U.S. Fish & Wildlife Service

Fish Lines

Region 3 - Great Lakes/Big Rivers

Leadership in Conserving, Enhancing, and Restoring Aquatic Ecosystems

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Great Lakes Fish and Wildlife Restoration Act: Looking Toward Reauthorization

(See the "*Feature Article*" on Page 5)

-(Top Row, Lt. to Rt.) USFWS, USFWS, D. Jackson (Bottom Row) USFWS, Council of Lake Committees, Marc Gaden

Series of photos depicting the Great Lakes Fish and Wildlife Restoration Act: (Top Row, Lt. to Rt.) The Great Lakes Fish and Wildlife Restoration Act (Act) provides essential resources to state and tribal management agencies to conserve, enhance, and restore Great Lakes fish and wildlife populations and their habitats; Native fish species such as the coaster brook trout in Lake Superior have benefited from rehabilitation efforts under the Act; The Act has supported fish population and community dynamics research in areas such as the near-shore habitats of Lake Erie; (Bottom Row) Basic information on fish and wildlife habitats and conditions impeding habitat restoration has been collected through Act programs; The Act has strengthened interagency partnerships and improved coordination of management activities in the Great Lakes; Tools for addressing conservation challenges are provided through the Act for the benefit of Great Lakes fish, wildlife, and habitat resources, and the people who depend on them.

Region 3 - Great Lakes/Big Rivers Region

The Mission of the U.S. Fish & Wildlife Service: working with others to conserve, protect and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people

Region 3 Focus Areas

1. Partnerships and Accountability

Partnerships are essential for effective fisheries conservation. Many agencies, organizations, and private individuals are involved in fisheries conservation and management, but no one can do it alone. Together, these stakeholders combine efforts and expertise to tackle challenges facing fisheries conservation. The success of these partnerships will depend on strong, two-way communications and accountability.

2. Aquatic Species Conservation and Management

The Fisheries Program maintains and implements a comprehensive set of tools and activities to conserve and manage self-sustaining populations of native fish and other aquatic resources. These tools and activities are linked to management and recovery plans that help achieve restoration and recovery goals, provide recreational benefits, and address Federal trust responsibilities. Sound science, effective partnerships, and careful planning and evaluation are integral to conservation and management efforts.

3. Aquatic Invasive Species

Aquatic invasive species are one of the most significant threats to fish and wildlife and their habitats. Local and regional economies are severely affected with control costs exceeding $123 billion annually. The Fisheries Program has focused its efforts on preventing introductions of new aquatic invasive species, detecting and monitoring new and established invasives, controlling established invasives, providing coordination and technical assistance to organizations that respond to invasive species problems, and developing comprehensive, integrated plans to fight aquatic invasive species.

4. Public Use

As the population in the United States continues to grow, the potential for adverse impacts on aquatic resources, including habitat will increase. At the same time, demands for responsible, quality recreational fishing experiences will also increase. The Service has a long tradition of providing opportunities for public enjoyment of aquatic resources through recreational fishing, habitat restoration, and education programs and through mitigating impacts of Federal water projects. The Service also recognizes that some aquatic habitats have been irreversibly altered by human activity (i.e. - dam building). To compensate for these significant changes in habitat and lost fishing opportunities, managers often introduce non-native species when native species can no longer survive in the altered habitat.

5. Cooperation with Native Americans

Conserving this Nation's fish and other aquatic resources cannot be successful without the partnership of Tribes; they manage or influence some of the most important aquatic habitats both on and off reservations. In addition, the Federal government and the Service have distinct and unique obligations toward Tribes based on trust responsibility, treaty provisions, and statutory mandates. The Fisheries Program plays an important role in providing help and support to Tribes as they exercise their sovereignty in the management of their fish and wildlife resources on more than 55 million acres of Federal Indian trust land and in treaty reserved areas.

6. Leadership in Science and Technology

Science and technology form the foundation of successful fish and aquatic resource conservation and are used to structure and implement monitoring and evaluation programs that are critical to determine the success of management actions. The Service is committed to following established principles of sound science.

7. Aquatic Habitat Conservation and Management

Loss and alteration of aquatic habitats are principal factors in the decline of native fish and other aquatic resources and the loss of biodiversity. Seventy percent of the Nation's rivers have altered flows, and 50 percent of waterways fail to meet minimum biological criteria.

8. Workforce Management

The Fisheries Program relies on a broad range of professionals to accomplish its mission: biologists, managers, administrators, clerks, animal caretakers, and maintenance workers. Without their skills and dedication, the Fisheries Program cannot succeed. Employees must be trained, equipped and supported in order to perform their jobs safely, often under demanding environmental conditions, and to keep current with the constantly expanding science of fish and aquatic resource management and conservation.

The vision of the Service's Fisheries Program is working with partners to restore and maintain fish and other aquatic resources at self-sustaining levels and to support Federal mitigation programs for the benefit of the American public.

Implementing this vision will help the Fisheries Program do more for aquatic resources and the people who value and depend on them through enhanced partnerships, scientific integrity, and a balanced approach to conservation.

Inside this Issue

Click here to visit our Fisheries Web Site

Great Lakes - Big Rivers Region Fisheries Field Offices

National Fish Hatcheries

The Region's National Fish Hatcheries primarily focus on native fish restoration/ rehabilitation by stocking fish and eggs, such as pallid and lake sturgeon and by developing and maintaining brood stocks of selected fish strains, such as lake trout and brook trout. Hatcheries also provide technical assistance to other agencies, provide fish and eggs for research, stock rainbow trout in fulfillment of federal mitigation obligations and assist with recovery of native mussels and other native aquatic species.

Sea Lamprey Control Stations

Sea Lamprey Control Stations assess and control sea lamprey populations throughout the Great Lakes. The U.S. Department of State and Canadian Department of Fisheries and Oceans fund this program through the Great Lakes Fishery Commission.

Fishery Resources Offices

Fishery Resources Offices conduct assessments of fish populations to guide management decisions, perform key monitoring and control activities related to invasive, aquatic species; survey and evaluate aquatic habitats to identify restoration/rehabilitation 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 Partners for Fish and Wildlife and the Great Lakes Coastal Programs; provide coordination and technical assistance toward the management of interjurisdictional fisheries; maintain and operate several key interagency fisheries databases; provide technical expertise to other Service programs addressing contaminants, endangered species, federal project review and hydropower operation and re-licensing; evaluate and manage fisheries on Service lands; and, provide technical support to 38 Native American tribal governments and treaty authorities. In other Regions of the Service, FRO's are also referrred to as Fish and Wildlife Management Assistance Offices.

Fish Health Center

The Fish Health Center provides specialized fish health evaluation and diagnostic services to federal, state, tribal and private hatcheries in the region; conducts extensive monitoring and evaluation of wild fish health throughout the region; examines and certifies the health of captive hatchery stocks; and, performs a wide range of special services helping to coordinate fishery program offices and partner organizations.

Great Lakes - Big Rivers Region Fisheries Field Offices

List of Acronyms

DNR- Department of Natural Resources
FHC- Fish Health Center
FRO- Fishery Resources Office
NFH- National Fish Hatchery
NWR- National Wildlife Refuge

Great Lakes Fish and Wildlife Restoration Act: Looking Toward Reauthorization

Since 1990, the Great Lakes Fish and Wildlife Restoration Act (Act) has been extremely successful in building partnerships among state, tribal, federal and provincial management agencies for cooperative conservation, enhancement and restoration of Great Lakes fish, wildlife and habitat. Activities funded under the Act have also made important contributions toward understanding the complexity of restoration needs in the Great Lakes and developing tools to address those needs.

1990 Act

Enacted as Public Law 101-646 on November 29, 1990, the Act's original purpose was to "carry out a comprehensive study of the status, and the assessment, management, and restoration needs, of the fishery resources of the Great Lakes Basin; to develop proposals to implement recommendations resulting from that study; and to provide assistance to the Great Lakes Fishery Commission, states, Indian tribes, and other interested entities to encourage cooperative conservation, restoration and management of fish and wildlife resources and their habitat."

The 1990 Act also established the Fish and Wildlife Service's six inter-program Great Lakes goals, which tie activities authorized under the Act to agency resource management operations authorized and funded through many other laws, treaties, agreements and guiding documents. Fish and Wildlife Service conservation programs are administered through Fishery Resources Offices, National Fish Hatcheries, National Wildlife Refuges, Wetland Management Districts, Ecological Services, Law Enforcement and Partners for Fish and Wildlife, make important contributions toward achieving these goals.

1998 Act

In 1998, Public Law 105-265 reauthorized the Act, shifting emphasis from studying needs and developing recommendations to implementing restoration projects. It authorized $4.5 million for state and tribal sponsored restoration projects and $3.5 million for Fish and Wildlife Service coordination activities and technical assistance through the Upper and Lower Great Lakes Fishery Resource Offices.

From 1998 through 2005, more than 60 partners collaborated on species and habitat restoration-related projects, under the Act, providing funds, in-kind contributions and expertise. In total, 65 of the 144 restoration projects proposed under the Act have been funded with more than $3.3 million in federal dollars and $2.5 million in non-federal matching funds.

The Act has primarily supported projects addressing fishery restoration needs identified in the 1995 Great Lakes Fishery Resources Restoration Study and priorities of the Great Lakes Fishery Commission Lake Committees. Many of these projects have focused on issues related to the status of fish and wildlife populations –with an emphasis on fish –and their habitats, conditions impeding restoration, and establishment of a framework, including geographic information systems and interagency databases, to help bring management authorities together as a combined force.

Reauthorization Bills Introduced

In March 2006, H.R. 4953, sponsored by Rep. Kildee of Michigan, and S. 2430, sponsored by Sens. DeWine of Ohio and Levin of Michigan, were introduced in Congress to reauthorize the Act. These bills propose some important changes.

The introduced language increases funding authority for fish and wildlife proposals from $4.5 million to $11.4 million annually and places greater emphasis on funding both projects that address fisheries restoration needs and projects that address wildlife restoration needs. The language also shifts coordination of the Proposal Review Committee from the Council of Lake Committees to the Fish and Wildlife Service.

The reauthorization bills also establish a new funding authority of $6 million for "regional projects" to be implemented by the Fish and Wildlife Service, and revises the agency's first Great Lakes goal from "Restoring and maintaining self-sustaining fishery resource populations" to "Restoring and maintaining self-sustaining fish and wildlife resources." A new annual reporting requirement to the states and tribes is also included, along with a comprehensive study on the status and needs of Great Lakes fish and wildlife resources by 2009 and a report to Congress on accomplishments under the Act by 2011.

