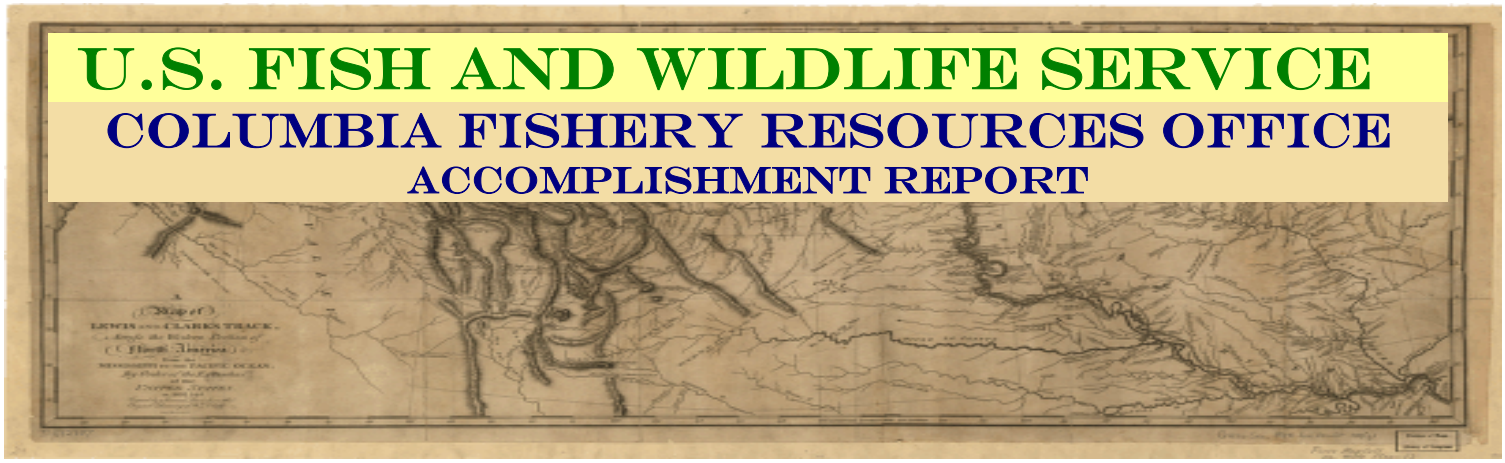
# U.S. FISH AND WILDLIFE SERVICE
## COLUMBIA FISHERY RESOURCES OFFICE
### ACCOMPLISHMENT REPORT



*...Dedicated to Conserving Big River Ecosystems in America's Heartland.*

## Partnerships and Accountability

**Missouri River Relief at Boonville-Rocheport and Kansas City.**

Columbia FRO Biologist Nick Utrup and Jeff Finley participated as presenters and boat captains in the Booneville-Rocheport Missouri River Relief Event. On Friday, September 23rd local schools brought nearly 500 middle school children to hear various presentations from river professionals. Nick displayed the station's Trawl boat "Phoenix" and Jeff discussed the unique attributes of live shovelnose sturgeon and blue suckers (a state listed species of concern) collected in trammel nets that morning. The following day volunteers converged at the Franklin Island Conservation Area for the river clean-up phase of the event. An estimate of 300 volunteers cleaned 17 river miles (marker 185 to 202) by removing 10.5 tons of trash and debris. A partial list of items recovered include: 4 buoys, 78 auto/truck tires, 4 tractor tires, 1 oven, 7 refrigerators, 1 chest freezer, 1 water heater, 5 large propane tanks, 1 water pressure tank, 1 large metal shelf, 2 TVs, 1 VCR, 1 air conditioner (window unit), 3 55-gallon drums (steel), 1 10-gallon can anti-corrosion chemicals, 5 ice-chest coolers, 2 = car seats, 2 automobile gas tanks, 2 fire extinguishers, 1 steering wheel, 1 traffic cone, 1 25-foot culvert, 2 trash cans, 2 weight machines, 1 carpet, 1 baby mattress (no baby), 1 patio canopy, 1 dog house (no dog), 5 large pieces of styrofoam, 2 large lots metal banding , 150-feet wire cable and 7,000 pounds scrap metal.

*Above, children examine a blue sucker.*

*Right, the trawl boat "Phoenix" was a big hit with the kids.*



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Eleven boats were used to transport volunteers including three from Columbia FRO. The "Shark", a work boat outfitted with an outboard jet was selected for the event due to its ability to maneuver in very shallow water. Without it volunteers would not have been able to clean around the shallow areas of Franklin Island. Unfortunately a manufacturer defect in a mounting bolt for an injector took the "Shark" out of action after only one trip.

