



## Columbia Fishery Resources Office Accomplishment Report

September 2004



### Partnerships and Accountability

#### Missouri River Natural Resources Committee Annual Meeting

Project Leader Tracy Hill traveled to Williston, North Dakota on September 27 to attend the fall meeting of the Missouri River Natural Resources Committee. Meeting participants were given the opportunity to hear reports from State Game and Fish agencies regarding their river activities during the previous field season, the chance to see adult pallid sturgeon broodstock being stocked in the Missouri River and a field trip to assist the North Dakota Game and Fish Department with paddlefish tagging efforts. Additional points of interest from the meeting included a Montana presentation regarding work conducted on softshell turtles and many discussions regarding aquatic nuisance species. The final written report from the meeting will be available in early January. Columbia FRO participation in the MR NRC meeting is an example of inter-regional collaboration to improve information sharing and optimize fishery management and protection on the Missouri River in both Region 3 and Region 6. This effort assists the Columbia FRO in fulfilling the Fisheries Program's Strategic Vision priorities for "Public Use" and "Partnership and Accountability".

Contact: Tracy Hill

### Aquatic Species Conservation and Management

#### Pallid Sturgeon Stocked in the Missouri River



*Neosho NFH staff stock pallid sturgeon in Missouri River.*

Endangered pallid sturgeon were successfully stocked into the Missouri River during the month of September. Leavenworth, Kansas was stocked with 9,990 fish (9,170 3-5 inch fish, 820 9 inch fish) on September 6th and 7th; Bellevue, Nebraska was also stocked with 6,634 fish on September 6th; and Booneville, Missouri was stocked with 9,761 fish on September 6th. The pallid sturgeon were raised at

Neosho and Garrison Dam National Fish Hatcheries. The fish were tagged with Passive Integrated Transponder (PIT) tags, coded wire tags and elastomer tags, which allow the fish to be identified as stocked fish. Tracy Hill, Project Leader at the Columbia Fishery Resources Office (FRO), coordinated the hatchery stocking for the Fish and Wildlife Service with state agencies. This stocking is a partnership effort of the Service and many other agencies to recover pallid sturgeon from endangered status. Columbia FRO staff hope to recapture these stocked fish in fall trawl and winter gill net sampling to determine fish health, movement, and habitat preference. Activities associated with pallid sturgeon enables the Columbia FRO to fulfill the Fisheries

Program's Strategic Vision priorities for "Aquatic Species Conservation and Management" and "Partnership and Accountability". This work also allows the Service to recover endangered species by utilizing sound science, effective partnerships and careful planning.

Contact: Tracy Hill

### **Young of the Year and Juvenile Sturgeon Collected**

Biological Technician Corey Lee and Fisheries Biologist Wyatt Doyle sampled the Missouri River with otter trawls at two bends near Glasgow, MO, during the week of September 27-30. An abnormally large percentage of juvenile and young-of-year shovelnose sturgeon were captured. Fourteen of the 47 shovelnose sturgeon sampled were juveniles ranging in length from 120-480 mm, while eight were young of the year (50mm) fish. sicklefin chubs were captured in trawls. All of the sturgeon chubs were collected in one trawl ranking as the highest number ever collected in a trawl tow in three years. Eight rare blue suckers were also captured during the sampling. The presence of these sizes and numbers of fish which are otherwise only occasionally sampled, suggests this area may offer some measure of habitat not available in other parts of the river. Contact: Corey Lee

### **Columbia FRO assists USGS-BRD with Asian carp field work**



A field crew from Columbia FRO assisted USGS in the attempted capture of a telemetry and archival tagged silver carp in the Lamine River, a medium size tributary of the Missouri River. Gill and trammel nets were used to block in the tagged carp and an electrofishing boat was used to drive the fish into the nets. The tagged fish was able to avoid capture though it had passed through or around several nets. USGS

personnel had attempted to capture this particular fish several times before and it had shown this uncanny ability to avoid capture each time. One hundred to 200 other Asian carp (bighead and silver carp) were captured in the process and aging structures were collected from many of them and will be used in an ongoing ageing study at Columbia FRO. Recapture of a specific fish has been found to be difficult even when the exact location is known while others of the same species are captured in the same area. We do not give these "simple" animals enough credit to detect and avoid sampling gears which they have encountered in the past. Aquatic nuisance species compete with native species for food and habitat resources. Efforts to provide aquatic nuisance species detection and monitoring address "Aquatic Species Conservation and Management"- a priority of the Fisheries Program's Vision for the Future.