A "regional project" could support the recommendations from the Great Lakes Regional Collaboration (Executive Order: 13340) or have basin-wide benefits for fish and wildlife. These projects would be implemented by the Fish and Wildlife Service but developed collaboratively with Great Lakes states and tribes.

In addition to these changes, the bills acknowledge the importance of activities supporting sustainable fish and wildlife resources of common concern, as emphasized in the recommendations of the Great Lakes Regional Collaboration. A reauthorized Great Lakes Fish and Wildlife Restoration Act would help continue to strengthen and grow interagency partnerships within the Great Lakes and provide necessary tools for addressing fish and wildlife restoration challenges. Given the scale and complexity of Great Lakes restoration needs, there is much work to do.

Summary of Differences Among the Great Lakes Fish and Wildlife Restoration Act of 1990, 1998 and H.R. 4953/ S. 2430 Introduced to Congress in March 2006

	1990 Act	1998 Reauthorization	H.R. 4953/S. 2430
Funding Authority	$10 million	$8 million	$20 million
Fish and Wildlife Restoration Proposals	No authorization for fish and wildlife restoration proposals	$4.5 million for fish and wildlife restoration proposals No funds for administration	$11.4 million for fish and wildlife restoration proposals $600,000 (or 5% if appropriated at less than $11.4 million) for administration
Regional Projects	No authorization for regional projects	No authorization for regional projects	$6 million authorized for regional projects
Service Operations	Established the Great Lakes Fishery Resources Offices and the Great Lakes Coordination Office Authorized $6 million for Great Lakes Fishery Resources Offices and the Great Lakes Coordination Office	Authorized $3.5 million for Great Lakes Fishery Resources Offices and the Great Lakes Coordination Office	Authorizes $2 million for Great Lakes Fishery Resources Offices and the Great Lakes Coordination Office
Proposal Review Committee Membership	No Proposal Review Committee	Council of Lake Committees lead for coordinating the Proposal Review Committee Committee shall consist of representatives of States and Tribes	Proposes Service lead for coordinating the Restoration Grant Proposal Review Committee Committee shall consist of two representatives of States and Tribes and one of the two should have wildlife expertise

(Continued on Next Page)

	1990 Act	1998 Reauthorization	H.R. 4953/S. 2430
Reporting	Service to provide annual Report to Congress $4 million annually for Service to conduct a comprehensive study of the status and needs of Great Lakes fishery resources	Service to provide a Report to Congress in 2002	Service to provide annual reports to the Great Lakes states and tribes Service to provide a Report to Congress in 2011 Service to conduct a comprehensive study on the status and needs of Great Lakes fish and wildlife resources by December 2009
Service's Great Lakes Goals	Established Service's 6 Great Lakes Goals Goal #1: "Restoring and maintaining self-sustaining fishery resource populations" Goal #2: "Minimizing the impacts of contaminants on fishery and wildlife resources" Goal #3: "Protecting, maintaining, and where degraded and destroyed, restoring fish and wildlife habitat, including the enhancement and creation of wetlands that result in a net gain in the amounts of those habitats" Goal #4: "Stopping illegal activities adversely impacting fishery and wildlife resources" Goal #5: "Restoring threatened and endangered species to viable, self-sustaining levels" Goal #6: "Protecting, managing, and conserving migratory birds"	Service Goals Remain the Same Goal #1: "Restoring and maintaining self-sustaining fishery resource populations" Goal #2: "Minimizing the impacts of contaminants on fishery and wildlife resources" Goal #3: "Protecting, maintaining, and where degraded and destroyed, restoring fish and wildlife habitat, including the enhancement and creation of wetlands that result in a net gain in the amounts of those habitats" Goal #4: "Stopping illegal activities adversely impacting fishery and wildlife resources" Goal #5: "Restoring threatened and endangered species to viable, self-sustaining levels" Goal #6: "Protecting, managing, and conserving migratory birds"	Goal #1 Changed Goal #1: "Restoring and maintaining self-sustaining fish and wildlife resources" Goal #2: "Minimizing the impacts of contaminants on fishery and wildlife resources" Goal #3: "Protecting, maintaining, and where degraded and destroyed, restoring fish and wildlife habitat, including the enhancement and creation of wetlands that result in a net gain in the amounts of those habitats" Goal #4: "Stopping illegal activities adversely impacting fishery and wildlife resources" Goal #5: "Restoring threatened and endangered species to viable, self-sustaining levels" Goal #6: "Protecting, managing, and conserving migratory birds"

Following are examples of projects funded under the Act:

Lake Huron Whitefish Distribution Study

Year Funded: 2003

Project Leader: Mark Ebener- Chippewa/Ottawa Resource Authority

Other Partners: Ontario Ministry of Natural Resources, Michigan Department of Natural Resources, U.S. Fish and Wildlife Service- Alpena Fishery Resources Office, University of Guelph, Bruce Power, Chippewas of Nawash, and Saugeen First Nation.

Funds: $173,334 Restoration Act funds; $114,000 in non-federal matching funds

Project Summary: The primary research questions being addressed by this study are 1) Does the spatial distribution of lake whitefish in Lake Huron vary among stocks? and 2) What is the magnitude of the contribution of each stock to the commercial fishery yield in the main basin of Lake Huron? Mark-recapture of adult lake whitefish will be conducted in multiple years at six sites that represent isolated spawning stocks in the main basin of Lake Huron. A total of 12,638 whitefish were tagged in 2004, and approximately 10,000 in 2005. Important sampling lessons have been learned during these first two field seasons. Having learned these lessons, it is expected that the tagging goal will be achieved at all sites in 2006.

Floy Tagged Whitefish

Tending Trapnets on Lake Huron

So What?: This project addresses one of the primary research objectives of the Lake Huron Committee which is to determine sustainable harvest levels of lake whitefish in Lake Huron. Identification of mixed lake whitefish stock fisheries and stocks at risk will help managers to better manage and secure stable, self-sustaining whitefish stocks in Lake Huron.

Geographic Information System for Great Lakes Aquatic Habitat

Years Funded: 2000, 2001, 2002, 2003 and 2005

Project Leader: Edward Rutherford- University of Michigan, Institute for Fisheries Research

Other Partners: Michigan Department of Natural Resources and U.S. Geological Survey.

Funds: $618,417 Restoration Act funds; $430,568 in non-federal matching funds

Project Summary: The primary objective of the GIS for Great Lakes Aquatic Habitat project is to integrate data from each lake basin into a common database to provide an inventory of basin-wide aquatic resources. In addition to integrating existing data from federal, state, provincial, tribal, and non-governmental organizations, this information system will also provide a means of inventorying and monitoring basin habitat (e.g. terrestrial, tributary, nearshore, and offshore systems). The GIS databases for Lake Michigan and Lake Huron are now complete and ready for distribution to partners. The Lake Erie GIS project is proceeding on schedule, and a prototype version has been distributed for feedback by lake managers and scientists. Work continues on GIS databases for Lake Superior and Lake Ontario. Continuing efforts have been made to coordinate with ongoing GIS-based habitat initiatives and arrange long-term distribution and housing of GIS-based data.

Visit: http://www.glfc.org/glgis for more information about the Great Lakes GIS

So What?: The GIS database should, for the first time, allow the integration of data developed by the numerous Great Lakes management agencies in the United States and Canada. The final 5-lake GIS product will provide a valuable shared informational framework for developing habitat and species objectives, implementing Lakewide Management Plans and monitoring the status of protection and restoration efforts.

Evaluations of Pilot-Scale Venturi Oxygen Stripping to Prevent Ballast Water Invasions

Year Funded: 2004

Project Leader: Mario Tamburri- Chesapeake Biological Laboratory, University of Maryland Center for Environmental Science

Other Partners: Smithsonian Environmental Research Center and NEI Treatment Systems, LLC

Funds: $75,784 Restoration Act funds; $25,261 in non-federal matching funds

Project Summary: The fundamental goal of this project is to contribute to the science necessary for the development of effective ballast water management strategies to prevent aquatic invasions of the Great Lakes and globally. This research focused on evaluations of deoxygenation in general and Venturi Oxygen Stripping (VOS) in particular, because of its ability to kill ballast water organisms and to reduce ballast tank corrosion. The project was completed in September 2005 and its results indicate that this approach has the potential to be an effective ballast water treatment option. The next phase in this research will field-test a prototype VOS system during normal vessel operations.

Pilot-Scale VOS System at the Chesapeake Biological Laboratory

Small-Scale VOS System with Light-tight Container and Six Identical One Liter Flasks

So What?: The Great Lakes basin has been colonized by at least 180 non-native species with most of these invaders arriving via ballast water from ocean-going ships. Some of these species have had significant ecological and economic impacts. It has proven challenging, however, to find an environmentally friendly ballast water treatment that is effective at reducing introductions and is also acceptible to the shipping industry in terms of safety, time and cost. This research indicates that deoxygenation may be such a treatment, with an added benefit of reduction in ballast tank corrosion rates.

Assessment of Pit Tags for Estimating Exploitation of Walleyes in Lake Erie and Saginaw Bay

Year Funded: 2004

Project Leader: Chris Vandergoot- Ohio Department of Natural Resources

Other Partners: Ontario Ministry of Natural Resources, Michigan Department of Natural Resources, New York State Department of Environmental Conservation and Pennsylavania Fish and Boat Commission.

Funding: $105,000 Restoration Act funds; $38,420 in non-federal matching funds

Project Summary: The primary objective of this project is to assess the use of PIT tags as an alternative to jaw tags in estimating walleye exploitation rates in Lake Erie and Saginaw Bay, Lake Huron, in terms of tag retention, cost/benefit analysis, sample size considerations, and precision of exploitation estimates. The use of PIT tags in Great Lakes walleye tagging programs could reduce potential biases associated with tag loss, assuming retention rates are higher than those observed for jaw tags. In Spring 2005, approximately 9,500 walleyes from 8 stocks in Lake Erie and 1 stock in Lake Huron were tagged. To date 20 tagged walleye have been recovered from a total of approximately 20,000 harvested by anglers.

Walleye Captured from the Maumee River

PIT (Passive Integrated Transponder) Tagging a Walleye

So What?: The Lake Erie Committee Walleye Task Group currently uses reporting rates of recaptured walleye with jaw tags to establish an annual total allowable catch. This project will improve estimates of jaw tag loss and our understanding of factors affecting mortality rates of jaw tagged walleye. It will also allow managers to validate past tagging studies to set appropriate total allowable catch levels for Lake Erie walleye.