*Utrup briefs clean- up volunteers prior to boarding.*
*Photo by Dory Colbert-Living Lands and Waters*

On October 7th at Kaw Point Park located at the confluence of the Kansas and Missouri Rivers, Wyatt Doyle, Jeff Finley and Geno Adams were given the opportunity to once again support Missouri River Relief. The three provided a live river fish display and trawling demonstrations to over 1000 7th and 8th grade students. Students and spectators watched as the crew conducted four demonstration trawl runs in the waters adjacent to the park. Several species of chubs, juvenile catfish, blue suckers, river carpsuckers, carp, gar, shovelnose sturgeon and one hefty sized flathead were caught, displayed for a live fish presentation and released. Missouri Department of Conservation Biologist, Jake Allman was co-located with Columbia FRO with an electrofishing display and fish. Working in cooperation with MDC allowed for a clear distinction between our two agencies and the different gear types used in fish management. The teens were challenged to find the answers to predetermined questions listed in a journal given to the students in advance of the event. These questions provided great direction for learning about the various aspects of Large River Management.

Cooperative efforts by Columbia FRO with the Multi-Agency supported Missouri River Relief enables us to demonstrate our dedication to Missouri River resources and supports the '*Partnerships Goal*' of the Service's '*Fisheries Program Vision for the Future*'.

*Jeff M. Finley*

## Columbia FRO Finishes Sampling Season at Fort Leavenworth

Fishery Biologists Geno Adams, Andy Staroska, and Cliff Wilson traveled to Leavenworth, Kansas from August 23 through August 26, 2005 as part of a continuing effort to assess the fish communities present in and around the Fort Leavenworth Army Post. This trip marks the end of the sampling season for the installation with Columbia FRO crews sampling Missouri River bends that border the military reservation for the third time and sport fish management surveys on two ponds in June. During this effort, river sampling consisted of drifting trammel nets, mini-fyke netting, seining, and otter trawling. Catches consisted primarily of shovelnose sturgeon, smallmouth buffalo, shortnose gar, silver chubs, and young-of-the-year channel catfish, blue catfish, river carpsuckers, and freshwater drum. Sampling the waters

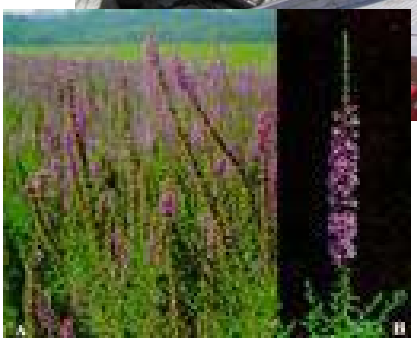
associated with Fort Leavenworth has given the Columbia FRO the opportunity to work together with the Department of Defense in an attempt to improve health of the aquatic resources which will provide quality fishing for the families living on the post and to determine the presence or absence of the endangered pallid sturgeon in the Missouri River bordering the military reservation.

This project helped fulfill objective 1.1 of the partnership goal; Develop and improve long-term partnerships with States, Tribes, other federal agencies, non-governmental organizations (NGO's), and other Service Programs to develop collaborative conservation strategies for aquatic resources.

*W. Geno Adams*

## Columbia FRO Partners with Big Muddy NFWR Refuge

Fishery Biologist Jennifer Johnson assisted Biological Science Technicians Adam Jones and Kyle Singer from the Big Muddy National Fish and Wildlife Refuge on August 10th with spraying herbicides on purple loosestrife. Purple loosestrife is an exotic plant with the ability to spread rapidly once established. During the growing season a single plant may produce over 100,000 seeds. The best time to control purple loosestrife is during mid-summer when the plant is easily recognizable and has just begun flowering. This exotic plant crowds out native plants, destroying valuable wildlife habitat. The crew targeted the Jameson Island and Lisbon Bottoms units of the refuge searching along the Missouri River banks for the plant and when found the location was recorded (with GPS) and then sprayed with glyphosate. The Jameson Island unit consists of 1,871 acres of bottom land containing floodplain species such as cottonwood, willow, box elder and is across the river from the Lisbon Unit. The Lisbon unit consists of 2,013 acres of primarily young forests of cottonwood and willow. Combined the two units provide 4,000 acres of public land for hunting, fishing and exploring.



The CFRO worked with the Big Muddy refuge to improve the quality of riparian habitats by spraying to prevent the expansion of exotic purple loosestrife on the Big Muddy Refuge. The partnership fulfills the "Partnerships and Accountability" and "Aquatic habitat Conservation and Management" goals of the Fisheries Programs Strategic Vision.

