment of federal wildlife laws, as well as other federal statutes relating to smuggling, conspiracy, and money laundering. These laws include: Bald and Golden Eagle Protection Act, Migratory Bird Treaty Act, Marine Mammal Protection Act, Endangered Species Act, Lacey Act and the National Wildlife Refuge System Administration Act The application and enforcement of these and other laws is essential to effectively countering the illegal trade in wildlife, which, at the international level is estimated to be the second largest form of black market commerce in the world - second only to drug trafficking.

Summary of Fiscal Year 1999 Accomplishments

On October 20, 2000, public ceremonies were held in Davenport, Iowa, celebrating the restoration efforts of the Nahant Marsh. These marshlands first came to the attention of a Service agent and Iowa State Conservation Officer in 1994, when they received information that a skeet and trap shooting range was operating in proximity to the marsh, and that large amounts of lead shot were being deposited into the wetlands as a result of the shooting activities at the range. An investigation documented migratory bird mortality associated with lead poisoning as a result of the gun club's shooting activities since 1969. Faced with the prospect of potential criminal prosecution, the gun club voluntarily agreed to transfer ownership of the marsh and the gun club to the City of Davenport. With the assistance of the Service's Ecological Services Division and the Environmental Protection Agency, this site was authorized as a superfund site - one of only two in the United States ever approved based on ecological concerns. Following a two million dollar cleanup effort in which 250 tons of lead were removed from the underlying soil and sediment, the marsh has been reclaimed and the former shooting range clubhouse has been transformed into an educational and research center for use by local schools and colleges. Nineteen private and public organizations were involved in the overall restoration efforts of the marsh and the grounds.

In January 2000, the Service's Ecological Services Office at East Lansing, Mich., contacted Service agents regarding information that they had received concerning a bulb company which had received a large shipment of aquatic plants from Holland, each of which were found to contain numerous zebra mussels attached to them. The investigation proceeded with the assistance of multiple state and federal agencies. The shipment was traced to the exporter in Holland, and the owners were immediately contacted to determine if other shipments were sent to other locations in the U.S. As part of the overseas investigation, it was determined that USDA officials in Holland were aware of the zebra mussels, but not aware of the dangers involved in their export. The shipment was ultimately abandoned, and overseas officials were made aware of the injurious nature of these mussels, and the U.S. government's policies controlling their import into the U.S. Such importations of non-indigenous species could have been disastrous but for the excellent cooperative efforts of multiple agencies and private parties in this instance.

Environmental Contaminant Investigations

The region has placed a high priority on conducting investigations involving environmental contaminants and the misuse of pesticides due to the large-scale impacts that such activities can have on native wildlife populations.

For example, in October 1999, Service special agents and Illinois Department of Conservation Police Officers responded to a reported large die-off of migratory birds on private lands near

--USFWS Photo

Bird Kill. *Thousands of dead birds litter the field of farmer Harvey Puli. Most of the 27,000 birds poisoned died o nthe sported where they ingested the poison.*

Mascoutah, Ill.. Between Oct. 16-18, 1999, enforcement personnel and biologists collected over 27,000 dead migratory birds from a 13-acre parcel of land. A representative sample of these birds was sent to the Service's Forensic Laboratory where it was determined that the cause of death was carbamate pesticide poisoning resulting from the ingestion of carbofuran, the main ingredient in the product *Furadan*. Subsequently, a farmer admitted that he had planted a winter wheat crop on this parcel of land, and shortly thereafter, laced additional wheat seed with *Furadan*, spreading it in four rows throughout the wheat field. The farmer admitted to knowing that *Furadan* was not approved or permitted to be used as an avicide, or for the application to wheat. The migratory birds killed included 20,094 red-winged blackbirds, 5,970 brown-headed cowbirds, 887 common grackles, and 10 horned larks. The farmer subsequently pled guilty in federal court to two charges: the unlawful and un-permitted taking of 26, 961 migratory birds in violation of the Migratory Bird Treaty Act (MBTA), and the use of a registered pesticide classified for restricted use in a manner inconsistent with its labeling - in violation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). On September 13, 2000, the defendant was sentenced to three years probation and fined $4,000 for a violation of the MBTA and $1,000 for violation of FIFRA.

Protecting Migratory Birds

--Photo by George Jameson by permission

Mass Kill. *Special agent s investigated a mass killing of 500 double - crested cormorants at Little Charity Island, part of Michigan Islands NWR in Lake Huron..*

On May 30, 2000, Service biologists conducting a site survey at Little Charity Island on Saginaw Bay, Mich., discovered a massive slaughter of nesting double-crested cormorants. Service agents, Michigan Department of Natural Resources Officers, and Officers from Shiawassee National Wildlife Refuge have launched a criminal investigation into the incident, and have estimated that more than 500 nesting cormorants have been killed. This represents about half of the breeding population on the island which is part of the Michigan Islands National Wildlife Refuge. Preliminary findings indicate that the birds were shot at their nesting sites, many while incubating eggs or brooding young. Double-crested cormorants were common in the Great Lakes during the 1950s, but their numbers were devastated by the effects of toxic chemicals in the 1960s. In recent years, however, cormorant populations have increased dramatically due to bans on toxic pesticides such as DDT, federal protection, and abundant food resources. The investigation into this incident is ongoing.

Each winter rare trumpeter swans which are slowly making a comeback from low population levels can be seen in Illinois, and each year the Service and state conservation officials investigate illegal killings of the huge birds. The year 2000 has seen little change from previous years - five trumpeters have fallen victim to shootings. In one incident an individual responsible for killing the bird received nearly a $1,000 fine in state court. State charges are also pending against shooters at a private club in Fulton County, Illinois, where two swans were killed and one in-

jured. In yet another shooting occurring in Jacksonville, Il, a defendant pled guilty in federal court to shooting a trumpeter swan and was fined $250.00 ordered to pay restitution in the amount of $500 to a wildlife rehabilitation center, and another $500 in restitution to the Wisconsin Department of Natural Resources, Trumpeter Swan Recovery Program.

A multi-agency investigation involving Environment Canada, Manitoba Natural Resources, and Service special agents concluded Oct. 6, 1999, in Manitoba when 13 American hunters from Illinois, Iowa, Michigan, and Ohio were charged with 80 hunting related offenses. The investigation centered around illegal hunting in Manitoba involving U.S. hunters and Canadian guides. Service agents documented numerous violations, including: gross over-limits of migratory birds; crippling and failing to retrieve birds; guiding without a valid license; and hunting from boats under power. To date, approximately $10,000 in fines have been levied, and prosecutions are continuing. Inter-agency and international cooperation of this kind serves to protect a wildlife resource that knows no political boundaries.

In another case, a subject who had 18 state hunting and fishing related investigations, as well as a conviction for the battery of a police officer, was recently sentenced in federal court in Illinois for violating the Migratory Bird Treaty Act in the fall of 1999. As part of a plea agreement, the subject pleaded guilty to exceeding the daily bag limit of waterfowl by shooting 24 blue-wing teal, transportation of improperly identified waterfowl, and possession of lead shot. The subject was fined $5,000. A companion hunter also entered into a plea agreement and pleaded guilty to exceeding the daily bag limit of waterfowl and transportation of improperly identified waterfowl. He was fined $2,500.

In a joint investigation by Illinois conservation officers and Service agents, 11 hunters in were observed hunting mourning doves over an area that had been baited with shelled corn, cracked corn, and wheat. Two of the hunters admitted to placing nearly 200 lbs. of corn and wheat on the hunting area prior to the hunt, and provided sworn affidavits stating that the other hunters had knowledge that the bait was present. All of the hunters were charged with baiting related violations of the Migratory Bird Treaty Act. All of the subjects paid their fines totaling $3,875.

The final defendant in Operation Diver, a 1994 cooperative investigation involving the Service, Minnesota Department of Natural Resources, Environment Canada, and Manitoba Department of Natural Resources, was concluded. This investigation targeted illegal waterfowl hunting and revealed a multitude of violations including: wanton waste, major over-limits, and guiding without a license. The defendant, a U.S. citizen and one of the illegal outfitters, was fined $3,000 and ordered to forfeit a deep freeze, 190 ducks, 2,000 shotgun shells, an air boat, a plucking machine, and

over 100 decoys. Ten previous defendants involved in this investigation were fined $32,846, assessed $7,000 in Canadian Customs duties, and forfeited weapons and property valued at $20,000.

International Wildlife Trafficking

On Dec. 1, 1999, an 18- month joint investigation by Service agents and the Ontario Ministry of Natural Resources culminated with charges being levied against 14 Canadians for 51 offenses relating to the illegal commercialization of black bear parts, including the illegal sale of 83 gall bladders. The illegal operations focused largely on Canadian bear hunting guides who were collecting the gall bladders from bears killed by their clients, many of whom were American hunters. Prosecutions are pending in this investigation.

An individual returning from an argali sheep hunt in China, arrived at Chicago's O'Hare International Airport on Christmas Eve 1998. As the subject was going through U.S. Customs review, a violation alert was noted for him due to previous smuggling activity, and his baggage was subsequently searched and found to contain: two black rhino horns, one argali sheep jaw bone, one set of gazelle horns, and the subject's hunting rifle. Customs requested the assistance of Service Wildlife Inspectors, who interviewed the subject and conducted a computerized search of Service records. The search revealed the subject had a felony criminal history of wildlife violations, including one in which he received a 30 month prison sentence and a $190,000 fine for smuggling of endangered species.

Service agents were subsequently contacted and the subject was arrested and arraigned in U.S. District Court in Chicago, Dec. 25, 1999. Upon further investigation, the subject has been charged with four counts relating to smuggling of endangered species and the unlawful possession of a firearm by a convicted felon. Prosecution is pending in this case.

Endangered and Threatened Species

Cooperative efforts with other federal and state enforcement agencies has resulted in continued and greater protection being afforded to endangered and threatened species through apprehensions and public outreach efforts.

For example, pursuant to an investigation that was initiated in 1998, Service agents and Iowa Conservation Officers executed three search warrants on residences in the Tama, Iowa area as part of an investigation into the illegal killing and commercialization of eagles and their parts for the Native American pow wow trade. Two large suitcases containing leg-hold traps and freshly killed eagle and other raptor parts were seized at one residence. A forensic examination of these wildlife parts revealed that they comprised at least: 22 golden eagles, three bald eagles, 41 Rap-

tors from eight different species, and eight other species of birds. In November 1999, two of the subjects were indicted in federal court on eleven counts of violations of the Eagle Act, and arrest warrants were issued for them. One of the subjects was ultimately arrested while hiding in the attic of a residence in Michigan City, Ind.. On Sept. 22, 2000, this individual was sentenced in federal court to 10 months in prison, ordered to pay $5,000 in restitution to the National Fish and Wildlife Foundation, and placed on a one year supervised release. The second individual was also eventually arrested, but not prior to being also arrested for drug charges and driving under the influence. In October this individual was sentenced in federal court to 16 months in prison, $10,000 in restitution to the National Fish and Wildlife Foundation, and placed on two years supervised release. Additionally, forfeiture was ordered for the weapon, suitcases, traps, and all the wildlife parts and feathers. On Sept. 29, 2000, the third individual implicated in this investigation was sentenced in federal court to pay $5,000 in restitution and placed on two years probation after pleading guilty to illegally taking and possessing a bald eagle. All of the restitution monies are to be used for eagle research projects. While there is a legitimate use for eagle feathers in Native American religious ceremonies, it is this kind of black market trade that severely undermines the conservation efforts of our migratory bird resource.

In another case, on June 23, 2000, a Minnesota subject was sentenced in federal court to a fine of $9,500 and two years probation for killing two bald eagles. The investigation by Service and Minnesota conservation officers was in response to a anonymous tip implicating the defendant in killing some eagles. The subject ultimately admitted to knowingly killing the eagles for the alleged reason that they were killing ducks that he had been attracting to his yard with feed. After killing the two eagles, the subject burned the carcasses in his wood stove to dispose of them.

Poachers in the region also turned their focus to protected mammals. In early 1999, for example, enforcement officers received reliable information that a large number of grey wolves - 25 to 35 - had been illegally taken over the past couple of years in Northwestern Minnesota. The subjects involved in this organized activity employed the use of snowmobiles to ensnare or run down the wolves to the point of exhaustion, and then shot them. A joint investigation with Minnesota Conservation Officers was undertaken, resulting in the recovery of freshly killed wolves and other documentary evidence that culminated in the indictment of the two principal individuals responsible for the killings. These individuals were indicted in federal court for violations of the Endangered Species Act and for possession of a silencer. On April 19, 2000, the defendants pled guilty to one count each of illegally taking a gray wolf. One defendant received a sentence of 8 days home confinement, a $3,500 fine, probation for five years with no hunting or trapping allowed during the first two years, and 50

hours of community service with the Society for the Prevention of Cruelty to Animals or the Humane Society. The second defendant received a fine of $2,500 and probation for five years with no hunting or trapping for the first one year. Subsequent to this investigation, a hotline was established to enable anonymous callers to report any information concerning the shooting or killing of wolves.

In September 1999 an individual shot and killed a gray wolf in Carlton County, Minn.. At the time of the shooting, the individual stated that he knew that the animal was a wolf and that it was protected under the Endangered Species Act. This subject was issued a Notice of Violation for the unlawful killing of a gray wolf, and on Nov. 25, 1999, the individual paid a $1,500 fine.

On Mar. 14, 2000, an investigation into the unlawful sales of endangered species in interstate commerce was concluded with the payment of a $1,000 fine by a subject for unlawfully selling a tiger in interstate commerce.

Teaming With Science to Safeguard Wildlife

In the evening hours of Oct. 29, 1996, a Wisconsin man with 27 prior wildlife convictions and revoked hunting privileges used a spotlight and a .22 caliber rifle to kill a trophy whitetail buck during the bow hunting season. Early the next morning, he transported the buck to Michigan, purchased a nonresident hunting license, proceeded to stage the "hunting" of the deer on videotape, registered the deer in Michigan, and then returned to Wisconsin with his "Michigan"deer. Based on information from a cooperating individual, a joint investigation was initiated by Wisconsin Conservation Wardens and Service agents.

In spite of securing evidence through witness statements, execution of search warrants, and convening a federal grand jury, the subject steadfastly denied any wrongdoing. The officers continued to search for a way to improve the evidence and corroboration in the case, and turned to the capabilities of the Geology and Geophysics Department at the University of Wisconsin. A University scientist used an analysis of the strontium isotope content of a deer's antlers to establish a geographic fingerprint of the region where the animal lived. Tests performed by the geologist proved that the subject's deer was identical with deer living in the Portage, Wis., area and conclusively proved that the deer did not come from Michigan. When faced with this evidence, the subject pleaded guilty. He was sentenced to 30 days imprisonment, fined $2,000 given five years probation during which time he is prohibited from hunting or fishing. He was further ordered to perform 1,000 hours of community service in the field of resource and wildlife management. The importance of this conviction goes beyond the sentencing and deterrent effects of the conviction, and extends to the long lasting benefit of protecting wildlife through the establishment of a new scientific technique - a technique which allows the geographic fingerprinting of an animal

through strontium isotope analysis.

Safeguarding National Wildlife Refuges

In August 1999, a radio station in the Davenport, Iowa area organized an advertizing event at the Princeton Beach area of the Upper Mississippi River National Wildlife Refuge in Scott County, Iowa, without requesting authorization for such activities. The event attracted several hundred boaters on the remote beach, and ended up with unruly crowds strewing refuse, debris, and uncollected trash on the beach. The refuge manager and Service agents pursued this matter in the federal court system, and the radio station was charged with a one count violation involving littering on the refuge. On June 6, 2000,, the station pled guilty to the violation and as part of a plea agreement, was sentenced to pay a $200 criminal fine; make restitution to the refuge in the amount of $9,800; and ordered to broadcast ten 30-second public service announcements dealing with environmental issues affecting the Upper Mississippi National Wildlife Refuge.

93 Month Jail Sentence Imposed for Witness Retaliation

On Nov. 22, 1999, in U.S. District Court in Illinois a subject, initially convicted for the illegal take and sale of freshwater mussels, received a 93 month jail sentence for violation of the Federal Witness Retaliation Statute for assaulting a witness who had testified against him. Part of the sentence will run concurrently with the subject's initial sentence of 31 months in prison that related to the poaching and illegal sale of mussels. At the time of the original sentencing, the subject also was ordered to pay $28,839 in restitution to the Illinois Department of Natural Resources. On Oct. 13, 2000, the defendant appealed his conviction relating to the charge of witness retaliation, but the appellate court upheld the lower court's decision.

Border Port Inspection Activities

On Oct. 4, 1999, a Chinese passenger was stopped at the security checkpoint upon his arrival in Detroit Metropolitan Airport from Beijing, China. The passenger was found to have four vials of a bear gall bladder product in his possession. During the interview, conducted through an interpreter, the passenger stated he had given six vials of the same product to a Chinese flight attendant on board the flight. The transfer took place after the attendant advised the individual that it was illegal to import bear gall, but that it was also very valuable in the U.S. The attendant was identified, but denied having any conversations with the passenger or taking anything from a passenger, a violation of airline rules. A subsequent investigation revealed that the attendant did acquire six vials of bear gall product from the passenger, and that the product was consistent with Asiatic Black Bear, an Appendix I listed species. The attendant ultimately paid a $1,500 fine for submitting false documents and accounts, and unlawfully importing wildlife into the United States.

Twin Cities Inspection Activities

The Minneapolis/St. Paul International airport has become a gateway for hunters returning from Canada, particularly Saskatchewan which has experienced dramatic increases in both waterfowl and big game hunters in recent years. During the 1999 Saskatchewan big game season, "Operation Distant Check" was implemented at the Minneapolis/St. Paul airport. This operation involved Service Agents and Wildlife Inspectors, and Saskatchewan Conservation Officers who as a team conducted interviews and inspections with hunters returning to the U.S. from Canada. In addition to the outreach efforts that were achieved, 22 individuals were cited in federal court for violations including failure to declare wildlife, overlimits of wildlife, and other Lacey Act violations. To date, over $18,500 in fines have been collected for these violations. Additionally, Saskatchewan Officers were able to interview returning U.S. hunters and identify Canadian violations involving Canadian guides, outfitters, and residents. Numerous violations occurring in Canada were documented, and will be followed up in the Canadian court system.

Service Inspectors and Special Agents in Chicago team up to combat illegal wildlife trade at the Region's only designated port. Violation notices issued during the past year brought over $15,000 in fines for unlawful imports and exports of wildlife.

A shipment of venomous reptiles imported from Indonesia in violation of IATA (International Air Transport Association) requirements of the CITES permit, included taipan, spitting and king cobras, and a viper that had escaped from its enclosure. The importer was planning to remove the dangerous reptiles from their shipping crate and transport them to Wisconsin secured only by their cloth bags. The airline was heavily fined for the violation, and the importer abandoned the inhumanely shipped animals.

Chicago Inspection Activities

Several years ago, a Chicago area lawyer imported in his accompanying baggage from Cameroon, two Olive Ridley sea turtle shells, six hinge-back tortoise shells, two elephant ivory carvings, eight pair of elephant ivory ear rings, nine monitor lizard skin wallets, and nine elephant ivory walking canes. Not only had the importer failed to declare the wildlife on his customs form, but after the first few items were discovered, the importer denied having additional items and claimed that they were for personal use only. The items were seized and abandoned, but further investigation revealed the wildlife articles were intended to be sold at a relative's store. The importer moved from the Chicago area before criminal charges were filed, but he was located last year living in Atlanta, Ga.. He was interviewed and issued violation notices totaling over $4,600. After the fines were paid, several of the wildlife items were donated during African-American history month to DuSable Museum of African-American History in Chicago.

The Wildlife Inspectors at O'Hare International Airport are actively involved in outreach activities. U.S. Customs passenger service representatives schedule an average of 10 tours each month at the international facility. The tours average 20-30 people per group. Presentations provided by the Wildlife Inspectors are well received and considered the most interesting. Participation in these tours provides an opportunity to provide wildlife educational outreach to thousands of international travelers each year.

A three month exhibit on the Service's Wildlife Inspector program was featured at the Lizzardo Museum this year. The exhibit received considerable press in local newspapers and community calendars. Wildlife Inspectors gave a special presentation to interested museum goers.

In addition to the programs conducted at the airport, the Chicago Wildlife Inspectors have provided outreach in the nearby community to a number of different groups. In addition to local school, scouting and college groups they participated in special outreach programs such as Gang Resistance Education and Career Awareness, Take Your Child to Work Day, and job shadowing in the Expanding Horizons program.

Assisting Service Regions

This year saw a record number of requests for assistance from other Service enforcement regions and foreign governments. Requested assistance included executing search and seizure warrants, interviewing witnesses and suspects, and working in cooperative investigations. These joint efforts exemplify the effectiveness of enforcement groups working together to combat wildlife crime, which is increasingly becoming national and global in scope.

Training State and Federal Agencies

Regional agents are involved in a wide range of training activities - sharing their expertise and providing outreach efforts to other Service programs, and other state and federal organizations. For example, the Service agent in Iowa again provided instruction at the Iowa Law Enforcement Academy in courses ranging from the history, structure, and organization of the Service to the various statutes enforced by Service enforcement personnel. To date, he has taught more than 1,520 new law enforcement officers since this program began.

In October 1999 an overview of the region's three year freshwater clam investigation was presented to about 40 state and federal wildlife biologists at the region's Annual Endangered Species Coordinator's meeting.

In November, 1999, Service agents presented two days of train-

ing to the Illinois Department of Natural Resources recruit training class for Conservation Police Officers. Topics included: federal court procedures, sentencing guidelines, environmental investigations, and federal laws. Similar presentations were made this past year at the Missouri Department of Conservation

In addition to the subject matter training described above, weapon handling and training has been provided to the Division of Refuges as well as to a number of state agencies. This training also included instructor training in the form of non-lethal firearms training and techniques.

Cooperative State-Federal Enforcement Actions

On a number of occasions Service agents provided assistance to enforcement task force activities engaged in by the Missouri Department of Conservation and the Missouri Highway Patrol. During two of these operations, the following violations were documented: 47 wildlife violations and 17 non-wildlife violations.

Goals for Fiscal Year 2001

During Fiscal Year 2001, the Law Enforcement Program will :

--Continue documenting violations which have the most significant impact on the wildlife resource, such as wild populations of federally protected species, and species protected by state of foriegn laws, where there is an emphasis on unlawful commercial exploitation and/or habitat destruction or modification.

--Aggressively prosecute individuals, groups and criminal enterprises associated with such violations.

--Continue promoting and encouraging voluntary compliance with federal wildlife laws through public educational and awareness efforts, and create a deterrent effect through successful prosecutions and outreach efforts.

Fiscal Year 2000 Accomplishments

October 1999

1. U.S. Attorneys Learn Details of Wisconsin's Statewide HCP for Karner Blue Butterfly

Madison Law Enforcement Office, Wis.

On Oct. 14, 1999, Endangered Species Coordinator Cathy Carnes of the Green Bay Field Office, and Special Agent Ed Spoon of Madison Law Enforcement Office, gave a 90-minute briefing on the recently-issued Incidental Take Permit and Habitat Conservation Plan (HCP) for the endangered Karner blue butterfly to members of the Eastern and Western Districts of the United States Attorneys Offices at the U.S. Attorneys Office in Madison, Wis. The presentation included slides and video that described the federally-endangered butterfly's biology, and to illustrate unique features of the HCP.

The Karner Blue butterfly respects no political boundary, with occupied habitat occurring in both judicial districts of Wisconsin. Representing the United States Attorneys Offices were Matthew Jacobs, Chief of the Economic and General Crimes Section of the Eastern District in Milwaukee, and John Vaudreuil, Senior Litigation Counsel for the Western District in Madison.

Carnes and Spoon discussed the enforcement implications of the HCP with the prosecutors. By briefing them on this unique endangered species initiative, the Service hopes to have strong support from the U.S.. Department of Justice, should a criminal violation of the Endangered Species Act occur. (**10/14/99**)

2. Law Enforcement Agent ProvidesTribal Conservation Officers WIth Eagle Update

Madison Law Enforcement Office, Wis.

On Oct. 18, 1999, Special Agent Ed Spoon sent mailings to 33 Tribal Conservation Officers in Minnesota, Wisconsin and Michigan. The information was in followup to a class on "Identification of Eagle Feathers and Eagle Parts" taught to the officers by Agents Spoon and Sam Friberg, in September 1999. The mailing updated the tribal officers on the new eagle transportation regulations issued by the Service in September 1999, and included contact information for Special Agent offices in Minn., Wis., and Mich.. (**10/18/99**)

December 1999

3. Izaak Walton League Learns Service's About Law Enforcement Efforts

Peoria Law Enforcement Office, Ill.

Special Agent Jerry Sommers presented information about the Service and its law enforcement program to the Peoria, Ill., Chapter of the Izaak Walton League Dec. 7, 1999. Sommers also explained the many wildlife statutes and regulations Service law enforcement agent are charged with enforcing, illustrating his points with numerous real-life examples from past investigations, how Service agents work with the federal courts and state agencies. (**12/7/99**)

January 2000

4. Lawyer Pays Stiff Fines For Smuggling Endangered Species

Chicago Law Enforcement Office, Ill.

A Chicago area attorney paid $4,615 in fines after attempting to illegally import endangered wildlife parts from Africa in January. Spurgeon Green, III , was returning to the U.S. from Cameroon, Jan. 6, 1999, and declared "No wildlife" to U.S. Customs inspectors. A routine search of Green's luggage turned up numerous wildlife parts, including two olive ridley sea turtle shells; six hinge-back tortoise shells; two elephant ivory carvings; eight pair of elephant ivory ear rings; nine monitor lizard skin wallets and nine elephant ivory handle and tip walking canes.

Green denied having any more wildlife products and stated that the items were for his personal use. After additional wildlife items were discovered, Mrs. Green commented they were for a relative's store. All of the wildlife products were seized, and later abandoned for violations of the Endangered Species Act and the African Elephant Conservation Act.

Green subsequently relocated to Atlanta, Georgia. With the assistance of Service special agents in Atlanta, Green was interviewed and violation notices were issued. Green paid the fines Jan. 27, 2000. Several of the seized items were donated to the DuSable Museum of African-American History in Chicago, where they will be used for African wildlife education. (**1/27/00**)

Continued next page.

5. Illinois Dove Hunters Charged Under New Baiting Regulations

Springfield Law Enforcement Office, Ill.

Three Illinois dove hunters were charged Jan. 28, 2000, in U.S. District Court, Central District of Illinois, for violations of the new baiting regulations. The subjects were charged with taking doves on or over a baited area, placing and directing the placement of bait, and killing an overlimit of doves.

New provisions of the Migratory Bird Treaty Act (16 USC 704) carries penalties up to $15,000 per count and/or six months in prison for placing bait.

This is the first baiting case to be charged in Illinois under the new law. The investigation was a joint effort by Special Agent (SA) Timothy Santel of the Service's Law Enforcement Office in Springfield, Ill., and the Illinois Department of Natural Resources.

After a sunflower field was located located from the air by SA Gerry Sommers, the field was inspected and found to be supplemented with additional (new) sunflower seeds. The new regulations now require officers to prove the hunters knew or reasonably should have known that the area was baited. In this situation, where sunflower seeds are added to existing sunflower seeds, proving intent is made more difficult without an admission by the hunters.

Law enforcement officers observed the hunters kill and attempt to hide an overlimit of doves before making contact. Each hunter was interviewed seperately. Two of the hunters told officers that they were unaware of the bait (supplemented sunflower seeds) as well as the overlimit. The third hunter admitted to placing the bait in the field. He also said the other hunters knew of the supplemented seeds, and that one of them drove the truck that pulled the seed spreader. (**1/28/00**)

February 2000

6. Michigan Contaminant Site Cleaned Up

Ann Arbor Law Enforcement Office, Mich.

After several months of monitoring, DSC, Ltd. has cleaned up its act. DSC, Ltd., formerly known as McClouth Steel, had an open oil pit on its property. Many complaints were received about oiled birds, but the the former owners (McClouth Steel) went out of business and filed for bankruptcy protection. Special Agents O'Connor and Beiriger, along with Diane Sharrow of U.S. Environmental Protection Agency, have been working with the current owners, DSC, Ltd., to stop the exposure of migratory birds to contaminants. As more deterrents were set up, fewer bird remains were discovered. On the last site visit, no migratory bird remains were discovered. Additionally, an environmental activist who was recently at the site said the deterrents are effective and working well. (**2/1/00**)

7. Minnesota Man Convicted of Killing Endangered Gray Wolf

Duluth Law Enforcement Office, Minn.

Special Agent Sam Friberg and investigators from the Minnesota Department of Natural Resources worked together to prosecute a man who illegally snared a wolf in Northern Minnesota.

On Nov. 7, 1999, a two count Information charging Ward Del Poppenberg was filed through the U.S. District Court in Duluth, Minn. Poppenberg was charged with taking of an endangered species (gray wolf), and with possession and transfer of an endangered species.

Poppenberg pleaded guilty Feb. 14, 2000, to illegal possession and transfer of an endangered species and ordered to pay a $2,500.00 fine and was placed on probation for three years. The terms of probation include revocation of hunting and trapping priviliges and no possession of firearms. (**2/14/00**)

8. Four Pay Fines For Unlawful Moose Hunt

Chicago Law Enforcement Office, Ill.

Two Chicago area residents recently paid a $1,500.00 fines and forfeited their trophies as part of the outcome of a joint investigation between Service special agents and Newfoundland Conservation Officers. The investigators uncovered a scam involving U.S. hunters and two Newfoundland area hunting guides. The hunters killed two bull moose in Newfoundland, unlawfully tagged the moose with Newfoundland resident tags and transport their trophies to Illinois in violation of the Lacey Act. The U.S. hunters did not buy Newfoundland nonresident hunting licenses, nor were they guided by licensed guides supplied by a licensed outfitter as required by Newfoundland law. The Newfoundland guides received a total of $6,000.00 (Canadian) in fines and each lost their hunting privileges for five years. (**2/15/00**)

9. Getting The Lead Out - Quad Cities Skeet and Trap Club Investigation Closed

Des Moines Law Enforcement Office, Iowa

Service law enforcement agents have finally concluded a six-year investigation into lead poisoning of waterfowl on Nahant Marsh in Eastern Iowa. Nahant Marsh is a resting and feeding place for thousands of migrating birds along the Mississippi River corridor. The marsh is also a nesting area for ducks and geese and a feeding area for bald eagles. Considered 'waste land' on the outskirts of Davenport, Iowa, the 100-acre marsh was acquired by the Quad Cities Skeet and Trap Club 25 years ago at little cost. The club used construction fill from a growing Davenport to fill large areas of the marsh, creating land where its club house, parking lots and shooting areas now sit. The club offered skeet, trap and sporting-clays shooting areas, all of which resulted in spent lead shot being deposited directly into Nahant Marsh for more than 25 years.

In the spring of 1994, Special Agent Walt Kocal responded to a complaint of sickened waterfowl observed at the marsh. Agent Kocal and his brother Ed, an Iowa conservation officer, made numerous trips out into the marsh during migration seasons to document and collect evidence of lead-poisoned waterfowl. Many birds were located by Kocal's dog hiding in the uppermost, shallow reaches of the marsh in thick, tangled areas of brush where club shooters rarely ventured. In fact, without a good dog to locate, and flush out the weakened birds, few if any waterfowl would have been collected. Evidence of scavenged waterfowl carcasses was observed throughout the marsh. Waterfowl bones were also collected and submitted for lead analysis. Canada geese and ducks were captured and collected and submitted to the Fish and Wildlife Forensics Laboratory at Ashland, Oregon, and the National Wildlife Health Center at Madison, Wis. for necropsy and analysis for lead.

Lab results showed high exposure to lead, with kidney lead levels as high as 85 ppm (parts per million) in one mallard hen. Levels of just 8 ppm are considered lethal to waterfowl. One mallard necropsied had more than 30 lead shot pellets in its gizzard and a single Canada goose gizzard held 50 shot. Just one single lead pellet can cause the death of waterfowl by poisoning.

The officers enlisted the assistance of Ecological Services biologists at the Rock Island Field Office to begin scientific surveying for lead shot in the marsh sediments. Using GPS units to set up a grid sampling system and scientific sampling equipment, numerous sediment samples were taken. Some samples, about the size of a handful of mud, were found to contain as many as 250 lead shot pellets per grab.

Through interviews of the club owners and review of their ammunition purchase records, Agent Kocal calculated a conservative estimate of the shot shells discharged at the club over the years had resulted in an estimated 250 tons of lead shot deposited into the marsh. Much of that lead shot remained available to feeding waterfowl over the years because of cattails and other vegetation kept it suspended in the shallow waters.

The club owners protested that they never saw any birds suffering from lead poisoning on the marsh. Coverage of the issue by local news media agitated local sportsmen, who protested the possible loss of their favorite target practice area. As protests grew, Agent Kocal eventually responded to a Congressional Inquiry.

The Environmental Protection Agency (EPA) was called in to assist and Nahant Marsh was declared an EPA Superfund Site. Dredging efforts began, with oversight provided by Region 3 Ecological Services. More than 50,000 cubic yards of sediment were removed from the marsh. An additional 10,000 cubic yards of lead-contaminated soil were removed from the upland shooting areas. The soils were then hauled off-site for proper disposal.

The club eventually transferred ownership of the marsh to the city of Davenport, Iowa, for use as a natural education center. Monitoring of the site will continue by EPA and Ecological Services. Since the cleanup was completed, no further incidents of waterfowl lead poisoning have been documented.

Thousands of migratory shorebirds, and nesting ducks and geese as well as migrating bald eagles have been saved from exposure to an estimated 250 tons of spent lead shot in Nahant Marsh along the Upper Mississippi River, in Scott County, Iowa. The problem was first identified and addressed by FWS Law Enforcement Division and then the marsh was cleaned up by Ecological Services Division and the EPA. Nahant Marsh has been transformed from a potentially lethal stopping point for migratory birds into a nature education area.

Continued next page.

(**2/28/00**)

March 2000

10. Clam Case Presentation to Iowa DNR Statewide Conference

Des Moines Law Enforcement Office, Iowa

At the request of Lowell Joslin, Chief of Law Enforcement Bureau of the Iowa DNR, Special Agent Walt Kocal teamed up with Iowa Conservation Officer Tom Campbell and gave a presentation on 'The Clam Case' (Mississippi Valley Shell Company Investigation) to more than 300 attendees at the Iowa DNR Annual Statewide Conference held at Iowa State University, Ames, Iowa.

The audience was composed of the entire Iowa DNR Fish and Wildlife Division, including fisheries, wildlife and law enforcement bureaus. They appreciated the presentation and asked numerous questions and gave the officers plenty of positive comments at the conclusion, with thanks to Law Enforcement for our efforts in protecting the dwindling fresh water mussel resources of the Midwest.

There are more than 300 species of freshwater mussels in the U.S. with 18 already extinct, 42 federally endangered and 70 listed as candidates for protection. No other widespread animal group in North America has been jeopardized to this extent. Severe overharvest and pollution continue to threaten their very existence.

Midwest freshwater mussels are highly sought after for their large size, thick shell and good color, to be cut into round nuclei and inserted into oysters for the creation of cultured pearls.

This case was a four-year, cooperative State and Federal investigation targeting the illegal interstate and international commercialization of Midwest freshwater mussels by Mississippi Valley Shell Company (MVS) of Muscatine, Iowa. MVS was formerly the second largest exporter of freshwater mussel shell in the U.S.

The Agents executed five federal search warrants in Iowa, Illinois, Minnesota, Wisconsin and Oregon. More than 120,000 documents were seized and analyzed by the Agents in this case. Evidence was then presented to federal grand juries in Des Moines who returned a 72 felony count indictment against the company and eight individuals. The case concluded with guilty pleas from all those charged. The final totals assessed in sentencings for the wildlife crimes were $257,750 in fines, $166,739 in restitution (to be shared by several states), 63 months imprisonment, and 34 years of probation. Additionally, one subject received a 93 month sentence for a witness retaliation conviction for assaulting and threatening to kill a witness.

At the conclusion of the Agent's presentation, DNR biologist Carl Priebe took the microphone and addressed the group. Priebe was a member of the first of two Des Moines Grand Juries which heard the Officer's and Agent's testimonies in this investigation. Priebe told the audience that the FWS Agents and DNR Officers appeared even more professional and better prepared with their evidence and testimony than the numerous other agents from the FBI., postal inspectors and various other federal agencies who testified before him during his 10 month tour of duty on the federal grand jury. (**3/1/00**)

11. Warbex Can Kill

Jefferson City Law Enforcement Office, Mo.

A farmer in McDonald County, Mo., is the subject of continuing federal criminal investigation after alledgedly using the veterinary drug 'Warbex' to kill birds using his feed lot. The farmer, in a written statement to Service law enforcement agents, admitted to mixing Warbex with oats, then spreading it around a feed lot to kill nuisance black birds. Service special agents, accompanied by Missouri Conservation agents recovered more than 1,400 dead birds—killed by the warbex. Some of the dead birds included: 638 brown-headed cowbirds, 443 red-winged black birds, 240 grackles, six red tailed hawks, one Cooper's hawk, 21 eastern meadowlarks, two dark eyed juncos, and one killdeer.

'Warbex' is a veterinary drug used to kill parasites in agricultural animals and is regulated by the Food and Drug Administration (FDA). The farmer initially denied responsibility, but later confessed in a written affidavit.

Service special agents contacted the FDA's Criminal Division and are now conducting a joint investigation. Once the investigation is completed the case will be turned over to the United States Attorney's Office for filing charges. (**3/5/00**)

12. Special Agent Investigating Eagle Poisoning

Madison Law Enforcement Office, Wis.

Service Special Agent Ed Spoon is investigating the fatal poisoning of an immature bald eagle found dead

Jan. 10, 2000, in western Iowa County, Wisconsin. Necropsy and laboratory analysis revealed that the eagle had consumed a domestic cat that had been euthanized with a drug available only to veterinarians. The investigation is continuing. (**3/9/00**)

13. Sophisticated Science Helps Catch a Poacher

Madison Law Enforcement Office, Wis.

A 24 year-old Wisconsin man was sentenced in federal court March 10, 2000, to 30 days in jail, fined $2,000 and ordered to perform 1,000 hours of community service for violations of the Lacey Act. Clyde H. Masten III of Portage, Wis., had earlier pleaded guilty to one count of violating federal law by poaching a trophy buck in Wisconsin, then transporting the deer to the Upper Peninsula of Michigan. Once in Michigan, Masten and an accomplice staged the hunting of the deer on videotape. Masten then placed a Michigan non-resident archery tag on the deer and hauled it back to Wisconsin. At the time, Masten's hunting privileges in Wisconsin were under three-year revocation. Masten has 27 prior convictions for violating Wisconsin fish and wildlife laws.

During the investigation, Masten lied in a written statement to Service Special Agents, claiming the deer was killed legally in Michigan. Special Agent Ed Spoon then worked with Dr. Brian Beard at the University of Wisconsin's Geology and Geophysics Department, to build corroborating evidence in the case.

Dr. Beard analyzed the strontium isotope content of the poached deer's antlers, and compared it with known values for buck white-tailed deer living in the Upper Peninsula and in Columbia County, Wis., where the deer was killed. Dr. Beard's analysis showed conclusively that the deer could not have been killed in Michigan, and its strontium levels were identical with deer killed in Wisconsin's Columbia County.

This is the first time that strontium analysis has been used to solve a wildlife case.

U.S. Magistrate Judge Stephen L. Crocker sentenced Masten to serve 30 days in jail with work release privileges. Masten was also fined $2,000 and ordered to perform 1,000 hours of community service. Judge Crocker placed Masten on five years probation, during which he may not hunt or fish in the United States; may not purchase a hunting or fishing license; may not possess firearms or fishing equipment and may not accompany anyone engaged in hunting or fishing.

This investigation was a cooperative effort among the Wisconsin Department of Natural Resources, University of Wisconsin-Madison and the Service.

The case was prosecuted by Assistant United States Attorney Timothy O'Shea. (**3/10/00**)

14. Woman Pays Fine for Illegal Tiger Sale

St. Peters Law Enforcement Office, Mo.

Belinda Gillming paid a $1,000 fine Mar. 14, 2000, for the interstate sale of an endangered tiger cub. This tiger cub was placed in a cage next to a larger tiger that had also been purchased in interstate commerce. The larger tiger broke through his cage and killed the tiger cub. The larger tiger was shot and killed by the owner. During the investigation it was documented that Gillming sold ten tigers in the same year to several different buyers in several states. All sales were documented as 'Donations' on the USDA forms. (**3/14/00**)

15. Zinc Phosphide Poisons Owl in Illinois

Springfield Law Enforcement Office, Ill.

Special Agent (SA) Timothy Santel received information from a wildlife rehabilitator that a sick great-horned owl was retrieved from a farm in Piatt County, near Weldon, Ill., and the owl later died in the care of the University of Illinois. Lab reports confirmed that the owl died from poisoning. In this case, the owl dddied from zinc phosphide poisoning.

SA Santel contacted the Illinois Department of Natural Resources who sent an officer to the farm. Apparently a farmer had a rat infestation problem and put out a poison known as 'Eraze'. The components of the this poison is zinc phosphide.

A followup investigation will likely be conducted by SA Santel to determine if the poison was properly used in accordance with the label. No other migratory birds have been observed sick or dead in the area. It is suspected that the owl died from secondary poisoning since the farmer claimed that the poison was placed in a tube underground. The farmer did note that the owl that died was one of a pair that stayed around his farm. The farmer commented that he hasn't seen the other owl in the last few days either. (**3/17/00**)

Continued next page.

16. Special Agents Provide Federal Conservation Law Training to Illinois Conservation Officer Recruits

Jefferson City Law Enforcement Office, Mo.

Service special agents from Illinois and Missouri taught 16 hours of classes to the new Illinois Conservation officer recruits March 21, 2000. The agents covered federal wildlife laws including the Lacey Act, Migratory Bird Treaty Act, Endangered Species Act, Archaeological Resource Protection Act, National Wildlife Refuge Administration Act, and the Eagle Act. Federal rules of evidence, United States Deputy Game Warden Memorandum of Understanding, and various enforcement scenarios were also covered. After one year on the job, conservation officers are eligible to receive a U.S. Deputy Game Warden commission. This commission will allow the officers to enforce all the federal wildlife laws in Illinois and surrounding states. (**3/21/00**)

17. Trumpeter Swan Shooter Convicted in Illinois

Springfield Law Enforcement Office, Ill.

An Illinois man charged with shooting a collared trumpeter swan in December 1999, was convicted March 22, 2000 in federal court in Springfield, Ill. Edward Zulauf, of Jacksonville, Ill., was fined $250, $10 court costs, and ordered to pay restitution of $500 each to the Wisconsin Department of Natural Resources and Treehouse Wildlife Center in Brighton, Ill..

Service Special Agent Tim Santel assisted Illinois Conservation Officers investigate the swan shooting which ocurred in Morgan County, Ill., December 23, 1999. The injured swan, bearing yellow neck collar E72, was part of the Wisconsin DNR Trumpeter Swan Recovery Program. The swan was recovered by the Illinois DNR and the bird was sent to Treehouse Wildlife Center for rehabilitation. The swan was later sent to the University of Minnesota for further treatment, however the swan's wing was later amputated as a result of the shooting. (**3/22/00**)

18. Wisconsin Park Naturalists Updated on Federal Wildlife Laws

Madison Law Enforcement Office, Wis.

Special Agent Ed Spoon of the Madison Law Enforcement Office gave a one-hour presentation to 20 park naturalists, wildlife ecologists and technicians attending the Wisconsin Department of Natural Resources' annual Fur School March 28, in Madison, Wis. SA Spoon addressed the group on the topic of, 'The Lacey Act, CITES and Federal Law.' The presentation enhanced the group's understanding of federal wildlife laws and the importance of law enforcement. (**3/28/00**)

April 2000

19. Subjects Charged in Sale of Black Bear Gall Bladders

Bay City Law Enforcement Office, Mich.

Special Agents of the U.S. Fish & Wildlife Service are working with Canada's Ontario Ministry of Natural Resources to help prosecute multiple defendants in one of the largest commercial bear poaching cases in Canadian history. The cases involves the largest purchase of illegal black bear parts in Canada, and has lead to 51 charges being filed in northeastern Ontario.

For 18 months, Service special agents posed as Americans dealing in illegal wildlife parts. The special agents documented widespread illegal commerce in black bear galls, destined for the medicinal trade as well as commerce in other North American animal parts. During the investigation, special agents purchased and seized 82 black bear gall bladders, two black bear hides and six racks of moose antlers.

The undercover phase of the operation culminated in December 1999, with multiple arrests, interviews and searches. To date , most of the primary defendants in the case face formal charges by Canadian Officials. (**4/10/00**)

20. Service Joins State and Federal Law Enforcement at Missouri Road Checks

St. Peters Law Enforcement Office, Mo.

Service law enforcement agents joined law enforcement officers from Missouri to two operate wildlife road checks April 30 and May 7, 2000, in southern Missouri. Agents from Missouri Department of Conservation, U.S. Forest Service, Missouri State Highway Patrol, County Sheriffs manned the April road block near the Arkansas border in Thayer, Mo., resulting in 27 wildlife violations, 53 warnings and 15 citations from the Missouri State Highway Patrol. Wildlife violations consisted of 25 turkey violations, one bass violation and one fur bearer violation. Of the 27 violations, 18 were committed by non-Missouri residents. One

hundred sixty six vehicles out of 1,714 passing vehicles were diverted for inspection.

The May wildlife road check ocurred in Douglas County, Mo., where 276 vehicles passed through the road block with 44 vehicles diverted for inspection. Five wildlife violations were documented, and two citations issued by the Missouri State Highway Patrol. All five wildlife violations were committed by non-residents. (**4/30/00**)

21. Demand For Outreach Grows at O'Hare Airport

Chicago Law Enforcement Office, Ill. (Inspection)

More than 20 outreach presentations were given by inspectors at Chicago's O'Hare International Airport during April 2000. The popularity of the outreach presentations have created more demand than the office is able to meet and several reqests were not honored. Inspectors were unable to staff the Chicago Academy of Sciences Earth Day, and high school and elementary school Earth Days, and various other groups on airport tours.

Presentations made included the usual elementary school groups and scouting groups. We also made presentations to High School and College groups touring the airport. Several especially significant events occurred, including:

1) More than 30 acadmeic counselors from 17 colleges, were given career oriented presentations April 4, 2000, as part of the Illinois Small College Placement Association efforts to advise students on careers with the Service.

2) A presentation at Glenbard South High School Earth Day April 28, reached 350 fourth grade students and much of the student body at the high school. Newspaper coverage of the event featured wildlife seized by Service law enforcement.

3) Airport employee's "Take Your Child to Work Day" presentations reached an estimated 1,000 people April 27.

4) Small groups of inner city children in the "Expanding Horizons" educational program "job shadowed" a Wildlife Inspector April 18 and April 20, 2000. (**4/30/00**)

May 2000

22. O'Hare Outreach Activities in May

Chicago Law Enforcement Office, Ill. (Inspection)

The Wildlife Inspection program made numerous outreach presentations in May, both for groups visiting O'Hare and at other locations. Of particular significance in Diversity Outreach was the College of DuPage Law Enforcement Career Day, and Morton 'College' Career Day for 8th graders and Expanding Horizons Program Job Shadowing. (**5/30/00**)

June 2000

23. Agents Train Illinois Conservation Police Officer Recruits

Springfield Law Enforcement Office, Ill.

Service special agents completed training for the third group of new Conservation Police Officers (CPO) hired by the Illinois Department of Natural Resources. Since fall 1999, Service agents have provided training to nearly 50 new recruits with Illinois DNR who have been recently hired by the State of Illinois through use of the federal COPS grants.

Special Agents Timothy Santel, Springfield, Ill., Jerry Sommers. Peoria, Ill., and Danny Burleson, St. Peters, Mo., conducted two, day-long training sessions concerning federal laws and regulations, including the Endangered Species Act, Wildlife Refuge Act, Migratory Bird Treaty Act, Lacey Act, and more. In addition, the new officers received hands-on experience in species identifications as enforcement techniques.

Over the years, the Division of Law Enforcement has been providing training to the DNR officers at the Illinois State Police academy. As a result, the men and women hired soon become aware of the various federal laws and work closely with Service agents. Numerous joint investigations have resulted as a result of the close working relationship between the Illinois DNR law enforcement officers and Service special agents. (**6/1/00**)

24. Iowa Radio Station Fined $10,000.00

Des Moines Law Enforcement Office, Iowa

An Iowa Quad-Cities rock 'n roll radio station has paid $10,000.00 in fines and restitution in Federal Court for sponsoring a party last summer that left trash strewn along a popular Mississippi River beach near Princeton, Iowa. The beach is part of the Upper Mississippi River National Wildlife and Fish Refuge, administered by the Service.

Connoisseur Communications, which owns radio station WXLP-

Continued next page.

FM, also known as "97X," was sentenced to pay $9,800 restitution to the Service and a $200 fine after pleading guilty in U.S. District Court at Davenport, Iowa to a federal misdemeanor charge of littering public lands. The charge was based on a beer party and live broadcast held on the Refuge which attracted several hundred boats and about 500 participants who dropped beer cans, human waste and other trash along the beach.

Under a plea agreement, WXLP admitted to sponsoring the '97X Boat Patrol Party' which was announced over the stations airwaves. The station did so without acquiring the required Refuge permit from the Upper Mississippi River National Wildlife and Fish Refuge where the beach is located.

In addition to the fine and restitution, the Judge ordered the radio station to broadcast 10 public service announcements (PSA) about environmental issues between the hours of 9 a.m. and 3 p.m. by July 31. (**6/6/00**)

25. Canadian Big Game Outfitter Convicted of Wildlife Violations, Indiana Hunter Fined, Loses Trophy

Indianapolis Law Enforcement Office, Ind.

A cooperative investigation involving Service special agents and Canadian law enforcement officers resulted in a recent conviction of a Canadian outfitter. Robert Allen Wayne Kaartinen of Winnipeg, Manitoba, was fined $6,000 plus court costs June 26, 2000, in Provencial Court for violations of the federal Wild Animal and Plant Protection and Regulation of International and Interprovencial Trade Act (WAPPRIITA) and the Manitoba Wildlife Act (MWA).

Kaartinen, a big game outfitter in Winnipeg, pled guilty to one count of transporting parts from an illegally taken black bear from one province to another, one count of obstructing wildlife officers while in the execution of their duties, and one count of failing to provide required guiding services to his clients.

The conviction is the result of a Service investigation into allegations that four Indiana hunters had been taken by a Guide into Northwestern Ontario to illegally hunt black bear during spring 1998.

Law enforcement officers received information that the big game outfitter had dropped off his clients at a remote lake in Eastern Manitoba. After hunting for two days without success, the outfitter returned to check on the hunters and flew them into Ontario to complete their black bear hunt. One Indiana hunter, Robert Craig Sibbitt, killed a trophy-sized black bear in Ontario without a proper hunting license. Kaartinen then transported the skull and hide into Manitoba for taxidermy purposes. When officers began interviewing suspects and witnesses, the Kaartinen instructed the witnesses to give false information.

The international investigation involved wildlife officers from Environment Canada, Manitoba Conservation, the Ontario Ministry of Natural Resources, the United States Fish and Wildlife Service and the Indiana and Wisconsin Departments of Natural Resources.

Three search warants led to the seizure of a mounted 400 pound black bear and a trophy black bear skull, which would have ranked as Ontario's third largest in 1998.

In June 1999, Robert Craig Sibbitt, the Indiana hunter who killed the black bear, pled guilty in a Winnipeg Provencial Court to illegally transporting the black bear meat from Ontario to Manitoba and then to Indiana. He was fined $3,000.00. The mounted black bear was ordered forfieted to the Crown.

WAPPRIITA, which is similar to the U.S. Lacey Act, was passed by the federal government in 1996, and provides wildlife officers with a new enforcement tool to pursue poachers who transport the parts or derivatives from illegally taken wildlife from one province to another or export wildlife from Canada without proper permits. Maximum penalties under WAPPRIITA are $150,000.00 in fines and/or up to 6 months in jail for individuals, and $300,000.00 and/or up to 5 years in jail for corporations. (**6/26/00**)

July 2000

26. Paul Asper Pleads Guilty to Wildlife Smuggling, Firearms Violations

Chicago Law Enforcement Office, Ill.

On July 18, 2000, Paul Asper appeared before U.S. District Court Judge Gottschall for the Northern District of Illinois in Chicago and pleaded guilty to two counts of a four-count felony indictment.

Count 1 charged Asper with 18 USC 545 (U.S. Customs-Smuggling) predicated on failure to declare imported wildlife (in personal accompanying baggage) specifically, two black rhinoceros horns and the jaw bone of an argali sheep; both of which are classified Endangered.

Count 4 charged Asper with the

unlawful possession of a firearm by a convicted felon.

Sentencing is tentatively scheduled for November 2000.

Briefly, Asper was arrested on Christmas Eve of 1998 after returning from an Argali sheep hunting trip in China. Asper was sent to Customs Secondary for a more intensive search of his luggage, due to a prior US Customs Beanie Bady trademark infringement violation alert. Asper's baggage was found to contain two black rhinoceros horns, one Argali sheep jaw bone and one set of Mongolian gazelle horns, as well as his hunting rifle. Asper failed to declare any of this wildlife on his U.S. Customs Declaration form. He also failed to declare the wildlife with the Service. Upon descovery of the black rhinoceros horns by a U.S. Customs inspector, Wildlife inspectors queried an automated law enforcement database, which uncovered a prior history of wildlife violations for Asper and he was later arrested. (**7/18/00**)

27. Wisconsin Man Charged With Violations of Eagle Laws

Madison Law Enforcement Office, Wis.

A 25 year-old Wisconsin man was charged in federal court in Madison, Wisc., July 20, 2000, with violating the Bald Eagle Act and Golden Eagle Protection Act. The indictment charges Antonio Alvarez, Lac Du Flambeau, Wis., of taking and possessing a bald eagle and its parts. If convicted, Alvarez faces a maximum penalty of up to one year imprisonment and up to a $100,000 fine. The charge against Antonio Alvarez is the result of an investigation conducted by the Division of Law Enforcement, Madison, Wis., and the Lac Du Flambeau Police Department. (**7/20/00**)

August 2000

28. Summer Increases Outreach Activities For O'Hare Wildlife Inspection Program

Chicago Law Enforcement Office, Ill. (Inspection)

Outreach activities by the Chicago Inspection Program continued through the summer, with more emphasis on adult and professional groups. Staff participated in diversity outreach by our involvement in GREAT - Gang Resistance Education and Training a career awareness program for inner city children.

The summer months naturally reduced the school group requests for outreach. However, there were more opportunities to reach wildlife professionals, teachers and other adults. Groups reached included Rainforest Workshop, Lincoln Park Zoo employees, Field Museum employees, Cook County Farm Bureau and the Springbrook Nature Center. Several High school and college student groups visited the airport for talks, although with several groups of elementary and high school teachers. Training was provided to two brokerage companies and American Eagle employees. An American Airlines employee worked with us to develop an accurate article about wildlife laws to be included in their monthly traveler magazine. (**8/31/00**)

September 2000

29. Illinois Farmer Sentenced For Poisoning 27,000 Migratory Birds

St. Peters Law Enforcement Office, Mo.

Harvey Culli, an 81 year-old farmer from Mascoutah, Ill., was sentenced Sept. 13, to three years probation and fined $5,000 by a federal court in East St. Louis, Ill., for illegally poisoning 27,000 migratory birds. Culli poisoned the birds using wheat soaked in Furadan, an insecticide used to kill weevils in alfalfa. The poisoning occurred in October 1999, and included 20,000 red wing blackbirds, 5,000 cowbirds, 2,000 grackles and a small number of horned larks. The incident was investigated by Illinois conservation police and Service special agents. Culli had earlier pleaded guilty to one count of violating the Migratory Bird Treaty Act, and one count of misusing an insecticide, a violation of the Federal Insecticide Fungicide and Rodenticide Act (FIFRA). He was fined $4000 for violating the Migratory Bird Treaty Act, and $1000 for violating FIFRA. (**9/13/00**)

30. Special Agents Help Train Conservation Warden Recruits

Madison Law Enforcement Office, Wis.

Special Agents Greg Jackson and Ed Spoon, presented a three-hour training class to 18 Wisconsin DNR Conservation Warden recruits at Horicon State Wildlife Area in Horicon, Wis. Sept. 21, 2000. The training enhances cooperation and understanding between the Service and State conservation wardens in Wisconsin. (**9/21/00**)

Continued next page.

31. Iowa Man Sentenced to 10 Months in Prison for Eagle Act Violation

Des Moines Law Enforcement Office, Iowa

A Tama, Iowa, man was sentenced in a South Dakota federal court Sept. 22, 2000, to 10 months in federal prison and ordered to pay $5,000 restitution for illegally harvesting eagle parts and feathers in violation of the Golden Eagle Act. Steve Lyle Street, 28, was sentenced after pleading guilty to one count of take of a golden eagle. Street is one of several Native Americans apprehended following a 1998 investigation into the illegal killing and commercialization of eagles and their parts for the Native American pow wow trade by the U.S. Fish and Wildlife Service.

Street and another man had just returned to Iowa from an eagle killing trip on the Rosebud Indian Reservation in South Dakota, when a Service agent and Iowa Conservation Officers executed three search warrants on residences in the Tama, Iowa, area.

Two large suitcases filled with freshly-killed bald and golden eagle heads and eagle feet as well as leg-hold traps, a .22 magnum rifle and the sorted, packaged feathers and feet of numerous other raptor species were seized.

Federal arrest warrants were issued for the two subjects who fled Iowa after the searches were conducted. Steve Street had been held in federal custody for nearly eight months, after being arrested while hiding from authorities in the attic of a residence in Michigan City, Ind. He will be given credit toward his 10 month sentence for the time he has already served. He will also pay $5,000 restitution to the National Fish and Wildlife Foundation and complete one year of supervised probation. Two other subjects in the Investigation have also pleaded guilty and are currently awaiting sentencing.

The Service's Forensics Laboratory aided in identifying the various wildlife parts seized, and analyzed other evidence to determine cause of death. Illegal commercial trade in wildlife, its parts and products is second only to the illegal drug trade in overall dollar value, estimated to exceed $5 Billion dollars annually. Eagle parts are in demand by the Native Americans participating in the pow wow circuit, and by collectors of Old West Americana. Huge sums of money are paid for hard to get eagle feathers, feet, heads and other parts. Those eagle parts are used to create and repair Native American dance costumes, which in turn are used to compete in dance contests where tens of thousands of dollars in prize money goes to the best costumes/dancers. (**9/22/00**)

32. Wildlife Inspection Program Featured in Special Lizzardo Museum Exhibit

Chicago Law Enforcement Office, Ill. (Inspection)

Lizzardo Museum of Lapidary Art established an endangered species exhibit entitled 'Buyer Beware: Protecting Endangered Wildlife', utilizing specimens loaned to the Museum by the U.S. Fish and Wildlife Service. The exhibit run from July 5 - October 1, 2000. As a special feature, Wildlife Inspector Mike Iacomini complemented the exhibit with a special lecture presentation on September 23, 2000. The Service's partnership with the Lizzardo Museum allows the message of the Service's Wildlife Inspection Program to reach thousands of people. The exhibit received considerable press in local newspapers and community calenders. (**9/23/00**)

33. Border Check of Returning Duck Hunters Reveals High Compliance With Migratory Bird Laws

Chicago Law Enforcement Office, Ill. (Inspection)

Wildlife Inspectors Carmen Parkes and Mike Merida and Special Agent Sheila O'Connor with the assistance of U.S. Customs inspected returning hunters at the border ports of Algonac and Detroit, Michigan Sept. 25, 2000, the opening day for waterfowl hunting in the Southern Region of Ontario, Canada.

More than 80 hunters were inspected during an eight hour inspection period. Hunters were checked for compliance with Migratory Bird Treaty Act regulations pertaining to importing sport hunted migratory game birds. Only one violation was detected.

The Port of Algonac, Mich., receives over 1,300 import declarations of sport hunted waterfowl every year. U.S. hunters are attracted to the spectacular waterfowl hunting at Wapole Island, a First Nation Indian island in Ontario, Canada. (**9/25/00**)

34. Man Pays Fine For Posessing Stolen Eagle Feathers

St. Peters Law Enforcement Office, Mo.

A Santa Fe, New Mexico man paid a $5000 fine Sept. 25, 2000, for illegally possessing golden eagle feathers that he had obatined while living in Missouri. The 140 feathers were stolen from an Indian family in Illinois,

and then sold to the man who owned an art gallery in St. Louis. The feathers were eventually transported to New Mexico where the man had been operating another gallery. The feathers are being returned to the family. (**9/25/00**)

35. Second Iowa Man Sentenced for Killing Eagles

Des Moines Law Enforcement Office, Iowa

Gerald W. Oliver Jr., 32, of Toledo, Iowa, was ordered to pay $5,000 restitution and sentenced to 24 months probation after pleading guilty to one count of take and possession of a bald eagle. As part of a plea agreement, a second indictment count and a two count information were dismissed.

Oliver was one of several Native Americans apprehended in an investigation into the illegal killing and commercialization of eagles and their parts for the pow wow trade. The investigation was initiated by the Service and the Iowa Department of Natural Resources at Tama, Iowa, in February 1998, with leads to South Dakota, Illinois, Indiana, Montana and Colorado.

Service special agents learned that Oliver, an enrolled member of the Rosebud Sioux tribe, was killing eagles at the pow wow grounds of the Meskwaki Indian Settlement, near Tama, Iowa. A search of Oliver's residence turned up various migratory bird feathers and the freshly-severed head of an adult bald eagle hidden in the kitchen freezer. Oliver then led the Agent to the carcass of a second eagle, an immature bald, which was placed in the fork of a tree at the pow wow grounds, so that "the spirit of the eagle could return to the heavens". The head, feet, wings and tail of that bird had been severed and removed. The Fish and Wildlife Service Forensics Laboratory determined the immature eagle had been shot with a high-powered rifle.

The $5,000 restitution payment will go to the National Fish and Wildlife Foundation to be used for eagle research projects. The sentence was handed down by Chief U.S. District Judge Mark W. Bennett, in Cedar Rapids, Iowa the Federal Judicial District where these particular violations took place.

Two other subjects have also pleaded guilty in this investigation. Steve Street of Tama, Iowa, was sentenced to serve 10 months in Federal prison, $5,000 restitution and one year probation. His brother Lonny Street will be sentenced Oct. 10, 2000.

The illegal commercial trade in wildlife, parts and products is second only to the illegal drug trade in overall dollar value, estimated to exceed $5 billion dollars annually worldwide. While there is a legitimate use for eagle feathers in Native American religious ceremonies, a tremendous black market demand exists for eagle parts on the pow wow circuit in the U.S. and Canada as well as among those persons who collect Old West Americana. Huge sums of money are paid for hard to get eagle feathers, feet, heads and body parts. At the various pow wows held annually across North America, participants compete for tens of thousands of dollars in prize money which is awarded for the best authentic costumes and dances. Many of those traditional costumes are often composed of the feathers from more than one eagle.

It is hoped that the prosecutions in this case send a deterrent message to those persons who might consider illegally trafficking and commercializing in eagles and other federally protected wildlife species for personal gain.

Recent studies indicate that more than $100 Billion annually is generated in the U.S. economy directly from activities related to our public fish and wildlife resources. The public can help stop wildlife law violations by reporting suspicious activities to state and federal Wildlife Law Enforcement Officers and by refusing to purchase products made from protected species of wildlife. (**9/29/00**)

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National Wildlife Refuge System

Fiscal Year 2000 Annual Report
Region 3

--Photo by Scott Flaherty

New Refuge. *Otter Creek winds its way through Big Oaks NWR in southern Indiana. The 50,000 acre Refuge, built on the former Jefferson Proving Ground, was dedicated in July 2000.*

Program Description and Mission

The National Wildlife Refuge System is responsible for the acquisition and management of lands within the National Wildlife Refuge System for the purpose of assuring the perpetuation of wildlife populations for the American public. Additionally, work is done with private landowners and organizations to enhance wildlife populations on private lands. Region 3 manages 56 National Wildlife Refuges and Wetland Management Districts across eight states in the Midwest.

The blue goose, designed by J.N. "Ding" Darling, has become the symbol of the National Wildlife Refuge System

National Wildlife Refuges and Waterfowl Production Areas in Region 3 were host to over 7.6 million visitors during Fiscal Year 2000.

Summary of Fiscal Year 2000 Accomplishments

Wildlife Habitat Improvements

--Photo by Brian Pember

Planting Trees. Friends Group member Jim Eddy and Ranger Cindy Samples work with students planting trees during Arbor Day activities at Upper Mississippi River NW&FR.

During Fiscal Year 2000, refuge managers restored 3,900 acres of wetlands, 6,300 acres of grasslands, and 12 miles of rivers. They managed and improved habitat on 120,000 acres of managed wetlands, and 10,000 acres of moist soil units. In addition, we safely and successfully conducted prescribed burning on 57,000 acres of grass and forest lands on refuges throughout the region.

A Region 3 Strategic Fire Plan was developed by a regional and field workgroup; many of its recommendations, including the adoption of the FireBase workload analysis tool, are being immediately implemented.

Invasive species were controlled on 19,000 acres of habitat, but is still needed on over 102,000 acres of refuge habitat.

Refuge biologists conducted 477 wildlife and 179 habitat surveys during the year, and coordinated 165 formal research studies that will lead to greater understanding of fish and wildlife needs on refuges.

Refuge Resource Protection

Refuge staff participated in 39 environmental cleanup activities, including responses to two chemical spills on refuge lands. Water quality studies are underway on nine refuges, and air quality studies are being conducted on two refuges.

Over 40 cultural resource investigations were conducted, leading to greater understanding of human activities on the land. Refuges are responsible for the care and maintenance of over 201,000 objects of cultural and historical significance.

Refuge law enforcement activities included the investigation of 3,700 incidents, and resulted in the issuance of 706 Notice of Violations for federal violations, and assisted with 293 cases of state fish and wildlife violations occurring on refuge lands.

A total of 61 refuge staff assisted with combating wildfires in western and southeastern states. In addition, refuge staff helped fight 67 wildfires that occurred near or on refuges within the region.

Refuge staff assisted 2,583 private landowners with habitat improvements, and coordinated with Native American tribes with habitat improvements on 2,322 acres of Tribal lands.

Visitor Services and Outreach

National Wildlife Refuges and Waterfowl Production Areas in Region 3 were host to over 7.6 million visitors during 2000. Of this total, over 2 million people participated in either hunting or fishing, and over 4 million people visited primarily to observe and learn about fish and wildlife. Over 82,000 youth participated in

Visitor Services and Outreach (continued)

formal environmental education programs on refuges, and over 2,000 teachers participated in teacher workshops hosted by refuge staff and volunteers to learn about how to make best use of refuge lands for outdoor classroom activities.

--USFWS Photo

Service to Visitors. *Darla Wenger of the Upper Mississippi River National Wildlife and Fish Refuge helps a senior get setup on a accessible fishing dock on the Refuge.*

To improve the quality of visitor services, new interpretive signs and interactive exhibits were installed at Seney, Upper Mississippi, Minnesota Valley, and Trempealeau Refuges. New brochures were developed for six national wildlife refuges.

During 2000, over 5,000 individuals volunteered their time and energy to work on refuges in Region 3. A sampling of their activities include: leading school children in outdoor classroom lessons, teaching hunter safety classes, assisting with fishing day activities, maintaining and repairing hiking trails, and helping out in offices. These valued members of our staffs contributed over 170,000 hours of time working along side refuge staff.

Refuge staff issued 833 news releases, and were seen or heard in 387 radio or television news stories throughout the year. Over 280 special public events were conducted on refuges throughout the region during the year.

A regional conference on Human Dimensions of natural resource management was jointly hosted by the Region, the University of Minnesota, and the U.S. Geological Survey, leading to further research efforts evaluating the social and economic impacts and benefits of waterfowl production areas to rural Minnesota.

Partners for Wildlife

More than 300 partners contributed $4.7 million in cash and in-kind services to Partners for Fish and Wildlife projects.

The Partners for Fish and Wildlife (PFW) program posted record accomplishments in the restoration of habitats for trust resources in Fiscal Year 2000. The PFW technical assistance and habitat restoration components, together with the Clean Water Action Plan and Fish Habitat Restoration components, combined to restore over 1,900 wetlands totaling 9,200 acres. Native prairie was established on 436 sites and totaled 4,200 acres. Twenty-nine miles of riparian habitat was restored and twenty-four miles of in-stream habitat was restored or enhanced for trust species. Thirty barriers to fish passage were removed. Technical assistance was provided to the U.S. Department of Agriculture (USDA) in the enrollment of 15,000 acres of land into the Wetlands Reserve Program. An additional 800 consultations with USDA program participants was provided by PFW.

PFW worked with over 800 landowners in Fiscal Year 2000. There were 138 formal partnerships with non-governmental organizations, conservation groups, foundations, etc. entered into to accomplish restoration objectives. Over 300 partners contributed $4.7 million in cash and in-kind services to the PFW projects. There are an estimated 400 landowners who are

already requesting PFW assistance in restoring wildlife habitat in the coming year.

Refuge Planning

National Environmental Policy Act (NEPA) compliance work was completed for additions to Upper Mississippi NW&FR, Big Muddy NF&WR, and Minnesota Valley NWR. NEPA compliance documents for two proposed national wildlife refuges were prepared and released for public review. This included an environmental assessment (EA) for the proposed Aldo Leopold NWR in Wisconsin and an EA and an environmental impact statement (EIS) for the proposed Little Darby NWR in Ohio. Public review drafts of Comprehensive Conservation Plans (CCP) and their associated EAs were released for Necedah NWR, DeSoto NWR, and Ottawa NWR. The Ottawa CCP and EA was finalized before the end of the Fiscal year. At Fiscal Year's end, there were 14 CCPs in progress. Preliminary project proposals (PPP) were submitted to the Washington Office for approval to begin planning for possible additions to Wyandotte NWR in Michigan and Minnesota Valley NWR in Minnesota, as well as for the potential establishment of Glacial Ridge NWR in Minnesota. An EA tiering off a Department of Army EIS for the disposal of the former Jefferson Proving Grounds was completed along with a management agreement with Army that resulted in the establishment of the 50,000 acre Big Oaks NWR in Indiana.

Realty

--Photo by James R. Fisher

Refuge Talk. *Regional Director Bill Hartwig (sun glasses) joins Service Director Jamie Rappaport Clark and Refuge Manager Lee Herzberger in a discussion of Big Oaks NWR with Congressman Baron Hill.*

In the Waterfowl Production Program in Iowa, Minnesota, and Wisconsin, the Division of Realty completed 109 transactions which protected 4,129 acres in fee acquisitions, 2,933 acres of wetland easements, and 1,752 acres of grassland easements. The total cost of these acquisition efforts was $8,309,000, using the Migratory Bird Conservation Fund. In addition to this total, 3 tracts covering 56 acres were acquired at a total cost of $94,950, using North American Wetland Conservation Act funds. The Division of Realty completed a total of 12 transactions at 10 projects that resulted in the protection of 850 acres at a total cost of $2,488,000 from the Land and Water Conservation Fund. Using $474,000 of flood monies, the Division of Realty acquired an additional 470 acres in three transactions at one project.

The Big Oaks National Wildlife Refuge (Indiana) was added to the system during the year with the completion of a lease agreement and memorandum of understanding with the Department of the Army. This new refuge includes approximately 50,000 acres of the former Jefferson Proving Ground, and contains extensive hardwood forests and grasslands.

Goals for Fiscal Year 2001

• Aggressively implement "Fulfilling the Promise" for the National Wildlife Refuge System.

• Strengthen effective Migratory Bird Fund and Land and Water Conservation Fund planning, budget development, and execution through establishment of a Realty/Refuge Management Workgroup and by implementing workgroup recommendations.

• Implement Minimum Public Use Standards for all National Wildlife Refuges and Wetland Management Districts.

• Complete a Refuge Law Enforcement Program review and implement recommendations.

• Work with all Project Leaders to ensure that Refuge Staff receive career and professional development as a high priority.