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Partnerships and Accountability

Columbia Fishery Resources Office attends the Dakota Chapter American Fisheries Society Annual Meeting

Biologists from the Columbia Fishery Resources Office (FRO) attended the Dakota Chapter American Fisheries Society (AFS) annual meeting February 28 and March 1 in Chamberlain, South Dakota. Geno Adams presented *Age, Growth and Aging Structure Comparison of Bighead and Silver Carp in the Missouri and Illinois Rivers*. Andy Starostka presented D*ispersal of Hatchery Reared Pallid Sturgeon from a Stocking site on the Lower Missouri River*. Staff attended presentations relating to Missouri River issues and pallid sturgeon and observed work being done elsewhere in the basin.

Columbia FRO biologists were able to strengthen old relationships and begin new ones with multiple state agencies. Networking with other Missouri River biologists allows staff of the Columbia FRO the opportunity to communicate with other professionals and to highlight projects and accomplishments of this office. Communication between all stakeholders is a key component of managing and studying broad scale, inter-jurisdictional waters such as the Missouri River.

Geno Adams and Andrew Starostka, Columbia FRO

Fish and Wildlife Service and Minnesota Department of Natural Resources Coordination Meeting

Fish and Wildlife Service Fisheries offices working on Lake Superior held a coordination meeting on February 22 in Two Harbors, Minnesota, with colleagues of the Minnesota Department of Natural Resources (DNR). The Fish and Wildlife Service was represented by the Ashland FRO, Iron River National Fish Hatchery (NFH), and Regional Office Fisheries staff. Minnesota DNR was represented by field offices from Duluth, French River, and Finland along with Grand Rapids Regional Office staff. Valuable information was shared and discussion on programs of mutual interest included fish habitat programs, tribal issues, coaster brook trout, lake sturgeon, lake trout, St. Louis River, and sea lamprey control. Participants found the meeting valuable and recognized the benefit to meet annually.

Mark Dryer, Ashland FRO

Evaluation of Flow Modifications from Gavins Point Dam

Project Leader Tracy Hill and Corps Operations Branch Chief Wyatt Doyle assisted the Army Corps of Engineers (Corps) and other Missouri River biologists, engineers, and hydrologists with finalizing plans to evaluate experimental flow releases planned from Gavins Point Dam during the spring of 2006. This dam is the lowest on the Missouri River and specific flow releases are deemed necessary to aid the recovery of the Federally endangered pallid sturgeon. The Amended Biological Opinion issued to the Corps in 2003 describes in detail the need for flow modifications below Gavins Point Dam to avoid jeopardizing the continued existence of pallid sturgeon. A more normalized hydrograph, one that mimics the natural hydrograph, is thought to benefit pallid sturgeon by restoring some semblance of natural riverine processes.

The Corps and the Fish and Wildlife Service conducted a collaborative process during 2005 to develop a flow scenario to address Biological Opinion requirements and basin concerns. This plan has been developed to reflect what can reasonably be implemented in 2006. This study design documents a plan to evaluate biological and physical responses to flow modifications, including behavioral and physical responses of pallid sturgeon, and changes in suspected spawning habitats. This study is just the first year of what should be considered a comprehensive, multi-year study design. Logistics of the actual monitoring work were discussed and agreed upon during the meeting.

Tracy Hill, Columbia FRO

Missouri Natural Resources Conference

Biologist Jennifer Johnson of the Columbia FRO attended the Missouri Natural Resources Conference in February at Lake of the Ozarks, Missouri. Jennifer presented a poster entitled *Reproductive Development of the Sicklefin Chub (Macrhybopsis meeki) in the lower Missouri River*. The focus of this year's conference was "Managing the Public's Trust Amid Competing Voices." Johnson attended a workshop on reservoir fisheries issues, a technical paper session in fisheries, and the Missouri Chapter of the American Fisheries Society annual meeting.

Participation in the workshops provides current information on reservoir and small impoundment fisheries management issues, updates of research projects by resource scientists, and presentations of management problems by fishery management biologists. The poster presentation provided an opportunity to interact with other graduate students as well as scientists and decision makers from Federal and state agencies, to answer questions regarding Jennifer's research, and provide information to all interested parties.

Jennifer Johnson, Columbia FRO

Columbia Fishery Resources Office meets with Partners of the Habitat Assessment and Monitoring Program

Biologists from Columbia FRO met with the Army Corps of Engineers and other partners in Kansas City to discuss the Habitat Assessment and Monitoring Program (HAMP). The agenda for this meeting included reports on 2005 activities, discussion of an Independent Science Review results, and work towards refining the 2006 activities for HAMP. Andy Starostka provided presentations of field work conducted by the office for HAMP and the Mitigation projects in 2005. The Nebraska Game and Parks Commission along with physical mapping crews from the Corps and U. S. Geological Survey provided reviews of last season's work. An Independent Science Review was conducted by Sustainable Ecosystems, Inc. The recommendations of this review were discussed among all parties. More analysis of 2005 data will need to be conducted before the recommendations can be incorporated into 2006 sampling. Work by the group continues toward refining the activities for HAMP. This meeting was a unique opportunity of biologists, hydrologists, and engineers to be at the table together. Meetings like this provide insight into the work that each group is conducting and assists others understand the complex sampling issues each group faces while performing work for this project.

Andy Starostka, Columbia FRO

U.S. Army Corps of Engineers

Neosho National Fish Hatchery Managers Discuss Pallid Sturgeon Recovery

Hatchery Manager Dave Hendrix and Assistant Manager Rod May attended a Pallid Sturgeon Recovery Team meeting in St. Joseph, Missouri. The new culture season is about to begin and the team is working out the logistics for spawning and egg shipments. Agencies that participated at the meeting included the Fish and Wildlife Service; Corps of Engineers; U. S. Geological Survey; Missouri Department of Conservation; University of Missouri; Iowa DNR; South Dakota Game, Fish, and Parks; and private interest groups.

Roderick May, Neosho NFH

Lake Sturgeon Coordination Meeting

Biologist Scott Koproski met with partners and cooperators to interview candidates for a Student Temporary Experience Program (STEP) position for the lake sturgeon work scheduled to take place on the St. Marys River during the 2006 field season. Koproski was awarded a grant from the National Fish and Wildlife Foundation (NFWF) to assess lake sturgeon in the St. Marys River. The St. Marys River is the connecting waterway between Lake Superior and the Lower Great Lakes. The project includes partnerships with Lake Superior State University, Bay Mills Indian Community, Soo Area Sportsman, and eight volunteers, all of which have donated their time and vessels to the project.

Funding awarded from the NFWF will be used to capture and implant sonic telemetry tags in lake sturgeon utilizing the St. Marys River. Anecdotal informa-

tion indicates that lake sturgeon were commonly encountered in the St. Marys River; however, very little is currently known about population size, available habitat, and spawning locations within this system. By capturing and following these fish, we may be able to provide more definitive answers for researchers and managers.
Scott Koproski, Alpena FRO

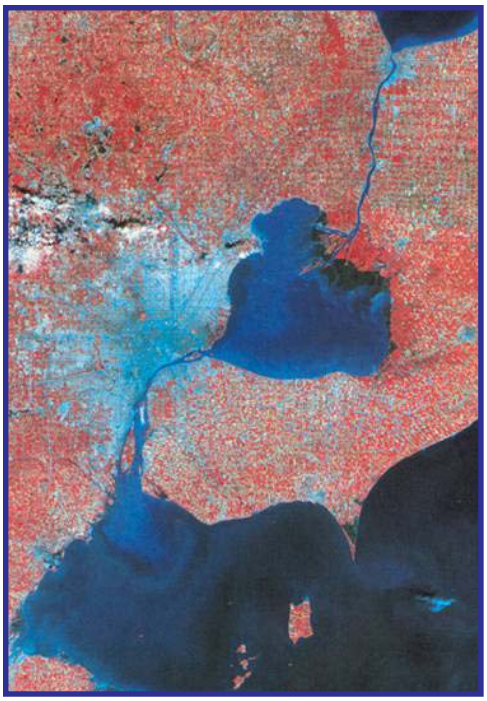
Huron-Erie Corridor Steering Committee

Project Leader Jerry McClain and biologist Jim Boase participated in a meeting of the Huron-Erie Corridor Initiative (HECI) Steering Committee in Ann Arbor, Michigan, on February 1. The HECI was initially proposed in 2005 by the U.S. Geological Survey-Great Lakes Science Center (GLSC) to initiate and expand collaboration and develop a partnership effort to help prioritize research activities in this important Great Lakes waterway.

The Huron-Erie Corridor (HEC) includes the southern main basin of Lake Huron, the St. Clair River, Lake St. Clair, and the western basin of Lake Erie. Currently there are about 40 species of fish that utilize the HEC for some part of their life cycle. Historically, the HEC provided critical spawning and nursery habitat for numerous native fish species, many of which are now in a significantly depleted state. As development occurred along the HEC, habitat alteration resulted in the loss of much of this important habitat and the hydraulic characteristics of the system have been greatly altered. It is felt that much of the spawning habitat for native species, such as lake sturgeon and lake whitefish, have been lost to dredging and channelization for the movement of commercial shipping. In addition, much of the nursery habitat that existed within the channel and at the mouth of the Detroit River is no longer available to larval fish as they drift out of the system.

A Steering Committee was established to help guide efforts to identify priority habitat restoration and fishery research needs in the HEC. Currently there are nearly 20 members to the Steering Committee representing Federal, state, provincial, tribal, and local governments, as well as university and other non-governmental organizations. McClain represents the Fish and Wildlife Service on the Steering Committee and Boase serves as the alternate. The Alpena FRO participates in numerous fishery research and management projects within the HEC in partnership with the GLSC and the Michigan DNR. Boase has a lead role for several lake sturgeon restoration projects in the waterway.

Due to the importance of the HEC to the fisheries in the region, the extensive habitat concerns and issues associated with the system, and the large partnership that continues to grow in the region, McClain has proposed the HECI as a candidate for the National Fish Habitat Initiative (NFHI). McClain provided a presentation to the Steering Committee and other participants at the February meeting to explain the history and purpose of the NFHI and to propose the HECI as a candidate for funding consideration in FY 2007 and beyond. There was unanimous support for the proposal and McClain will be working with Sandra Morrison of the GLSC to develop a draft proposal for Steering Committee review.
Jerry McClain, Alpena FRO



-NOAA

Alpena Fishery Resources Office participates in a committee to help prioritize research activities in the Huron-Erie Corridor. The Corridor includes the southern main basin of Lake Huron, the St. Clair River, Lake St. Clair, and the western basin of Lake Erie.