Contact: Andy Starostka

## **Leadership in Science and Technology**

### **MICRA Partnership Funds Additional Database Programming**

The Executive Board of the Mississippi Interstate Cooperative Research Association (MICRA) agreed to provide the Columbia FRO with an additional five thousand dollars to support the national paddlefish stock assessment project. Assistant Project Leader, Joanne Grady, is working with Debin Benish of the Delta Systems Group, Inc. to create Access programming language to

establish recapture histories for paddlefish tagged throughout the Mississippi River Basin. The stock assessment database is the largest inland fishery coded wire tagging database in the world and is jointly managed by the Columbia and Carterville FROs. Linking fish recaptures is significantly more difficult than most standard mark-recapture studies because recaptured fish are assigned a new tag number with every capture and tags are retrieved from sport and commercial captures in addition to biologist sampling. The finished product will allow large river biologists to examine paddlefish movements throughout the Mississippi River Basin. This project will allow better analysis of worlds largest inland fishery coded wire tagging database. Modifications to this database will improve the information sharing process between agencies and the general public who may encounter tagged paddlefish. Improved data sharing will lead to better understanding of the population trends and movement patterns of paddlefish in the Mississippi River Basin.

Contact: Joanne Grady

## Workforce Management

### Columbia FRO Technician Starts Graduate School



*Jennifer Johnson with freshwater drum collected in Missouri River.*

Biological Science Technician Jennifer Johnson, of the Columbia Fishery Resources Office (CMFRO), began her Master's degree program in Fisheries and Wildlife under the advisement of Dr. David Galat at the University of Missouri, Columbia. Jennifer's research will focus on the reproductive development of speckled chubs, silver chubs, and sicklefin chubs in relation to environmental variables. The construction of dams on the Missouri River has impacted native fish populations, water temperature, sediment transport, and the flow regime.

Native chub species have declined in abundance throughout most of their historic range since the construction of the main stem dams. Very little is known about the reproductive behavior of these four species. Information on spawning habitats, spawning season, age at first maturity and relationships between spawning and environmental variables is currently lacking. A return to a more “natural” hydrograph for the Missouri River has been advocated by the U.S. Fish and Wildlife Service and by the National Research Council as a tool to recover the endangered pallid sturgeon as well as other native species. These four species of native chubs may serve as surrogate species to detect improvements in the warm water fish community. Jennifer will be working with the CMFRO, the Missouri Cooperative Fish and Wildlife Research Unit at the University of Missouri as well as the USGS Columbia Environmental Research Center. Information derived from this project will assist in making sound Missouri River management decisions in the future. Evaluation of the responses of native fish species to changes in habitat or flow modifications on the Missouri River will provide more immediate feedback to the biological successes or failures of those modifications. The data collected and analyzed as a result of this project will evaluate the relationships between spawning and changes in environmental variables. The information derived from this project will allow the Service to assist state resources agencies with making sound management decisions.

Contact: Jennifer Johnson

### **Succeeding in grant proposal writing**

Columbia FRO Fishery Biologist, Louise Mauldin, attended a grant proposal writing course instructed by the Bureau of Land Management and National Fish and Wildlife Foundation in mid September. Through example proposals, class discussions and handouts, class participants learned the basic components that form a proposal and what types of information grantors are looking for in a grant application. Participants also learned where to find sources of funding, what kind of funding sources are available, and how to manage a grant once the preproposal is accepted. Participants were able to work on their own proposals which could then be critiqued by the group. This course was beneficial to those with little or no grant writing experience.

Skills gained from this hands-on course and experience in writing grant proposals will add to the office's success in securing external funds and provide a sense of personal achievement and continued career development.

**Contact:** Louise Mauldin

### **Columbia FRO Welcomes Two Emergency Hire Technicians**

Columbia FRO welcomes Cliff Wilson and Brian Bennett as emergency hire technicians on our pallid sturgeon monitoring program staff. Both gentlemen have bachelor's degrees in fish and wildlife biology from the University of Missouri-Columbia. Cliff worked previously with shovelnose sturgeon at the USGS-Columbia Environmental Research Center. Brian came to us after a six-month position sampling fish on streams and rivers with the Wyoming Game and Parks Commission. Their energy and enthusiasm contributed to our ability to close out the community sampling season of the sturgeon project in a timely fashion. We look forward to their continuing efforts as we move into the sturgeon gillnetting season. Filling two emergency hire technician positions allowed us to complete our commitment to the Corps of Engineers on the sturgeon monitoring project following the loss of one of our full-time staff to the Missouri Department of Conservation.

**Contact:** Joanne Grady