--Photo by Chuck Traxler

Hunting opportunities for all. *Special hunting periods for hunters with disabilities are held at numerous Refuges in Region 3. The hunter above bagged his deer at Rydell NWR in northwest Minnesota.*

Fiscal Year 2000 Acomplishments

October 1999

1. Wisconsin Homeschoolers Band Ducks, Learn Waterfowl Biology at Necedah NWR

Necedah National Wildlife Refuge

A group of 23 parents and homeschool students from the Camp Douglas, Wis., area helped Refuge staff and four volunteers band ducks as part of the Refuge's waterfowl banding program. The students participated in the hands-on banding of 125 ducks while learning how to determine the age, sex and species of a duck. The group also learned about the type of biological information gathered by the Service via the bands. (**10/1/99**)

2. Detroit Lakes Refuge Manager Interviewed On KDLM Radio

Detroit Lakes Wetland Management District

On Oct. 1, 1999, Manager Rick Julian was interviewed by KDLM Radio Reporter Dan Ochsner about the upcoming waterfowl season. (**10/1/99**)

3. Mallard Banding Season Completed at Horicon NWR

Horicon National Wildlife Refuge

Service staff at Horicon NWR and Leopold WMD completed mallard duck banding season Oct. 2, 1999, banding 389 mallards and three black ducks, just shy of the 400 mallard quota. Horicon NWR banding quota is established by the Service and the Mississippi Flyway as part of a continuing study and tracking of waterfowl populations, migration habits, and hunter success. The season started out very slow; it seems the warm weather was not conducive for baiting in birds. (**10/2/99**)

4. Muscatatuck NWR Featured on Louisville Television

Muscatatuck National Wildlife Refuge

Muscatatuck NWR was featured on WDRB-TVLouisville, Kentucky, with a story on the Refuge and National Wildlife Refuge Week events. (**10/3/99**)

5. 50th Anniversary Conference Honors Aldo Leopold

Upper Mississippi River Refuges -Complex HQ

Refuge Watershed Biologist Tex Hawkins attended a 50th Anniversary Conference honoring conservationist Aldo Leopold, author of "A Sand County Almanac," Oct. 5-8, 1999 in Madison, Wis. The conference was hosted by the Wisconsin Academy of Sciences. An Ecological Restoration Tour of wetland and grassland habitats at the University Arboretum was hosted by Leopold Professor Joy Zedler. Sessions were attended on land ethics and watershed partnerships from different parts of the country. At a reception following the conference, Aldo Leopold's graduate assistant Art Hawkins, Sr. was presented with a special Leopold Foundation Award for his contributions to wildlife conservation. (**10/5/99**)

6. Illinois River Refuges Assist with the Conservation Tour for the Governor's Conference

Illinois River National Wildlife and Fish Refuge

Refuge Manager Ross Adams participated in the planning for the Governor's Conference on the Illinois River in Peoria, Ill. Assistant Manager Ron Fisher and student intern Sonny Perez discussed Refuge programs with 80 people participating in the Illinois River Governor's Conference-Resource Management Tour. Regional Director Bill Hartwig moderated a session on Responsible Management of the Illinois River during the conference. (**10/5/99**)

7. Detroit Lakes WMD Staff Participates in Union Lake/ Sarah Flood Meeting

Detroit Lakes Wetland Management District

On Oct. 5, 1999, Wildlife Biologist Les Peterson attended a Sand Hill Watershed Board meeting concerning the Union Lake/Sarah Improvement District's proposal to pump flood water onto the Union Lake Waterfowl Production Area (WPA) in Polk County, Minn.. Because of the seriousness of the flooding, the Service has issued a temporary Special Use Permit to pump water for 100 days beginning Oct. 15, 1999. This will give the Improvement District some much needed time to come up with alternatives that will meet the compatibility standards required for a permanent right-of-way permit to install the pipeline on the WPA for long range pumping needs. The Minnesota Department of Natural Resources, however, restricts pumping after Nov.1, 1999, so it

would have to amend the permit to allow the Improvement District to pump during winter. (**10/5/99**)

8. Illinois River Refuges Assists With Conservation Day
Illinois River National Wildlife and Fish Refuge
Assistant Manager Ron Fisher assisted the Fulton County Natural Resource Conservation Service (NRCS) with its annual 1999 conservation Day event in Lewiston, Ill.. Fisher spoke to local Lewiston Elementary students about waterfowl and construction/placement of various types of nest boxes. More than 400 students participated in the event. (**10/6/99**)

9. Hundreds of Eighth Graders Visit Trempealeau NWR
Trempealeau National Wildlife Refuge
On Oct. 5-6, 1999, 475 eighth graders from Trempealeau County schools visited Trempealeau NWR as part of Environmental Field Days, an annual event designed to instruct the students in outdoor topics. Refuge staff and four volunteers conducted programs on bird watching, wetlands, duck identification, nature observation, and winter survival. The students were enthusiastic about the learning experience and the sentiments of many were summed up by one student who wrote, "I was sure that this was going to be a waste of time, but I am really glad that I participated. The best part at the wildlife refuge was looking at the different kinds of birds." (**10/6/99**)

10. Shiawassee NWR Presents: "Where Rock Meets Sky: A Journey to the West"
Shiawassee National Wildlife Refuge
Green Point Environmental Learning Center, part of the Shiawassee NWR, hosted its monthly First Wednesday Discovery Series program on October 6, 1999. Twenty-six people attended this month's topic, "Where Rock Meets Sky: A Journey to the West." Park Ranger Marc Beaudin showed a multi-media presentation of his recent travels to various wild areas in the western United States, including the Badlands, the Black Hills, Yellowstone, Grand Teton, and Arches National Parks. Beaudin's photography was coupled with journal entries and historical information to tell a story of the West, old and new. (**10/6/99**)

11. Detroit Lakes WMD Staff Interviewed for Newspaper Article
Detroit Lakes Wetland Management District
Biological Technician Larry Hanson was interviewed for an Oct. 6, 1999, article in the *Becker County Record* about the District's native prairie grass and forb harvesting and seeding programs. The article also mentioned that the Detroit Lakes School System and several fourth grade teachers will work with the Detroit Lakes WMD to establish some native grass and forb plantings on school properties to be used as instructional areas for fourth graders. (**10/6/99**)

12. Minnesota Valley NWR Hosts Firearms Safety Training
Minnesota Valley National Wildlife Refuge
During August, staff of Minnesota Valley National Wildlife Refuge hosted and provided instructors for a 15 hour Firearms Safety Course at the Refuge visitor center. Seventeen students were provided course work and actual shooting on a gun range. Course work included topics in the management of migratory birds and their habitat and the National Wildlife Refuge System. The successful completion of the course is required for participation in the Young Waterfowlers Program conducted cooperatively by the Refuge and the Minnesota Waterfowl Association Inc. held each September. (**10/6/99**)

13. Detroit Lakes WMD Helps Open Minnesota's First Birding Trail
Detroit Lakes Wetland Management District
Wildlife Biologist Les Peterson participated in the grand opening of the first official birding trail in Minnesota Oct. 6, 1999, in Fergus Falls. The "Minnesota Pine to Prairie Birding Trail" runs along a 230-mile corridor from Fergus Falls in the south to Warroad in the north. A brochure is being developed to highlight the best birding opportunities available along the trail. The birding trail was developed through a partnership of five northwestern Minnesota communities, four National Wildlife Refuges, Two Wetland Management Districts, the Lakes Area Birding Club, and the Minnesota Department of Natural Resources. (**10/6/99**)

ildlife observation deck at Mingo NWR, Puxico, Missouri
-USFWS Photo

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14. Despot NWR Staff Part of Nationwide Service Distance Learning Broadcast

DeSoto National Wildlife Refuge

During Oct. 6-7, 1999, staff of DeSoto NWR was involved in the Service's distance learning broadcast from Boyer Chute NWR for National Wildlife Refuges Week. The hour and a half program, "Watersheds: Rivers Run Through Them," was viewed by more than 541 registered classes throughout the nation. A fifth grade class from Fort Calhoun Elementary School also participated along with persons from the Fisheries office, Waso and Denver. (**10/6/99**)

15. Minnesota Valley NWR Hosts Youth Waterfowl Program

Minnesota Valley National Wildlife Refuge

In September 1999, staff of Minnesota Valley National Wildlife Refuge and the Minnesota Waterfowl Association, Inc. joined resources to provide a 20-hour course on ethical waterfowling for youth. Fifteen youths, aged 12 to 15 participated in the training which culminated in a real life waterfowl hunt on the Refuge. Experienced adult waterfowlers served as mentors and guides for the hunt. (**10/6/99**)

Refuge Staff Helps Promote Birding in Northwest Minnesota

Agassiz National Wildlife Refuge

Staff from Agassiz NWR met with a group of state and local conservation agencies, businesses and government officials Oct. 7, 1999, in an effort to promote birding and hunting in northwest Minnesota. The Thief River Falls Chamber of Commerce organized the meeting, which included representatives of the Minnesota Department of Natural Resources, Minnesota Office of Tourism, a county commissioner, local sportsman's clubs, and members of local area tourism organizations. The objective of the group was to develop a strategy to better promote the area as a hunting and birding area. Northwest Minnesota is an excellent hunting location for three prize game birds - roughed and sharp-tailed grouse and prairie chickens. The area's excellent birding sites were also discussed. (**10/7/99**)

17. Minnesota Valley NWR Strengthens Partnership With Native Plant Society

Minnesota Valley National Wildlife Refuge

Minnesota Valley NWR entered a partnership with the Native Plant Society (NPS) to further their mutual goals of habitat preservation and restoration. The NPS will enter an agreement to assist the Refuge with interpretation and education relative to native plants. The refuge will host the NPS monthly meetings. The first meeting drew 85 native plant enthusiasts who listened to the guest speaker, David Crawford of Wild River State Park. David spoke about the success of the prairie restoration at Wild River State Park and how to reap the benefits of involving school age children in the process. David provided the history of student involvement in prairie restoration and shared the methodology for doing so. (**10/7/99**)

18. Lhotka Easement Case Continues to Smolder for Detroit Lakes WMD

Detroit Lakes Wetland Management District

On Oct. 7, 1999, the Lhotka easement case was brought to the U.S. District Court to rule on Mr. Lhotka's claims for breach of contract, contempt, and inverse condemnation by the Service when the easement wetlands were restored during the fall of 1992. A motion to dismiss these charges was granted by Judge Frank, however, claims of trespass and nuisance are still pending and will be tried during the next few months. In light of these claims, Judge Frank has ordered that M.S.L. elevations for the outlets and lowest points of the restored wetland basins be taken so he can incorporate them into his final judgement on the case. Law enforcement staff from the Detroit Lakes WMD and surveyors from the Fergus Falls Acquisition Office surveyed all 127 wetland basins Nov. 8-9, 1999, to obtain the needed information. Mr. Lhotka was present at his building site but did not contact any of the personnel who were involved with the survey. (**10/7/99**)

19. Seney NWR Public Use Staff Present at Middle School Conference

Seney National Wildlife Refuge

Interpretive Specialist Kronk co-presented with a local teacher at an Upper Peninsula (of Michigan) Middle School Conference attended by teachers from around the area. Fifteen teachers came to the session on Project Wet (Water Education for Teachers) presented by Interpretive Specialist Marianne Kronk. National Wildlife Refuge Week notices and posters were handed out to all conference attendees. Teachers from two schools requested a full day in-service workshop on Project Wet. (**10/8/99**)

20. Hundreds Attend Seney NWR's 3rd Annual Scout Day
Seney National Wildlife Refuge
Hundreds of Boy and Girl Scouts spent the day at Seney National Wildlife Refuge Oct. 9, 1999, learning about wildlife habitat and natural resources. Public Use Intern Lindsey Smith organized stations for scouts to fulfill merit badge requirements and learn about wildlife habitat and sign, migratory birds, sandhill cranes, botany, weather, fire ecology, soil profile, bird banding demonstrations, erosion, pollution causes and prevention, native storytelling and careers in natural resources.

Scouts were also able to take home bird feeders that they made. About 782 visitors enjoyed Scout Day activities, including more than 400 Scouts and leaders. Scout troops traveled from across Michigan's Upper Peninsula and a few from the Lower Peninsula of Michigan. Demand was so great that pre-registration filled up a week before the event. The Refuge may consider breaking the elementary aged scouts into two groups to offer two days of activities. (**10/9/99**)

21. National Wildlife Refuge Week Celebrated at Necedah NWR
Necedah National Wildlife Refuge
Necedah NWR kicked off National Wildlife Refuge Week with its annual open house Oct. 9, 1999. One hundred seventy six people attended the event, a new record. Activities included waterfowl banding, a guided tour of the refuge, and T-shirt painting with fall leaves. The Refuge overlooks and observation points were all open and the trails were also available for visitors to use. The weather was perfect for the event and many newcomers visited during the day. The Friends of Necedah NWR held its annual meeting later in the afternoon. The event was covered by two newspaper reporters and "Discover Wisconsin." (**10/9/99**)

22. Iowa Archaeologists Visit Steamboat Bertrand
DeSoto National Wildlife Refuge
Fifty-five Iowa archaeologists visited the Steamboat Bertrand Museum and excavation site on DeSoto NWR as the highlighted activity of their annual fall meeting. Ms. Nancy Osborn Johnsen, keynote speaker, told of the challenges and fascination while she assisted in the excavation of the boat and helped process much of the cargo, some 30 years ago. The museum curator and registrar were on hand to answer questions and give 'behind-the-scenes' tours of the conservation laboratory. DeSoto's cooperating association, the Midwest Interpretive Association, offered a discount toward purchases in the gift shop for conference participants. (**10/9/99**)

23. 600 Attend Wildlife Festival at Sherburne NWR
Sherburne National Wildlife Refuge
Approximately 600 people and the Deputy Chief of Refuges, Greg Siekaniec, attended the 6th Annual Wildlife Festival at Sherburne National Wildlife Refuge Oct. 9, 1999. The event, co-sponsored by the Refuge and the Friends of Sherburne, featured six interpretive programs including a crane watch where 21 participants viewed over 600 sandhill cranes; a bird tour of the Wildlife Drive where 32 participants saw 30 species of birds; a presentation on how the Ojibwe use plants attended by 60; a talk on archery hunting attended by 35; a live bird program with three raptors attended by 200 and a guided hay ride for 354 individuals. The event also included six hands-on activities: the archery shoot which had 257 participants, the scavenger hunt with 189 participants, nature crafts with 255, waterfowl wing identification with 200 and prairie seeds and teas with 200. The day was made possible with assistance from the Coon Rapids Archery Club and 55 Refuge volunteers. (**10/9/99**)

24. Illinois River Refuges Assists RIFO with Mid-American Waterfowl Expo
Illinois River National Wildlife and Fish Refuge
Assistant Refuge Manager Ron Fisher and Student Intern Sonny Perez assisted Wayne Fisher of the Rock Island Field Office by staffing the booth at the Mid-American Waterfowl Expo in Peoria, Ill., Oct. 9-10, 1999. Over 2,000 people stopped by the booth and picked up information on waterfowl hunting, National Wildlife Refuges and the private land activities. (**10/10/99**)

25. Hundreds Celebrate Refuge Week at Trempealeau NWR
Trempealeau National Wildlife Refuge
Staff from Trempealeau NWR joined 250 visitors to celebrate National Wildlife Refuge Week Oct. 10, 1999. Events included nature hikes, waterfowl identification workshops, tours, and children's' activities throughout the day. Winning photos from the Bob Pohl Chapter of the Upper Mississippi River Friends group were displayed and the video 'The

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National Wildlife Refuge System-Where Wildlife Comes First' was shown. Thirty-five children made pine cone bird feeders and bat mobiles while listening to bat stories. Nine volunteers helped with everything from set-up to leading tours to clean-up. (**10/10/99**)

26. Agency Survey's Transportation Needs at DeSoto NWR
DeSoto National Wildlife Refuge
Beth Kunkel of BRW Consulting Company was at DeSoto National Wildlife Refuge Oct.10, 1999, to survey the Refuge's alternative transportation needs for the Federal highway Administration's 2004 Transportation Bill. DeSoto was one of 85 sites inspected. (**10/10/99**)

27. Deer Hunt for Disabled Hunters Held at Trempealeau NWR
Trempealeau National Wildlife Refuge
The Trempealeau Refuge opened up the Upper Farm area to disabled hunters during the October 2-10 special hunt for deer. Two hunters and their assistants spent four days in the area. One of the hunters had a deer walk right behind his vehicle where he could see it, but not shoot it. Though no deer were taken, the hunters were appreciative of the opportunity to hunt the area. (**10/10/99**)

28. Goose Hunting Presentation Highlights Agassiz NWR Celebration of Refuge Week
Agassiz National Wildlife Refuge
About 20 people attended an open house at Agassiz NWR Oct. 10, 1999, to celebrate National Wildlife Refuge Week. A goose hunting program was presented by Dennis Hunt, premiere goose hunter, seminar speaker and writer. Twenty people attended the open house. Fourteen people attended the program. Brats, hot dogs, buns, potato chips, cookies and refreshments were served during the open house. The open house gave the public an opportunity to learn about goose hunting, give recognition to the National Wildlife Refuge System, give away free National Wildlife Refuge Week posters and bookmarkers, and allow the public to interact with refuge staff about natural resources. The 100-foot observation tower was open during the open house hours. (**10/10/99**)

29. Middle School Students Investigate Massasauga Rattlesnake Study at Necedah NWR
Necedah National Wildlife Refuge
Fifty-five students from Olson Middle School, Mauston, Wis., visited Necedah National Wildlife Refuge Oct. 11, 1999, to gather first-hand information on the Massasauga rattlesnake study at the refuge. The class had been following the news articles on the topic and were interested in finding out the refuge perspective and wanted to learn more about how the research is actually being conducted. The students participated in radio telemetry activities to learn techniques used by biologists. They also followed Paul Charland, seasonal biologist, as he located a snake and moved in to make visual contact. This unique opportunity allowed the students to get a real idea of the research while also getting the chance to see a rare rattlesnake. (**10/11/99**)

30. Townhall Meeting at Minnesota Valley NWR for
Minnesota Valley National Wildlife Refuge
More than 100 high school students, selected from four local schools, met with Congressmen, Rep. Bruce Vento and Rep. Jim Ramstad on Monday, Oct. 11, 1999. During the meeting, students asked the congressmen questions regarding the environment, from how they stand on issues such as the Endangered Species Act to how environmental matters are tackled in Washington. The meeting was coordinated by the League of Conservation Voters Education Fund. Their goal was to teach soon-to-be voters lessons in the importance of civic participation for environmental protection. The day's events also included a raptor release from The Raptor Center, garbage clean-up, and break-out discussion groups. (**10/11/99**)

31. Scouts Collect Prairie Seeds at Trempealeau Refuge
Trempealeau National Wildlife Refuge
Forty-three Girl Scouts, Brownies and nine of their parents spent an hour on the refuge collecting native grass seed and later distributed it in a recently- restored prairie area at Trempealeau NWR. In addition to exploring the hills of the sand prairie, the highlight of their visit was finding a field mouse; forty-three screaming girls converged in an ever tightening circle around one mouse to end their refuge experience. (**10/11/99**)

32. Muscatatuck NWR Hosts Conservation Field Days
Muscatatuck National Wildlife Refuge
Over 600 third grade students participated in two conservation field day programs on Muscatatuck NWR. National Wildlife Refuge staff and personnel from many other agencies taught the students about wildlife, soils, forestry, wetlands, and recycling. (**10/12/99**)

33. National Wildlife Refuge Week at Cypress Creek NWR
Cypress Creek National Wildlife Refuge
The Refuge celebrated National Wildlife Refuge Week Oct. 9-11, 1999, with a bike hike, and canoe event in the Cache River Watershed. Much needed rain kicked off the Refuge event on Saturday forcing staff and volunteers to cancel the biking event. However, despite cloudy weather, over 200 visitors participated in canoe tours and guided hikes on Sunday and Monday. (**10/12/99**)

34. Outreach to Tourism Industry
Minnesota Valley National Wildlife Refuge
Minnesota Valley NWR hosted an information meeting with representatives of the Tour Minnesota Association Oct. 12, 1999. Fifty-five members representing various visitor and convention bureaus, touring agencies, lodging and eatery businesses, and destination sites attended. Judie Miller gave a presentation to the group with the intent of assuring the audience left with the knowledge of "Who we are", 'What is a Refuge?' 'What is our Mission?' and 'Why it matters to the tourism industry'. The presentation generated excellent discussions and prompted several initiatives, upcoming meetings and seminars to work closer to serve our mutual goals. (**10/12/99**)

35. First Annual Minnesota Valley National Wildlife Refuge Photography Contest Draws 68 entries
Minnesota Valley National Wildlife Refuge
Minnesota Valley National Wildlife Refuge sponsored its first photography contest: 'Scenes of the Minnesota Valley National Wildlife Refuge' as part of the celebration for National Wildlife Refuge Week. The contest was open to all ages and the only requirement was photos had to be taken on the Refuge. Co-sponsored by National Camera Exchange, Friends of the Minnesota Valley, and the Minnesota Nature Photography Club, the contest drew 68 entries. Judging was held during Refuge week and the winner for Best in Show was Sandi Pederson of Apple Valley, Minn., with a black and white photo of a Great Blue Heron. Awards were also given to the winners in each of four categories: Plants, Wildlife, People, and Landscapes. (**10/12/99**)

36. Muscatatuck NWR Hosts Conservation Field Days
Muscatatuck National Wildlife Refuge
More than 600 students and teachers participated in two Conservation Field Days Oct 12-14, 1999, at Muscatatuck NWR. Refuge staff and members of other conservation agencies conducted the training. (**10/13/99**)

37. Refuge Provides Presentation to Local Waterfowl Hunters
Mark Twain National Wildlife Refuge-Brussels District
Refuge Manager Phillips presented a slide show detailing the condition of wetlands to approximately 150 members of the Migratory Waterfowl Hunters, Inc. (MWHI). The MWHI is a well-organized and active group of waterfowl hunters in west-central Illinois (Mississippi and Illinois Rivers) whose membership is now approaching 800. The presentation was provided just prior to the fall waterfowl migration and hunting season. (**10/13/99**)

38. Detroit Lakes 4th Graders Learn About Prairie and Wetlands
Detroit Lakes Wetland Management District
The Detroit Lakes Wetland Management District is working with two fourth grade teachers from the Rossman Grade School in Detroit Lakes, Minn., to provide water and other natural resources related learning experiences for their students. On October 13, 45 fourth graders visited the District office to learn about the importance of wetlands and prairie grassland habitat. The students learned about wetlands, native prairie plants, and wildlife. They will use this information to develop displays and demonstrations for the Detroit Lakes Water Festival that is scheduled for the spring of 2000. (**10/13/99**)

39. Mingo Job Corps Partnerships Help Educate, Employ Students

Mingo Job Corps

The Mingo Job Corps in southeast Missouri is involved in several partnerships that provide students with opportunities for education and work experience. For example, partnership with the Forest Service has helped place a crew on a fire fighting team that has been sent to fight two fires. The Job Corps is also working in partnership with the Puxico High School to establish a program for our students to earn a Mingo/Puxico Technical High School Diploma.

We have also established a partnership with Missouri Mentoring. This partnership enables our students to be placed in Missouri and they assist with finding housing, transportation, etc.

We are presently working with the Workforce Investment Boards to establish STW grants for our students and potential students. (**10/14/99**)

40. Muscatatuck NWR Outreach

Muscatatuck National Wildlife Refuge

Muscatatuck NWR Biologist Oliver gave a radio interview to Seymour radio station 96.3. The interview dealt with events for National Wildlife Refuge Week. (**10/14/99**)

41. 100 Acres of Bottomland Hardwoods Restored in Southern Indiana

Patoka River National Wildlife Refuge

Grant monies received through the North American Waterfowl Management Plan were used to fund the planting of 50,000 tree seedlings and restore 100 acres of bottomland forest on Refuge lands. (**10/14/99**)

42. Old Cache Channel Boat Access Completed on Cypress Creek Refuge

Cypress Creek National Wildlife Refuge

With assistance from many partners, Refuge staff and volunteers completed a new boat access on the Old Cache Channel at Cypress Creek NWR. The site is at the southern end of the Refuge, and provides residents and visitors with safe access to a quality fishing area off the Cache River. Soon after the ramp was completed, fisherman and boaters from Missouri, Kentucky, and Illinois were using the facility. (**10/14/99**)

43. Detroit Lakes Manager Interviewed On KDLM Radio

Detroit Lakes Wetland Management District

Radio listeners in the Detroit Lakes, Minn., area learned about waterfowl hunting rules, trumpeter swans, seed processing and other programs involving the Detroit Lakes Wetland Management District during a KDLM radio interview with District Manager Rick Julian Oct.14, 2000. KDLM (**10/14/99**)

44. Muscatatuck NWR Maintenance Staff and Green Thumb Volunteers Complete Road Work

Muscatatuck National Wildlife Refuge

Muscatatuck NWR maintenance staff with help from Green Thumb volunteers completed road work on the refuge this year. Nine miles of public use roads received 4 inches of new gravel. Six culverts were replaced to improve road safety. New soybean-based "dust kill" product was used on one mile of roadway to reduce dust and to test its efficiency. Lines were painted on all black top areas, and dangerous overhanging limbs were removed from roadsides. (**10/15/99**)

45. Wisconsin Middle School Students Get First Hand Knowledge of Snake Study on Necedah NWR

Necedah National Wildlife Refuge

Students from Olson Middle School in Mauston, Wis., visited Necedah NWR Oct. 15, 1999, to gather first-hand information on the Eastern massasauga rattlesnake study taking place at the refuge. The class has been following news articles on the topic and were interested in finding out our perspective and wanted to learn more about how the research is actually being conducted. The group of 75 students participated in radio telemetry activities to learn techniques used by biologists. They also followed Bio Tech Heillecker as she located a snake and moved in to make visual contact. The unique opportunity allowed the students to get a real idea of the research while also getting the chance to see a rare rattlesnake. Refuge volunteers assisted with the programming. (**10/15/99**)

46. Cypress Creek Refuge Reforestation Program Highlighted as Model

Cypress Creek National Wildlife Refuge

Refuge Biologist, Al Novara and state foresters with the Illinois Department of Natural Resources provided a tour for Alan Satterfield, U.S. Forest Service

Washington Office. The tour highlighted the cooperative relationship between the Refuge and Illinois DNR on the maintenance and management of the seed orchard and major reforestation projects in the Cache River Watershed.

The tour highlighted sites that have been reforested over the years. During 1999, approximately 300 acres were reforested with 120,000 seedlings. The reforestation effort is accomplished through a cooperative partnership with the Illinois Department of Natural Resources, National Tree Trust, and the U.S. Fish & Wildlife Service. (**10/15/99**)

47. Congressional Staffer Attends District Meeting

Detroit Lakes Wetland Management District

U.S. Representative Collin Peterson's Aide Maynard Pick attended the Sand Hill Watershed District meeting that dealt with issues concerning the Union Lake/Sarah Improvement District's proposal to install a pipeline across the Union Lake WPA. Mr. Peck is becoming informed about all the aspects of the pipeline project. (**10/15/99**)

48. Detroit Lakes WMD Staff Attends Sand Hill Lake WD Board Meeting

Detroit Lakes Wetland Management District

On Oct. 15, 1999, Wildlife Biologist Les Peterson attended a Sand Hill Watershed Board meeting concerning the Union Lake/Sarah Improvement District's proposal to pump flood water onto the Union Lake Waterfowl Production Area (WPA) in Polk County. Because of the seriousness of the flooding, The Minnesota DNR has agreed to amend its permit so the Improvement District will be able to pump water out of Union Lake at 20 cubic feet per second until Dec. 31, 1999. This provides lake homeowners some relief from high water threatening their homes. The Improvement District still must develop a proposal for a permanent right-of-way permit to install the pipeline on the WPA that will meet the compatibility standards required for long range pumping needs. (**10/15/99**)

49. Muscatatuck NWR Celebrates Refuge Week

Muscatatuck National Wildlife Refuge

Muscatatuck NWR celebrated National Wildlife Refuge Week with a variety of activities that included interpretive programs, a banding demonstration, a hunter orientation, a volunteer picnic, two conservation field days for third graders, a 5K Run/Walk, and a Log Cabin Day festival. Over 1,100 people attended the events. (**10/16/99**)

50. Muscatatuck NWR Support Group Hosts Community Festival

Muscatatuck National Wildlife Refuge

Muscatatuck NWR's non-profit support group, the Muscatatuck Wildlife Society, hosted a Log Cabin Day festival at the Refuge's Myers Cabin as part of National Wildlife Refuge Week activities. Activities included a free dinner, a blacksmith demonstration, old-time music, games, and horse-drawn wagon rides. Over 300 people attended. (**10/16/99**)

51. Muscatatuck NWR Celebrates National Wildlife Refuge Week

Muscatatuck National Wildlife Refuge

Muscatatuck NWR celebrated National Wildlife Refuge Week Oct 10-16, 1999, with a variety of activities that included interpretive programs, a banding demonstration, a deer hunter orientation, a volunteer picnic, two conservation field days for third graders, a 5K Run/Walk and a Log Cabin Day festival. Over 1,100 people attended the week's events, learning more about national wildlife refuges and Muscatatuck NWR. (**10/16/99**)

52. 1,500 Exposed to Refuge Programs Through Exhibits at Indiana Mall

Muscatatuck National Wildlife Refuge

Muscatatuck NWR staff placed "The National Wildlife Refuge System" exhibit and an "Indiana Junior Duck Stamp Contest" exhibit at the Commons Mall in Columbus, Ind., during National Wildlife Refuge Week. Over 1,500 people were contacted with information about National Wildlife Refuges. (**10/16/99**)

53. Horicon National Wildlife Refuge Celebrates Refuge Week

Horicon National Wildlife Refuge

Horicon National Wildlife Refuge staff hosted an open house on Saturday, Oct. 16, 1999, in celebration of National Wildlife Refuge Week. The Visitor Center was open from 9 a.m. to 6 p.m., with over 600 people enjoying the exhibits, the deck and spotting scopes, talking to volunteers and employees, videos, and a drawing for free prizes. Two slides shows and two guided hikes were also

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held, with over 50 and 22 people, respectively, enjoying the presentations. The day ended with the weekly goose talk, a popular event with fall tourists. Over 60 people attended this fun, interactive and hands-on talk. Many volunteers contributed to this event. (**10/16/99**)

54. Chautauqua NWR Celebrates National Wildlife Refuge Week

Illinois River National Wildlife and Fish Refuge

Chautauqua National Wildlife Refuge hosted an open house Oct. 16, 1999, to celebrate National Wildlife Refuge Week. Visitors were treated to a scenic drive around Lake Chautauqua on the auto tour route, informative lectures on basic birding, a guided bird hike and numerous displays set by the Emiquon Audobon Society (ARK). Turn out was excellent with over 450 people participating. Assisting the refuge staff with this event was Jo Skoglund, Dr. Richard Bjorklund and other members of the Emiquon Audobon Society. In addition, over 100 students from Midwest Central and Illini Central High School visited the Refuge during the week. (**10/16/99**)

55. Brussels District celebrates Refuge Week

Mark Twain National Wildlife Refuge-Brussels District

The Brussels District of Mark Twain NWR held an open house in conjunction with National Wildlife Refuge Week. Throughout the day, Refuge staff gave guided tours of the Swan Lake Habitat Restoration Project and guided bird-watching tours of Swan Lake. Along with the tours and open house, Scott Isringhausen of the Illinois DNR presented an interpretive program on white pelicans. Swan Lake was chosen as the site due to the high numbers of pelicans using the Lake. (**10/16/99**)

56. National Wildlife Refuge Week Celebrated at Minnesota Valley NWR

Minnesota Valley National Wildlife Refuge

Refuge staff coordinated three special events for the 1999 National Wildlife Refuge Week. Two evening events were hosted during the week and an outdoor celebration on Saturday, Oct.16. Evening events included; photo-contest judging, from the Refuge's Photography Contest 'Scenes of the Minnesota Valley NWR,' on Tuesday, Oct. 12, and an inspiring slide presentation by naturalist/photographer Scott Sharkey on Thursday, Oct. 14. Thursday's event was a cooperative effort with the Friends of Minnesota Valley, which held its annual meeting in conjunction with the Refuge event. The outdoor celebration included bird walks, canoe trips, wildlife viewing, fly casting, duck/goose calling, live birds of prey from the Raptor Center, and children interacting with staff to earn a Jr. Refuge Manager's badge. Over 300 visitors attended these special events and celebrated with the Refuge staff. (**10/16/99**)

57. Hunters with Disabilities Hunt Deer on Rydell NWR

Detroit Lakes Wetland Management District

Twenty disabled hunters participated in the Rydell NWR's Fourth Annual Deer Hunt for Persons With Disabilities Oct. 14-16, 1999. The hunt ran from noon Friday to noon Sunday with 11 deer harvested. The hard surfaced trails allowed the wheelchair-bound hunters greater mobility while hunting. One hunter even bagged his deer by still hunting on the trail in his wheelchair. All of the hunters saw deer, some up to 20, and all had opportunities to shoot at deer. The Options Resources Center for Independent Living from East Grand Forks, Minn., help select participating deer hunters and provided food for all of them Friday and Saturday. Several volunteers assisted with field dressing and transporting deer back to the check station. (**10/16/99**)

58. Wildflower Seed Harvest, Night Hike, Highlight Refuge Week at Union Slough NWR

Union Slough National Wildlife Refuge

National Wildlife Refuge Week at Union Slough NWR was highlighted by a series of interesting public programs and fantastic fall weather. On Saturday, Oct. 9, 1999, over 50 people attended programs including hand harvesting wildflower seeds, a talk by a falconer with his prairie falcon, and a hayride tour of the refuge. Additional programs on Saturday the 16th brought another 20 people for a program about orphaned and injured wildlife rehabilitation and a night hike where they called in a barred owl. The Auto Tour Route was open throughout the week and roughly 460 people toured the refuge in their vehicles. (**10/16/99**)

59. Trempealeau Refuge Hosts 11th Waterfowl Hunt for Disabled

Trempealeau National Wildlife Refuge

Eleven disabled waterfowl hunters participated in the 11th annual hunt on the Upper Farm area of Trempealeau NWR Oct. 16-17, 1999. Two volunteers coordinated hunters, other volunteers, and equipment. Twelve volunteers and refuge staff assisted the hunters on the two days of the hunt. Sixty two ducks and twenty one geese were harvested. For many of the participants this would be the only time they would be waterfowl hunting all year. (**10/17/99**)

60. Spring Green High School Class Visits Necedah NWR

Necedah National Wildlife Refuge

A group of students from Spring Green High School visited the Necedah NWR Oct. 18, 1999. The 40 students and two teachers toured the Refuge, learned about management practices and viewed migrating waterfowl. This is the 14th year that one of the teachers has brought students to the Refuge. (**10/18/99**)

61. Refuge and Citizen Members Develop Public Use Map

Cypress Creek National Wildlife Refuge

With assistance from the Illinois Department of Natural Resources' GIS equipment and funding from private citizens, staff at Cypress Creek National Wildlife Refuge have recently developed a large scale, four color map of the southern Illinois Refuge. The 24-inch x 36-inch map highlights property owned by the Refuge, The Nature Conservancy, and the Illinois Department of Natural Resources and includes public accesses, roads and other topographical features. The popular map is in great demand by hunters, wildlife watchers and local residents. Citizens Committee to Save the Cache, the organization that helped print the map, is selling the map for $2.50 each. (**10/18/99**)

62. Minnesota Valley National Wildlife Refuge and Partners Restore Over 1500 Acres

Minnesota Valley National Wildlife Refuge

Minnesota Valley NWR, and its partners, restore 1,560 acres of vital habitat. These totals reflect year-long restoration efforts including riparian, wetland and native prairie. Over 10,150 linear feet of riparian restoration occurred through work with various county soil and water conservation districts. The 810 wetland and 250 upland prairie acres were achieved through collaboration with local sportsman's clubs, organizations such as Minnesota Waterfowl Association, Ducks Unlimited, Pheasants Forever, Metropolitan Council, and the North American Wetland Conservation Act. Cooperation ranged from providing Service staff with manpower, financial support or serving as a community liaison. These restoration projects occurred on both private and Refuge lands and provide valuable habitat to plant and animal species, improve watershed, and to improve water quality. (**10/18/99**)

63. Topeka Shiner Recovery Team Meeting

DeSoto National Wildlife Refuge

DeSoto NWR hosted a meeting of the Topeka Shiner Recovery Plan Team at the visitor center Oct. 19 – 20, 1999. Sixteen biologists from throughout the Midwest participated. (**10/19/99**)

64. Thirteen Species of Freshwater Mussel Documented at Big Stone NWR

Big Stone National Wildlife Refuge

Inventory of plants, fish and wildlife is fundamental to understanding how a unit of the National Wildlife Refuge System contributes toward conservation of biological diversity and to the structure and function of the ecosystem in which the unit is located.

Thirteen species of freshwater mussels (naiads) were collected from waters at Big Stone NWR in 1999 to develop a mussel species list for the western Minnesota Refuge. Naiad shells were collected during low-water levels on East Pool and the Yellowbank River. On Oct. 19, 1999, Wildlife Biologist, Bridget Olson and volunteer gathered 10 species of mussels in 30 minutes. Two additional species were collected in a 1989 survey of the Minnesota River to bring the Refuge total to fifteen species.

Though no federally listed species were found, one is state listed as Special Concern by the Minnesota Department of Natural Resources. Another species was deemed as Special Concern in the United States and Canada by the American Fisheries Society as one that may become endangered or threatened by relatively minor

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disturbances to its habitat, and deserves careful monitoring of its abundance and distribution.

The data collected in 1999 help us interpret the Refuge's contribution to mussel species diversity and persistence in the Upper Mississippi River basin in western Minnesota and in the entire Mississippi Headwaters/Tallgrass Prairie Ecosystem.

Shifts in species composition from a diversity of species inclusive of animals requiring clear unpolluted waters toward species that are more adaptable may be an indicator of poor or declining water-quality. Long-term, periodic monitoring of naiad fauna could detect such community shifts. Upon detection, appropriate watershed protection and restoration activities could be implemented to reverse or stabilize a negative trend.

Mussel identification was verified by Mark Hove, College of Natural Resources, University of Minnesota and Dan Kelner, Minnesota Department of Natural Resources.

Several species were donated to the James Ford Bell Museum of Natural History , St. Paul, Minn., for deposit in the mussel collection. (**10/19/99**)

65. Detroit Lakes Staffer Discusses Wildlife Biology Field at Careers Exploration Night

Detroit Lakes Wetland Management District

Detroit Lakes WMD Wildlife Biologist Les Peterson participated in a Careers Exploration Night sponsored by the Biological Honor Society at Moorhead State University October 19. Six professionals with careers in biological sciences e briefly described their careers and the educational and training requirements needed to begin a work in that field. An estimated 100 students were in attendance and about 20 expressed interest in pursuing careers in wildlife during the break-out sessions. (**10/19/99**)

66. Twin Cities Tree Trust Completes Trail Rehabilitation at Minnesota Valley NWR

Minnesota Valley National Wildlife Refuge

The Twin Cities Tree Trust is nearing completion of the installation of 60 water bars on the half-mile mile hiking trail at the Minnesota Valley National Wildlife Refuge Visitor Center. The trail has required an excessive amount of maintenance over the years due to steep slopes, and severed gully erosion. The Tree Trust, a private organization that provides work opportunities for at-risk youth, has provided crews and crew leaders to complete numerous public use projects on the Refuge for over 15 years. (**10/20/99**)

67. Habitat Presentation

Big Stone National Wildlife Refuge

Wildlife Biologist, Bridget Olson was a guest speaker at the "Bowl of Love" ladies circle, St. John's Catholic Church, Ortonville, Minn. Olson discussed the unique features, habitats and wildlife use of Big Stone NWR with the 18 attendees. (**10/21/99**)

68. Refuge Hosts Youth Waterfowl Banquet and Hunt

Cypress Creek National Wildlife Refuge

Cypress Creek National Wildlife Refuge and Mermet Lake Fish and Wildlife Area held a special Youth Waterfowl banquet and hunt Oct. 22 and 30, 1999. The program encouraged young hunters' interest and provide them an opportunity to learn about and experience water hunting. One hundred and sixty youth and parents attended the banquet which highlighted presentations on hunter safety and ethics, waterfowl calling and identification. Participants were also oriented to the special youth hunt that followed on Oct. 30, 1999. (**10/22/99**)

69. Environmental Classroom at the Mall of America?

Minnesota Valley National Wildlife Refuge

Staff from the Minnesota Valley NWR participated in the Seventh Annual Ecommunity Festival at the Mall of America, in Bloomington, Minn., Oct. 21-22, 1999. Ecommunity is a two-day event that seeks to teach children and their parents how to help protect our environment. Minnesota Valley NWR partnered with "river neighbor" Mississippi National River and Recreation Area to display an exhibit and teach children about their watershed. Twelve organizations and retailers participated in the event, which reached over 5,000 children, parents, and shoppers. (**10/22/99**)

70. Youth Waterfowl Hunt held at Horicon NWR

Horicon National Wildlife Refuge

Thirteen youths (five girls and eight boys) participated in the youth waterfowl hunt at Horicon NWR in October. Each party hunted one morning of the three mornings of the special hunt. A total of 20 ducks were taken which consisted of mallards, pintails, ruddy ducks, green-winged teal, wood ducks, blue-winged teal, shovelers, wigeon, and ring-necked ducks. To be

eligible to hunt in this special hunt, hunters must have completed hunter safety and one of the local Ducks Unlimited Greenwing Days or Wisconsin Waterfowl Association Waterfowl Skills Clinic. Adult sponsors were not allowed to hunt.

Before a youth is eligible to hunt in the special youth hunt, he or she must have completed hunter safety and participated in a local Ducks Unlimited Greenwing Days or Wisconsin Waterfowl Association Waterfowl Skills Clinic. Both clinics cover waterfowl identification, use of decoys and duck calls, building blinds, hunting regulations, and ethics. The hunt on Horicon NWR allows these kids to put these new skills and knowledge to use without having to outcompete other hunters as the adult sponsors are not allowed to hunt. The skills and knowledge are further encouraged by additional rules to the hunt such as no pass shooting, shot limits, reduced shooting hours, etc. It is hoped that this program will allow these new hunters to start their new hobby on a safe and ethical hunt. (**10/23/99**)

71. 150 Visitors Learn About Life As a Wolf During Wolf Awareness Day at Necedah NWR

Necedah National Wildlife Refuge

One hundred fifty-five visitors attended the Second Annual Wolf Awareness Day at Necedah National Wildlife Refuge in central Wisconsin, Oct. 23, 1999. Activities included helping attendees become members of a wolf pack and view life as a timber wolf, plaster cast making of wolf tracks, a presentation by Little Red Riding Hood on the misconceptions surrounding wolves and a slide program by Wisconsin DNR Wolf Biologist Dick Thiel. The event was held in the refuge's newly remodeled outdoor learning center which easily accommodated the number of participants. (**10/23/99**)

72. Reedsburg Middle School Observe Cranes at Necedah NWR

Necedah National Wildlife Refuge

Twenty Middle School students from Reedsburg, Wis., visited Necedah NWR Oct. 25, 1999. The group participated in many activities including: wild crane behavior observation, radio telemetry demonstrations and savanna restoration investigation. The students had the opportunity to also view migrating waterfowl, eagles and wild turkeys. The hiked a trail and used the observation platform as well. (**10/25/99**)

73. Project Adds Three Miles of Accessible Trail to Prairie Wetlands Learning Center

Fergus Falls Wetland Management District/PWLC

The Prairie Wetlands Learning Center (PWLC) completed the first stage of a trail improvement project that will make more than three miles of trails handicapped accessible. The project is funded through a grant from the Veden Foundation and the Friends of the Prairie Wetlands Learning Center. The eight-foot-wide trails were covered with a base coat of gravel and will be finished and compacted next spring. The new trail allows visitors in wheelchairs, those with strollers, or who need a stable, level surface to enjoy the beauty of the prairie pothole region. (**10/26/99**)

74. Injured Eagle Assisted by Detroit Lakes WMD Staff

Detroit Lakes Wetland Management District

Staff at the Detroit Lakes Wetland Management District recently teamed with the University of Minnesota and Northwest Airlines to help an injured bald eagle reported to the District offices Oct. 26, 1999. Staffer Jason Barker and Jim Hinson, a volunteer, located the immature bald eagle near Frazee, Minn.. Unable to fly, the eagle was captured, and transported to the University of Minnesota's Raptor Center for treatment. Northwest Airlines transported the injured eagle at no charge. (**10/26/99**)

75. New Pipes and Screwgates Help Retain Water on 485 Acres of Wetland Habitat at Emiquon NWR

Illinois River National Wildlife and Fish Refuge

Two new 48 inch corrugated metal pipes and screwgates were installed on Emiquon National Wildlife Refuge. These pipes and gates replaced an existing structure that had safety problems. The new structures will allow the refuge to drain water off adjacent land owners as well as hold water on 485 acres during the spring migration period. (**10/27/99**)

76. Detroit Lakes WMD Completes Private Lands Wetland Restorations

Detroit Lakes Wetland Management District

On Oct. 27, 1999, staff at Detroit Lakes WMD completed restorations on six wetlands totaling approximately 22 acres on four farms in eastern Becker County, Minn. (**10/27/99**)

77. Kentucky Students Visit Necedah NWR

Necedah National Wildlife Refuge

A group of 100 students and 20 teachers from Kentucky visited the Necedah NWR Oct. 28, 1999, as part of their trip to the International Crane Foundation. The group was following the proposed re-introduction of whooping cranes in Wisconsin, and participated in a variety of activities focusing on cranes in Wisconsin. The group, half 4th graders and half 7th graders, learned about the proposed migratory route and potential hazards that the young cranes might encounter. They also learned possible solutions to the man made hazards for migrating cranes. The older group participated in a refuge tour and acted in a mock-up of the decision making process that led to the Necedah NWR area being tentatively selected for the project. The group's visit was funded by a grant from the International Crane Foundation. (**10/28/99**)

78. Detroit Lakes WMD Restores Native Prairie at Middle School

Detroit Lakes Wetland Management District

Detroit Lakes WMD staff seeded 15 acres of school yard at the new Central Middle School in East Grand Forks, Minn., with a native grass and forb seed mix. An additional 15 acres are scheduled to be seeded during spring 2000. These seedlings will provide opportunities for the students and members of the East Grand Forks and Grand Forks, North Dakota communities to experience native prairie habitat and learn about its benefits. (**10/28/99**)

79. Annual Congressional Contacts with Field Staff Made

Agassiz National Wildlife Refuge

Refuge Manager Margaret Anderson made annual visits to Minnesota Congressional Staffs in October. Visits were accomplished with Maynard Pick of Congressman Collin Peterson's office; Mark Anderson of Sen. Paul Wellstone's office and Dave Chura of Sen. Rod Grams office.

The staff members were updated on the status of research projects, continued water issues regarding ditch maintenance and Thief River Flood Mediation Group, private lands, and cooperative efforts to improve ecotourism in the area. All were invited for a field visit. All received a copy of the document, 'Fulfilling the Promise - The National Wildlife Refuge System', 1999 National Wildlife Refuge Week & Wolf Awareness Week posters, and a 2000 National Wildlife Refuge Calendar. (**10/28/99**)

80. Final Data for Rydell NWR CCP Submitted

Detroit Lakes Wetland Management District

The wildlife species list and vision statement for the Rydell NWR Comprehensive Conservation Plan (CCP) were completed and submitted to the Regional Office during the last week of October 1999. This is, hopefully, the final information needed to complete the CCP. (**10/28/99**)

81. EQIP Program-Success in the Cache River Watershed (FY99)

Cypress Creek National Wildlife Refuge

The Environmental Quality Incentives Program (EQIP) consolidates the functions of four existing conservation programs into a single program. The program targets locally-identified conservation priority areas to areas where agricultural improvements will help meet water quality goals. Refuge staff work closely with the Natural Resources Conservation Service (NRCS) in the Cache River Watershed on both EQIP and Wetland Reserve Program. For 1999, Refuge staff provided assistance on 75 habitat management/enhance projects that include 2,200 acres in the Cache River Watershed. (**10/29/99**)

82. Detroit Lakes WMD Staff Participates in High School Career Day

Detroit Lakes Wetland Management District

On Oct. 29, 1999, Biologist Mary Soler participated in a Career Day for High School Students at the Win-E-Mac School near Erskine, Minn. Representatives from many fields spoke with 10-12th grade students about job requirements, typical workdays, job rewards, etc. A total of 36 students attended the natural resources career sessions. (**10/29/99**)

83. Detroit Lakes WMD Staff Participates in Union Lake/Sarah Flood Meeting

Detroit Lakes Wetland Management District

On Oct. 29, 1999, Wildlife Biologist Les Peterson attended a Sand Hill Watershed Board meeting concerning the Union Lake/Sarah Improvement District's proposal to pump lake flood waters through the Union Lake Waterfowl Production Area (WPA) in Polk County to the Sandhill River.

The Improvement District was

issued an emergency Special Use Permit to begin discharging water into a wetland on the Union Lake WPA on October 15, however, as of Oct. 29, 1999, the pumping had no yet begun because of equipment problems. The WMD has not yet received a proposal or application from the Lake Improvement District for a permanent right-of-way permit for the pipeline. (**10/29/99**)

84. Conservation Planning Workshop at Minnesota Valley
Minnesota Valley National Wildlife Refuge
Three Comprehensive Conservation Planning work groups met for the second time during October 1999, at Minnesota Valley NWR. The work groups are Refuge Management and Biology, Threats and Conflicts, and Refuge Expansion and Watershed Activities. The meetings were successful in that they resulted in Minnesota Valley NWR receiving many suggestions as to how the Service should manage the refuge and its future. Attendees included representatives from natural resource agencies, city and county governments, organizations, and concerned individuals. (**10/29/99**)

85. Muscatatuck NWR Holds Team Building Retreat
Muscatatuck National Wildlife Refuge
Muscatatuck NWR held a team building retreat Sept. 30, 1999, for Refuge staff, volunteers, and partners. Sixteen people attended the retreat, which focused on improving problem solving skills that involve teamwork while working toward our goal of 'fulfilling the promise' for wildlife, habitat, and people through effective leadership. (**10/30/99**)

86. Muscatatuck NWR Staffs Booth at the National FFA Convention, Service Recognized for Support
Muscatatuck National Wildlife Refuge
Muscatatuck NWR personnel staffed a booth at the 34th annual career show at the National Future Farmers of America (FFA) Convention in Louisville, Ky. The Service was honored by the National FFA Convention for its outstanding support as a 20-year exhibitor at the FFA National Agricultural Career Show Oct 27-29, 1999. Ron Bell and Squaw Creek NWR deserve most of the credit for this award as they did the show for many years when it was held in Kansas City. Over 52,000 members of FFA attended the convention. (**10/30/99**)

87. Halloween Hike Features Refuge's Critters of the Night at Necedah NWR
Necedah National Wildlife Refuge
Ninety eight visitors took part in Necedah National Wildlife Refuge's first Halloween Hike Oct. 30, 1999. The event started at 7 p.m. with individual groups leaving the headquarters building every 15 minutes until 9:30 p.m. The staff-guided hikes wound through the refuge woods and introduced visitors to creatures of the night. Staff members and volunteers dressed as nocturnal critters and presented short interpretive talks to the groups as they passed by. Creatures included a wolf, moon, bat, flying squirrel and skunk. The Friends of Necedah NWR sponsored the event, providing refreshments and supplies. (**10/30/99**)

88. Cache River Wetlands Restoration Project
Cypress Creek National Wildlife Refuge
Refuge staff assisted The Nature Conservancy with its 11th Annual Acorn Collection Oct. 30-31, 1999. The event is held at Horseshoe Lake Conservation Area and targets youth groups (Scouts, 4H, etc.) and volunteers to assist with the collection. Over 730 youth and adults participated in the event. Collected acorns will be sorted and planted. Seedlings will be used to reforest bottomland hardwoods in the watershed. (**10/30/99**)

89. Neal Smith NWR Hosts More Than 7,600 Visitors in October
Neal Smith National Wildlife Refuge
In October 1999, more than 7,600 visitors participated in Refuge public use activities at Neal Smith NWR in central Iowa. The public participated in hunting, environmental education, wildlife viewing, and visitor center activities. The most positive aspect of the visitation is the public's interaction with the tallgrass prairie ecosystem. (**10/31/99**)

November 1999

90. Minnesota DNR Harvests Walleye Fingerlings from Detroit Lakes Wetlands
Detroit Lakes Wetland Management District
Staff from the Minnesota Department of Natural Resource in Detroit Lakes, Minn., harvested more than 37,000 walleye fingerlings from Type V wetlands on five Waterfowl Production Areas at

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the Detroit Lakes Wetland Management District during fall 1999. The interagency cooperation has allowed the state to stock and rear walleye fry in certain wetlands on several WPAs in the District for a number of years. The fish are harvested in the fall as fingerlings and used to stock local Minnesota walleye fishing lakes. (**11/1/99**)

91. Prairie Seed Harvest Processing Completed by Detroit Lakes WMD

Detroit Lakes Wetland Management District

34,000 pounds of prairie seed were harvested and processed during the fall of 1999 by staff from the Detroit Lakes Wetland Management District. Fergus Falls WMD is presently cleaning their collected seed at Detroit Lakes WMD with Sherburne NWR scheduled to arrive the first week in November. (**11/1/99**)

92. Region's Migratory Bird Programs Posted to New Web Page

Division of Refuges and Wildlife

Region 3 now has a new and improved Migratory Birds Web Page, accessible from Regional Home Page. This site gives an overview of the Regional Migratory Birds Program, and provides links to many national bird initiatives, including the North American Waterfowl Management Plan and Partners In Flight. The 'Frequently Asked Questions' section will answer many common questions about birds and people's relationship with them. The new Web site will provide the public with greater awareness of migratory bird issues an access to current information about Service programs. The site can be accessed at URL: www.fws.gov/r3pao and selecting 'Birds' under the 'Wildlife and Habitat' heading. (**11/1/99**)

93. Seney NWR Photo Contest Winners Announced

Seney National Wildlife Refuge

Seney National Wildlife Refuge in cooperation with the Seney Natural History Association is pleased to announce the winners of its 1999 Amateur Photo Contest. All contest entries were placed on display at the Refuge Visitor Center during the month of September. Throughout the month visitors voted for their three favorite photographs in each category - recreation, landscape, and wildlife. After the votes were counted first, second, and third place winners were determined.

Wildlife Category: 1st Place—Ron St. Germain, Lansing, Mich.; 2nd Place—Lynn Murphy, Chassell, Mich.; 3rd Place—Bruce J. Fawley, Rockford, Mich.

Recreation Category: 1st Place—Pat Miszewski, Cedar Springs, Mich.; 2nd Place—Dick Dohman, Engadine, Mich.; 3rd Place—Donna Wilson, Grosse Pointe, Mich.

Landscape Category: 1st Place—Lynn Murphy, Chassell, Mich.; 2nd Place—Ron St. Germain, East Lansing, Mich.; 3rd Place—Joyce Fawley, Rockford, Mich.

Sixty-one entries were received for this year's contest. Each participant received a certificate. The Seney Natural History Association awarded first place winners with a gift. (**11/2/99**)

94. Agassiz NWR: Riprap/Crushed Rock Delivered for Boat Landings

Agassiz National Wildlife Refuge

Olson Gravel Inc., Trail, Minn., delivered and stocked 440 yards of 1.5' crushed rock and 300 yards of Class 1 riprap to be used to repair boat landings damaged by two years of flooding at Agassiz NWR. (**11/2/99**)

95. Area Wildlife Food Plot Project Rewards Youths, Creates Food Source for Wildlife

Fergus Falls Wetland Management District/PWLC

Chuck Vukonich from the Fergus Falls Wetland Management District (WMD) helped coordinate an area wildlife feeding project that awards young people for establishing food plots on their family's property. Vukonich contacted Future Farmers of America (FFA) advisors at high schools in Fergus Falls, Ashby, Underwood, Battle Lake and Pelican Rapids, Minn., as well as the west Otter Tail County 4-H advisor.

The Project encourages youth up to the age of 21 to work with their parents to plan and plant a wildlife food plot on their own property. Each plot must have two different forage crops. A committee judges and scores each plot. Cash prizes are awarded to the top three plots:$200 for first place, $100 for second place and $50 for third place. Each participant receives a $50 savings bond. The project is funded through an equal partnership between the Minnesota Deer Hunters Association, Pheasants Forever, and Fergus Falls Fish & Game Club. This year, 14 participants planted 38 acres of food plots for the benefit of local wildlife. (**11/3/99**)

96. Muscatatuck NWR Sandhill Crane Count
Muscatatuck National Wildlife Refuge
Muscatatuck NWR reported its annual Fall sandhill crane activity with 350 cranes on November 3, 1999, and 50 cranes on November 4, 1999. (**11/4/99**)

97. Refuge Acquires New Partner
Minnesota Valley National Wildlife Refuge
Minnesota Valley NWR and the Minnesota Native Plant Society (NPS) formally entered into a partnership in November 1999. The refuge will host the society general membership meetings each month and their board meetings. The NPS has agreed to do interpretive programs for the refuge on native plants and to contribute articles to the refuge calendar/newsletter. Both will work together on a Spring symposium which will address issues in native plant restorations for the new millenium. (**11/4/99**)

98. Native Prairie Seed Cleaning for Fergus Falls WMD
Fergus Falls Wetland Management District/PWLC
The Fergus Falls WMD staff cleaned 7,150 pounds of native grass seed at the seed cleaning facility at Detroit Lakes WMD. The seed was harvested from five different sites throughout the district. Three of the areas collected from were Waterfowl Production Areas and two were tracts belonging to the Minnesota Department of Natural Resources. This seed will be used next spring to reestablish native prairie on Waterfowl Production Areas and RIM properties. (**11/5/99**)

99. Girl Scouts Enjoy Day at Trempealeau Refuge
Trempealeau National Wildlife Refuge
Sixty girl scouts traveled to Trempealeau NWR on Saturday November 6 for an afternoon of outdoor activities. With temperatures in the 60's, sunny skies, and plenty of wildlife, the scouts learned about duck identification, watched birds from the observation deck, walked through the woods using all of their senses except sight, collected native grass seed to be replanted on the refuge, and made pine cone bird feeders to take home. Everyone enjoyed seeing all kinds of wildlife and the habitats they live in. (**11/6/99**)

100. Refuge's War on Buckthorn Helps Determine Density and Control Measures
Minnesota Valley National Wildlife Refuge
Refuge staff and volunteers declared 'war on buckthorn' Nov. 7, 1999. Thirty-six Boy Scouts and their families pulled 1,586 of the 'invaders,' (*Rhamnus cathartica & R. frangula*) within a quarter-acre test plot in 20 minutes. All who wanted hiking staffs of the enemy then cut and pulled their own for the next 20 minutes of this benchmark resource-oriented interpretive program. One buckthorn staff, two-inches in diameter, had 38 annual rings. The program helped determine the density of buckthorn on this part of the Refuge and demonstrated the challenge of its control to program participants. Since roughly 80 percent of the quarter-acre plot was cleared in the allotted time and the number of plants pulled was 1,586, we can safely assume that its density is more than 6,000 plants per acre on this part of the Long Meadow Lake Unit. (**11/7/99**)

101. Muscatatuck NWR Encourages WRP and Partners for Fish and Wildlife Programs
Muscatatuck National Wildlife Refuge
Staff from Muscatatuck NWR continue to take conservation efforts off the Refuge; actively encouraging public participation in the Wetland Reserve Program (WRP) and Partners for Fish and Wildlife program. In October and November 1999, Partners for Fish and Wildlife wetland restorations completed were Jennings County (the Bolenbaugh wetland one acre), Washington County (Fisher wetland of two acres), and Ripley County (Kissel wetland of four acres). Four other potential sites were checked. Three WRP sites, totaling 115 acres, were checked in cooperation with the NRCS. (**11/10/99**)

102. Reporters Learn Benefits of Mississippi River Environmental Management Project
Upper Mississippi River National Wildlife and Fish Refuge-LaCrosse.
The Upper Mississippi River National Wildlife and Fish Refuge and the U.S. Army Corps of Engineers recently joined reporters from area newspapers to view work on the $346,000 Environmental Management Project on Long Lake near Trempealeau, Wis. The Long Lake Environmental Management Project began in late October. The project involves excavating a 760-foot channel between the upper Mississippi River main channel

Continued next page.

and Long Lake, and installing a water control structure to regulate water flow into Long Lake. The project is designed to improve fish habitat by reducing or eliminating oxygen depletion problems associated with the lake. Service and Corps staff provided reporters from Winona and LaCrosse Tribunes and the Galesville Republican access to the construction site where they were updated on the project which is still under construction. (**11/10/99**)

103. Service Diversity Recruiting

DeSoto National Wildlife Refuge

On November 9, 500 students attended the Career Night at Blair High School, Nebraska, where DeSoto NWR Outdoor Planner Bruce Weber gave a presentation about Service careers. The audience was a rich diversity of backgrounds. This was followed on Nov. 11, 2000, by a half-day job shadowing by two students with Mr. Weber at the Refuge. (**11/11/99**)

104. Wildfire Burns Prairie Chicken Habitat on Detroit Lakes WMD

Detroit Lakes Wetland Management District

On Nov. 11, 1999, a neighboring land owner to the 1,300 acre Helliksen Prairie Waterfowl Production Area (WPA) in Becker County, Minn., called District staff to report a wildfire on the WPA. The fire had been burning on the WPA for about 36 hours before the staff was notified, were able to reach the area and extinguish the fire. About 740 acres burned on the WPA, in addition to 250 acres of adjoining private grassland. Six prairie chickens and a moose were seen on the WPA during the fire suppression activities. All of the wetlands on the WPA were full to capacity, which slowed the fire's progress somewhat but also hampered the fire crew's efforts to extinguish the fire. The cause of the fire, which appeared to have started on neighboring private property, is under investigation. (**11/11/99**)

105. Muscatatuck NWR Builds Accessible Fishing Area

Muscatatuck National Wildlife Refuge

Muscatatuck NWR maintenance staff partnered with volunteers from Atterbury Job Corp and Green Thumb to build an accessible fishing area for the Sandhill Pond fishing complex area. This included 365 feet of concrete sidewalk and a concrete fishing access platform. (**11/12/99**)

106. Twin Cities Tree Trust helps Refuge Repair Hiking Trail

Minnesota Valley National Wildlife Refuge

Participants in the Twin Cities Tree Trust work program installed 64 water bars on the one-half mile hiking trail near the visitor center of Minnesota Valley NWR. The trail, constructed by Twin Cities Tree Trust participants in 1989, was prone to severe erosion. Bars made out of recycled plastic 2-inch x 4-inch lumber and conveyer belt were installed at 90 degree angles to the trail at 10 foot intervals. It's hoped that very little maintenance will be required on the trail in the future. Twin Cities Tree Trust is a nonprofit corporation whose mission is to provide educational and employment experiences for disadvantaged and at-risk youth. (**11/13/99**)

107. Archery Permit Hunts Help Manage Deer at Horicon NWR

Horicon National Wildlife Refuge

Archery permit hunts were held at both Horicon NWR and Fox River NWR. Both hunts were successful in that hunters enjoyed the hunt and saw a lot of deer. Several deer were harvested at each of the hunts. The special permit hunt at Horicon Refuge has been ongoing since 1994 where hunters apply for the opportunity to archery hunt in a designated 600 acre area around the office and visitor center. Eight hunters are randomly drawn for a one week time slot during the approximate eight-week season. The hunt at Fox River Refuge was held for the first time this year, at the request of adjacent landowners who had deer depredation problems and hunters who wanted the opportunity to archery hunt. Both viewpoints were expressed at a public meeting held during the winter of 1998.

Over 100 hunters applied for special archery permit hunts held at Horicon National Wildlife Refuge since 1994 and for the first time at Fox River National Wildlife Refuge. Sixty-five hunters were selected for the Horicon Refuge hunt for eight one-week time slots (about 8 hunters per week) and twenty five hunters were selected to hunt Fox River Refuge during the last four days of the archery season. Only about a dozen deer were harvested, but the hunts were very successful in that hunters enjoyed the hunts and saw lots of deer. The Fox River Refuge hunt was held as a direct result of public input provided at a public forum last winter (**11/14/99**)

108. Successful Fall Season at Horicon National Wildlife Refuge

Horicon National Wildlife Refuge

Another successful fall season has ended at Horicon National Wildlife Refuge. Most of the 500,000 people who visit the marsh do so in October when the Canada geese are migrating and thousands of ducks and other wildlife are amidst the fall colors. Volunteers contributed over 400 hours, along with Refuge staff, in keeping the visitor center open every weekend. Over 12,000 people stopped in as a result of their efforts. One to two programs were conducted each day during the fall for school and other youth groups, reaching over 2,500 youth. (**11/15/99**)

109. Muscatatuck NWR Presents PFF&W Program at Visitor Center

Muscatatuck National Wildlife Refuge

Muscatatuck NWR ROS Knowles presented the Partners for Fish and Wildlife Program opportunities during a meeting with 12 NRCS employees at the Refuge visitor center. The focus of the program was to create awareness and to continue working together to utilize Partners for Fish and Wildlife programs for good stewardship of the land. (**11/15/99**)

110. Cache River Friends Receive C2000 Funds for Projects at Cypress Creek Refuge

Cypress Creek National Wildlife Refuge

The Friends of the Cache River Watershed received $23,250 from Conservation 2000 (C2000) to help fund restorations and education projects on the Cypress Creek National Wildlife Refuge. The C2000 program provides technical and financial assistance to landowners and organizations to enhance natural resources in environmentally sensitive watersheds in Illinois. Projects include 150 acres of wetland restoration work and the implementation of a Cache River Wetlands teachers' inservice. The Friends of the Cache River Watershed will use C2000 Funding on the following projects: Two wetland restoration projects totaling 150 acres and the development of the Cache River Wetland Teacher Inservice. The inservice will focus on swamp ecology and educational approaches that utilize the Refuge and Cache River Wetlands. (**11/15/99**)

111. Winona District's Observation Deck Draws 20,000 Visitors

Upper Mississippi River National Wildlife and Fish Refuge-Winona District

During the fall of 1999, over 20,000 visitors from 41 states, 34 foreign countries, two provinces and a territory in Canada visited the Rieck's Lake Observation Deck located on the Winona District of Upper Miss. River National Wildlife and Fish Refuge near Alma, Wisconsin to observe tundra swans, mallards and other migrating waterfowl.

Well trained District Volunteers donated over 1,200 hours answering questions and providing interpretive materials to Refuge visitors. Staff and volunteers hosted 18 bus tours, 2 offsite presentations and 8 school groups to the deck. Volunteers answered 484 telephone calls regarding the swan migration and reported 7,581 hits to the Alma Swan Watch website. (**11/15/99**)

112. Wetland Restoration on Cypress Creek NWR

Cypress Creek National Wildlife Refuge

A 40-acre wetland was restored on the Poole Tract of the Cypress Creek Refuge. The wetland is adjacent to, and drains into a native cypress wetland. The project was funded through a Ducks Unlimited MARSH grant. The restored wetland provides valuable habitat for wading birds, waterfowl, and resident wildlife. (**11/15/99**)

113. America's Serengeti: Arctic NWR Comes to Michigan

Shiawassee National Wildlife Refuge

Green Point Environmental Learning Center, part of the Shiawassee NWR, hosted an exciting multi-media slide show on Monday, November 15, 1999. Fourteen people attended the program. Ken Madsen, an award-winning photographer, writer, and conservationist presented a slide show of his journey to "America's Serengeti," the Arctic National Wildlife Refuge in Alaska, in the summer of 1998. Internationally-renowned recording artist, Matthew Lien, and a group of northern musicians provided a unique blend of original music and digital audio-recordings from the Arctic wilderness on the CD "Caribou Commons," which formed the soundtrack for the slide show. Liz Hensen, a representative of the native Gwich'in people joined Madsen and described the age-old relationship between the Porcupine Caribou and her people. The slide program informed people about the urgent need to prevent oil development in the Arctic NWR and provide

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permanent protection for the calving grounds of the Porcupine Caribou herd. (**11/15/99**)

114. Refuges Chief Jim Kurth Visits Necedah NWR
Necedah National Wildlife Refuge
Chief of Refuges Jim Kurth made an unexpected visit to Necedah NWR while in route to other locations in Wisconsin. Kurth toured endangered species activity sites in the field, and he was impressed with the variety of Refuge activities. Furth learned much about Necedah NWR during his visit. (**11/17/99**)

115. LaCrescent Businessmen Learn About Upper Mississippi Refuge
Upper Mississippi River National Wildlife and Fish Refuge—LaCrosse District
District Manager Jim Nissen was the guest speaker at the monthly meeting of the La Crescent Area Chamber of Commerce. Nissen spoke to 20 business leaders about the Upper Mississippi River National Wildlife and Fish Refuge. Nissen discussed Refuge programs and activities to the 20 business leaders in attendance. Hopefully, this group will serve as a 'jumping off' point for future Refuge projects in the La Crescent area. (**11/17/99**)

116. Agassiz NWR Roads Receive Facelift.
Agassiz National Wildlife Refuge
Tygeson Construction completed tailgate spreading of 10,000 Tons of Class V gravel on 41 miles of roads on Agassiz NWR. Roads graveled include: Westgate, Pool 8, Northwest, Tamarac, Lost Bay Habitat Drive, Airport, Northgate, Webster, Pool 21, Narrow Dike, East Boundary and 194. The road maintenance was accomplished with flood dollars received as a result of two years of above average winter precipitation which caused flooding in the springs of 1996 and 1997. The 1997 flood was a 210 year event. Many roads were under water for extended periods of time, gravel was lost. (**11/17/99**)

117. Agassiz NWR: East Olson Lake Road/Dike Rehabilitated
Agassiz National Wildlife Refuge
Ralph Mckeever Construction of Middle River, Minn., completed rehabilitation of one mile of the East Olson Lakes Road and dike. (1 mile). Rehabilitation included coring to clay, pulling up the slopes, crowning road and leveling. The road had deteriorated, and was for the most part inaccessible for vehicles prior to floods in 1996 and 1997. Wet years caused further deterioration. As with most of our roads and dikes, not only are they critical to water management but also for fire management (suppression/prescribed burns). Fire Funds were used for this project. (**11/17/99**)

118. Agassiz NWR: Fall Burning Completed
Agassiz National Wildlife Refuge
More than 1,400 acres on five units on Agassiz NWR were control-burned during the fall of 1999. Four Units totaling 1,780 acres were successfully burned; one unit totaling 400 acres was not successfully burned. Units burned include: Goose Pen, 100 acres; West Parker Triangle South, 40 acres, Moose Pasture, 1,300 acres. Changing weather conditions allowed only 15 acres of the 400 acre Kelley Pool to be burned. (**11/17/99**)

119. Elementary Students Learn About Endangered Species
Big Stone National Wildlife Refuge
About 60 first and second grade students at James Knoll Elementary School, Ortonville, Minn., learned about endangered species during a presentation by Brigitte Olson, wildlife biologist at Big Stone NWR. Pupils handled items made from endangered species and viewed a slide show presented by Olson. Students and teachers learned the primary causes of endangerment and the role the Service plays in administering the Endangered Species Act (**11/23/99**)

120. Trempealeau Refuge Hosts Gun Deer Hunt
Trempealeau National Wildlife Refuge
Trempealeau NWR held a gun deer hunt during the Wisconsin state season, November 20-28, 1999. Sixty permits were issued and about 45 hunters used the refuge opening weekend. Eleven deer (seven bucks, four does) were reported taken during the nine-day season. Four volunteers ran the deer check station on opening weekend from 7 a.m. to 5 p.m. (**11/28/99**)

December 1999

121. Big Muddy NFWR and Missouri Audubon Leaders Discuss Partnership Opportunities
Big Muddy National Fish and Wildlife Refuge
Big Muddy National Fish and Wildlife Refuge Manager Thomas G. Bell met with Gene Ruhr of the Columbia Chapter of the Audubon

Society and Russ Sewell, the new Missouri State Director for Audubon Nov. 29, 1999, to discuss Big Muddy Refuge goals, objectives, needs, and partnering opportunities. Mr. Sewell comes to Audubon from Minnesota's Pheasants Forever. Well versed with the Service and its partnering efforts, Mr. Sewell is looking forward to establishing similar working relations with the Big Muddy NFWR and other Service stations in Missouri. Encouraging conservation partnerships, such as those with the Audubon Society, helps improve habitat for wildlife and fish as well as interpretive opportunities for the public. (**11/29/99**)

122. District Staff Discusses Partnership Opportunities With Coots Unlimited

Fergus Falls Wetland Management District/PWLC

Jim Piehl from the Fergus Falls WMD spoke to Coots Unlimited in Ashby at their evening meeting on November 29. He made a request for their financial support for private lands wetland restorations in their area, replacing water control structures on two local WPA's and activity fees for sending their local students to the Prairie Wetlands Learning Center (PWLC). There were about 15 people at the meeting. Jim talked with the president a week after the meeting and he indicated that they would fund some wetland restorations in their area and set up a fund at the PWLC for students from the Ashby school. (**11/29/99**)

123. Muscatatuck NWR Provides Tour for Rose Acres Farm

Muscatatuck National Wildlife Refuge

Muscatatuck NWR provided a tour of the Refuge to Rose Acre farms Vice President Mike McCory. The tour also helped enhance our knowledge of the local industry and to explore the potential for future partnerships. The 2000 FFA convention offers a tour of Rose Acre farms to young adults and Muscatatuck NWR will be added as a stop on that tour. (**12/1/99**)

124. Muscatatuck NWR Receives Report on Cave System

Muscatatuck National Wildlife Refuge

Muscatatuck NWR and the Ohio River Valley Ecosystem Team (ORVE) received a preliminary report on the Binkley Cave/Karst study that indicates 68 species have been found in the 20 mile cave system, including 18 species of significant global rarity and seven species new to science. Muscatatuck NWR, in partnership with The Nature Conservancy, held a meeting to review the final report on the findings of the ORVE cave/karst subgroup project. Attendees included representatives of Indiana Karst Conservancy, TNC, government agencies, private industry and private individuals. The group held a brainstorming session to help plan and implement conservation efforts within this unique cave/karst area of Indiana. TNC is currently working with U.S. Geological Survey and the Refuge, and has submitted grant proposals to IDEM and Service to do further study. Refuge Operations Specialist Susan Knowles is the project manager. (**12/1/99**)

125. Saginaw's Hidden Refuge

Shiawassee National Wildlife Refuge

Green Point Environmental Learning Center, part of the Shiawassee NWR, hosted its monthly First Wednesday Discovery Series Program Dec. 1, 1999. This month's topic was "Saginaw's Hidden Refuge." Seventeen people attended the program. Park Ranger Becky Goche told the people about the National Wildlife Refuge in their own backyard. She showed slides of various habitat, wildlife and public use activities available on the Refuge. A variety of handouts were available for people to take home. (**12/1/99**)

126. Agassiz NWR Joins Minnesota DNR to Host Tour For Red Lake Watershed Board

Agassiz National Wildlife Refuge

Refuge staff joined state managers from Thief Lake Wildlife Management Area (WMA) Manager and Elm Lake WMA to host a two-day tour of the respective wildlife management areas for the Red Lake Watershed Board and several private landowners. The focus was water management specifically winter levels. First day of the Tour took in Thief Lake and Moose River impoundments. The second day took in Agassiz NWR and Elm Lake WMA. Issues discussed: drawdowns, early drawdowns, current water levels, destroyed (flooded timber), floating logs, winter pool levels and needs, wildlife use, beaver dams, water stored up-stream of Moose River and Agassiz, Ditch 83/Thief River cleanout, and relationships of the impoundments within the watershed. (**12/1/99**)

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127. More Households Exposed to PWLC Earth Stewards TV Show

Fergus Falls Wetland Management District/PWLC

The monthly Earth Stewards TV Show hosted by the Service's Education Specialist, Teresa Jaskiewicz, has expanded area coverage with the addition of 13,500 homes in the Detroit Lakes area. Through the Public Education Government (P.E.G.)Access Channel, the show currently reaches 5,000 homes in the Fergus Falls area and is aired twice a week. Reaching more homes with the Earth Stewards TV Show will increase the public awareness of various important environmental issues. (**12/1/99**)

128. Minnesota Ornithologists Learn About Habitat and Shorebirds at Big Stone NWR

Big Stone National Wildlife Refuge

A presentation focusing on the habitats and shorebirds of Big Stone National Wildlife Refuge (NWR) was presented to participants at the Minnesota Ornithologist's Union (MOU) annual paper session at the James Ford Bell Museum of Natural History, University of Minnesota, Mpls. on Dec. 4, 1999. The audience, consisting of over 350 MOU members and guests, were introduced to the migration chronology, habitat requirements and diet of shorebirds that use this Refuge located in western Minnesota. Wildlife Biologist Bridget Olson explained the wetland habitat management practices undertaken at Big Stone NWR to provide critical migration habitat for this significant group of birds. (**12/4/99**)

129. Spruce Tree Harvest on Rydell NWR:

Detroit Lakes Wetland Management District

The Friends of Rydell Refuge Association hosted their Second Annual Christmas Tree Sale Dec. 4- 5, 1999. Over 400 conifers were harvested in the nine hour sale period. In addition to this sale, nearly 400 trees were removed by non-profit organizations to be resold as part of their fund raisers. The removal of conifers is part of the effort to restore a portion of the Refuge back to a maple/basswood forest ecotype similar to what occurred in this area prior to homesteading. (**12/5/99**)

130. Natural Resource Survey Completed on Refuge

Cypress Creek National Wildlife Refuge

The Natural Resource Survey of the Cypress Illinois Quadrangle was completed by the Natural Resources Conservation Service with assistance from Cypress Creek NWR, Illinois Department of Natural Resources, The Nature Conservancy, U.S. Forest Service, and Southern Illinois University. This valuable tool provides an inventory of the soil, water, plant, and human resources for part of the Cache River Watershed. The Cypress Quadrangle includes a large portion of the Refuge and was selected to test the concept of building a natural resource GIS. Natural Resource data layers were acquired and developed by the project partners and will help resource agencies and communities understand and conserve resources found within the Cache River Basin. (**12/6/99**)

131. Detroit Lakes WMD Staff Participates in Flood Reduction Team Meeting

Detroit Lakes Wetland Management District

On Dec. 7, 1999, Biologist Les Peterson attended a Sand Hill Watershed Flood Reduction Team meeting concerning the Union Lake/Sarah Improvement District's proposal to pump lake flood waters through the Union Lake WPA in Polk County to the Sandhill River. The Improvement District was issued an emergency Special Use Permit to begin discharging water into a wetland on the Union Lake WPA and began pumping on Oct 30. Numerous problems have plagued the pumping operation and the pump has been in operation less than half of the possible 54 days. The water level on Union Lakes has been lowered about one foot and Sarah Lake has been lowered about six inches. The Lake Improvement District estimates that Union Lake will be lowered another foot by December 31 when the DNR temporary permit expires. The WMD has not yet received a proposal or application from the Lake Improvement District for a permanent right-of-way permit for the pipeline. Another topic discussed by the Flood Reduction Team was possible solutions to perpetual flooding problems along Maple Creek, in southwest Polk County. (**12/7/99**)

132. Sertoma Club Learns About Wetland Restoration Program

Fergus Falls Wetland Management District/PWLC

Jim Piehl from the Fergus Falls WMD spoke to the Sertoma Club at its noon luncheon Dec. 8, 1999.