Moving on up! Genoa National Fish Hatchery Relocates its Offices to Renovated Quarters

After 70 years of continuous service, the Genoa NFH retired its old office facilities on the banks of the Mississippi River and moved 300 yards to the north into renovated quarters (still on the banks of the Mississippi River)! The station had been looking to replace the old office building for many years due to its dilapidated condition and the inability for the old offices to meet Accessibility requirements set by the Americans with Disabilities Act (ADA). In fact, during the move, new office blueprints were found that were drawn up in 1987!
Doug Aloisi, Genoa NFH

Aquatic Species Conservation and Management

Monitoring Stocked Coaster Brook Trout Eggs in Whittlesey Creek

Staff members from Ashland FRO, Iron River NFH, and Wisconsin DNR along with volunteers from the local Wild Rivers Trout Unlimited Chapter monitored the status of coaster brook tout eggs stocked in Whittlesey Creek near Ashland, Wisconsin, during weekly trips since December 2005. Different coaster brook trout life stages are being stocked from 2004 to 2009 under a coaster brook trout rehabilitation plan developed with the Wisconsin DNR. Egg stocking is scheduled for 2004, 2006, and 2008 with approximately 50,000 planted in boxes within Astroturf bundles for each of these three years. In addition, a small number of eggs are placed in a separate unit and is used to monitor development and estimate hatch rates.

In February, two Astroturf egg boxes were placed inside of baskets that were lined with screen. The screened baskets will verify that fry are able to emerge from the boxes once they hatch. Substrate (gravel) was added to give the fry that do emerge some cover to hide in. Once it is established that fry have successfully emerged, the baskets will be removed to allow fry access to the stream. To determine success of our efforts, assessments during the fall will give information to the contribution of stocked fish that came from the egg stocking.
Jonathan Pyatskowit, Ashland FRO

-USFWS

This screened laundry basket is used to verify that fry can emerge successfully from egg boxes. An egg box will be set inside of the basket on the stream bed. Coaster brook trout eggs are being placed into Whittlesey Creek near Ashland, Wisconsin, as part of a rehabilitation plan.

Ashland Fishery Resources Office and Northland College American Fisheries Society Student Sub-unit Team Up to help Register Lake Sturgeon from Lake Winnebago

Biologist Glenn Miller from the Ashland FRO and student volunteers from Northland College's American Fishery Society Student sub-unit assisted the Wisconsin DNR register lake sturgeon from Lake Winnebago. Harvest for the 2006 season was 225 sturgeon for the full 16 day season. A total of 45 juvenile females, 104 adult females, and 76 males were harvested. The mandatory registration gathers important biological data from the harvested sturgeon. Each sturgeon is weighed, measured to the nearest ½ inch, has the first ray of the pectoral fin removed for ageing, and sexed. In addition, the first ten sturgeon registered have the stomachs removed for diet analysis.

The student volunteers that assisted with registration were Travis Neebling, Melissa Kjelvik, and Carrie Robertson, along with Northland College graduates Jessica Krajniak and Lindsey Lesmeister. They helped in all aspects of sturgeon registration. This experience gives the students the opportunity to see and handle a large number of sturgeon in a very short period of time and to network with Wisconsin DNR fisheries personnel who also work at the registration stations.
Glenn Miller, Ashland FRO

Contributions to the International Workshop on Lake Sturgeon

Henry Quinlan of the Ashland FRO attended a Lake Sturgeon Restoration Planning Workshop hosted by Fisheries and Oceans Canada in Winnipeg, Manitoba. Henry presented information on lake sturgeon recovery efforts in Lake Superior and contributed to workshop planning sessions. The objective of the workshop was to draw together a cross-section of individuals with scientific, management, or traditional knowledge along with other stakeholders to explore and develop strategies that may be applicable to the restoration of lake sturgeon in Canada.

Henry also shared his experience and knowledge of lake sturgeon and rehabilitation efforts and provided insight on the co-management structure of fishery management among provinces, states, tribes, and Federal agencies in the Great Lakes. In addition, his involvement will be a benefit to the Fish and Wildlife Service if there is ever a petition to list the species in the United States. Henry's presentation is posted on the Ashland FRO website at http://www.fws.gov/midwest/ashland/.
Henry Quinlan, Ashland FRO

Lake Sturgeon Aging

During the month of February, biologist Adam Kowalski aged lake sturgeon fin rays collected by commercial fishers. These fishers help collect data from lake sturgeon incidentally caught in their trap nets. Fishers tag the lake sturgeon with tags supplied by the Alpena FRO and record data such as tag number, total length, fork length, girth, water depth, water temperature, bottom type, and capture location. Fishers also remove the first pectoral fin ray and send them to Kowalski for ageing.

Aging fin rays requires the ray to be cross sectioned at the base. This is done with an Isomet saw. The cross section is then mounted on a microscope slide using a mounting medium. Alpena FRO uses Image Pro Plus software which allows a digital camera connected to a dissecting scope to capture images of the cross section and display them on a computer screen for aging. Images are saved and cataloged by year in an archive file. In total, 46 lake sturgeon fin rays were collected and aged for the 2004 and 2005 fishing seasons. Ages and data collected from these lake sturgeon are entered into a database and included in an annual station report.

Commercial fishers have been helping us collect data on a species that is listed as a state threatened or endangered species in 19 of 20 states of its original range.

Adam Kowalski, Alpena FRO

-USFWS photo by Adam Kowalski

Adam Kowalski of the Alpena Fishery Resources Office ages lake sturgeon by examining sections of fin ray samples. Ages and data collected from lake sturgeon are entered into a database and made available to resource managers.

2005 Spawning Finale and Egg Departures from Iron River National Fish Hatchery

The Iron River NFH is a combination brood stock and production facility tasked with rearing lake trout and coaster brook trout to rehabilitate depleted trout populations in the Upper Great Lakes. This fall, 760 mature lake trout from three different strains, (Apostle Island, Traverse Island, and Isle Royale), provided 4.8 million green eggs for rehabilitation programs. Of these, 3.5 million reached the eyed egg stage with 2 million to be raised at this hatchery to the fingerling and yearling stages. In addition, Seneca Lake strain eggs were transfered from Sullivan Creek NFH. Eggs are also exported to other production facilities that need certain strains of lake trout. Transfers include 514,000 eyed eggs to White River NFH (Vermont), 467,000 to Jordan River NFH (Michigan), and 98,000 to Keweenaw Bay Tribal Hatchery (Michigan). This year's lake trout spawning season ran from late September through October.

Also this fall, 1,455 coaster brook trout were spawned from late October through mid December, producing 1.75 million green eggs. Over 1.2 million survived to the eyed egg stage and approximately 430,000 of these will be kept and reared at the hatchery to provide fry and fingerlings for various restoration projects. Shipments included 7,700 eyed eggs to Keweenaw Bay Tribal Hatchery (Michigan), 50,000 egg incubators in Whittlesey Creek (Wisconsin), 104,000 to Genoa NFH (Wisconsin), and another 101,000 to the Grand Portage Tribal Fisheries program (Minnesota). Overall, it was another successful season with fish and crews working together cooperatively to produce the highest quality lake trout and brook trout possible for continued rehabilitation activities in the Upper Great Lakes.

Steve Redman, Iron River NFH

Region 3 Biologists Present at the 2006 Mid-Continent Warmwater Fish Culture Workshop

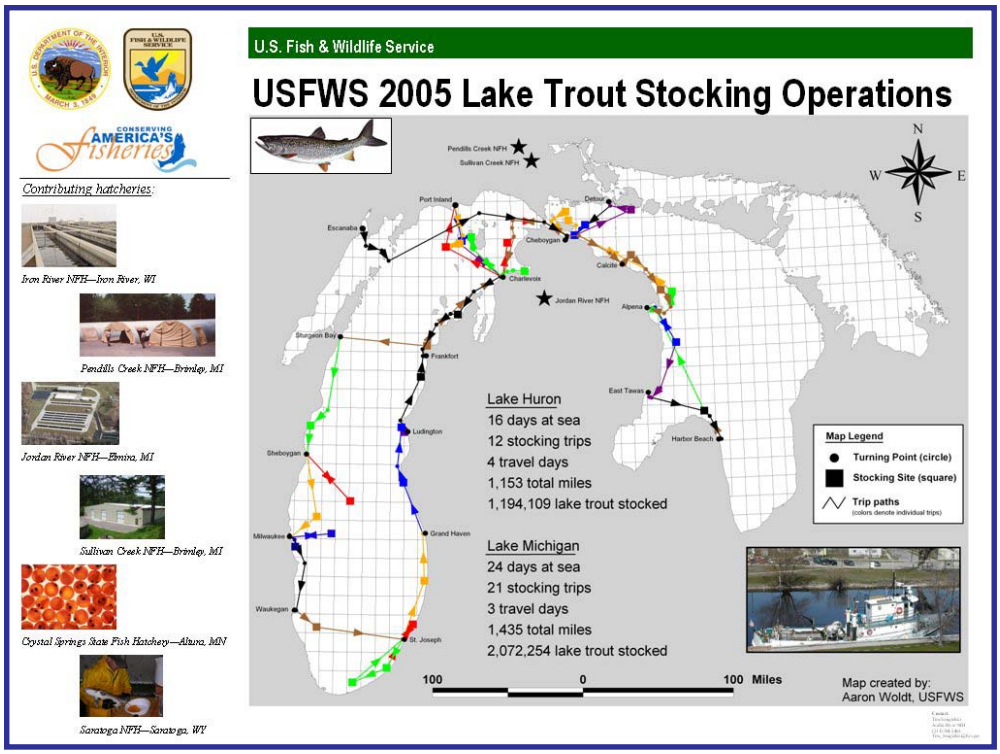
Biologists Nick Starzl and Roger Gordon from the Genoa NFH spoke at the 2006 Mid-Continent Warmwater Fish Culture Workshop held in Ashland, Nebraska. This symposia is an annual event and draws attendees from state and Federal natural resource agencies as well as academia. This year's event drew over 100 biologists, technicians, students, and managers from fourteen states spread across the United States. Major topics for 2006 included: aquatic disease control, invasive species management and policy, and species specific production strategies. Genoa NFH personnel gave presentations on larval lake sturgeon developmental indices and mussel propagation techniques.

Roger Gordon, Genoa NFH

Fish and Wildlife Service Maps 2005 Stocking Trips of the M/V Togue

Aaron Woldt of the Alpena FRO created a GIS based map of lake trout stocking trips made by the M/V Togue in 2005 in lakes Huron and Michigan. The M/V Togue, based in Cheboygan, Michigan, is the Fish and Wildlife Service's offshore stocking vessel used to plant yearling lake trout in United States waters of lakes Huron and Michigan in support of interagency lake trout rehabilitation plans.

Woldt worked with Boat Captain Mike Perry to obtain coordinates for all waypoints and lake trout stocking locations used by the M/V Togue in both lakes Huron and Michigan. Woldt, working with Jordan River NFH Biologist Tim Smigielski, created a map showing M/V Togue trip paths, waypoints, stocking locations, total miles traveled, and total number of lake trout stocked. In 2005, the M/V Togue traveled 1,153 miles in Lake Huron stocking 1,194,109 yearling lake trout and 1,435 miles in Lake Michigan stocking 2,072,254 yearling lake trout. The map will be used by Region 3 personnel to educate the public and Fish and Wildlife Service employees regarding M/V Togue operations and will be displayed at the 2006 Great Lakes Fishery Commission combined Upper and Lower Lake Committee Meetings. A presentation showing trip by trip stocking operations was also prepared by Woldt and Smigielski and is available for use at outreach events.
Aaron Woldt, Alpena FRO



-USFWS photo by Aaron Woldt

This map portrays the 2005 lake trout stocking trips of the M//V Togue in lakes Huron and Michigan. The stocking vessel traveled 1,153 miles in Lake Huron stocking 1,194,109 yearling lake trout and 1,435 miles in Lake Michigan stocking 2,072,254 yearling lake trout.

Final Wrap-up for Fin Clipping at Iron River National Fish Hatchery

The numbers are finally in! About 1.38 million lake trout were marked using a year specific fin clip for 2006. Approximately 86,000 fish, destined for Lake Superior, had a right pectoral fin removed. The remaining fish had a left pectoral fin removed and are destined for lakes Michigan and Huron. From mid-December through February, fin clipping was performed by a crew of seven dedicated employees who individually handled all fish to be stocked. The clipping season lasted 50 days with about 25,000 trout clipped per day.

This clipping process allows biologists and anglers to correctly differentiate between hatchery fish and their wild counterparts in the Great Lakes. Iron River NFH, in collaboration with other NFH's, annually stock 3.9 million yearling lake trout into the Upper Great Lakes. Stocking begins in early April and will hopefully finish by the 4th of July.
Steve Redman, Iron River NFH

Aquatic Invasive Species

Search for Habitattitude Participants Underway

Habitattitude™ is a national public awareness partnership campaign that was initiated in 2004 to promote responsible consumer behaviors to limit the spread of potentially invasive aquatic species. Co-sponsored by the Fish and Wildlife Service, the Pet Industry Joint Advisory Council, and National Oceanic and Atmospheric Administration's Sea Grant Program, this unique government-industry-academia partnership is intended to promote environmentally friendly behaviors among aquarium hobbyists, water gardeners, and backyard pond owners to prevent the release of invasive aquatic plants and animals into public waters. A variety of specially designed informational materials are available to registered campaign partners for use in government agency outreach efforts, retail store displays, manufacturer's packaging, and hobbyist magazines that promote sanctioned alternatives to release and responsible aquatic hobbyist behaviors.

La Crosse FRO biologist Mark Steingraeber recently visited six pet stores that sell hobby fish to evaluate campaign awareness and participation on the part of local retailers. Only one of the six retailers (a major chain store) had any campaign materials available for consumer distribution (imprinted bags used to transport purchased hobby fish); however, no one at this store was familiar with the campaign. When employees at the five remaining retailers were asked whether they were aware of the campaign, a sales associate at an independently owned store and the manager of another major chain store responded affirmatively, despite the fact that neither of these stores is a registered participant. Most retailers indicated they have accepted unwanted fish that outgrew hobbyists' aquaria and planned to continue this practice.

Examples of Habitattitude™ informational materials available to registered participants was distributed to sales staff who was encouraged to prominently display these items to prospective customers in all of the stores visited. Store managers were also given a handout that summarized the Habitattitude™ Campaign and were encouraged to visit the web site (http://www.habitattitude.net/) to register and become an active partner. Similar visits to local aquatic plant retailers are planned for the spring and summer. Major aquaria with established public educational programs in Dubuque, Iowa; Bloomington, Minnesota; and Franklin, Wisconsin, were contacted by e-mail and encouraged to actively participate in the Habitattitude™ Campaign.
Mark Steingraeber, La Crosse FRO

Bad River Tribe Seeks Help for Controlling Invasive Species

The Bad River Tribal Natural Resources Department (NRD) hosted a seminar to learn what local environmental organizations are doing to control invasive species in the Chequamegon Bay area of Lake Superior. Attendance included the Great Lakes Indian Fish & Wildlife Commission (GLIFWC), U.S. Forest Service, National Park Service, Bureau of Indian Affairs, Natural Resources Conservation Service, Nature Conservancy, Wisconsin DNR, and Ashland FRO. Tribal NRD Director Ervin Soulier expressed concern about the spread of several invasive plants including buckthorn, leafy spurge, spotted knapweed, reed canary grass, narrow-leaved cattail, and especially purple loosestrife that is threatening wild rice in tribal wetlands.

Each organization described their ongoing control activities and special interests. Of particular interest to the tribe is biological control of purple loosestrife using the Galerucella beetle. The tribe is resistant to the application of chemicals to control loosestrife, due to the necessity for long term treatment and subsequent water contamination and build-up of toxic chemicals. GLIFWC volunteered to collect and supply beetles to the tribe. Others volunteered to train tribal NRD personnel on identifying invasive plants and conducting inventory and monitoring.
Gary Czypinski, Ashland FRO

Public Use

Welcome to the Pendills Creek National Fish Hatchery

On February 4, 2006, snowmobilers and other visitors stopped by the Upper Peninsula of Michigan's Pendills Creek NFH to welcome new lake trout hatchlings and visit the fingerlings one last time before they get distributed later this spring and summer. This second annual event was once again led by administrative technician Deborah Jones. The first year, Debbie along with volunteer Randy Obermiller handled all the arrangements including tours, food, and drink for visitors along with event promotion. This year Debbie had a little more assistance with several food items being donated by the Friends of Pendills Creek, the local Friends group. Debbie and hatchery manager Curt Friez gave tours while members of the Friends group sold memberships, Friends group hats, and managed the food at the event. The event lasted from 9:00 a.m. to 6:00 p.m. and attracted several groups of snowmobilers and other visitors. About 80 to 100 people visited the hatchery, received tours, and were treated to some of the finest food in the area. The event was a huge success with visitors learning about the hatchery mission and operations which included viewing hatchery volunteers, Randy Obermiller and Rachel Rinkus, care for lake trout fry. This type of event brings local focus and support for the hatchery and also lets the hatchery Friends group assist and build its membership. A very big thanks goes out to Debbie Jones for her continuing support to the hatchery and the Fish and Wildlife Service.

Curt Friez, Pendills Creek NFH

-USFWS

Snowmobilers gather for a group photo during an outreach event held at the Pendills Creek National Fish Hatchery. Hatchery staff and the Friends of Pendills Creek welcomed approximately 90 visitors who were treated to tours, food, and drink along with a glimpse of fish culture.

Friends take a Hike and Ski

On a cold sunny day on February 12, the Friends of the Iron River National Fish Hatchery held a snowshoeing and cross-country skiing event. The public was invited to participate and explore recently cleared trails. Snowshoes, loaned by the Northern Great Lakes Visitor Center, were provided to participants. It turned out to be a perfect day for the event, the snow conditions were near ideal and temperatures were cold, but comfortable. The group met at the hatchery for hot chocolate and snacks at the conclusion of the event.

Trail improvements by the Friends group have led to an increase in usage of the hatchery property for winter activities, such as snowshoeing, skiing, and hiking. Future plans of the Friends group include additional trail improvements, opening up new trails, and extending current trails.

Nick Grueneis , Iron River NFH

Yes, Eagles Eat Fish

A line forms outside the small theater at the U.S. Army Corp of Engineers (Corps) visitor center overlooking Truman Lake in Central Missouri. Residents from the village of Warsaw anxiously await the opportunity to see the next live eagle interpretive program, snack on Crazins, look at brochures, and watch a slide show on Missouri River fishes.

It was sunny and warm on Saturday January 14, a perfect day to observe the Annual Bald Eagle Day event held by the Corps. The visitor center is perched atop a bluff overlooking Truman Dam in an area frequented by eagles and bird watchers.

Biologists Jeff Finley and Geno Adams showcased a colorful display with video imagery of Missouri River fishes and Columbia FRO activities. Danny Sandersfeld, Corps Ranger, expected a large turnout due to aggressive advertising. Ranger Dan helped strategically locate the Columbia FRO booth for maximum participation. More than 1,000 bald eagle enthusiasts gathered to learn about and view live eagles and other birds of prey. Participants had the opportunity to attend a variety of educational presentations dealing with natural resource history and heritage in Central Missouri. The function also gave natural resource agencies the opportunity to discuss pertinent resource issues with the public. The Fish and Wildlife Service display familiarized people with Missouri River issues such as Federally endangered pallid sturgeon monitoring and invasive species.

Geno Adams, Columbia FRO

Ozark Mountain Anglers All Sports Show

The Ozark Mountain Anglers (OMA) promotes, organizes, and conducts the best all sports show in Central Missouri. Their appreciation of children, family, a wide range of outdoor activities, and natural resource agencies is likely the reason this show has been so popular. OMA provides free booth space to these agencies, free admission to children, free kids fishing pond, and a variety of vendors from bass boats to wildlife art. This year marks the first year Columbia FRO has participated in the show.

Since boats are a central theme for this show, we decided to display our newest trawl boat, the *Silver Bullet*. Most people rarely have the opportunity to closely view a specialized work boat. The boats rugged construction, jet out drive, and 8.1 liter engine commanded the attention of young and old alike. A poster displaying a collage of trawling action photos added a more insightful perspective to the display. Columbia FRO biologists were on hand throughout the show to answer questions and assist visitors on a guided tour of the boat's operation and the trawling equipment used to sample benthic fish communities. One young "trawler" was quoted as saying "Such a big boat to catch little fish" as he sat in the drivers seat and honked the horn.