This was an informational meeting on the value of wetlands and our wetland restoration program. Twenty people attended. A question and answer period followed. (**12/8/99**)

133. Agassiz NWR Annual Moose Survey Indicates No Further Declines

Agassiz National Wildlife Refuge

Agassiz NWR Biologist Huschle and Tractor Operator VanEps completed the annual aerial moose survey with Regional Pilot Bob Foster Dec. 9, 1999. Incredibly, there was no snow on the ground. Results indicate no further declines in the population occurred in 1999 and when compared to the previous three years [1998(42),1997(72),1996(71)] indicate little change in the population. This survey has been conducted since 1968. (**12/9/99**)

134. Minnesota Valley NWR Waterfowl Production Areas Restored

Minnesota Valley National Wildlife Refuge

Staff at the Minnesota Valley National Wildlife Refuge worked in concert with local environmental organizations and sportsman clubs this season to restore wetlands on a number of Waterfowl Production Areas(WPA). Restoration work has resulted in a total of 113 permanently protected wetland acres in Sibley, Blue Earth, and Steele counties. These restored wetlands occurred on newly acquired federal lands including Hahn Lake and High Island WPAs in Sibley County; Dodge Creek WPA in Steele County, and Howard Farm WPA in Blue Earth County.

Community support made this restoration work possible. State and local organizations supporting the projects included: Minnesota Waterfowl Association, Ducks Unlimited, Minnesota Pheasants, Green Isle Sportsman's Club, Silver Lake Conservation Club, and Brunz Construction, Inc. (**12/10/99**)

135. Muscatatuck NWR Used as Training Ground for Students

Muscatatuck National Wildlife Refuge

Muscatatuck NWR along with Atterbury Job Corp was featured on the front page of The Jackson County Banner. The story highlighted how the Refuge is being used as a training ground for students to learn job skills while restoring wetlands. One student was featured as learning new skills and rebuilding his life. (**12/10/99**)

136. First Yellow River Focus Area Wildlife Management Agreements

Necedah National Wildlife Refuge

Necedah NWR Project Leader Wargowsky, Private Lands Biologist Peterson and Park Ranger Power held a signing ceremony honoring the first private landowners along the Yellow River to enter into wildlife management agreements with the Service. Necedah NWR recently began a private lands initiative along a 25 mile stretch of the Yellow River adjacent to the Refuge's eastern boundary. The Yellow River basin contains one of the few contiguous tracts of bottomland hardwoods in Wisconsin. It is home to abundant wildlife including the cerulean warbler, Karner blue butterfly, and one of the five remaining Eastern massasauga rattlesnake populations in Wisconsin. Necedah NWR provides a variety of technical assistance to private landowners, including wetland restorations, prescribe buring, brush clearing, and timber sale consultations. In exchange for this assistance, private landowners enter into 10 year agreements with the Service. The ceremony was featured in the Juneau County Star Times and on a local radio program. As of Dec. 20, 1999, six landowners entered agreements totaling 126 acres. Necedah NWR has also provided technical assistance to 23 landowners owning 3,331 acres. (**12/10/99**)

137. Minnesota Valley NWR Restores Wetland, Maintains Fish Passage

Minnesota Valley National Wildlife Refuge

Minnesota Valley NWR employed the Partners for Fish and Wildlife Program to help restore a 15-acre wetland basin in Rice County, Minn. The privately-owned wetland complex, protected by a habitat easement, compliments neighboring Erin Prairie Waterfowl Production Area (WPA). The restoration effort incorporated the use of a vortex rock weir to facilitate fish migration in the Sand Creek and Cannon River watersheds. Partners in the project include: Minnesota Department of Natural Resources, Minnesota Waterfowl Association and the Metropolitan Council. (**12/10/99**)

138. Wisconsin Conservation Partners Garner $1 Million for Wetlands and Grasslands

Wisconsin Private Lands Office

The Service and 11 other conservation partners in Wisconsin will be the recipients of $1 million from the North American Wetlands Conservation Act. State conservation partners included in the funding are the Wisconsin Department of Natural Resources, The

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Nature Conservancy and Madison (Wis.) Audubon Society. The funds are earmarked to acquire and restore more than 3,000 acres of wetlands and 2,000 acres of associated wetlands in south central Wisconsin. The wetland restoration projects were developed and the grant written by the Service's Wisconsin Private Lands Office in Madison, Wis. (**12/15/99**)

139. Muscatatuck NWR Replaces Guardrails at Lakes & Bridges

Muscatatuck National Wildlife Refuge

Muscatatuck NWR replaced almost a mile of guardrails on Stanfield and Richart Lake and at two bridges with TEA 21 MMS funds. This was done as a bid contract and the final was done Dec. 15, 1999. New metal guardrails (corten steel that turns rustic looking) were installed replacing old wooden guardrails. (**12/15/99**)

140. School Group Learns About Food Chains

Necedah National Wildlife Refuge

Sixty-two second graders and four teachers learned about their place in the chain of life when Refuge staff visited their classroom Dec. 15, 1999. Students participated in two activities. In the first, they identified whether pictures of various natural objects portrayed energy (the sun), producers, primary consumers, or secondary consumers. In the second, students created their own food chains with strips of colored paper, and wrote examples of each trophic level on the strips. Students were also asked to identify where humans fit on the food chain. (**12/15/99**)

141. Results of Interdisciplinary Study at Big Muddy NFWR Published

Big Muddy National Fish and Wildlife Refuge

The results of a five-year study into the affects of Missouri River flooding on the Lisbon Bottom Unit of the Big Muddy National Fish and Wildlife Refuge have been published. The report, 'Initial Biotic Survey of the Lisbon Bottom, Big Muddy National Fish and Wildlife Refuge,' edited by Dale Humburg and Vincent Burke, summarizes several interdisciplinary studies which were initiated after the Great Flood of 1993 devastated the Lisbon Bottom Unit's farmland and network of levees.

The studies resulted from collaboration among various researchers, universities, and State and Federal conservation agencies and investigated the short-term effects of the flood and expand information about the Missouri River and flood-plain systems. The studies included in the report investigate baseline information that managers can use to assess restoration efforts on Lisbon Bottom and other units of the Big Muddy NFWR.

The publication records significant findings of a 5-year study done at the 2,300-acre Lisbon Bottom Unit of the Big Muddy NFWR, including the physical setting, post-flood vegetation communities, aquatic macroinvertebrates, fishes of Missouri River, chute, and flood-plain habitats, waterbirds, herpetofauna, and mammals.

The study was part of a much larger study called the Missouri River Post-flood Evaluation, done in 1994-1998. Twenty-four sites, four at Lisbon Bottom, were intensively studied on the ground. A total of 140 sites from Hartsburg Mo., to Sioux City, Iowa, were included in aerial collection of data. Results of the larger study are also available.

Copies of the report are available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161 (1-800-553-6847 or 703-487-4650). (**12/15/99**)

142. Rieck's Lake Observation Deck Draws 17,000 to Watch Migrating Swans and Waterfowl

Upper Mississippi River National Wildlife and Fish Refuge-Winona District

During the fall of 1999, more than 17,000 visitors from 41 states, 34 foreign countries, two Canadian provinces and one territory observed tundra swans, mallards and other migrating waterfowl from Rieck's Lake observation deck at the Upper Mississippi National Wildlife and Fish Refuge's Winona District near Alma, Wis. Well-trained District volunteers donated over 1,200 hours answering questions and providing interpretive materials to Refuge visitors. Staff and volunteers hosted 18 bus tours, 2 offsite presentations, and 8 school groups to the deck. Volunteers answered 484 telephone calls regarding the swan migration and reported 7,581 hits to the Alma Swan Watch website. (**12/15/99**)

143. Muscatatuck NWR Maintenance Staff Attend Open House

Muscatatuck National Wildlife Refuge

Muscatatuck NWR maintenance staff MM Pagel and TO Adkins attended an open house at

Atterbury Job Corp Center and spoke with students about career opportunities and the work they have done at MNWR. Point of Contact: Susan Knowles (**12/16/99**)

144. Cypress Creek Refuge Christmas Bird Count

Cypress Creek National Wildlife Refuge

December 1999 brought the seventh annual Christmas Bird Count to Cypress Creek-Cache River Wetlands. Birders of all skill levels assisted Refuge/Joint Venture staff with the count. Participants also included members of the area Audubon Society, Illinois Natural History Survey, Sierra Club, Illinois Department of Natural Resources, and local citizens. The Christmas Bird Count reached a new record of 102 species. Thirty-two volunteers spent from dawn to dusk in the bottomland forests, open fields, and uplands. As a result of an excellent acorn production, numbers of Redheaded woodpeckers and Northern flickers reached a national high count. (**12/17/99**)

145. New Web Page Highlights Resource Programs and Opportunities at Seney NWR

Seney National Wildlife Refuge

A new Web page offering the public new information about resources and recreational opportunities on Seney National Wildlife Refuge was posted to the Worldwide Web Jan. 20, 2000. The new web page allows internet users to search for information about the Refuge, as well as satellite refuges maintained by Seney NWR. Documents, maps and images can be downloaded by the user, reducing information requests from users with access to the Internet. The public can find the new site at: http://www.fws.gov/r3pao/seney/index.htm (**12/20/99**)

146. Students Learn About Global Information System's Part in Conservation

Upper Mississippi River National Wildlife and Fish Refuge -Complex HQ

Twenty-one high school students from the Minnesota Academy of Math and Science in Winona, Minn., attended two afternoon presentations on the Geographic Information System (GIS) by Biological Science Technician Laurie Wlosinski Dec. 20-21, 1999. The presentations covered the technological aspects of orbiting satellites transmitting data to hand held units, data encryption, decoding and downloading to computers. As part of a hands-on exercise, the students used the PLGR to record the area of the office parking lot, downloaded the data into the computer and used the software ArcView to make maps. Examples of the many day-to-day uses of GIS in Refuge management activities were demonstrated. (**12/20/99**)

147. Cooperative Agreement Allows Friends of Necedah NWR to Sell Educational Items to Refuge Visitors

Necedah National Wildlife Refuge

The Friends of Necedah NWR, Inc., will begin selling educational and souvenir items in early January at Necedah NWR following approval of the concept by the Regional Office Dec. 27, 1999. The 44,000-acre refuge sees approximately 140,000 visitors annually and these people will have the ability to learn additional information from their stop at the refuge, thanks to this new sales outlet. The organization has selected several items for the outlet, including books, posters, field guides, and other interesting items. Originally formed in November 1998, the fledgling, nonprofit group has made much progress at the refuge, including sponsoring several events, boosting volunteerism, and now, providing additional visitor services. (**12/27/99**)

January 2000

148. Muscatatuck NWR Hosts Christmas Bird Count

Muscatatuck National Wildlife Refuge

Muscatatuck NWR volunteers took part in the national "Christmas Bird Count" program. The Muscatatuck count was done on Jan. 1, 2000 by 25 birders who found 79 species of birds. (**1/1/00**)

149. New Friends of Squaw Creek" Established "

Squaw Creek National Wildlife Refuge

A new Friends Group, the "Friends of Squaw Creek" was officially established in January and its incorporation papers completed in April 2000. A total of more than 100 people have signed up for membership. The Friends received a start-up grant and funds for the assistance in developing the Mike Callow Memorial Trail. (**1/1/00**)

150. Grant to Fund Service's Rock River Watershed Study at Horicon Marsh

Horicon National Wildlife Refuge

The Service, in partnership with the Lake Sinissippi Association and the Wisconsin Department of

Continued next page.

Natural Resources, received notice of their successful grant application Jan 3, 2000, that will fund a water quality project at Horicon marsh. The project involves continuing four water monitoring stations around the Horicon Marsh and lab analysis of samples collected at a cost of $120,000.

The comprehensive water quality and flow volume monitoring project has been underway since 1997, collecting data on the quality of water entering and leaving the marsh. The amount of phosphorous and suspended sediments entering and leaving the Horicon Marsh will be collected.

Results of the project is needed to quantify the effects of land use changes within the watershed on water quality and flow. It will also help determine the effect of marsh management strategies, like the present drawdown, has on water quality leaving the Horicon Marsh. The data collected will also be used to determine major contributors of phosphorous into the marsh and educate those responsible in an effort to return the Horicon Marsh to a healthy ecosystem. Since the Rock River Watershed is experiencing significant land use changes with small dairy farms being replaced with large farms and cash croppers; and agricultural lands being replaced by residential at increasing rates, additional monitoring is needed to quantify the effects of these land use changes on water quality and flow. It will also help to determine the effect marsh management strategies, like the present drawdown, have on water quality leaving the Horicon Marsh. (**1/3/00**)

151. Morning Sun Christian School Presentation

Fergus Falls Wetland Management District/PWLC

Chuck Vukonich from the Fergus Falls Wetland Management District (WMD) gave a presentation to approximately 150 elementary students and staff from the Morning Sun Christian School, Fergus Falls, Minn., Jan. 4, 2000. Vukonich talked about antlers, predators, aging and general information on web of life principles in nature. (**1/4/00**)

152. Cypress Creek NWR Partners Schools Receive Grants

Cypress Creek National Wildlife Refuge

Five schools, all partners of the Cypress Creek National Wildlife Refuge received $45,000 Science/Technology grants to develop projects based on problem based learning. Teachers and students (grades K-12) will work on various projects centered on environmental features/issues within the Cypress Creek-Cache River Wetlands. A community showcase will be held in April to commemorate Earth Day highlight the results of student projects and the values of science and technology to life-long learning. The overall goal of this project is to develop a group of life-long learners who are scientifically and technically literate, interested in natural resource issues, and capable of seeking career opportunities in the southern Illinois area. Objectives highlight environmental/cultural awareness; knowledge of how the environment plays a role in the economic growth of the area; and skills to research status/health of related natural resources. (**1/5/00**)

153. Polar Bear Pause Program Presented at Shiawasee's Green Point Learning Center

Shiawassee National Wildlife Refuge

Green Point Environmental Learning Center, part of the Shiawassee NWR, hosted its monthly "First Wednesday Discovery Series Program" Jan. 5, 2000. Myles Willard, a local wildlife photographer and Refuge volunteer, presented a slide program called "Polar Bear Pause." To capture images for his new show, Willard traveled to a research center outside of Churchill, Manitoba, which boasts the largest concentration of polar bears in the world. During his visit, in early November, the bears congregate near the shores of the Hudson Bay, waiting for the ice to form. Once it does, they are able to move out to their seal-hunting grounds. Willard focused on the personality and behavior of the bears and he captured moments of mothers nursing their cubs to males engaged in battle. Nineteen people attended the presentation. (**1/5/00**)

154. Ducks Unlimited MARSH Grant Will Help Restore 600 Acres of Uplands, Produce More than 200 Ducks

Detroit Lakes Wetland Management District

Waterfowl production on the Detroit Lakes Wetland Management District received a boost from Ducks Unlimited recently when it received a $20,000 MARSH grant from Ducks Unlimited Jan. 6, 2000. The money will be used in conjunction with other matching funds to harvest and process native prairie grass and forb seed used to restore 600 acres of uplands on

District Waterfowl Production Areas. An estimated 235 ducks will be produced on these acres each year and numerous resident wildlife species will benefit as well. (**1/6/00**)

155. Polk County Approves Acquisition Proposal From Detroit Lakes WMD

Detroit Lakes Wetland Management District

Commissioners in Polk County, Minn., approved a request by the Detroit Lakes Wetland Management District to purchase a 55-acre tract located next to Rydell National Wildlife Refuge, Jan. 7, 2000. The tract borders the Refuge on three sides. Approximately half the site is wetland.

The Commission took advantage of the opportunity to direct significant questions and "comments" at Realty Specialist Don Kleven concerning the Services tax payments (revenue sharing - $1.50/acre) not being "equal" to what everyone else on the Commission has to pay for similar lands. While some on the commission expressed mixed feelings about revenue sharing in lieu of taxes, they stated had no right to advise citizens who they "could" or could not sell their land to. (**1/7/00**)

156. 175 Hunters Participate in Muzzle Loader Deer Hunt at Squaw Creek NWR

Squaw Creek National Wildlife Refuge

Squaw Creek Refuge's annual "anterless only" deer hunt for muzzle loading firearms was conducted on the Refuge Jan. 8-9, 2000. Three hundred sixty four hopeful hunters applied for the 175 available permits. There were 111 deer harvested with a hunter success of 56 percent. The hunt was initiated in 1988 to help reduce an overpopulation of deer that had been damaging Refuge and private croplands, and reduce the number of deer who were being hit on the adjacent roads. (**1/8/00**)

157. Film Crew Records Deer Hunt For Hunters With Disabilities at Swan Lake NWR

Swan Lake National Wildlife Refuge

Eight hunters with disabilities participated in Swan Lake National Wildlife Refuge annual deer hunt Jan. 8-9, 2000. The eight hunters teamed with a host of volunteers to harvest 10 deer during the two-day hunt. A film crew from Bass Pro Shop's Outdoor World covered the event and also recorded other Refuge wildlife. Volunteers contributed more than 300 hours toward the successful event. (**1/10/00**)

158. Union Slough NWR - Deer Hunt 1999

Union Slough National Wildlife Refuge

Closed portions of Union Slough NWR were open for anterless deer hunting the last two days of the three major seasons: 1st and 2nd shotgun and muzzleloader/bow. A total of 118 deer (23 bucks, 11 button bucks, 73 does, and 11 unknown) were taken during the 1999 hunt. This number includes deer taken on public hunting areas of the Refuge. (**1/10/00**)

159. Horicon Refuge Celebrates 3,300 Hours of Volunteer Contributions

Horicon National Wildlife Refuge

Horicon NWR recently celebrated a successful year of conserving wildlife and habitat with support from volunteers. During 1999, 148 people volunteered in wildlife, habitat, outreach, administrative, and maintenance projects for the Horicon NWR. Volunteers contributed over 3,300 hours of time and talent, at an estimated value of more than $44,600. Fifty-three people attended the annual volunteer recognition event.

Top awards included: Betty Flesch of Fond du Lac (volunteer of the year) who worked 70 hours in 1999. She staffed the visitor center, assisted with the annual fishing expedition, and learned a new computer software program for entry and management of volunteer data. Flesch also plans to volunteer in 2000 as a rolling reader, promoting nature and literacy to local at-risk children. Her volunteer service at the marsh started almost 10 years ago when she helped research and compile the refuge's bird list and staffed the information booth on Highway 49. Jack Bartholmai of Beaver Dam was recognized as the individual who worked the most hours. Bartholmai worked 240 hours in 1999 as a resident and on-call wildlife photographer for the refuge. He shared his photographs with area newspapers and upgraded the quantity and quality of photos available in the refuge's slide library for information requests. These photos have appeared in numerous publications, such as phone books, magazines, and exhibits throughout the Midwest.

The Beaver Dam Charter School was spotlighted for the third year in a row as the group that worked the most hours. In 1999, a record 56 students and

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staff contributed a record 1,240 hours in maintenance, habitat, and outreach projects. (**1/11/00**)

160. Friends of Necedah Opens Sales Outlet

Necedah National Wildlife Refuge

The Friends of Necedah National Wildlife Refuge (NWR) opened its retail sales outlet Jan. 11, 2000 allowing, for the first time on the Refuge, visitors to the 44,000 acre refuge the opportunity to purchase educational and refuge promotional items. Necedah NWR sees approximately 140,000 visitors annually, many of whom express interest in purchasing souvenirs of the refuge as well as educational materials. The Group's sales outlet offers items such as bluebird nest box kits, field guides, refuge passports and children's items. The Group plans to regularly add to its stock over the next several months. Donations made to the organization helped to purchase the original stock and display racks. (**1/11/00**)

161. Detroit Lakes WMD Assists with Flood Reduction Project

Detroit Lakes Wetland Management District

On Jan. 11, 2000, Refuge Supervisor Don Hultman, Manager Rick Julian, and Biologist Les Peterson met with the Sand Hill River Watershed Flood Reduction Team at Rydell NWR to discuss the need for further emergency pumping of flood waters from Union and Sarah Lakes into a wetland on the Union Lake WPA in Polk County. The Union Lake/ Sarah Lake Improvement District was issued an emergency Special Use Permit in October, 1999 to discharge water into the WPA wetland for a period of 100 days. Numerous problems plagued the pumping operation throughout the fall so the pump was actually in operation only about one-half of the possible pumping days. On December 31, a portion of the 24-inch PVC pipe that was installed under Polk County Highway 42 ruptured and probably has shut all pumping down for the remainder of the winter. The water levels in Union and Sarah Lakes were lowered about 15 inches by December 31, however, the lakes need to be lowered nearly five more feet to reach the level needed to protect all of the property owners around the lakes. In light of this, the Service has agreed to permit the Lake Improvement District to continue emergency pumping into the WPA wetland until December 31, 2001, with shut-down provisions if biological data shows that continual water discharge into the wetland will cause long-term adverse impacts on waterfowl production. (**1/11/00**)

162. Seventh Graders Learn About Ducks and Their Habitat

Minnesota Valley National Wildlife Refuge

In preparation for the upcoming 2000 Jr. Duck Stamp Contest, Park Ranger Deanne Endrizzi, from the Minnesota Valley NWR, was asked to present a program on ducks and their habitat to Harriet Bishop Elementary School in Savage, Minn., Jan. 11, 2000. The 45 minute session, which included ducks-on-a-stick and a question and answer segment, was a big hit with the 29 seventh graders. (**1/11/00**)

163. Successful Workgroups Provide Valuable Input to Planning Future of Minnesota Valley NWR

Minnesota Valley National Wildlife Refuge

During November and December 1999, Minnesota Valley National Wildlife Refuge held 18 workgroup meetings as part of its public input plan for the development of the Comprehensive Conservation Plan (CCP). The workgroups were developed around issues brought to the forefront by the public who attended open houses in the spring. The issue-based workgroups included: threats & conflicts, environmental education & interpretation, refuge recreational uses, refuge expansion & watershed activities, biology and refuge management. Approximately 100 people attended the workgroup meetings. They were representatives from government agencies, organizations, and concerned individuals. All the meetings were conducted by professional facilitators. Each workgroup developed a series of recommendations that refuge staff will use in the development of the CCP document. Refuge Manager Rick Schultz hopes to have the draft CCP document completed by spring 2000. (**1/12/00**)

164. McGregor District Begins Work On A New Hiking Trail

Upper Mississippi River National Wildlife and Fish Refuge-McGregor District

Working cooperatively with the Friends of the Upper Mississippi River Refuges (FUMRR) and the Wisconsin Department of Transportation (WIDOT), the McGregor District announced today that visitors will soon be able to enjoy a new hiking trail being built on an island in the Mississippi River. The new trail and parking lot will be located

adjacent to U.S. Highway 18 as it crosses the River between Prairie du Chein, Wis., and Marquette, Iowa. Nearly 2 million vehicles a year utilize this crossing. This will be the District's first hiking trail and will provide easy access to thousands of visitors each year. (**1/13/00**)

165. Detroit Lakes WMD Staff Interviewed On KDLM Radio

Detroit Lakes Wetland Management District

On Jan. 13, 2000, Manager Rick Julian and Biologist Les Peterson were interviewed by KDLM Radio Reporter Patty Heath about the volunteer programs at the District and Rydell NWR ,and snowmobile trespass issues. (**1/13/00**)

166. Completion of the Swan Lake Habitat Rehabilitation and Enhancement Project (HREP)

Mark Twain National Wildlife Refuge-Brussels District

Construction of the Swan Lake Habitat Rehabilitation and Enhancement Project (HREP) at Mark Twain NWR, Brussels District, has been completed. Swan Lake is a 2,900 acre backwater lake, the largest on the Illinois River, located a few miles upstream of the Mississippi River confluence.

The HREP was constructed by the US Army Corps of Engineers, St. Louis District (COE). The Service will manage the two lower lake units (2,600 acres) and the Illinois Department of Natural Resources (DNR) will manage the upper unit (500 acres). The HREP was designed to restore aquatic plants and associated invertebrate communities for the benefit of migratory waterfowl and provide spawning, rearing, and over winter habitat for fish. The project included construction of a riverside levee, an interior cross dike, upland sediment reduction features, two pumps (16,000 and 30,000 gpm), two 20 ft. wide stop log structures, islands, and boat ramps.

The upper unit will be drawn down annually for moist soil plant production. The lower units will be drawn down periodically to consolidate bottom sediments which will provide the necessary substrate for aquatic plant production.

On Feb. 10, 2000, the Refuge hosted a meeting of more than 20 biologists, land managers, and engineers from Southern Illinois University (SIU), Army Corps of Engineers, Long Term Resource Monitoring Program (LTRMP), and Illinois DNR. A tour of the project site was provided. Topics discussed included pre-project monitoring studies, post-project monitoring strategies, and the initial draw down scheduled for this spring/summer.

The Corps of Engineers and Refuge staff agreed to meet again to discuss the physical characteristics of the project. This includes establishing criteria that will define operational success following major modifications to the project's features (including the elimination of the planned 16,000 gpm pump at the Lower Swan Lake Unit) during the six-year construction period. (**1/14/00**)

167. Outreach Through Art: Minnesota Valley's Refuge Gallery

Minnesota Valley National Wildlife Refuge

Since 1992, Minnesota Valley NWR has presented a new art exhibit approximately every six weeks in the art gallery. The art work always has an environmental theme with the goal of educating and increasing awareness of the natural world via art. The quality of the art displayed at the gallery has improved through the years with the gallery attracting more and more mid-career and established artists and art groups. The refuge gallery exhibits have resulted in invitations to the artists to display at other galleries. The gallery has gained popularity, attracting the notice of the metro art critic, Mary Abbe. Mary visited the gallery on Jan. 6, 2000, to review the current exhibit, "End is Where We Start From,'" a collection of works by Women Photographers/Visual Artists and sent photographer Duane Braley the following day to photograph the exhibition. This visit resulted in a two-full page spread in the entertainment section of the Minneapolis Star Tribune on Jan. 14, 2000. (**1/14/00**)

168. Refuge Hosts Cross Country Ski Workshop

Necedah National Wildlife Refuge

Necedah NWR hosted the first of two scheduled cross country ski workshops of the season Jan. 15, 2000. Attendees ranged from age 3 to 63 and included 4-H members, retirees, and families. The workshop attendance totaled 55. Students learned about the history of skiing, the equipment needed, and how to dress for the

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activity. The group then proceeded onto a new trail on the refuge, designed for the ski event. They tackled hills, falls, and various gaits. The event was sponsored by the Friends of Necedah. The Friends of Necedah provided skis for participants to rent. (**1/15/00**)

169. Service Participates in Friends of Big Muddy Planning Meeting

Big Muddy National Fish and Wildlife Refuge

Friends of Big Muddy met with Service staff Jan. 15, 2000, in Columbia, Mo., to plan events for the next several months. Refuge Manager Tom Bell updated the group on recent activities on the Big Muddy NFWR. The Friends group decided to hold monthly outings/workdays and quarterly informational meetings. Work days will be Jan. 29, 2000 at Diana Bend/Overton Bottoms; Feb. 19, 2000 at Jameson Island; and Mar. 11, 2000 at St. Aubert Island. At the next meeting, scheduled for April 27, 2000, Robert Jacobsen, a USGS Hydologist, will present information on Missouri River hydrology. (**1/15/00**)

170. HCE Club Learns About Whooping Cranes at Necedah NWR

Necedah National Wildlife Refuge

LuAnn Rochester presented a slide slow to 23 members of the Jackson County (Wis.) HCE club Jan. 17, 2000. The members and guests were informed about the history of cranes and threats to crane habitat, the start of the International Crane foundation, and the Whooping Crane project. As a result, more people were made aware of the importance of all species, with cranes and their habitat needs being the main topic. Use of the crane costume was also demonstrated for the group. (**1/17/00**)

171. Detroit Lakes District Staff Meets With Izaak Walton League

Detroit Lakes Wetland Management District

Biologist Technician Hanson met with members of the local chapter of the Izaak Walton League Jan. 17, 2000. Hanson gave a presentation about the Wetland District, and answered questions on District management and wildlife biology. The League's local chapter has been very supportive of Service programs at Detroit Lakes WMD over the past few years. (**1/17/00**)

172. Muscatatuck NWR Receives Annual Dragonfly Update

Muscatatuck National Wildlife Refuge

Muscatatuck NWR received its annual dragonfly research update from Dr. Curry of Franklin College. We learned are excited to report that the presence of *Epitheca canis* (Beaverpond Baskettail) a species new to Indiana in 1998, was confirmed in 1999 and has a breeding population on the Refuge's Persimmon Pond Complex. Dr. Curry's book, the Odonata of Indiana is in the final stages and headed to the Academy of Sciences for publication. The 32 species of dragonfly known to exist on the Refuge will be in the publication with photos and ranges listed. (**1/19/00**)

173. Muscatatuck NWR Looks for Potential WRP Sites

Muscatatuck National Wildlife Refuge

Muscatatuck NWR continues to work off the Refuge to encourage Wetland Reserve (WRP) and Partners for Fish and Wildlife programs. In December and January, eight conservation easements were checked and seven potential Partners sites were checked. Potential WRP sites of 100 acres in Washington County and 9 acres in Jackson County were checked with Natural Resources Conservation Service. (**1/20/00**)

174. Horicon Refuge Manager Named Ducks Unlimited Conservation Partner of the Year

Horicon National Wildlife Refuge

Horicon NWR Manager Patti Meyers was named 1999 Conservation Partner of the Year by the Wisconsin Chapter of Ducks Unlimited during its state convention Jan. 21-23, 2000 in Stevens Point, Wis. Meyers has worked closely with Ducks Unlimited, one of the Service's conservation partners, on numerous wetland restorations for the past 10 years. During 1999, Ducks Unlimited help provide funding for two major restoration projects on Refuge wetlands: the Main Dike Project and the Radke Pool Wetland Restoration. Both projects, completed in 1999, were completed at a cost of nearly $596,000. Ducks Unlimited contributed more than $100,000 to the projects, which creates quality habitat for waterfowl and other wildlife. Meyer's award illustrates the excellent partnership between Ducks Unlimited and the Service. (**1/21/00**)

175. Annual Mid-Winter Eagle Census Tallies Fewer Birds at Mark Twain NWR-Brussels District

Mark Twain National Wildlife Refuge-Brussels District

In conjunction with the Illinois Endangered Species Protection Board, Refuge volunteers completed the annual mid-winter bald eagle census for central portions of the state, including the Brussels District of Mark Twain NWR. The 2000 count of 184 total bald eagles was the lowest recorded in the past 10 years, falling far short of the record high of more than 700 birds in 1997. However, the Illinois River portion of the census was higher than normal including 15 eagles on Gilbert Lake and 24 on Swan Lake. The low overall counts were attributed to the poor visibility and weather conditions on the census date. Warmer than normal weather has led to more local lakes being ice-free, leading census participants to suggest the eagles are more widely distributed and, therefore, harder to find. (**1/22/00**)

176. National Association of Retired Federal Employees Learns of Refuge Opportunities at DeSoto NWR

DeSoto National Wildlife Refuge

Refuge resources and programs were the topics of a luncheon program for 40 members of the National Association of Retired Federal Employees at the Best Western Motel in Council Bluffs, Iowa, Jan. 23, 2000. Bruce Weber discussed the resources of DeSoto and Boyer Chute National Wildlife Refuges, and encouraged participation in the refuge's volunteer program. (**1/23/00**)

177. Permit Allowing Bisson Lake Restoration Approved; Prairie Wetlands Ecosystems to Benefit

Hamden Slough National Wildlife Refuge

After four intensive years of seepage, engineering, and hydrological review, the permit for the restoration of Bisson Lake was approved by the Buffalo-Red River Watershed District. Board members voted 2-2, with a tie breaking vote for approval given by the District chairman. Permit approval received intensive review due to local neighbors concerns about seepage on private property and water impact to a county road, which bisects the lake. Bisson Lake is the last piece to the North Star 2000 proposal, and will tie together 130 wetlands in a prairie wetland ecosystem, on the north end of Hamden Slough NWR. This prairie wetland ecosystem includes a complex of different wetland types and a diversity of surrounding prairie grasses and wildflowers. The Bisson Lake restoration will be the 200th wetland to be restored on Hamden Slough and will serve as a model for the restoration of the 1300 acre Hamden Lake basin. The refuge anticipates celebrating the completion of the Bisson Lake restoration with a "200 in 2000" ceremony. (**1/24/00**)

178. Proposed Amphitheater Threatens Minnesota Valley Refuge

Minnesota Valley National Wildlife Refuge

Management staff of Minnesota Valley National Wildlife Refuge in Bloomington, Minn., recently provided comments to officials from Scott County concerning a proposed 20,000-seat outdoor amphitheater. The site being considered for the amphitheater lies next to the Louisville Swamp unit of the Refuge. Refuge officials provided concerns about noise, resource degradation, disturbance to wildlife, and increased potential for vandalism. Considerable opposition to the proposed amphitheater exists among local residents. Scott County plans to rule on the proposed project in March 2000. (**1/24/00**)

179. Public Land Use Facilities Discussed at Missouri River Communities Network Meeting

Big Muddy National Fish and Wildlife Refuge

Senators John Ashcroft and Christopher Bond and Congressman Kenny Hulshof sent representatives to meet January 25, 2000 with the Missouri River Communities Network to discuss a cooperative project to develop public land use facilitates in the Manitou Bluffs section of the Missouri River corridor. Tentatively called the 'Lewis and Clark Greenway' project, the Network hopes to coordinate development of a Missouri River overlook and visitor center at Rocheport, Mo., as well as co-locate a Missouri Department of Transportation rest area.

The Missouri River Communities Network was established to foster coordination of Lewis and Clark commemorations and other future Missouri River activities. Interested parties include the Service's Big Muddy National Fish and Wildlife Refuge, U.S. Army Corps of Engineers, Missouri Departments of Conservation, Natural Resources and Agriculture; county planners, tourism

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groups, landowners, and residents. (**1/25/00**)

180. DeSoto Refuge Hosts Topeka Shiner Recovery Team

DeSoto National Wildlife Refuge

The Topeka Shiner Recovery team met a DeSoto Visitor Center January 26-27, 2000, to discuss efforts to reestablish this species in suitable habitats. Fifteen specialists from throughout the Midwest attended. The meeting was organized by Vernon Tabor of Kansas State University. (**1/26/00**)

181. Service Meets with Levee District to Resolve Missouri River Mitigation Issues

Big Muddy National Fish and Wildlife Refuge

Big Muddy Refuge Manager Thomas Bell and U.S. Army Corps of Engineers representative Bob Dimmitt met with members of the Overton-Wooldridge Levee District in Boonville, Mo., Jan. 27, 2000, to resolve issues concerning the Missouri River Mitigation Project. The project, on lands owned by both the Corps' and the Big Muddy National Wildlife and Fish Refuge, involves construction of a chute to reconnect the Missouri River with its floodplain at Diana Bend/ Overton Bottoms. The Corps' purchased the District's interest in the levee, including that which lies on Service-owned lands. However, the District still wants a one-time payment of about $7,700 from the Service in lieu of any current and future levee district assessments. The District's proposal is being evaluated by the Service. (**1/27/00**)

182. Upper Mississippi River NW&FR, Now Has Monthly Radio Show

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

Outreach efforts for the Upper Mississippi River National Wildlife and Fish Refuge are getting a boost from a southern Minnesota radio station. Station KWNO(AM1230)in Winona, Minn., is reserving a 30-minute slot (8-8:30 a.m.) for the Refuge the last Thursday of each month for the remainder of 2000. This arrangement followed a special, one-time program set up for the Refuge by the Hiawatha Valley Audubon Society. Radio host Bob Sebo is quite knowledgeable about River issues and advocates health of the river. December's show included discussions on waterfowl migration, bald eagles, political initiatives affecting the river, water level management and refuge history. Future topics will cover the Environmental Management Program, future Weaver Bottoms management, public use, Refuge events, where to view wildlife, hunting and trapping issues, etc.

The donated 30-minute airtime is valued at approximately $3,000 as the Morning Show talk with Refuge Biologist Eric Nelson is aired on two frequencies: KWNO and KAGE AM. The stations' signal reaches a 90-mile radius from Winona and includes Rochester, Minn., and LaCrosse, Wis. This public service partnership allows the Service to regularly communicate relevant topics regarding the Upper Mississippi River Refuges to a large local audience, increasing public awareness of the Service and Refuge programs. (**1/27/00**)

183. Detroit Lakes WMD Staff Coordinates Regulation With White Earth Reservation

Detroit Lakes Wetland Management District

Service staff from Detroit Lakes Wetland Management District (WMD), Tamarac NWR, and Hamden Slough NWR met with White Earth Conservation Department Biologist Doug McArthur Jan. 27, 2000, to coordinate regulations that pertain to tribal members on the nearby White Earth Reservation. The discussion included leaching and vehicle trespass by tribal members on Waterfowl Production Areas (WPA) and Tamarac NWR. The Service was invited to participate in an upcoming revision of the White Earth Reservation Conservation Code, to address these issues and others pertaining to the use of federal lands within the Reservation boundaries. Continued coordination with the White Earth Conservation Department will serve to improve regulations and enforcement efforts on the WPAs that lie within the White Earth Reservation. The effort also fosters improved cooperation and communications between the Reservation Council and the Service offices in Becker and Mahnomen counties, Minn. (**1/27/00**)

184. "Around the Pond" Series Looks at a Muskrat's Winter

Fergus Falls Wetland Management District/PWLC

The "Munchin' Muskrats" program sparked the interest and a visit of 25 youngsters and 14 adults to the Prairie Wetlands Learning Center (PWLC) Jan. 27, 2000, to learn what muskrats need for winter survival. Storytelling, making muskrat masks and

informative coloring sheets were just some of the activities taking place indoors. Those attending also dressed for the winter weather and went looking for muskrat homes on the PWLC ponds. The morning program was planned for children age 4-6; the afternoon for second through fourth graders.

Providing fun learning experiences for children and families helps us achieve goals set forth in our mission statement...The mission of the Prairie Wetlands Learning Center is to provide environmental education opportunities for students, private landowners and the general public and to foster stewardship through protection, enhancement and restoration of the prairie pothole ecosystem. (**1/27/00**)

185. Horicon Marsh Completes First Step in Carp Control

Horicon National Wildlife Refuge

Horicon NWR and Horicon Marsh State Wildlife Area have completed a chemical carp eradication project on their individual Main Pools. This is the first step in controlling carp in Horicon Marsh Ecosystem which will vastly improve the water quality and aquatic plant and insect production of over 15,000 acres of marsh. A successful drawdown and good ice eliminated many areas that needed to be treated with Rotenone, leaving only a few pools and the river channels that were treated using drip barrels or direct injection. The Wisconsin Department of Natural Resources (DNR) funded and planned a vast majority of this project. Of the almost 5,600 hours invested into the project, DNR personnel hours totaled 4,790 hours. This commitment from the DNR to control carp in the entire Horicon Marsh is an example of an excellent partnership and cooperation between staffs. The resulting improvement of marsh habitat will benefit waterfowl, wading birds, colonial birds, muskrats, and game fish. (**1/28/00**)

186. New Book Examines Objects Found on Steamboat Bertrand

DeSoto National Wildlife Refuge

The Material Culture of Steamboat Passengers: Archaeological Evidence from the Missouri River, by Annalies Corbin, has just been published by Kluwer Academic/ Plenum Publishers. Taken from her Master's thesis, the book examines the personal belongings from the Steamboats Bertrand and Arabia. Both boats sank in the Missouri River - the Arabia in 1856 and the Bertrand in 1865 - and are the only boats excavated in an archaeological context. Aimed primarily for an academic audience, Corbin's book is full of black and white plates of Bertrand objects which will be valuable for any serious researcher. Bertrand Museum curator, Sarah Tuttle, assisted Corbin with the original thesis research and with preparations for publication. The steamboat Bertrand is located on DeSoto National Wildlife Refuge. (**1/28/00**)

187. "Around the Pond" Series at the Prairie Wetlands Learning Center

Fergus Falls Wetland Management District/PWLC

The "Turtle Tidbits" program attracted 29 children and 16 parents to the Prairie Wetlands Learning Center Jan. 28, 2000, to find out why turtles have shells. Activities included storytelling, making turtle puppets, a turtle race and learning a turtle song. The children also took home an informative coloring sheet on turtles. Children age 4-6 attended the morning program, with second through fourth graders in the afternoon. The turtle races were quite a hit with everyone. The slow but steady approach was once again the winner.

The 'Around the Pond' Series was successful and will be expanded for future use. This will promote the mission of the Prairie Wetlands Learning Center by providing environmental education opportunities for students, private landowners and the general public and to foster stewardship through protection, enhancement and restoration of the prairie pothole ecosystem. (**1/28/00**)

188. New Fishing Pier Completed at Minnesota Valley Wildlife Refuge

Minnesota Valley National Wildlife Refuge

The Twin Cities Tree Trust, a local organization whose goal is to provide work skills to disadvantaged youth, completed a new fishing pier recently in the Bass Ponds area of Minnesota Valley National wildlife Refuge. The project began in the summer of 1999. The Refuge provided the design and materials and Twin Cities Tree Trust provided all the labor free of charge. The fishing pier will be used for Youth Fishing Day, held the second Saturday in June each year and is open to the general public during daylight houts throughout the year. The fishing pier complements an identical one, also constructed by Twin Cities Tree Trust several years ago, on the New Cedar Pond, just east of the Old Cedar

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Avenue Bridge Parking Lot. (**1/28/00**)

189. Detroit Lakes WMD's Lhotka Easement Case Meeting with US Attorney

Detroit Lakes Wetland Management District

Biologist Les Peterson met with U.S. Attorney Lonnie Bryant, Refuge Supervisor Don Hultman, and Rollin Siegfried Jan. 28, 2000, to prepare for the upcoming mediation hearing and trial on the lawsuit that Mr. Lhotka has brought against the Service for trespass and nuisance because of the 1992 restoration of easement wetlands on his property. The mediation hearing will be held on February 29 in Duluth and the trial is scheduled for March 13 in St. Paul. (**1/28/00**)

190. Boy Scouts Introduced to Gun Safety

Litchfield Wetland Management District

Utilizing the Division of Federal Aid's Simulated Action Firearms Education Training for Youth (S.A.F.E.T.Y.) Program, approximately 25 Litchfield boy scouts were instructed on proper shotgun handling, gun safety, and shooting skills. The key component of the program was the Firearm Training System (FATS) which trained participants to shot laser modified shotguns onto a video screen. It was the first exposure to shotguns for many of the scouts and over all reactions were very enthusiastic. (**1/31/00**)

February 2000

191. Muscatatuck NWR Bluebird Boxes Report

Muscatatuck National Wildlife Refuge

Muscatatuck NWR bluebird boxes on the road sign posts were monitored, repaired, and replaced by volunteers. Report from 1999 summer field work showed fledged young were 4 Carolina wrens, 39 house wrens, 33 bluebirds, 113 tree swallows, and 4 English sparrows. (**2/1/00**)

192. Detroit Lakes WMD Attends Sand Hill WD Flood Reduction Team Meeting in February

Detroit Lakes Wetland Management District

Biologist Les Peterson participated in a Sand Hill Watershed Flood Reduction Team meeting Feb. 1, 2000. The Team was updated on the Union Lake/Sarah Improvement District's proposal to pump lake flood waters through the Union Lake Waterfowl Production Area to the Sandhill River, and possible solutions to perpetual flooding problems along Maple Creek, in southwest Polk County were discussed. A tour is scheduled for April 11 to acquaint the Flood Reduction Team members with the flooding problem and view some of the potential solution areas. (**2/1/00**)

193. Ohio River Valley Ecosystem Team (ORVET) Meeting

Muscatatuck National Wildlife Refuge

The Migratory Bird Subgroup of the Ohio River Valley Ecosystem Team (ORVET) met Feb. 2, 2000, in Evansville, Ind. Approximately 15 biologists from the Service's Regions 3, 4, and 5 discussed the proposed Fiscal Year 2000 work plan and reviewed the past year's accomplishments. Dr. Steve Lima gave a presentation on the first year of his grassland/savanna bird productivity monitoring on southeastern Indiana strip mines. Updates on the Henslow's sparrow nest productivity work at Jefferson Proving Ground and the Central Hardwoods Joint Venture Coordinator position were also discussed. The ORVET Geographical Information System (GIS) was briefly demonstrated; the main bird-related application of the GIS to date has been to identify blocks of grassland and forest habitat of varying sizes. The subgroup is proposing to use this GIS to identify potential focus areas for the ORVET. (**2/2/00**)

194. District Staff Participate in West Otter Tail County Crop and Forage Show

Fergus Falls Wetland Management District/PWLC

Chuck Vukonich and Todd Hauge from the Fergus Falls WMD helped set up and run the 'Managing Agriculture for Wildlife Contest' at the West Otter Tail County Crop and Forage show Feb. 2, 2000, in Fergus Falls, Minn. Approximately 500 people attendance. Approximately 75 students representing seven Future Farmers of America (FFA) Chapters from different schools took a test which was a combination identification/written test. The test consists of a wide variety topics on insects, mammals, fish and birds. Battle Lake School had the over all best individual and combined score. (**2/2/00**)

195. Learning Center Features 'Diminutive Beasts: Shiawassee's Small Mammals'

Shiawassee National Wildlife Refuge

Green Point Environmental Learning Center, part of the Shiawassee NWR, hosted its monthly 'First Wednesday Discovery Series' program on February 2, 2000. This month's topic featured, 'Diminutive Beasts: Shiawassee's Small Mammals.' Refuge volunteer, Janie Peters, presented a slide program and informational talk on a variety of small mammals that live on the Refuge. She discussed mammals such as white-footed mice, star-nosed moles, red foxes, and coyotes. Peters had many mounted specimens to show the group. Approximately 31 people attended the program. (**2/2/00**)

196. Horicon Marsh Completes First Step in Carp Control

Horicon National Wildlife Refuge

During January 2000, staff at Horicon NWR and the Wisconsin Department of Natural Resources completed the first step in carp control by conducting a chemical treatment on both the state and federal Main Pools of the Horicon Marsh in southeastern Wisconsin. This first step in controlling carp will improve water quality, aquatic insect and plant production, which in turn will improve habitat for waterfowl, marsh birds, and game fish. Refuge staff used almost 750 gallons of *Rotenone* to treat the Rock River as it enters the refuge and 340 acres of the Main Pool. Additional rotenone was used to treat the Horicon Marsh State Wildlife Area. Staff hours for the entire treatment totaled 5,594 over a two year period of planning and two weeks of treatment. The next step for carp control will be fish traps and spot treatments. The treatment consisted of drawing down the water levels during the winter and treating remaining waters with rotenone by drip barrels and injections. (**2/4/00**)

197. Necedah NWR Hosts Second Cross Country Ski Workshop

Necedah National Wildlife Refuge

Necedah NWR hosted the second cross country ski workshop of the year. Attendees ranged from age 4 to 54. The workshop attendance totaled 17 visitors and included a volunteer instructor and a volunteer photographer. Participants learned about the history of skiing, the equipment needed, and how to dress for the activity. The group then proceeded onto a new trail on the refuge that was design for the ski lessons. They tackled hills, falls, and various gaits. The event was sponsored by the Friends of Necedah NWR. the Friends provided skis for participants to rent at a small fee. (**2/5/00**)

198. Snowfest 2000 Introduces Wildlife-Compatible Winter Sports at Seney NWR

Seney National Wildlife Refuge

More than 361 visitors turned out to celebrate wildlife and winter during Snowfest 2000 at Seney National Wildlife Refuge. Visitors were introduced to wildlife-compatible winter sports during the fest. From 10 a.m. to noon, skis were available for use at the Northern Hardwoods Cross Country Ski Area - free of charge. A local outfitter donates the use of cross country skis. Seney volunteer Frank Hamilton made it possible to accommodate approximately 80 skiers by getting an additional 25 pairs of skis for use on the Refuge, donated by area thrift stores. Skiers enjoyed the "Wildlife Glide," a temporary self-guided interpretive trail on one of the ski trails. Activities continued in the afternoon at the Visitor Center, where visitors snowshoed and participated in a snowshoe race, with prizes provided by the Seney Natural History Association. Sixty-two visitors took advantage of the snowshoes that Iverson Snowshoe Company donated for use at Snowfest. More than 136 people went for a dogsled ride, and visitors participated in snowsnake racing, made tin can lanterns and suet birdfeeders, watched wildlife movies, and snacked on snow ice cream and homemade cookies baked by Seney's volunteers. The event was made possible through the sponsorship of the Seney Natural History Association and the assistance of 20 volunteers. (**2/5/00**)

199. Litchfield WMD and Federal Aid Assist Duck Habitat Day

Litchfield Wetland Management District

Staff from the Litchfield Wetland Management District (WMD) assisted with Duck Habitat Day Feb. 5, 2000, at the Viking Plaza in Alexandria, Minn. The Viking Sportsmen Club and Ostrom Sports West of Dalton sponsored the public event. Participants constructed close to 800 wood duck boxes and 500 bluebird boxes which they were able to take home free of charge. Numerous conservation exhibits, demonstrations, and seminars were conducted including the District's operation of the Federal Aid

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Firearm Training System (FATS). Well over 100 visitors had an opportunity to learn how to safely handle a shotgun and realistically shoot waterfowl on this interactive video system. (**2/5/00**)

200. Upper Mississippi Refuge Tallies Record Count of Canvasback Ducks

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

The 1999 Coordinated Canvasback Survey of the Mississippi and Atlantic Flyways hit a 25-year-high of 549,700 birds. Of those counted 77 percent (423,810) were found on the Upper Mississippi River National Wildlife and Fish Refuge. Most of the birds were located on Pools 7, 8 and 9, with an astounding 290,0270 counted on Pool 9 alone. Surveys began in 1974 to provide a systematic monitoring program of canvasbacks on major staging areas prior to arrival of most birds on the wintering grounds. Most of the counts made in eastern U.S. were completed the week of November 5, 1999. Canvasbacks were present on the Mississippi River in large numbers from the October 25 (431,435) peak throughout November, with 60,000 still on the River during the last survey on December 6, 1999. The May 1999, Breeding Population survey indicated 716,000 canvasbacks were present on the breeding grounds. (**2/7/00**)

201. Detroit Lakes WMD Submits Article on Broadcast Seeding

Detroit Lakes Wetland Management District

An article about broadcast seeding techniques for native grassland plant species was completed and submitted by Biological Technician Larry Hanson for publication in the Tallgrass Prairie Newsletter. (**2/7/00**)

202. Developing Partnership Establishes DeSoto's New Environmental Learning Site

DeSoto National Wildlife Refuge

Refuge managers met Feb. 8, 2000, with representatives of the Omaha Indian Nation and the New Era State Laymen's auxiliary to plan construction of a handicap-accessible fishing pier at DeSoto NWR's environmental learning site. Construction begins in March during a volunteer work day. Funding by American Family Insurance Company is helping make this project a reality. Additional donations from the Nebraska Natural Resource District has further increased the partnerships for this endeavor. (**2/8/00**)

203. DeSoto's Managers Continue Work on CCP

DeSoto National Wildlife Refuge

DeSoto's managers spent another productive day on Feb. 9, 2000, with their team leaders and contractor, Mangi Environmental Group Inc., in modifying the station's goals, objectives and strategies for the Refuge's upcoming Comprehensive Conservation Plan. (**2/9/00**)

204. Shiawasee Refuge Staff Participates in Regional Envirothon

Shiawassee National Wildlife Refuge

Shiawassee NWR participated in the Thumb Area Regional Envirothon at the Genesee Area Skill Center, in Flint, Mich. Twelve Schools from the Thumb area of Michigan send teams of 3-5 students to participate in addressing and/or solving environmental problems related to Aquatics, Sustainable Agriculture, Forestry, Soils, Wildlife and Wetland habitat management. Professionals from fields related to these topics present information on these topics to each team throughout the day and the teams than take a test on each topic and are scored and winners are determined and sent to state level competitions. Shiawassee NWR provided information on wetland types in Michigan and the function and values placed on these habitats by society. (**2/9/00**)

205. Web Site and Brochure Being Developed for Birding Trail

Detroit Lakes Wetland Management District

On February 9, Biologist Les Peterson participated in a steering committee meeting in Thief River Falls, MN to work out details for funding, discuss brochure development, and view the nearly completed web site for the recently opened Pine to Prairie Birding Trail in northwestern Minnesota. The trail, which runs along a 230 mile corridor from Fergus Falls in the south to Warroad in the north, was developed through a partnership of five northwestern Minnesota communities, four National Wildlife

Refuges, two Wetland Management Districts, two birding organizations, Minnesota Office of Tourism, and the Minnesota Department of Natural Resources. A brochure is being developed to highlight the best birding opportunities available along the trail. A web site that provides updated information on bird sightings, birding hot spots, tourist information, weather, and other information that would be helpful to those who are interested in
birding along the Pine to Prairie Birding Trail is nearly completed. The web
site address is: http://www.mnbirdtrail.com. (**2/9/00**)

206. Public Helps Shape Future of Mississippi River's Weaver Bottoms

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

More than 80 people discussed the future management of Weaver Bottoms during a public meeting at the Wabasha-Kellogg High School in Wabasha, Minn., Feb. 10, 2000. Co-sponsored by the Interagency Weaver Bottoms Task Force and the Minnesota-Wisconsin Boundary Area Commission, the meeting included brief presentations by agency personnel and an open-microphone session for public input. Public sentiment supported Task Force recommendations for water level management, island construction, tributary clean-up and increased flows through Weaver Bottoms, in the Mississippi River's Pool 5. Members of the public opposed leaving any dredged sand (potentially used for island construction) within the floodplain. A Citizen's Task Force will emerge from this meeting. Agencies involved include Service, U.S. Army Corps of Engineers, Minnesota and Wisconsin Departments of Natural Resources. (**2/10/00**)

207. Region Watershed Biologist is International Voice For Wetland Conservation

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

As North American Representative on the Ramsar Convention Scientific and Technical Panel (STRP) from January 2000-2002, Watershed Biologist Arthur (Tex) Hawkins has lead responsibility on Wetland Conservation Incentives and Management Planning Task Forces. The initial report on a web-based data deposit for collecting information on references, contacts and cases will be completed in April and presented in draft form at the June STRP meeting at the International Union for Conservation of Nature (IUCN) Headquarters in Gland, Switzerland. STRP members would like to come together to discuss these issues at the North American Wildlife Conference and at the World Wetland Conference in Quebec, but travel authorization and funding to participate appears doubtful for the North American Representative and the Task Force Leader.

The Western Hemisphere Representative of the Service's Office of International Affairs will attend a meeting with Canada and Mexico this month at the Laquna Atascosa Candidate Ramsar Site, were the need to accelerate proposals for designation of additional areas, management training exchange opportunities, and other issues will be discussed. A new U.S. Ramsar Advisory Committee has been formed, and has had its first meeting in Washington D.C. The Watershed Biologist maintains weekly contact with STRP members and the Center for International Earth Science Information Networking, a NASA funded treaty support facility based at Columbia University, where web development for Ramsar is being carried out. (**2/10/00**)

208. Detroit Lakes WMD Staff Interviewed On KDLM Radio

Detroit Lakes Wetland Management District

On Feb. 10, 2000, Biologist Les Peterson and Biological Technician Larry Hanson were interviewed by KDLM Radio Reporter Dan Ochsner about the winter Wetland District activities such as snow seeding, nest baskets, preparation for prescribed burning. (**2/10/00**)

209. Necedah Ranger Rabuck Speaks at the College of the Menomonie Nation

Necedah National Wildlife Refuge

Park Ranger Jennifer Rabuck was a guest speaker for the sophomore level biology course at the College of the Menomonie Nation in Keshena, Wis., Feb. 11, 2000. Rabuck presented a slide program on the reintroduction effort for whooping cranes in the eastern United States. She also provided handouts and a crane costume for the students to try. The class consisted of 25 students, two professors, and two resource professionals. The students were very interested in assisting with the project and in staying updated as the project unfolds. In addition, Rabuck established contacts for future diversity recruitment

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efforts. (**2/11/00**)

210. Common Tern in Minnesota Get Help From Diverse Partnership

Rice Lake National Wildlife Refuge

Seven agencies including, Minnesota, Wisconsin Departments of Natural Resources (DNR), Leech Lake and Mille Lacs Tribal Departments of Natural Resources, University of Minnesota, National Park Service and the Service gathered at the Mille Lacs Tribal Government Center to discuss the status and future management of the common tern in Minnesota. The meeting was coordinated by Rice Lake National Wildlife Refuge (NWR) and hosted by the Mille Lacs Tribal DNR. The common tern is listed as a threatened species by the State of Minnesota and a species of special concern in Region 3 by the Service. Mille Lacs NWR, which is the smallest Refuge in the National Refuge System, is one of only five common tern nesting colony sites in Minnesota. The goal of the Minnesota common tern working group is to address population decline through habitat enhancement and reduction of inter-specific competition from other colonial nesting species. The group agreed to work together to improve the nesting status of the common tern in Minnesota. (**2/11/00**)

211. Patoka Refuge Staff Assists Waterfowl USA Building Woodduck Boxes

Patoka River National Wildlife Refuge

Patoka River NWR staff members (McCoy, Dodd and Mosley) volunteered in the construction of 150 woodduck boxes with other Waterfowl USA members at the Evansville State Hospital on Saturday, Feb. 12, 2000. These boxes are made available at no cost to anyone willing to erect the boxes on wetlands for woodduck nesting. Volunteers erect 12 boxes on the refuge and the remainder will be scattered throughout southwest Indiana. Tulip poplar lumber was donated by Indiana Hardwoods and local Chandler saw mill to Waterfowl USA. Twenty boxes were provided to two Scout Troops who will assemble and erect them in Morgan County, Indiana. (**2/12/00**)

212. 500 Attend Winter Fun Day at Sherburne NWR

Sherburne National Wildlife Refuge

Approximately 500 visitors attended the sixth annual Winter Fun Day at Sherburne NWR Feb. 12, 2000. Winter Fun Day celebrated the 97th Birthday of the National Wildlife Refuge System with opportunities to enjoy low impact winter recreation activities and educational programs on Refuge wildlife and habitat. Fresh snow fell all day making roads snow-packed and slippery and is likely the reason attendance was down 38 percent from the 800 in 1999. Those who braved the weather enjoyed a variety of activities including snowshoeing, cross-country skiing and skijoring with snowshoes provided by the Refuge and skis provided by a local sports shop. Nearly 300 enjoyed a sleigh ride through a restored prairie with volunteer wildlife interpreters on board to provide information on prairie plant and animal adaptations to winter. A series of six mini-presentations led by guest presenters and volunteers provided further environmental education opportunities. Presentations included: Is Skijoring For You?, The Many Styles of Snowshoes, Wildlife In Winter, Winter Bird Feeding, How to Dress For Winter and the Dog Sledding Challenge. Other activities included a deer/wolf snowshoe game, bird feeder construction, face painting, and exhibits on winter camping equipment, ice fishing, and bird feeding. The day ended with a candlelight ski and bonfire held at Sand Dunes State Forest which drew over 175 skiers. The event, co-sponsored by the Refuge and the Friends of Sherburne, was made possible with assistance from 81 Refuge volunteers and partnerships with Minnesota Department of Natural Resources, Hennepin Parks, REI, Wild Bird Crossing, Fitzharriss Ski & Sports and University of Minnesota Extension - Mille Lacs County - 4-H. (**2/12/00**)

213. Union Slough NWR studies sedimentation of refuge

Union Slough National Wildlife Refuge

Union Slough NWR installed 10 sedimentation monitoring pads in Refuge
wetlands during the winter months of 1999-2000. To monitor sedimentation rates, soil sample cores will be taken over a period of time and the amount of new sediment will be apparent above the pad. There is concern because sediment entering the refuge from the surrounding watershed can cause major physical and biological changes to the refuge wetlands. Monitoring the rate of sedimentation will provide a means to measure the success of conservation practices in the watershed (e.g.conversion of row crop

acreage to restored prairie, conservation tillage, streambank stabilization, filter strips). (**2/12/00**)

214. Upper Miss Refuge & La Crosse FRO at Sports Show

Upper Mississippi River National Wildlife and Fish Refuge-LaCrosse District

Staff from the Upper Mississippi River National Wildlife and Fish Refuge - LaCrosse District and LaCrosse Fishery Resources Office staffed a Service Information booth at the LaCrosse Area Sports Show Feb.10-13, 2000, in LaCrosse, Wis. Approximately 1,000 people stopped by the booth to get information about the Service. Posters, brochures and career information were also provided to visitors. (**2/13/00**)

215. Service Presents Program at Minnesota's Sibley State Park

Litchfield Wetland Management District

At the request of the Park Naturalist at Minnesota's Sibley State Park, Steve Erickson of the Litchfield Wetland Management District recently gave a public presentation at the Park's Interpretive Center. Sibley State Park is located near New London in west-central Minnesota. The Service operates numerous Waterfowl Production Areas in the vicinity of the Park and has completed hundreds of wetland restorations on private lands in the area. The Service has also assisted with wetland restorations within the Park. Many of those who attended are area residents who often have a poor understanding of the Service, its mission, and local activities. Frequently the Service is mistaken for 'the DNR'. Therefore, the first half of the presentation provided information on the Service, its origins, and why we have programs and activities throughout the Country and, more specifically , on the prairie lands of Minnesota. Slides, maps and posters were used in conjunction with this verbal presentation. The program concluded with a showing of the excellent video 'The Prairie Pothole Region: Changes and Choices' and then a brief question and answer period. The Park's invitation provided us with an excellent opportunity for public outreach and interagency cooperation (**2/13/00**)

216. Partnership Restores 16-Acre Wetland in Lincoln County, Minn.

Big Stone National Wildlife Refuge

A 16-acre wetland was restored on private land in Lincoln County, Minn., thanks to the efforts of a partnership between the Service, Ducks Unlimited, Area 2 Minnesota River Basin Project and Partners for Wildlife. The restoration cost of $13,500 was shared between Ducks Unlimited ($5,100), Area 2 Minnesota River Basin Projects, Inc. ($2,500) and the Service's Challenge Cost Share Program, which contributed $5,000. and Partners For Wildlife ($900). In addition, an offer for a permanent easement has been made to the landowner and it was accepted. (**2/15/00**)

217. Private Land Burning Agreements Secured from WPA Neighbors

Detroit Lakes Wetland Management District

Private Land Burning Agreements have been secured from 26 landowners who are neighbors of 12 Waterfowl Production Areas (WPA) where prescribed burns are schedule for spring of 2000. The burning agreements allow Wetland Management District fire crews to more efficiently and safely prescribe burn grassland habitat on the WPAs. In many cases, adjacent, privately owned grassland acres are also burned by the crew to enhance their wildlife values. Several of the private grasslands are enrolled in the Conservation Reserve Program (CRP) so permission also had to be received from two Farm Services Agency offices. (**2/15/00**)

218. Fergus Falls Fish and Game Club Partners to Assemble Nesting Boxes

Fergus Falls Wetland Management District/PWLC

Since 1991, partnership between the Fergus Falls Fish and Game Club and the Service's Fergus Falls Wetland Management District has helped construct more than 2,600 wood duck boxes and 2,400 bluebird boxes. Many of the bluebird boxes have been distributed to scouts, young green wing groups, and 4-H clubs. All the other boxes are sold at cost to private individuals. In 2000, the Fergus Falls Fish and Game Club spent $1,800 on materials which made 261 wood duck houses and 335 bluebird houses. About 200 volunteer hours were devoted to this project in 2000. The partnership began in the early 1980s, when Service staff worked on a

Continued next page.

weekend with the club members to assemble wood duck and bluebird boxes. (**2/15/00**)

219. Recently Completed Prairie Plan Will Help Dakota Skipper

Big Stone National Wildlife Refuge

A plan to help Big Stone National Wildlife Refuge manage native prairie to benefit the Dakota Skipper, a small prairie butterfly, was completed Feb. 15, 2000. The current range for the skipper is restricted to prairie remnants in North Dakota, South Dakota, southern Manitoba, western Minnesota and perhaps in Iowa. In Minnesota, the skipper is designated as threatened, and in Iowa it is listed as endangered. A small population of skippers were found on Big Stone during surveys conducted last summer. The management plan calls for a decrease in exotic cool-season grasses, tree cover, and shrubs. It also recommends forb cover be increased by at least 20-30 percent. The primary tool used to achieve these objectives will be prescribed fire. Continued monitoring of habitat and population surveys will help the Refuge track its management activities. (**2/15/00**)

220. Grassland Bird Study Discussed at DeSoto NWR

DeSoto National Wildlife Refuge

The results of the grassland bird study carried out by Northwestern College over the last two summers was the subject of a presentation at the DeSoto NWR Visitors Center Jan. 15, 2000. Senior student Sarah Bowdish discussed her summer work at DeSoto surveying grassland bird communities in study plots that were mowed, burned and left untreated. It was concluded these birds do better if the grass plots are large as opposed to being split into many small fields. A dozen people attended the presentation. (**2/15/00**)

221. Service Participates in Minnesota Eco-tourism Workshop

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

Refuge Biologist Eric Nelson and Park Ranger Cindy Samples participated in a workshop titled: 'Minnesota - Where Wild Things Are: Profiting from Wildlife Tourism,' at the St. James Hotel in Red Wing, Minn. The meeting was attended by Minnesota Department of Natural Resources (DNR) Commissioner Alan Berger. Co-sponsored by DNR Nongame Wildlife Program, Minnesota Ornithologists' Union, Minnesota Resort Association and the Minnesota Legislative Commission for Minnesota Resources, the workshop was designed to give the hospitality industry ideas on tapping into the $380,000,000 that 650,000 people spend per year while traveling in Minnesota to see wildlife. Nelson's presentation described the annual Winona Bald Eagle and Swan watches that the Service and DNR have participated in over the past 15 years. He emphasized that resorts should utilize the expertise of DNR and Service naturalists and biologists for tours and interpretation. He also cautioned the hospitality representatives to not disturb nesting wildlife, not rally flocks of birds and not destroy habitat while in pursuit of wildlife. (**2/16/00**)

222. Great Introduction to Eco-Tourism and its Benefits to Us as a Refuge

Minnesota Valley National Wildlife Refuge

Judie Miller attended the Minnesota Department of Natural Resources sponsored workshop 'Minnesota—Where Wild Things are: Profiting from Wildlife Tourism' given on February 16 in Red Wing. The workshop was excellent providing a strong foundation for understanding the importance of 'Eco-Tourism' in Minnesota. Many ideas regarding potential partnerships with the tourism and hospitality industry were spun from this meeting. It also offered great networking opportunities and a greater awareness of Minnesota's treasures found within its public lands. Minnesota Valley National Wildlife Refuge will be hosting this workshop on June 6. (**2/16/00**)

223. Muscatatuck NWR Copperbelly Meeting

Muscatatuck National Wildlife Refuge

Muscatatuck NWR was the site of a meeting to discuss 1999 results and 2000 plans for an ongoing copperbelly watersnake telemetry study. In attendance were private consultants, Earlham College, and Muscatatuck staff. (Point of Contact: Mike Oliver) (**2/17/00**)

224. Volunteer Recognized at DeSoto NWR

DeSoto National Wildlife Refuge

A volunteer recognition luncheon was held Thursday, February 17th, at DeSoto Visitor Center to recognize the work of 89 volunteers who contributed 4,697 hours in 1999. 1,000-hour-pins were presented to the Freeman Family and Gary Caldwell, assistants with the curatorial and trail

programs, respectively. An Service Volunteer shopping bag was presented to Dan and Faith Muerren who contributed just under 1,000 hours helping in the museum. Calendars, Service patches and FWS Blue Goose pins were given as souvenirs to the volunteers who attended the lunchtime potluck. Audubon Society of Omaha was presented with the 1999 'Volunteer of the Year Award'. Its many committed members have contributed more than 5,000 hours during the past decade. Thirty-three people attended the luncheon, including 24 volunteers and 9 staff. Bill Lutz, DeSoto's new Chief Ranger, gave a talk about the surprising early settlement of North America. (**2/17/00**)

225. DeSoto Hosts Loess Hills Alliance Endangered Habitat Meeting

DeSoto National Wildlife Refuge

The Loess Hills Alliance met at DeSoto Visitor Center Feb. 18, 2000, to discuss the conservation of the Loess Hills in western Iowa. Twenty-five representatives discussed the current exploitation of this rare land form, and ways that the National Park Service can help acquire or otherwise protect parcels of land from willing sellers. (**2/18/00**)

226. Necedah Staff Hosts Nestbox Building Workshop

Necedah National Wildlife Refuge

Staff at Necedah NWR hosted a nestbox building workshop Feb. 19, 2000. The workshop, sponsored by the Friends of Necedah NWR, attracted 20 visitors—ages five to 75—from as far away as Milwaukee, Wis. Participants had their choice of building a bluebird house, a bat house, or a kestrel/screech owl box. The workshop will be repeated March 11. (**2/19/00**)

227. Chain Saw Course Hosted by Trempealeau NWR

Trempealeau National Wildlife Refuge

Trempealeau NWR hosted a chain saw safety course organized by the Wisconsin Conservation Corps. Forest Industry Safety and Training Alliance, Inc. taught the course which emphasized proper cutting techniques and body mechanics. Two refuge employees and seven Corps crew leaders participated. About twenty trees were removed from a hedgerow during practical exercises in the afternoon. Two prairie areas will be connected when the entire hedgerow is removed. (**2/22/00**)

228. Iowa Parks Managers Tour DeSoto NWR

DeSoto National Wildlife Refuge

Bruce Weber of DeSoto NWR led a group of Iowa State Park managers on a tour of DeSoto NWR Feb. 22, 2000. Included was area manager Bob Sietz and managers of Prairie Rose, Wilson Island and Lake Manawa State Parks. Discussion included visitation trends and interpretive themes. (**2/22/00**)

229. Steamboat Bertrand Objects Loaned to Mystic Seaport Museum

DeSoto National Wildlife Refuge

The Mystic Seaport Museum in Mystic, Conn., borrowed 48 types of objects from the Steamboat Bertrand Museum for its major new exhibit, "America and the Sea." The exhibit is scheduled to open in June. The Bertrand objects will be used to help interpret the 'Inland Waterways' section. Objects associated with Connecticut or the ocean will be highlighted. The Bertrand's cargo contained teaspoons and smoothing planes manufactured in Connecticut, cod fish from Maine, and many imported items from Europe such as sardines from France and brass 'Tally-Ho' buttons from England. Other examples from the 1865 cargo include men's boots and a hat, children's shoes, a hair comb, a pick axe and a shovel, trade beads and a thimble, and several examples of bottles (jelly, champagne, and pickles). The objects will remain on exhibit through 2003. (**2/23/00**)

230. Upper Mississippi River Refuge Teams With US Geological Survey

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

To meet anticipated planning needs, $60,000 were transferred to the Upper Midwest Environmental Sciences Center and Dr. Carl Korschgen's direction for the purpose of importing data into the Decision Support System. The refuge will now have the use of digitized habitat coverages from 1975 photography on all 12 UMR Pools in the Refuge, an exceptionally valuable historical reference for setting planning goals. In addition, 15 years of aerial waterfowl survey data and 5 years of spring, summer, and fall point count data have been entered in the DSS data bank. This will help us analyze population trends and habitat use areas on the refuge. (**2/23/00**)

231. WMD Staff Assists Detroit Lakes City Council With Native Planting Ordinance

Detroit Lakes Wetland Management District

Biological Technician Hanson met with the Detroit Lakes City Council Feb. 23, 2000, to discuss a proposed amendment to city ordinances that would allow native prairie plantings within city limits. An ordinance to allow native grass and forb plantings in lawns was drafted for presentation to the council at an upcoming meeting. (**2/23/00**)

232. Litchfield Restoration Partnerships 2000 - What a Start!

Litchfield Wetland Management District

Warm enduring autumns are cherished by most Minnesotans and no less by the Litchfield Wetland Management District. By the end of the first quarter of Fiscal Year 2000, the District had taken full advantage of this long dry period by restoring 140 drained wetlands encompassing over 812 acres of critical habitat on 45 farms and eight federal Waterfowl Production Areas. Construction costs exceeded $52,500, but approximately 78 percent of the expenses were absorbed by conservation partners. Stearns County Pheasants Forever and Ducks Unlimited exemplified ($12,000 and $10,000, respectively), followed by exceptional contributions from the Minnesota Waterfowl Association, ($8,650), the Farm Service Agency, ($6,786), and the Horse and Hunt Club ($3,040). Their commitments have afforded the District more opportunities to utilize station funds on additional wetland resource projects throughout the remainder of the fiscal year. (**2/24/00**)

233. Big Muddy Refuge Manager Discussed River Management Issues With University Class

Big Muddy National Fish and Wildlife Refuge

Refuge Manager Thomas G. Bell presented a guest lecture to a University of Missouri Rural Sociology Class studying the interactions between different levels of government, local citizens and non-government organizations discussing the management of the Missouri River and adjacent floodplain. The students, primarily seniors and a few graduate students, have been attending public meetings, interviewing landowners and conducting other research in an attempt to understand the complex issues and dynamics revolving around the somewhat controversial issues of natural resource management in the Missouri River and floodplain. Some of these students will likely be future decision makers in the natural resource management arena and related fields. Refuge Manager Bell was impressed with the grasp of often complex natural resource issues displayed by many of the class members and their willingness to pursue tough lines of inquiry. (**2/24/00**)

234. St. Cloud Students Learn About MN Valley NWR

Minnesota Valley National Wildlife Refuge

St. Cloud State Students taking a class on the environment and tourism had an opportunity to learn about Minnesota Valley NWR. Judie Miller provided the class with an hour and fifteen minute presentation on the Refuge. The objective of Judie's presentation was to provide the students an awareness of the National Wildlife Refuge System and its potential for eco-tourism. The class project for each one of the students is to prepare a plan for a nature-related event. Judie challenged the students to consider the refuge as a site for the event. She provoked them to think about a birding festival along the Minnesota River which would involve the hospitality industry or a special refuge celebration for 2003. The class seemed really excited about learning about the Refuge and is considering a potential visit in the near future. (**2/24/00**)

235. Scouts and Greenwings Work Together on Upper Mississippi River

Upper Mississippi River National Wildlife and Fish Refuge-LaCrosse District

A group of 20 boy scouts, Greenwings and parents worked with Upper Mississippi River National Wildlife and Fish Refuge staff to cut over 600 "willow sticks." The sticks will be planted in the spring to stabilize shoreline on newly constructed Environmental Management Program (EMP) islands in Stoddard Bay (Pool 8). Construction of the islands was completed last fall (1999) with part of the contract including planting of willows along the shorelines to minimize erosion. However, on several stretches of shoreline, the willows died and need to be replanted. To save funds and involve the community, it was decided to use youth groups to do the willow cutting and other youth groups will be used to do the planting. (**2/26/00**)

236. Mediation Hearing Brings

Possible Resolution to Easement Case

Detroit Lakes Wetland Management District

On February 29, Biologist Les Peterson participated in a mediation hearing on the Lhotka easement lawsuit in Duluth, Minn. Both sides presented their cases before U.S. Magistrate Judge Erickson, who then proceeded to negotiate on how to best settle the longest standing easement violation case in the history of the Service. Negotiations continued for several hours until both sides agreed to a settlement. Mr. Lhotka agreed to sell 678 acres of his property to the Service in return for writing off his Farm Services Agency debts, unpaid taxes, and Service lien on the property. This included 160 acres of lands that are not covered by the easement and that contain numerous drained wetlands. He was able to retain 10 acres around his building site for his residence. They also retained a use reservation through Dec. 31, 2000, so they could receive a CRP payment for 2000. An independent appraiser will be contracted to determine the fair market value of the property. The property will be converted into a Waterfowl Production Area. As with all WPA purchases, approval by the Mahnomen County Commissioners is still required before the property can be transferred to the Service. (**2/29/00**)

March 2000

237. Muscatatuck NWR MSS-RNA Study

Muscatatuck National Wildlife Refuge

The MSS-RNA area study by Dr. Meretsky began in 1998 with vegetation transects, and water depth and pH measurements. A challenge grant was obtained to continue the study in 1999 with graduate student Phil Andreozzi collecting field data directed by Dr. Meretsky. Refuge Volunteer botanist, Lowry, summarized all existing data from the MSS-RNA and added his 1998 field season results on the state listed Southern Tubercled Orchid as well as other plants. An increase in the two known populations of this rare orchid has been documented and 21 new species of plants were recorded in the MSS-RNA.