For as long as I can remember, OMA has held the annual All Sports Show in Columbia at the University of Missouri's Hearnes Center on the first weekend of February. A typical gate is 2000 adults and as many children.
Jeff Finley, Columbia FRO

What Do You Want to Do When You Grow Up?

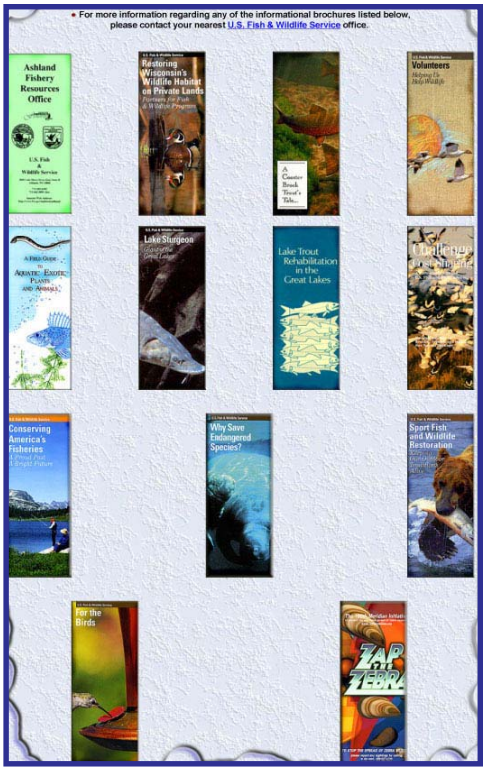
Do you get to drive boats everyday?" "How big do the fish get that you work with?" "Do fish biologists only work in hatcheries?" "What can I do to prepare myself to become a biologist?" These are just a few of the questions filling the minds of sixth and seventh graders at Smithton and Gentry Middle Schools in Columbia, Missouri, during career days. Biologists Jeff Finley and Geno Adams represented the Fish and Wildlife Service at the annual career day events on the 15th and 23rd of February to dispel some of the myths surrounding fishery biology work and to entertain questions from the workforce of tomorrow. Students were awed by presentations featuring photos of 80 pound blue catfish and five foot long lake sturgeon that swim in the waters of the Missouri River near Columbia. A paddlefish replica sparked the interest of students and teachers alike, leading to conversations on fish biology and the role played by the Fish and Wildlife Service in modern day fishery resource management and monitoring. Students were inspired by a rewarding, unique career in fisheries that may have previously gone unnoticed by many. If one student walked away with thoughts of fish and biology in their future career path, then it was a success!
Geno Adams, Columbia FRO

A Brochures Internet Page for Ashland FRO

Several years ago the Ashland FRO posted Fish and Wildlife Service and other partner brochures on the station web site. After a recent inquiry to the various sites that are visited by our Internet audience, it was learned that these pages are frequently viewed. Frank Stone recently updated the site to include a more accurate representation of each brochure, a short narrative, and a copy of each brochure in PDF format.

Some of the brochures listed on the site include: *Ashland FRO*, *Partners for Fish & Wildlife*, *A Coaster Brook Trout Tale*, *Volunteers*, *Aquatic Plants and Animals*, *Lake Sturgeon*, *Conserving Americas Fisheries*, and *Why Save Endangered Species*. This updated page can be viewed by visiting the Ashland FRO home page or more directly by pointing your Internet browser to: http://www.fws.gov/midwest/ashland/brochures.html.

Networking with the public to inform and share our accomplishments can take place in many fashions. The Ashland FRO web page is just one tool used to communicate various programs.
Frank Stone, Ashland FRO



Ashland Fishery Resources Office has a page on the Internet to view and download popular brochures.

Ashland Fishery Resources Office Staff Contribute Labor to a Community Event

Staff at the Ashland FRO volunteered non-work time to make ice luminaries at the office for an extremely popular community event called "Book Across the Bay." Book Across the Bay is a cross country ski event that attracts nearly 1,500 people. Participants ski 10 kilometers across Lake Superior's Chequamegon Bay from Ashland to Washburn, Wisconsin...at night. The trail is lit by 750 large ice luminaries. A luminary is made by freezing water in a five-gallon pail to form a clear ice structure, like a light bulb, within which a candle is placed. It's an art/science to do it just right. The office made more than 100 luminaries. The Fish and Wildlife Service was recognized as a contributor of volunteers for the event. We are on call to do it again next year.

Mark Dryer and Glenn Miller, Ashland FRO

Neosho National Fish Hatchery supports Mitigation and Recreational Fisheries

Neosho NFH stocked 14,454 (5,609 pounds) of rainbow trout during the month of February. Lake Taneycomo mitigation commitments consisted of stocking 13,329 fish. The remaining 1,125 went to Capps Creek and Hickory Creek, our in-town recreational fish stockings.

Roderick May, Neosho NFH

Fur, Fish, Fun, and 4-H

Susan Wells of the Alpena FRO presented information on aquatic habitat conservation and restoration to 60 seventh grade students at the 4-H *Fish, Fur, Fish, and Fun* day. The event was hosted by the Michigan State University Extension and Rogers City School District. The presentation provided information on causes of aquatic habitat deterioration and emphasized activities people can do to reduce or eliminate these causes. Examples of aquatic habitat restoration techniques were highlighted including the use of biodegradable coir logs and filter fabric to reduce sedimentation in streams. Each of the students were given a chance to handle these fabrics and given materials describing the importance of habitat to aquatic organisms.

Susan Wells, Alpena FRO

Celebrating the Winter Season at WinterFest

Biologist Susan Wells participated in the Sprinkler Lake Education Center's annual WinterFest on February 11. The event was a day long winter fun festival at the Sprinkler Lake Education Center in Harrisville, Michigan. There were interactive science displays, dog sled rides, crafts, and a petting zoo. The Alpena FRO provided a booth at the event with educational material and fish puzzles. We also partnered with the Pine River Watershed Coalition to operate an interactive watershed model. The model depicts the path of sediments and pollutants after a rain even,t when buffers such as trees and wetlands are lost. Approximately 700 children and adults visited the booth. The festival allowed the Alpena FRO the opportunity to fulfill one of the station goals of distributing information to the general public about fish and wildlife resources, natural ecosystems, and programs of the Fish and Wildlife Service.

Susan Wells, Alpena FRO

-USFWS

WinterFest in Michigan

Cooperation with Native Americans

Bad River Pipeline Stabilization and Lake Sturgeon Habitat Project

The two year project to protect a Great Lakes Gas and Transmission (GLGT) company pipeline and improve fish and wildlife habitat on the Bad River within the Bad River Indian Reservation near Ashland, Wisconsin, was completed in late February of 2006. Two years ago it was discovered that river flows were starting to expose parts of the GLGT natural gas pipeline that passes under the river. Erosion problems were also occurring at the pipeline crossing on the river's east bank. Over a period of two winters, construction took place to correct the erosion problems and make the engineering practices as beneficial as possible for fish and wildlife. Working on the frozen ground at the peak of winter lessoned impacts to wetlands and other natural resources from the heavy equipment needed to complete the project. Because of the inaccessibility of the east bank, a temporary bridge was constructed across the Bad River. For three weeks in February the entire river ran through 12 large culverts so the monster excavators and earth haulers could operate.

The Bad River Natural Resources Department oversaw the project to ensure environmental protection of the worksite's natural resources. Working with the Bad River Tribe and GLGT, the Ashland FRO provided technical and financial assistance in maximizing the project benefits for lake sturgeon as well as other fish and wildlife. The U.S. Army Corps of Engineers and the Wisconsin DNR were also involved in the estimated $1 million project. Marine Tech of Duluth, Minnesota, was the construction contractor.

The first phase of the project was to stabilize the pipeline under the river with large rock. Ashland FRO helped size the rock so much of it would be optimal for lake sturgeon spawning. The second part of the project involved stabilization of the eroding bank. Through the Partners for Fish and Wildlife Program, bio-engineering practices were incorporated into the bank stabilization work. Over 1,000 feet of bank was stabilized with large rock riprap and bio-engineering practices. Bio-engineering included root wad structures, stream barbs, and other large woody debris. Much of the rock below the base flow water line was sized for optimal sturgeon spawning. The habitat work focused on lake sturgeon but other fish species such as white sucker, longnose sucker, and walleye will benefit as well. The Bad River Tribe, GLGT, and other agencies involved will maintain societal infrastructure while conserving fish and wildlife habitat of the Bad River watershed with this project. *Ted Koehler, Ashland FRO*

-USFWS

Erosion control was a key factor to protect a Great Lakes Gas and Transmission company pipeline and improve fish and wildlife habitat on the Bad River within the Bad River Indian Reservation near Ashland, Wisconsin.

Menominee Reservation Lake Sturgeon Fish Season Opens for 2006

On Feb. 4, the Menominee Reservation opened the 2006 lake sturgeon fishery on Legend Lake. The season runs until April 30. Last year was the first year to offer fishing opportunities for lake sturgeon in Legend Lake for decades. The tribe held a split season from February 5-20 and April 9-24. Unfortunately, no fish were harvested.

Sturgeon fishing, either spear or hook and line, requires special equipment and skill that so far has proven to be a disincentive for participation in the fishery. In 2005, only three parties were observed to be actively fishing for sturgeon at any one time. More often, no one was fishing sturgeon. Historically, Menominee people did spear fish through the ice, but lake sturgeon were not the species sought, and the equipment used was much lighter than what is needed to spear sturgeon. Menominee people traditionally harvested lake sturgeon by spearing them during their spring spawning runs in the river, but until implementation of the Menominee Reservation Lake Sturgeon Management Plan, sturgeon had been extirpated from the reservation since the 1950's.

Poor results of the 2005 season prompted the inter-agency Menominee Reservation Lake Sturgeon Management Committee to discuss ways to improve participation and success. On January 28, Menominee Department of Conservation, along with the Wisconsin DNR and Sturgeon for Tomorrow, held a spearing clinic to educate tribal members

on equipment and techniques to spear lake sturgeon through the ice. Clinic participants learned that a sturgeon spear could be purchased for $175. Spearing also requires the use of a shack or tent to reduce light so spearers can more easily observe fish through the spear hole.

Unfortunately, no sturgeon tags (which participants must possess while fishing) have been purchased from Menominee Conservation for the 2006 fishery; however, poor ice conditions may be partially to blame. In addition, the lengthy season has probably caused a more relaxed approach to the fishery, rather than a fast, big bang opening day start. Regardless, the inter-agency management team has begun discussion on how further to enable and increase participation in the fishery for the rest of 2006 and 2007.

Ann Runstrom, La Crosse FRO

Lake Sturgeon

Partners Update Lake Trout Stock Assessment Models in 1836 Treaty Waters of Lake Huron

Biologist Aaron Woldt of the Alpena FRO and Ji He of the Michigan DNR updated lake trout statistical-catch-at-age (SCAA) models for 1836 Treaty waters of Lake Huron. Each year the Modeling Subcommittee (MSC) of the Technical Fisheries Committee (TFC) is charged by the Year 2000 Consent Decree to update stock assessment models for lake trout and lake whitefish in 1836 Treaty waters and produce safe harvest limits. The Year 2000 Consent Decree is a 20 year fishery allocation agreement for 1836 Treaty waters signed by the State of Michigan, United States, Bay Mills Indian Community, Sault Ste. Marie Tribe of Chippewa Indians, Grand Traverse Band of Ottawa and Chippewa Indians, Little River Band of Ottawa Indians, and Little Traverse Bay Bands of Odawa Indians.

There are two lake trout SCAA models for 1836 Treaty waters in Lake Huron. The MH-1 (Northwestern Lake Huron) model includes statistical district MH-1 in United States waters and management area 4-1 in adjacent Canadian waters. The MH-2 (North-central Lake Huron) model includes statistical district MH-2 in United States waters and management areas 4-2, 4-3, and 4-7 in adjacent Canadian waters.

Woldt and He added 2005 commercial harvest, recreational harvest, biological survey, and stocking data to the Lake Huron models. They began analyzing model output, performing diagnostic tests of the models' performance, and produced preliminary 2006 harvest estimates for the state-licensed recreational fishery and the tribal commercial fishery. Woldt and He will present these preliminary model results and harvest limits at the March 14-16 meeting of the MSC and they will perform additional model diagnostics on the Lake Huron lake trout models, make changes where necessary, and further refine the preliminary harvest limits prior to presenting these limits to the TFC on March 31.

Model results from these analyses will determine 2006 lake trout harvest limits for both the state licensed recreational fishery and the tribal commercial fishery in 1836 Treaty waters of Lake Huron. The harvest limits produced will allow fisheries to be executed while still protecting the biological integrity of the lake trout stocks.

Aaron Woldt. Alpena FRO

-USFWS

Each year stock assessment models for lake trout are updated by the Modeling Subcommittee of the Technical Fisheries Committee in 1836 Treaty waters of lakes Huron and Michigan, to produce safe harvest limits.

Leadership in Science and Technology

Body Art for Coaster Brook Trout

On March 1st, Iron River NFH gave some of their coaster brook trout brood "body art." The 2004 year class of Tobin Harbor stain brook trout (STW 04) was tagged using Northwest Marine Technology's (NMT) Visible Implant Elastomer. After watching the instructional video provided by NMT, the hatchery staff and fin clipping crew began injecting lake trout brood stock to practice on larger fish, and then they injected some of the smaller brook trout brood stock. It only took a short period of time to feel comfortable with the process and in the end, the clipping crew tagged the 900 fish in the brood lot within two hours. The STW 04 group has three separate genetic lines stemming from three different year class crosses. The three lines are differentially fin clipped, so this will help to determine if any fish lose their tag, and enable us to study different colors placed in different body locations. The brook trout from the 1998 parent class were tagged in the adipose eyelid; 100 tagged with the red elastomer, 100 with the blue elastomer, and 100 with the green elastomer. The brook trout from the 1999 parent class were tagged in the premaxilla (upper lip); 100 fish with each of the three colors. The brook trout from the 2001 parent class were tagged in the lower jaw; 100 fish with each of the three colors. Over the next couple years, we will be evaluating how well the tags are maintained and which combination of body location and color works best.

Iron River NFH has six distinct genetic groups of the Tobin Harbor strain of coaster brook trout. A reliable marking scheme is critical to distinguish each group. Clipping numerous fins to mark groups is complicated by fin regrowth or fin erosion. In addition, these fish look less pleasing to the public when retired and enter the sport fishery. The use of Elastomer tagging may eliminate the numerous clips on brood fish and provide a more accurate system of identifying brood fish by employing a possibility of 10 different colors that can be injected into various locations on the fish.

Angela Baran, Iron River NFH

-USFWS

A special flashlight is used to make the elastomer tag fluoresce. This is helpful in areas where pigmentation may make it difficult to see the tags.

-USFWS

The yellow arrow marks the spot in the eyelid where this coaster brook trout received his "body art."

-USFWS

This fish is being tagged using Northwest Marine Technology's Visible Implant Elastomer. A needle is inserted just below the skin to inject the elastomer tag.

Aquatic Habitat Conservation and Management

Fifty Miles of Uninterrupted Rock River Restored Near Jefferson, Wisconsin

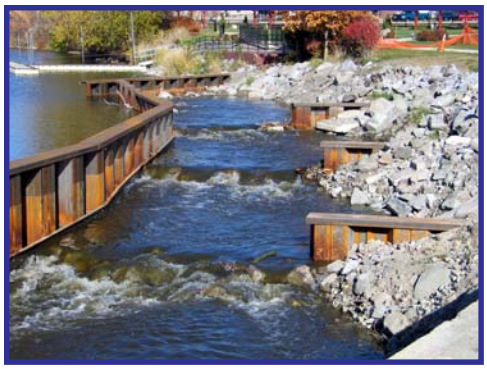
The dam at Jefferson, Wisconsin, previously impeded fish migration on the Rock River, but now a completed fish passage project is has restored 50 miles of uninterrupted river. In 2002, fish surveys conducted by the Wisconsin DNR downstream from Jefferson Dam collected 22 species, while sampling upstream of the dam identified only 8 species. Walleye and sauger will especially benefit from the improved and additional habitat above the dam. The state threatened river redhorse and the pugnose minnow, a species of special concern, will profit from restored contiguous habitat and reconnection with isolated populations. In addition, freshwater mussels that utilize migratory fish as hosts to complete their life cycle will also benefit by re-colonizing habitats above the dam.

The fish passage design consists of a series of horizontally elongated steps filled with rock. Each step provides a gentle slope that reduces water velocity so fish are able to navigate upstream, and pools and eddies provide resting spots for the fish. The fish passage channel moves through a sacrificed tainter gate in the dam, and the attraction flow through the gate area leads fish upstream.

Jefferson Fishway is Wisconsin's first large river fishway project since their new fish passage regulatory program went into effect and serves as a flagship project to demonstrate the ecological benefits of reconnecting large river habitats. This fish passage project is the result of the work of many active partners including the City of Jefferson, owners of the dam, Wisconsin DNR, Rock River Coalition, River Alliance, Natural Resources Conservation Service, Environmental Protection Agency, National Fish and Wildlife Foundation, and the Fish and Wildlife Service through the Fish Passage program.

As a follow-up to the construction of the Jefferson Dam fish passage project, a two-year fish tagging study has been initiated to evaluate fish movement in relation to the structure. Tagging efforts began in October 2005, and to date, 608 fish of various species have been tagged.

Pam Thiel, La Crosse FRO



-WI DNR photo by Laura Stremick

This fish passage project on the Rock River near Jefferson, Wisconsin, helped to restore 50 miles of uninterrupted river. The restored contiguous habitat will help to reconnect isolated populations of fish such as the state threatened river redhorse and the pugnose minnow, a species of special concern.

Midwest Driftless Area Restoration Effort receives National Fish Habitat Initiative Funding

The Midwest Driftless Area Restoration Effort, a broad partnership based effort to improve aquatic resources in the Driftless Area, received $100,000 through the National Fish Habitat Initiative (NFHI). Congress appropriated $1 million to support the National Fish Habitat Initiative of which $800,000 was allocated to several Regional Fisheries offices. Funds will be used to implement on-the-ground projects and support the planning and coordination of the partnership. The Midwest Driftless Area Restoration Effort was one of five regional partnerships to receive 2006 NFHI funding. Priority projects for the Midwest Driftless Area were entered into the Fisheries Operational Needs database (FONS) by the La Crosse FRO. Four of the projects were funded.

All proposed projects will occur on streams in critical watersheds that are consistent with goals in existing watershed plans. Proposed projects also compliment prior restoration work either on the project stream or in the watershed. Anticipated outcomes include improvement of riparian and in-stream habitat for native fish species and other aquatic species.

Louise Mauldin, La Crosse FRO

The Midwest Driftless Area (circled in green) is a 24,000 square mile area of Southeastern Minnesota, Northeastern Iowa, Western Wisconsin, and Northwestern Illinois that was circumvented by the Wisconsin glacier.

Midwest Driftless Area Restoration Effort Web page

Biologist Louise Mauldin from the La Crosse FRO teamed up with biologist Frank Stone of the Ashland FRO to develop an informational web page focusing on the Midwest Driftless Area Restoration Effort (MDARE). The Driftless Area partnership was formed under the National Fish Habitat Initiative. It is a geographically-focused, scientifically based, coordinated effort to protect, restore, and enhance aquatic habitat in a 24,000 square mile unglaciated area of Minnesota, Wisconsin, Iowa, and Illinois. MDARE is a broad partnership that is working together to enhance native fish and other aquatic species, reduce nutrient and sediment inputs, improve water quality, increase angling and other recreational opportunities, and raise awareness of the value and importance of the Driftless Area and its aquatic resources. The web page provides basic information about the Driftless Area and describes the MDARE partnership and its goals. More information about the Midwest Driftless Area Effort partnership can be found at: http:// www.fws.gov/midwest/LaCrosseFisheries/projects/Driftless.html.

Louise Mauldin, La Crosse FRO

First Year of the Whittlesey Creek National Wildlife Refuge Waterfowl Survey Completed

In order to assess waterfowl populations on the Whittlesey Creek National Wildlife Refuge (NWR), a waterfowl survey was initiated. Counts are being conducted of waterfowl numbers and species use at the refuge and on Chequamegon Bay, near the Whittlesey Creek estuary during the spring and fall migrations. The survey will aid Whittlesey Creek NWR managers in planning habitat activities which will benefit fish and wildlife populations which utilize the area.

Scaup were the most numerous species observed with 1,654 counted. In the diving duck category they were followed by unidentified divers (433), bufflehead (256), and common goldeneyes (220). Other species of divers and mergansers included canvasback, common merganser, hooded merganser, red-breasted merganser, redhead, and ring-necked duck. The most common dabbling ducks observed were mallards (104). They were followed by American black ducks (50), blue-winged teal (41), and wood ducks (28). Other species of dabbling ducks included American green-winged teal, American widgeon, northern shoveler, gadwall, and northern pintail. A total of 21 species of waterfowl were observed: 9 species of divers and mergansers, 9 species of dabbling ducks, Canada geese, and tundra swans.