The 1999 field season data analyzed winter of 2000 was conducted along eight transects that were laid perpendicular to the seep line, and vegetation plots were arranged along the transects. In addition, pH readings were taken at a series of upwellings along the seep line. Most plant species encountered were relatively widespread wetland plants such as clearweek, jewelweed, lizard's tail and rice cutgrass. More acid-specific species are also present (e.g., cinnamon fern and royal fern), but were not located near transects. Future work will focus, in part, on habitat conditions near these species. Measurements of pH were taken in May and June after which drought curtailed water production at the seep, preventing measurements. Measurements of pH ranged from 5.0 to 6.9. (**3/1/00**)

238. Winter 2000 Analysis of Warbler Study Continues at Muscatatuck NWR

Muscatatuck National Wildlife Refuge

Muscatatuck NWR continued analysis of 1999 field work by Indiana University researcher Brian Wolf. The study, "An Investigation of Demographic and Behavioral Pattern in Prothonotary Warblers, " began in 1998. In 1999, 45 nests were monitored (43 in nest boxes and two in natural cavities). The average clutch size was 4.33 eggs. Thirty nests failed and 15 nests fledged. Of those that failed, 66 percent were due to mammalian predation, 6 percent to reptilian predation, 16 percent to abandonment, and 12 percent were undetermined failures. Seven nests were parasitized by brown headed cowbirds. Forty-nine mateguarding trials were done. **(3/1/00)**

239. Muscatatuck NWR Secretive Marsh Bird Study

Muscatatuck National Wildlife Refuge

MNWR Winter 2000 data analysis of the Secretive Marsh bird study began in 1998 continued in 1999. The survey was conducted between April 30, and June 25, 1998, and 1999, at 28 sites within the Refuge. All sites surveyed consisted of some form or amount of emergent vegetation. Marsh birds were surveyed from 5:30am to 10 a.m. at each site on two separate occasions if time permitted. We conducted 59 broadcasts at the 28 sites and obtained 16 responses from 4 species. Most responses were from Sora rails. (**3/1/00**)

240. Muscatatuck NWR Breeding Bird Study

Muscatatuck National Wildlife Refuge

MNWR Analysis of the 1999 Breeding Bird Study completed in winter 2000 - a total of 1,284 birds with 74 species were detected in 1999. Due to cooperative

Continued next page.

weather conditions, refuge staff and volunteers were able to complete all 97 permanently marked point count stations. There were several Region 3 Priority species detected, including Cerulean Warbler, Eastern meadowlark, and Wood Thrush. The three most common species were Northern Cardinal, Acadian flycatcher, and Red-eyed Vireo. The project's long-term continuation should provide the refuge and the region valuable data on bird populations and the effect of management activities (i.e. fire and upland restoration). (Point of Contact: Susan Knowles) (**3/1/00**)

241. Bald Eagles Topic for Elderhostel Program

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

Eleven national Elderhostel students learned about bald eagle nesting and migration as part of the Winona State University Elderhostel Program held at the historic Anderson House in Wabasha, Minn. Mar.1, 2000 . These adult learners were full of questions about the Upper Mississippi River National Wildlife and Fish Refuge. Sincere support was given, some people were interested in joining the Friends of the Upper Mississippi River Refuge after hearing the presentation. (**3/1/00**)

242. Special Steamboat Bertrand Exhibit and Oral History Project Planned For DeSoto NWR

DeSoto National Wildlife Refuge

A special exhibit of artifacts from the steamboat 'Bertrand' will be on display at the DeSoto National Wildlife Refuge in April 2000. The month-long exhibit, 'Mud and Treasure: A Commemoration of the Steamboat Bertrand' kicks off with a reception the afternoon of April 1, 2000, the anniversary of the sinking of the boat. Photographs taken during the excavation and in the artifact processing laboratory as well as interviews with the people involved will be featured.

The museum staff are seeking all persons who had any involvement with the Steamboat Bertrand either during the excavation days or afterward. A project to record the 'recent' history of the Bertrand through collecting oral histories and memorabilia is underway. For more information, contact Sarah Tuttle at DeSoto NWR, 712-642-2772. (**3/1/00**)

243. Green Point Learning Center Hosts "Animal Tracks"

Shiawassee National Wildlife Refuge

Green Point Environmental Learning Center, part of the Shiawassee NWR, hosted its monthly 'First Wednesday Discovery Series' program. This month's topic was 'Animal Tracks.' Eleven people attended, learning how to identify wild animal tracks by gait, paw characteristics, and track measurements. (**3/1/00**)

244. Flooding of Refuge Pool Provides Habitat for Migrating Waterfowl

Trempealeau National Wildlife Refuge

In late February 2000, Trempealeau Refuge opened the inlet structure to a newly constructed Delta Road impoundment allowing water from the Trempealeu River to fill it. Three and a half feet of water filled the pool over the course of a week attracting hundreds of migrating mallards, green and blue-winged teal, ring-necked ducks, and northern shovelers. The pool was then slowly drawn down during the next month in preparation for the Pool A drawdown. The operation ran smoothly. (**3/2/00**)

245. Squaw Creek Ranger Gives College Presentation

Squaw Creek National Wildlife Refuge

Missouri Western State College, conservation and wildlife class in St. Joseph invited Park Ranger Charles Marshall to give a presentation Mar. 3, 2000. Marshall discussed Squaw Creek Refuge and Service conservation issues with 12 students enrolled in the class. The Squaw Creek Refuge conducts several offsite and onsite field activities with this school during the year. (**3/3/00**)

246. Horicon Marsh Events Calendar Completed

Horicon National Wildlife Refuge

Horicon NWR staff coordinated, designed, and distributed about 800 copies of the new Horicon Marsh 2000 Calendar of Events. This first-time publication required the participation and support of the Midwest Interpretive Association, Wisconsin Department of Natural Resources, and Marsh Haven Nature Center and reflects an ecosystem approach to marketing the marsh. A total of 5,000 copies of this publication were printed. (**3/3/00**)

247. Horicon NWR Leads Marsh Tour in Support of Local Tourism

Horicon National Wildlife Refuge

Horicon NWR staff coordinated and led a tour of Horicon Marsh Mar. 3, 2000, for employees and volunteers who work with spring marsh tourists. Forty-five people participated in this half-day narrated, motorcoach tour of the refuge and state wildlife area plus three neighboring communities. Bus costs were paid for by the Waupun, Horicon, and Mayville Chambers of Commerce, the Fond du Lac Convention and Visitors Bureau, and the Midwest Interpretive Association. Publicity and coordination efforts were shared with the Fond du Lac Convention and Visitors Bureau. Other local marsh experts helped lead the tour. (**3/3/00**)

248. 2000 Eagle Watch Weekend

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

The spring migration of bald eagles begins each year in March, and the eagles usually can be viewed in abundance along the Mississippi River in southeastern Minnesota. To highlight this spectacular migration, the Winona Convention and Visitors Bureau, with assistance from the Minnesota Department of Natural Resources and the U.S. Fish and Wildlife Service, has planned an Eagle Watch Weekend for March 4 and 5, 2000. Consisting of an informational program by the University of Minnesota's Raptor Center on Saturday, March 4, and a coach bus field trip on Sunday, March 5, stopping at eagle viewing locations in the Mississippi River Valley, the event is expected to attract over 150 'eagle watchers' from all over the region. (**3/4/00**)

249. Bald Eagle Watch 2000 Promotes Ecotourism on the Upper Mississippi

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

Eighty visitors filled two buses on a search for bald eagles during a tour of the Mississippi River from Winona, Minn., to Reads Landing on Lake Pepin. Eric Nelson, refuge biologist, was one of two naturalist guides interpreting for the Annual Bald Eagle Watch on Mar. 5, 2000, in Winona. The group counted 170 bald eagles, some soaring the updrafts of the limestone bluffs, some boldly perched in huge cottonwoods next to the highway, and others on the last sheets of crumbling ice picking out frozen fish. The Bald Eagle Watch assists the local community to promote eco-tourism, to educate the public about bald eagles and other natural resources of the Mississippi River and to provide awareness of the Refuge. (**3/5/00**)

250. High School Career Fair in Flint, Michigan

Shiawassee National Wildlife Refuge

Becky Goche, Park Ranger at the Shiawassee NWR in Saginaw, Mich., participated in the Environmental Science Academy Career Fair 2000 on March 7, 2000. The Fair was held at the GASC Technology Center in Flint, Mich., Local Flint colleges and several employers were on hand for the students to visit with. Five hundred and fifteen high school and middle school students from Flint and surrounding area schools participated in the day's activities. (**3/7/00**)

251. 781 Sherburne/Crane Meadows Volunteers Honored at Dinner

Sherburne National Wildlife Refuge

At an awards dinner held on Mar 7, 2000, Sherburne NWR recognized 745 volunteers and Crane Meadows NWR recognized 36 volunteers for their contribution of over 8,662 hours at Sherburne NWR and 389 hours at Crane Meadows NWR during 1999. Within the Sherburne volunteers 154 "regular" volunteers and 15 volunteer groups participated in a wide variety of resource and public use activities which included prairie seed collecting, wildlife interpretation, adopt-a-trail, fishing area or road, eagle watch, deer spotlight survey, crane survey, clerical assistance, observation deck construction, special events assistance and more. Edward Trunk, Princeton, MN, received the 1999 Volunteer of the Year award for his contribution of over 500 hours since 1993 in activities that included prairie seed collecting, chief cook at special events, stocking Refuge kiosks with leaflets on a weekly basis, assisting with the construction of a new observation deck on the Wildlife Drive and much more. The 18 "regular" volunteers at Crane Meadows NWR were involved in upland and wetland restorations, farming, fire management, and trail maintenance. The Little Falls High School Natural Resources class assisted the Refuge through completing wildlife surveys and doing nest structure monitoring. (**3/7/00**)

252. Work Group Examines Community Partnerships and Wildlife Value to Economic Development

Big Stone National Wildlife Refuge

Big Stone NWR Project Leader Ron Cole and Morris Wetland Management District Project Leader Steve Delehanty were part of a working group that met March 8, 2000, to examine improving rural economies through agriculture and tourism. The work group met at the University of Minnesota-Morris, and brought together rural communities which are in various stages of implementing innovative ideas to improve the agricultural and tourism based economies of their respective areas. Six communities were invited to share their ideas and strategies, and looked at ways to improve their community economic opportunities. Cole and Delehanty provided insights, suggestions, and answered questions as to the role that the Service, particularly Refuges and Wetland Districts can play in helping these communities achieve their goals. The event was sponsored by the Blandin Community Investment Partnership and Center for Small Towns. (**3/8/00**)

253. 65 Percent of Detroit Lakes WMD Nest Baskets are Successful in 1999

Detroit Lakes Wetland Management District

A total of 132 nesting baskets have been placed in wetlands on Waterfowl Production Areas throughout the Detroit Lakes WMD. Of these, 51 were successfully used by mallards to produce 408 ducklings and 40 nests were used by Canada geese to produce 240 goslings. There was no evidence of nest predation on any of the nesting baskets and four of the successful baskets had two mallard nests in them. There has been a steady increase in mallard use and successful nesting in nest baskets on the Detroit Lakes WMD during the 1990s. Mallard nesting success on nest baskets has gone from 6 percent in 1991 to 65 percent in 1999. (**3/8/00**)

254. Rydell NWR Friends Selected as Friends Group of the Year

Detroit Lakes Wetland Management District

The Friends of the Rydell Refuge Association was selected as the "Friends Group of the Year" for 1999, by the National Wildlife Refuge Association. The award was announced Mar. 8, 2000, in Washington, D.C. Friends of the Rydell Refuge President Bill Roeszler and Secretary Wayne Goeken will receive the award and a check for $2,000 at the 65th North American Wildlife and Natural Resources Conference in Rosemont, Ill. Mar. 25, 2000. (**3/8/00**)

255. Region Partners Receive $283,000 in Small Wetlands Grants

Refuges & Wildlife

The North American Wetlands Conservation Council awarded seven North American Wetlands Conservation Act (NAWCA) totaling $283,000 to grants to Region 3 partners March 9, 2000. Only 22 such small grants were awarded nationwide. Successful projects in the Prairie Pothole Joint Venture were the Giese Waterfowl Production Area (WPA) (MN-$50,000), Wolf Creek WPA (MN-$40,000), Straight River WPA (MN-$27,000), and the Jim Hautman Restoration Project (MN-$33,000). In the Upper Mississippi River & Great Lakes Region Joint Venture, grants were awarded to the Nahant Marsh Preserve (IA-$33,000), the Rose Lake Property Acquisition (WI-$50,000), and the Missouri Bootheel Partners Program (MO-$50,000).

Several Service field offices were involved in planning these habitat projects, and many of those will be involved in completing them. These include the Morris Wetland Management District (WMD), the Detroit Lakes WMD, Minnesota Valley National Wildlife Refuge, Rock Island Field Office, and the Madison Private Lands Office. Other major partners in these projects include Ducks Unlimited, Inc.; Minnesota Pheasants, Inc.; Minnesota Deer Hunters Association; Minnesota Waterfowl Association; River Action, Inc.; Jefferson County Parks Department; and Bootheel Resource Conservation and Development, Inc.

This $1 million-plus NAWCA small grant program is open to all applicants every fall, for grant requests up to $50,000. Larger requests must go through the NAWCA large grant program, which accepts applications in March and July. (**3/9/00**)

256. Career Fair at University of Michigan, Ann Arbor

Shiawassee National Wildlife Refuge

Several Fish and Wildlife Service employees participated in the University of Michigan School of Natural Resources and Environment Information and Career Fair 2000 March 9, 2000. James Gale of the Bay City Law En-

forcement Field Office, Carmen Urfer-Parkes of the Ann Arbor Law Enforcement Field Office, Mark Hodgkins of the East Lansing Field Office, and Becky Goche of Shiawassee NWR took part. One hundred and thirty-five students visited the Fair. Several other agencies and organizations took part in the Fair. (**3/9/00**)

257. Muscatatuck NWR/JPG Completes 4,000 Acre Burn

Muscatatuck National Wildlife Refuge

Staff members of Muscatatuck NWR/JPG and Bloomington Field Office conducted prescribed burns totaling approximately 4,000 acres on the U.S. Army's Jefferson Proving Ground (JPG). Special permission was granted from the Army to continue our prescribed burning program at JPG despite delays in the planned establishment of the Refuge at JPG.

Approximately 500 acres of grasslands within the burn units supported 125 pairs of Henslow's sparrows and numerous other grassland bird species in 1999. These areas were enhanced by preventing the establishment and reducing the dominance of woody vegetation within these grasslands. The remaining 3,500 acres, containing approximately 1,500 acres of savanna and shrub/scrub areas and 2,000 acres of forested habitats, were also enhanced by perpetuating the conditions under which these areas were formed (savanna and shrub/scrub) and reducing accumulated combustible fuels. (**3/10/00**)

258. Girl Scouts Descend on Prairie Wetlands Learning Center

Fergus Falls Wetland Management District/PWLC

Sixty girl scouts from the Fergus Falls & Underwood areas and 19 chaperones arrived at the PWLC the evening of March 10 and departed the following morning. They participated in a Night Sky Program by PWLC Education Specialist, Teresa Jaskiewicz, featuring Native American stories. The second group of 37 girl scouts & 12 chaperones arrived the evening of March 11 and left the following morning. The Night Sky Program for this evening featured Greek Mythology stories. The girls also participated in other activities supervised by their Leaders. The weekend gives the girls a chance to work toward their badges, and have fun in an educational setting. The girls had eagerly awaited this visit after their stay at the PWLC last March. (**3/10/00**)

259. Biologist Teaches Wetlands Class at the Southeast Michigan Regional Envirothon

Ottawa National Wildlife Refuge

Eight teams from six high schools competed in the Southeast Michigan Regional Envirothon in Ann Arbor, Michigan. Private Lands Biologist Steve Dushane from the Ottawa National Wildlife Refuge taught the teams about wetlands. The presentations included definitions, history of wetland legislation, the Cowardin Classification System, an overview of hydric soils and hydrophytic vegetation, and restoration techniques. All of the teams scored very well and one went on to place very high in the state Envirothon competition. (**3/11/00**)

260. Necedah NWR Hosts Second Nest Box Workshop

Necedah National Wildlife Refuge

Staff from Necedah National Wildlife Refuge hosted their second nestbox building workshop of the year Mar. 11, 2000. Attendees constructed various types of nest boxes including bat houses, kestrel/screech owl houses and bluebird houses. Sponsored by the Friends of Necedah, the event attracted 24 participants, including a 4-H group and several families. (**3/11/00**)

261. Seney NWR Hosts Snowshoe Building Class

Seney National Wildlife Refuge

Fourteen people traveled to Seney National Wildlife Refuge Mar. 11, 2000, (two of them from 350 miles away!) to take part in a Snowshoe Building Workshop at the Refuge. An instructor from Hartwick Pines State Park helped participants complete the lacings on ash frames. As a midday break, Interpretive Specialist Marianne Kronk led a short hike. Of the 14 participants, only a few had visited the Refuge before. All participants were given information about recreation opportunities and expressed an interest in returning. The Seney Natural History Association provided lunch and snacks. (**3/11/00**)

262. Wildfire Scorches 250 Acres at Squaw Creek NWR

Squaw Creek National Wildlife Refuge

A wildfire occurred on the north end of Mallard Marsh Saturday, March 11. It was started along Highway 118 sometime during mid-morning and was probably ignited by a cigarette. The entire north unit was burned - approximately 250 acres. Dry weather

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conditions have persisted throughout the spring causing the potential for other wildfires. (**3/11/00**)

263. Detroit Lakes WMD Plans Native Prairie Seeding on 817 Acres

Detroit Lakes Wetland Management District

A total of 817 upland acres on 17 Waterfowl Production Areas (WPA), the Rydell NWR, and six privately owned parcels of land are scheduled to be broadcast seeded during the late winter and early spring months by staff at the Detroit Lakes WMD. Of these, 755 acres will be on federal lands and 62 acres will be seeded on private property. The acres will be broadcast seeded on snow in March and early April with the anticipation that the seed will be naturally planted in the soil as the snow melts and the top inches of soil become soft with moisture and warm temperatures. Broadcast seeding cuts down on the cost of seeding because uncleaned seed can be used in the broadcast seeders and acres can be seeded more quickly than with drill seeders. This seeding method also permits a wider variety of grass and forb species to be planted compared to conventional drill seeding. Broadcast seeding has been successfully used on the Detroit Lakes WMD for several years. (**3/11/00**)

264. Local Scouts Install Wood Duck and Bluebird Boxes at Minnesota Valley NWR

Minnesota Valley National Wildlife Refuge

Minnesota Valley National Wildlife Refuge staff hosted a WPA workday on Soberg Waterfowl Production Area (Scott/Dakota Co.) on March 11, 2000. Local cub scout Troop 777 (Den 7) participated in a day of installing and maintaining wood duck and bluebird box structures on the property. This scout group volunteered over 120 hours in the construction of 30 wood duck boxes and the day of field work. Their stewardship work is an asset to the Refuge and is greatly appreciated. (**3/11/00**)

265. Horicon NWR Celebrates Refuge System Birthday

Horicon National Wildlife Refuge

Horicon National Wildlife Refuge celebrated the 97 birthday of America's National Wildlife Refuge system with the 'Wild Things Birthday Party.' Two parties were held and included viewing the Where Wildlife Comes First video, the Guess Who slide show, a guided hike on Frankfurth Dike (normally closed to the public) and party games like pin the goose on the refuge and wildlife musical chairs. The visitor center was also open for the day. About 80 news release were distributed and press coverage was provided. The visitor center was also open for the day. A total of about 100 people participated. (**3/11/00**)

266. Program to Blair Optimists Club by ORP of DeSoto

DeSoto National Wildlife Refuge

ORP, Bruce Weber gave a program to 20 people at the Blair Optimists Club at 7:00 a.m., Saturday, Mar. 11, 2000. The program focused on public use at Boyer Chute NWR. (**3/11/00**)

267. Service Takes Center Stage at Cabela's Spring Expo

Upper Mississippi River National Wildlife and Fish Refuge-McGregor District

The Refuge's McGregor District took center stage during the Cabela's Spring Expo Mar. 11-12, 2000, in Prairie du Chien, Wis.. It was a great success at getting the Refuge and Service recognized. The Refuge exhibit included the National Wildlife Refuge Display and items from Federal Aid, including the very popular luggage tags. The District's bald and golden eagles were also on display for visitors. According to store managers 6,000 visitors saw the exhibit with a good many of them inquiring about various Refuge activities. The Refuge's District mission was also featured during a radio interview at the event. (**3/12/00**)

268. White Earth Tribe Conservation Board Reviews Refuge Hunting

Hamden Slough National Wildlife Refuge

Staff from Hamden Slough NWR updated members of the White Earth Tribe Conservation Board on the status of the North Star 2000 project, Mar.13, 2000. North Star 2000 will restore 220 wetlands and 1,000 acres of upland on Service property. The project began in 1997. Most of the North Star project is within the White Earth Reservation boundary. Board members and Refuge Manager Mike Murphy discussed the summer restoration of Bisson Lake, the growth of wildlife diversity and abundance around the project and the increasing numbers of visitors and hunters. Board members discussed tribal hunting options within the White

Earth Reservation boundary. Options discussed included: closing the waterfowl season to tribal members and having the refuge serve as a sanctuary, having a partial season for tribal members, and options for upland hunting and big game hunting. The Board leaned most favorably towards closure of the Bisson Lake area to waterfowl hunting, with a possible opening to tribal members in late October. To date, 94 wetlands have been restored on the north end of Hamden Slough NWR. This portion of the Refuge is within the White Earth Indian Reservation boundary. An additional 23 wetlands will be restored in this area in 2000 including 100-acre Bisson Lake. Wildlife numbers have soared and attracted many visitors for wildlife observation or hunting adjacent to the refuge. (**3/13/00**)

269. Partners for Fish and Wildlife Program Funds Restoration Projects in Wisconsin

Wisconsin Private Lands Office

Nine Service field stations with Partners for Fish and Wildlife Program responsibilities in Wisconsin will receive $188,850 during Fiscal Year 2000 through the Service's flexible funds process to be used to restore habitat on private lands throughout the state. Funded projects include two dam removal projects on important waterways, an expanded wetland restoration effort in the area around Necedah National Wildlife Refuge, eight projects to enhance and restore stream fish habitat and improve water quality and others. The projects also include the restoration of fish passage on the Baraboo River, a tributary to the Wisconsin River, restoration of wetlands in the Necedah National Wildlife Refuge area, and improvement of stream habitat in several areas of the state. (**3/15/00**)

270. Ottawa NWR Trapping Program

Ottawa National Wildlife Refuge

Ottawa NWR concluded its 1999-2000 trapping year with good success. Three adult trappers harvested 3,600 muskrat, 12 mink, 64 raccoon and 21 opossum from portions of Little Cedar Point NWR and the Ottawa and Darby Units of Ottawa NWR. This prevented destruction of approximately 3,500 acres of habitat in the form of emergent vegetation within wetlands. The trapping program also focused on the dike system this year to prevent burrowing and erosion of almost eight miles of dike that protect the wetlands of the refuge. Bid fees collected trappers totaled $1,470.00. Five youth participated in the management program. (**3/15/00**)

271. Service Partnering With County to Propose 375 Acre Prairie Lake Restoration

Litchfield Wetland Management District

Litchfield Wetland Management District has initiated a proposal to restore a 375 acre drained lakebed in northern Kandiyohi County, Minnesota. Prairie Lake was 'meandered' during the original government survey but drained by a county ditch project in the early 1900s. For many years the lakebed was used for cropland and pasture but is currently unused and choked with cattail. Recently completed surveys show that water up to three feet deep could be restored throughout the basin with no adverse impacts to adjacent landowners or upsteam drainage systems. With this understanding, neighboring landowners are supporting the proposal. The project would require installing a water control structure in the county ditch at the eastern edge of the basin. The Kandiyohi County Attorney has been consulted and has encouraged the Service to continue the process and, in accordance with Minnesota drainage statutes, present a petition and prepare a public hearing for the proposal. Assuming the legal proceedings are successful, it is likely that the project can be completed during calendar year 2000. Upon completion the project area and its upland component (extensive acreage of CRP grasslands) will provide exceptional habitat for waterfowl, other migratory birds, and resident wildlife. While no restoration funds have been expended to date, the estimated total project cost is $10,000. Upon project completion an extensive (375 acre) semi-permanent emergent wetland will result. Project area will provide habitat for breeding and migrating birds and resident wildlife. The local office of the Minnesota Department of Natural Resources strongly supports the proposal and is providing technical assistance. (**3/15/00**)

272. Detroit Lakes WMD Plans Prairie Seeding For Win-E-Mac School

Detroit Lakes Wetland Management District

The new Win-E-Mac School near Erskine, Minn., has approximately four acres of prepared ground that will be seeded to a native

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prairie mix in the spring of 2000 by staff at Detroit Lakes Wetland Management District. The plantings will provide valuable educational opportunities for the teachers and students. (**3/15/00**)

273. Rose Lake NAWCA Small Grant Approved

Wisconsin Private Lands Office

The North American Wetlands Conservation Council has approved a $50,000 grant for the Jefferson County, Wis., Parks Department that will help fund the $334,000 purchase of the 58 acre Ward tract abutting Rose Lake and a 200 acre shallow water wetland. This acquisition protects over a half-mile of shoreline and offers the public access to the wetland. Significant educational opportunities exist at the Fort Atkinson High School, located one mile from the new park. The Madison Private Lands office provided support for the grant proposal and will be providing technical assistance to develop a long-term management plan as well as financial assistance for habitat restoration. For more information contact Art Kitchen at (608)221-1206. (**3/16/00**)

274. Detroit Lakes WMD Performs Broadcast Seeding Over the Snow

Detroit Lakes Wetland Management District

Detroit Lakes WMD seeded five areas roughly totaling 100 acres Mar. 16-18, 2000. The five areas include: Tatlie Exchange, Hoykens Pipelines, Seter Boundary Adjustment area, Squirrel Lake WPA Paddock No.1, and 80 acres of the Matter Tract. (**3/16/00**)

275. Scott County Board Wants EIS for Proposed Amphitheater

Minnesota Valley National Wildlife Refuge

Commissioners for Scott County, Minnesota, recently voted four to one to require an Environmental Impact Statement (EIS) be developed as part of a private industry proposal to build an outdoor amphitheater in Scott county. The proposed location for the amphitheater is on land adjacent to the Louisville Swamp unit of the Minnesota Valley National Wildlife Refuge. Refuge officials fear the noise and traffic could adversely affect use of the Refuge by the visiting public and wildlife. Considerable opposition to the proposal exists among local residents. (**3/17/00**)

276. Muscatatuck NWR Hosts Project WILD Waterfowl Workshop

Muscatatuck National Wildlife Refuge

Muscatatuck NWR hosted a Project WILD workshop for educators focusing on waterfowl on March 18 that was attended by 20 people. Refuge volunteers provided special birding tours of the refuge to participants. (**3/18/00**)

277. Wisconsin Landowners Voice Concerns at First Yellow River Forum

Necedah National Wildlife Refuge

Service staff met with 23 landowners at Necedah NWR Mar. 18, 2000, to discuss landowner information needs and concerns in the Yellow River focus area. Larry Wargowsky, refuge manager, Necedah NWR, Rebecca Power, park ranger, Bill Peterson, private lands biologist and Tom Magnuson, Region 3 ascertainment specialist, hosted the group, the first Yellow River Forum. At this meeting, 23 landowners identified their information needs and issues that they believe are of greatest concern for private landowners within the Yellow River Focus Area. All landowners within the Yellow River Focus Area were invited to this meeting. A second meeting is being planned. The results of these meetings will help guide natural resource management in the Yellow River. (**3/18/00**)

278. Japanese Students Visit Trempealeau NWR

Trempealeau National Wildlife Refuge

Trempealeau NWR hosted a visit by 21 students and adults from Kogota, Japan, Mar. 18, 2000. The students were winners of an English speaking contest sponsored by the Kogota International Friendship Club. Refuge Operations Specialist Lisa McCurdy talked to the group about the National Wildlife Refuge System and the Migratory Bird Treaty Act. The visitors returned to Japan with Refuge Week posters, folders, and all kinds of wildlife brochures. (**3/18/00**)

279. Hamden Slough Completes Winter Upland Seeding of 116 Acres

Hamden Slough National Wildlife Refuge

116 acres of upland was seeded with native grass on Hamden Slough NWR. The Refuge purchased a Vicon seed spreader for seeding in March snow conditions. During March, seed can be spread over snow during 40 degree days and is driven into the ground by the freeze-thaw cycle. (**3/18/00**)

280. Visitors Build Woodduck Boxes at Rydell NWR's Waterfowl Habitat Day

Detroit Lakes Wetland Management District

On March 18, the Friends of the Rydell Refuge, Minnesota Department of Natural Resources (DNR), and staff of the Rydell National Wildlife Refuge hosted Waterfowl Habitat Day 2000 at Rydell NWR. This was the third year for the program. The 125 people learned about waterfowl habitat and were able to build woodduck nesting boxes to take home with them. A total of 84 boxes were constructed using materials provided by the Minnesota DNR, Friends group, and Refuge. Lunch was provided by the Friends of the Rydell Refuge. Many of the visitors took advantage of mild, 50-degree March weather and lack of snow to walk the trails and observe the returning wildlife. (**3/18/00**)

281. Rare Plants and Local Ecotypes Symposium

Minnesota Valley National Wildlife Refuge

Minnesota Valley NWR played a key role in the planning of the Native Plant Society Symposium March 18, 2000 at the Minnesota School of Environmental Studies in Apple Valley, Minn. More than 235 attendees were on hand to hear about emerging issues in native plant restoration. Many of the attendees were directly involved in restorations or vendors of native plant materials. Dr. Kayri Havens, plant geneticist and manager, Endangered Plant Research, Chicago Botanical Gardens, gave the keynote address, 'Biological Issues Related to Rare Plant Restorations'. Dr. Daryl Smith, University of Northern Iowa, spoke about the 'Iowa Ecotype Experience and the Importance of Local Ecotypes in Restorations.' Dr. Cynthia Lane, Great River Greening, spoke to the audience about using community data to generate native species plant lists for restorations. Two case studies of restorations were also presented, one regarding a large-scale restoration and the other a restoration of an oak savanna on a family farm. (**3/18/00**)

282. Youth Group Meetings Provide Excellent Classroom for Wildlife Education

Fergus Falls Wetland Management District/PWLC

Staff from Fergus Falls Wetland Management District met with 65 scouts and 4Hers Mar. 19-20 2000, to discuss local Service projects and wildlife issues.. The learning trunk was used as an educational tool at the 4-H meeting. (**3/20/00**)

283. Partners Fund Restoration and Enhancements on 260 Acres of Waterfowl Habitat on Minnesota Valley NWR

Minnesota Valley National Wildlife Refuge

Staff at Minnesota Valley National Wildlife Refuge together with various Partners have restored 24 sites in eight counties during the First Quarter of Fiscal Year 2000. Partners funded approximately 70 percent of the restoration and enhancement of more than 260 acres of critical waterfowl habitat located on private and refuge lands within the Minnesota Valley Wetland Management District. Wetlands are critical for improving water quality, reducing soil erosion and flooding, restoring ground water supplies, and providing habitat for many wildlife and plant species. To date, the Partners For Fish and Wildlife Program have contributed more than $175,000 towards the restoration of critical habitat within the Refuge's 13 county Wetland Management District. The management, restoration, enhancement, and education of wetland ecosystems would not be possible without Partner groups and their stewardship. (**3/21/00**)

284. Detroit Lakes WMD Staff Mentors Fourth Grade Students

Detroit Lakes Wetland Management District

Biologist Les Peterson met with four Rossman Elementary School fourth graders to begin mentoring them as they study about wetland habitats. They will learn about wetlands through field trips, library research, and interaction with Wetland District staff. The students will use the information they learn to develop a display and demonstration that will be presented at the second annual Detroit Lakes Water Festival that will be held at the Northwest Technical College on May 4-5, 2000. (**3/21/00**)

285. Local Sportmen's Club Helps Fund Conservation Projects at Minnesota Valley NWR

Minnesota Valley National Wildlife Refuge

Minnesota Valley NWR's Private Land Biologist, Mike Malling, attended a meeting of the Green Isle Sportmen's Club March 9, 2000. The small club of about 40 people has been a close partner with the Refuge on numerous projects in Sibley County, Minn. March 16, the club donated more than $9,000 to fund diverse conservation projects during 2000.

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The dedication of this group and their commitment to the education and restoration of our natural resources makes many of our projects possible! The club's donations will help fund three restoration sites through the Partners for Wildlife Program; Hahn Lake Waterfowl Production Area will be seeded to native grasses and forbs; The Refuge 'Ducks on a Stick' exhibit will add 12 more birds. The funds will also be used to purchase educational materials and provide scholarships for the Jr. Duck Stamp Program. (**3/21/00**)

286. Greater Scaup Artwork Earns "Best Of Show" at Wisconsin Junior Duck Stamp Contest

Necedah National Wildlife Refuge

Jaeger Freudenthal, an 18-year-old Wautoma student, received Best of Show in Wisconsin for his painting of greater scaup ducks in the 2000 Federal Junior Duck Stamp Contest. As Best of Show, his entry will compete in Washington, DC, May 1, 2000, against top artwork from other states for national recognition and stamp production. Necedah National Wildlife Refuge hosted the seventh Wisconsin Federal Junior Duck Stamp Contest on March 22, 2000. The event, which is co-sponsored by the Wisconsin Waterfowl Association, Inc., received 1,004 entries from 164 schools across Wisconsin. A panel of five judges selected 100 pieces of art as first, second, third, and honorable mention. This year's judges were Frank Mittlestadt, past winner of Federal Duck Stamp and Trout Stamp Contests; Reed Brown, Boscobel art teacher; Jeff Bord, executive director of the Wisconsin Waterfowl Association; Jeff Nania, project director for the Wisconsin Waterfowl Association; and Tim Eisle, freelance outdoor writer for the Wisconsin Outdoor Journal, the Milwaukee Journal Sentinel and the Capital Times.

According to LuAnn Rochester, contest coordinator, Jaeger Freudenthal has entered the art contest for the past three years. "His first year he finished as an Honorable Mention, he placed second the next year, and this year his artwork claimed the title of Best of Show." Rochester went on to say that Freudenthal is proof to other participants that it is important to participate in many contests, citing the fact that any of this year's non-placing artists could easily become next year's winners.

In addition to Freudenthal's entry, the top five entries included: Amanda Coleman, from Whitefish Bay; Dan Koepsell, Best of Show winner for 1999, from Waupun; Nina Goralski, Best of Show winner in 1998, from Oconomowoc; and Jason Nieuwendorp, from Eagle River.

Winning artwork will tour the state during the year. The artwork will be on display at various nature centers, banks and galleries for those interested in viewing the placing submissions. (**3/22/00**)

287. Region 3 Receives $3 Million in Large Wetlands Grants

Refuges & Wildlife

On March 22, 2000, the Migratory Bird Conservation Commission approved three North American Wetlands Conservation Act (NAWCA) large grants to Region 3 partners, totaling $2,998,788. These successful projects were the South-Central Wisconsin Prairie Pothole Initiative, the Northern Tallgrass Prairie Restoration Project phase II, and the Indiana Four Rivers Project phase III.

In addition to other partner activities, these grants may purchase lands for the National Wildlife Refuge System at Leopold Wetland Management District, and Patoka River National Wildlife Refuge. Partner wildlife habitat acquisition, restoration and enhancement activities will be accomplished by groups including Ducks Unlimited, Wisconsin Department of Natural Resources, Madison Audubon Society, The Nature Conservancy, Minnesota Department of Natural Resources, Pheasants Forever, the White Earth Band of Chippewa, the Red Lake Band of Chippewa, Indiana Department of Natural Resources, and Indiana Heritage Trust.

The NAWCA large grant program is open to all applicants every March and July, for grant requests up to $1 million. Successful projects are generally matched by a non-federal dollar to grant ratio of at least 2:1. (**3/22/00**)

288. Minnesota Junior Duck Stamp Winner Named

Minnesota Valley National Wildlife Refuge

It took five judges and four hours of intense scrutiny to select 100 winners from more than 1,100 entries in this year's Minnesota Junior Duck Stamp Contest. Bonnie Latham, a seventeen year old homeschool student from Hastings, Minn., captured Best-of-Show with her acrylic rendering of a pair of Northern pintails. Bonnie studies ducks in the field, photographs them, and then spends long hours painting them in

her family gallery/studio in Hastings. Bonnie has been a participant for the last several years previously capturing first and second place. This year's judges included Joe Hautman, Federal Duck Stamp artist, Sara Gilbert, editor of U.S. Art, Sara Koller, Wild Wings, John Schomaker, U.S. Fish and Wildlife Service, and Doug Smith, Outdoors Writer, Star Tribune. Both metro papers, Star Tribune and St. Paul Pioneer Press as well as local papers carried stories about the winning youngsters. (**3/22/00**)

289. Driftless Area NWR Assists The Nature Conservancy in Site Conservation Planning

Upper Mississippi River National Wildlife and Fish Refuge-McGregor District

Staff from the Driftless Area NWR assisted the Iowa Chapter of The Nature Conservancy with site conservation planning for a specific drainage in northeast Iowa. This watershed contains a high percentage of habitat for the endangered Iowa Pleistocene snail and threatened Northern monkshood as well as forest habitat for migratory birds. This effort will culminate in a report by TNC with recommendations on strategies for preserving the biodiversity of this unique area. Strategies will likely include acquisition efforts involving the Refuge. (**3/23/00**)

290. Muscatatuck NWR Prescribed Burn

Muscatatuck National Wildlife Refuge

Muscatatuck NWR staff burned 15 acres on the Refuge for prescribed control of warm season grass. (**3/24/00**)

291. Mark Twain NWR Distributes Wildlife Videos Local Schools

Mark Twain National Wildlife Refuge-Brussels District

Two videos, "Wild About Life" and "A Home For Pearl" were distributed to several local schools. Videos were sent to Calhoun High School, Brussels High School, Jersey Community High School, Brussels Grade School, and St. Mary's Grade School. All five schools are within 30 minutes of Mark Twain NWR, and are frequent visitors to the Brussels District of the Refuge. The videos will help reinforce their continued enthusiasm for wildlife resources. (**3/24/00**)

292. Service Formalizes Agreement With Sand County Foundation For Habitat Restoration on Baraboo River

Wisconsin Private Lands Office

The Service and the Sand County Foundation have signed a Memorandum of Agreement (MOU) to facilitate the restoration of wildlife habitat within the floodplain of the Baraboo River.

The Service and the Foundation have agreed to combine efforts to restore wetland and upland habitat, remove fish passage barriers, and to cooperate on projects of mutual interest within the floodplain area of the Baraboo. The Sand County Foundation and the Service have mutual interests in the restoration of the Baraboo River floodplain. Examples are the Services efforts to establish a National Wildlife Refuge in the area, and the Foundation's efforts on removing dams to facilitate fish passage on the Baraboo.

The MOU formalizes an ongoing understanding between the parties to assist in mutually beneficial projects. (**3/25/00**)

293. Sediment Trap Dike Clean up

Minnesota Valley National Wildlife Refuge

On March 25, 2000, nearly 30 members of the Migratory Waterfowl Hunters, Inc. (MWHI) spent a Saturday morning removing trees and dead-fall from a sediment trap dike on the Gilbert Lake Division of Mark Twain NWR-Brussels District. MWHI is a group of sportsmen that hunt on Illinois' state-managed wetlands in near the Refuge. The Hunters are extremely interested in the management of the refuge due to its potential for holding waterfowl in the area during the fall hunting season.

The sediment trap dike is being rehabilitated in an effort to develop some level of water control in the area affected by the dike. A threatened plant, decurrent false aster (Boltonia decurrens), grows in this area and water level control will improve our ability to manage this species, as well as our ability to enhance waterfowl habitat. (**3/25/00**)

294. Minnesota Junior Duck Stamp Art Goes on the Road

Minnesota Valley National Wildlife Refuge

The Minnesota Junior Duck Stamp Traveling Art Exhibit was showcased at the Minnesota Waterfowl, Inc. Chapters meeting in St. Cloud, Minn. March 25, 2000. The art exhibit, on display at St. Cloud State University, consisting of the top 36 pieces of art, wowed attendees who found it hard to believe that this wonderful art was produced by school children. The art exhibit also traveled to LaCrosse, Wis., for the Water-

Continued next page.

fowl Symposium April 7-9, 2000. Again the art work drew a lot attention and many favorable comments. (**3/25/00**)

295. Marsh Madness" Attracts 300 at Prairie Wetlands Learning Center"

Fergus Falls Wetland Management District/PWLC

"Marsh Madness" arrived at the Prairie Wetlands Learning Center Saturday, Mar. 25, 2000. About 200 adults and 100 children spent a sunny, but windy afternoon enjoying these indoor activities: origami frogs, coloring/info sheets on frogs, the Tremendous Touch Table, "Whose Ribbit is it?"- a frog program, and Rita & the New Age Croakers.

Antique duck decoys, provided by Friends of PWLC board member, Roger Rustad, were on display. Modern-day duck decoys were provided by Eddy Edwards, Law Enforcement Officer at Fergus Falls Wetland Management District. Aquatic life was viewed in aquariums and under microscopes, while wood duck boxes and bluebird houses were constructed on site by Fergus Falls Fish & Game Club members. A Frog pond/Toad Abode Corner, Junior Duck Stamp display, Historical Taxidermy, and wing board duck identification were among the exhibits.

Visitors enjoyed the water dog training demonstration, learned goose calling tips & techniques, and checked out the various duck blinds. Underwater viewing of pond life from the floating bridge and waterfowl identification overlooking Mallard Marsh rounded out the day. The day was a huge success! The mission of the Prairie Wetlands Learning Center is to provide environmental education opportunities for students, private landowners and the general public and to foster stewardship through protection, enhancement and restoration of the prairie pothole ecosystem. (**3/25/00**)

296. Refuge Develops Outdoor Classroom at Emerson School in Cairo, Ill.

Cypress Creek National Wildlife Refuge

Combine water, native plants, and trees, a trail, bird feeders and a lot of enthusiasm and you get a dynamic learning site that can provide unlimited educational experiences to students. An outdoor classroom and nature area was developed at Emerson Elementary School in Cairo, Ill., as a collaborative effort between the community, school administrators, and Cypres Creek Refuge to provide a students with a natural classroom without walls or ceiling.

As part of the project, students focused their attention on birds and their habitat needs. The partnership involved field trips to the Refuge and work days at the school to plant native trees and prairie plants, build a wetland, and place bird feeders for new residents. Student resource projects can be viewed on the school's website: http://www.roe02.k12.il.us/tlcf/index.htm

Emerson School is located in Cairo, Ill., near the southern tip of the Cypress Creek National Wildlife Refuge. The school population is characterized as urban, and lies in one of the State's poorest counties. Students have a limited opportunity for field trips. The administration and teachers at Emerson recognize the value of environmental education and hands-on experiences in the outdoors. As part of developing the school nature area, students also created a Powerpoint presentation highlighting the project and included it on the Regional Office of Education Web Page. (**3/27/00**)

297. Detroit Lakes WMD Helps in the Protection of Critical Prairie Areas

Detroit Lakes Wetland Management District

Detroit Lakes Wetland Management District's Jason Barker met with representatives of The Nature Conservancy, Minnesota DNR, Natural Resources Conservation Service (NRCS, and Clay County Soil and Water Conservation Service Mar. 27-28, 2000, to review biologically important sites in Norman, Clay and Mahnomen counties in Minnesota. Sites were selected and methods of protection were also discussed. The group also assigned agency leads for each area. (**3/27/00**)

298. Minnesota Academic Excellence Foundation Lauds Minnesota Junior Duck Stamp Program

Minnesota Valley National Wildlife Refuge

Minnesota Valley NWR's sponsorship of the Minnesota Junior Duck Stamp Contest was recently recognized at a luncheon and workshop hosted by the Minnesota Academic Excellence Foundation (MAEF). The Foundation recognized the Minnesota Junior Duck Stamp Program for challenging Minnesota school children in the field of art and conservation, and also for recognizing the children's accomplishments. MAEFF will continue to include the Minnesota Junior Duck Stamp Program in its own 'Reach for the Stars Program' and will market it

to all Minnesota schools. (**3/29/00**)

299. New Bird Watching Brochure Highlights Cache River Wetlands

Cypress Creek National Wildlife Refuge

"Southern Illinois Bird Watching," a new birdwatching guide produced by southernmost Illinois tourism and Cache River Wetlands Joint Venture partners, is off the presses and in demand in southern Illinois. The brochure highlights birding 'hotspots' in southern Illinois and is the first step of a cooperative effort to create a regional birding event in 2001. The brochure highlights 26 areas along the Mississippi Flyway, includes a full color map, and highlights public use facilities as well. It is being distributed at tourist information centers and through travel shows and tourism conventions throughout the Midwest. (**3/30/00**)

300. Local Club Helps Construct Mallard Nest Structures

Fergus Falls Wetland Management District/PWLC

The Fergus Falls Fish and Game Club volunteered 50 hours to help construct mallard nest cylinders at Fergus Falls Wetland Management District. The cylinders provide an important place for mallards to nest on many of our wetlands. (**3/30/00**)

301. Horicon NWR Produces Annual Newsletter

Horicon National Wildlife Refuge

Horicon NWR produced and distributed its annual 12-page in-depth newsletter, the Redhead Gazette, to over 800 recipients, such as visitors, teachers, media, partners, congressionals, agencies, hunters, and many others. The newsletter was again professionally designed by volunteers Sarah and Laura Congdon of Horicon, WI. Regular features include an employee spotlight, volunteer spotlight, WPA spotlight, lead story, and kid's corner. Articles were written by employees, and most photos were provided by volunteers. Printing costs were paid for by the Midwest Interpretive Association. (**3/31/00**)

April 2000

302. Local Partners for Fish and Wildlife Coordinator Receives Conservation Award

Ottawa National Wildlife Refuge

Steve Dushane, private lands biologist at the Ottawa National Wildlife Refuge, was named 'Outstanding Conservation Partner of the Year' by the Lenawee Chapter of Pheasants Forever. Dushane works closely with Pheasants Forever and many other partners to restore wildlife habitat on private lands through the Service's Partners for Fish and Wildlife Program. The Partners program has restored over 600 wetlands and many grasslands in Southeastern Michigan. (**4/1/00**)

303. Volunteers Replant Trees on Pool 8 EMP Islands

Upper Mississippi River National Wildlife and Fish Refuge-LaCrosse District

Approximately 30 Greenwings, Cub Scouts and parents from LaCrescent, Minn., and Stoddard, Wis., teamed up to plant more than 600 willow whips on 'Slingshot Island,' one of the Pool 8 Stoddard Bay Environmental Management Program islands. . The whips were planted along the shoreline in areas where the willows planted last fall did not grow. The planting project provided closure for several of the families who also assisted with cutting the whips several weeks earlier. (**4/1/00**)

304. DeSoto NWR Reunites Steamboat Bertrand Excavators

DeSoto National Wildlife Refuge

Thirty years after the Steamboat Bertrand was found and excavated near the Missouri River in Western Iowa, people involved with the project were reunited at DeSoto NWR to celebrate the opening of a special exhibit commemorating their work. On April 1, the 135th anniversary of the sinking of the boat, a special exhibit opened in the refuge's visitor center gallery. Approximately 250 people attended the reception, hosted by the Midwest Interpretive Association. The reception was the first time Many of the crew had seen each other since the excavation. Photographs from the museum's archives, supplemented with recollections of the workers presented the story of the excavation and care of the Bertrand's cargo in a new light. Original artwork and a selection of artifacts not normally displayed were used to illustrate the type of work done in the conservation laboratory. The steamboat Betrand exhibit is a popular attraction at the DeSoto NWR. The exhibit has helped increase visits to the refuge by more than 1,000 from the same month last year. (**4/1/00**)

305. Lakescaping for Wildlife and Water Quality

Minnesota Valley National Wildlife Refuge

Minnesota Valley NWR hosted an instructor training session for the

Continued next page.

Minnesota Department of Natural Resources Nongame Wildlife Program April 4, 2000. Approximately 40 instructors attended the daylong training, which trains instructors to teach the public about shoreline management practices in the state. Instructors will provide 15 workshops throughout Minnesota. Participants will receive an overview of shoreland ecosystems and will learn about site design and inventory, site preparation and planting techniques, native plant communities, fish and wildlife habitat, water quality assessment, and good stewardship practices. (**4/4/00**)

306. Audubon Magazine Columnist Visits the Backwaters of the Upper Miss Wildlife and Fish Refuge

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

To gather information for an upcoming article, Ted Williams columnist for the Audubon Magazine motored through the backwaters of the Upper Mississippi Wildlife and Fish Refuge with Winona District Manager Bob Drieslein and Headquarters Park Ranger Cynthia Samples April 5, 2000. Mr. Williams is writing an article about the Mississippi River, and a segment of the article will focus on the Refuge. Walking around on Krats Island near Wabasha, Minn., provided him an opportunity to view one of the Habitat Rehabilitation and Enhancement Projects (HREP's) of the Environmental Management Program (EMP). The HREP involved placing fine materials on a sand disposal site and seeding with prairie grasses and planting oak seedlings which are maturing nicely. Bald eagles, wood ducks and hooded mergansers made an appearance during the visit thus proving that 'wildlife does come naturally.' (**4/5/00**)

307. Two Wildfires on Mississippi River Refuge's LaCrosse District

Upper Mississippi River National Wildlife and Fish Refuge-LaCrosse District

The Upper Mississippi Refuge - La Crosse District had two wildfires this spring.

On Mar. 31, 2000, a fire was reported at approximately 5 p.m. at Goose Island, just south of LaCrosse in Vernon County, Wis. The fire burned 1.1 acres. Two fire departments responded and the fire was out about 3.5 hours after being reported.

On Apr. 5, 2000, a fire was reported at 9:30p.m. at a LaCrescent. Minn., landfill. The fire started in a compost/wood chip pile and burned approximately .07 acres of Refuge land. Fire crews remained on the scene overnight, and the fire was out at 4 a.m. the following morning. Causes of both fires are under investigation. (**4/5/00**)

308. Morris WMD Restores 53 Wetlands

Morris Wetland Management District

The Morris Wetland Management District's Partners for Fish and Wildlife Program has restored 53 wetlands since Oct. 1, 1999. District staff worked with 14 landowners in five Minnesota counties to restore 224 acres of wetlands. Of those restored, 11 were completed through a Memorandum Of Understanding with the Minnesota Waterfowl Association, U.S. Department of Agriculture and the Service in conjunction with the 18th Conservation Reserve Program (CRP)sign-up. (**4/5/00**)

309. Detroit Lakes WMD Staff Joins in for Career Days at Detroit Lakes Middle School

Detroit Lakes Wetland Management District

Biologist Larry Hanson discussed careers in natural resources fields during his meeting with 100 eighth graders at Detroit Lakes Middle School April 6, 2000. Hanson spoke at four career sessions. (**4/6/00**)

310. Upper Mississippi Refuge Staff Participates in Minnesota Waterfowl Association Meeting

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

Deputy Regional Director, Marvin Moriarty joined staff from the Upper Mississippi River NW&FR Complex Manager Jim Fisher, LaCrosse District Manager Jim Nissen, LaCrosse Park Ranger Mary Stafanski and Refuge Biologist Eric Nelson at the annual Minnesota Waterfowl Association Meeting April 8, 2000, in LaCrosse, Wis. The subject of the meeting was the Mississippi River. Moriarty welcomed members, Fisher moderated a paper session and Nelson and Nissen gave presentations on the recent history of habitat on the River and canvasback duck management. Stafanski coordinated much of the meeting and field trips. Other state and federal agencies were also represented. (**4/8/00**)

311. Muscatatuck NWR Provides Wetlands Truck for Wetlands Day

Muscatatuck National Wildlife Refuge

Muscatatuck NWR provided the Service wetlands truck to 70 teachers, staff members and students at Vienna Finley Elementary School for a third grade Wetlands Day. Students started the day by watching two videos about wetlands and their benefits. Students participated in three major activities: While groups studied the beaver, one student put on items to represent the beaver's special adaptations to live in the wild; students matched adult animals that live in the wetlands with their babies; and students made edible cattails with a banana on a wooden skewer spread with peanut butter and rolled in cocoa crispies. (**4/12/00**)

312. Muscatatuck NWR Celebrates National Volunteer Week

Muscatatuck National Wildlife Refuge

Muscatatuck NWR staff celebrated National Volunteer Week by taking 33 refuge volunteers to dinner at a local restaurant. Refuge Manager Lee Herzberger gave a short update program at the end of the dinner. Volunteers contributed over 15,000 hours of labor to Muscatatuck NWR in 1999. The volunteers accomplish things on the refuge that would not otherwise have get done, including the staffing of the refuge visitor center. Volunteers directly benefit our wildlife resources by donating thousands of dollars of time to the refuge each year (**4/12/00**)

313. Shorebird Workshop

Big Stone National Wildlife Refuge

Wildlife Biologist Olson was interviewed by Outdoor Explorer Magazine. This periodical has a readership of thousands across the U.S., and the coverage of the upcoming Shorebird Workshop in August should help generate more public interest. (**4/12/00**)

314. Glacial Ridge Informational Open House Draws 40

Rydell National Wildlife Refuge

An open house to provide information and solicit comments form local residents about the possible establishment of a new national wildlife refuge in northwest Minnesota was help April 12 at Rydell NWR in Polk County, Minn. The Open House is part of the Service's effort to evaluate the possible establishment of Glacial Ridge NWR.

Letters were sent to numerous potentially interested land owners in the area of the proposed Refuge, offering them an opportunity to gather additional information in person or by attending the Open house. Concerns over taxes were express by two visitors and concern or wetland restorations increasing flooding down stream were expressed. Many positive comments were also received indicating the land never should have been drained for farming and they would welcome the restoration of the prairie and wetlands back to what they remember as children growing up in the area.

All the Polk County commissioners attended the meeting and provide interviews to the newspaper and TV reporters present. There main concerns were tax loss from property taxes and gravel mining taxes if the Service were to acquire the land and end gravel mining. (**4/12/00**)

315. Lake Erie Fish Returning to Ohio's Metzger Marsh

Ottawa National Wildlife Refuge

On April 15, 2000, Biologist Susan Wells with technicians Julia Frosheuar and John Magalski sampled a largemouth bass with a tag from last years sampling efforts. The bass was taken from the ingress sampling trap at Metzger Marsh in Ohio. Last year, the bass was tagged while trying to leave the marsh and nearly a year later is found entering the marsh.

Sampling at Metzger Marsh was initiated in order to determine Lake Erie fish movement in and out of the marsh, which is mostly closed off to the lake by a dike except for a small opening that allows the marsh to remain connected to the lake. The sampling effort began in 1999 showing a large diversity of lake species wanting to enter the marsh. Finding the largemouth bass in the marsh shows promise for the potential utilization of such an opening in coastal marsh habitats.

Two other tagged fish were sampled entering the marsh by service personnel. These fish were tagged in the spring of 2000. As of September 2000, three Metzger Marsh tagged fish were called in by fisherman. Two of these fish were caught within a three mile radius, but one largemouth bass was caught approximately 15 miles east of the marsh. (**4/13/00**)

316. Friends Group's Efforts Help Fund Upper Mississippi Refuge Marsh Projects

Upper Mississippi River National Wildlife and Fish Refuge-LaCrosse District

Responding to the challenge of finding donors to fund enhancements to the Upper Halfway Creek Marsh Project, The Coulee Region Chapter of Friends of the Upper Mississippi River Refuges has received funds or pledges for more than $14,000 to apply toward Marsh projects. In January 2000, the group was given a list of five enhancement projects in need of funding: purchase native grass/wildflower seed, provide funding for a parking area, purchase a viewing scope, construct a 'spur' trail from the adjacent state bike trail, and materials to construct a sitting bench. Total estimated cost for these items was $13,700. To date, the group has either received or has pledges for $14,205! (**4/13/00**)

317. Volunteer Groups Enhance Halfway Creek Marsh Project on Upper Mississippi Refuge

Upper Mississippi River National Wildlife and Fish Refuge-LaCrosse District

Volunteers from Wisconsin Waterfowl Association (WWA) and Longfellow Middle School in LaCrosse, Wis., partnered to make improvements at the Upper Halfway Creek Marsh Project on the Upper Mississippi River NW&FR. Ten volunteers from the WWA used chainsaws to clear willow trees from an area adjacent to newly constructed dikes, opening an area approximately 300-feet long by 30-feet wide. The willows were left in the cutting area. On April 13,2000, a crew of nearly 40 middle school students removed the willow cuttings and piled them along the adjacent county highway. A crew from the LaCrosse County Highway Department then chipped the trees. (**4/13/00**)

318. Minnesota Valley NWR Celebrates Earth Day

Minnesota Valley National Wildlife Refuge

Minnesota Valley National Wildlife Refuge celebrated Earth Day with a variety of events April 14, 2000. The Refuge coordinated a large volunteer cleanup of trash as well as some trail maintenance. In addition, bluebird houses were constructed at the Visitor Center. Other events included a poster contest, bird walk, and tree planting on a former agricultural field on the refuge. To top off the day, approximately 300 volunteers were treated to a cook-out. (**4/14/00**)

319. Prairie Cord Grass Plugs Planted on the Horseshoe Bend Division of the Mark Twain NWR

Mark Twain National Wildlife Refuge-Wapello District

A total of 2,200 prairie cord grass plugs was planted on the Horseshoe Bend Division of the Mark Twain NWR. The prairie cord grass will out-compete the exotic and noxious weeds currently infesting some of the Division's wet meadow areas. A recent inspection of the plantings indicated excellent growth of the plugs. (**4/15/00**)

320. 350 Assist In Spring Clean-up At Sherburne NWR

Sherburne National Wildlife Refuge

Over 350 individuals, families and groups took part in the annual Spring Clean-up at Sherburne National Wildlife Refuge April 15, 2000. The week-long cleanup, cosponsored by the Refuge and the Friends of Sherburne, provided many helping hands for roadside litter pick-up, trail work and an exotic plant control project. Projects included installation of two entrance signs, the rerouting of steep sections on two hiking trails, clean-up of a pre-refuge dump site, raking, window washing and a purple loosestrife control project as well as litter pick up from over 50 miles of County Roads bordering the Refuge by over 275 individuals from families, conservation clubs and a local school. The event was supported by 3 local non-profit agencies which included the Friends of Sherburne, Pheasants Forever and Boy Scouts of America and also University of Minnesota Extension for Sherburne County (4-H), Zimmerman Elementary School, Lake View Care Center and Sherburne County Highway Department. Following completion of the projects, a free brat and hot dog lunch was served to all volunteers and a door prize of two free tickets to a St. Paul Saints baseball game was provided by the Friends of Sherburne. (**4/15/00**)

321. Minnesota Valley NWR Staff Participate in Bloomington Clean Water Festival

Minnesota Valley National Wildlife Refuge

Bloomington Clean Water Festival: Refuge staff participated in the Bloomington Clean Water/ Earthday 2000 Festival at Olson Middle School Saturday, April 15, 2000. Approximately 300 people attended the event, with about 100 visiting the Refuge display. Students who answered the question: "What three plants and three animals live on Minnesota Valley National Wildlife Refuge?" received extra credit. Most could not identify a photo on the display of a great blue heron. (**4/15/00**)

322. March Surveys Show Goose Use Days Increase at Crab Orchard NWR

Crab Orchard National Wildlife Refuge

A March survey of corn fields at Crab Orchard National Wildlife Refuge shows a slight increase in the numbers of geese and other wildlife feeding on crop fields on the southern Indiana refuge. Surveys conducted by Refuge staff and Illinois Department of Natural Resource personnel estimated 2.4 million Goose Use Days (GUDs) from October 1, 1999 to March 1, 2000 on the Refuge, up from 1.9 million GUDs last season. Goose Use Days are defined as one goose on the refuge for one day. While geese fed a great deal on wheat, clover, and grasses, no fields were totally consumed. Assessments were completed on 87 Refuge cornfields totaling 1,697.2 acres. In fields where cooperative farmers left 25 percent of corn unharvested, geese and other wildlife consumed 51 percent of all corn.

Five-year trend of Goose Use Days on Crab Orchard NWR

1995 - 5.9 Million GUD's

1996 - 3.1 Million GUD's

1997 - 2.1 Million GUD's

1998 - 1.9 Million GUD's

1999 - 2.4 Million GUD's (**4/18/00**)

323. New Public Turn-Around Improves Access For Fishing, Wildlife Viewing

Crab Orchard National Wildlife Refuge

The Crab Orchard National Wildlife Refuge maintenance staff recently constructed a new turn-around on Wolf Creek Road Causeway, part of a long-term project to improve access. The Causeway has been a favorite drop off for shoreline fishermen on Crab Orchard Lake. The addition of riprap will lessen shoreline erosion. Two fishing peers have been added to enhanced the causeway. Later this year, two additional fishing peers will be constructed; one being handicap accessible. In addition to excellent shoreline fishing, this area is also an excellent wildlife viewing area. Local fishermen Tom Hunter and Ray Wade have fished the causeway for 50 years. Both men say this is a great enhancement to Wolf Creek Road Causeway and has improved fishing conditions on Crab Orchard Lake. (**4/18/00**)

324. Squaw Creek Helps Celebrate Earth Day at Nebraska College

Squaw Creek National Wildlife Refuge

Squaw Creek NWR staff traveled to Peru, Neb., to participate in Peru State College's first annual Earth Day celebration April 18, 2000. A Squaw Creek Refuge table top exhibit was set up in the student union with approximately 10 other exhibitors. Students and faculty members visited the exhibit throughout the day viewing exhibit materials and collecting refuge leaflets. (**4/18/00**)

325. Service Biology Careers Presented at Winona State University Career Day

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

Refuge Biologist Eric Nelson spoke about his career with the Service to 50 biology students at Minnesota's Winona State University April 18, 2000. The students were interested in biological positions with the Service. As part of his presentation, Nelson previewed the Service's new employee video, 'The Journey Begins - The Tradition Continues.' The video prompted a 45-minute question and answer session. Students were favorable to the Service, but were concerned about starting pay when comparing entry-level jobs in the medical technology field. (**4/18/00**)

326. Service Career, Volunteer Opportunities Discussed at University of Wisconsin-Eau Claire

Trempealeau National Wildlife Refuge

Trempealeau Refuge participated in a Volunteer Fair on the campus of University of Wisconsin - Eau Claire April 18, 2000. More than 50 students and faculty talked with Refuge staff about volunteer and job opportunities with the Service. In addition, the Refuge System and its mission were discussed and specific referrals to

Continued next page.

various Fish and Wildlife Service offices in Wisconsin and Minnesota were made depending on the student's subject area of interest and geographical location. (**4/18/00**)

327. Muscatatuck NWR Celebrates Earth Day with Wetlands Programs.

Muscatatuck National Wildlife Refuge

The Muscatatuck NWR outdoor recreation planner participated in an interagency Earth Day program at Brownstown Elementary school April 19-20, 2000, involving 750 students and teachers. (**4/20/00**)

328. Students Redesign Upper Mississippi River Refuge During Earth Day Celebration

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

What's wet, 260 miles long and visited by over 3.7 million two-legged creatures annually? The question was posed April 20, to a group of elementary school students by Outreach Coordinator and Park Ranger Cynthia Samples during a visit to Goodview Elementary School. Samples, a Ranger at the Upper Mississippi National Wildlife and Fish Refuge spoke to a group of 120 fourth and fifth graders during the school's Earth Day celebration. Using a 15-foot-long map, Samples asked the students (in four separate sessions) to design the Refuge.. They placed islands, ducks, cattails, fish, frogs, deer, other wildlife examples and even people on the refuge map. At the end of the session, students were asking why the islands were shaped like the letter 'C,' and this prompted a discussion about the habitat restoration and enhancement programs of the Environmental Management Programs. Students were able to identify the complexity and immensity of the Refuge. (**4/20/00**)

329. 1200 Trees Planted as Part of Reforestation Effort on Rydell NWR

Rydell National Wildlife Refuge

Reforestation of a small portion of Rydell NWR moved forward this spring with the planting of 1,200 basswood, oak, maple seedlings on a nine-acre field on the Refuge. Station staff borrowed a tree planter for the MacIntosh, Minn. Soil and Water Conservation District to accomplish the planting in a retired crop field.

Three volunteers placed protective tubes around several hundred trees to give them a chance to grow without being eaten by local deer. Additional maple and bur oak seed will be planted in the field this fall after harvesting seed from the Refuge. An attempt is being made to use local ecotype vegetation only. The goal is to replace the spruce/pine plantings with native tree species and replant old fields back into forest to reconnect existing forest stands. Rydell Refuge is situated in the farthest northwestern location of Maple/Basswood forest in Minnesota. (**4/20/00**)

330. Refuge Dedication Ceremony Held at Rydell NWR

Detroit Lakes Wetland Management District

A plaque dedication ceremony was conducted for Margaret and Leonard Rydell April 20, 2000, at Rydell National Wildlife Refuge. The dedication was set to coincide with Earth Day program featuring the construction of 200 Peterson bluebird boxes by local school students. Forty six relatives and guests attended the dedication program led by Rollin Siegfried. After the dedication and presentation to Mrs. Rydell by Manger Rick Julian, 15 family members were given a two and a half mile tour of the refuge via electric cart. (**4/20/00**)

331. National Wildlife Week Popular in LaCrosse, Wis.

Upper Mississippi River National Wildlife and Fish Refuge-LaCrosse District

Upper Miss - La Crosse Refuge staff provided programs about the Refuge, wetland birds and watershed projects to four area schools contacting over 250 students in 15 classes during National Wildlife Week. Refuge staff gave presentations at four areas schools discussing the Refuge, wetland birds and watershed issues to 15 classes representing over 250 students during National Wildlife Week. (**4/21/00**)

332. Earth Day Celebrated at DeSoto Refuge

DeSoto National Wildlife Refuge

'Bringing Back Bluebirds' was the special Earth Day slide program given by Sandy Seibert at DeSoto Visitor Center. Thirty people attended the program. Sandy discussed the environment and the role of bluebirds as an indicator species. (**4/22/00**)

333. Shiawasee NWR Hosts Dedication for Proposed Great Lakes Discovery Center

Shiawassee National Wildlife Refuge

The Shiawassee National Wildlife Refuge (NWR)and the Friends of Shiawassee NWR hosted a dedication ceremony April 24,

2000, at the proposed site of the Great Lakes Discovery Center in Bridgeport, Mich. Fifty people attended the ceremony, toured the site and enjoyed refreshments. Congressman Dave Camp, Bernie Spencer (Bridgeport Township), Barry Dickston (Saginaw County Convention & Visitors Bureau), Ed Becker (Friends of Shiawassee NWR), Mr. and Mrs. Warner (former owners of the site), and Doug Spencer (Shiawassee NWR) addressed the group. Some partners in this endeavor also in attendance included Tom Baker (National Park Service), Gary Dankert (Michigan United Conservation Clubs), and Mark and Emily Mattison (Mattison Company). News media that covered the event included: News 12 TV, WSGW radio, and the Birch Run/ Bridgeport Herald. (**4/24/00**)

334. Trempealeau Refuge Completes Successful Burn Season

Trempealeau National Wildlife Refuge

Trempealeau Refuge successfully burned 84 acres of prairie habitat and dikes during six separate controlled burns between March 29 and April 24, 2000. All burns remained within prescription. Staff from Wisconsin Conservation Corps and Upper Mississippi River Refuge Headquarters Office and Winona District assisted with the burns. The prairie burns were conducted to set back growth of non-native cool season grasses and woody vegetation. The dikes were burned to help with establishment of native grasses planted on the new dikes in 1998. (**4/24/00**)

335. More Than 400 Students Clean Up Necedah NWR on Earth Day

Necedah National Wildlife Refuge

Students from around the area joined forces to clean up the Necedah National Wildlife Refuge April 25, 2000. The project honored the 30th anniversary of Earth Day and marked the second such effort hosted at the Necedah National Wildlife Refuge. More than 430 students from Lyndon Station, Adams-Friendship and Mauston participated in cleaning up more than 40 miles of refuge roadside, gathering 846 pounds of recyclables and trash. Sponsored by the Friends of Necedah National Wildlife Refuge, the event was created to help teach earth-friendly values to the students as well as the show them they can make a difference in helping the planet. The day-long event at the refuge also included a slideshow on the history and significance of Earth Day. Students collected 118 pounds of aluminum, 112 pounds of glass and 48 pounds of recyclable material. Collected trash weighed in at 568 pounds for the final total of the clean-up effort at 846 pounds of material. The amount equaled almost 2 pounds of waste material per student. Each mile of roadside that was cleaned averaged over 20 pounds of waste. Some of the oldest items collected included a wagon wheel and a Harvest-All steel beverage can. Students were also asked to identify items that would take the longest to decompose, or break down into soil. These items consisted of a section of railroad rail, a large battery, a 25-foot section of PVC-type rubber hose, and a propane heater. Among the strangest items collected were kitchen pots and a toilet seat! (**4/25/00**)

336. Muscatatuck NWR Volunteer Confirms Healthy Population of Dragonfly

Muscatatuck National Wildlife Refuge

Muscatatuck NWR volunteer, Dr. Curry, of Franklin College confirmed the beaver pond Basket tail dragonfly once again with a healthy breeding population on the refuge. This is the only known population of this species in Indiana and it is the earliest dragonfly to emerge in the state. (**4/25/00**)

337. Refuge Staff Delivers Wetland Wildlife Programs During Stewardship Week

Cypress Creek National Wildlife Refuge

Refuge Staff provided Wetland Wildlife programs to 655 grade school students during Stewardship Week April 25-28, 2000. Students attended the programs from 38 schools in 13 Illinois counties. Wetland Wildlife program highlighted the habitat values/functions and animals found within the Cache River Wetlands (in southernmost Illinois). The program was sponsored by the University of Illinois Forest Resource Center; co-sponsors included Cypress Creek National Wildlife Refuge, The Nature Conservancy, and the Illinois Department of Natural Resources.

Stewardship Week is an annual event that provides southern Illinois schools with hands-on learning during a day-long field trip. Through the week 3,079 students and 155 teachers from 38 schools attended the event. The overall theme highlights natural resources related issues and hands-on activities. Due to the programs success, 1700 students

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were placed on a waiting list for next year's program. (**4/25/00**)

338. Service Answers Questions at Public Meetings for EMP Pool 8 Phase III

Upper Mississippi River National Wildlife and Fish Refuge-LaCrosse District

Public meetings were held in Brownsville, Minn., and Stoddard, Wis., April 24-25, 2000 to discuss the study boundaries and goals of the Phase III Environmental Management Program islands for Pool 8 of the Upper Mississippi River. Representatives from the U.S. Fish & Wildlife Service, Minnesota and Wisconsin Departments of Natural Resources and U.S. Army Corps of Engineers answered the public's questions about the project. Approximately 25 people attended the Brownsville meeting, 35 attended the Stoddard meeting. Overall, public opinion for the project was favorable. (**4/25/00**)

339. UMR Refuge participates in Earth Day celebrations at local schools

Upper Mississippi River National Wildlife and Fish Refuge-McGregor District

The McGregor school system celebrated Earth Day 2000 in various ways and invited McGregor District, Upper Mississippi River Refuge staff to talk about mysteries of Nature on the National Wildlife Refuge. Four hundred students from kindergarten through fifth grade learned about frogs and toads, camouflage, and migration of birds from presentations by Refuge staff in the school. Two spring peepers were the highlight of the show. (**4/25/00**)

340. Rydell NWR Honors Volunteers

Detroit Lakes Wetland Management District

Forty-two people attended an outdoor barbecue at the Rydell NWR April 25, 2000, to honor volunteers who worked on the Refuge during Fiscal Year 1999. Ione Halverson, Bill Roeszler, Jay Johnson, and Wayne Goeken were recognized for their outstanding service to the Refuge. Bob Hiltner, Refuge maintenance personnel, was honored as the "Volunteer Of The Year" by the Rydell Friends of the Refuge Association. Bob has donated thousands of personal hours to the Refuge over the past eight years. (**4/25/00**)

341. Midwest Travel Writers Stop by Rydell NWR

Detroit Lakes Wetland Management District

More than 100 Midwest travel writers were given an overview of what Rydell NWR offers its visitors during a presentation at the Refuge April 25, 2000. Packets were provided which included maps, information on programs and the trail system, and information on the Refuge System. (**4/25/00**)

342. Litchfield District Instructs Litchfield Gun Safety Students

Litchfield Wetland Management District

Several Service employees at Litchfield WMD helped provide state-certified gun safety training to 95 area youths. A featured component of the training was utilization of the Region's S.A.F.E.T.Y. system. Federal Aid's firearm shooting unit generated a tremendous amount of student enthusiasm contributing to a ten year high graduation rate. (**4/25/00**)

343. Muscatatuck NWR Staff Assist With Envirothon

Muscatatuck National Wildlife Refuge

Muscatatuck NWR staff instructed the wildlife section of the district "Envirothon" competition for local high school students. The event involved 125 students from eight Indiana counties. (**4/26/00**)

344. Muscatatuck NWR Displays Endangered Species Exhibit

Muscatatuck National Wildlife Refuge

Muscatatuck NWR in partnership with Indiana Department of Natural Resources Fall of the Ohio State Park displayed the Service's endangered species exhibit for a week at the park. Approximately 1,500 visitors saw the display. (**4/26/00**)

345. Muscatatuck NWR Helps Prepare Arbor Day/Earth Day Program

Muscatatuck National Wildlife Refuge

Muscatatuck NWR helped teachers prepare an Arbor Day/Earth Day program at Vienna Finley Elementary School for the stall and all of the 300 students in grades K-5. This annual program conducted by the teachers featured learning stations for all students to attend and then all students go home with a tree seedling to plant. This is the tenth year for this program. (**4/26/00**)

346. Upper Mississippi River Refuges Survey Heron Rookery

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

Biology technicians from the Winona District, and Trempealeau NWR craned necks skyward during a survey of the District's St. Mary's Heron Rookery April 26, 2000. The white-wash and presence of birds in the nests were the clues used by the FWS employees on this survey. The Winona District has 16 active Heron Rookeries and each spring bio-techs survey the rookeries for activity. This year, a few great egrets were found among the great blues, but no double-crested cormorants were discovered.

The St. Mary's rookery has more than 800 nests. Survey participants included Bio-technicians Cindy French, Steve Erickson, Chris Pikar, Brian Stemper and Cynthia Samples. (**4/26/00**)

347. Seventh Grade Conservation Tour at Rydell NWR

Detroit Lakes Wetland Management District

More than 350 students from seven local schools descended on Rydell NWR April 26, 2000, to participate in the annual Seventh Grade Conservation Tour sponsored by the Polk County Soil and Water Conservation District. Eight stations were staffed by natural resource professionals from around the area. (**4/26/00**)

348. Service Staff Participate in Three-County Envirothon at Rydell NWR

Detroit Lakes Wetland Management District

Service staff participated in a three-county regional Envirothon April 26, 2000, at Rydell NWR. A total of 175 high school students from eight northwestern Minnesota schools from Polk, Norman and Red Lake Counties participated at teams in the Envirothon. Seven stations, including wildlife, wetlands, soils, forestry, environmental law, and refuge overview set up with groups of students rotating between stations through out the day. Natural Resource professionals from various agencies tested the students knowledge by asking a variety of outdoor-based questions. (**4/26/00**)

349. Fifth Graders Learn Radio Telemetry at Necedah NWR

Necedah National Wildlife Refuge

Fifty-five New Lisbon, Wis., fifth graders visited the Necedah NWR April 27, 2000, participating in activities from radio telemetry to a bird hike, to a bird adaptation re-play. The students were the first school group to view the revised 'Necedah Story' slide program. After lunch, the group challenged each other in a quiz bowl to apply what they had learned. Refuge volunteers assisted Park Ranger Jennifer Rabuck with the group. (**4/27/00**)

350. Friends of Big Muddy Provide Outreach

Big Muddy National Fish and Wildlife Refuge

Members of Friends of Big Muddy staffed booths with information about Big Muddy NFWR at Day With Wildlife in Columbia, Mo., April 16 and Earth Day in Columbia April 22, 2000. Over 200 people visited the Friends' booth, asked questions about the refuge, and picked up information.

On April 27, the Friends sponsored an informative talk by Robb Jacobsen, Research Hydrologist with U.S. Geological Survey. Robb presented information about some of the research occurring at Lisbon Bottom, a unit of Big Muddy NFWR. (**4/27/00**)

351. Big Stone Refuge Staff Participate in Statewide Singing Frog and Toad Survey

Big Stone National Wildlife Refuge

One evening during each of the months of April, June and July, staff from Big Stone NWR completed a singing frog and toad survey. As a participant in the Minnesota Frog and Toad Survey coordinated by Hamline University in St. Paul, Minn., Refuge staff listened for three minutes at 10 different wetland locations to identify and assign a calling index value to species heard. On the evening of April 27, three species; the wood frog, western chorus frog and American toad were noted. Possibly due to dry conditions, no amphibians were detected aurally during June and July. The survey helps determine species occurrence and distribution of anurans on the Refuge. (**4/27/00**)

352. Muscatatuck NWR Arbor Day/Earth Day at William English Middle School

Muscatatuck National Wildlife Refuge

Staff at Muscatatuck NWR helped local teachers prepare an Arbor Day/Earth Day program at William English Middle School for 260 sixth grade students and

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school staff. The annual teacher-led program features learning stations for all students. All students went home with a tree seedling to plant. This the fifth year for this program. (**4/28/00**)

353. Landowner Concerns Addressed at Second Yellow River Forum at Necedah NWR

Necedah National Wildlife Refuge

Fourteen local landowners joined 13 natural resource professionals from the Service and other agencies to address landowners' information needs and other issues of concern at the second Yellow River Forum April 28, 2000 at Necedah NWR. Necedah NWR Refuge Manager Wargowsky, Park Ranger Power, Private Lands Biologist Peterson, Service's Region 3 Ascertainment Specialist Tom Magnuson, and Green Bay Field Office Biologist Joel Trick hosted the Forum. Landowner concerns from the first meeting of the Forum were addressed during the meeting. All landowners within the Yellow River Focus Area and natural resource professionals with a broad range of expertise were invited to this meeting. The results of this meeting will help guide natural resource management in the Yellow River. (**4/28/00**)

354. Students Join Volunteers and Refuge Staff to Plant 250 Trees at Upper Mississippi River Refuge

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

Sixty third graders and 20 volunteers joined staff at the Upper Mississippi River National Wildlife and Fish Refuge to plant 250 trees April 28, Arbor Day. The event was organized by the Friends of the Upper Mississippi River Refuges (FUMRR) with the assistance from the Winona District and Headquarters offices. Park Ranger Cynthia Samples conducted an Environmental Education activity while Biological Technician Brian Pember organized the volunteers. Biological Technician Brian Stemper, manned the woodchip hauling rig. One of the volunteers was staff member Steve Erickson who was off that day but volunteered his services to help the Madison Elementary third graders plant 250 trees. The volunteers were members of the Friends group, City of Winona Parks Department employees and high schoolers from Rushford, Minn. FUMRR donated the money for the trees. The student tree planting was the first building block of a Friends group adoption of a refuge area. FUMRR intends to continue assisting with the Prairie Island area as their local work project. (**4/28/00**)

355. Muscatatuck NWR Featured on Indiana Outdoors Radio Program

Muscatatuck National Wildlife Refuge

Muscatatuck NWR's Outdoor Recreation Planner discussed Refuge management programs and events on the 'Indiana Outdoors' radio program April 29, 2000. The program was carried by 23 radio stations and contacted 50,000-75,000 people. (**4/29/00**)

356. Muscatatuck NWR Hosts Indiana Junior Duck Stamp Contest

Muscatatuck National Wildlife Refuge

An awards ceremony for about 50 winners, parents, and art teachers participating in the Indiana Junior Duck Stamp competition was held at the Muscatatuck Refuge visitor center April 29, 2000. Muscatatuck NWR volunteers managed the Indiana Junior Duck Stamp contest in which almost 500 students and teachers learned more about waterfowl and wetlands. (**4/29/00**)

357. Scout Safari at Green Point Environmental Learning Center

Shiawassee National Wildlife Refuge

Green Point Environmental Learning Center, part of the Shiawassee National Wildlife Refuge in central Michigan, hosted a 'Scout Safari' program Saturday, April 29, 2000. Fifteen Cub Scouts and Jr. Girl Scouts plus three adults attended this program developed by Park Ranger Marc Beaudin. The five-hour long program gave the Scouts the opportunity to explore various habitats and learn about the lives and interrelationships of the plants and animals found there. They discovered the layers of a forest community from the point of view of a red-bellied woodpecker, examined the workings of a pond from the perspective of a red-winged blackbird, and appreciated the diversity of a grassland with the eyes of a red-tailed hawk. The day involved a lively mix of observation, games, stories, and demonstrations that encouraged self-discovery and personal involvement in the 'web of life.' The

theme throughout the day was considering nature's gifts and imagining ways to offer gifts in return. The Scouts demonstrated the impact of this by taking the initiative to clean up litter from around the pond and staying behind to discuss issues of habitat loss and pollution. (**4/29/00**)

358. Minnesota Celebrates Junior Duck Stamp Artists

Minnesota Valley National Wildlife Refuge

The 100 winners of this year's Minnesota Junior Duck Stamp Competition were honored with a celebration at the Minneapolis-St. Paul Airport Hilton Hotel in Bloomington, Minn., April 29. Approximately 500 guests including parents and teachers were on hand to applaud the artistry of the Minnesota youngsters. All 100 paintings were displayed in the foyer. Guest speakers included Service employees Lisa Mandell, Mike Malling and Tom Cooper. The keynote speaker was Chris Osgood of Resources and Counseling for the Arts. The students were entertained by a young singer, John Michael Bores, and by Jack Pearson, the Song-strumming Storyman. As each child was called forward to receive his/her ribbon and award, a slide of his/her picture was displayed on a large screen. (**4/29/00**)

359. Trempealeau Refuge Partnership Provides Education; Receives Hardwood Trees

Trempealeau National Wildlife Refuge

Trempealeau Refuge partnered with the University of Wisconsin-Eau Claire and the National Tree Trust to provide a service/learning project for 11 university students. The students learned about the Refuge system mission and the management and public use programs on the Refuge. In exchange, the students planted 500 tree seedlings provided by the National Tree Trust in a bottomland hardwood reforestation effort. (**4/29/00**)

360. Annual Woodcock Routes Completed at Fergus Falls WMD

Fergus Falls Wetland Management District/PWLC

In late April, staff at Fergus Falls WMD ran two singing male woodcock routes, one in northern Otter Tail County and one in Todd County. The numbers of birds was about the same as it has been for the past several years. The results were forwarded to the Service office in Laurel, Maryland for their information and analysis. District staff collect woodcock numbers annually and provide them to the Region's Migratory Birds Office. The numbers become part of an annual status report for the fall flight. (**4/30/00**)

361. Snowmobile Trespass Continues to be a Problem on Detroit Lakes WMD WPAs

Detroit Lakes Wetland Management District

Snowmobile trespass on Waterfowl Production Areas (WPA)in the Detroit Lakes Wetland Management District continues to be a problem, even though minimal snowfall was received in the District during the winter of 1999/2000. Several WPAs, especially those that are located next to roads or trails that are heavily used by snowmobilers, received considerable snowmobile trespass. Snowmobile trespass occurs most often during weekends when tourists flock to northwestern Minnesota for winter recreational activities. Enforcement staff shortages and insufficient funding needed to pay officers for weekend duty makes it difficult to effectively enforce the snowmobile trespass problems that are getting more prevalent each year. Two Violation Notices for snowmobile trespass were issued during the winter season. (**4/30/00**)

May 2000

362. Christmas Bird Count Tallies 82 Bird Species

Squaw Creek National Wildlife Refuge

The Christmas Bird Count was completed December 21, 1999. Eighty two species were counted, tying the record. New bird species included a pileated woodpecker, immature black crowned night heron, 73 turkey and 23 great blue herons. (**5/1/00**)

363. Drought Conditions Continue at Cypress Creek NWR

Squaw Creek National Wildlife Refuge

Drought conditions have persisted since October 1999 with precipitation by the end of March totaling only 6.3 inches, more than 3 inches below normal. Only .3 inch of rain fell in October, the driest since 1975. Recharging of all wetlands began in mid-September and was not completed until late March. In a normal year, all wetlands are completely recharged in six to eight weeks. This has been the driest fall since the record 1988-89 drought. (**5/1/00**)

364. One Eagle Nest Destroyed-A Second One Being Built

Squaw Creek National Wildlife Refuge

Strong April winds (40-50 mph) blew down the bald eagle nest in Cypress Creek NWR's south Mallard Marsh, killing two, two-week-old eaglets and causing the adults to abandon the area. This pair first nested successfully in 1997, fledging three young. Their 1998 attempt was unsuccessful, but they remained in the area and built a second nest in a tree next to the first nest. That is the nest they were using when the wind blew it down. Also in April, a second pair of bald eagles—one adult and one immature—began to build another nest near the headquarters building just south of the Davis Creek observation tower. The birds are continuing to build on to the nest daily. (**5/1/00**)

365. "Mud and Treasure" Steamboat Exhibit Continued at DeSoto NWR

DeSoto National Wildlife Refuge

The special exhibit, 'Mud & Treasure: A Commemoration of the Steamboat Bertrand,' will be continued at DeSoto NWR until the end of May 2000. Typical comments about the exhibit from visitors include: 'excellent, informative, outstanding,' with many requests to make the exhibit permanent. Visitation for April increased by nearly 1,000 visitors compared to the same month last year. The exhibit incorporated stories and recollections from 23 individuals involved in the 'recent history' of the Bertrand. The museum staff continues to interview people who worked with the Bertrand cargo either during the excavation, in the processing laboratory, or in other capacities. DeSoto NWR is located in western Iowa, about 12 miles north of Omaha, Neb. (**5/1/00**)

366. Warm Weather Affects Fall-Spring Waterfowl Migrations

Squaw Creek National Wildlife Refuge

The fall 1999 waterfowl migration was delayed due to the warm weather in Canada and the Dakotas and most of the population overflew the area when weather conditions changed. The snow goose numbers peaked at 102,000 on Dec. 16, 1999, considerably less than the average 350,000 that usually peak by mid-November. Approximately 65,500 ducks were counted Nov. 17, 1999. In the spring, the waterfowl migration was earlier than normal with a peak of 300,000 snow geese February 19, 2000, and 47,400 ducks February 16, 2000. (**5/1/00**)

367. 47 Percent of Woodduck Boxes Produced Ducks at Rydell NWR

Detroit Lakes Wetland Management District

A total of 132 woodduck boxes were available for use by waterfowl on the Rydell NWR. Of these, 52 boxes were used by woodducks to produce 624 ducklings and ten boxes were used by hooded mergansers to produce 120 ducklings. Forty-one of the remaining boxes were used by squirrels and one box had a wasp nest. Volunteers build a number of nesting boxes each year to replace the boxes that are no longer useable because they are damaged by weather or deterioration. (**5/1/00**)

368. Minnesota Student Wins National Junior Duck Stamp Competition

Minnesota Valley National Wildlife Refuge

Bonnie Latham, 17, a home-schooled student from Hastings, Minn., won first place at the National Junior Duck Stamp Competition May 1, 2000, in Washington D.C. Bonnie competed with the Best-of-Show from the other 49 states and the District of Columbia. Bonnie's winning art was a pair of northern pintails done in acrylic. Bonnie studies waterfowl in the field and then photographs them. She paints relentlessly in her family's studio in Hastings using her photographs as a guide. Bonnie has previously entered the Minnesota competition capturing first and second place in prior years. (**5/1/00**)

369. Nesting Herons Return to Necedah NWR; Possible Start of Heron Rookery

Necedah National Wildlife Refuge

The first heron nesting activity on Necedah NWR in 20 years was observed May 2, 2000, on Unit 3 of the joint Service/Ducks Unlimited restoration area at the south end of the Refuge. By May 12, 2000, two more nesting activities were noted. (**5/2/00**)

370. Prescribed Burns at Mark Twain NWR - Brussels District

Mark Twain National Wildlife Refuge-Brussels District

Refuge staff at Mark Twain NWR completed two prescribed burns this spring. The burns, totaling 47 acres, were completed to maintain the species diversity of these restored grasslands. These grasslands had received no habitat

maintenance in the past several years and were beginning to decrease in species diversity and composition. The burns help reduce the spread of invasive and exotic species, and increase native seed production. (**5/2/00**)

371. Agassiz NWR Spring Prescribe Burning Totals 8,625 Acres

Agassiz National Wildlife Refuge

Refuge staff at Agassiz NWR completed five prescribed burns of 8,625 acres during April and May 2000.

The following is a summary:
4/17/00 Unit 2b (Berg West), 950 acres.
4/20/00 Unit 18b (Elm Lake), 3,060 acres.
4/24/00 Units 7 C/D (Kelly Pool/ Ditch 2 Uplands), 2,030 acres.
5/1/00 Unit 17 (John's Field), 1,600 acres.
5/2/00 Unit 5 (Webster Lake), 830 acres.
Blacklining in preparation for burns, 155 acres. (**5/2/00**)

372. Students Get First Hand Job Experience at Necedah NWR

Necedah National Wildlife Refuge

Three students from Mauston High School, near Necedah NWR, learned first-hand about life as a Service employee after job-shadowing Refuge staff. (**5/3/00**)

373. F irefighters Provide Help on the Prairies

Big Stone National Wildlife Refuge

It's nice to get a little help once in a while. This year, 15 firefighters from five National Wildlife Refuges and one National Park have provided prescribed burning assistance to Refuges and Wetland Management Districts in the prairies of western Minnesota. Help has come from several regions, including firefighters from three refuges in Florida (St. Vincent NWR, Lower Swanee NWR and St. Marks NWR), Malheur NWR and the Balcones Canyon Fire Use Module. In addition, the National Park Service sent their Black Hills Fire Use Module to help. Thus far, the Windom, Morris, Detroit Lakes, Fergus, Litchfield and Big Stone Wetland Management Districts, and the Big Stone NWR have all been the beneficiaries of these fire detailers.

There are numerous benefits for this inter-region and inter-agency cooperation. The extremely dry conditions have allowed field stations to accomplish many of these burns more safely than they would otherwise have been able to because of the extra personnel these crews provide. More complex burns are now being conducted at the precise time to maximize wildlife and habitat benefits rather than attempting just the easier burns at a time when it is most convenient due to limited personnel and expertise. In addition, non-fire funded personnel can devote more time to other equally important resource issues, rather than spending time preparing, conducting, and mopping up for each burn.

Fire is a critical component to maintaining these small fragments of prairie that remain. Without periodic and well planned prescribed burning, these native remnants would eventually disappear, giving way to noxious weeds and other exotic pests. Without fire, the thousands of native wildlife, plants and insects that depend on healthy prairies for their survival, would fade away as well. Without native prairie, one more link to our past culture and our heritage would be gone forever. (**5/3/00**)

374. Urban Interface Comes to Hamden Slough NWR

Hamden Slough National Wildlife Refuge

Hamden Slough refuge recently burned 80 acres of school property immediately adjacent to the east side of Audubon, Minnesota, as part of a conservation demonstration for school students and fire training for Refuge personnel. The Audubon School Board had received the acreage as a tax forfeiture. The School Board decided to restore wetlands and native prairie and develop the site as a natural resource/conservation area. Hamden Slough NWR is working with the Minnesota DNR, Becker County SWCD, and Audubon School Board in a cooperative venture to teach conservation techniques. The fire was the first demonstration for the school with 250 students watching the fire crews from a designated safe area. Refuge Manager Mike Murphy served as fire boss for the burn and coordinated DNR fire crews and the Audubon Fire Department. The refuge fire crew learned a ot about urban interface, working with apartments, garages, storage buildings, and discarded debris. (**5/3/00**)

375. Migration Marvels Presented at Green Point ELC

Shiawassee National Wildlife Refuge

Green Point Environmental Learning Center, part of the Shiawassee NWR, hosted its monthly First Wednesday Discovery Series program May 3, 2000.

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This month's presentation was entitled 'Migration Marvels.' This program was done in conjunction with International Migratory Bird Day and examined the details of bird migration. Covered such topics as navigation, hazards, and why birds do it. The video 'Never a Silent Spring' was shown. Group discussion cards were passed out, each with a different interesting or alarming fact about migratory birds, and participants took turns reading their card followed by an informal discussion. Seventeen people attended the program. (**5/3/00**)

376. Wood Duck Production Dips Slightly at Squaw Creek NWR

Squaw Creek National Wildlife Refuge

All wood duck nest boxes were serviced during the winter. Forty-six of the 53 available boxes produced 281 ducklings. This is compared to the 333 ducklings produced in 1999. (**5/4/00**)

377. Refuge Exhibit at the Fillmore Mississippi Heritage Conference

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters Approximately 1,500 people attending the annual Fillmore Mississippi Heritage Conference Dinner May 4, in Saint Paul, Minn., learned about the Upper Mississippi River National Wildlife and Fish Refuge through a refuge exhibit at the dinner. The dinner was part of the annual Mississippi Heritage Conference 2000. The conference is dedicated to the revitalization of the Mississippi River and its communities. The Refuge's Public Use and Outreach Coordinator, Cynthia Samples was a panelist for a session titled 'How Things Get Done: Education/Interpretation.' She shared the stage with Patti Van Tuyl of the National Endowment for the Humanities, Washington D.C., Jerry Enzler from the Mississippi River Museum, Dubuque, Iowa, Irv Logan of the Missouri Department of Conservation and John Perrecone representing EPA and Chicago Wilderness from Chicago, Ill. (**5/4/00**)

378. Record Acres Burned During Litchfield WMD 2000 Fire Season

Litchfield Wetland Management District

The Litchfield Wetland Management District (WMD)established a new station record this spring, racking up a prescribed burning total of 3,088 acres of predominately native grasslands on 13 federal Waterfowl Production Areas (WPA).

Martin and Katie Janette of Malheur NWR, Ore., provided a long, dedicated week of burning assistance and to the Litchfield crew. Cooperation from the Minnesota Department of Natural Resources and several private land owners afforded the station safer and more efficient burning implementation, as well as added 174 acres of non-federal grassland to our totals.

Prescribed fire treatments reduce exotic and woody vegetation encroachment on WPA prairies. as well as enhanced the diversity and density of nesting cover for migratory birds. Five WPA wildfires were investigated during the spring burning season which, ironically, augmented station management objectives by an additional 141 acres. All wildfires were extinguished through cooperative agreements with rural fire departments. (**5/4/00**)

379. Cormorant Lakes Sportsman's Club Donation to Help out Detroit Lakes WMD

Detroit Lakes Wetland Management District

Cormorant Lakes Sportsman's Club agreed to pay $2,000 to use chemical 'Roundup' to kill the remaining Quackgrass on 160 acres of Becker County Mitigation land adjacent to Helliksen Prairie Waterfowl Production Area (WPA). The 'spraying window' was missed, however, do to weather, but will be attempted again next year. (**5/4/00**)

380. Necedah Hosts Waterfowl Association's Wildlife Food Seed Distribution

Necedah National Wildlife Refuge

Necedah NWR served as a host site for the annual Wisconsin Waterfowl Association's wildlife food plot seed distribution. Volunteer truckers delivered 140 bags of corn, 71 bags of sunflower seed, 85 bags of grain sorghum, 85 bags of forage sorghum, and 34 bags of Sudan grass to the Refuge. The seed was stored in the Refuge grainery until picked up May 4-6, 2000, by various individuals and wildlife groups for planting to benefit wildlife. (**5/5/00**)

381. Woodcock Singing Ground Survey at Ottawa NWR

Ottawa National Wildlife Refuge

North American woodcock singing ground surveys were conducted on Ottawa NWR in May resulting in detection of 11 woodcock. Last year the survey detected 18 woodcock in approximately the same locations on the northern Ohio refuge. (**5/5/00**)

382. Sparta Gifted & Talented Visit Necedah NWR
Necedah National Wildlife Refuge
Twelve gifted and talented students from Sparta Middle School visited Necedah NWR May 5, 2000. The Gifted-and-Talented program students were on their way to represent their school at a state-wide Science Quiz Bowl held in Oshkosh, Wis. The group learned about radio telemetry and had hands on samples of life as a crane parent by trying on the crane costume as a part of learning about the Re-intro project. The group also went on a hike to test their bird and plant identification skills. (**5/5/00**)

383. Detroit Lakes WMD Staff Mentors Fourth Grade Students
Detroit Lakes Wetland Management District
Biologist Les Peterson met weekly with four Rossman Elementary School fourth graders during March and April to assist them in their study of wetlands. They learned about wetlands and wetland values through field trips, library research, and interaction with Wetland District staff. The students used the information they learned to develop a display and demonstration that was presented at the second annual Detroit Lakes Water Festival that was held at the Northwest Technical College on May 4 & 5. The students gave nine presentations to an estimated 225 people during the two day festival. (**5/5/00**)

384. Seney Refuge Staff Presents at Teacher Workshop
Seney National Wildlife Refuge
Twenty-seven teachers attended workshops presented by Interpretive Specialist Marianne Kronk and local teachers and National Park Service staff. Workshop themes were Water Education for Teachers (WET) and Teaching With Your School Site lesson plans and native landscaping for the schoolyard. All participants rated the sessions excellent or very good. (**5/6/00**)

385. Necedah NWR Exhibits at Wisconsin Home School Conference
Necedah National Wildlife Refuge
Staff from Necedah NWR again set up and staffed a booth at the Wisconsin Home Education Conference May 5-6, at the University of Wisconsin in Stevens Point, Wis. More than 1,100 people attended the event, sponsored annually by the Wisconsin Parents Association. The focal point of the Service exhibit was the Federal Junior Duck Stamp Program. Other refuge educational offerings were also promoted, the wolf, prairie and wetlands learning trunks and slide/video programs available for loan. The Friends shared the booth, and assisted with this outreach effort. (**5/6/00**)

386. IMBD Celebration Held in La Crosse
Upper Mississippi River National Wildlife and Fish Refuge-LaCrosse District
An International Migratory Bird Day celebration was held in La Crosse, Wis., on Saturday, May 6. Approximately 75 people attended the celebration which was co-sponsored by the Upper Miss Refuge, Coulee Audubon Society, Friends group, Lions Club and Interpretive Association. The celebration included live folk music, speakers from National Audubon, Raptor Resources Center and Wild Birds Unlimited and 'Reebo' the clown. (**5/6/00**)

387. Friends of Big Muddy and Refuge Staff Clean Up at Lisbon Bottoms
Big Muddy National Fish and Wildlife Refuge
Enthusiastic members of Friends of Big Muddy, including members of Howard/Cooper Counties Stream Team, worked with Refuge staff May 6, 2000, to partially clean up an old dump at Lisbon Bottoms, part of the Big Muddy Refuge in central Missouri. Workers hauled out several truckloads of junk which included old tires, bathroom fixtures, scrap metal, and dozens of bags of trash. Major appliances and more old tires remain for future work days, but the group felt good about what they accomplished. (**5/6/00**)

388. Camp Moe Girl Scout Nature Trail and Environmental Education Improvements
Agassiz National Wildlife Refuge
A partnership was developed between Agassiz National Wildlife Refuge with the Pine to Prairie Girl Scout Council, Fargo, North Dakota. The Girl Scout Council needed to partner with a federal agency so they could apply for and receive a $2,000.00 National Girl Scout grant. Grant money was used to make improvements to the 13-acre Camp Moe owned by the Council. Several meetings in the summer/fall 1999 with representatives from the Council office, Fargo, field office in Grand Forks, local Thief River Falls girl scout

Continued next page.

leaders and Refuge Operations Specialist Gary Tischer planned improvements for the camp area. Improvements made to the area include:
(1) Clear trees, shrubs and understory plants from along the existing nature trail widening the trail for safer walking.
(2) Placing crushed granite rock on the trail making the trail wheelchair accessible and walking possible throughout the spring/summer/fall. (**5/6/00**)

389. Big Stone Bird Festival Draw Birders From Five States
Big Stone National Wildlife Refuge
More than 70 enthusiastic birders from five states attended the third annual Big Stone Bird Festival May 6-8, 2000 at Big Stone NWR. This year, special seminars were given to small groups on specific, hard to identify families of birds. Bridget Olson, Refuge wildlife biologist, spoke on shorebird management during the Saturday night banquet. A total of 145 different species of birds were observed over the weekend. Some of the more interesting sightings for this area included the Clark's Grebe, Hudsonian Godwit, Upland Sandpiper, Swainson's Hawk, and 19 species of shorebirds. Betsy Beneke from Tamarac NWR, Bob Jansen, Doug Buri, and Bruce Harris helped lead seminars and tours. (**5/6/00**)

390. Audubon Spring Bird Count at Mark Twain NWR-Brussels District
Mark Twain National Wildlife Refuge-Brussels District
With the help of Refuge volunteers, staff at the Brussels District of Mark Twain NWR were once again able to complete the 2000 spring bird count. Covering over 90 miles of roads on and around the Refuge, the count tallied 91 species of birds. Included in the count are several unique sightings such as western sandpipers and snowy egrets, both species that normally only use the Refuge during the fall. The spring 2000 count of 91 species compares to 83 species counted in 1999 and 45 in 1998. (**5/6/00**)

391. Prescribed Burning Continues for Detroit Lakes WMD
Detroit Lakes Wetland Management District
Between April 24 and May 6, 2000, Detroit Lakes WMD accomplished 19 prescribed burns. Many private land owners were contacted and there were 3 additional fire crew members from other regions. (**5/6/00**)

392. Service Present at Wings and Wildlife Festival
DeSoto National Wildlife Refuge
Bruce Weber of DeSoto NWR staffed a Service information booth at the annual Wings and Wildlife Festival, May 7, 2000 in Omaha, Neb. The festival is sponsored by Fontanelle Forest Association of Omaha. The full afternoon event attracted approximately 1,000 people who learned about the diverse conservation actions happening in the Omaha area. (**5/7/00**)

393. Big Stone NWR Herbarium Initiated and Plant List Updated
Big Stone National Wildlife Refuge
Big Stone NWR staff initiated an herbarium collection in the spring of 2000. Prairie plant species were collected and pressed throughout the growing season. Even though the herbarium consists of only 64 species currently, eventually the herbarium will act as a permanent record and reference collection for all vegetative species occupying habitats on Big Stone NWR.

The Refuge Plant List was updated from 73 to 236 species. Plant species presence information was obtained from both careful review of historical and valid vegetative surveys as well as current field observations by staff Wildlife Biologist, Olson. Though the Refuge Plant List doesn't include any Federal Listed species two state endangered (Ball Cactus and Hairy-lip Fern), one state threatened (Nodding wild onion) and two state Special Concern (Sand milkweed and Prairie moonwort) are listed. (**5/7/00**)

394. Public Meeting Held for Ambrough Slough HREP
Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters
A public meeting was held May 8, 2000, in Prairie du Chien, Wis., to discuss the recommended habitat restoration plans for the Ambrough Slough Habitat Rehabilitation and Enhancement Project (HREP) on Pool 10 of the Upper Mississippi River. The St. Paul district, U.S. Army Corps of Engineers, in cooperation with the Service and Wisconsin and Iowa Departments of Natural Resources have been investigating measures for fish and wildlife habitat restoration within the Ambrough Slough backwater complex. The HREP aims to reduce flows to improve winter fish habitat by reducing current velocities and maintaining water

temperatures within tolerance ranges of backwater fish species. (**5/8/00**)

395. Necedah NWR Hosts Whooping Crane Outreach Committee

Necedah National Wildlife Refuge
On May 8-9, the Outreach Sub-Team for the Whooping Crane Recovery project met at Necedah NWR. Team members came from as far away as Washington DC and Canada. The group worked on establishing outreach messages, media protocols and other tools.
(**5/9/00**)

396. LaCrosse District Biologist Completes Spring Woodcock Surveys

Upper Mississippi River National Wildlife and Fish Refuge-LaCrosse District
La Crosse District's wildlife biologist Lara Hill completed two woodcock surveys this spring. This singing ground survey is coordinated by the Office of Migratory Bird management in Laurel, Maryland. The survey provides and index to the relative size of the woodock breeding population in North America. It is the most important source of data used to guide federal, state and provincial woodcock programs.

As part of their courtship behavior, male woodcock exhibit aerial and vocal displays each evening. They begin by giving calls described as 'peents' shortly after sunset. From open areas called singing-gounds birds alternately 'peent' and make flight songs. Biologist Hill did one survey in Vernon County, Wisconsin on May 3, 2000 and heard four woodcock 'peenting'. She did another on May 9, 2000 in Monroe County, Wisconsin but did not hear any woodcock. Although most surveys are off-refuge and require working late into the night, they are provide valuable data even if no woodcock are found. Also, for Hill it is another great way to get in the field and enjoy working with wildlife. (**5/9/00**)

397. Mingo NWR Staff Help Reinforce School's Natural Resources Curriculum

Mingo National Wildlife Refuge
Mingo National Wildlife Refuge hosted more than 500 fourth and fifth grade students during the sixth annual Ecology Days in May 2000. The students came from elementary schools in Missouri's Stoddard and Butler counties.

Staff from numerous resource agencies, including Missouri Department of Conservation, Missouri Department of Agriculture, University of Missouri Extension Office, the U.S. Army Corps of Engineers and the Service taught six workshops. Topics included forest trees, flowering plants, native fish, wildlife habitat, animal adaptations, and soil erosion.

Mingo Job Corps students served as tour guides leading students from one workshop to the next and ensured the groups kept on schedule. Ecology Days reinforces what students learn about Missouri's natural resources in the classroom through active participation in the workshops. (**5/10/00**)

398. 200 Anglers Get Limit at Mingo's National Fishing Week Celebration

Mingo National Wildlife Refuge
In recognition of National Fishing Week, staff from Mingo NWR, Mingo Job Corps, and volunteers hosted a fishing clinic at Gritman Lake June 10, 2000. The Refuge stocked the lake with over 1,500 pounds of hungry channel catfish and invited local anglers. More than 200 anglers, young and old, caught their limit and hopefully went home with a better appreciation for the sport of fishing. (**5/10/00**)

399. Muscatatuck NWR Hosts State Senator, Town Mayor

Muscatatuck National Wildlife Refuge
Indiana State Senator Becky Skillman and Seymour Mayor, John Burkhart visited Muscatatuck NWR to learn more about the refuge and the Conservation Learning Center. They were given presentations about the Refuge and met with members of the CLC board. (**5/10/00**)

400. What's A Watershed?

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters
Refuge Outreach Coordinator Cynthia Samples demonstrated to 4th graders at Goodview Elementary what a watershed was by sticking their hands into a tub and making their own watershed. The Upper Mississippi National Wildlife and Fish Refuge covers and extensive watershed but the concept was brought to life by active participation. The sediment loss in each of the groups watersheds ended up forming a delta and the end of each tub. Through environmental education outreach students are able to become familiar with the dynamics of the Upper Mississippi River National Wildlife and Fish Refuge. They gain name recognition of the 'backwaters.' (**5/10/00**)

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401. Necedah First Graders Visit Necedah NWR

Necedah National Wildlife Refuge

On May 1, 50 Necedah 5th graders visited the Necedah NWR. The students used the field trip to emphasize concepts covered in their classroom. Activities included adaptation exercises, seed-plant relations, and plant-based "research." The group also went on a hike to explore the Refuge. (**5/11/00**)

402. McGregor District Refuge Featured on Iowa Public Television

Upper Mississippi River National Wildlife and Fish Refuge-McGregor District

A crew from Iowa Public Television (IPT) visited the McGregor District of the Upper Mississippi River National Wildlife and Fish Refuge May 11 to film portions of an educational unit about the Mississippi River. IPT's Deanne Edwards interviewed District Manager John Lindell and Assistant District Manager Clyde Male during an airboat ride on the river. The topic was the importance of the river and the Refuge as a flyway for migratory birds. Other segments of the series included information on locks and dams, and a Mississippi River model built by an eighth grade class in McGregor, Iowa. The Iowa Public TV educational units will be for elementary and middle school students and will be available to other public television affiliates. (**5/11/00**)

403. Mound City Civilian Conservation Corps Unearths Time Capsule Honoring Refuge Builders

Squaw Creek National Wildlife Refuge

A reunion was held on May 12, 2000, by surviving members of the 1935 Mound City Civilian Conservation Corps (CCC) and students from the Mound City High school Class of 2000. The reunion united both groups for the opening of a buried time capsule containing letters to the Mound City High School Class of 2000. In 1986, CCC members buried items in the capsule to honor crewmembers that built the Squaw Creek National Wildlife Refuge in the 1930s. Forty people participated in the reunion. Members collected additional items and letters to be reburied for the Mound City Class of 2025. Jim Kurth, chief of the National Wildlife Refuge System, Washington, D.C. and Greg Siekaniec, deputy chief, attended the event. (**5/12/00**)

404. Muscatatuck NWR Celebrates International Migratory Bird Day with Bird Festival

Muscatatuck National Wildlife Refuge

Muscatatuck NWR celebrated International Migratory Bird Day with the Second Annual 'Wings Over Muscatatuck' migratory bird festival May 13-14, 2000. The partnership effort between Muscatatuck staff, two county visitor bureaus, and ten other agencies/organizations attracted a crowd of over 600 people to Muscatatuck to learn about birds, other wildlife, and conservation. (**5/13/00**)

405. Necedah NWR Holds International Migratory Bird Day Event

Necedah National Wildlife Refuge

On May 13, the Necedah NWR hosted International Migratory Bird Day activities. Participants learned about the Whopping Crane Recovery Project, experimented with radio telemetry equipment, and played out migration games to learn the difficulties birds face on their journey. Park Ranger Rabuck, and volunteers Jim and Tracy Allen led the events. Refreshments were provided by the Friends of Necedah NWR. (**5/13/00**)

406. Mike Callow Memorial Trail Dedicated at Squaw Creek NWR

Refuges & Wildlife

Approximately 125 family members, friends and acquaintances of former Region 3 employee Mike Callow gathered at the Squaw Creek NWR May 13, to dedicate a quarter-mile hiking trail in his honor. Callow, former assistant refuge manager at the Missouri refuge, died tragically in an airplane accident while conducting waterfowl surveys over the Columbia River in November 1998. Mike was stationed at Squaw Creek NWR from August 1991 to July 1998 and one of his greatest loves was native grassland restoration work. A reception was held at the Refuge headquarters where a light lunch was served and personal commentaries were given. The Service was represented by Jim Kurth, Chief of the National Wildlife Refuge System, Washington D.C. and Greg Siekaniec, Deputy Chief. Bill Hutchinson, Division of Refuge Operations represented

the Regional Office. Mike's parents, James and Elsie Callow cut a ribbon to officially opening the Mike Callow Memorial Trail. Family and friends then walked the trail which ended at a native prairie restoration. A bronze plaque, mounted on a large rock at trail's end, was unveiled. (**5/13/00**)

407. Dedication of the Mike Callow Memorial Trail

Squaw Creek National Wildlife Refuge

There will be a dedication ceremony at Squaw Creek NWR on Saturday, May 13th to dedicate a new hiking trail in the memory of former Refuge employee, James (Mike) Callow.

Mike, a 20 year Fish and Wildlife Service employee, was the Assistant Refuge Manager at Squaw Creek NWR from August 1991 to July 1998. He transferred to Umatilla NWR in Oregon for a Refuge Manager position in July 1998. Shortly thereafter, on November 6, 1998 he was tragically killed in an airplane crash while conducting waterfowl surveys along the Columbia River.

One of Mike's great loves was native grasslands restoration work. Mike was responsible for converting a number of grassland areas from cool season exotics to warm season natives during his tenure at Squaw Creek, particularly on the Loess Bluffs.

The trail is relatively flat and an easy walk. It is located on the old 159 highway road surface giving physically challenged visitors an opportunity to enjoy the wildlife and prairie habitat of the Loess Bluff hills. The trail starts at the headquarters and ends at the base of a 44 acre Loess Bluff prairie that Mike was instrumental in restoring. A large sign will be put up at the entrance, with several interpretive signs to be installed along the trail, and a large rock at the beginning of the prairie with a bronze plaque of Mike mounted on it which will serve as the dedication site.

This memorial trail acknowledges the endeavors and accomplishments Mike made to the Refuge habitat resources and to the local community during his tenure at Squaw Creek NWR. The Squaw Creek staff hopes this memorial trail will help others remember this dedicated U.S. Fish and Wildlife Service employee who died tragically while performing natural resource duties. (**5/13/00**)

408. Dedication of the Learning Center in Savanna

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

The dedication of the Savanna District Wetland Learning Center was the place to be Saturday May 13, 2000. The learning center was filled to capacity and the overflow milled around in the exhibit area as the dedication of the center was celebrated. Ed Britton, refuge manager, gave a heartfelt talk about the hard work and dedication that the community has given to the development of the center. In addition, the staff, region office and congressional aides all shared the honor of helping to dedicate the center. (**5/13/00**)

409. Migratory Bird Day Celebrated at Sherburne NWR

Sherburne National Wildlife Refuge

International Migratory Bird Day (IMBD) was celebrated at Sherburne NWR in grand style with 18 hearty birders participating in two guided bird tours May 13, a very cold and blustery day. Jay Hamernick, a retired refuge manager, and Barb Kull, a volunteer wildlife interpreter, led the Songbird Search, a tour geared for experienced and intermediate birders. Birds In the Wetlands, a tour designed to assist beginning and intermediate birders in learning their birds, was led by Chuck Connell and Robin DeLong, both volunteer wildlife interpreters. A total of 78 species of birds were tallied. This educational event was co-sponsored by the Refuge and the Friends of Sherburne. Outreach efforts of Migratory Bird Day included the distribution of IMBD posters to 27 schools in five school districts within a 25 mile radius of the Refuge. (**5/13/00**)

410. Trumpeter Swan Release Highlights IMBD Events at Union Slough NWR

Union Slough National Wildlife Refuge

More than 120 people participated in Union Slough NWR's celebration of International Migratory Bird Day Saturday, May 13, 2000. Refuge staff and several members of the 'Friends of Union Slough' hosted the event which was open to the public. Events included a bird hike, a dedication to the new elementary education site, a trumpeter swan release, and the opening of the auto tour. Thirty-five people attended the bird hike,

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40 attended the Environmental Education Site dedication, and 62 attended the trumpeter swan release. In addition, the Friends of Union Slough hosted a morning breakfast for their members. (**5/13/00**)

411. International Migratory Bird Day at PWLC

Fergus Falls Wetland Management District/PWLC

The Prairie Wetlands Learning Center started a morning celebration at 6:30 a.m. on International Migratory Bird Day with bird walks along the trail system scheduled for 6:30 & 8:30 a.m. Fifty adults and 25 children participated in the day's activities, of folding origami birds, making binoculars, having fun with bird stickers and tattoos, & making Mother's Day Cards.

Exhibits throughout the morning included Landscaping for Birds, Bird nests, Cats vs Birds, & How to Create your own Bird Spas. The Country Store and The Bluestem Store had featured inventories relating to birds, which included a new t-shirt showing a pair of peregrine falcons.

A special exhibit by local Bird Artist, Marion Otnes, featured many watercolor pictures for public viewing and purchasing. A special presentation was held at 10 a.m. with Pat Oldham and her Birds I View Program, "Live Birds of Prey". The audience enjoyed seeing and hearing about the Peregrine Falcon, American Kestrel, Barred Owl, Red Tailed Hawk, and Screech Owl featured in her program. Audience questions were encouraged and the interaction throughout the program showed a great deal of audience interest.

Five wood duck houses made by students at the Fergus Falls Middle School were given away as door prizes as part of their Earth Stewards projects. The breaking of the piñata just before noon completed the activities for the morning. Despite a very cold and windy morning, the people who participated in the PWLC International Migratory Day were pleased to discover helpful information for their birds and the children learned more about birds while having fun.

The mission of the Prairie Wetlands Learning Center is to provide environmental education opportunities for students, private landowners and the general public and to foster stewardship through protection, enhancement and restoration of the prairie pothole ecosystem. By hosting special events such as International Migratory Bird Day, PWLC continues its' mission. (**5/13/00**)

412. International Migratory Bird Day Celebration at Potter Park Zoo, Lansing, Michigan

Michigan Private Lands Office

The Michigan Private Lands Office co-sponsored an International Migratory Bird Day (IMBD) celebration with the Potter Park Zoological Society and Fenner Nature Center. The event was held at the Potter Park Zoo in Lansing, Mich., and was our fourth annual IMBD celebration. As in past years, we mixed education with entertainment to increase public awareness and understanding of migratory birds. Approximately 1,500 people visited the Zoo and participated in our IMBD activities, bringing our four-year total to more than 5,000 visitors.

Zoo docents, members of Explorer Post 100, Friends of Fenner, and other organizations and volunteers staffed 10 'bird-related' activities geared for families with young children. Popular activities included: using binoculars at the duck pond, building 'binoculars' from cardboard tubes, bird identification using cardboard cutouts and field guides, migration hopscotch, and our 'bird mural' where visitors were asked to draw a bird. The Michigan United Conservation Club had two shows featuring live birds of prey. Thirty-five people, most of whom were volunteers, assisted with the activities. (**5/13/00**)

413. IMBD 2000 at the Como Zoo

Minnesota Valley National Wildlife Refuge

About 2,300 people were contacted at the fifth annual celebration of International Migratory Bird Day May 13 at Como Zoo in St. Paul, Minn. Even with live entertainment, we had trouble gathering audiences once rain began. Cold, raw, windy conditions suppressed visitation. Total contacts for the day decreased 32 percent from last year. About 608 'Certificates of Survival' were distributed and some 500 completed to receive posters. Substance and program content were enhanced by two games that used kids role playing either as migratory waterfowl or as neotropical migrants to viscerally interpret the need for viable habitats. (**5/13/00**)

414. Bird Walk Highlights International Migratory Bird Day at DeSoto NWR

DeSoto National Wildlife Refuge

A morning bird walk led by Jerry Toll, expert birder with Omaha Audubon Society, was the featured event during DeSoto NWR's celebration of International Migratory Bird Day (IMBD)May 13, 2000. Following the walk, the film 'Birding for Beginners' was shown at 11:00 a.m., 1:30 p.m. and 2:45 p.m. at the visitor center. IMBD bird posters were also distributed to visitors. (**5/13/00**)

415. Horicon Marsh Bird Festival at Horicon NWR

Horicon National Wildlife Refuge

Horicon NWR celebrated International Migratory Bird Day with the third annual Horicon Marsh Bird Festival on May 12-14, 2000. Highlights of the marsh-wide event included a school field trip day, Environmental Education Barn open house, and a reception for local winners of the Wisconsin Federal Junior Duck Stamp Contest. About 265 children participated in the school field trip day and learned how to use binoculars and identify birds and about goose management and migration. At the Environmental Education Barn, families enjoyed a nature scavenger hunt and dissected owl pellets. About 30 children attended the Junior Duck Stamp reception. Todd Cook of the Wisconsin Waterfowl Association, and Mark Kakatch, waterfowl guide and 1997 state duck calling champion were the featured guests, providing an entertaining duck calling demonstration. The festival was sponsored by local chambers co commerce, agencies other partners, and supported by volunteers. Local news media also covered the event. (**5/14/00**)

416. Challenge Cost-Share Program Provides $2 Million for Fish and Wildlife Conservation

Region 3 Private Lands

At least 120 projects valued at more than $2 million are being carried out by the U.S. Fish and Wildlife Service (Service) through its 2000 Challenge Cost-Share Program (CCSP) in cooperation with a variety of local, state and regional partners. The CCSP is conducted annually by the Twin Cities Regional Office. Since beginning in 1987, the CCSP has successfully leveraged federal dollars with non-federal funds and in-kind services to cost-share projects that support fish and wildlife conservation projects on Service, other nonfederal, private and tribal lands. Projects also enhance public recreational opportunities and facilities on Service lands; conduct fish and wildlife research; provide for conservation outreach and environmental education; and assist the recovery of endangered species. Service funds through the CCSP are matched 1:1 by partners interested in local conservation projects. From 1987, when the CCSP began, through 1999, at least 1,000 partners have cost-shared more than 850 regional projects valued at approximately $10 million. The Service has provided more than $3.5 million in funds to those projects. Approximately 11,000 acres of wetlands and 9,000 acres of grasslands have been restored during this period. Many of the projects provide high-quality fishing and hunting opportunities and new recreational fishing opportunities; diverse self-guided interpretive programs and Service facilities; wildlife observation and photography; and are enhancing opportunities for youth and physically challenged refuge visitors. (**5/15/00**)

417. Century School helps to Reforest Cypress Creek NWR

Cypress Creek National Wildlife Refuge

Students from Century Elementary Schhol joined Refuge staff May 15, to plant 62 red and white oak seedlings on the Refuge as part of a partner project to reforest land within the Cypress Creek National Wildlife Refuge.

The project began in November 1999 when third through sixth graders collected and planted acorns in their classrooms. Students compared growth patterns under different conditions, and recorded their results. The Century School Reforestation project was part of the Refuge's Partnership in Education program. The school received a Science and Technology grant to conduct the project. In addition to their seedling research, students documented their results with digital cameras and developed a power point presentation with computer equipment received from the grant. Their presentation was well received by staff, community members and parents during an evening school program that highlighted unique school projects. (**5/15/00**)

418. Overton Bottoms Project Reconnects Missouri River to Floodplain, Creates Wetland Habitat

Big Muddy National Fish and Wildlife Refuge

A construction project that will reconnect parts of the Missouri River with its historic floodplain

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has begun at Overton Bottoms North, a 1,300 unit of the Big Muddy National Fish and Wildlife Refuge in central Missouri. The mitigation project, funded by the U.S. Army Corps of Engineers, will restore riverine habitats for fish and wildlife that thrive on wetlands, such as the rare piping plover, least tern, and pallid sturgeon.

During the next year, contractors will construct a pilot channel and small berms to retain water at historic wetland areas and add gravel to roads and small parking areas to improve public access. Additionally, native bottomland hardwood species will be planted this fall to increase the plant diversity in the Overton Bottoms, located on the Missouri River about 10 miles west of Columbia, Mo.

The Missouri River and its flood plain have undergone dramatic changes in the 195 years following Lewis and Clark's epic journey of 1804-1806. The predevelopment river was a vast complex of chutes, sloughs, backwaters, sandbars, braided channels, bottomland forests, wet prairie grasslands, and other wetlands resulting in dynamic conditions producing a diversity of riverine and floodplain habitats. The construction of dams, levees, and riverbank stabilization structures such as rock revetments and pile dikes changed all that. Channelization altered over-bank flooding patterns, isolated the flood plain from the river, and increased water velocities in the channel. These alterations along the Missouri river have eliminated much of the habitat for native fish and wildlife.

The mitigation project at Overton Bottoms allows a small portion of the Missouri River flood plain to revert to a more natural state and provide more diverse fish and wildlife habitat.

An informative, locally-produced pamphlet has been developed by staff at the Big Muddy NWR to help educate neighbors and others interested in the project. The pamphlet can be obtained by contacting the Refuge (573) 876-1826. (**5/15/00**)

419. Big Muddy Staff Gets New Offices

Big Muddy National Fish and Wildlife Refuge

Staff of Big Muddy National Fish and Wildlife Refuge moved into a new administrative facility at the USGS Columbia Environmental Research Center, Columbia, Mo., during May 2000. The new office trailer provides space for refuge staff as well as a small visitor information area. It's conveniently located next to the boat storage and shop facility. (**5/15/00**)

420. Union Slough NWR Dedicates New Environmental Education Site and Boardwalk

Union Slough National Wildlife Refuge

Union Slough NWR recently dedicated its new environmental education area and boardwalk, located near the refuge headquarters. Refuge staff, the Friends of Union Slough, and several partners came together to work on this initiative. New facilities include a 100-foot boardwalk and observation platform, a new restroom facility, a parking lot, and a trail from the parking area to the boardwalk. The trail and boardwalk are handicapped accessible. In addition, refuge staff are presently working to implement the landscaping plan which will include several native prairie and wildflower plantings. The Iowa Natural Heritage Foundation, the Friends of Union Slough, and several other donors raised approximately $10,000 for construction of the new facilities. The Friends chapter also plans on working to secure additional funding to lengthen the boardwalk and other improvements to the site. A local second grade school chapter also $100.00 for the effort. (**5/15/00**)

421. Shiawassee NWR Marks IMBD With Bicycles and Binoculars

Shiawassee National Wildlife Refuge

The Shiawassee National Wildlife Refuge hosted Bicycles and Binoculars program Saturday, May 13, 2000. This guided bicycle tour of the Refuge was held in celebration of International Migratory Bird Day. Fourteen people braved the extremely windy conditions and cool temperatures along the seven-mile route. Stops along the way included moist soil unit management, shorebird use, M.A.P.S., as well as enjoying the wildlife. Each participant received the IMBD 2000 poster, stickers and tattoos. The Friends of the Shiawassee NWR assisted in sponsoring this event and had refreshments available for weary travelers. They also had the IMBD 2000 t-shirt available for purchase. (**5/16/00**)

422. Muscatatuck NWR Supplied Seed for Partners

Muscatatuck National Wildlife Refuge

Muscatatuck NWR along with Partners for Fish and Wildlife Program supplied prairie restora-

tion seed for partners on five sites ranging in size from 5 - 35 acres. Totaling 68.5 acres of prairie restoration planted spring of 2000. (**5/18/00**)

423. Muscatatuck NWR Teaches 3rd Graders About Conservation

Muscatatuck National Wildlife Refuge

The Refuge's outdoor recreation planner taught 500 Jennings County third graders and teachers about wildlife in two 'Conservation Field Day' programs May 17-18, 2000, at Muscatatuck NWR. The programs were a cooperative interagency partnership effort between all of the local conservation agencies and the refuge. (**5/18/00**)

424. Illinois Counties Receive $45,739 From Cypress Creek Refuge

Cypress Creek National Wildlife Refuge

Cypress Creek National Wildlife Refuge made payments to four counties in southern Illinois totaling $45,739. The payments were made as part of the Revenue Sharing Act which allows the Refuge to provide the funds in lieu of taxes. Counties receiving payments include Alexander ($8,022); Johnson ($2,780); Pulaski ($21,854); and Union ($13,083). This year, revenues and the supplemental appropriation are sufficient to provide for a nationwide payment of 58 percent of the full entitlement amount. Cypress Creek National Wildlife Refuge was authorized in 1990 with an acquisition boundary of 35,000 acres. To date, over 14,000 acres have been purchased—from willing sellers only—by the Service. (**5/18/00**)

425. Necedah Ranger Visits Mauston High School

Necedah National Wildlife Refuge

Park Ranger Jennifer Rabuck visited Mauston High School's Wildlife Management classes May 19, 2000. Nearly 50 students were contacted in her presentations on efforts underway at the Necedah National Wildlife Refuge. Presentation topics include the sandhill crane test release for the whooping crane reintroduction effort, the massasauga rattlesnake survivability program, and the reestablishment of Eastern timber wolves. The students were also given an overall orientation to the refuge, its function and history. (**5/19/00**)

426. Seney NWR Workshop Shows Teachers About Frogs as Bio-Indicators at Workshop at Seney NWR

Seney National Wildlife Refuge

Twelve teachers attended this day and a half workshop, learning how to sample frog populations for deformities. Presenters were from Michigan Tech. University, Northern Michigan University, Seney Refuge, and local schools. The workshop was held at Seney's Visitor Center and in vernal ponds on the Refuge. (**5/19/00**)

427. Spring Prescribed Burning Slow Going for Detroit Lakes WMD

Detroit Lakes Wetland Management District

Due to unfavorable weather conditions, only four controlled burns were conducted on Detroit Lakes Wetland Management Districts from May 16-19, 2000. With the help of the Minnesota DNR, one burn was conducted on 2,200 acres and another over 500 acres. (**5/19/00**)

428. Forty Nests Counted During Great Blue Heron Monitoring at Muscatatuck NWR

Muscatatuck National Wildlife Refuge

Muscatatuck NWR's great blue heron rookery was monitored again this year. Forty nests were recorded - a slight increase from last year. The refuge data base was enhanced with the data gained through this monitoring effort (**5/20/00**)

429. Volunteers Plant Over 4,000 Trees on Wildlife Refuge

Minnesota Valley National Wildlife Refuge

On Arbor Day, May 20, 2000 35 volunteers assisted staff from the Minnesota Valley National Wildlife Refuge in its effort to restore native forests on the Rapids Lake, Louisville Swamp and Wilkie Units of the Refuge. The planting areas were formerly agricultural fields that will become native forests. A barbecue was held for volunteers at the end of the day. (**5/20/00**)

430. Detroit Lakes Festival of Birds Attracts Hundreds!

Tamarac National Wildlife Refuge

Approximately 700 people attended the 4th Annual Detroit Lakes Festival of Birds May 19-21, in Detroit Lakes, Minn. Great weather and plentiful birds made for a very successful event. Field trips to area birding hotspots, workshops, a banquet, wildlife crafts, vendor booths and children's programs were all part of the weekend's events. Tamarac NWR Park Ranger Betsy Beneke serves as festival chairperson.

Don and Lillian Stokes, nationally know bird authorities and authors were the special weekend

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guests. They gave a 'Bird Gardening' workshop and also were the keynote speakers at the Saturday night banquet, which was attended by 200 people. The Stokes' filmed some festival events, and also birds and habitat at both Tamarac and Hamden Slough National Wildlife Refuges during the extra two days they spent in the area. They will use this footage for an upcoming episode of 'Stokes Birds at Home' which airs on Public Television stations across the country.

A total of 178 species of birds were seen during the weekend event! (**5/21/00**)

431. Agassiz NWR International Migratory Bird Day

Agassiz National Wildlife Refuge

Agassiz National Wildlife Refuge held an open house for International Migratory Bird Day May 21, 2000. Two afternoon birding tours were offered to the public. Gary Tischer, Refuge Operations Specialist and Jeannie Joppru, local birder, led the two birding tours on the refuge. One tour looked at upland forestland bird species and the other tour looked at wetland and grassland bird species. A total of five people took the tours. Twenty additional people came in the office to talk to Refuge personnel, observe wildlife displas, pick up International Migratory Bird Day posters and have some refreshments supplied by the Wetlands, Pines & Prairie Audubon Sanctuary. The open house was held one week later than the International Migratory Bird Day scheduled for Saturday, May 13, 2000. Warblers and other later arriving birds peak migration is usually one week later than the scheduled second Saturday of each year. (**5/21/00**)

432. Birders Descend on Hamden Slough NWR During Fergus Falls Birding Festival

Hamden Slough National Wildlife Refuge

More than 130 birders participated in refuge tours and workshops at Hamden Slough NWR during the three-day Detroit Lakes Birding Festival May 19-21. Birding tours were conducted daily, with a shorebird identification workshop on Friday and Sunday. Birders toured the refuge both Saturday and Sunday. Seventy two species of birds were found Saturday; 78 species were counted Sunday, including Black-bellied plover, red necked phalaropes, ruddy turnstone, LaConte's sparrows and marbled godwit.

Internationally known birding authors Don and Lillian Stokes were the featured speakers during the festival. The Stokes are know internationally for their 23 books on birds and their PBS television series on birds and birding areas. The Stokes were members of Sunday's Refuge tour, where they filmed the refuge and its various birds. They were delighted with the refuge and the participation of the tour group. They returned on Sunday afternoon for additional footage of birds and interviews with the refuge manager. (**5/21/00**)

433. Lescalleet Receives Firearms Instructor Training

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

Refuge Law Enforcement Officer, Dave Lescalleet attended a two week training course at the Federal Law Enforcement Training Center in Glynco, Georgia. All law enforcement personnel are required to certify twice a year. With this certification Lescalleet will be able to conduct firearms training and qualification for the Upper Miss Refuge staff. (**5/23/00**)

434. Refuge Sponsors Wetland Workshop for Landowners in Cache River Watershed

Cypress Creek National Wildlife Refuge

A Wetland Workshop for 16 landowners in the Cache River Watershed in southern Illinois was held at Bellrose Waterfowl Reserve on Cypress Creek NWR May 23, 2000. The workshop targeted participants that have enrolled property in the Wetland Reserve Program (NRCS) or the Partner for Wildlife Program (FWS). The workshop agenda included an orientation to the values of wetlands; plant identification; and maintenance and management of wetlands for wildlife.

The Cache River Watershed has been designated a Special Wetland Reserve (WRP) program area; this three year designation is valued over $6million which has been obligated to wetland restoration work in the watershed. Due to the success of this pilot program, a series of dates will be set for the Calendar of Events 2001.

Sponsors included the Refuge, Natural Resources Conservation Service, and Illinois Department of Natural Resources. (**5/23/00**)

435. Horicon NWR Celebrates Earth Day With Boardwalk Dedication

Horicon National Wildlife Refuge

Horicon National Wildlife Refuge celebrated the 30th Earth Day by opening Old Marsh Road for hiking

and bicycling, and by dedicating the new floating boardwalk on the Egret Trail. About 40 people attended the dedication. Certificates of appreciation were presented to the Beaver Dam Charter School and Senator Russ Feingold (accepted for him by his aid Katie Crawley). The Beaver Dam Head Start morning class also attended. Speeches, a ribbon-cutting, and a guided hike rounded out the morning. WBEV provided media coverage at the event. (**5/25/00**)

436. Muscatatuck NWR Presents Award to Atterbury Job Corps

Muscatatuck National Wildlife Refuge

Refuge Operation Specialist Susan Knowles represented Muscatatuck NWR at a ceremony recognizing Atterbury Job Corps for its work on the Refuge's office and Sandhill Ponds. About 50 people attended the ceremony (**5/25/00**)

437. Horicon NWR Celebrates Hosts Fishing Expedition

Horicon National Wildlife Refuge

Horicon NWR celebrated National Fishing Week with a fishing expedition for 120 local fifth and sixth graders and their families and teachers from Van Brunt Elementary and St. Stephen's Lutheran School in Horicon, Wis., and children with special needs from Washington School in Beaver Dam, Wis.. Children participated in 10 Pathways to Fishing learning stations during the morning and enjoyed fishing on the refuge in the afternoon. They were visited by Refuge staff at school prior to the event. Horicon mayor Lloyd Wagner signed a proclamation in recognition of National Fishing Week. The event was staffed by employees, volunteers, and partners and received coverage in the local news media. (**5/25/00**)

438. Wapello District's Prescribed Fire Program Yields 2,200 Acres Burned

Mark Twain National Wildlife Refuge-Wapello District

The Wapello District of the Mark Twain NWR completed its spring burning season, completing nine prescribed burns totaling 2,200 acres. Most of the prescribed burning was conducted to maintain and restore native prairie, wet meadow, and moist soil habitats. Four refuge employees and two casual firefighters conducted the burns. (**5/25/00**)

439. Minnesota Valley NWR Joins Partners For Big River Journey

Minnesota Valley National Wildlife Refuge

Once again, for two weeks in May, Minnesota Valley NWR participated in the 'Big River Journey' partnership with the National Park Service, Science Museum of Minnesota, the Minnesota DNR and the Padelford Packet Boat Company. Partners hosted 2,091 students from 22 elementary schools as they took a paddle boat trip on the Mississippi River, learning about its watersheds by participating in six learning stations.

Sixteen river field trips and a teacher workshop were included in this program along with scholarship opportunities offered to ten inner-city schools with 905 students attending. (**5/25/00**)

440. Detroit Lakes WMD Enters Team Approach to Wildlife Enhancement on Agricultural Lands

Detroit Lakes Wetland Management District

Refuge Operation Specialist Jason Barker met with a group of Clay County residents May 25 to provide wildlife information and expertise for small family farmers. Barker helped the group develop goals including increased marketing of existing wildlife protection programs, an emphasis of land protection along the Buffalo River corridor, enhance habitat connectivity, and to promote environmental education. (**5/25/00**)

441. Upper Mississippi River Refuge Officers Partner With States For Operation Safenet 2000

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

On the evening of May 26, 2000, Refuge Officers Dave Lescalleet and Laurie Wlosinski participated in the first law enforcement operation of Safenet 2000 on the Upper Mississippi River. Safenet 2000 is a newly formed interagency taskforce composed of county and city officers from Goodhue, Wabasha, Winona, and Houston Counties in Minnesota; Pepin and Buffalo Counties in Wisconsin; officers from Minn. and Wisconsin Departments of Natural Resources; and federal officers from the Service. The purpose for this taskforce is to curb illegal activities occurring on islands, beaches, and waterways of the Upper Mississippi River.

Safenet 2000 was formed in response to increasing complaints from River users regarding unwanted activities occurring on

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islands and sandbars. Beaches which have been infrequently patrolled by local law enforcement agencies have become havens for large unregulated parties involving drunk and disorderly conduct, underage alcohol consumption, drug use, large volumes of litter, etc. Many of the areas which experience high levels of undesirable behaviors are located within the NW&FR. Dredge spoil disposal sites, referred to as 'bathtubs', have become particularly attractive Refuge party spots. This taskforce unites the many agencies having jurisdiction on the Mississippi in a coordinated effort to help ensure that visitors have a safe and quality experience when using the River.

On the first evening operation, 18 officers in seven boats performed high profile law enforcement patrol on Mississippi River Pool 4. Officers contacted all groups camped on islands and sandbars from Wabasha, MN to Alma, WI The weather was rainy and cool which reduced River use far below normal holiday weekend levels. Despite the low visitation, 14 citations and 10 warnings were issued for alcohol and narcotics violations.

Future operations have been scheduled for weekends throughout the 2000 summer season. (**5/26/00**)

442. Cypress Creek Refuge Reforestation Program Reaches 1 Million Trees Planted

Cypress Creek National Wildlife Refuge

Over 116,000 native hardwood seedlings were planted on Cypress Creek National Wildlife Refuge in southern Illinois during April and May 2000. A primary goal of the Refuge is to reforest and restore habitat along the Cache River in southernmost Illinois. This effort is tied to the North American Waterfowl Management Plan's strategy to reforest bottomland species native to the area.