While wood duck numbers are increasing nationally, scaup and American black duck numbers have been decreasing for decades. The Chequamegon Bay area is an important migratory stop for a large number of scaup. This survey and other work in the area will be important for the conservation of this declining species. Habitat restoration and protection efforts at the refuge and other Federal, state, and tribal lands in the area will hopefully help to boost populations of these and other waterfowl species which inhabit Northern Wisconsin.

The survey is led by the Habitat and Wildlife Section of the Ashland FRO in cooperation with Whittlesey Creek NWR. Special thanks to birding expert and Northland College Student Erik Bruhnke for his many hours of dedicated volunteer assistance which made this project possible.

Ted Koehler. Ashland FRO

-USFWS

Scaup were the most numerous species observed during a waterfowl survey on the Whittlesey Creek National Wildlife Refuge near Ashland, Wisconsin.

White River Partnership is a Potential National Fish Habitat Initiative Project

Columbia FRO Fisheries Conservation Branch Chief Joanne Grady attended the White River Partnership Meeting on January 31st. The White River Partnership is a joint effort between the Missouri Department of Conservation and the Arkansas Game and Fish Commission to manage border area fisheries on shared reservoirs and river stretches of the White River. This partnership began simply with two state management biologists on one reservoir sharing their resources and data to determine the health of their joint fish stocks. This partnership has developed into an agency level collective effort to manage the impounded and free-flowing portions of an entire river system. Joanne and Norm Stucky of Bass Pro Shops briefly discussed the National Fish Habitat Initiative and the potential this program may have for the White River.

Joanne Grady. Columbia FRO

Workforce Management

Volunteers are the Key to Success at Genoa National Fish Hatchery's Annual Mussel Cage Building Party

The popping of the last rivet signals the end of another successful cage building party at Genoa NFH. This annual event was held on February 22nd and 23rd and reminds us that the start to the mussel field season is just around the corner.

The staff at Genoa NFH would like to thank the many volunteers that put in 144 hours of their time to help complete the huge task of constructing 94 mussel culture cages in two days. This is the largest number of cages ever assembled at Genoa NFH in one sitting. Volunteers from the Friends of Upper Mississippi Fisheries Services, Friends of Pool 9, La Crosse FRO, Hawkeye Community College, Hartman Reserve Nature Center, U.S. Army Corps of Engineers, and DNR's from Wisconsin and Iowa all pitched in to complete the construction of the mussel propagation cages.

Freshwater mussels are the largest group of organisms on the endangered species list. Recovery and restoration efforts are required to combat the threats of habitat degradation and invasive zebra mussels that continually impact native mussel populations. The majority of these cages will be used for propagation of the Federally endangered Higgins' eye pearlymussel and winged mapleleaf mussel species. Since 2001, Genoa NFH and the Mussel Coordination Team, a multi agency task force, have used culture cages to produce an estimated 25,000 sub-adult Higgins' eye pearlymussels. In 2005, the group produced its first captive winged mapleleaf offspring. The remaining cages will be used for a smaller propagation effort with the Hartman Reserve Nature Center to restore native mussels in the Cedar River in Iowa.
Tony Brady, Genoa NFH

-USFWS
Members of the Friends of the Upper Mississippi Fisheries Services assist Dave Heath from the Wisconsin Department of Natural Resources in finishing a cage that will be used to propagate mussels.

Reel Women Learn Reel Fast!

During November, five brave ladies from the local chapter of Lake Superior's Reel Women Sportswomen's Group volunteered to battle sub-freezing temperatures to assist with the collection of brook trout eggs at the Iron River NFH. The chapter volunteers helped hatchery staff spawn and collect approximately 163,000 coaster brook trout eggs of the Siskiwit Bay strain and 182,000 eggs of the Tobin Harbor strain.

Once collected, the eggs were transferred to egg incubation systems where they are monitored until hatch. These eggs will be used to aid ongoing coaster brook trout restoration efforts in Lake Superior. The coaster brook trout is native to Lake Superior and has a unique life history in that it spends most of its life out in the lake and prefers to spawn, in the fall, on shallow shorelines or in tributary streams. The Iron River NFH currently maintains two strains of coaster brook trout brood stock because of severe declines in wild populations.

This assistance was provided during one week of an eight week spawning season that lasted well into the even colder month of December. We "reely" appreciated the outstanding help!!!!
Steve Redman , Iron River NFH

-USFWS
Ladies from the local chapter of Lake Superior's Reel Women Sportswomen's Group volunteered to collect brook trout eggs at the Iron River National Fish Hatchery.

Alpena Fishery Resources Office Receives Employee Security Awareness Training

Staff at the Alpena FRO received training in Employee Security Awareness on February 15. The required safety and security training was provided by U.S. Coast Guard Alpena Station Chief Brad Adams. Training focused on general security concerns and procedures surrounding Federal property and emergency preparedness. Training better equips personnel with an understanding of what should be done in the event of a security emergency and efforts that should be undertaken for employees to protect themselves, fellow staff, and Federal property.
Anjanette Bowen, Alpena FRO

Fishery Biologists Fly to the Feathery Side

As eagle populations continue to recover, human encounters with sick or injured birds will likely increase. Biologists Louise Mauldin and Ann Runstrom jumped at an opportunity to get some eagle handling experience from Mary Beth of the National Eagle Center. Each participant was allowed to hold birds from the National Eagle Center under "mostly comfortable" circumstances on behalf of the eagle and the participant. Then participants were given the opportunity to restrain a bird as they would have to do if trying to handle an injured bird in the wild. The training was coordinated by Vicki Hirschboek from Trempealeau NWR and was hosted at the La Crosse District Headquarters of the Upper Mississippi River National Wildlife and Fish Refuge. In addition to La Crosse FRO biologists, participants included law enforcement officers along with NWR biologists and technicians from Winona, Trempealeau, La Crosse and Savanna.
Ann Runstrom, La Crosse FRO

Ashland FRO assists Iron River National Fish Hatchery and Whittlesey Creek National Wildlife Refuge

One of the various Internet web page responsibilities initiated by Frank Stone is to maintain the home pages for Iron River NFH and Whittlesey Creek NWR. Frank spent one day with Angie Baran (Iron River NFH) and Katie Goodwin (Whittlesey Creek NWR) discussing basic web page development. Both Angie and Katie are in the process of learning how to use web page software so they can maintain their station's Internet web sites.

Frank was also assigned to a two day project at the Iron River NFH to assist with setting up a new network server and workstations, perform computer maintenance needs, set up a battery backup system, and remove four hard drives from older computer systems.

Much of this work was under the supervision of the Regional Computer Support Team (Mat Weber). Mat and Frank worked together (via the telephone) to set up these computers and install additional software as needed. This kind of cooperative assistance allows the Computer Support Team to minimize travel costs and allows the hatchery staff to continue with normal fish culture operations.
Frank Stone, Ashland FRO

Student Recruitment Efforts Pay Off

Recruiting ambitious, dedicated, and intelligent students to develop into future fisheries professionals is an annual goal at Columbia FRO. Opportunities through the Fish and Wildlife Service's "Student Temporary Employment Program " (STEP) and "Student Career Experience Program" (SCEP) are tools that enable us to attract, interview, and ultimately hire students to work in their chosen field.

Columbia FRO began recruiting efforts when Joanne Grady presented information on Federal jobs at the monthly Fisheries and Aquatic Sciences Society (FASS) meeting at University of Missouri-Columbia on January 26th. FASS is a student subchapter of the American Fisheries Society whose goal is to promote interactions and activities which encourage professional development of students interested in aquatic sciences. Approximately 25 students attended the meeting. Joanne discussed the STEP program and available summer openings at Columbia FRO for current students and introduced the graduating seniors to the USA JOBS website. She also provided resume advice to the students. As a result, several FASS members applied for STEP positions at Columbia FRO and two of them were hired and begin work when the spring semester ends.

Recruiting efforts continued at the annual Student Job Fair held at the Missouri Natural Resources Conference on February 1st. In addition to the job fair, Columbia FRO staff visited Lincoln University, U. S. Department of Agriculture's Wildlife Initiative, University of Missouri, representatives from our staff's collective alma maters, and distributed job flyers far and wide. There seems to be a downward trend in college students seeking the field of natural resources, making student recruitment a challenge.

These efforts paid off with 27 students applying for summer and intermittent positions. It was the largest pool of student applicants to date at Columbia FRO. Of these applicants, the top six were selected; two from Lincoln University, three from the University of Missouri-Columbia, and one from South Dakota State University. We are excited to be a part of their training and experience and are anxious for them to start.
Joanne Grady and Jeff Finley, Columbia FRO

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Fish Lines
Region 3, Great Lakes/Big Rivers
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Questions or comments concerning ***Fish Lines*** can be addressed to Dave Radloff, 612/713-5158 or email at david_radloff@fws.gov

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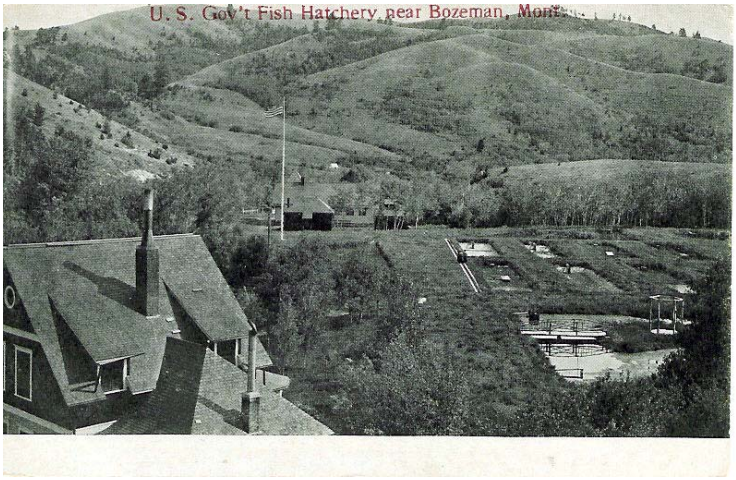

-Jerry French Postcard Collection - circa 1905

Windows in time

A Glimpse into our Proud Past

The Bozeman Fish Hatchery is located near the city of Bozeman, Gallatin County, in south-central Montana. The hatchery was established in 1893 and continues operations today.

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