Annually, Refuge staff reforest 350 acres. This year's 116,000 seedlings brought the total number of seedlings planted on the Refuge since 1991 to one million trees. This reforestation effort is in conjunction with Illinois Department of Natural Resources and The Nature Conservancy to reforest and restore approximately 60,000 acres along the Cache River in southernmost Illinois. (**5/26/00**)

443. Squaw Creek Ranger Supports Boy Scout Career Program

Squaw Creek National Wildlife Refuge

Park Ranger Marshall visited four schools in northwest Missouri from March to May in support of the Boy Scouts of America's Learning for Life program. Marshall served as a guest speaker for the program, assisting Mike Moseman of the Boy Scouts of America local council. The council implemented the program to encourage academic achievement among middle and high school planning career goals. Marshall has represented Squaw Creek NWR in the Scout program for two years. Marshall discusses resource management issues and objectives while explaining academic requirements for careers in the U.S. Fish and Wildlife Service. (**5/26/00**)

444. Elk River Students Explore Oak Savanna at Sherburne NWR

Sherburne National Wildlife Refuge

Tom Stall, Life Science teacher at Sauk Junior High, Elk River, MN, coordinated a full day field trip to Sherburne NWR for 155 seventh graders on May 26, 2000. The purpose of the trip was to study the globally endangered oak savanna habitat in the process of being restored at the Refuge. According to Stall, many teachers look to the tropical rain forest in Central America for their life science biodiversity study. Stall felt it was more appropriate for his students to learn about the immense biodiversity found in the oak savanna habitat which exists right in the student's "backyard." The six "round robin" activities used by Stall and his five teacher/parent assistants came from the new "Exploring the Oak Savanna at Sherburne NWR" environmental education curriculum completed in draft form in August 1999 by the Friends of Sherburne in cooperation with the Refuge. This field day provided yet another opportunity for the middle school activities in the curriculum to be field tested before the final copy went into production in June. The development of the curriculum was made possible through a grant received by the Friends of Sherburne from the National Fish and Wildlife Foundation in partnership with the U.S. Fish and Wildlife Service, National Wildlife Refuge Association and the National Audubon Society. (**5/26/00**)

445. School Groups Flock to Seney NWR
Seney National Wildlife Refuge
231 students (head start, second and third graders) visited Seney NWR for field trips. The theme for programs this spring was habitat for migratory birds. Students did activities on the trail and in the Visitor Center, followed by a bus tour using the binoculars purchased by the Seney Natural History Association for use by school and youth groups. (**5/31/00**)

446. Refuge Partners With Missouri School District's Careers Program
Squaw Creek National Wildlife Refuge
In March and April, Park Ranger Charles Marshall assisted the 'Partners In Education' program from the St. Joseph, Mo., schools by activity. Three students have participated in the partnership which enabled them to view individual professionals in a business environment. (**5/31/00**)

447. Refuge Staff Exhibit at Missouri Garden Show
Squaw Creek National Wildlife Refuge
A Squaw Creek Refuge exhibit booth was staffed in the St. Joseph, Missouri Flower, Lawn, And Garden Show held March 10-12, 2000. A segment of the show highlighted natural resource management areas. (**5/31/00**)

448. 17 Airboat Ramps Refurbished at Agassiz NWR
Agassiz National Wildlife Refuge
Seventeen of 22 airboat ramps at Agassiz National Wildlife Refuge were rehabilitated in May 2000. The ramps, severely degraded after several years of use and flooding, were re-shaped with an excavator and received new gravel and rip-rap. Airboats are used heavily for research, wildlife census, fire, and infrastructure monitoring on the Refuge. (**5/31/00**)

June 2000

449. Muscatatuck NWR Restores Grasslands for Partners
Muscatatuck National Wildlife Refuge
Muscatatuck NWR, together with Partners for Fish and Wildlife program supplied prairie restoration seed for partners on two sites totaling 13.5 acres in June 2000. Restoration of grasslands at 2 private lands sites resulted. (**6/1/00**)

450. Non-game Bird Nesting at Squaw Creek NWR
Squaw Creek National Wildlife Refuge
Nesting efforts by non-game birds at Squaw Creek NWR have been about two weeks earlier than normal. Drought conditions have limited the distribution of birds and has resulted in the concentration of nesting efforts. A total of 88 pied-billed grebe nests have been located in the 80 acre Snow Goose Pool - one nest per acre. An additional 31 pied-billed nests in three other pools have been found. Least bittern and common moorhens are now beginning to nest and searching will continue through June. (**6/1/00**)

451. Drawdown of Trempealeau Refuge Pool Benefits Shorebirds, Encourages Aquatic Plants
Trempealeau National Wildlife Refuge
The Trempealeau Refuge began a drawdown on a 700-acre impoundment in May, using the permanent pump station constructed through the Environmental Management Program. Thousands of shorebirds and hundreds of waterfowl made use of the mud flats and shallow water areas created by the drawdowns. At least 23 shorebird species were observed, including red knot, Wilson's phalarope, Hudsonian and marbled godwit, and hundreds of dunlin. Blue-winged teal, northern shovelers, and mallards congregated in the shallow water areas and hundreds of white pelicans loafed in the exposed stump fields. The drawdown will continue through the summer in an attempt to increase aquatic vegetation growth by increasing light penetration and decreasing carp numbers. (**6/1/00**)

452. Wetland Restoration News Release from Detroit Lakes WMD
Detroit Lakes Wetland Management District
Biological Science Aid, Andrea Stebleton, sent out a news release effective June 1st regarding wetland restoration possibilities with the Service, in particularly with Detroit Lakes WMD. There has been a great response to the article however, many were referred to other districts and some land didn't fit the program. (**6/1/00**)

453. Second Round of Waterfowl Survey Completed by Detroit Lakes WMD Staff
Detroit Lakes Wetland Management District
The staff at Detroit Lakes Wetland Management District worked hard to complete the second round of the four-square mile waterfowl survey by June 1, 2000. There are

already many duck and geese broods showing up. (**6/1/00**)

454. Vegetation Responds Following Prescribed Fires Minnesota Valley NWR

Minnesota Valley National Wildlife Refuge

Staff at Minnesota Valley NWR used prescribed fire on 757 acres in 13 Refuge units to manage prairie and oak savanna habitats during the spring fire season. In partnership with the Minnesota DNR, a 400 acre State park within the Refuge's Louisville Swamp Unit was also burned

The Refuge worked in partnership with the Minnesota Valley State Park, a Minnesota DNR Minnesota Conservation Crew (MCC) and a DNR wildfire crew. Through a cooperative agreement with the DNR, an MCC crew was available to assist with several prescribed fires on the Refuge. We hope to continue this partnership in the future.

The Refuge also experienced nine wildfires which burned over 499 acres of Refuge land. Refuge crews responded to every wildfire, several of which occurred in the late evening or weekends. The Refuge also coordinated mop-up of these arson fires with the Minnesota DNR. Refuge staff are cooperating with several agencies on the arson investigation.

The vegetation response to several of these fires was amazing. Areas that had not been burned in ten years responded with an explosion of prairie grass and forb species. Several burn units are also in various stages of oak savanna restoration. The burns are an effective management tool to try to stimulate the growth of prairie species. (**6/1/00**)

455. Muscatatuck NWR Hosts 300 For National Fishing Week Events

Muscatatuck National Wildlife Refuge

Over 300 youngsters, parents, and Friends participated in special events June 3, at Muscatatuck NWR to celebrate National Fishing Week. Fishing Week events included fishing, casting, and fish-art contests, fly-fishing and fly-tying lessons, and fishing lessons with equipment provided. The event was managed by the Muscatatuck Wildlife Society (the Muscatatuck cooperating association) and other partners included Boy Scouts and many area businesses. (**6/3/00**)

456. Refuge Visitors Tour Cache River by Canoe

Cypress Creek National Wildlife Refuge

More than 100 visitors to Cypress Creek NWR recently took canoe tours of the Lower Cache River. The tours, sponsored by the Cache River Wetlands Joint Venture, included programs by Cypress Creek National Wildlife Refuge, Cache River State Natural Area, and The Nature Conservancy. Six guided tours were provided through the swamp to the state champion bald cypress tree. During the tour, staff oriented visitors to resource issues and threats, natural history of the area, and recreational opportunities on the Refuge and Cache River State Natural Area. Staff also highlighted birds, plants, and the significance of the Cache River as a Wetland of International Importance; also resource issues and the challenges to protect and restore the area were discussed. (**6/3/00**)

457. Upper Mississippi Refuge Hosts National Fishing Day Celebration

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

Eighty children aged 6 through 12 participated in a day of fun and fishing June 3, during the Upper Mississippi River NW&FR annual National Fishing Day event at Prairie Island Park in Winona, Minnesota. Staff from the Refuge headquarters and Winona District office coordinated the event with help from the Region 3 Sign Shop, LaCrosse Fishery Resource Office and LaCrosse District office. The Winona Trout Unlimited chapter hosted some of the children to a local trout pond for some 'easy' fishing, while the rest of the kids fish the Mississippi River backwaters from boats with experienced anglers. A special needs group of 30 adults with disabilities also participates in our Fishing Day. A large, accessible pontoon, which remains docked at shore, is provided and staffed with volunteers to help with baiting hooks and whatever needs to be done. The fish were hungry this year and everyone was catching fish and having an exciting time. Lunch was provided to 175 people (volunteers, partners, parents and staff) by The Friends of the Upper Mississippi Refuge. The Regional Sign Shop sponsored a fish identification game for the young anglers. For many participants, this day provides the only opportunity for fishing or experiencing the Mississippi River from year to year. It also provides the opportunity to expand Service outreach to our many partners and the community. (**6/3/00**)

458. Four Square Mile Pair Counts Show 10 Percent Increase in Mallards and Blue Winged Teal

Fergus Falls Wetland Management District/PWLC

Staff at Fergus Falls Wetland Management District (WMD) finished its second round of pair counts on approximately 200 ponds of varying size and ownerships June 6, 2000. According to the count coordinator, the mallards and blue winged teal in the District showed a slight 10 percent increase over last year.

Redhead and ruddy duck numbers seemed lower than past years, but their numbers are so low anyway that it is really hard to tell for sure. The District has few gadwall, canvasback, pintail, and green winged teal on its count ponds, making counts difficult to judge. Wood ducks numbers were about the same as 1999. The Districts first pair count began April 27, 2000. Data from spring pair counts help biologists project fall flight numbers for waterfowl. (**6/6/00**)

459. Picnic Recognizes Volunteer Contributions at Trempealeau National Wildlife Refuge

Trempealeau National Wildlife Refuge

Trempealeau Refuge held its annual volunteer appreciation picnic on June 6 to recognize the 93 volunteers and more than 2,067 they provided during Fiscal Year 1999. . Dick Jessesski was named Trempealeau Refuge's 1999 Volunteer of the Year. He has contributed 195 hours since he began volunteering in 1998; Dick assisted in conducting waterfowl surveys and made a weekly commitment to mowing various locations around the refuge. His commitment to the refuge was much appreciated by both refuge staff and visitors.

Seventeen volunteers and their guests enjoyed an evening of good food, conversation, awards, birdwatching, and touring. A catered meal was followed by presentation of awards.

Interested volunteers were given a tour of the drawdown on Pool A and got a little birdwatching in as well. Many positive comments were received from volunteers who were pleased that the refuge had such an evening to say thanks. (**6/6/00**)

460. Water Gardening: Wet, Wild and Wonderful at Green Point Learning Center

Shiawassee National Wildlife Refuge

The Green Point Environmental Learning Center, part of the Shiawassee NWR, hosted its monthly First Wednesday Discovery Series program June 7, 2000. The topic was 'Water Gardening: Wet, Wild and Wonderful.' Advanced Master Gardener, Peggy Shaver, shared her experiences and love of small garden 'pondering.' Her slide program showed various types of ponds and assorted plants that can be used. Ms. Shaver included information on site location, design aspects, and how to develop an ecologically balanced pond. Twenty-eight people attended the program. Ms. Shaver is currently the President of the Saginaw Valley Master Gardener Association. Part of this group's mission is to promote an enthusiasm and knowledge of gardening, and to provide up-to-date horticultural information that uses environmentally sound practices. (**6/7/00**)

461. Patoka River Refuge Restores Hardwood Forest

Patoka River National Wildlife Refuge

More than 66,500 seedlings from 11 species of bare root trees, including six species of oak, persimmons, hickory, ash, pecans and bald cypress were planted this spring in cooperation with contributing partners on newly acquired lands within the Patoka River National Wildlife Refuge and Cane Ridge Wildlife Management Area. Trees and planting were donated to cover 85 percent of the cost from private sources other than the U.S. Fish and Wildlife Service. Heavy rains in June have resulted in excellent growth of these seedlings. Contributing partners include: Ducks Unlimited, Inc., Cinergy Corp., Southwest Indiana Four Rivers Project Committee - NAWMP, USDA - Natural Resources Conservation Service and Multi-Resource Management, Inc. (**6/8/00**)

462. Retired Farms Replanted to Prairie Grassland on Rydell NWR

Rydell National Wildlife Refuge

Staff at Rydell NWR planted eight retired farm fields, totaling 106 acres, to native prairie grassland with seed drills purchased, in part, by Ducks Unlimited. The restored prairie will provide nesting habitat for waterfowl and grassland nesting birds. The sites, when mature, will also provide additional harvest sites for future restoration projects. (**6/9/00**)

463. Angling For Fun Attracts 50 at Necedah NWR

Necedah National Wildlife Refuge

Necedah National Wildlife Refuge hosted its third annual Angling

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For Fun celebration June 10, 2000. The event, held in observance of National Fishing Week, drew 50 participants. Those attending had the opportunity to try their luck in a casting contest for prizes, use their creativity in the Japanese art of Gyotaku, and learn about boating safety and Wisconsin's fishing laws. Refuge visitors caught several species of fish from the universally accessible fishing pier located on Goose Pool. Ranger Rabuck conducted a fish cleaning demonstration to help newcomers learn how to prepare their catch for the frying pan. The Friends of Necedah and Subways of Tomah and Necedah donated lunch for the event. Six local sport shops donated prizes for the day's activities. (**6/10/00**)

464. Birders Enjoy Yellow Rail Tours at Seney NWR

Seney National Wildlife Refuge

Biology Tech Eric Willman led eight Yellow Rail Tours of 54 birders during May and June 2000 at Seney NWR. Birds called in for the tours are banded, offering a unique opportunity for birders to see a 'life-list' bird up close. Tour numbers are limited to eight people per session to minimize impact on the habitat. (**6/10/00**)

465. Shiawassee NWR Celebrates Free Fishing Day

Shiawassee National Wildlife Refuge

A record number of children joined the Shiawassee NWR, the City of Saginaw, the Saginaw News, and the Saginaw Field and Stream Club to celebrate the annual Great Saginaw River Free Fishing Fun Day June 10.

In all more than 1,100 people attended the event. More than 620 children, aged 3-16, caught 1,081 fish from nine species during the event, held on Ojibway Island in Saginaw.

Registered anglers also received a variety of free gifts and an opportunity to win one of 80 door prizes which included bicycles, sports equipment, and toys. Meijer's stores provided many of the door prizes, Garb-Ko 7-11 provided drink coupons, McDonald's Restaurants gave away cookies, GKC Cinemas had movie coupons, and the Sons of Italy provided free popcorn, drinks, and sno-cones from their concession stand. Forty-one volunteers helped with the event, and two television stations were present for interviews and film of the event. (**6/10/00**)

466. Endangered Karner Blue Butterfly Responds to Restored Habitat

Wisconsin Private Lands Office

The Fish and Wildlife Service's Partners for Fish and Wildlife program has been actively restoring habitat on private lands in Wisconsin for the federally endangered Karner blue butterfly since 1998. Verification has now been received that a site restored for Karners by biologists from the Wisconsin Private Lands Office in 1998 is being used by the butterfly. The property, located in east central Wisconsin on private lands was in proximity to a known Karner population. A grassland restoration was completed in 1998 to provide Karner habitat, and observations conducted during the Karner's first flight of 2000 confirmed that Karner's are using the site. Karner's have lost extensive amounts of their savanna habitats throughout their range across the north central part of the country. The Service's restoration activities are focusing on privately owned lands where the greatest potential for habitat restoration occur. (**6/10/00**)

467. First Annual National Fishing Day at Cypress Creek NWR

Cypress Creek National Wildlife Refuge

The Refuge's First Annual National Fishing Day, held on June 10, 2000 was sponsored by Cypress Creek National Wildlife Refuge, Mermet Lake State Fish and Wildlife Area, and The Nature Conservancy. Throughout the day over 200 youth and adults participated in the fishing derby and a variety of fishing clinics to learn new skills like baiting a hook, knot tying, and casting, or test their knowledge of fish identification and the do's and don't of Fishing. In addition to a fishing derby and learning stations. Staff demonstrated how to clean a fish, fly-tying, fish shocking, and provided a close-up view of the wonderful world of aquatic BUGS! Youth participated in a casting contest and made COOL T-shirts designs with a fish. The event was held in conjunction with Illinois' Free Fishing Days June 9-12, 2000. (**6/10/00**)

468. Mourning Dove Routes Completed for 2000

Fergus Falls Wetland Management District/PWLC

In early June the staff ran two mourning dove routes, one in southern Otter Tail county and the other in Wilken county. The numbers were about the same as the past several years. The results were forwarded to the Service's offices in Laurel, Maryland, for analysis. Data from annual point counts are collected

and used to write a status report for the fall flight numbers. (**6/10/00**)

469. Ninth Annual Family Fishing Fair Co-Sponsored By Mark Twain NWR - Brussels District

Mark Twain National Wildlife Refuge-Brussels District

Staff from the Mark Twain NWR Brussels District joined with the Illinois Department of Natural Resources, co-sponsored the 9th Annual Family Fishing Fair at Pere Marquette State Park. This years fair was held June 10, 2000 on the lawn in front of the Pere Marquette Lodge and attracted an estimated 1,000 children and 1,000 adults.

Fair goers were given the opportunity to learn some basic fishing skills such as knot tying, casting, fish cleaning, and fish identification. Other interactive booths included a virtual fishing display, the conservation police traveling display, and seminars on fishing by professional fishermen using a 'Hog Trough' stocked with local fish species.

After participating at all the hands-on booths children were given a donated prize of either a stocked tackle box or a fishing pole, and the opportunity to show their new-found skills at a stocked trout pond.

Twelve corporate contributors, over 100 volunteers, and staff from the Refuge and IDNR were on-hand to make this years fishing fair a resounding success. (**6/10/00**)

470. Muscatatuck NWR Hosts NRCS Workshop

Muscatatuck National Wildlife Refuge

Muscatatuck NWR hosted a two-day Natural Resource Conservation Service (NRCS) Plant Identification Workshop June 13-14, 2000. Approximately 40 professionals attended. Attendees were also given a tour of the refuge. (**6/13/00**)

471. Illinois Lt. Governor Visits the Cache River Wetlands

Cypress Creek National Wildlife Refuge

Lt. Governor Corinne Wood visited the Cache River Wetlands in southernmost Illinois June 14, 2000, to meet with Cache River Wetlands Joint Venture staff. Staff from Cypress Creek National Wildlife Refuge, Illinois Department of Natural Resources, The Nature Conservancy, and former Illinois Department of Conservation Director, Henry Barkhausen hosted the visit. Following a morning meeting to discuss resource issues, Lt. Governor Wood, her two children, and staff were provided a tour of the Lower Cache River and state champion tree. This was a first time visit for the Lt. Governor to the "Illinois' Bayou". (**6/14/00**)

472. Michigan Private Lands Office Assists Farm Service Agency Implement Debt For Nature Program

Michigan Private Lands Office

Michigan Private Lands Office assisted the Farm Service Agency (FSA) implement the Debt For Nature Program authorized by the Consolidated Farm and Rural Development Act. The program allows current and delinquent FSA borrowers with loans secured by real estate to enroll in a 50, 30, or 10 year land retirement contract in return for debt cancellation. Service staff has evaluated 12 properties, proposed 682 acres for protection, recommended land treatment practices, delineated contract boundaries utilizing Global Positioning and Geographic Information Systems (GPS, GIS), and developed contract descriptions. Debt For Nature Program has the potential to provide benefits for migratory birds, endangered species, resident species, and their habitats, as well as reducing the financial burden to Farm Service Agency borrowers. (**6/14/00**)

473. Lewis and Clark Visitation

DeSoto National Wildlife Refuge

A group of 54 visitors, traveling in 30 Airstream trailers, visited DeSoto NWR as they followed the Lewis and Clark route from Ohio to the Pacific Ocean. After a refuge orientation, we showed them the Lewis and Clark film, "We Proceeded On." (**6/14/00**)

474. Night Hikes Highlight Creatures of the Night at Necedah NWR

Necedah National Wildlife Refuge

Two night hikes were held for Refuge visitors at Necedah NWR May 19 and June 15, 2000. Among the benefits of the night hikes, participants learned to confront their nervousness about being outside in the dark. They also investigated adaptations of several nocturnal animals and compared them to human senses. Designed to allow visitors to feel more comfortable in the dark, activities centered on using their senses in the darkness. The events attracted a variety of ages and interest groups. (**6/15/00**)

475. Flea Beetles Released on Driftless Area NWR

Upper Mississippi River National Wildlife and Fish Refuge-McGregor District

Aphthona flea beetles were released for biological control of leafy spurge on one unit of the Driftless Area NWR. Grassland buffer areas, including some remnant prairie, surrounding endangered species habitat contain leafy spurge. Previous herbicide treatment has not kept all areas of spurge infestation in control. The USDA Animal and Plant Health Inspection Service of Des Moines, Iowa provided 10,000 beetles for release. Photopoints and stem densities will be used to monitor the success of biological control over the next several years. (**6/15/00**)

476. Wabasha Prairie Site of Grassland Monitoring

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

Biologists at the Upper Mississippi River NF&WR will be monitoring growth of native grasses and other plant species on the Refuge's Wabasha Prairie, a dredge disposal project.. The survey, conducted by Brian Pember and Eric Nelson will help determine dominant species and provide baseline data for the disposal site. The Wabasha Prairie was created last year, when 500,000 cubic yards of fill were placed on the site and seeded to native grasses. Warm weather has promoted good growth of warm season grasses on the site. (**6/15/00**)

477. Shiawassee NWR hosts Volunteers and Friends Appreciation Potluck Picnic

Shiawassee National Wildlife Refuge

The Shiawassee NWR hosted a 'Volunteers and Friends Appreciation Potluck Picnic' June 15, for about 70 volunteers, Friends Group members, staff, and their families. Special guests included Michigan State Representative Jim Howell and Michigan State Senator Mike Goshka. Following the potluck, a short awards and recognition ceremony was held to honor the Refuge's volunteers. Individuals and groups were recognized. Each volunteer received a Refuge certificate, a certificate signed by State congressional people, and a small gift. The 1999 Volunteer of the Year was Janie Peters. Following the ceremony, some people took a drive-through tour of the Refuge. (**6/15/00**)

478. Agassiz NWR General Brochure

Agassiz National Wildlife Refuge

A revised brochure containing general information about Agassiz National Wildlife Refuge was printed in May 2000. Tom Kelly, graphic designer in the Regional Office redesigned the brochure to conform to the Service's design standards. About 10,000 copies were printed. Agassiz's Gary Tischer provided information for the revision. (**6/15/00**)

479. Fergus Falls Staff Conducts 31 Prescribed Fires During Spring 2000

Fergus Falls Wetland Management District/PWLC

Fergus Falls Wetland Management District completed its spring controlled burning season June 15, 2000. During the fire season, Fergus Falls WMD conducted 31 prescribed fires totaling 4,289 acres. District staff also fought to extinguish five wildfires totaling 269 acres. Prescribed fires are an important tool in managing grassland. Native grasses regenerate better in response to fire, and the areas burned this Spring are regenerating excellent stands of grass, especially big blue stem. (**6/15/00**)

480. Audubon Society Tours Driftless Area NWR

Upper Mississippi River National Wildlife and Fish Refuge-McGregor District

The Dubuque, Iowa, Chapter of the Audubon Society took a guided tour of the Driftless Area National Wildlife Refuge in Northeast Iowa, June 16. The tour followed an April presentation to the group about the habitat and endangered species of the Refuge. Refuge Operations Specialist Cathy Henry showed the group several algific talus slopes, sinkholes, the threatened Northern monkshood, and the endangered Iowa Pleistocene snail. Most algific slopes are difficult to access; therefore, the tour was limited to Refuge units with moderate walking access as well as areas where the species could be seen without traversing the fragile habitat. Recent rains required the enthusiastic chapter members to don waders for a stream crossing to visit one site. The tour emphasized the functioning of the algific slopes and the species that inhabit them. Several members are fairly accomplished botanists and were thrilled to see the Northern monkshood in bloom. (**6/16/00**)

481. Cache River Included in Wetland Reserve Program
Cypress Creek National Wildlife Refuge
Over 350 acres in the Cache River Watershed were recently visited and ranked for inclusion into the Wetland Reserve program (WRP) for the Cache River Wetlands. The Cache has been designated a Special Wetland Reserve Program (WRP)area. The program receives funds from the Illinois Department of Natural Resources' Conservation 2000 program and the Natural Resources Conservation Service. This three year designation is valued at over $6 million. The review team consists of staff from Cypress Creek National Wildlife Refuge, Illinois Department of Natural Resources, and the Natural Resource Conservation Service. To date over 9,000 acres in the Cache River Watershed have been enrolled in the WRP program. (**6/16/00**)

482. Detroit Lakes WMD Grassland Seeding
Detroit Lakes Wetland Management District
Detroit Lakes WMD completed four sites of native grassland seeding June 16, including three school environmental education sites. The school's seeding acres totaled approximately 30 acres. (**6/16/00**)

483. Wet Weather Hampers Seeding of Native Grasses and Forbs at Detroit Lakes WMD
Detroit Lakes Wetland Management District
Do to rainy weather conditions, staff at Detroit Lakes Wetland Management District (WMD) completed only small acre native grass and forb seedlings on 13 Waterfowl Production Areas (WPA). 340 acres remain to be seeded on two additional WPA. (**6/16/00**)

484. Boyer Chute Outreach/ Optimists Club
DeSoto National Wildlife Refuge
Bruce Weber gave a 90 minute tour of facilities at Boyer Chute NWR to 20 people from the Blair and Omaha, Nebraska Optimists Clubs June 17. The program focused on public use at Boyer Chute NWR, and future Service land acquisition. (**6/17/00**)

485. Summer Discovery Camp for Kids Held at Green Point Learning Center
Shiawassee National Wildlife Refuge
The Green Point Environmental Learning Center, part of the Shiawassee NWR, hosted its annual 'Summer Discovery Camp for Kids' on Saturday, June 17, 2000. This year's theme for the camp was habitat. Twenty-two children between the ages of five and twelve participated in the camp from 10:00 am to 3:00 p.m. Activities included exploring the habitats around Green Point, learning about Endangered species, and building a 'Prairie Nest Box' for bluebirds. Three staff members and three volunteers helped throughout the day. The volunteers donated 19.5 hours. The Saginaw Valley Audubon Society provided funding to purchase the materials for the bird nesting box. (**6/17/00**)

486. A Refuge Paddling Adventure at Minnesota Valley NWR
Minnesota Valley National Wildlife Refuge
Refuge staff and Minnesota Canoe Association members hosted a 2 1/ 2 hour skills demonstration / interpretive canoe tour of Rice Lake on the refuge's Wilkie Unit that was attended by about 15 people. Great Egrets, Great Blue Herons, Black Terns, wild rice at the floating stage, white water lilies, American lotus, and "killer carp" all helped sensitize the paddlers to wetland values and management challenges. (**6/17/00**)

487. Rare Species Habitat Receives Funding Boost in Wisconsin
Wisconsin Private Lands Office
Rare species in Wisconsin will benefit from a recent grant award to four U.S. Fish and Wildlife Service field offices there. The Service has awarded four $156,000 grants to be used to restore habitat on private lands for the federally endangered Karner blue butterfly and the Eastern massasauga rattlesnake, a federal candidate species. The funding will be used as phase II of a habitat restoration project begun in 1999 by the Service's Partners for Fish and Wildlife program to benefit the two species.

The recipient field stations include: Necedah National Wildlife Refuge, Leopold Wetland Management District, Green Bay Field Office, and Wisconsin Private Lands Office. The funding was provided through the Endangered Species Incentive program which was set up by Congress to fund habitat restoration projects for federally listed endangered or candidate species. Both the Karner and Eastern Massasauga have experienced severe losses of habitat through conversion of savannas and wetlands to agriculture and other purposes.

The funding will be used to restore 740 acres of Karner

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habitat on 25 properties, restore and protect 1,275 acres of Eastern massasauga habitat on 15 properties, provide technical assistance to other landowners in the work areas, and to develop Candidate Conservation Agreements with private landowners in the massasauga focus area.

Partners in the effort include the Wisconsin Department of Natural Resources, The Nature Conservancy, USDA Natural Resources Conservation Service, County governments and private landowners. (**6/19/00**)

488. Teacher Workshop on Oak Savanna Held at Sherburne NWR

Sherburne National Wildlife Refuge

Seven teachers from four Minnesota school districts, and the superintendent from the Elk River, Minn., school district, participated in a Oak Savanna education workshop at Sherburne NWR June 19, 2000. The workshop used the Exploring the Oak Savanna environmental education curriculum developed by the Friends of Sherburne through a mini-grant from the National Fish and Wildlife Foundation Refuge Support Group Grant Program. The eight presenters for the workshop included two Refuge staff and six teachers from the Elk River and St. Cloud school districts, and St. Cloud State University. Four teacher-presenters were Refuge volunteers. The day began with sessions covering the characteristics of the oak savanna habitat and oak savanna restoration activities on the Refuge. This was followed with an orientation to using the curriculum guide, tips on planning a field trip, and a hands-on experience with the activities in the guide. The purpose of the workshop, with its focus on oak savanna education, was to build a pathway for teachers to teach their students about the oak savanna, a globally endangered habitat of which only .02 percent of the original Midwest oak savanna remains today, and also to build an understanding of the oak savanna restoration efforts taking place on the Refuge. (**6/19/00**)

489. Leafy Spurge Attack Continues at Trempealeau NWR

Trempealeau National Wildlife Refuge

In a continuing effort to control leafy spurge with a biological control agent, 58,500 Apthona sp. beetles were collected from field insectories on the refuge and distributed to other locations both on and off the refuge. Sixteen new sites were established on the refuge and Fort McCoy Military Reserve removed enough beetles to establish thirteen new sites. The collecting season was relatively short this year, but extremely productive; on June 8, 2000, 46,500 beetles were collected during 14 worker hours. Rainy, cool weather following this magnificent day brought the season to a close. (**6/19/00**)

490. Beaulieu Lake WPA Seeding by Detroit Lakes WMD

Detroit Lakes Wetland Management District

Despite heavy rains that totaled over five inches, the seeding of 115 acres of Beaulieu Lake Waterfowl Production Area was completed June 19, 2000. (**6/19/00**)

491. Two fishing platforms built and placed at Horicon NWR

Horicon National Wildlife Refuge

Two accessible fishing platforms were constructed by Refuge staff and the Beaver Dam Charter School. They were placed at two of the three Refuge fishing sites: Main Dike Road and Ledge Road. They have already been used and much appreciated by local anglers. (**6/20/00**)

492. New Bison Herd Highlight Big Stone NWR Prairie Day

Big Stone National Wildlife Refuge

Big Stone National Wildlife Refuge conducted its second annual Prairie Day on June 17, and the response was overwhelming. An estimated 800 people attended the event, held at the Refuge headquarters. In addition to Prairie Day, attendees helped Big Stone staff celebrate the 25th anniversary of the establishment of 11,500-acre Refuge.

The huge turnout is incredible considering the small communities found out in rural western Minnesota, and illustrates the value of Big Stone NWR to area residents. Last year's Prairie Day attracted about 200 people.

Activities this year included wagon rides through the prairie, speakers reminiscing about the past 25 years of the Refuge, a bison BBQ, prairie wildflower tours, miniature train rides for kids, and informational displays form native plant and seed growers, conservation groups and local wildlife artists.

The amount of public participation encouraged Big Stone County officials to pay for the costs of food and other items associated with Prairie Day. Refuge staff now look forward to working with the county on future activities such as the Big Stone Bird Festival, Shorebird Festival, and Refuge

Week celebration.

A new bison herd, recently released on reconstructed native grasslands along the Refuge Auto Tour Route, was a popular attraction. The animals, owned by a private bison rancher, are part of the Refuge's native prairie interpretive program. Since the release of the bison on the Refuge, visitation along the tour route has been averaging 125 cars daily, up from about 10-20 per day. The increased visitation allows for a greater awareness of the importance of native prairies, prairie wetlands, and the ecological processes required to protect and maintain this fragile and rare ecosystem.

The bison are grazing via a Special Use Permit from June-September each year. They will be returned to the private ranch in the fall, and return each summer to the prairies where their ancestors roamed free, once upon a time. (**6/20/00**)

493. Muscatatuck NWR Interns Outreach Effort

Muscatatuck National Wildlife Refuge

Muscatatuck NWR summer interns provided newspaper interviews to the Columbus Republic and the Seymour Tribune resulting in articles which informed the public of ongoing refuge work and available activities. (**6/21/00**)

494. Refuge Biologists Survey Heron Rookery on Mississippi River

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

The biologists were back in one of the heron rookeries on the Upper Mississippi River National Wildlife and Fish Refuge recently to check productivity. It was a morning of paddling out to the rookery in a canoe and then walking around with eyes toward the treetops. Refuge Biologist Eric Nelson, Winona District bio tech Brian Pember and Refuge Park Ranger Cindy Samples inspected 10 percent of the colony, surveying more than 50 nests. A majority of the nest contained two young herons. One nest contained five young. (**6/21/00**)

495. Muscatatuck NWR Interns Outreach Effort

Muscatatuck National Wildlife Refuge

Muscatatuck NWR summer interns provided newspaper interviews to the Columbus Republic and the Seymour Tribune resulting in articles informing the public of continuing work on the Refuge and available activities. (**6/21/00**)

496. Recreation Group Examines Beach Use on Mississippi River

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

The Recreation Work Group, a sub-group of the River Resources Forum visited the island beaches in the Upper Mississippi River National Wildlife and Fish Refuge June 21 to discuss recreational use of beaches on the River's Pool 7 and 8. The group includes representatives from the Minnesota and Wisconsin Departments of Natural Resources, the Army Corps of Engineers including the recreation and navigation sections, the Service and the Minnesota-Wisconsin Boundary Area Commission. Members reviewed the existing beaches and made recommendations for their recreational use. The recommendations will be the basis for future public meetings concerning the beach plans. By working together, the group strives to ensure that the Mississippi River continues to be a source of quality recreational experiences for the river users while at the same time protecting the Refuge resources. (**6/21/00**)

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498. Monitoring of Forest and Grassland Birds on Big Oaks NWR/Jefferson Proving Ground

Big Oaks National Wildlife Refuge

Big Oaks National Wildlife Refuge was recently established on Jefferson Proving Ground (JPG), a closed U.S. Army ordnance testing facility. The Service employed five-minute point counts set out along a route similar to a Breeding Bird Survey to sample overall bird diversity in June before the refuge was established.

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Refuge staff visited 135 points proportionally distributed among the major habitat types of Jefferson Proving Ground. The route approach was chosen because of the prevalence of closed areas (no access areas) at the new Refuge. This route will be the basis for long-term monitoring of bird populations at Big Oaks NWR.
A total of 78 species were detected in the first year of the project and included a state endangered species (Henslow's sparrow) and several species of concern (Black and White warbler, Cerulean warbler, Hooded warbler, and Red-shouldered hawk) for Indiana. Other notable rarities included Blue Grosbeaks, Dickcissels, Grasshopper sparrows, and a Black-throated Green warbler. Data will be analyzed by habitat types to differentiate bird communities present on Big Oaks NWR. (**6/22/00**)

499. Winona District Gains 120 Acre Former Barton Tract in Wabasha County, Minnesota
Upper Mississippi River National Wildlife and Fish Refuge-Winona District
The Upper Mississippi River National Wildlife and Fish Refuge recently gained an additional 120 acres following donation by an Iowa construction company that owned the land. The 120-acre "Barton tract" was donated by Mr. Lawrence Matteson of L.W. Matteson Incorporated, Burlington, Iowa. The tract officially became a part of the Refuge in May, when the title was transferred to the Service. The tract adjoins other Refuge land and is located within the Zumbro River floodplain. Matteson donated the tract as a condition for using a 29 acre tract of Refuge land near Wabasha, Minn., to empty sand from the Grand Encampment dredge spoil site on the Mississippi River's Pool 4. The Wabasha site was contoured to predetermined elevations, topped with black dirt and seeded with native warm season grasses. Matteson obtained the black dirt from another Refuge tract creating several wetland scrapes. (**6/22/00**)

500. Service Joins Minnesota Wildlife Mangers to Examine Canada Goose Depredation
Fergus Falls Wetland Management District/PWLC
Service staff joined members of the Minnesota Department of Natural Resources and other wildlife managers to examine Canada goose depredation problems in western Minnesota June 22, 2000. About 30 Minnesota wildlife managers met in Appleton, Minn., to examine techniques currently being used to discourage geese from using agricultural fields adjacent to wildlife areas. The group toured farm fields hit hard this year by geese. Meeting topics also included EPP goose population, how molt migrants from southern states complicate the problem, current giant goose populations and trends, and recommendations on how to fix the over abundance of geese, including harvest. (**6/22/00**)

501. Mussel Surveys Conducted on Waterfowl Production Areas
Big Stone National Wildlife Refuge
Staff at Big Stone NWR conducted shoreline mussel surveys on Twin Lakes and Prairie Waterfowl Production Areas (WPA) and Stony Creek Run in Big Stone County, Minn. No mussels were found at either of the WPAs, though one dead specimen of Pyganodon grandis (Giant floater) was found in the ditched portion of Stony Creek Run. The survey was conducted to collect information on naiad species distribution and abundance on Service managed lands. (**6/22/00**)

502. Students Discover Variety of Life Along the Mississippi River.
Mark Twain National Wildlife Refuge-Riverlands
On June 23, 2000, over 150 first through third grade students and 30 adults from Gateway Elementary School took advantage of the Environmental Demonstration Area in West Alton, Mo.. A cooperative agreement between the U.S. Corps of Engineers and the Service allows for these opportunities to occur. Realizing that first hand experiences are critical to comprehension, interpretive Park Rangers had the kids jump right into action. They had fun while learning about predators and prey, wetlands, habitat, and migratory birds. Despite the heat, these kids discovered that environmental learning was pretty neat! (**6/23/00**)

503. Upper Mississippi Refuge Hosts Motorcraft Operator Instructor Course
Upper Mississippi River National Wildlife and Fish Refuge-Winona District
Regional Watercraft Safety Coordinator Bob Drieslein organized a Motorboat Operator Instructor Certification Course (MOICC) in LaCrosse, Wis., June 19-23, 2000. Fifteen students

completed the course increasing the number of MOCC instructors in the Region to 21. National Watercraft Safety Coordinator Ed Wickersham served as lead instructor in the course. (**6/23/00**)

504. June Outreach at Big Muddy NFWR

Big Muddy National Wildlife Refuge

Several outreach activities involving more than 150 local residents have occupied Big Muddy Refuge staff in June 2000. On June 5, Refuge Manager Tom Bell spoke to over 25 members of the Boonville, Mo., Rotary Club about progress being made at Big Muddy National Fish and Wildlife Refuge. Bell gave a similar presentation June 22, to about 15 members of the Boonville Kiwanis Club. Both groups were interested in lands currently being acquired by the Refuge, especially the partnership with Missouri Department of Natural Resources to acquire the confluence of the Missouri River with the Mississippi River. Also of interest was the mitigation project under construction at Overton Bottoms.

Maureen Gallagher, Refuge Biologist, met June 6 with the Friends of Big Muddy board of directors, to discuss future Friends events. The Friends group staffed a booth at the Manitou Bluffs Celebration at Lupus, Missouri on June 17. About 75 people visited the booth and learned about the refuge.

On June 13, Gallagher presented Big Muddy NFWR research priorities at the Missouri River Collaboration meeting, a group of about 30 researchers and agency personnel interested in the Missouri River. An objective of the meeting was to identify areas that government agencies and universities can coordinate their Missouri River research to reduce duplication of effort and achieve greater results with limited availability of research dollars.

On June 15, Tom Bell and Jim Milligan, Project Leader for the Fisheries Resource Office in Columbia, Missouri, floated the Missouri River with a journalist from Minnesota National Public Radio, Mary Losher, to discuss river issues at Lisbon Bottom Unit. Ms. Losher was especially interested in comparing and contrasting management of the Upper Mississippi and Missouri rivers. (**6/23/00**)

505. Wheelchair Accessible Docks Installed On Two District Landings

Upper Mississippi River National Wildlife and Fish Refuge-Winona District

As part of the renovation of Mertes Slough and Verchota Boat Landings near Winona, Minn., two wheelchair accessible docks were installed June 23, 2000, to help differently-abled visitors to enter and exit boats more easily. The docks also provide a stable platform for fishing. During the landing renovation last year, wheelchair ramps were constructed in preparation for the docks. The docks are each anchored with four, six-inch diameter pipes that allow the dock to float up or down depending on water conditions. The docks will provide access to the Upper Mississippi River NWFR to persons with disabilities seeking opportunities to fish, hunt, and view wildlife. The docks will also allow easier access for many of the elderly visitors who use the boat landings. (**6/23/00**)

Brennan Construction Begins Work on Phase 2 Polander Habitat Rehabilitation and Enhancement Project

Upper Mississippi River National Wildlife and Fish Refuge-Winona District

Construction on Phase 2 of the Polander Lake Habitat Rehabilitation and Enhancement Project (HREP) was started this spring. Phase 2 includes construction of an island complex, creating 50 acres of wetland habitat for waterfowl, shorebirds, turtles and fish. The islands will also help break up wind fetch and provide a more suitable habitat for aquatic vegetation. The complex will contain several cells of varying depths to provide habitats for a variety of species. Also, a channel will be dredged between deeper portions of Polander to provide access for fish, particularly paddlefish which inhabit at the area. The island complex will be constructed with sand from the Wilds Bend dredge disposal site and topped with dredged fine materials and planted to trees, shrubs and native grasses. The island complex should be completed by late summer and plantings will be started in spring 2001. (**6/23/00**)

506. Beetles Used to Control Leafy Spurge at Fergus Falls WMD

Fergus Falls Wetland Management District/PWLC

The Fergus Falls WMD collected and distributed 300,000 leafy spurge beetles at 17 new sites on five Waterfowl Production Areas (WPA) during 2000. The bugs were collected from a site near Valley City, ND.. Since 1998, 829,000 beetles have been placed at 56 separate sites on 13 WPAs.

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The beetles are starting to have a noticeable effect on most of the areas established in 1998 and 1999. We will continue to monitor the sites for effectiveness. (**6/23/00**)

507. Muscatatuck NWR Canada Goose Banding

Muscatatuck National Wildlife Refuge

Refuge staff from Muscatatuck NWR, together with Ducks Unlimited and the Indiana Department of Natural Resources banded 25 Canada geese in June. Data reported from returned bands enhances the knowledge of migrating and resident populations. (**6/24/00**)

508. Native Pollinator Prairie Off to Good Start

Fergus Falls Wetland Management District/PWLC

The development of a Native Pollinator Prairie at the Prairie Wetlands Learning Center got off to a great start June 26, 2000, with 45 volunteers planting more than 400 prairie forbs and grasses. The volunteers, from the Ottertail County Wild Ones Chapter (native plant enthusiasts) and the Ashby Garden Club planted such species as Monarda, verbena, coneflower and cup plants.

Funding for the project came from a generous donation from the family of long time US Fish and Wildlife Service employee Ellison 'Bull' Madden, and challenge cost share funds.

The prairie will eventually include a wheelchair accessible seating area, interpretive panels, solar powered low profile water bubblers and continued planting of forbs. Expected completion is spring of 2001. (**6/26/00**)

509. Watershed Biologist Represents North America at International Meeting In Switzerland

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

Watershed Biologist, Tex Hawkins North American representative for the Ramsar Science and Technical Review Panel met in Gland, Switzerland, June 26, 2000. More than 100 nations are represented on the panel, which designated over 1,000 wetlands of international importance. Hawkins chairs work groups on management, planning and conservation incentives. He is scheduled to report to the panel at the 2002 World Conference in Spain. (**6/26/00**)

510. Funds Help Improve Habitat for Driftless Area Endangered Species

Upper Mississippi River National Wildlife and Fish Refuge-McGregor District

The Driftless Area NWR, McGregor, Iowa, received $35,000 from the Endangered Species Act Private Landowner Incentives Program in June. The funds will be used to provide habitat protection for the endangered Iowa Pleistocene snail, the threatened Northern monkshood, and rare glacial relict snails on private lands in the driftless area of Iowa, Wisconsin, Minnesota, and Illinois.

These species occur on a rare habitat type termed algific talus slopes which are cold air slopes that create a unique microclimate for many glacial relict plants and animals. Many slopes have been lost or impacted over the years primarily from logging, development, and agricultural practices. The primary actions that will be used to improve sites are fencing, buffer strips, and removal of debris from sinkholes that provide cold air flow. Safe Harbor agreements may be completed with several landowners as well. Many of these landowners have not been contacted for 10 years. Together with the Nature Conservancy and the Iowa Department of Natural Resources, landowner contacts will resume and the condition of these slopes assessed for habitat restoration measures. (**6/26/00**)

511. Big Stone Refuge Staff Assist Minnesota DNR in Statewide Mussel Survey

Big Stone National Wildlife Refuge

Big Stone NWR staff assisted Minnesota Department of Natural Resources (DNR) staff in surveying the Yellowbank and Minnesota Rivers as part of a statewide mussel survey in June 2000. Survey teams led by Minnesota DNR Malacologists, Dan Kelner and Rick Hart spent three days wading and snorkeling in rivers that serve as the Refuge's water supply.

Refuge staff assisted in timed-searches, sorting and aging of live specimens. Animals were returned to collection sites upon completion of survey. Ten species and several hundred animals were collected. One state listed Species of Concern, *Lasmigona compressa*, (Creek heelsplitter) was encountered. The Minnesota DNR concentrated survey efforts in these west-central waters to fill in gaps regarding statewide mussel distribution and abundance.

Ten species and several hundred live animals were collected during the mussel surveys of the Yellowbank and Minnesota Rivers. Live species collected include

Anodontoides ferussacianus (Cylindrical papershell), *Fusconia flava* (Wabash pigtoe), *Lampsilis siliquoidea* (Fatmucket), *Lasmigona complanata* (White heelsplitter) , *Lasmigona compressa* (Creek heelsplitter), *Leptodea fragilis*, *Potamilus alatus* (Fragile papershell), *Pyganodon grandis* (Giant floater), *Strophitus undulatus* (Squawfoot), and *Toxolasma parvus* (Lilliput).

While federally listed species were collected, one state listed species, *Lasmigona compressa* (Creek heelsplitter), was encountered frequently. Information collected is used to determine statewide distribution and abundance of naiads. (**6/26/00**)

512. Surveys Find Six Dakota Skipper Butterflies on Big Stone NWR

Big Stone National Wildlife Refuge

Butterfly surveys of remnant prairie at Big Stone NWR in western Minnesota were conducted in late June 2000. The surveys were timed to coincide with the flight period of the Dakota skipper, a rare, prairie obligate butterfly currently under review for listing under the Endangered Species Act.

The presence of the Dakota skipper is an indicator of high quality prairie. One skipper was found on Refuge Unit 1A. A survey of Prairie Waterfowl Production Area (WPA) in Big Stone County turned up five Dakota skippers. Prairie WPA had not been surveyed for skippers since 1988.

A management plan to increase the overall health of the Refuge's prairie was completed in January 2000. The Dakota Skipper Management Plan for Big Stone NWR details habitat objectives, management strategies, monitoring protocols and annual reviews all of which are part of any successful adaptive management cycle. (**6/27/00**)

513. Detroit Lakes WMD Attends Prairie Passage Informational Meeting

Detroit Lakes Wetland Management District

Detroit Lakes Wetland Management District Biological Science Aid Andrea Stebleton, attended an informational meeting June 28, 2000, at Old Mill State Park led by Kathryn E. Bolin, Prairie Passage Coordinator. She gave a presentation on a proposed concept to create a tourist route from Northern Minnesota to Texas with the road sides planted to all native prairie and wild flowers. The Minnesota Department of Transportation is leading the organizational effort. (**6/28/00**)

514. Detroit Lakes WMD Debut at the Norman County Fair

Detroit Lakes Wetland Management District

Detroit Lakes Wetland Management District Biological Science Aid, Andrea Stebleton, staffed an information booth featuring the Partners for Wildlife Program during the Norman County Fair June 28 - July 1, 2000, in Ada, Minn.. Very few people stopped to talk, but that is believed to be do to location in the grand stand and not in the coliseum or 4-H building. (**6/28/00**)

515. John Deere Tractor Transfer to Detroit Lakes WMD

Detroit Lakes Wetland Management District

Biological Technician, Larry Hanson, helped Lake Agassiz NWR do native broadcast seeding on June 28, 2000. He also returned a surplus John Deere Tractor from Lake Agassiz. (**6/28/00**)

516. Muscatatuck NWR Songbird Point Count

Muscatatuck National Wildlife Refuge

Muscatatuck NWR songbird point counts were completed in June with all 97 points surveyed. Data will be analyzed at a late date and used to improve refuge management for those species involved. (**6/30/00**)

517. Oak Savanna Environmental Education Curriculum Guide Completed

Sherburne National Wildlife Refuge

The Friends of Sherburne NWR recently completed a 120-page environmental education curriculum that will help educators teach about oak savanna, a globally-endangered habitat that is being restored at Sherburne NWR in central Minnesota. 'Exploring the Oak Savanna at Sherburne NWR' consists of eighteen lesson plans designed for three age levels, elementary, middle and high school, that provide guidance for hands-on activities to help students explore, understand and appreciate the oak savanna. The curriculum, completed June 30, 2000, was funded through a Refuge Support Group Grant received from the National Fish and Wildlife Foundation in partnership with the Service, National Wildlife Refuge Association, and the National Audubon Society. The curriculum activities were written by four local teachers, two funded through the grant and two

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who donated their services. The grant also allowed for equipment to be purchased to support the activities and for 100 copies of the curriculum to be made. The $3,000 grant was matched by the Friends of Sherburne through $3,000 in labor donated by 10 members of the Friends of Sherburne, $500 in funds donated by the Elk River Lions and $500 donated by the Minnesota Bowhunters - Three Rivers Chapter. The Friends of Sherburne believe that this curriculum guide is one of the best ways to help the Refuge meet its goal of providing the public with wildlife-oriented opportunities for outdoor classrooms. (**6/30/00**)

518. Muscatatuck NWR Marsh Bird Study

Muscatatuck National Wildlife Refuge

Marsh bird monitoring efforts for 2000 on Muscatatuck NWR were completed in June. Data will be analyzed and results used for management decisions. (**6/30/00**)

519. Refuge's Winona District Acquires 4.7 Acre Vaughn Property

Upper Mississippi River National Wildlife and Fish Refuge-Winona District

The Service acquired a 4.7- acre parcel of bottomland hardwood forest in June 2000, in Winona County, Minn. The acquisition was accomplished through a land exchange with the Vaughn family. About 2.5 acres of Service land were divested with The Nature Conservancy funding a $1,000 equalization payment. The acquisition will eliminate a nagging encroachment problem while adding an important inholding to the Upper Mississippi River Refuge. According to a local birder, the property is home to breeding cerulean warblers. (**6/30/00**)

520. Media Witness Cranes' Return to Wisconsin, Part of Whooping Crane Project at Necedah NWR

Necedah National Wildlife Refuge

Fourteen Sandhill Crane Chicks returned to central Wisconsin June 30, 2000, after being hatched and raised at Patuxent Research Center in Maryland. The birds are part of the sandhill pilot-project for the reintroduction of an eastern flock of migratory whooping cranes. Representatives from various media outlets were invited to watch the birds' return to Necedah Airport. Reporters also were treated to a rare look at the on-site facilities designed at the Necedah NWR for the special reintroduction. Media also watch the month-old chicks undergo a veterinary health check. (**6/30/00**)

521. Spring Grassland Seeded at Fergus Falls, Wetland Management District

Fergus Falls Wetland Management District/PWLC

During the Spring of 2000, 540.54 acres of land were seeded in native grass seed on six units at Fergus Falls Wetland Management District, the Prairie Wetlands Learning Center, and one Minnesota State Park. (**6/30/00**)

July 2000

522. Seney NWR Celebrates Backyard Wildlife Day

Seney National Wildlife Refuge

This year, 262 visitors enjoyed Backyard Wildlife Day at Seney NWR. The event encourages visitors to make room for wildlife habitat in their own backyards, workplaces, and schoolyards. Visitors made simple bird feeders out of recycled materials, watched an original puppet show, viewed videos, looked at exhibits, played a game to learn about pesticide bioaccumulation, and planted native wildflower seeds to take home.

Visitors also participated in the Backyard Wildlife Search to find out how wildlife uses native plants. By completing the search, they could enter a raffle to win bird feeders donated by Wild Birds Unlimited.

One of the most popular displays was on the monarch life-cycle. It featured giant models of the egg, milkweed leaf, caterpillar, chrysalis, and butterfly. The exhibit was left up for the rest of the summer, and has received many positive comments from visitors. (**7/1/00**)

523. Necedah Refuge Projects Get Help From Wisconsin Conservation Corps

Necedah National Wildlife Refuge

Refuge projects at Necedah National Wildlife Refuge are getting a helping hand from the Wisconsin Conservation Corps (WCC). A five-member crew from the Corps began work at Necedah NWR July 3, 2000. The crew will complete more than 25 wildlife conservation projects over the next year. Cosponsoring the crew are Refuge partners Germantown Park, Outdoors Forever, Inc., and Mill Bluff State Park.

The crew will construct boardwalks, restore oak savanna habitat, band waterfowl, perform prescribed burns, and conduct biological surveys. This is the

eighth year that Necedah NWR has sponsored a WCC crew. The Refuge and other sponsors will provide a vehicle, tolls, and supplies valued at nearly $20,000 for the crew activities. The manpower provided by the crew has an estimated $88,000 value.

Corps members who complete a full year of service can receive a $500 cash bonus or a $2,800 tuition voucher plus an AmeriCorps tuition grant of $4725. (**7/3/00**)

524. Minnesota Lawmakers, Conservation Agencies, Tour Nature-Friendly Farm

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

Minnesota Congressman Gil Gutknecht and State Representative Michelle Rifenberg joined officials from the Service, Minnesota Department of Natural Resources, Grazing Land Conservation Initiative, Natural Resource Conservation Service to tour the Art Thicke Farm to learn more about conservation farming methods in southern Minnesota. Watershed biologist Tex Hawkins of the Upper Mississippi River National Wildlife and Fish Refuge has provided technical assistance to the Thicke Farm, a wildlife friendly farm with a profitable rotational grazing system.

Rain water is held in natural pools in low spots on the farm. Hawkins explained this process and was quoted in the Winona, (Minn.) Post as stating, "Water from here seeps into the underlying aquifer. He said this arrangement, an alternative to disrupting wetlands or setting up artificial drainage systems, helps alleviate flooding and unnecessary construction projects. Art has saved a lot of money by just letting nature run its course. "

Tex Hawkins has provided technical assistance to Art Thicke and five other farms located in southeastern Minnesota. (**7/6/00**)

525. LaCrosse District's Rodent Mystery Uncovered

Upper Mississippi River National Wildlife and Fish Refuge-LaCrosse District

The mysterious cause of rodent damage to trees on two recently created islands on the upper Mississippi River has been solved by biologists from the Upper Mississippi River NWFR. Constructed in 1998, the Stoddard Islands were built as part of the Lower Pool 8 Islands Environmental Management Program (EMP) project. The islands were seeded with various planting mixes in the spring of 1999, including alfalfa, Canada wild rye and black-eyed susans. Trees were also planted on parts of Eagle and SlingshotIslands in 1999. This spring, managers noticed that many of the planted trees were chewed, girdled or killed by rodents. How the unexpected rodents came to the island or what species they were was unknown.

On July 5, 2000, Service Biologist Lara Hill worked with Dr. Eileen Kirsch of the U.S. Geological Survey to set 39 traps in an effort to determine what species of rodents were inhabiting the islands. After only one night, meadow voles (*Microtus pensylvanicus*) were caught in 22 out of the 39 traps - a 56.4 percent total trap success. Many large healthy adults as well as small juvenile voles were trapped, which indicates a very large breeding population on the islands. The voles probably came to the islands in the hay bales used by the contractor as mulch. The voles could also have crossed the iced-over river in winter or swam the short distance to the islands. It is anticipated that the voles will provide good forage for avian and terrestrial predators. Managers will discuss methods for protecting planted trees from expanding vole populations in the future.

The Stoddard Islands are a $2.5 million EMP project. Contractors vegetated the islands with grasses and forbs and trees. The voles are responsible for destruction of about 80 percent of the trees planted on the islands. (**7/6/00**)

526. Refuge Site of Leafy Spurge Beetle General Trends Study

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

Monica Chandler of the Minnesota Department of Agriculture and Brian Pemper, Biology Technician for the Winona District, Upper Mississippi River National Wildlife Refuge, recently gathered leafy spurge beetles from sites on the Refuge. In 1996 and 1997, four sites on the refuge were release sites for nigriscutis and lacertosa beetles, a biological control for leafy spurge. Leafy spurge, an aggressive exotic perennial weed, had taken hold in parts of the refuge. Ms. Chandler was conducting a beetle check and soil sample at each site to help determine general trends for the success of the biological controls in Minnesota. (**7/7/00**)

527. New Refuge for Indiana: Big Oaks National Wildlife Refuge Dedicated

Muscatatuck National Wildlife Refuge

America's National Wildlife Refuge System added another jewel to its collection Saturday July 8, 2000, with the official dedication of the new Big Oaks National Wildlife Refuge in southern Indiana. With more than 50,000 acres of forest, grassland, and wetland habitat, Big Oaks encompasses one of the largest remaining contiguous blocks of habitat in the region.

Indiana Congressman Baron Hill and Service Director Jamie Rappaport Clark joined Paul W. Johnson, Deputy Assistant Secretary of the Army (Installations and Housing) and Jimmy G. Dishner, Deputy Assistant Secretary of the Air Force (Installations) for the dedication of the 51,000-acre refuge on the site of the former Jefferson Proving Ground near Madison.

Big Oaks NWR provides managed habitat for 120 species of breeding birds, the federally endangered Indiana bat and 41 species of fish. The refuge is also home to white-tailed deer, wild turkey, river otters and coyotes. In addition, the Indiana Department of Natural Resources has identified 46 rare species of plants on the site.

Large blocks of unfragmented forest are extremely rare in the Midwest, and Big Oaks NWR represents a unique opportunity to protect interior forest habitat critical to neotropical migrant songbirds and other wildlife that cannot survive in smaller, scattered patches of forest. The refuge's 6,000 acres of grasslands also provide habitat for many species of grassland-dependent birds, which are declining at an alarming rate across the country as their habitat is developed. These grasslands support one of the largest known populations of Henslow's sparrow, a once common grassland bird whose population has plummeted by more than 90 percent during the past 30 years.

Under a recent agreement with the Army and Air Force, the Service will operate Big Oaks NWR through a 25-year real-estate permit with the Army retaining ownership of the land. The Air Force will retain use of a 1,033 acre bombing range, which is not included in the portion designated as a National Wildlife Refuge, and is located near the center of the former proving ground. Large safety buffer areas separate the Air Force range from public use areas of the Refuge. Many of the buildings located on the installation's cantonment area (the area south of the former firing line) have been leased to commercial enterprises and are not a part of the refuge.

In 1940, the Army began testing ordnance on portions of the site that is now a National Wildlife Refuge. Public access will be limited to about 27,000 acres of the refuge due to the continued presence of unexploded ordnance. The Proving Ground was closed by the Army in 1995 as a result of the Base Closure and Realignment Act. The U.S. Fish and Wildlife Service has managed wildlife resources at Jefferson Proving Ground since 1997, when the Service first entered into a three-year agreement with the Army.

Clark stressed that public access for wildlife viewing, hunting and other recreational activities will be provided at the refuge, consistent with precautions needed to warn the public of hazards posed by unexploded ordnance. A public comment period on the refuge management plans ended last month. The management plans are in the process of being finalized, and the refuge will open to the public on July 17.

The Refuge will be open from 7 a.m. to 4:30 p.m. on Mondays, Fridays and the second and fourth Saturdays each month between April and November. Tours of the refuge will also be available by appointment throughout the year. Activities permitted under the interim agreement with the Army include hunting, fishing, wildlife photography, environmental education and interpretation, with other activities under consideration for the future. Visitors are required to check in and receive a safety briefing at the refuge office before participating in any activity at the refuge.

Big Oaks National Wildlife Refuge becomes the third national wildlife refuge in Indiana, joining Muscatatuck NWR near Seymour, Ind., and Patoka River NWR near Oakland City, Ind. The current Refuge Manager at Muscatatuck NWR, Lee Herzberger, will become the Refuge Manager for the 58,000 acre Muscatatuck/Big Oaks NWR Complex. (**7/8/00**)

528. Ecosystem Conservation Society (ECS) of Japan Tours Mississippi River Refuges

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

Twenty two consulting engineers, biologists and ecologists of the Japanese Ecosystem Conserva-

tion Society came to study conservation practices Trempealeau and Upper Mississippi River National Wildlife Refuges July 10. The Society was interested in how Refuge staff are restoring habitat and researching habitat loss due to the effects from Lock and Dam 6. ECS members were very interested in how resource agencies on the river work together, and what environmental laws and policies they use to promote environmental restoration efforts. They also got some exciting first hand experience at wildlife observation at the Trempealeau National Wildlife Refuge. (**7/10/00**)

529. Big Stone NWR and Fergus Falls WMD Host Vegetation Workshop

Big Stone National Wildlife Refuge

Big Stone National Wildlife Refuge and Fergus Falls Wetland Management District teamed up to hold a vegetation workshop July 10-11, 2000. More than 25 Service biological staff from five stations in western Minnesota were introduced to the Floristic Quality Assessment (FQA) vegetation monitoring method and learned new identification skills and techniques.

Gary Larson, plant taxonomist from South Dakota State University, instructed participants in a classroom setting at the Prairie Wetlands Learning Center, in Fergus Falls, Minn. Biological staff were able to practice plant identification skills and employ the FQA at restored prairie and remnant prairie sites on Waterfowl Production Areas within the Fergus Falls Wetland Management District. (**7/10/00**)

530. Children's Fishing Contest a Hit at Seney NWR

Seney National Wildlife Refuge

Seventy-nine children participated in the Children's Fishing Contest at Seney NWR, The event, held in recognition of Michigan's 'Free Fishing Weekend,' featured fishing stations with poles available for checkout, as well as worms and tackle. At the Refuge visitor center, youngsters fished for prizes at the tiny tots fishing hole. Michelle Zastro from the Marquette Biological Station staffed a sea lamprey display, and Faber Bland from Pendill's Creek National Fish Hatchery manned a display on fish and fishing. Bland also measured the young anglers' catch when they checked in. Following the contest, approximately 200 contestants and their families attended an awards ceremony and complimentary fish fry dinner. Prizes for the awards ceremony were donated by local area businesses and the Seney Natural History Association. (**7/10/00**)

531. Removal of LaValle Dam Benefits Baraboo River Fishery

Wisconsin Private Lands Office

Members of three natural resource organizations recently took the first steps to remove the aging LaValle Dam on Wisconsin's Baraboo River. Representatives from the U.S. Fish and Wildlife Service, Wisconsin Department of Natural Resources and the Sand County Foundation pulled boards from the aging dam July 11. The dam will be completely removed from the river later this year. The LaValle Dam is the third dam to be removed from the river in the last two years. One remaining dam, located in the city of Baraboo, Wis., is scheduled to be removed in 2001. The removal of the four dams will restore free flow to more than 125 miles of the Baraboo river. Many aquatic species are expected to benefit including the lake sturgeon. Removal of the dam is a partnership project that includes the Wisconsin DNR, Sand County Foundation and the U.S. Army Corps of Engineers. (**7/11/00**)

532. Leopold WMD Participates in Wisconsin's Farm Progress Days

Leopold Wetland Management District

The Leopold Wetland Management District with assistance from the Madison Private Lands Office participated in Wisconsin's annual Farm Progress Days show, Fond du Lac County, July 11-13, 2000. The show, which attracted more than 83,000 people, features the latest technologies in production agriculture. The Leopold WMD and Madison Private lands Office staffed a booth featuring the Partners for Fish and Wildlife program in the Conservation theme tent. Leopold's PFFW staff also assisted with the design and funding of a wetland and prairie restoration completed on the grounds of the Farm Progress Day show. (**7/11/00**)

533. Staff Conduct Tours of Boyer Chute

DeSoto National Wildlife Refuge

Bruce Weber conducted a two-hour tour of Boyer Chute NWR for the Washington County Extension Office. Fifteen people participated in this general orientation. (**7/11/00**)

534. Loess Hills Hospitality Association

DeSoto National Wildlife Refuge

Bruce Weber and Curator Sarah Tuttle gave a two hour interpretive training session to seven professional guides from the Loess Hills Hospitality Association July 17, 2000. The guides regularly escort visitors' tour buses to DeSoto Refuge. (**7/11/00**)

535. Refuge Partners With Community College for Exploring Wildlife on the Mississippi River Workshop

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

Clinton Community College and the Upper Mississippi River National Wildlife and Fish Refuge recently partnered for 'Exploring Wildlife on the Mississippi River,' a summer environmental education experience for kids. The workshop involved explorations to heron rookery, fishing expedition, fish shocking demonstration, a canoeing expedition, hiking and culminated with a tour of Lock and Dam 13. Community Education director Anne Schmidt organized the class with help from Pam Steinhaus, refuge operations specialist at the Savanna District. This year, all participants were boys. (**7/12/00**)

536. Monitoring Upper Halfway Creek Marsh (UMRNW&FR) Habitat Quality

Upper Mississippi River National Wildlife and Fish Refuge-LaCrosse District

As the Refuge's LaCrosse District continues habitat development in the Upper Halfway Creek Marsh, efforts are underway to ensure water and sediment quality remain protective of refuge resources. Lara Hill, refuge biologist, and Dave Warburton, environmental contaminants biologist, Twin Cities Field Office, collected samples of recently exposed sediment deposited this spring into the upper cell of the marsh. Sediment will be analyzed and evaluated for a variety of environmental contaminants. Water level management in the upper cell provides important shorebird and waterfowl habitat while also trapping sediments suspended in Halfway Creek during high flow events to protect downstream properties. Continued monitoring of sediment, water, and biota by the Service will ensure this management practice maintains high quality wildlife habitat while also providing opportunities for beneficial reuse of deposited materials. (**7/13/00**)

537. Girl Scouts Attend Day Camp at Necedah NWR

Necedah National Wildlife Refuge

About 60 area girl scouts attended a summer day camp July 12-13, 2000, at Necedah NWR. Scouts, kindergartners to 10th graders, spent time building insect boxes, learning 'How a bird lives' (a game that teaches how different birds are adapted to different habitats), went on a scavenger hunt, and spent some time along the water catching a lot of frogs and insects, then took a water sample and analyzed the water using the test kits. The girls also learned how to use a compass, and followed the orienteering course to Suk Cerney Flowage, where they learned water safety and had a chance to canoe on their own. Biologist Richard King also gave a presentation on the tools used in water sampling, and the girls had a chance to try using the water flow meter, dredge a soil sample, and put the sample under a microscope. (**7/13/00**)

538. Watershed Biologist Host a Citizen Collaborative for Watershed Sustainability

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

Tex Hawkins, watershed biologist at the Upper Mississippi River National Wildlife and Fish Refuge co-hosted a July 14 gathering of the Citizen Collaborative for Watershed Sustainability. Held at the Villa Maria in Frontenac, the group gathered to discuss experiences, frustrations and successes. The collaborative is a growing network of people involved in watershed activities, sustainable agriculture, environmental action, outdoor sports and conservation groups. The network applies scientific and local knowledge to meet resource challenges. (**7/14/00**)

539. Wild Berry Bash at Necedah NWR

Necedah National Wildlife Refuge

Necedah NWR hosted its second annual Wild Berry Bash July 15. Sponsored by the Friends of Necedah, the event attracted 100 participants. Attendees experienced many activities surrounding wild berry picking on the refuge. These included a berry picking contest, a pie-eating contest, a presentation on wild edibles and tie-dying with natural dyes. (**7/15/00**)

540. Winona District Partners with Local SWCD to Seed Prairie

Upper Mississippi River National Wildlife and Fish Refuge-Winona District

Following completion of more than 200 acres of native grass and wildflower seedings on private lands, the Winona District loaned its Truax drill to Winona County Soil and Water Conservation District (SWCD) for continued use. Through a Cooperative Agreement with the Service, SWCD will manage the drill by making it available to local landowners for planting natives. This drill was purchased through a Challenge Grant with non-federal sponsors funding 50 percent of the purchase price. (**7/15/00**)

541. Nebraska Press Association Members Tour DeSoto Refuge

DeSoto National Wildlife Refuge

Seventy-five members of the Nebraska Press Association were given a special two-hour orientation and public affairs tour of DeSoto NWR by Bruce Weber and museum curator Sarah Tuttle. (**7/15/00**)

542. Birds Active At Necedah NWR

Necedah National Wildlife Refuge

Bald Eagles were on a new nest site in the Sprague Mather Flowage, hatching about April 18, 2000. The only eaglet was first observed April 24, 2000. The osprey pair (nicknamed Dick and Gloria) again nested on the platform set up by former biologist Dick Nord and his wife, Gloria, a Refuge volunteer. Two young osprey were fledged from this effort. A second pair of osprey nested on Unit 6 of the Ducks Unlimited (DU) project in the south end of the Refuge. The Refuge also noted the beginning of a heron rookery, a first for the Refuge in recent years. At least three great blue heron nests, and a possible fourth nest were sighted in Unit 3 of the DU restoration project area. Numerous red-tailed hawks were also noted this spring and summer, although no actual nests were sited. A mockingbird was also observed for the first time this year on the Refuge. (**7/15/00**)

543. Minnesota City Celebrates Hometown Duck Stamp Artist

Minnesota Valley National Wildlife Refuge

The City of Hastings, Minn., celebrated the laurels of one of its hometown talents recently when Bonnie Latham, winner of the National Junior Duck Stamp Competition was honored during Hastings Rivertown Days, July 14-16.

The Hastings' city council honored Bonnie with a special proclamation; Hastings Area Chamber of Commerce and Tourism Bureau touted her success on its web page and sponsored her in the parade as the hometown folks cheered her on. KDWA, Hastings local radio station, interviewed Judie Miller, the Minnesota Junior Duck Stamp Coordinator, and played the taped interview in the weeks prior to the celebration.

A local television station interviewed Bonnie and was on site to videotape Saturday's celebration at the Nature's Palette Gallery. The gallery hosted the Junior Duck Stamp traveling art exhibit where Bonnie autographed the recently issued Junior Duck Stamp, which incorporates her painting of a pair of northern pintails. Several hundred were on hand to enjoy the art exhibit and were treated to hand scooped ice cream, cookies, root beer, and contributed by Bridgeman's Restaurant Inc. The Hastings Chapter of Minnesota Waterfowl Association Inc. and the gallery. National Junior Duck Stamp Coordinator, Terry Bell, thought this was possibly the first-ever hometown celebration for a National Junior Duck Stamp winner. (**7/15/00**)

544. Ducks Unlimited Members Gather in Fergus Falls to Dedicate New Water Control Structures

Fergus Falls Wetland Management District/PWLC

Thirty-five members of Ducks Unlimited from the United States and Canada gathered in Fergus Falls, Minn., to help dedicate three new water control structures at Fergus Falls Wetland Management District July 16, 2000. Mickelson, Ten Mile, and Rossow Waterfowl Production Areas (WPA) all received new water control structures in 1999. The structures allow District staff to maintain 107 acres of wetlands on the three WPAs. The dedication ceremony included the unveiling of a stone monument, a brief overview of the history of the WPA, comments from Ducks Unlimited members and staff, and a thanks to all that donated funds for the structures. (**7/16/00**)

545. Muscatatuck NWR Outreach

Muscatatuck National Wildlife Refuge

Muscatatuck NWR, in conjunction with the Scott County Chapter of Ducks Unlimited, provided displays for the Scott County Fair. The displays were viewed by approximately 5,000 people and focused on the importance of saving Indiana's vanishing wetlands. (**7/17/00**)

546. DeSoto Safety Program

DeSoto National Wildlife Refuge

A safety program about using heart defibrillation equipment was given to 14 staff members of DeSoto NWR by Rhonda Meyer, director of Blair Hospital's Emergency Room. (**7/18/00**)

547. Big Muddy Refuge Unit Surveyed, Boundaries Will Assist Users

Big Muddy National Wildlife Refuge

Surveyors from the Division of Realty completed landline surveys of the boundaries at the Jackass Bend Unit of the Big Muddy NFWR during summer 2000. Refuge staff and volunteers from Friends of Big Muddy will post boundary signs Saturday, Oct. 14, 2000. Posted boundary lines will improve management and assist users to determine Refuge property. (**7/19/00**)

548. Detroit Lakes WMD Makes First Appearance at the Mahnomen County Fair

Detroit Lakes Wetland Management District

Andrea Stebleton, biological science aid at Detroit Lakes Wetland Management District, staffed an exhibit featuring the Service's Partners for Wildlife Program during the Mahnomen County (Minn.) Fair July 20-23, 2000. Along with the highlighted program, Stebleton distributed pamphlets on all aspects of the Fish and Wildlife Service. Many people picked up pamphlets. Four people spoke with Andrea about restoration possibilities on their land. (**7/20/00**)

549. Open House Solicits Public Comment on Proposes Hunting on Closed Waterfowl Production Areas

Fergus Falls Wetland Management District/PWLC

On July 20, 2000, the Fergus Falls WMD held an open house to gather public comments on its plan to allow hunting on 4,400 acres of land on 10 Waterfowl Production Areas (WPA) in Otter Tail, Grant and Douglas Counties. The WPA were originally closed to duck hunting in cooperation with the Minnesota DNR as part of a waterfowl study to determine the impact of refuge areas on the mortality of locally nesting waterfowl. The WPA remained closed for a number of years beyond the original study to provide rest areas for migrating waterfowl.

Under the Legislation establishing the Small Wetlands Acquisition Program, lands bought as WPAs and paid for with hunter's Duck Stamp dollars are to be open to public hunting. The Service is reopening these WPA to waterfowl hunting to comply with federal regulations which call for these areas to be open to public hunting unless unusual or critical conditions exist.

The 1997 National Wildlife Refuge System Improvement Act encouraged the Service to manage WPA in a consistent manner. Of 3,000 WPA located in the upper Midwest, these are the only units that have been closed as refuges. The 1997 Act also encourages the Service to consider wildlife-dependent uses such as hunting on Refuge System lands when the use is compatible with their primary purpose. Opening these 10 WPA will implement more consistent Service management of WPA over the three-state area of Minnesota, North Dakota and South Dakota while providing additional hunting opportunities.

The joint Service and Minnesota DNR proposal calls for the phased in opening of the 10 WPA over the next three years.

About 40 people attended the open house with many more written comments received. Staff accepted written comments for more than two weeks following the open house. (**7/20/00**)

550. Mark Twain NWR on the Cover of Time Magazine

Mark Twain National Wildlife Refuge-Brussels District

The July 20, 2000, Special Issue of Time magazine titled "Life on the Mississippi, An eye-opening journey along America's river of dreams," features a cover photo of the Portage Islands Division of Mark Twain NWR - Brussels District. The photo, taken from the bluffs overlooking the river, shows the heavily wooded Portage Island with floodplain and farm fields in the background. (**7/20/00**)

551. Agassiz NWR Grebe Field Season 2000 Summary

Agassiz National Wildlife Refuge

Dr. Bruce Eichhorst and Brian Moritz, student, resumed work May 12, 2000 on a study of grebes initiated several years ago at

Agassiz NWR. Dr. Eichhorst is interested in incubation data and the Refuge is interested in documenting grebe nesting locations and the affects water management on nesting grebes.

This year, South Pool was intensively surveyed for nests. More than 100 nests were found and mapped using GPS (Global Positioning System). Less intensive surveys were conducted on Parker Pool, Pool 8 and Pool 21. Thief Bay pool had 60 red necked grebe nests, but no eared-grebe nests, as in previous years. Agassiz Pool was in drawdown (many grebes nested there in previous years); therefore no nesting occurred. Nine red-necked grebes were captured, banded and received radio collars, one pied billed grebe was collared.

Fake eggs which monitor incubation time and temperature were placed in 30 red-necked grebe nests, four pied-billed grebe, four coots and four bitterns. Interesting behavior has been observed: red necked grebes appear to take a break around midnight for a couple of hours. Great horned owl predation was documented. A great deal of time was spent observing nesting behavior. (**7/20/00**)

552. Interpretive Sites in Planning Stages With Missouri DNR

Big Muddy National Wildlife Refuge

Big Muddy Refuge Manager Tom Bell met with Missouri's Arrow Rock State Park Superintendent Michael Dickey July 20, 2000, to discuss partnership opportunities for increasing public awareness of the Refuge and Service/Refuge programs. The state park has two overlooking views of Jameson Island unit of Big Muddy NFWR that could potentially be interpretive sites for the Refuge. (**7/20/00**)

553. Refuge Officers Target Underage Drinking on McGregor District

Upper Mississippi River National Wildlife and Fish Refuge-McGregor District

Refuge officers from the McGregor District of the Upper Mississippi River National Wildlife and Fish Refuge took steps to combat the growing problem of underage drinking on the refuge. On Saturday, July 22, 2000, officers targeted specific beaches on the Refuge where previous problems had been noted. Eight citations were issued to individuals for underage consumption as well as several other violations. A new, special regulation on the Refuge prohibiting the possession or use of alcohol by individuals under 21 has allowed Refuge Officers to handle these violations without the aid of other law enforcement outside of the Fish and Wildlife Service. (**7/22/00**)

554. Leopold WMD, Partners for Fish and Wildlife Program Assist with Stream Protection

Leopold Wetland Management District

Through a joint effort between Leopold WMD's Partners for Fish and Wildlife Program, the Wisconsin Department of Natural Resources (DNR) and the Natural Resources Conservation Service (NRCS) a portion of Irish Creek, a former Class II trout stream has been protected. Irish Creek, an indirect tributary of the Horicon Marsh, had been degraded over time due to continuous pasturing within the creek itself, as well as adjacent land-use practices.

To assist in the protection of Irish Creek, the Wisconsin DNR secured a Streambank Protection Easement with a landowner owning a portion of the creek. Through the easement, farming practices and pasturing have been restricted within 50 feet of the creek and the creek itself. The Dodge County NRCS office secured funding through its' Wildlife Habitat Incentive Program (WHIP) for cattle fencing. The Partners for Fish and Wildlife Program provided technical and financial assistance for the plugging of a drainage ditch that emptied directly into Irish Creek. Plugging the ditch will restore the hydrology to the area and prevent chemical runoff and erosion from entering the creek. (**7/23/00**)

555. Refuge Visits County Fair

Necedah National Wildlife Refuge

Staff from Necedah National Wildlife Refuge and the Friends of Necedah set up a booth at the Monroe County (Wis.) Fair July 19-23, 2000, in Tomah, Wis. Friends members joined Service members to staff the booth throughout the four-day fair. Hundreds of brochures were picked up by the public who asked for information on wildlife viewing, birding, hunting, fishing and berry picking. People who visited with us last year updated their name/address on the clipboard's mailing list. Driving directions from the Tomah area to the refuge was a common question asked. Many people who learned about our refuge from last year's information did visit the Refuge this past year. (**7/23/00**)

556. Cactus Monitoring in Granite Outcrops at Big Stone NWR

Big Stone National Wildlife Refuge

The Ball Cactus, (*Escobaria vivipara,*) is restricted to a single habitat type in Minnesota; granite outcrops. More specifically, this specie of cacti is found only in the granite outcrops found on Big Stone NWR and adjacent private land in Big Stone County.

Throughout July, Refuge staff surveyed this State- endangered species on Refuge outcrops within the Auto Tour Route.

Survey objectives were to map cactus locations, and determine distribution and abundance. As caretakers of this significant resource annual monitoring will help measure changes in population size and health (annual mortality) and will be used to determine effectiveness of management efforts. The survey of eight separate outcrops revealed a population of 2,088 individual ball cacti. The cactus ranged in size from a single large individual measuring 2.75 inches to a cluster of 78 cactus, 14 inches wide.

Monitoring efforts of this state listed endangered Cactacea will track changes in population size and health as well as be used to determine effectiveness of management efforts on Big Stone NWR. (**7/24/00**)

557. Detroit Lakes WMD Helps Lake Agassiz NWR With Wetland Restorations

Detroit Lakes Wetland Management District

Andrea Stebleton, Biological Science Aid, spent the week of July 24-28, 2000, at Lake Agassiz on Agassiz NWR helping survey wetland restoration sites. The massive project involves numerous private landowners who hope to enroll their land in the USDA's Conservation Reserve Program (CRP). In many cases, the land has ditches and wetland sites on them. By allowing the Service to plug their ditches, the land becomes a better candidate for CRP enrollment. Many different stations have helped in the effort to restore countless wetlands within a 30-mile radius of the Refuge. (**7/24/00**)

558. Birding Partners Publish "Minnesota Pine To Prairie Bird Trail" Booklet

Agassiz National Wildlife Refuge

A partnership of the Service and state and local agencies helped publicize opportunities for birding in northwest Minnesota by publishing the area's first birding guide in July 2000. The 32-page Pine to Prairie Birding Trail Guide is the result of three years of coordination between the Service, Minnesota Department of Natural Resources Nongame Division, Detroit Lakes, (Minn.) Area Birding Club, Minnesota Office of Tourism, Minnesota Ornithologists Union, and the Chambers of Commerce from Minnesota towns of Fergus Falls, Detroit Lakes, Thief River Falls, Roseau and Warroad. The partner agencies met about once every three months for three years to discuss featured birding areas along a 220-mile birding trail, the first birding trail established in Minnesota. The trail and booklet were created to reach birders from throughout the nation and the world. Forty-five thousand copies of the Guide were printed. The increase in tourists would financial help local businesses. (**7/25/00**)

559. Television Report Features Missouri River and Service Staff

Big Muddy National Wildlife Refuge

Gary Grigsby, a news reporter from KOMU-TV Channel 8, produced a two-part feature story about Missouri River issues that aired during newscasts July 24-25, 2000.

Tom Bell, Refuge Manager for Big Muddy NFWR; Jim Milligan, Columbia Fisheries Resource Office; and Troy Gordon, Chairman of Friends of Big Muddy, appeared in on-camera interviews for the feature. Two local farmers and Missouri Department of Conservation employees were also included. The story included viewpoints about Missouri River issues, such as land acquisition, wildlife habitat, fisheries, and endangered species. (**7/25/00**)

560. Predator Exclosure Fences

Fergus Falls Wetland Management District/PWLC

By July 27, 2000, staff at Fergus Falls Wetland Management District (WMD) completed trapping around nine predator fences. If we are finding half of the nests, then over 1,000 ducklings were produced within our nine predator fences. During the 10,059 trap days, 38 skunk, 36 raccoons, 22 mink, three Franklin's ground squirrels, one badger, and one opossum were caught in traps. Eighty-one duck nests were found. Of those 81 nests, 55 nests hatched, 22 nests were destroyed, and four nests were abandoned. 521 ducks were produced from the 55 successful nests. (**7/27/00**)

561. Survey Uncovers Deformed Frogs at Fergus Falls Wetland Management District

Fergus Falls Wetland Management District/PWLC

Staff from Fergus Falls Wetland Management District (WMD) and Twin Cities Field Office joined members of the Minnesota Pollution Control Agency (MCPA) and U.S. Geological Survey (USGS) to conduct surveys for malformed frogs on two northwest Minnesota waterfowl production areas July 25-26, 2000. The surveys at Julrud and Iverson WPAs at Fergus Falls WDM, helped determine the prevalence of frog abnormalities on Service lands, and land use practices where abnormal frogs are present.

Of the 650 frogs surveyed between the two sites, 19 (3 percent) had deformities. Three hundred eighty northern leopard frogs were collected at Julsrud WPA. Four frogs had abnormalities that included missing hind limbs and missing hind feet. One mink frog and 278 northern leopard frogs were collected at Iverson WPA. Fifteen northern leopard frogs had abnormalities that included missing hind limbs, tibiofibula folded back onto itself (bony triangle), shortened and atrophied tibiofibula, shortened and atrophied femur, missing digits, shortened digits, bent digits, missing eye, enlarged pupil, missing pupil, and missing eye socket. All frogs were measured (snout to vent length) and examined; frog abnormalities were recorded and photographed. Frogs with gross abnormalities were anesthetized, mounted on plastic, and preserved in ethanol.

Water quality parameters including pH, temperature, dissolved oxygen, conductivity, hardness, nitrates/nitrites, ammonia, and phosphates, were measured on both WPAs. In addition, the USGS installed monitoring wells on both WPAs to monitor changes in ground-water flow and water quality. Surface water samples were also collected and analyzed for major ions, nutrients, pesticides/herbicides, dissolved organic carbon, and trace metals.

Julsrud WPA is surrounded by native prairie and WPA land on all sides. Iverson WPA is surrounded by agricultural fields.

The MPCA is the primary agency responsible for assessing malformed frogs throughout Minnesota. The U.S. Geological Survey, MPCA's federal partner, is tasked with assessing hydrologic and water quality conditions at sites where frog malformations have been reported. Funding for the surveys comes from Department of the Interior's Amphibian Initiative, which is examining amphibian declines and abnormalities. (**7/27/00**)

562. Muscatatuck NWR Purple Loosestrife Control

Muscatatuck National Wildlife Refuge

Muscatatuck NWR staff located four purple loosestrife plants south of Judy pond on the Refuge. The plants were treated with "Roundup" for control. (**7/27/00**)

563. Archaeologists Study the Past at Jameson Island, Big Muddy NFWR

Big Muddy National Wildlife Refuge

Under the leadership of Timothy Baumann, University of Missouri at St. Louis, about two dozen students, including secondary teachers from the St. Louis area, conducted archeological digs during July 2000 to unearth evidence of historic significance on the Jameson Island Unit of the Big Muddy NFWR. Oral history indicates that the site was used by African-Americans for emancipation day picnics in the late 19th and early 20th centuries.

The research, in its fifth year, is part of an ongoing project attempting to record archaeologically an entire postbellum African-American community in Arrow Rock, Missouri. Excavations to this point have concentrated on nearby private lands at a Masonic Lodge, a restaurant/bar, an A.M.E. church, a speakeasy, and multiple households. Also investigated on private lands during the 2000 field season were a schoolhouse and two additional households. A final report is expected by the end of December 2000. Media coverage included local newspaper articles and feature on Warrensburg, Mo., PBS television during "Central Missouri Focus" program. (**7/28/00**)

564. Prairie Wetlands Learning Center Mosquito Run Attracts More Than Mosquitoes

Fergus Falls Wetland Management District/PWLC

More than 150 runners and walkers in northwest Minnesota temporarily escaped from the mosquitoes by participating in the 5th Annual Mosquito Run at the Prairie Wetlands Learning Center, July 29, 2000. Runners ranging in age from preschool to senior citizens competed in kiddie runs, 5k and 10k events along the 4.5 mile trail system at the Learning Center on a beautiful morning on the prairie.

Organized entirely by volunteers, the Mosquito Run garnered

Continued next page.

local sponsorship from banks, power companies, businesses, and of course the Learning Center Staff. A live remote radio broadcast on Lakes Radio, as well as front page photo coverage in the Fergus Falls Daily Journal provided plenty of publicity for both the runners and the Learning Center. Proceeds from the run are used to improve the trail system at the Learning Center. (**7/29/00**)

565. Henslow's Sparrow Monitoring at Jefferson Proving Ground

Big Oaks National Wildlife Refuge

Jefferson Proving Ground (JPG) was designated a Globally Important Bird Area by the American Bird Conservancy in 1998 primarily due to JPG's importance to the rangewide conservation of Henslow's sparrows and other grassland birds. Big Oaks National Wildlife Refuge was recently established at JPG, a closed U.S. Army ordnance testing facility. Long-term population data is needed to determine trends in abundance within large, persistent populations of this declining species. A total of 37 sites were surveyed twice (from May 11-May 15, and again from June 16-July 30) by Service staff to determine presence (or absence) and to obtain an index of the abundance of Henslow's sparrows. The average density of singing male Henslow's sparrow density was slightly down from 0.38 singings males per survey are (June, July 1999) to 0.32 singing males/survey area (June, July 2000), but this difference was not significantly different. Singing male Henslow's sparrow density and presence/absence will be analyzed to make management recommendations, especially regarding prescribed fire frequency and grassland restoration efforts. (**7/30/00**)

566. Agassiz NWR Roads Receive Facelift

Agassiz National Wildlife Refuge

Over several decades, wave action, animal burrows and general deterioration of the road slope made for hazardous road travel on Agassiz NWR. In July 1999, a contract was issued to rehabilitate the slopes on about 125 miles of roads on the Refuge. The contract included both equipment and labor to dig out bad spots and rebuild the area with clay. Locations ranged from spot work to half-mile stretches of road. Work began September 14, 1999, but was suspended during winter. Work was completed by July 2000. (**7/31/00**)

567. Agassiz NWR-Minnesota DNR Moose Study Field Work Ends

Agassiz National Wildlife Refuge

The field portion of the Northwest Minnesota Moose Population Dynamics study was completed July 31, 2000. This study was initiated in 1995 when moose numbers began to decline rapidly in this area. Moose Technician Teri Barnnett took her last locations, packed and shipped all of the tissue and vegetation samples and transferred all of the data to Dr. Warren Ballard of Texas Technical University, Lubbock, Texas.

Dr. Ballard will be analyzing and preparing a final report on all of the data collected by former researcher and PhD Student, Eric Cox, who died in a plane crash June 11, 1999 while surveying moose. Dr. Ballard has one year to complete this work.

Roughly 30 moose remain with active collars. The Minnesota Department of natural Resources plans to periodically monitor them until they die or the collar batteries cease functioning. Teeth will be removed from all dead moose to determine survivorship data and bone marrow will be viewed for condition status at death. (**7/31/00**)

568. Frog, Toad Surveys Completed for Agassiz NWR and Surrounding Area

Agassiz National Wildlife Refuge

The Agassiz NWR refuge frog and toad survey was initiated several years ago by Refuge Manager Margaret Anderson. This year in addition to the usual wood and chorus frogs, American and Canadian toads, spring peeper, and Gray tree frogs, Northern leopard frogs were heard. Refuge staff initiated two new survey routes west of the Refuge. The surveys, part of a statewide survey, are coordinated by Hamline University of St. Paul, Minn. (**7/31/00**)

569. Agassiz NWR Fire Equipment Building Receives Power

Agassiz National Wildlife Refuge

The fire equipment storage shed was retrofitted with electrical service this summer. Outlets and exterior/interior lights were installed. The shed was constructed in 1998 after being disassembled in St. Louis, Mo., and reassembled at Agassiz NWR. (**7/31/00**)

570. Seven Miles of Dikes Re-Seeded at Agassiz NWR
Agassiz National Wildlife Refuge
The following areas if Agassiz NWR were re-seeded to a grass legume mixture: East Olson Lake - 1 miles; Pool 21 - 1.5 miles; Upper Mud River Pool - 1.25 miles; Tamarac River Road - .5 miles; and various intermittent spots - 2.5 miles. All work was completed by Tractor Operator VanEps during June and July. (**7/31/00**)

August 2000

571. Pilot Study Using Sandhill Cranes to Pave the Way for Whoopers
Necedah National Wildlife Refuge
A pilot project to test rearing techniques for endangered whooping cranes is underway at the Necedah National Wildlife Refuge in central Wisconsin. Project researchers are using sandhill crane chicks and ultralight aircraft in an effort to develop successful rearing and migration techniques that can be used with whooping cranes.

The rearing project began in May 2000, when eggs were collected from the nests wild sandhill cranes in central Wisconsin. Twenty-three eggs were shipped to Patuxent Wildlife Research Center, Maryland, where they were incubated and hatched. The chicks were exposed to recorded sounds of ultralight aircraft while inside their eggs. When they were less than two-weeks old, the chicks began to exercise by following the ultralight, and were exposed to the plane daily while in Maryland.

The young sandhills were returned to Necedah National Wildlife Refuge June 30, to be acclimated to their Wisconsin release site. The cranes have continued their flight training on refuge grasslands located near wetlands where the cranes forage and roost.

Meanwhile, a small group of sandhill eggs hatched at the Necedah National Wildlife Refuge as part of a study investigating later exposure to ultralight aircraft. Their ultralight exposure began when the chicks were 30-40 days old. The progress of the eight chicks participating in the project is being charted and compared to the cranes whose exposure to the aircraft began earlier at Patuxent Wildlife Research Center.

All 22 chicks have fledged. Fourteen birds are still in flight training and are expected to embark late next month on an ultralight-led migration to Chassahowitzka National Wildlife Refuge in Florida, where they will be monitored throughout the winter. In the spring, the cranes will be allowed to migrate north unassisted by aircraft. The remaining cranes, most fitted with radio transmitters, will be released to wild sandhill flocks as they begin their normal migration. The transmitter will allow biologists to track their movements.

Researchers hope that lessons learned from this year's sandhill crane tests can be applied to whooping cranes. Whooping cranes could be raised from eggs laid in captivity and released as early as 2001. The young birds will be raised by people dressed in crane costumes, using crane-faced puppets to feed and care for the young birds. (Crane costumes are used to ensure the young birds do not imprint on humans)

In the fall, the cranes will migrate to Florida following ultralight aircraft flown by Operation Migration, Inc, the group that inspired the movie "Fly Away Home."
The cranes have advanced in training quicker than in any previous project and are now flying with the aircraft in two groups of seven,' said Dan Sprague of Operation Migration. 'All of the birds have learned to soar on the airflow over the ultra light wing providing them lift similar to the lift created by the thermals which wild birds use as an aid in flight. We are now in the process of socializing the birds to form one large flock.

During the summer of 1999, three sites in Wisconsin were investigated for possible whooping crane reintroduction. The sites were evaluated for habitat quality, local community support, and protection potential. In September 1999, the Whooping Crane Recovery Team selected central Wisconsin, including the Necedah National Wildlife Refuge, as the tentative release location. (**8/1/00**)

572. Necedah NWR Supports Interagency Fire Efforts
Necedah National Wildlife Refuge
During this year's unprecedented wildfire season, Necedah Refuge staff rallied to support fire suppression efforts in the western part of the country. Private Lands Biologist Bill Peterson was detailed on a Type II handcrew to Montana. Biology Technician Belsky served on an Engine Crew in Idaho and Park Ranger Jennifer Rabuck went to Idaho as a Fire Information Officer. (**8/1/00**)

573. Fergus Falls WMD Gets Office Facelift

Fergus Falls Wetland Management District/PWLC

The Fergus Falls Wetland Management District Office got a much needed facelift during the summer of 2000. During a three-week period, five seasonal technicians scraped and painted both the interior and the exterior of the District office building and stained the District's sign. The building needed the paint badly and looks better now that the painting has been completed. (**8/1/00**)

574. Four Years of Beetle Releases Results in Greater Plant Control

Shiawassee National Wildlife Refuge

The Shiawassee NWR in central Michigan initiated a program in 1996 to rear Galerucella species beetles to aid in efforts to biologically control purple loosestrife plants. From a meager supply of 47 beetles, the Refuge has produced nearly 400,000 Galerucella beetles by the close of the program in July, 2000. Over the past five years, the beetles have been released on Shiawassee NWR and have been distributed to other national wildlife refuges as well. In 1998, 4,500 beetles were shipped to the LaCrosse District of the Upper Miss. Nat. Wildlife and Fish Refuge. Over 41,000 beetles were given to the Ottawa NWR for release there, and in 1998 approximately 1,700 beetles were released on Thunder Bay Island, part of the Michigan Islands NWR. An estimated total of 350,000 beetles have been released on the Shiawassee NWR over the last four years. These beetles were released in purple loosestrife stands on five different sites that are monitored annually.

Sites which received the earlier releases are showing encouraging results this year, with greatly reduced plant numbers and reduced plant vigor. It appears to take about two years for a Galerucella population to become established to the point where definite results can be seen by the casual observer. The exciting part of this program is to discover newly established populations of these beetles in areas where they weren't released. To find literally thousands of these insects munching on purple loosestrife in non-monitored areas of the Shiawassee NWR is encouraging. Within a few years this invasive wetland plant may be entirely controlled on the Refuge naturally, by means of the beneficial biological control efforts of the Galerucella beetles. (**8/1/00**)

575. Mingo NWR Staff Working to Remove 80 Years of Silt From Ditches

Mingo National Wildlife Refuge

Mingo NWR is removing silt from ditches that were dug in the 1920s. Most of the ditches have not been cleaned since the 1920s, and over 6 feet of silt has been deposited in the ditches. The silt stops water from flowing, and water was backing up into timber. Without the ability to remove water off the timber hundreds of hardwood trees were drowning to death. The Mingo staff, especially large equipment operator Doug Siler, are working hard to clean the ditches and staff the timber. (**8/1/00**)

576. Staff From Necedah NWR Contributes to Service Outreach at AirVenture

Necedah National Wildlife Refuge

Staff and Volunteers from the Necedah National Wildlife Refuge helped represent the Service during the Experimental Aircraft Associations AirVenture Fly-In at Oshkosh, Wis., July 26 to Aug. 2. Refuge staff helped staff the Service information booth, meeting some of the more than 300,000 visitors and providing information on Service programs and were educated of the whooping crane reintroduction effort in the eastern United States. (**8/2/00**)

577. LaCrosse District Serves as Work Site for Summer Youth

Upper Mississippi River National Wildlife and Fish Refuge-LaCrosse

A crew of four at-risk youths and one Americorp crew leader spent 30 hours a week for eight weeks working at the Upper Mississippi River NW&FR - La Crosse District through the Western Wisconsin Private Industry Councils Summer Youth Program. The crew worked on a wide-range of habitat, maintenance and visitor services projects throughout the summer. (**8/3/00**)

578. Upper Mississippi Refuges Benefit From Women Learning to Volunteer

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

Two National Wildlife Refuges on the Upper Mississippi River were the recipients of more than 300 hours of unexpected volunteer work as the result of a Young Women's Encampment August 3 in Winona, Minn. More than 900 young women attended the

encampment, sponsored by the LDS church. A segment of the encampment involved four-hour community service projects. Many local non-profit organizations and area Refuges received several hours of volunteer labor. At Trempealeau National Wildlife Refuge, the women painted storage sheds and washed vehicles with Lisa McCurdy, refuge operations specialist. The Upper Mississippi River National Wildlife and Fish Refuge received three days of volunteer services. Volunteers collected black-eyed susan seed heads and mulched trees. Each session began with an environmental education experience. District Manager Bob Drieslein discussed how the Wabasha Prairie became a prairie from dredge disposal and how to identify specific prairie plants. An adult leader, Luann Culand commented, "This was such a wonderful experience for us because it included education. You taught us to value the prairie." (**8/3/00**)

579. Seney NWR Hosts NWF Family Summit Field Trips

Seney National Wildlife Refuge

The National Wildlife Federation's Family Summit was held in Marquette, Mich., about 90 miles from Seney National Wildlife Refuge. Just over half of the 500 registrants (266) visited the Refuge on guided tours, and many visited on their own. Registrants came from across the U.S. (Texas, California, Florida, the Midwest, East coast...). Seney NWR public use staff and interns gave seven on-site tours and one off-site talk. The biology staff and interns also did one off-site program. About 40 people attended each of the off-site programs. (**8/3/00**)

580. Bears Grass Creek Riparian Project Will Help Improve Water Quality

Necedah National Wildlife Refuge

The Service partnered with property owners Gorden Waller and Gary Pettis, Wisconsin Department of Natural Resources, Eau Claire County Land Conservation Department, and the Wisconsin Conservation Corps to complete stream bank stabilization and fish habitat improvement on Bear Grass Creek in Eau Claire County.

Project work included fencing along stream to exclude livestock, erosion control structures, improved barnyards, removal of woody vegetation, re-sloping and placing of rock rip-rap on eroded stream bends and construction of fish habitat structures on 12 locations along the stream. The project was initiated on June 6, 2000, and completed on August 3, 2000. The project is located on the Gary Pettis and Gorden Waller properties along 600 feet of Bear Grass Creek in section 27.33 and 34 in the township of Lincoln (26N.R7W) in Eau Claire county, Wisconsin. The project will result in decreased sedimentation from surrounding agriculture, improve water quality and fish habitat, and allow for reclassification to a Class I trout stream. (**8/3/00**)

581. Reforestation Signs Promote Habitat Restoration

Cypress Creek National Wildlife Refuge

Since 1991, staff at Cypress Creek NWR have reforested over 1,000 acres on land within the Refuge boundary. This effort includes planting approximately 300-350 acres each year with 120,000 native hardwood seedlings. Information signs have recently been placed at key locations on the Refuge to promote the habitat restoration program and its success in the watershed. (**8/3/00**)

582. Agencies Learn About Thirty Years of Prairie Establishment at Detroit Lakes WMD

Detroit Lakes Wetland Management District

On August 3, 2000 biologists Larry Hanson and John Gunderson attended and led part of the meeting for the Vegetation Management Association of Minnesota in New Ulm, Minn. Larry explained the differences between wildlife habitat (grasses and forbs) and John explained how ecological principles are used in developing native prairie establishment seeding plans. About 130 professionals responsible for their agencies' vegetative management attended the meetings. Resource agencies included the Minnesota Departments of Transportation, Natural Resources, and Agriculture. (**8/3/00**)

583. STEP Student from Detroit Lakes WMD Help with Duck Banding at Tamarac NWR

Detroit Lakes Wetland Management District

Andrea Stebleton, Biological Science Aid at Detroit Lakes WMD, assisted Biologist, Lowell Deede of Tamarac, with banding of mallard wood ducks August 3-4 at Tamarac NWR in northwest Minnesota. Sixty mallards, eight wood ducks, and four previously banded duck were banded and released over the two day period. Rocket nets were used to capture the ducks. (**8/4/00**)

584. Upper Mississippi River Refuge Gets New Patrol Boat

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

Refuge Officer Dave Lescalleet experienced a Christmas of sorts August 4, when a new Boston Whaler patrol boat was delivered to the Upper Mississippi River National Wildlife and Fish Refuge. The Refuge is primarily roadless, with over 260 river miles to patrol. The new Boston Whaler will help Refuge Officer Lescalleet make contact with visitors to the refuge. Last year Lescalleet estimates he made about 10,000 visitor contacts. (**8/4/00**)

585. First Annual Big Stone NWR Shorebird Workshop a Success

Big Stone National Wildlife Refuge

More than 100 shorebird enthusiasts from 12 states gathered at Big Stone NWR Aug. 5, for the Refuge's first two-day Shorebird Workshop. The big attraction, of course, were the thousands of migrating shorebirds, attracted to the mudflats and shallow waters of the Refuge wetlands in search of food.

The birds are migrating to South America from their Canadian arctic breeding grounds. They may travel up to 13,000 miles to reach their wintering grounds. Refueling on aquatic invertebrates like those found at Big Stone NWR is critical if they are to successfully continue their journey. During their stay, which lasts an average of 2-3 weeks, shorebirds may double in weight!

Binoculars focused, camera shutters clicked, and memories were made. A variety of shorebirds easily observed including Least and Pectoral Sandpipers, Baird's, Upland, Stilt, and Buff-breasted Sandpipers, Wilson's Phalarope, Ruddy Turnstones, and Marbled Godwit, to name a few.

In addition to field trips, the workshop also included a host of wildlife professionals providing inspiration and information through scheduled presentations. The most noted was renowned bird expert Brian Harrington of Manomet, Mass.

Big Stone NWR has been conducting seasonal drawdowns of several pools for the past three summers, attracting thousands of shorebirds. Each fall the water levels are raised in preparation for fall migrating waterfowl. The seasonal fluctuations of water levels increases submergent and emergent vegetation, associated invertebrates, and native aquatic seed production.

Managing habitat for diversity not only attracts a variety of native wildlife, but also attracts a diversity of visitors as well. August is a slow time of year for the tourism industry in rural western Minnesota. Summer vacation is over, crops are planted, harvest and hunting seasons are still weeks away. The influx of over 100 eager birdwatchers and the dollars they brought with them was not overlooked by the businesses and community leaders. (**8/5/00**)

586. Squaw Creek NWR Joins Missouri Conservation Partners For Wetlands Conservation Field Days

Squaw Creek National Wildlife Refuge

Staff from Squaw Creek NWR, in a cooperation with the Missouri Chapter of the Land Improvement Contractors Association, USDA Natural Resources and Conservation Service and a number of other organizations, participated in the Wetlands Conservation Field Days August 4-5, 2000, on and near Squaw Creek NWR in northwest Missouri.

Refuge Operations Specialist Rick Speer was instrumental in securing $3,500 from the Washington Office to help fund a 14-acre shorebird habitat area in Cattail Pool. Volunteer contractors installed a 70-foot by 18-inch tube and a water control structure (donated by the Missouri Bootheel Project consisting of partners Ducks Unlimited, NRCS, and MDC) using donated equipment and labor completed the habitat restoration project from start to finish during the two day event. A pull-out on the auto tour route was also created for the public to view shorebirds.

Approximately 250-300 contractors and other visitors attended the event. There was also financial and staff assistance from the Ecological Services Field Office in Columbia, Mo. (**8/5/00**)

587. Jackson County Riparian Project Completed

Necedah National Wildlife Refuge

The Service partnered with property owner John Hogden, Wisconsin Conservation Corps, and the Wisconsin Department of Natural Resources to complete stream bank stabilization and fish habitat improvements on Beaver Creek in Jackson County. Project work included removal of Box Elder trees along stream, re-sloping and placing of rock rip-rap on severely eroded stream bends, construction of trout structures and placing of spawning gravel. The project was initiated on July

10, 2000, and was completed on August 6, 2000. This work was completed along 300 feet of the North Branch of Beaver Creek located in sections 9 and 10 in the township of Franklin (T20N, R6W) in Jackson County, Wisconsin. The purpose of this project is to improve water quality, fish habitat, extend improvements to Wisconsin DNR property located downstream and allow for the reclassification of this section of Beaver Creek to a Class I trout stream. (**8/6/00**)

588. Michigan Refuge Participates in Great Outdoors Festival
Shiawassee National Wildlife Refuge
Service staff from Shiawassee NWR, Alpena Fishery Resources Office, and the Friends of Shiawassee NWR participated in the first annual Great Outdoors Festival held in Birch Run, Mich., Aug. 5-6, 2000. The East Lansing Private Lands office loaned its Great Lakes Ecosystem Team display for the event. Approximately 300 people toured the Service display. A guided bus tour of the Refuge was also offered to visitors. A variety of displays ranging from boats, to camping equipment, to live animal exhibits were available to the public. (**8/6/00**)

589. New Fish Sampling Devices in Place at Metzger Marsh
Ottawa National Wildlife Refuge
Two new trap baskets were installed during August at Metzger Marsh, a coastal wetland in northwest Ohio. The sampling baskets replace existing traps that proved inefficient for determining fish movement between Lake Erie and Metzger Marsh. The new traps are made of stainless steel to withstand the debris and heavy currents between Lake Erie and Metzger Marsh. The baskets resemble a cage, and are comprised of an entry tunnel that allows fish to enter the basket but not to exit. The baskets are proving to be more efficient in trapping fish, especially the larger adult spawning communities. The real test comes in spring, when spawning migration is heaviest on Lake Erie. (**8/7/00**)

590. Monarch Butterfly Migration at DeSoto NWR
DeSoto National Wildlife Refuge
Fifty people attended the program 'Monarch Butterfly Migration at DeSoto National Wildlife Refuge, Aug. 8, 2000, at the Contry Bible Church in Blair, Neb. Bruce Weber presented the program. (**8/8/00**)

591. Girl Scouts Use Senses to Explore Two Rivers NWR
Mark Twain National Wildlife Refuge-Riverlands
Two Rivers National Wildlife Refuge, formerly known as the Brussels District of Mark Twain National Wildlife Refuge, was one of several sites explored by the Girl Scouts of America during its Sciences Along the Mississippi Program Aug. 9, 2000. Sixty girls from all over the United States, (including one from Japan) attended the program. "Sciences Along the Mississippi", is a science program sponsored by the River Bluffs Council of the Girl Scouts that encourages the Scouts to learn more about science through exploration.

After receiving an orientation of the refuge and learning more about the Service mission, the girls paired up into buddy teams for a practical exercise. Each team was issued one blindfold, and given the instruction to explore the refuge as if they were the first female explorers on site. What Fun! The program taught the Scouts to rely on their senses, use observation skills, overcome fear of the unknown, and to trust in each other. Above all, they learned that visiting a National Wildlife Refuge in person can make an immediate and lasting impression on ones perceptions about and respect for natural resources. (**8/9/00**)

592. Big Muddy Refuge Meets with Confluence Greenway
Big Muddy National Wildlife Refuge
Refuge Manager Tom Bell met Aug. 10, 2000, with the Confluence Greenway supporters to discuss mutual areas of interest and opportunities to work together. The Confluence Greenway project proposes a 40-mile riverside park on both sides of the Mississippi River extending from the Gateway Arch in St. Louis, past the confluence of the Missouri River to the confluence of the Mississippi and Illinois Rivers in Grafton, Illinois. Its mission is "to protect fragile riparian habitats and waters, increase outdoor recreational opportunities and reconnect our region to its river heritage."

The Confluence Greenway is a collaboration of not-for-profit organizations and government agencies. Seven agencies and not for profit organizations were represented at the meeting. (**8/10/00**)

593. Missouri Duck Hunters Learn About Big Muddy

Big Muddy National Fish and Wildlife Refuge

Tom Bell, refuge manager at Big Muddy NFWR, presented information about Big Muddy Refuge to members of the Mississippi Valley Duck Hunters Association, Inc. in St. Louis, Mo. About 35 people heard Bell's presentation on the status of the Refuge. Association president Bill Hilgemann and several members pledged to support the Refuge any way they could. The group is especially interested in land acquisition for the Refuge. (**8/10/00**)

594. New Biologist Added to Squaw Creek NWR

Squaw Creek National Wildlife Refuge

Squaw Creek NWR welcomed its new Refuge Biologist, Frank Durbian to the northwest Missouri refuge July 31. Durbian, a Kansas City, Mo. native, transferred to Squaw Creek NWR from Charles M. Russell Refuge in Montana. The refuge biologist is a new position for Squaw Creek NWR. It was added as the result of a funded RONS (Refuge Operation and Needs) project. The addition of a refuge biologist is also a priority in the Fulfilling the Promise for the National Wildlife Refuge System. (**8/11/00**)

595. Fathead Minnows Survey Completed at Fergus Falls WMD

Fergus Falls Wetland Management District/PWLC

Recent studies conducted by the Fergus Falls Wetland Management District (WMD) indicate that fathead minnows are competing with waterfowl broods for aquatic invertebrates, a food resource.

Historically, minnows were not present in most type 3 and 4 wetlands in western Minnesota. Over time, minnows have been introduced into the wetlands by bait dealers, who use the wetlands as breeding ponds for minnows, or through ditch systems that connect the wetland to other water bodies. Because the fathead minnow is a prolific breeder, their populations can quickly explode in wetlands, resulting in a depletion of aquatic invertebrates.

Beginning this spring, staff from the Fergus Falls WMD began evaluating the presence of fathead minnows on Waterfowl Production Areas (WPA). During the first year of the study, 64 percent of the 93 WPA sampled contained fathead minnows in one or more wetland basin. In addition, approximately 50 percent of all wetland basins sampled had minnows present.

When sampling is completed, the Fergus Falls WMD will evaluate management techniques to remove the minnows from the wetlands and keep them out in the future. (**8/11/00**)

596. Muscatatuck NWR Hosts Congressional Staffs

Muscatatuck National Wildlife Refuge

Staff members from the offices of U.S. Senators Richard Lugar, Evan Bayh and Congressman Baron Hill visited Muscatatuck NWR recently to learn more about the Refuge and the Conservation Learning Center. The group received a tour of the Refuge, followed by a picnic lunch catered by Refuge volunteers. (**8/11/00**)

597. Search for Non-game Bird Nests Complete at Squaw Creek NWR

Squaw Creek National Wildlife Refuge

The search for non-game bird nests at Squaw Creek NWR in northwest Missouri was completed July 10. A total of 224 nests were located which included 98 least bittern, 122 pied-billed grebe and four common moorhen. The year 2000 total is slightly less than the past five year average of 234 nests. The difference is probably related to the drought-like conditions that persisted in the area until mid-June. Since 1991, a total of 1,431 nests have been located which includes 854 least bittern, 520 pied-billed grebe and 57 common moorhen. (**8/11/00**)

598. SCEP Student Goes to Work at Squaw Creek NWR

Squaw Creek National Wildlife Refuge

Aleisha Troendle, a student at the University of Wisconsin - River Falls, was hired June 11 as a Student Trainee (Biology) via the Student Career Experience Program (SCEP). Troendle will be at Squaw Creek until she returns to school August 21. Thanks to a trailer at the headquarters, Aleisha was able to live on the refuge. She has been working on and exposed to a diversity of Refuge activities. To expand her Service experience, she was also able to visit Swan Lake NWR, DeSoto, NWR, and Neosho NFH. (**8/11/00**)

599. Big Muddy Friends Group Gets to Know Refuge
Big Muddy National Wildlife Refuge
Eight members of the Friends of Big Muddy gathered July 29, 2000, at the Overton Bottoms North Unit of the Big Muddy National Fish and Wildlife Refuge to trim grass and weeds at the parking area and pick up trash. When finished, the group toured the Loesing Tract, a recent acquisition to the Refuge and a possible site for a visitor center and administrative building.

Six Friends members and Barbara Moran from the Refuge floated the Missouri River from Bonnots Mill to Chamois, Mo., Aug. 12, 2000. The group was able to explore the St. Aubert Unit of the Refuge from the river side. The float trip gave the Friend's unique look at the St. Aubert's unit of the Refuge, and a better understanding of the habitats found there. (**8/12/00**)

600. 500 Learn About Region's Endangered Species During Endangered Species Day at Seney NWR
Seney National Wildlife Refuge
Approximately 500 people learned about federally and state listed endangered species at Seney National Wildlife Refuge's Endangered Species Day Aug. 12, 2000. Public Use Intern Eric Seplowitz organized the event. Activities included videos, presentations on the trumpeter swan, a children's dress-up game to learn about loons, Endangered Species trivial pursuit, interactive temporary exhibits about species protected under the Endangered Species Act, learning how wolves use scent tracking and body posture to communicate with their pack, Endangered Species Day button making, face painting and a wolf howling contest! The temporary exhibits will remain at the Refuge for six weeks so visitors can continue to get information on the proposed change in the status of the Gray Wolf, learn about the Canada Lynx, Trumpeter Swan, Peregrine Falcon, and the three terns that occur in the state of Michigan. (**8/12/00**)

601. Mingo NWR Float Steals the Parade and Supports the Community
Mingo National Wildlife Refuge
Mingo NWR joined the longest parade in Southeast Missouri: Puxico's Homecoming Parade. The Mingo Refuge float was its first, and was meant to show support for the community. It is important for Refuges in rural communities to support the communities just like we hope the communities support the refuges. The Mingo Staff decorated a tanker truck and handed out Popsicle's, a popular item in the steamy, 110-degree afternoon. (**8/12/00**)

602. Muscatatuck NWR Canada Goose Production Numbers 50
Muscatatuck National Wildlife Refuge
Muscatatuck NWR continued management efforts with monitoring of Canada goose production on the Refuge. Production for 2000 was placed at 50 birds and was somewhat lower than expected. Habitat conditions on the refuge were considered excellent. Good habitat conditions on surrounding private land contributed to dispersal of the breeding population and reduced concentration of the birds on the refuge this year. (**8/14/00**)

603. Muscatatuck NWR Wood Duck Production Lower Than Expected
Muscatatuck National Wildlife Refuge
Annual wood duck production monitoring efforts were completed at Muscatatuck NWR. Production for 2000 was approximately 650 birds, similar to 1999 numbers. With excellent habitat conditions on the Refuge, production was below expected and accounted for by considering that the birds were dispersed over a wider area of good habitat off the refuge, rather than concentrated on the refuge. (**8/14/00**)

604. Muscatatuck NWR Summer Interns
Muscatatuck National Wildlife Refuge
Muscatatuck NWR added three interns to its staff this summer. Theresa Dailey, University of Indianapolis; Amy Tegeler, Ball State University; and Misty Vogel from Purdue University, helped with field work and a variety of other duties on the Refuge. Biologist Mike Oliver hosted a 'Thank You' dinner in his home to recognize the interns and present them with assorted momentos of their summer work at the Refuge, including watercolor portraits of each in their volunteer uniforms. (**8/14/00**)

605. Muscatatuck NWR Bobwhite Quail Whistle Count
Muscatatuck National Wildlife Refuge
Muscatatuck NWR's annual bobwhite quail whistle count was completed Aug. 14, 2000. Year 2000 recorded two birds, a decrease from 1999 and from 21 birds recorded in 1994. The count

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result was surprising to the survey crew as well as staff, because other than during the actual survey period, numerous birds have been heard and seen on the refuge. Production is actually expected to be good on the refuge this year, which leaves questions concerning the accuracy of the survey. (**8/14/00**)

606. Beaver Exclosures Prevent Interference With Wetlands' Water Control

Fergus Falls Wetland Management District/PWLC

Five beaver exclosures were installed on water control structures (WCS) at Fergus Falls Wetland Management District (WMD) during Fiscal Year 2000. Backhoes were used to clean out the five District wetlands with major beaver problems. One structure which had tipped due to a frost heave was reset with a backhoe. We have also been making improvements to the file system for our water control structure records.

Basic background information such as stop log length, structure depth, and Mean Sea Level have been recorded for each structure. The records have been poor since the late 1980s, and do not include basic information about the structures. District staff plan to again write management plans for next year. Mean sea level is being determined for all structures, and gages with mean sea level on them are being installed on all structures. New boards are being produced; vegetation around WCS has been cut to allow easier access; and photos of all structures and basins are being updated.

Maintaining water control structures helps provide habitat for waterfowl by creating a desirable mix of vegetation and open water. In four of five beaver exclosures, beaver have been prevented from plugging the structure. (**8/15/00**)

607. Congressional Staffers Tour Lower Missouri River

Big Muddy National Fish Wildlife Refuge

Barbara Moran of the Big Muddy National Wildlife Refuge joined Congressional staffers on a U.S. Geological Survey-sponsored tour of the Lower Missouri River Aug. 14-17, 2000. Moran joined the group for its August 16 boat tour of the Lisbon and Jameson Island units of the refuge, and presented information about the acquisition and management of the refuge. Several researchers from USGS Biological Research Division and Water Resources Division talked about studies underway on the Lisbon Unit. Congressional staff who participated in the tour were Brian Klippenstein (Senator Bond-Mo.), Jean E. Jones (Congresswoman Danner-Mo.), Mamie Smith (Senators Ashcroft and Bond-Mo.), and Nicki Cardwell (Congresswoman McCarthy-Mo.). (**8/17/00**)

608. Sherburne NWR Hosts Scientists from Women's and Minority Scientific Discovery Program

Sherburne National Wildlife Refuge

Sherburne NWR hosted three high school students attending the Scientific Discovery Program, part of St. Cloud State University's Minority and Women's Studies Program. Each of the students were mentored at the Refuge, completed a scientific experiment, and presented their results as a scientific report during a poster session attended by the Refuge manager. Study topics included: A comparison of water quality entering and leaving the refuge; The benefits of tree shelters for growth and survival of bur oaks; and A comparison of plant diversity in areas treated by fire.

The biggest benefit of this program is the mentoring of three women and minority high school students in and exposure to science in the National Wildlife Refuge System. Exposure to the NWRS and Service at this age will benefit the Service in the long run by aiding in the recruitment of individuals in these target groups in to our workforce. It will also facilitate stewardship of the natural resources. An added benefit is the results from these students research will help the Refuge understanding of the impact of management actions and decisions. (**8/17/00**)

609. Removing a Dam: Sandusky River Habitat Mapping Begins

Ottawa National Wildlife Refuge

Service staff at Ottawa NWR is working with the Ohio Division of Geological Survey to develop a model that will help predict the environmental effects of removing a dam near Freemont, Ohio. The Ballville Dam in Fremont, is a candidate for removal. Removing the dam will restore 22 river miles of potential lake sturgeon and walleye spawning habitat. However, officials are examining the benefits and possible consequences involved with removing the dam.

Several studies are underway to determine the feasibility of removing the dam. The Ohio

Division of Geological Survey, in conjunction with the Service, is mapping the river both downstream and upstream from the dam using Global Positioning System (GPS) and Global Information Systems (GIS) equipment. The studies concentrated on pool and riffle zones, substrate, vegetation, islands, and water velocities. Data collected will be used to develop a model that will help predict effects of the removing the dam. (**8/17/00**)

610. Horicon NWR Hosts Educator Workshop

Horicon National Wildlife Refuge

Horicon National Wildlife Refuge hosted the "Lessons in a Land Ethic" educator workshop for 25 people Friday, Aug. 18, 2000. Keynote speaker, Nina Leopold Bradley, daughter of Aldo Leopold, provided a presentation about her father and family, complete with slides and stories. Teachers received the 'Lessons' curriculum and materials as well as the 'Horicon Marsh Field Trip Guide' to use in their classrooms or at the refuge to help educate their students about conservation, Aldo Leopold, Horicon Marsh, and foster a direct connection to the land.

The workshop was facilitated by Treva Breuch, state coordinator for the 'Lessons' curriculum, and Molly Stoddard, ranger at Horicon NWR. Partners included the Central Wisconsin Chapter of Pheasants Forever, the Aldo Leopold Foundation, the Leopold Education Project, the Midwest Interpretive Association, Marsh Haven Nature Center, and the Wisconsin Department of Natural Resources. (**8/18/00**)

611. Litchfield WMD Pitches in on MWA Youth Camp

Litchfield Wetland Management District

Litchfield Wetland Management District (WMD) assisted the Minnesota Waterfowl Association with this year's "Woody Camp" initiative aimed at instilling waterfowling tradition and conservation ethics in 33 youths, ages 13-15. Located outside Benson, Minn., the one week resident camp offers educational activities such as: waterfowl identification, habitat, and ecology; shotgun skill development and safety; hunting regulations and ethics; boat safety; calling and decoying; dog handling; game care and cooking, orienteering, and more. Litchfield staff served as instructors in a number of venues including operation of the Region's Firearms Training System (FATS), a interactive hunting video simulator. (**8/18/00**)

612. Carp Control Continues at Horicon NWR

Horicon National Wildlife Refuge

More than 4,000 carp fingerlings, 3,000 bullheads and 300 adult carp were eliminated from Horicon Marsh following chemical treatments Aug. 18, at Horicon NWR in southeastern Wisconsin. The spot treatment, using the chemical Retenone, is part of an aggressive carp control program initiated by the Refuge in January.

A successful marsh-wide treatment was conducted under the frozen surface of the marsh in January. This was followed with restocking of perch and northern pike from a nearby lake experiencing a winter kill, as well as fingerlings of bass, pike, and sunfish from Genoa National Fish Hatchery. However, other carp control measures such as spot treatments and fish traps, must be continued to ensure long term success. This was the first successful spot treatment at Horicon NWR this year. Past attempts were unsuccessful due to lack of large concentrations of carp.

The Wisconsin Department of Natural Resources has had repeated successes of spot treatments on the marsh at a dam that separates Horicon NWR from the DNR-controlled portion of the marsh. A fish trap is also installed on the DNR portion. Refuge staff plan to install a trap at Horicon NWR this winter.

About 165 game fish were also killed by the chemical treatments. (**8/18/00**)

613. Service Participates in Successful Ducks Unlimited Great Outdoors Show

Wisconsin Private Lands Office

The Wisconsin Private Lands Office and the Leopold Wetland Management District participated in the Second Annual Ducks Unlimited Great Outdoors Show. The Show was held at the Experimental Aircraft Association grounds in Oshkosh, Wis., and was attended by an estimated 100,000 people.

The Ducks Unlimited Great Outdoors Show is held annually in Memphis, Tenn., and at the Experimental Aircraft Association grounds in Oshkosh. The Show is designed around a hands-on approach to outdoor activities. Sporting equipment manufacturers, vehicle manufacturers, conservation groups and others have their products on display and available for use by the public. WIPLO and Leopold WMD produced a display for the three-day event which included informa-

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tion on prairie management, wetland restoration and a 'ducks on a stick' display. (**8/18/00**)

614. Return to the Prairie Day at the Prairie Wetlands Learning Center

Fergus Falls Wetland Management District/PWLC

Over four hundred visitors attended the Prairie Wetlands Learning Center's Return to the Prairie Day 2000 Saturday, Aug. 21, 2000.

The free family event featured prairie walks, wild edibles of the prairie, living history interpretation, a restoration exhibit that included prairie seeding and burning information, crafts for kids and "Aliens on the Prairie" - a special game for families to learn about invasive plants on the prairie. A highlight for all was the capture, tagging and release of over 70 Monarch Butterflies. The event was also the premier of 'The Song of the Prairie' a musical written and performed by local students, and captured on video.

Support for the event came from local businesses and organizations, the Friends of the Prairie Wetlands Learning Center and the staff of the Fergus Falls Wetland Management District. (**8/19/00**)

615. Muscatatuck NWR Volunteer Outreach at Summer Fairs

Muscatatuck National Wildlife Refuge

Muscatatuck NWR volunteers staffed refuge and Fish and Wildlife Service exhibits at the Jackson County Fair in July and the Indiana State Fair in August. More than 102,000 fairgoers viewed Service exhibits during the fairs. (**8/19/00**)

616. McGregor District Represented at Cabela's Fall Expo

Upper Mississippi River National Wildlife and Fish Refuge-McGregor District

Staff from the McGregor District of the Upper Mississippi River National Wildlife and Fish Refuge welcomed visitors to the Cabela's Fall Expo at the outdoor retailers Prairie du Chien, Wis., store Aug. 19-20, 2000. A National Wildlife Refuge System display, ducks on a stick (courtesy of the LaCrosse District), a mounted bald and golden eagle, and other items welcomed visitors at the entrance to the store. Approximately 3500 people came through the store on Sunday alone. Free laminated luggage tags sporting wildlife photos and the Upper Mississippi River NWFR were given away to many of the patrons. The Iowa and Wisconsin Departments of Natural Resources were also present. The District has participated in Cabela's spring and fall expos. (**8/19/00**)

617. Necedah Staff and Friends Participate in Ducks Unlimited's Great Outdoors

Necedah National Wildlife Refuge

Necedah NWR and the Friends of Necedah operated a booth at the 2nd annual Wisconsin DU Great Outdoors Festival in Oshkosh, Wis., Aug 18-20, 2000. Attendance at the event last year exceeded 60,000 sportsmen and women. The event provided an excellent outreach opportunity for the refuge as well as providing a forum for discussion and education. (**8/20/00**)

618. Cypress Creek NWR Presents Volunteer of the Year Award

Cypress Creek National Wildlife Refuge

Special awards were given to several individuals that contributed many hours to the Cypress Creek National Wildlife Refuge during the year 2000. The Rufener family received the award for Volunteer of the Year. The combined efforts of the Rufeners and their two children total over 1,500 hours of donated time. Their contributions included developing a quarterly newsletter, organizing volunteer workdays throughout the year, writing news releases, taking photographs, assisting with school programs and special events, and much more. (**8/21/00**)

619. Brennan Meets With Minnesota Congressman Collin Peterson

Fergus Falls Wetland Management District/PWLC

Kevin Brennan met with Minnesota Congressman Collin Peterson during the Otter Tail County Fair. They met to discuss the opening of Waterfowl Production Areas (WPA) which have been closed to public hunting for many years. These WPA's have been closed as state duck refuges under a Minnesota DNR study. Kevin has also met with Congressman Peterson's staffer Tony Merdan over six times to discuss many different issues. (**8/21/00**)

620. Land Acquisition Delineation at Fergus Falls WMD

Fergus Falls Wetland Management District/PWLC

To date, three tracts of fee title land totaling 680 acres have been

delineated. Twenty-four tracts of wetland easements totaling 3,266 acres have been delineated. Two tracts of grassland easements totaling 860 acres have also been delineated. (**8/21/00**)

621. Muscatatuck NWR Outreach

Muscatatuck National Wildlife Refuge

Muscatatuck NWR summer intern, Theresa Dailey presented a refuge tour and interview to staff of the Indianapolis Star Aug. 22, 2000, that resulted in an excellent newspaper supplement. Numerous calls and e-mails requesting information from the Refuge resulted from the article. The Refuge hosted the annual Seymour, Ind., Chamber of Commerce retreat Aug. 30, 2000. Twenty-two city leaders and business-people met and picnicked on the refuge while discussing ways of utilizing and promoting Refuge resources. (**8/30/00**)

622. Sandhill Crane's Flight Training Ahead of Schedule

Necedah National Wildlife Refuge

One of the partners involved with the effort to reintroduce a flock of migratory whooping cranes into the eastern United States is reporting excellent progress with flight training of sandhill cranes currently underway at Necedah NWR in Wisconsin.

Dan Sprague of Operation Migration said sandhill cranes being taught to fly behind ultralight aircraft are learning quickly. 'The cranes have advanced in training quicker than in any previous project and are now flying with the aircraft in two groups of seven. All of the birds have learned to soar on the airflow over the ultra light wing providing them lift similar to the lift created by the thermals which wild birds use as an aid in flight. We are now in the process of socializing the birds to form one large flock.'

Fourteen sandhill cranes are undergoing flight training at Necedah NWR as part of a pilot project that will eventually help in the recovery of endangered whooping cranes. The flock of 14 cranes will depart Necedah NWR in late September on an ultralight-led migration to Florida, where the birds will be monitored over the winter. It is hoped the birds will return north unassisted in the spring. Researchers hope to apply lessons learned from the Sandhill crane rearing and migration to a similar project involving whooping cranes. (**8/25/00**)

623. Eagle Scout Project Results in Wood Duck Boxes For DeSoto NWR

DeSoto National Wildlife Refuge

DeSoto NWR has new wood duck nest boxes as the result of a local Eagle Scout project. Eagle Scout Matt Kuti presented six nest boxes to Bruce Weber, outdoor recreation planner, Aug 26. Weber helped coordinate Matt's project at the Refuge. Matt, and five members of Troop 114, Ft. Calhoun, Neb., constructed the wood duck boxes, donating about 50 hours of volunteer time. (**8/26/00**)

624. Audubon Raptor Team Program Presented at DeSoto NWR

DeSoto National Wildlife Refuge

About 100 people learned about raptors during a presentation by Audubon's Omaha Raptor Team at DeSoto NWR Aug. 26. The team showed live birds during the program, including a great horned owl, screech owl, red-tailed hawk and American kestrel. They also spoke about man-made changes to natural habitats and how they affect birds of prey. (**8/26/00**)

625. Congressional Staffs Tour the Upper Mississippi River National Wildlife Refuge

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

Service representatives joined congressional staffers on a day-long tour of the Upper Mississippi National Fish and Wildlife Refuge Aug. 29, 2000.

The Washington delegation included Allen Hance from Congressman Ron Kind's office, Heather Lepesca from Congressman Bill Costello's Office, Aaron Peterson from Congressman David Minge's office, and Dr. Art Chan from the House Transportation Committee. The tour allowed Congressional staff to aquaint themselves with Service programs, both on the river and in the watershed. Dr. Chan was particularly interested in how the Environmental Management Plan was being implemented.

After lunch, the group visited the USGS Science Center in LaCrosse, Wis. Cooperation among the river partners was stressed during this segment of the trip. Later, everyone loaded into boats for an up-close look at the impressive Polander Lake EMP project, currently under construction on Pool 8. Art Chan and Aaron Peterson both expressed interest in coming back to fly the river to view EMP projects.

In addition to the tour, Jim Fisher, UMRNW&FR; Russ

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Peterson, Twin Cities Field Office and Pam Thiel, LaCrosse FRO, gave overview presentations on their respective programs. Jim Nissen (La Crosse District) gave a tour of the Halfway Creek watershed project, and Greg Brown and Steve Kufrin, Private Lands; Dave Warburton, Twin Cities Field Office and Jim Mattisson, Regional Office Biologist, joined the group on that phase of the tour. (**8/29/00**)

626. Four Agassiz NWR Employees Head West for Wildfire Assignments

Agassiz National Wildlife Refuge

Larry Anderson served two tours of duty with firefighting teams battling the Clear Creek, Salmon-Challis National Forest Fire in Montana during July and August (July 15 - Aug. 1, and Aug. 14-29). Three other Agassiz Refuge staff members also served on crews fighting the Maudlow/Tosten Fire in August: Gary Huschle, biologist, Dave Bennett, Refuge Operation Specialist and Tom Zellmer, Fire Management Officer. (**8/29/00**)

627. Study Examines Wolf Activity in and Around Agassiz NWR

Agassiz National Wildlife Refuge

The field portion of a study initiated in 1996 to determine the number of wolves and packs utilizing Agassiz National Wildlife Refuge and wolf interaction/impacts on surrounding agricultural operations was completed in November 1999 at the northwest Minnesota Refuge. Andreas Chavez, a SCEP-MS student from Utah State University, was assigned to this project, the field portion of which ended Nov. 15, 1999.

Five volunteers—Saleen Richter, Leslie Schutte, Elizabeth Joyce, Jeff Montiferring and Eric Bergman—contributed 1,657 hours tracking animals, entering data, and hand delivering or mailing about 500 26-question surveys, "Wolf-livestock Issues in Northwestern Minnesota" to landowners. Follow up calls encouraged recipients to return completed questionnaires to Utah State University for summary.

Chavez's Masters Degree thesis should be completed in December 2000. Chavez presented a paper on preliminary results of his study at the International Wolf Symposium, Feb 23-27, 2000 in Duluth, Minn., at a Montana Wolf Meeting in April, and the 7th Annual TWS Meeting in Nashville, Tenn. Sept.12-16, 2000.

Summary of wolf pack status:

In March 1999 it was determined only one wolf pack, the Golden Valley Pack (GVP), was on the refuge which included five animals. The Elm Lake Pack (ELP) had been wiped out, probably due to the effects of mange, leaving this territory vacant. In March, a female juvenile GVP radio-collared wolf dispersed into the vacated ELP territory, another wolf (origin unknown) joined her in August 1999. They remained together throughout the calendar year.

In spring 2000, both packs (GVP & ELP) produced pups (six and four respectively). The Alpha male from the GVP was illegally killed (estimated to have occurred in June)and his collar retrieved east of Agassiz NWR. GVP pups were seen frequently through summer. In early July, a lone male wolf that had been satellite collared two years ago, "Stubbie," was spotted in the Elm Lake Area by a Minnesota DNR employee. This was good news since life expectancy does not appear to be long for wolves in the area. (**8/30/00**)

628. Biological Control of Purple Loosestrife Continues at Horicon NWR

Horicon National Wildlife Refuge

Horicon NWR continued to use Galerucella beetles to control of purple loosestrife, releasing about 19,500 beetles on the Refuge this year. Because of the beetles' successes in reducing the nuisance plant on the Refuge, this year is the last year of the rearing program. In future years, beetles will be easily collected in the field and relocated to areas that need a boost in beetle populations. In addition to the Gallerucella beetles, Cornell University supplied Horicon NWR with more than 500 Hylobius beetles. This is the first release of Hylobius beetles on the Refuge. The beetles feed on the roots of purple loosestrife.

Rearing beetles for biological control of purple loosestrife at Horicon NWR began in 1996. Since 1996, almost 150,000 Galerucella beetles have been reared. Several sites of purple loosestrife on the refuge have been reduced significantly, allowing for more desirable plants to grow in their place. With the addition of Hylobius beetles in 2000, it is expected that loosestrife will be controlled refuge-wide and in all of Horicon Marsh in a few years. (**8/30/00**)

629. Year's Law Enforcement Violations Tallied at Fergus Falls WMD

Fergus Falls Wetland Management District/PWLC

During the past year, the Fergus Falls WMD had 72 incidents on WPA, resulting in 22 Notice of Violations. Also, 10 wetland easement violations were detected during the year. Two of these cases are currently being prosecuted by the U.S. Attorney's Office.
(**8/30/00**)

630. Massasauga Rattlesnake's Found and Tagged at Upper Mississippi Refuge

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

Massasauga rattlesnakes found on the Upper Mississippi River National Wildlife and Fish Refuge and the adjacent Nelson Trevino Research Natural Area in Wisconsin are the subjects of a mark and recapture study funded by the Wisconsin Department of Natural Resources.

Inhabitants of lowland meadows, massasauga rattlesnakes are endangered in Wisconsin and are subjects of study amateur herpetologist, Eric McCumber. Since April 2000, McCumber has captured 65 massasaugas on the Nelson Trevino State Natural Area. Between Aug 20, and Aug 30, 2000, McCumber captured five snakes on the Refuge. The rattlesnakes are marked with a half-inch PIT tag injected subcutaneously. The tags contain a unique bar coded number that is read by a scanner, similar to scanning products at the grocery check-out. Population data gathered by the study will be used to develop a report on the status of the massasauga rattlesnake in the area. (**8/30/00**)

631. Mark Twain NWR - Brussels District Hosts Wetland Plant Workshop

Mark Twain National Wildlife Refuge-Brussels District

Fourteen people, including staff from the USDA's Natural Resources Conservation Service (NRCS) and private environmental consulting firms, attended at a wetland plant identification workshop Aug. 31, 2000, at the Batchtown Division of Mark Twain NWR. The workshop was organized by the NRCS, and was targeted at District Conservationists that may be required to conduct wetland determinations. The wetlands at the Batchtown Division were chosen as the host site because of the abundance of emergent species and the quality and diversity of the bottomland forest surrounding the Prairie Pond portion of the Refuge.

Refuge staff including Chuck Walker, an SCA volunteer working towards a masters degree in botany, led participants through the moist soil plant portion of the workshop and were available to answer questions on plant identification and moist soil management throughout the day. Close to 100 wetland plants were located and identified. (**8/31/00**)

632. Temporal Fish Survey Completed at Crane Creek on Ottawa NWR

Ottawa National Wildlife Refuge

The Crane Creek temporal fish community survey for 2000 was completed at the end of September 2000. Crane Creek is located on the Ottawa National Wildlife Refuge in northwest Ohio. It is one of the few areas on the Refuge remaining open to Lake Erie. This allows fish to move into wetland areas for spawning, nursery, and feeding. The surveys proved difficult this past year due to low water levels in Lake Erie. Trap nets were used at the mouth of the creek and shoreline seining was the only method which was most effective.

The study compares an open Lake Erie system with the experimental structure at Metzger Marsh, also located on the Refuge. The data can then be used to determine the effectiveness of Metzger Marsh. The majority of the catch for Crane Creek was comprised of forage fish. Gizzard shad was the most abundant and young of the year white perch and carp. Partners for this project include Ohio State University, University of Toledo, Kent State University, and Ohio Department of Natural Resources. (**8/31/00**)

633. Invading Trees Removed on Prairie Units at Detroit Lakes Wetland Management District

Fergus Falls Wetland Management District/PWLC

Staff from Fergus Falls Wetland Management District recently partnered with Pioneer Heritage Conservation Trust to remove invading trees from more than 630 acres of District prairie land. Trees unnaturally occur on prairie land because of a lack of disturbance. If the invading trees are not removed, the prairie could eventually be lost to trees. Trees invading two District units were removed August 31. All trees on the 606-acre Bah Lakes Waterfowl Production Area (except for trees in the grove of an old building site) were killed using the

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chemical Garlan, or were cut with chain saws and sprayed to stop root sprouting. A small portion of the 25-acre Knollwood Waterfowl Production Area) was also sprayed to kill invading trees. About 80 gallons of Garlan were used on Bah Lakes, and 7.5 gallons were used on Knollwood. The large Bah Lakes project was made possible through a cost-share project with the Pioneer Heritage Conservation Trust. A sign was placed on the WPA recognizing Pioneer Heritage Conservation Trust for their donation. (**8/31/00**)

September 2000

634. Partners Program Helps Restore/Establish 122.25 Acres of Warm Season Grass Sites

Ottawa National Wildlife Refuge

Private Lands Biologist Steve Dushane provided assistance for the restoration/establishment of 122.25 acres of native warm season grasses in Southeast Michigan and Northern Ohio. Eight sites were planted to a mix of big bluestem, Indian grass, little bluestem and an assortment of forbs. Biologist Dushane planted two of the sites in Michigan himself with a conventional till rangeland drill made by Jim Truax in 1978. The drill, which is property of the Ottawa National Wildlife Refuge, was found in a barn and rebuilt by Dushane and tractor operator Dale Hall during the spring of 1999. The remaining sites were either planted by local Pheasants Forever Chapters or landowners borrowing the drill to do the work themselves. Partners include the Lenawee chapter of Pheasants Forever and the Erie, Ottawa, Chapter of Pheasants Forever. (**9/1/00**)

635. Winona District Holds Refuge Photo Contest

Upper Mississippi River National Wildlife and Fish Refuge-Winona District

The Winona District, along with the Friends of the Upper Mississippi River Refuges held its third annual photo contest in September 2000. Fifteen photographers entered 52 quality photos by the September 1 deadline. Three local professional photographers judged the contest. Ribbons and cash awards were presented to the winners during an award ceremony held at the District office on September 11. The winning 22 photos will be on display at the Valley View Mall in LaCrosse, Wis. in celebration of National Wildlife Refuge Week. They will also tour the Trempealeau National Wildlife Refuge and the Winona Mall later in October. The photo contest generates increased knowledge, awareness and understanding of the Refuge in local communities. (**9/1/00**)

636. Noxious Weed Control

Fergus Falls Wetland Management District/PWLC

Noxious weed control for this year was done during July and August. The primary species of concern were various thistles. Parts of four units making up 377 acres were sprayed with *Roundup*. Parts of eight units, making up 392.5 acres, were sprayed with Curtail. Parts of 22 units making up 578 acres were mowed. Parts of 33 units making up 64.2 acres were sprayed with *Tordon*. Parts of 64 units making up 1,411.7 acres were treated total this year. (**9/1/00**)

637. Muscatatuck NWR Participates in Mussel Survey

Muscatatuck National Wildlife Refuge

Muscatatuck NWR staff assisted with the sixth annual mussel survey on the Ohio River popularly known as "Kentucky Baywatch." The survey involved a variety of Ohio River Valley Ecosystem Team members during the week-long survey. Survey results will be released by the Ohio River Islands NWR when completed. (**9/5/00**)

638. Partner Team Tours State Natural Area

Upper Mississippi River National Wildlife and Fish Refuge-Complex Headquarters

Watershed Biologist Tex Hawkins joined area resource partners Sept. 6, 2000, to tour the Lower Chippewa Basin State Natural Area. The partner team tour was coordinated by University of Wisconsin Extensionist Darren Lockner.

A plan has been approved and funding is now being made available to the Wisconsin DNR for acquisition of priority habitats. River Country coordinator Pam Herdrich is handling the Buffer Initiative. She's obtained more than $60,000 in grants from National Fish and Wildlife Fund, and National Audubon Society, with $8,000 being sought in local matching funds.

The partners visited three sites, including a coldwater tributary stream where the Conservation Reserve Program funds and fencing cost-shares may be used, along with bank stabilization to reduce livestock impacts; one of 700 prairie and savanna blufftop and terrace remnants in the lower watershed that to-

gether comprise about one quarter of the total acreage remaining in Wisconsin; and large bottomland tracts owned by Excel Energy (formerly NSP) and the LaCrosse Diocese of the Catholic Church, which will have conservation easements.

Fish sampling has revealed unexpectedly strong populations 0f blue sucker, and most other species are doing well in most reaches, except the shovelnose sturgeon, which was only collected four times. This may be more of function of sampling technique than actual scarcity, since they are still being caught occasionally by bank fishers. It should also be noted that recent searches for massasauga rattlesnakes in the lower Chippewa Bottoms have also been successful. Candi Chambers of St. Croix WMD is coordinating with Wisconsin DNR and others on prairie restoration in the area, as well as wetland restoration where opportunities exist. (**9/6/00**)

639. Shiawassee NWR Hosts Annual Open House Weekend

Shiawassee National Wildlife Refuge

More than 290 people enjoyed the scenic auto tour of Shiawassee NWR during the Michigan refuge's annual open house weekend Sept. 9-10, 2000. On Saturday, 292 people rode the seven-mile, self-guided tour through the heart of the Refuge. Sixteen Refuge volunteers donated 56 hours to help with the event. The Friends of the Shiawassee NWR set up a booth at the route's entrance and sold refreshments and raffle tickets to visitors.

On Sunday, Friends of Shiawassee NWR sponsored a Refuge Bike-a-thon from 2-6 p.m. Bicyclists could choose from one, four, and eight mile routes. Unfortunately, it rained all day. Five die-hard bicyclists showed up, and raised $300.00 for special projects on the Refuge. More than 500 visited the Refuge during the weekend.

An estimated 500 people visited the Refuge during the open house weekend, whether enjoying nature by bicycling or hiking or scouting for potential deer hunting spots. (**9/9/00**)

640. Necedah NWR Holds Youth Waterfowl Banding Day

Necedah National Wildlife Refuge

An annual Youth Waterfowl Banding Day was held at Necedah NWR on Sept. 9, 2000. Boy Scout, Girl Scout and 4-H groups took part in the event. Sixty-five youths and 15 adults attended. The participants were given an introduction to waterfowl trapping, banding, sexing and aging ducks. Over 70 birds were trapped including mallards, black ducks, and wood ducks. Adults helped to band birds, and the youngsters got a close up look at a duck when they could release the bird. (**9/9/00**)

641. Litchfield WMD Participates In Prairie Pothole Day

Litchfield Wetland Management District

Staff from the Litchfield Wetland Management District joined the Minnesota Waterfowl Association for its annual Prairie Pothole Day, Sept. 9, 2000. More than 3,700 people attended the free event staged near Spicer, Minn. The event hosted a variety of wetland and waterfowl exhibits, demonstrations, and activities, including gun safety instruction, sporting clays, dog handling demonstrations and retriever competition, waterfowl identification, decoying, and wetland conservation. Litchfield staff fulfilled several roles at this event. The visitors learned about Service conservation programs. Partners raised more than $54,000 for conservation projects. (**9/9/00**)

642. Lost Island Chute Bank Stabilization

Upper Mississippi River National Wildlife and Fish Refuge-Winona District

The Upper Mississippi River National Wildlife and Fish Refuge-Winona District participated as a member of an interagency team planning a channel maintenance project in the Mississippi River's Pool 5 navigation channel. The Army Corps of Engineers provided funding to construct bank stabilization features at Lost Island Chute, including 400 feet of offshore rock berm, rock groins and rock vanes. The project will stabilize about 500 feet of riverbank preventing future erosion. (**9/10/00**)

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644. New Environmental Education Facility at Union Slough

Union Slough National Wildlife Refuge

Union Slough recently dedicated its new environmental education facility, the Franklin D. Roosevelt Education Area. The facility is located near the headquarters building, and includes a newly constructed boardwalk, parking areas, and fully accessible trail. The site plan also calls for the construction of an environmental shelter and several other exhibits. This spring much of the area was seeded to native grasses and forbs and the theme of the area will incorporate the tallgrass prairie/ wetland complexes. The site received its name from the former President who by executive order created the refuge in 1938. (**9/11/ 00**)

645. Mingo NWR Reaches 2,400 at Missouri Regional Fair

Mingo National Wildlife Refuge

Staff from Mingo NWR promoted the Refuge and other Service programs during the Southeast Missouri Regional Fair Sept. 11, 2000. Refuge staff contacted over 2,400 visitors during the fair, generating increased interest the Refuge. Staff helped answer numerous questions about the Refuge, including hunting regulations and school group visits. The Refuge will continue to enter a booth in the fair as a positive way to entice visitors to the refuge and share the Service mission with the community. (**9/11/00**)

646. Pike County Students Learn About the National Wildlife Refuge System.

Mark Twain National Wildlife Refuge-Riverlands

Resource professionals from Mark Twain National Wildlife Refuge Complex and the Great River National Wildlife Refuge (formerly Annada District), presented a program that left students exhilarated, but still wondering, "were we really on the radio?" On Sept. 12, 2000 personality, pizzazz, and a few props enabled two Rangers to capture and hold the interest of over 300 sixth graders as they rotated through a pavilion during the day. (**9/12/00**)

647. Region 3 Partners Receive $2.6 Million From NAWCA

Refuges and Wildlife

On Sept. 13, 2000, the Migratory Bird Conservation Commission approved three Region 3 habitat proposals for funding under the North American Wetlands Conservation Act. They included the Prairie Wetland Heritage Conservation Initiative, phase II, for $1 million; the Saginaw Bay Wetland Initiative, phase II, for $1 million; and the Upper Wapsi Wetlands, for $600,000. Grantees were Pheasants Forever, Ducks Unlimited, and Iowa Department of Natural Resources, respectively. Together these proposals will acquire, restore and enhance over 14,000 acres of wetlands and associated uplands. Service offices involved in these projects include the East Lansing Private Lands Office, and the Shiawassee National Wildlife Refuge.

The Prairie Heritage project will acquire 1,932 acres, restore 2,000 acres, and enhance 2,243 acres of habitat in southwestern Minnesota. The Saginaw Bay project will acquire 1,646 acres, restore 997 acres, and enhance 580 acres of habitat in east-central Michigan. The Upper Wapsi project will acquire 3,716 acres, restore 450 wetland acres, and enhance 479 wetland acres in northeastern Iowa. (**9/13/00**)

648. Public Duck Banding at Union Slough

Union Slough National Wildlife Refuge

As part of the refuge's wood duck banding program, the public was invited to the refuge to take part in the event on several occasions. Prior advertisement was conducted by refuge staff and a maximum of 20 were allowed to attend each banding time. Individuals were required to call in advance to reserve a spot to attend. During the banding events, refuge staff gave a short preliminary talk on why banding is conducted, and the information the Service receives from it. As ducks were banded they were then handed to participating public members who were allowed to hold and release the duck back into the wild. Nearly 70 non-staff members participated in this years banding efforts. (**9/14/00**)

649. Sand County Foundation Partners with Service to Benefit Endangered Species

Wisconsin Private Lands Office

The Service's Wisconsin Private Lands Office and The Sand County Foundation have joined forces to restore endangered species habitat. Through an agreement signed on September 14,2000, Sand County will assist the Service in administering funds used to restore Karner blue

butterfly and Eastern massasauga rattlesnake habitat on private lands. Over the next year, the Service and its partner landowners in central Wisconsin intend to restore 1,000 acres of habitat for the two federally endangered species. Sand County Foundation will play an active role in administering the program. (**9/14/00**)

650. Ottawa National Wildlife Refuge Hosts 510 Fifth Graders
Ottawa National Wildlife Refuge
Ottawa National Wildlife Refuge hosted the 39th Ottawa County Fifth Grade Tour Sept. 15, 2000. Approximately 510 fifth graders from across the county learned about natural resources, including 'Life in the Marsh', 'Recycling', and 'Bald Eagles in Ohio'. The tour includes a wagon ride between stations and learning about nature while in the heart of a National Wildlife Refuge. (**9/15/00**)

651. The Partners for Fish and Wildlife Program Restores 79 Acres of Wetlands in Ohio.
Ottawa National Wildlife Refuge
Seven wetland sites were restored in Ohio through the Service's Partners for Fish and Wildlife program. The wetlands totaling 79 acres were restored in Ottawa, Sandusky, Paulding, Hardin and Wyandotte Counties. The restoration work in Hardin County and Wyandotte County was completed by Private Lands Biologist Steve Dushane and Tractor Operator Dale Hall from the Ottawa National Wildlife Refuge. The wetlands in the remaining counties were restored through local Soil and Water Conservation Districts with additional cost-share assistance and/or technical assistance from the Ohio Division of Wildlife, Pheasants Forever, and the Natural Resources Conservation Service. Private Lands Biologist Steve Dushane provided technical assistance on all of the wetland restorations. (**9/15/00**)

652. Fences Removed From 10 WPA
Fergus Falls Wetland Management District/PWLC
During 2000, fence was removed from 10 waterfowl production areas for safety reasons. We also built a total of 3/8 mile of fence on two different WPAs. (**9/15/00**)

653. WPA Boundary Markings Get Makeover at Fergus Falls Wetland Management District
Fergus Falls Wetland Management District/PWLC
Boundary posting is an important part of maintenance work at Fergus Falls Wetland Management District. Repairing and replacing signs that communicate rules and boundaries is an important safety concern. Three important posting jobs were accomplished on District Waterfowl Production Areas (WPA) formerly closed to hunting that were opened this year. All duck refuge signs were replaced with new WPA signs that communicated the area was closed to hunting. District staff also replaced many faded or damaged signs to ensure boundaries are clearly marked. District staff posted signs around 87.98 miles of boundaries this Fiscal Year, using 416 signs, 222 posts and removing 130 duck Refuge signs. (**9/15/00**)

654. Partners Program Restores 101.5 Acres of Wetlands in Southeast Michigan.
Ottawa National Wildlife Refuge
Despite having one of the wettest summer seasons on record, 30 wetland sites were restored in southeast Michigan through the Service's Partners for Fish and Wildlife Program. The wetlands, totaling 101.5 acres, were restored in Hillsdale and Lenawee Counties. The Hillsdale County restorations were all surveyed and designed by Private Lands Biologist Steve Dushane from the Ottawa National Wildlife Refuge. Eight of the Hillsdale County restorations were restored by Biologist Steve Dushane and Tractor Operator Dale Hall with equipment from the Ottawa National Wildlife Refuge. The remaining Hillsdale County restorations were completed using private contractors with oversight from Dushane. The wetland restorations in Lenawee County were surveyed and designed by the Lenawee Chapter of Pheasants Forever and completed through a cooperative agreement with the Lenawee County Soil and Water Conservation District. Additional assistance was provided by Ducks Unlimited and the Natural Resources Conservation Service. (**9/15/00**)

655. Predator Scent Post Surveys Completed at Fergus Falls WMD
Fergus Falls Wetland Management District/PWLC
With more than 25 years worth of data, Minnesota has one of the most extensive records of predator scent post surveys. Each fall, the Minnesota Department of Natural Resources and Service staff survey predators using this method. The Minnesota DNR collects the data and creates an annual report from surveys done all over the state. This season, 15

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transects were run by staff at the Fergus Falls Wetland Management District. Those 15 transects included 150 scent posts in 3 counties. The transects were run during the second week of September. We will receive the annual report in January. (**9/15/00**)

656. American Bittern Field Season 2000 a Slough Pumping Success for Agassiz & Big Stone NWRs

Agassiz National Wildlife Refuge

The last phase of a three-phase, study began in 1994 to examine declining populations of American bitterns began at Agassiz NWR during 1999. A record number of birds were captured and radio collared and a record number of nests were located this year.

Students and volunteers participating in the study arrived at Big Stone NWR and Agassiz NWR in April and May. SCEP student Tammy Lanney arrived at Big Stone NWR and PhD student Soch Lor at Agassiz NWR April 8, 2000. Volunteers Stacie Voss (Big Stone) and Val Robbins, Jessica Girard and Dave Kelm (Agassiz) arrived in May. The field season ended at Big Stone on 8/18/00 and Agassiz on 9/15/00.

Following are summaries.

For Agassiz NWR: Spring arrived early with dry conditions until June. A record number of Bitterns, 40, (29 at Agassiz NWR and 11 at Red Lake Reservation) were captured and collared from May 1, to June 4, 2000. While tracking began in mid-May, most radioed birds remained near their trap site until the first and second week of June.

Staff and volunteers completed bittern/marsh bird community call-response, foraging and nest site habitat variables and random habitat surveys. Twenty-three nests were found in areas where males were captured; 14 in 2 marshes (Agassiz) and nine in grassland fields (Red Lake Reservation). It appears grassland nesting American bitterns are about two weeks behind their marsh nesting counterparts.

For Big Stone NWR/Prairie Pothole Region: This area experienced drought conditions throughout most of the season. Staff and volunteers completed reconnaissance surveys in Big Stone and Lac Qui Parle counties (700,000-plus acres), and established 165 set survey stations representing diverse habitat types (marsh, wet meadows, upland grasslands, agriculture). Daily bittern/marsh bird community call-response surveys (April to mid-June) revealed bird locations, abundance, distribution.

Bitterns had an abbreviated calling window May 14-June 2, making capture of birds difficult. Six bitterns were captured, radio collared and tracked. Fascinating behavior observed was observed. For example, group feeding and flight, communal roosting, and late season (June 22-25) courtship. Habitat use data, random habitat surveys and a vegetative inventory were collected. No nests were found. The lack of nests and low bittern numbers may be due to poor conditions resulting in a non-breeding season, the presence of a non-breeding group of sub-adults or other unknown possibilities. (**9/15/00**)

657. Minnesota Valley Expanding Partnerships With Local Tourism Groups

Minnesota Valley National Wildlife Refuge

In an effort to work more cooperatively with the local tourism industry, staff from Minnesota Valley NWR met Aug. 23, 2000, with members of the Airport Hilton Hotel and four chambers of commerce and visitor bureaus (CVB's) whose communities reside along the Minnesota River. The group discussed how all participants could work more closely to benefit the CVBs and the Refuge. Paul Konrad, coordinator of Minnesota River Valley Birding Trail, spoke to the group about the status of the birding trail and about birding opportunities along the river. Nancy Albrecht, state trail planner, updated the group on the state trail system and answered questions regarding recreational uses of the trail. After the meeting, Judie Miller, took the group on a Refuge tour of the Kelley Track, Bass Ponds, and Old Cedar Avenue Bridge.

September 15, Judie Miller toured five members of the Bloomington, Minn., CVB, all of whom had not been on the Refuge. In addition to the above, the tour included the Black Dog Preserve and a drive along Black Dog Lake. Both tour groups commented that after experiencing the Refuge first hand, they would be much better equipped and knowledgeable to market the Refuge to visitors. (**9/15/00**)

658. Winona District Hosts River Cleanup on Pool 4.
Upper Mississippi River National Wildlife and Fish Refuge-Winona District
Three District staff operating Service boats and a dump truck provided support to AmeriCorps workers, students from Winona State University and Mississippi River Revival staff in a cleanup of islands and landings on the Refuge. Thirty individuals assisted District staff with the cleanup. Some traveled by canoes cleaning up islands while others traveled by bus picking up at boat landings. District staff hauled collected trash in motorboats to selected sites for later pickup by the dump truck. The collected trash filled the District's dump truck and left District's public use areas much more presentable for future visitors. (**9/16/00**)

659. Minnesota Valley National Wildlife Refuge's Young Waterfowlers Program Sets Record for Participants
Minnesota Valley National Wildlife Refuge
The Young Waterfowlers Program sponsored by Minnesota Valley National Wildlife Refuge and the Minnesota Waterfowl Association welcomed a record 21 participants during this year's program. The program is aimed at giving young people an opportunity to develop their hunting skills and learn about waterfowl and their habitat. (**9/16/00**)

660. Illinois Refuge Volunteers Join Forces to Clean Up the Illinois River
Illinois River NWFR
Illinois River Refuges participated in the first annual Illinois River Sweep 2000 Sept. 6, 2000, organized by the Friends of the Illinois River. The river cleanup effort involved approximately 26 communities and 1,700 volunteers spanning the extent of the Illinois River. It resulted in about 40 dumpsters full of trash being removed from the public areas along the riverfront. The Illinois River Refuges office coordinated the tire recycling component of the event with the help of Illinois Environmental Protection Agency's Land Pollution Control Office which resulted in removal and chipping of over 450 waste tires. The River Sweep 2000 event was sponsored by Illinois Lieutenant Governor Corinne Wood and received contributions from many private sponsors including barge companies, agriculture organizations, marinas and local community businesses. (**9/16/00**)

661. Friends Represent Refuge at Boone County Festival in Missouri
Big Muddy National Wildlife Refuge
Members of Friends of Big Muddy staffed a booth at the Boone County Heritage Festival Saturday, Sept.16, 2000. The Friends had a new display, thanks to a grant from the National Fish and Wildlife Foundation. Friends distributed posters, brochures, and provided information about upcoming workdays on the Refuge. (**9/16/00**)

662. Union Slough NWR Completes Youth Deer Hunt
Union Slough National Wildlife Refuge
Union Slough NWR participated in Iowa's annual Youth deer hunt by issuing managed deer hunts to eight interested youth. Iowa allows youth ages 12-15 to apply for a special permit to take one deer of either sex prior to the regular deer hunting season. The youth must be attended by an adult who has a license and the youth must have completed a hunter education course. The refuge conducted a drawing for the spots to enter areas which are normally closed to hunting as part of the refuge's hunting plan to remove surplus deer from the population. It was a great opportunity for youth to learn about sportsmanship with the sport of hunting as the hunt is not during the higher stressful regular hunting season. One hunter was successful in harvesting a small buck. (**9/17/00**)

663. Duck Stamp Traveling Exhibit Displays Winning Artwork
Minnesota Valley National Wildlife Refuge
Minnesota Valley NWR, host site for the Minnesota Junior Duck Stamp Program, has created a traveling exhibit of the top 36 pieces of winning artwork. This traveling exhibit has reached thousands of folks thereby promoting the program and increasing the public awareness of the program. Since June, the exhibit has traveled to the Waterfowl symposium, the Washington County Fair, Dakota County Fair, an art fair in Marshall, Hastings River Town Days, the Minnesota State Fair, and Prairie Pothole Days in Willmar. In addition, Bonnie Latham's winning print was on display at Cabella's in Owatonna, Minn. The exhibit will be soon featured at the Art Barbarians Gallery in Roseville. This exhibit was advertised in the most recent edition of U.S. Art

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Magazine. The feature article for this issue is titled, 'Generation Next.' U.S. Art Magazine selected six newcomers to the world of art who are considered to be the next generation leaders in their respective genre. Both Becky Latham, second place Junior Duck Stamp winner 1998, and Bonnie Latham, current National Junior Duck Stamp winner, were two of the selected six leaders and also the youngest, with their genre being wildlife art. (**9/18/00**)

664. Wetland Restorations and Repairs at Fergus Falls WMD

Fergus Falls Wetland Management District/PWLC

Wetland Restoration for Fall 2000 is in full swing right now. Many wetlands are being restored and many are still being surveyed and prepared for restoration. Three contractors from our district have been working on and off for us depending on the location of the restoration. As of last October through December, 31 wetlands were restored creating 65.2 new acres of wetlands in our district. The 31 wetlands cost $16,516.06 to restore, and Ducks Unlimited cost shared on seven of the wetland projects. This seasons wetland numbers are not available and will be reported in next years ARS report. Five ditch plugs were repaired by Fergus Falls Wetland Management District during 2000. Some ditch plugs built to restore wetlands wash out or fail in other ways. Part of the Service's easement agreement calls for the Service to repair ditch plugs that fail. The five repaired ditch plugs or culverts were repaired at the request of land owners and cost $2,730. (**9/19/00**)

665. Iowa Inmates Provide Manpower For Union Slough Eco Project

Union Slough National Wildlife Refuge

A partnership involving the Iowa Department of Natural Resources and Rockwell City Corrections facility is helping promote Union Slough NWR's local ecotype seed production effort. Refuge staff established a local ecotype forb plot near the headquarters this spring to support its prairie reconstruction effort. The labor-intensive project required labor to control weed growth and also to hand harvest the forb seed. The Rockwell City Corrections Facility sent 10 inmates and one guard a day for 29 days to help out. The plots are in excellent condition and weed free. Hand harvesting efforts have now begun. Another benefit is that the prisoners have found the work pleasant and many of them have taken quite an interest in native wildflowers. The labor was provided free of charge. (**9/19/00**)

666. Potential Birders Recruited for Big Muddy NWR

Big Muddy National Wildlife Refuge

Maureen Gallagher, biologist at Big Muddy NWR, met with members of the Columbia Audubon Society Sept. 20, 2000, to recruit volunteers with bird identification skills for several planned bird monitoring projects on the Refuge. The Columbia Audubon Society members support the Big Muddy Refuge, and are interested in the possibility of helping with bird monitoring. (**9/20/00**)

667. Nature Trail Extension at Union Slough NWR

Union Slough National Wildlife Refuge

Union Slough NWR recently extended its popular "Deer Meadow Nature Trail" by nearly one-half mile. The trail offers a scenic tour through the prairie and a small portion of an oak savannah and has several overlooks of a stream called the Buffalo Creek. The trail addition includes a new bridge and the establishment of new trail. Refuge staff will be working in the future to also improve the signage of the trail and to develop a self-guided leaflet to Refuge visitors. (**9/20/00**)

668. Sherburne/Crane Meadows Complex Participates in Water Festival

Sherburne National Wildlife Refuge

Sherburne/Crane Meadows Complex staff presented a program on Wetlands and Wildlife to 530 sixth grade students attending the Morrison County Water Festival on Sept. 19-20, 2000. (**9/20/00**)

669. Donors to Crane Project View Flight Demo

Necedah National Wildlife Refuge

Necedah NWR hosted a migration celebration for donors and other VIPs of the Whooping Crane Eastern Partnership, the group behind this fall's test migration of Sandhill cranes from Wisconsin to Florida. Sixty-five people, including Regional Director Bill Hartwig, attended the event, sponsored by the Partnership. The event allowed organizations within the partnership to thank donors and introduce them to the results of their combined efforts. After several presentations and a

picnic at the refuge, attendees were able to observe a flight demonstration of the 13 cranes led by the ultralights. The display showcased the culmination of months of work, which eventually will help recover the federally-endangered whooping crane. (**9/21/00**)

670. Grasslands Experts Discuss Future Management for Southeast Wisconsin

Horicon National Wildlife Refuge

Horicon NWR and Leopold WMD sponsored a grassland management meeting, Sept. 19-21, 2000 to provide direction for future management of grasslands on Service lands in Southeast Wisconsin. Invitees were considered experts in grasslands and grassland birds, especially for Wisconsin and included folks from Wisconsin Department of Natural Resources, University of Wisconsin-Madison, U.S. Geological Survey-LaCrosse, and the Wisconsin Private Lands Office. Specific meeting objectives included establishing a priority grassland bird list based on Service and Wisconsin priorities, a grassland management plan to benefit those priority birds, and a monitoring protocol for birds and grasslands.

The grassland bird priority list for grasslands in southeast Wisconsin included 29 species, most of which were from the Wisconsin DNR or Service priority lists. Those not taken from a priority list were considered priority management species. The grassland birds were divided into the following categories: shortgrass, midgrass, tallgrass, woody vegetation requirements, open water, large area, and area specific. The Wetland Management District was divided into nine landscapes based on topography, historic features, location of other important areas, and groups of Waterfowl Production Areas. Four of those landscapes were considered priority areas that would benefit most from our management activities.

Each of the nine landscapes established was reviewed for current grassland bird use and habitat. Recommendations were made for each landscape area. Overall, the highest priority was to eliminate brush and expanding woodlots on grasslands and in between fields and wetlands. Secondly, monotypic stands of single species warm season grasses as well as stands of solid goldenrod or sweet clover need to be restructured. Additionally, seedings in the future need to use less grass seed per acre and increase forbs. Further avenues need to be explored to increase CRP and easements. Monitoring was discussed at length and needs to continued and established and expanded into an annual task. Without monitoring, the money and effort put into habitat management may be wasted. (**9/21/00**)

671. More than 900 Students Attend Environmental Education Days at Sherburne NWR

Sherburne National Wildlife Refuge

Over 900 fifth grade students from nine local schools in Sherburne and Benton Counties, Minn., participated in Environmental Education Days at Sherburne National Wildlife Refuge Sept.18-21, 2000.

Sherburne National Wildlife Refuge hosted the event, which included 30 teacher/parent chaperones. This event is a cooperative effort between Sherburne NWR, the University of Minnesota Extension Service for Sherburne County, Minnesota Department of Natural Resources - Forestry Division and Waters Division, the Natural Resource Conservation Service, and Sherburne County Soil and Water Conservation District.

Refuge staff and volunteers were responsible for two of the ten program areas. Program topics covered by the Refuge were: Wildlife Management - Bald Eagle and Prescribed Fire Effects. Topics covered by the other agencies included Forest Management, Soils, Ground Water, Water Usage, Wetland Values and Aquatic Animals.

All participating schools received field trip packets prior to the event which included a description of each activity along with its objective and pre and post trip activities. Teacher evaluations show that this day of environmental education programs at the Refuge and the State Forest is a highlight of the school year for the students. Many of the teachers say that they refer back to the activity sessions in lessons they teach throughout the school year. (**9/21/00**)

672. Trawling Helps Track Eurasion Ruffe, Other Invasive Species in Lake Erie

Ottawa National Wildlife Refuge

Fishery Biologist Susan Wells assisted the Lower Great Lakes Fishery Resources Office with its annual trawling surveys of Eurasion ruffe in Lake Erie Sept. 21, 2000. The trawls took place in major lake ports of Toledo, Sandusky, Cleveland, and Ashtabula, Ohio. The trawls help monitor aquatic nuisance species

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movements, including round goby. A small amount of round goby were identified in each port surveyed. No ruffe were found.

The monitoring activities help identify areas where there may be a potential for introduction of aquatic nuisance species. Eurasion ruffe have not yet entered Lake Erie, but monitoring continues to help identify the spread of all invasive species. (**9/21/00**)

673. Bisson Lake Restoration Completed on Hamden Slough NWR

Hamden Slough National Wildlife Refuge

The restoration of 100-acre Bisson Lake was completed Sept. 22, 2000. The final stop log was placed in the new water control structure to impound water to the lake's full service level. The Bisson Lake restoration is the 130th wetland restored as part of the North Star 2000 project and the 200th wetland restored on Hamden Slough NWR. When completed, North Star 2000 will restore 220 wetlands and 1,000 upland acres west of Callaway, Minn.

A parking lot and monument were also constructed on the west side of Bisson Lake to accommodate increasing visitor usage of this area. Also, 2,900 feet of berm along Becker County Road 14 were widened and improved to national safety standards. (**9/22/00**)

674. Media Learn About Efforts of Whooping Crane Partnership at Necedah NWR

Necedah National Wildlife Refuge

Twenty-five members of the media were at Necedah NWR Sept. 22, 2000, to view a remarkable culmination of months of effort by the Whooping Crane Eastern Partnership in its efforts to recover the federally-listed whooping cranes. Members of the Partnership granted interviews, provided video footage and provided history behind the effort to re-introduce a migratory flock of whooping cranes east of the Mississippi River. This year, the partners are simulating future efforts using more common sandhill cranes. Reared under the same protocol as future whooping cranes, the sandhills will be led to Chassahowitzka NWR in Florida in early October. The event allowed media to gather updated information on the project. (**9/22/00**)

675. Horicon's Mallard Banding Tracks Waterfowl Populations, Hunter Success Rate

Horicon National Wildlife Refuge

The Horicon NWR mallard banding quota of 400 birds was reached Sept. 21, 2000, with a total of 439 mallards banded and one black duck. Only five rocket net shots were made, with one shot netting 123 ducks. The Refuge banding quota is established by the Service and the Mississippi Flyway as part of a continuing study of tracking waterfowl populations, migration habits, and hunter success. Horicon NWR's preseason banding effort in 2000 started Aug. 28, 2000 but the first shot was not taken until Sept. 5, 2000. (**9/22/00**)

676. Public Flock to See Formation-Flying Sandhill Cranes at Necedah NWR

Necedah National Wildlife Refuge

Visitors to Necedah NWR were treated to a special flight show Sept. 23, 2000. Thirteen sandhill cranes, part of an experimental flock that will be led on an ultralight guided migration to Florida, were practicing flying in formation behind the ultralight aircraft. More than 265 visitors got a sneak preview of how humans will lead birds on the 1,250-mile migratory journey. The event served to highlight an evening of education. Visitors learned about endangered species presentation and the international partnership effort created to save the endangered whooping crane. (**9/23/00**)

677. Prairie Cordgrass Plugged at Overton Bottoms

Big Muddy National Wildlife Refuge

Barbara Moran and Maureen Gallagher from Big Muddy National Fish and Wildlife Refuge joined four volunteers from the Friends of Big Muddy to plant 100 pots of prairie cordgrass at Overton Bottoms North unit of the Refuge Sept. 23, 2000. The plugs were planted on three different soil types near the main parking area. Once established, the area will hopefully become a source of plants for other sites, as well as a demonstration of bottomland native plant restoration.

Prairie cordgrass, *Spartina pectinata*, is a native, warm-season perennial grass that forms a dense underground sod, which spreads by branched creeping rhizomes and by seed that is produced on stalks 6 to 10 feet tall. Also known as 'marshgrass' and 'ripgut' the coarse bladed, toothed plant grows on deep, wet, lowland soils. (**9/23/00**)

678. National Hunting & Fishing Day a Success at Seney NWR

Seney National Wildlife Refuge

Two hundred visitors, including 30 scouts, attended National Hunting and Fishing Day at Seney NWR. The event combines exhibits, demonstrations and workshops. Stations included grouse identification (Seney NWR has three species), ice fishing gear and safety, make and take turkey calls, antler trivia, and duck stamp displays. Workshops were open to scouts and the general public and all sessions were well attended. Workshops included decoy carving, fly casting, traditional archery, orienteering, Leave No Trace, and Waterfowl Identification Tours. Seasonal Refuge Guide Jen McDonough organized this well-planned event. (**9/23/00**)

679. Refuge Staff Participate in Minnesota River Valley Great Birding Day

Minnesota Valley National Wildlife Refuge

Park Ranger Deanne Endrizzi served as team leader during Great Birding Day, Sept. 23, 2000, at Minnesota Valley NWR. Fourteen participants counted bird species on the lower portion of the Refuge. Sixty-three species were tallied. Many species of migrating waterfowl were noted including 10,000 American coots. At the end of the count, Deanne attended the Birding Rally at the Ney Environmental Center in Henderson, Minn., where groups reported their results. (**9/23/00**)

680. Horicon Refuge Participates in National Public Lands Day

Horicon National Wildlife Refuge

Horicon National Wildlife Refuge participated for the first time in the 7th annual National Public Lands Day, coordinated by the National Environmental Education and Training Foundation. The Refuge received a $1,000 grant for the event. Over 50 volunteers, ranging in age from 7 to 80, participated in the project, contributing about 200 hours. Volunteers participated in tree trimming and litter pickup. Every public use site and parking lot on the 21,000-acre Horicon Refuge was cleaned up. A major project involved picking up the Styrofoam beads at the new boardwalk that continue to litter the water from when the old boardwalk was removed. Volunteers were treated to a luncheon, provided by Midwest Interpretive Association. (**9/23/00**)

681. Prairie Wetlands Learning Center Hosts National Public Lands Day Event

Fergus Falls Wetland Management District/PWLC

The Prairie Wetlands Learning Center got a helping hand from 17 hardy volunteers during National Public Lands Day Sept. 23, 2000. Staff and volunteers harvested native forb seed, worked on prairie plant propagation beds and removed invading trees. Working through morning temperatures in the 40s and rain, volunteers from age 12 to senior citizens worked for nearly five hours at the Learning Center. Capping of the day was a presentation by Teddy Roosevelt (portrayed by Steve Stark, of Fargo, N.D.) who spoke to volunteers and members of the public about the importance of public lands, our conservation heritage and what Roosevelt's legacy means to the American people. Eighty-five hours of volunteer time were contributed. (**9/23/00**)

682. Volunteers Improve Hiking Trail at Muscatatuck NWR

Muscatatuck National Wildlife Refuge

Muscatatuck NWR celebrated National Public Lands Day Sept. 23, 2000, with a trails volunteer workday. A small crew of volunteers spent their Saturday morning improving approximately two miles of the West River Trail, one of the most popular refuge hiking trails. The volunteers accomplished work that would not otherwise have been done and their work will greatly improve the visitor experience on the trail. (**9/23/00**)

683. Mingo NWR Joins Fellow Agencies to Celebrate National Public Lands Day

Mingo National Wildlife Refuge

Staff from Mingo National Wildlife Refuge joined with Lake Wappapello - US Army Corps of Engineers and Mark Twain National Forest to celebrate National Public Lands Day Sept. 23, 2000. Each of the three agencies hosted volunteers on their respective lands, with agency volunteers and staff sharing a picnic lunch provided by the Wappapello Lions Club. The inter-agency cooperation was fantastic! Volunteers now understand the similarities and differences of the three agencies and the agencies look forward to more shared events. (**9/23/00**)

684. Prairie Wetlands Learning Center to Host National Public Lands Day Event

Fergus Falls Wetland Management District/PWLC

The Prairie Wetlands Learning Center in Fergus Falls, Minn., is one of 15 Service facilities nationwide to receive special funding to host a National Public Lands Day event. The Learning Center is planning a work day, Sept. 23, from 9 am - 12 noon, which will include removal of trees from prairie areas, control of invasive plants, harvesting prairie seed and tagging of Monarch butterflies.

Following a lite lunch for volunteers, 'Teddy Roosevelt,' portrayed by Fargo, N.D., resident Steve Stark, will present a living history program focusing on America's legacy of public recreational lands. Volunteers are being recruited from local schools, civic groups and the public. (**9/23/00**)

685. River Enthusiasts Learn About Big Muddy Refuge During Big Rivers Rendezvous IV

Big Muddy National Wildlife Refuge

Refuge Manager Tom Bell gave supporters of Big Muddy National Fish and Wildlife Refuge an up close tour of Refuge units during a river boat tour Sept. 24, 2000. Bell joined about 150 invited guests on board the riverboat Tom Sawyer to cruise up the Mississippi River to Lock and Dam 26, then turned and cruised up the Missouri River to view Columbia Bottoms, a Missouri Department of Conservation area and the confluence point of units operated by Missouri DNR and the Service.

During the tour, Bell spoke to the group about management of Big Muddy NFWR and its potential for expansion. The crowd was very enthusiastic and interested in the Refuge growing larger. (**9/24/00**)

686. Horicon NWR Hosts 130 Participants of Nikon School of Birding and Bird Photography

Horicon National Wildlife Refuge

Horicon National Wildlife Refuge hosted more than 130 people participating in the fourth annual Nikon School of Birding and Bird Photography Sept. 22-24, 2000. People from Wisconsin and east coast states participated, the youngest being a six year-old bird watcher. Ninety-six species of birds were identified in rainy weather. Participants were able to borrow and use Nikon products in the field and were offered sale prices. The keynote speaker was author and Audubon Magazine Field Editor Kenn Kaufman. Kaufman also led a field trip and workshop. Author, photographer and educator B. Moose Peterson led photography field trips and seminars. Other leaders included Greg Butcher, editor, Birder's World magazine, who lead a birding-by-bicycle trip, and Steve Ingraham, publisher and editor of Better View Desired newsletter. These nationally-known professionals were joined by local guides Jack Bartholmai, a Refuge volunteer and photographer; Bill Volkert, naturalist with the Wisconsin DNR; and Molly Stoddard, Service park ranger. The Nikon School was sponsored by Nikon, Birder's World, and Eagle Optics.

The event was based out of Fond du Lac, Wis., for lodging with field trips and seminars held at the Refuge and Marsh Haven Nature Center. (**9/24/00**)

687. Missouri Engineering Students Learn About Refuge Mitigation Projects at Big Muddy Refuge

Big Muddy National Wildlife Refuge

Twenty-eight civil and environmental engineering students at University of Missouri, Columbia, learned about Refuge mitigation projects and other Refuge programs during a recent refuge tour and lecture by Refuge staff. Barbara Moran, assistant Refuge manager, led the class on a tour of the Overton Bottoms Mitigation Project Sept.15. Refuge Manager Tom Bell presented a lecture on the project Sept. 25, 2000. The class is studying the U.S. Army Corps of Engineers mitigation project at Overton Bottoms and its many stakeholders. They will evaluate mitigation designs for the area, perform feasibility studies of the alternatives, and perform a final design for the most promising alternative. (**9/25/00**)

688. Prairie Wetlands Learning Center Hosts FFA Regional Leadership Rally

Fergus Falls Wetland Management District/PWLC

The Prairie Wetlands Learning Center hosted over 250 Future Farmers of America (FFA) members from the Region for their Annual Leadership Rally. The students, ranging in age from 14 to 20 participated in a variety of workshops and attended presentations on such diverse topics as blackpowder shooting, wood ducks, prairie restorations and hydraulics. (**9/25/00**)

689. Asbestos Removed From Three Homes on Refuge Property

Cypress Creek National Wildlife Refuge

Lead and asbestos investigations were completed for three homes located on tracts (Hoffman, Dodd, and Brown tracts) acquired by the Refuge. Asbestos was documented in each house resulting in a contract to removal this material. Mitigation is required before these buildings could be removed from the Refuge. Removal and disposal was completed successfully. (**9/25/00**)

690. Volunteers at Agassiz NWR Contribute 7,624 Hours

Agassiz National Wildlife Refuge

Sixteen volunteers contributed 7,624 hours on Agassiz Refuge. The number of hours are greatly reduced from Fiscal Year 1999 as the field portion of the wolf study was completed November 15 and the moose study July 31. Both of these studies enrolled multiple volunteers year-round. Beginning in the spring of 2000 all volunteers assigned to research studies were required to work 8 hrs/pp on refuge related projects. A summary of volunteer hours by category is as follows: Bittern study: 2,434.5 hours (Agassiz)/656 hours (Big Stone) wolf study: 1,656 hours; moose study: 2,382 hours; grebe study: 720.5 hours; general maintenance: 197 hours; outreach: 70 hours; banding/ census 41 hours; clerical: 47 hours and "other" (training/orientation) 115 hours. (**9/25/00**)

691. Environmental Education at Cypress Creek National Wildlife Refuge

Cypress Creek National Wildlife Refuge

More than 3,000 youths and educators participated in the environmental education program at Cypress Creek National Wildlife Refuge and Cache River State Natural Area during Fiscal Year 2000. Students were involved in with a variety of unit activities highlighting the Cache River Wetlands. Popular topics included water quality testing, macroinvertebrate sampling, soil testing, endangered species, biodiversity, wetlands/watersheds, and habitat/plant identification. Programs were conducted with staff and volunteers from the Refuge and Illinois Department of Natural Resources.

Twenty-five schools from the local area and central Illinois, six special interested groups, and seven scout troops visited the Cache river Wetlands for field outing. Refuge staff also coordinated four partnerships with schools in the Cache River Watershed. Partnerships included special school programs/projects dealing with neotropical migrants, habitat restoration and management, and the values of wetlands. (**9/26/00**)

692. Cypress Creek Refuge Controls Noxious Weeds

Cypress Creek National Wildlife Refuge

Cypress Creek Refuge staff, with assistance from the Illinois Department of Natural Resources, inventory and control noxious weeds with chemical and mechanical treatments each year. Noxious weeds include Johnson grass, musk thistle, cocklebur and for the first time recorded on the Refuge, kudzu.

Johnson grass, musk thistle and cockle bur are present on approximately 2,800 acres within the Refuge. Three hundred acres of cocklebur and 2,500 acres of Johnson grass were treated mechanically and chemically with Roundup, fusillade, 2-4-D and mowing. Kudzu, fast growing exotic vine, was documented on 6.5 acres of the Refuge. A request to chemically control this plant was sent to the Regional Office for approval. (**9/26/00**)

693. Horicon NWR and Partners Awarded $40,000 Marketing Grant to Promote Tourism

Horicon National Wildlife Refuge

The Wisconsin Department of Tourism awarded a $40,000 Joint Effort Marketing Grant to the Horicon Marsh Events Committee Sept. 27, 2000, to promote the area's spring tourism season. The committee consists of representatives from the Horicon, Mayville, and Waupun, Wis., Chambers of Commerce, the Fond du Lac Convention and Visitors Bureau, the Wisconsin Department of Natural Resources, and the Service.

The grant will help support the Marsh Melodies media campaign to bring an additional 10,000 visitors to the area with an economic impact of more than $450,000 using magazine, television, and Internet advertising. Marsh Melodies, a series of spring visitor events, will emphasize the slogan 'Where People and Wildlife Come Together' through nature-based outdoor recreation and education opportunities such as birdwatching, canoeing, bicycling, Native American history, spring wildflowers, Earth Day, Arbor

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Day, and the Horicon Marsh Bird Festival. (**9/27/00**)

694. Prairie, Wetlands Restored Through Partners Program at Minnesota Valley NWR

Minnesota Valley National Wildlife Refuge

The Minnesota Valley NWR Partners for Fish and Wildlife Program, in cooperation with many partners, restored 309 acres of wetlands in 57 basins and 560.5 acres of prairie on 22 sites during Fiscal Year 2000.

Many partners contributed funds which were used to purchase seed and contract for restoration work. Refuge staff worked in partnership with staff from the Minnesota Waterfowl Association to restore wetlands in the lower Minnesota River watershed. This high priority area directly benefits the Refuge which is located in the lower part of the Minnesota River.

Since 1992, the Refuge has targeted Bevens Creek watershed, resulting in over 900 acres of wetland and prairie restoration and acquisition of Waterfowl Production Area. Bevens Creek watershed flows into the Minnesota River directly upstream of the Rapids Lake Unit. Many partners including Minnesota Waterfowl Association, Minnesota Pheasants, Ducks Unlimited, Pheasants Forever, County Soil and Water Conservation Districts, Natrural Resources Conservation Service, and numerous local conservation organizations contributed funds for these projects.

The Refuge also partnered on numerous Wetland Reserve Program Easements, which provide permanent protection for important prairie wetland complexes. (**9/28/00**)

695. Minnesota Valley WMD Restores Prairie and Wetland Habitats on Waterfowl Production Areas

Minnesota Valley National Wildlife Refuge

Minnesota Valley Wetland Management District (WMD) restored 120 acres of wetlands in 54 basins on Waterfowl Production Areas (WPA) during Fiscal Year 2000. In addition, 300 acres of native prairie were seeded on four WPA. The restorations were completed in cooperation with many partners. The WPA are located in the 13 county WMD managed out of Minnesota Valley NWR. Since 1994, the WMD has expanded from 0 acres to over 5,000 acres located on 20 WPA and over 20 easements. These lands provide important nesting habitat for a variety of waterfowl species including mallards, blue winged teal, wood ducks, redheads and ruddy ducks. (**9/28/00**)

696. Minnesota Valley Refuge Continues Aggressive Exotic Species Control

Minnesota Valley National Wildlife Refuge

More than 115,000 leafy spurge beetles and 2,000 purple loosestrife beetles were released on Minnesota Valley National Wildlife Refuge this year as part of a continuing effort to control exotic species on the refuge. In a partnership with U.S. and Minnesota Departments of Agriculture, more than 500,000 leafy spurge beetles were harvested on the Refuge for later release in the local area. The Refuge has one of the best leafy spurge beetle field insectaries in the state.

Refuge staff also released 1,000 purple loosestrife beetles to supplement an existing release site and an additional 1,000 beetles were released at a new site in the Wilkie Unit. The beetles are currently being released on eight sites currently on the refuge. Next year we will be working with the MN DNR to harvest adult beetles from field insectaries to jump start our biocontrol program.

This is the first year for spotted knapweed beetle release on the Refuge. Four hundred adult beetles were released at Old Cedar Trailhead to control a spotted knapweed infestation. We will continue to monitor spotted knapweed on the refuge. (**9/28/00**)

697. Habitat Monitoring Expands at Minnesota Valley NWR

Minnesota Valley National Wildlife Refuge

In addition to monitoring our Rapids Lake oak savanna plots using the RX-80 fire monitoring technique, we also added baseline plots in floodplain forest and prairie restoration sites. Over 200 specimens were collected from these sites, and added to the Refuge herbarium. These plots will enable the Refuge to evaluate the success of our habitat restoration and fire management program. Habitat monitoring will enable managers to evaluate habitat restoration programs. (**9/28/00**)

698. More than 260,000 Visit Minnesota Valley NWR in Fiscal Year 2000

Minnesota Valley National Wildlife Refuge

Over 260,000 people visited Minnesota Valley National Wildlife Refuge during Fiscal Year 2000. Approximately 12,500 students participated in staff-led environmental education programming dealing with a myriad of topics including white-tailed deer ecology, prairie insect ecology, aquatic invertebrate sampling and other subjects related to the Minnesota River valley.

Over 2000 preschoolers were introduced to the Refuge through an interpretive hike and hands on projects. We hope that by starting these children early they will learn to appreciate our tremendous natural resources.

Refuge staff and volunteers also provided offsite presentations related to habitat restorations, opportunities available on the Refuge and requested topics.

Favorite interpretive programs included 'Sky Dance', a program highlighting the spring mating dance of the American Woodcock. An arson fire on the dancing grounds provided spectacular viewing for visitors and a predator-free dance floor for the birds.

Craig Mandel, a volunteer interpreter, continued his outstanding 'Birdwatching Trek' programs and has developed a regular following. (**9/28/00**)

699. Fall Noxious Weed Spraying

Fergus Falls Wetland Management District/PWLC

Noxious weed control continued during the fall of 2000 with an additional 70 acres being sprayed on three Waterfowl Production Areas (WPA). To access one of the WPAs, a new road approach was installed along a county road that runs through it. (**9/29/00**)

700. 2000 Native Grass Seed Harvest Nets 10,195 Pounds of Seed

Fergus Falls Wetland Management District/PWLC

Fall native grass seed harvest is in full swing. During September, staff have been combining and cleaning seed. More than 10,195 pounds of seed have been harvested and cleaned from parts of four prairies. The harvest is about 75 percent complete for this year. The cleaned seed will be bagged and stored for the winter. In the spring, it will be used to seed Waterfowl Production Areas, private lands, construction projects, and other habitat projects. (**9/29/00**)

701. Fergus Falls Wetland and Grassland Easements Optioned in 2000

Fergus Falls Wetland Management District/PWLC

The Fergus Falls Wetland Acquisition Office has optioned six wetland easements, two grassland easements, and one access easement for a total of 895.2 acres. These eight easements are located in Grant, Douglas and Otter Tail counties in Minnesota. (**9/29/00**)

702. Fall 2000 Wetland Restorations at Fergus Falls WMD

Fergus Falls Wetland Management District/PWLC

Twenty-two more dikes were installed this fall as part of the Private Lands Program totaling 65 acres of wetlands. A large project is currently underway; it will be a 50 acre restoration, which will be held up by a large concrete dike stop log structure. We have also had three CP-23 technical assists this Fall. (**9/29/00**)

703. Alien Weeds Under Attack at Big Muddy NFWR

Big Muddy National Wildlife Refuge

Efforts to control Johnson grass (Sorghum halepense) were completed on two units of the Big Muddy NFWR this summer. About 50 acres at Jackass Bend and 170 acres at Overton Bottoms North were treated to control the state-listed noxious weed. Johnson grass is an aggressive, perennial plant with stout rhizomes. It thrives in the open, disturbed, rich, bottom ground found on much of the Refuge, crowding out native species and slowing succession. It can be a serious threat in old fields where succession to forest communities is desired. (**9/29/00**)

704. Three New Tracts Add 1,032 Acres to Big Muddy NFWR

Big Muddy National Fish and Wildlife Refuge

More than 1,000 acres were added to Big Muddy National Fish and Wildlife Refuge during Fiscal Year 2000. The Service now manages three more tracts as part of the Refuge.

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A Farm Home Administration (FHA) tract (formerly Backes), originally acquired in 1993 under the authority of the Consolidated Farm and Rural Development Act as part of the FH Interest, State of Missouri Unit, was added to the Big Muddy Refuge. The tract adds 460 acres to the St. Aubert Unit in Osage County, Missouri. The tract has about a quarter mile of Missouri River frontage and includes approximately 80 acres of Missouri River flood plain.

The Burruss tract, Cranberry Unit, in Saline County, Mo., was also added. The 468-acre tract in the Missouri River floodplain has scattered clumps of trees which were retained by the family wishing to keep some wildlife habitat on their cropland

The 104-acre Loesing Tract was added to the Overton Bottoms North Unit in Cooper County, Mo. The Loesing Tract overlooks the Missouri River flood plain and is a potential site for a consolidated administrative site and visitor center.

The addition of 572 acres purchased and 460 acres transferred, adding 1,032 acres to Big Muddy NFWR during fiscal year 2000. (**9/29/00**)

705. Big Muddy Refuge Staff Receives Training

Big Muddy National Fish and Wildlife Refuge

Refuge employees received the following training during Fiscal Year 2000:

Tom Bell – 40 hours Law Enforcement Refresher, 16 hours computer;

Barbara Moran – 40 hours Employee Foundations, 24 hours OSHA 600, 16 hours computer;

Maureen Gallagher – 3 weeks at Refuge Management Academy, 40 hours Biologist Workshop, 8 hours computer; and Gloria Miller – 32 hours computer, 40 hours financial transactions/FPPS, 40 hours on-the-job training at Wapello Refuge. (**9/29/00**)

706. Tree Trust Helps Wildlife Refuge

Minnesota Valley National Wildlife Refuge

Members of the non-profit group Tree Trust assisted Minnesota Valley National Wildlife Refuge this summer by constructing two sections of trail. The connections provide access to five miles of existing trails the long Meadow Lake Unit of the Refuge within the City of Bloomington, Minn. The Tree Trust Program provides work experience for disadvantaged youth in the Twin Cities Area. Most of the public use facilities on the Refuge have been constructed by Tree Trust during the last 17 years. (**9/29/00**)

707. Fence Removal in 2000

Fergus Falls Wetland Management District/PWLC

Interior fence removals have been planned for nine WPA. During 2000, fences were removed on two of those WPA totaling approximately 6,154.2 feet of fence. The remaining fence removals will take place as time allows. (**9/29/00**)

708. Centennial Committee Visits the Fergus Falls WMD/WAO/PWLC

Fergus Falls Wetland Management District/PWLC

Six members of the National Refuge Centennial Committee visited the Fergus Falls Wetland Management District Sept. 27-29. Committee members were shown a new restoration project which is currently having a concrete dam type water control structure installed on it. They were also shown our largest water control structure, a type 2 dam, and a new water control structure with a fish drum in it.

The District's seed harvest is currently in progress, so they got to see the combining and drying process our native grass seed goes through. They also toured the Prairie Wetlands Learning Center with Director Ken Graham. Members in attendance for the tour of the district were Dan Sobieck, Susan Saul, Laurie Rosenthal, Sheri Fetherman, Eric Eckl, and Lisa Mandell. (**9/29/00**)

709. Promising New Seeding Technique Quickly Establishes Diverse Upland Habitat

Litchfield Wetland Management District

Over 800 acres of former cropland at Litchfield Wetland Management District were seeded to a diverse mixture of warm season native grasses, cool season grasses, and forbs using a unique, innovative double-seeding technique.

The response has been spectacular. Virtually 100 percent of warm season grasses planted May 15-June 15 have headed out within three months of seeding. Cool season grasses planted Aug.15 - Sept.15, 2000, green-up early in the spring and provide good competition for Canada thistle and other weed species. Upland cover is extremely dense and diverse within one year of seeding.

This technique challenges some traditional seeding guidelines and has only been used for two years. Results are certainly not conclusive but if long term results remain good these methods offer

the potential to establish outstanding upland cover with less noxious weeds in considerably shorter periods of time.

The main points of the technique are cultivation of all land including bean stubble, glyphosate application, drilled seeding of warm season native grass (no cool season or forbs at this time), Plateau (pyridinecarboxylic acid) application or mowing, 2-4D and clopyralid application (if needed), followed by fall or spring "overseeding" with cool season grasses and forbs. The overseeding should be done with interseeders at right angles to the original seeding or by broadcast seeders so that the vegetation is not exclusively in rows.

The keys to the observed success appears to be the cultivation, the seeding of only warm season grasses initially, and the glyphosate and Plateau applications. These measures typically produce a field that contains high populations of rapidly growing native warm season grasses with little or no competition from other vegetation. Essentially all moisture, sunlight and nutrients are available to the native grasses. Growth of four to five feet with basal clumps the size of saucers are not uncommon. Most big blue stem plants flower within three months of planting.

With these good populations of healthy warm season grasses established as a base, managers have numerous options for stand management and additional seeding diversity. If no additional weed control is needed cool season grasses and fall forbs can be seeded during the fall seeding window. Broad-leaved weeds and quack can be controlled in late fall and fields can be dormant seeding or "snow seeded" with broadcast spreaders. For areas with high levels of Canada thistle seed, broadleaf weeds can be controlled in the fall as well as during the following spring with sufficient time remaining for spring seeding of expensive forb seed. (**9/30/00**)

710. Service Assists USDA to Review 1540 Acres of Potential Wetland Reserve Program(WRP) Land

Ottawa National Wildlife Refuge

Private Lands Biologist Steve Dushane provided technical assistance to the Natural Resources Conservation Service (NRCS) to rank 1540 acres for potential enrollment in Wetland Reserve Program (WRP). The wetland ranking team reviews potential WRP sites throughout Southeast Michigan. Dushane assisted the team with restoration ideas as well as providing a perspective as to the value of the site to wildlife. The team consists of a team leader/soil scientist from the NRCS, a wildlife biologist from the Service, a wildlife technician from the Michigan Department of Natural Resources to consult on endangered species issues, an area supervisor from the Michigan Department of Environmental Quality to consult on required permits, an engineer from the NRCS, and a resource conservationist from the NRCS to consult on vegetation. (**9/30/00**)

711. MAC Transfers $26 Million Airport Mitigation to Refuge Trust for Minnesota Valley NWR

Minnesota Valley National Wildlife Refuge

On September 19, 2000, the Twin Cities Metropolitan Airports Commission (MAC) transferred $26.09 million into the account of the newly formed Minnesota Valley National Wildlife Refuge Trust, Inc. The transfer culminates over four years of discussions and negotiations between MAC and the U.S. Fish and Wildlife Service concerning future impacts of commercial overflights on Minnesota Valley National Wildlife Refuge.

In order to meet the needs of a growing Twin Cities area, MAC is constructing a new north-south runway at Minneapolis-St. Paul International Airport. When completed, the resulting air traffic will fly over the Refuge every other minute on average. The noise generated from these overflights will significantly impact Refuge lands, programs, and general visitor activities.

The cash settlement will be used for projects designed specifically to mitigate the impacts of noise upon these Refuge interests.

MAC and the U.S. Fish and Wildlife Service considered several options to appropriately mitigate the impacts of these overflights on Refuge lands. The best approach identified was to create a nonprofit organization whose primary purpose is to work in cooperation with Minnesota Valley National Wildlife Refuge in completing mitigation projects. The Trust, which is comprised of Board members appointed by five supporting organizations, have broad powers to assist the Refuge with mitigation projects. The supporting organizations who have appointed one member each to serve on this Trust are Minnesota Department of Natural Resources, Friends of the Minnesota Valley, National Audubon Society, Minnesota Waterfowl Association, and the Minnesota

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River Basin Joint Powers Board.

Specific mitigation projects will be identified through the preparation of the Comprehensive Conservation Plan for the Refuge, planned for completion by fall 2001. At a minimum, mitigation will include the acquisition of over 4,000 additional acres of Refuge lands, construction of another environmental education facility, plus associated trails, signs, and support facilities. It is hoped that most of these mitigation funds can be matched with funds of other potential partners to maximize their success. (**9/30/00**)

712. Service, Partners to Evaluate Success of Wetland Restorations in Michigan

Michigan Private Lands Office

Beginning in October 2000, Partners for Fish and Wildlife staff will work with a graduate student at Michigan State University to help evaluate the success of wetland restoration projects in Michigan completed during the 1990s. With strong technical and financial support from Ducks Unlimited, the Service expects to review the structural and biological success of projects as well as landowner satisfaction. The project will target restoration projects in the Saginaw Bay watershed.

In a preliminary effort now underway, the student is entering information regarding existing projects into the new HabITS database. This database can then be used in the project design and implementation. Our goal is to evaluate program success and improve future restoration efforts, thus providing better habitat for wetland-dependent fish and wildlife. (**9/30/00**)

713. The Agassiz Project: More Than 2700 Acres of Wetlands Restored on Private Lands

Agassiz National Wildlife Refuge

Supporting wetland restorations through the USDA's Conservation Reserve Program (CRP) became a priority this Fiscal Year for Region 3, and staff at Agassiz NWR responded. Refuge staff joined members of the Mississippi Headwaters-Tallgrass Prairie Ecosystem Team, Regional Office and Private Lands Office to make the 15th and 16th CRP Sign-Ups with CP-23 practice (wetland restorations) a success this year in Marshall County, Minn., and in areas within 20 miles of the Agassiz NWR.

Support to the CRP signup was a massive project, involving 186 landowner contacts, 1,031 wetlands checked, of which 832 were restored. In total, 2,722 acres were restored. Twenty employees (biological and engineering technicians, heavy equipment operators, biologists, refuge operation specialists and maintenance mechanics) from 10 Service field stations worked 472 days (May 7-Sept.30) surveying, staking, and restoring 832 wetlands totaling 2,722 acres. The average size was 3.27 acres; the largest 55 acres; smallest .25 acres.

Prior to the beginning the field effort, Dave Bennett, Agassiz NWR, organized and compiled hundreds of files for survey crews. Lori Wolff and Lance Kuester of the Minnesota Private Lands Office, organized the work crews. The deadline to have properties surveyed and wetlands restored was Sept. 30, 2000. (**9/30/00**)

714. Partner Funded Study Uses Satellites to Track Migrating American Bitterns

Agassiz National Wildlife Refuge

This summer, 10 satellite tracking collars were again placed on adult male American bitterns in an effort to gain more information about the bird's migration routes and wintering areas. The collars, eight new and two refurbished, were fitted to male birds at Agassiz National Wildlife Refuge in northwest Minnesota, and is the largest sample size undertaken during the three year study. Male bitterns are selected only because collars are too heavy for female and juvenile birds.

Here's a summary of satellite tracking data for collared bitterns during Fiscal Year 2000:

Of four birds collared last summer, two made it to Florida. One died prior to fall migration and one was never heard from after release. Of the two birds that migrated to Florida, one returned to the Refuge in the spring 2000. The bird was captured and refitted with a new tracking collar.

Two birds collared in 1998 wintered over in Louisiana. One of these birds returned to the Refuge this summer. A 1998 radio collared bird that had wintered in Louisiana at the Amoco Duck Club was recaptured and fitted with a new satellite collar.

Of the 10 birds that were collared in late July 2000, two are already on the southern tip of Florida. Both birds took a route that included a location west of Madison, Wis. Six birds were still on the Refuge, and two were not located in September.

This is the third year that Agassiz staff have participated in this study.

This year, in order to save battery power, the collars can only be detected by satellites during a two-hour period every few days. Collars on the two missing birds may still be active, but satellites were not able to get a reading. Tracking collars cost $2,950 each, with data and location processing costs adding about $1,000. Costs for collars and data processing time were paid for by partners through grants. Partners include Agassiz Audubon Society and Minnesota Department of Natural Resources ($8,000) and the National Fish & Wildlife Foundation ($22,500). This was the first year that two satellite collars were recovered; one from a returning bird and one from a dead bird found last winter southeast of the Refuge. Both collars were refurbished at no charge by Microwave Telemetry Inc., saving the project an estimated $400. (**9/30/00**)

715. Fall Open House Attracts Over 500 Visitors to Tamarac NWR

Tamarac National Wildlife Refuge

About 535 visitors attended Tamarac NWR's Fall Open House and Craft Show Sept. 30, 2000. The weather was warm and sunny, fall colors were at their peak. More than 150 people attended two raptor programs featuring five live birds. Special guest demonstrators, Judy and Miles Kohout displayed and sold baskets and other items made from pine needles. A volunteer committee of crafters presented hand-made items for sale, and as always, items were a big hit, adding to the Tamarac Bookshop's profits for the day. National Wildlife Refuge Week posters, as well as Wolf Awareness Week posters were also distributed. This annual event celebrates National Wildlife Refuge Week and is co-sponsored by the Refuge and the Tamarac Interpretive Association. (**9/30/00**)

716. Year's Prescribed Burns Restore Habitat at Sherburne NWR

Sherburne National Wildlife Refuge

In an effort to restore native habitats on a landscape scale, Sherburne NWR conducts an aggressive prescribed fire program each year. During Fiscal year 2000, Refuge staff burned 5,866 acres over 10 prescribed burns. A mosaic of habitats were included. All Refuge staff participated in the burning program. Burns were conducted in October 1999, and during April and May 2000. Refuge staff planned to burn 875 acres, however burning was cut short by an increasingly dry period which put the Refuge 'out of prescription' by mid-May. All prescribed fires are ignited by hand, and generally range in size from 500 to 1,000 acres.

The larger the burn area, the lower the cost and the more habitat treated. Burning helps restore and maintain many plant habitats. Fire removes dry, dead plant matter that accumulates over the years, opening up space for new plant growth and providing better cover and food for wildlife. The burn allows nutrients locked up in the dried plants to be returned to the soil to be used by new plants.

Sherburne NWR has an extensive system of permanent monitoring plots established where the effects of burning on vegetation and substrates are measured. Following the burning this year, 82 of these plots were 'read'. The data collected is entered into a database and analyzed. This tells the Refuge staff if the burning that is being conducted is actually accomplishing the objectives that have been established for burning. Burn prescriptions can be adjusted (including burn frequency) based on the outputs of the monitoring data. (**9/30/00**)

717. Michigan Private Lands Office Provides Outreach Support to the Great Lakes Basin Ecosystem Team

Michigan Private Lands Office

During Fiscal Year 2000, Michigan Private Lands Office (MPLO) staff provided outreach assistance to the Great Lakes Basin Ecosystem Team (GLBET) for six events with a combined total of more than 200,000 visitors. Working with the "One Service" concept, MPLO staff helped prepare display text and materials that focused on the Fish and Wildlife Service and the resources we manage. Materials were prepared for shows targeted at large audiences (Outdoorama in Michigan, Air Venture in Wisconsin), specific audiences (Midwest Wildlife Conference), and conservation themes (International Migratory Bird Day, Earth Day, Bluebird Festival). For the Bluebird Festival, in Jackson, Michigan, MPLO staffed the display and served as a guest lecturer on the program. (**9/30/00**)

718. Refuge Promotes Environmental Education Via Outdoor Art

Minnesota Valley National Wildlife Refuge

The art gallery at Minnesota Valley NWR continues to offer the public an opportunity for environmental interpretation through visual art. During Fiscal Year 2000, the gallery hosted 10 exhibits, each running for approximately 5.6 weeks. Two of the exhibits featured black and white and colored photography; six were paintings including pastels, acrylics, and oils; one was fabric applique; and one a metal sculpture displayed outdoors in our courtyard, concurrent with another show.

The majority of this year's artists spent two to three years developing their body of work specific to the refuge and tried to show case the flora, fauna, and landscapes of the Minnesota River Valley. Each artist held an artist reception, attracting first-time visitors to the Refuge. The Refuge gallery received good media coverage of each exhibit, with the Minneapolis Star Tribune featuring the gallery and one of the exhibits. (**9/30/00**)

719. Water Bird/Raptor Surveys Find Over 200 Species on Big Stone NWR

Big Stone National Wildlife Refuge

Over 30 weekly water bird and raptor surveys were conducted on Big Stone NWR during Fiscal Year 2000. More than 100,000 birds of over 200 species were observed throughout the survey period. The survey, conducted weekly during ice-free conditions, follows an established route accessible by vehicle. Counts are made of all waterbirds including waterfowl, shorebirds, waders as well as raptors.

The survey was initiated to establish a permanent survey route on the Refuge; estimate numbers and identify species that utilize the Refuge year-round; establish a permanent record of weekly counts complete with field notes and calculate annual use days per each survey unit.

The survey results roughly depict bird response by guild to various management practices such as water level manipulation and timing, fire and mechanical disturbance. The presence/absence information the survey yields is also important for consideration when devising management plans.

The weekly surveys are posted at the Refuge Office/Visitor Center and electronically to the Minnesota Ornithologist's Union list-server. A summary report is sent four times a year to the seasonal editor for inclusion in "The Loon," a quarterly publication of the Minnesota Ornithological Union. Shorebird numbers are recorded on standard forms and sent to Manomet Center for Conservation Sciences, Manomet, Mass., as a participant in the International Shorebird Survey. (**9/30/00**)

720. Partners for Fish and Wildlife Joins The Nature Conservancy to Restore Riparian Habitat for Clubshell Mussels in Michigan

Michigan Private Lands Office

Michigan Private Lands Office and Ottawa National Wildlife Refuge partnered with the Indian Chapter of The Nature Conservancy (TNC) to restore 45.6 acres of riparian habitat along the East Fork of the West Branch of the St. Joseph River in Hillsdale County, Mich. The federally-endangered clubshell mussel occupies this reach of the river. TNC, after securing voluntary agreements with private landowners, contracted to have tree seedlings planted in agricultural fields in the floodplain adjacent to the river. TNC will follow up with weed control for two years to help ensure survival of the seedlings. Landowners have agreed to leave the trees in place a minimum of 15 years. This effort, to reforest gaps in the wooded riparian corridor, will benefit the mussels by reducing sedimentation to the river and eventually providing additional shading. An additional 39 acres are scheduled to be planted in spring 2001. (**9/30/00**)

721. Michigan Private Lands Office Partners With MWHF to Restore Wildlife Habitat

Michigan Private Lands Office

During Fiscal Year 2000, the Service's Michigan Private Lands Office (MPLO), through its cooperative agreement with the Michigan Wildlife Habitat Foundation (MWHF), was involved with restoration of 13 wetland basins totaling 44.1 acres. MWHF identified, designed, and completed, through contractors, each of the restoration projects. MPLO provided $5,700 and technical assistance as needed. This was matched by in-kind and cash contributions ($7,300 value) from MWHF and landowners. The restoration projects, located in Barry and Calhoun counties, were completed on private lands through voluntary agreements with landowners. Projects such as these, completed as part of the

Service's Partners for Fish and Wildlife Program, restore wetland and grassland habitats that have been degraded by drainage or development. This effort restores habitat for migratory birds and other wildlife. (**9/30/00**)

722. Michigan Private Lands Office Takes Service Message to Michigan State University Students

Michigan Private Lands Office

During Fiscal Year 2000, Michigan Private Lands Office (MPLO) staff served as a guest lecturer for four Fisheries and Wildlife Classes at Michigan State University. For the 30 students in the introductory fish and wildlife class the discussion focused in general terms on a career in the wildlife profession and opportunities available through the Fish and Wildlife Service. For a wetland class of 30 students the topic shifted to the Service's role in wetland regulation and restoration through the Partners for Fish and Wildlife Program. For two habitat restoration classes with 40 students emphasis was placed on restorations through Partners and management of refuge lands.

Through these talks, given annually, we are able to introduce both undergraduate and graduate students to the Fish and Wildlife Service and its role in conserving America's natural resources. (**9/30/00**)

723. Partners for Fish and Wildlife Continue to Restore Habitat Through NAWCA Grants

Michigan Private Lands Office

Partners for Fish and Wildlife staff from Shiawassee NWR took the lead in delivering on-the-ground habitat restoration on private lands as one component of a multi-faceted North American Wetlands Conservation Act (NAWCA) grants administered by Ducks Unlimited and focused on the Saginaw Bay watershed. Wetland and grassland restorations are ongoing and are expected to meet or exceed goals set for the grant. On-the-ground restoration success continues to stem from a strong network of partners, including, but not limited to, Ducks Unlimited, Conservation Districts, Michigan Department of Natural Resources and Pheasants Forever.

The NAWCA Saginaw Bay Phase I is expected to protect and/or restore more than 2,500 acres of wetland and upland habitat.($3,195,500)

The NAWCA Saginaw Bay Phase II is expected to protect and/or restore more than 3,200 acres of wetland and upland habitat. ($4,315,800)

Staff of the Michigan Private Lands Office and Shiawassee NWR worked closely with Ducks Unlimited and other partners to help them prepare a second NAWCA grant application to continue these efforts in the Saginaw Bay Watershed. That grant, likely to be awarded later this year, will direct additional funding at habitat restoration on private lands as well as acquisition and restoration of public lands. This effort will protect and improve habitat for waterfowl and other migratory birds, as well as a diverse group of other wetland-dependent species. (**9/30/00**)

724. Partners for Fish & Wildlife Join with Timberland RC&D to Restore Wetlands in West Michigan

Michigan Private Lands Office

In Fiscal Year 2000, the Restoration Specialist for Timberland RC&D teamed with Partners for Fish and Wildlife staff to complete more than 50 wetland restoration projects in six counties in western Michigan.

Working with staff from Shiawassee National Wildlife Refuge as well as the East Lansing Field Office and Michigan Private Lands Office, Timberland identified, designed, and completed through contractors, restoration projects totaling 158 acres. The restoration specialist was supported in part through funding from local Conservation Districts, chapters of Pheasant Forever and the Wild Turkey Federation, and the Wetland Foundation of West Michigan. Construction costs were paid by the Service, Wetland Foundation of West Michigan, and Ducks Unlimited. These projects, completed on private lands through voluntary agreements with landowners, restore wetland habitats that have been degraded by drainage or development. This effort results in improved habitat for migratory birds and other wildlife. (**9/30/00**)

725. Michigan Private Lands Office Continues Outreach to Public and Partners

Michigan Private Lands Office

Michigan Private Lands Office (MPLO) staff continue to work with the public and partners to inform them of the mission and role of the U.S. Fish and Wildlife Service and the specific goals of the Partners for Fish and Wildlife Program. One effort, expanded

Continued next page.

this year, put outreach materials into the hands of teachers and other educators. Materials are sent to educators who lead or participate in Project Wild workshops and similar efforts, and educational staff at area zoos and nature centers. These people, in turn, distribute posters and other materials to classroom teachers.

Ongoing outreach to partners, particularly new staff, helps to increase their awareness and understanding of the Partners for Fish and Wildlife Program, and our restoration efforts. Outreach was targeted at staff of the Michigan Department of Environmental Quality in an ongoing effort to simplify the wetland permitting process. Conservation District administrators were targeted to maintain support at the county level. MPLO staff gave public talks through the Bluebird Festival and at landowner workshop convened by the Wildlife Habitat Council. (**9/30/00**)

726. Michigan Private Lands Office Continues Oversight of Waterfowl Production Areas
Michigan Private Lands Office
Michigan Private Lands Office (MPLO) continued management oversight of the Schlee and Kinney Waterfowl Production Areas (WPA) in Jackson and VanBuren Counties, respectively. Day-to-day management is conducted by staff of the Michigan Department of Natural Resources Wildlife Division, through a cooperative agreement established when the properties were acquired. Approximately 50 acres of grassland habitat were hayed at the Schlee WPA to increase the vigor and density of nesting cover for waterfowl, control noxious weeds, and prevent the encroachment of woody species. (**9/30/00**)

727. Productivity of Grassland Birds on Big Oaks NWR (Jefferson Proving Ground)
Big Oaks National Wildlife Refuge
Big Oaks National Wildlife Refuge was established in July on the former Jefferson Proving Ground (JPG), a closed U.S. Army ordnance testing facility. Refuge staff found and monitored nests of birds on five plots (20-ha) in grassland habitat on unrestricted sites on Big Oaks NWR. Territories in plots were periodically spot mapped and all nests found were flagged in a random direction to minimize predation.

Standard Bird Survey vegetation variables were sampled for each nest detected and similar information was collected at systematic sites within the grassland for comparison. Evaluation of productivity of areas treated with prescribed fire would give some indication of whether same-year effects are positive.

A total of 168 nests were found this year and were represented by 21 species. The majority (n=85) were field sparrow nests followed by the Henslow's sparrow (n=19), eastern meadowlark (n=13), prairie warbler (n=11) and red-winged blackbird (n=9). Other nests found included those of rarer but noteworthy species such as Dickcissel, Grasshopper sparrow and Sedge wren.

In the three years of study, a total of 77 active Henslow's sparrow nests have been monitored. Henslow's sparrows were initially absent on two replicate plots that were treated with prescribed fire this past spring. These plots were recolonized in August by breeding Henslow's sparrows. Four of the 19 Henslow's sparrow nests found thus far were on study plots that underwent a prescribed burn this past spring. To our knowledge, this is the first documentation of Henslow's sparrrows nesting in a grassland the same year of a burn. (**9/30/00**)

728. Grassland Habitat Restoration and Management at Jefferson Proving Ground
Big Oaks National Wildlife Refuge
Jefferson Proving Ground was designated a Globally Important Bird Area by the American Bird Conservancy in 1998 primarily due to JPG's importance to the range-wide conservation of Henslow's sparrows (Ammodramus henslowii) and other grassland bird species. Big Oaks National Wildlife Refuge was established on the former Jefferson Proving Ground June 30, 2000. To ensure the continued productivity of grassland habitats within JPG, we believe the current prescribed fire program needs to be supplemented with an aerially applied herbicide program to reduce the dominance of woody species and non-native species and encourage the growth of native warm-season grasses. We proposed to apply herbicide to 3, 50-acre sites using *Plateau*, and *RoundUp*, following prescribed burning to determine what effects the use of these herbicides will have on vegetation characteristics compared to untreated sites. Aerial application of herbicide requires Washington Office approval and has led to an increase in project time that prevented this portion of the project from being completed in FY 2000. Funds for this project will be allocated and Washington

Office approval sought to complete this portion of the project in summer 2001. In addition, we planned to reduce large woody vegetation (>4') by girdling within unrestricted portions of two additional management areas (=75 acres) which has been completed. (**9/30/00**)

729. Michigan Private Lands Office Provides Biological Expertise to Multi-Million Dollar Agriculture Programs
Michigan Private Lands Office
In Fiscal Year 2000, the Service's Michigan Private Lands Office (MPLO) provided technical assistance to the U.S. Department of Agriculture's Natural Resource Conservation Service (NRCS) to implement the 'Farm Bill' conservation programs. Assistance was provided through the State Technical Committee and subcommittees and through on-the-ground site reviews. Input of our biological expertise influenced NRCS's multi-million dollar programs and resulted in 'value-added' benefits to wildlife, particularly wetland and grassland dependent migratory birds.

Service staff assisted provided field assistance to NRCS to review and rank 12 Wetlands Reserve Program (WRP) landowner applications for program eligibility on 639 acres. MPLO staff also contributed to the direction of WRP at the state level, influencing the expenditure of approximately $5 million.

Service staff also contributed to the direction of the $3 million Environmental Quality Incentive Program (EQIP) by helping to rank applications from conservation priority areas and recommending conservation practices that improve wildlife habitat in addition to improving water quality and conserving soil.

Staff served on the Field Office Technical Guide Subcommittee of the NRCS State Technical Committee and reviewed and assisted with the development of 9 Conservation Practice Standards. This ongoing review process allows us to recommend improvements to conservation practices, which can ultimately result in improved habitat for migratory birds and other wildlife. (**9/30/00**)

730. Michigan Private Lands Office Contributes to Development of CREP Proposal
Michigan Private Lands Office
Michigan Private Lands Office staff participated on a committee to coordinate the development of the Michigan Conservation Reserve Enhancement Program (CREP) proposal. The Michigan CREP proposal was approved by the U.S. Department of Agriculture and implementation will begin in fiscal year 2001. The CREP plan is a $151 million federal and state conservation partnership that has targeted 80,000 acres to address specific water quality, soil erosion, and wildlife habitat issues related to agriculture land use. CREP combines the USDA Conservation Reserve Program with state conservation and environmental programs. Funding includes $126 million from federal funds matched with $25.5 million of State funds. (**9/30/00**)

731. Michigan Private Lands Office Leads Review of Conservation Easement Proposals
Michigan Private Lands Office
Michigan Private Lands Office continues to provide overall guidance and coordination for the review of Farm Service Agency inventory properties for important wetland, endangered species, riparian, flood plain and rare and unique habitats. Staff evaluated one 257-acre inventory property and proposed protection of 92 acres. One quitclaim deed and conservation easement amounting to 42 acres was recorded and will be managed as part of the National Wildlife Refuge System. To date, 157 conservation easements totaling 6,321 acres have been recorded. Easements are managed and enforced by Seney NWR, Shiawassee NWR, and Ottawa NWR. (**9/30/00**)

Private Lands Office Assists Farm Service Agency Implement Debt for Nature Program
Michigan Private Lands Office
Michigan Private Lands Office continued to assist the Farm Service Agency (FSA) in implementing the Debt for Nature Program authorized by the Consolidated Farm and Rural Development Act. The program allows current and delinquent FSA borrowers with loans secured by real estate to enroll in a 50, 30, or 10 year land retirement contract in return for debt cancellation. Service staff has evaluated 14 properties, proposed 1109 acres for protection, recommended land treatment practices, delineated contract boundaries utilizing Global Positioning and Geographic Information Systems (GPS, GIS), and developed contract descriptions. Debt for Nature Program has the potential to provide benefits for migratory birds, endangered species, resident species, and their habitats, as well as reducing the financial burden to FSA borrowers. (**9/30/00**)

733. Partners for Fish and Wildlife and TNC Restore Fen Habitat in Southwest Michigan
Michigan Private Lands Office
Staff from the Service's Michigan Private Lands and East Lansing Field Offices have partnered with The Nature Conservancy, Michigan Chapter, in an effort to restore portions of two wetland areas, Bakerstown Fen and Dayton Wet Prairie Preserves, in Berrien County, Michigan. These complexes are geologically and biologically unique wetland communities. This project targets restoration of the vegetative community instead of restoration of hydrology, as done on most Partners for Fish and Wildlife wetland projects. Restoration and management of these fen and prairie complexes, together totaling more than 100 acres, will be primarily through the removal of encroaching nonnative and native invasive plants, such as glossy buckthorn, phragmites, and purple loosestrife. Through this effort, we expect to increase our understanding of other restoration options that can be applied to other private lands. (**9/30/00**)

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