*Jennifer L. Johnson*

## USFWS & USGS Sturgeon Telemetry Partnership

During the first week of August, biologists from the Columbia FRO attempted to recapture valuable shovelnose sturgeon from the Missouri River. These sturgeon are especially important due to the ultrasonic transmitters implanted by the U.S. Geological Survey (USGS) prior to the spawning season. The transmitters allow USGS biologists to track the sturgeon and quantify their habitat use throughout the year. Along with location data, these tags collect depth data which may be important in identifying spawning habitat for this species. Unfortunately these tags need to be retrieved from the fish to download the depth data. Theoretically, retrieval should not be a problem since the crews know the location of the fish.

Typical sturgeon habitat near Jefferson City, Mo.

Unfortunately catching a bottom dwelling fish in swift water filled with snags is not an easy task. Drifting trammel nets over the located fish is one method of recapture which has worked well in the past. One particular sturgeon, occupying a large snag in about 3 meters of swift water, eluded capture. When drifted, the net would hit the snag first making the recapture of that individual impossible. Three crews attempted recapture of these sturgeon using trammel nets and gill nets over the course of a week. Low water levels and the nature of their locations kept the sturgeon swimming in the river a little while longer. The CFRO is dedicating time in October for this project once the Pallid Sturgeon Community Assessment and Mitigation Projects conclude. Additional gears, such as trawling, overnight set gill nets and baited set lines (trotlines), will be employed to capture these important fish.

Interacting with other agencies, such as the USGS, fulfils the Fish and Wildlife Service's Partnership Goal. Sturgeon monitoring also accomplishes the native species conservation and management goal. The CFRO looks forward to partnering with the USGS office on other projects on the Missouri River. Combining knowledge and skills of multiple agencies and biologists will hopefully improve shovelnose sturgeon populations, as well as other fish populations, on the Missouri River.

*Andy T. Plauck*

# Aquatic Species Conservation and Management

## Large, Wild Pallid Sturgeon Captured on Lower Missouri River

On September 22nd, Fishery Biologists Cliff Wilson and Wyatt Doyle from the Columbia Missouri FRO caught one of the largest pallid sturgeons captured in recent years. The sturgeon was captured above Hartsburg, Missouri at river mile 161.2. Its fork length measured 955 mm (37.60 inches) and it weighed 3,595g (7.93 lbs).

The pallid sturgeon was given to a USGS biologist crew from Columbia Environmental Research Center who made a small incision in the sturgeon to determine its sex. They found large portions of fatty tissue indicating the fish was in good condition and finding ample food. The sturgeon's sex could not be determined. The USGS crew implanted an ultra-sonic telemetry tag into the sturgeon allowing them to track the sturgeons movement in the Missouri river.

The information from this pallid sturgeon in addition to scientific information and data collected from all fish species collected in the Missouri river assist the Columbia FRO in supporting the 'Aquatic Species Conservation and Management' goal of the 'Fisheries Program Vision for the Future'. *Cliff D. Wilson*

## Pallid Sturgeon Genetics Advisory and Population Status Meeting


*Varying degrees of color among shovelnose sturgeon.*

Columbia Fisheries Resources Office's Tracy Hill and Wyatt Doyle attended a first ever Mississippi and Missouri River pallid sturgeon informational meeting. The meeting was designed for State and Federal Agencies to share their work on the endangered pallid sturgeon. The culmination of a decade of research and monitoring associated on the pallid gave ARD's and guest genetic experts a complete picture of the pallid's history and current status. Information will be used to make decisions about future stocking and potential concerns related to sub-populations that may exist along over 2000 miles of water. The gathering allowed agencies from the two rivers to share much needed years of results related to commercial harvest, stocking success, and basic life-history of the fish in different reaches of the river. This culmination of information over a large range is vital to our continued efforts to recover this federally endangered fish.

*Wyatt J. Doyle*

## Success of Lake Sturgeon Stocking in Missouri's Large Rivers

Project Leader Tracy Hill participated in a meeting with the Missouri Department of Conservation on 19 September to evaluate their 20 year effort of stocking lake sturgeon in Missouri. The original purpose for stocking lake sturgeon in Missouri waters was to establish self sustaining populations. Several Missouri Department of Conservation researchers, district fishery biologists and Hill met to determine how to evaluate the success of the stocking events and to develop the mechanisms necessary to move forward with achieving the stated goals. Hill provided lake sturgeon data collected by the Columbia FRO to the group and shared information about Great Lakes lake sturgeon populations.

*Andy Starostka and Corey Lee with lake sturgeon collected on the Missouri River.*

This lake sturgeon research meeting provided an excellent opportunity to interact with biologists from the Missouri Department of Conservation and to explain the Service's mission and efforts to assist with management of fishery resources in Missouri.

*Tracy D. Hill*

# Leadership in Science and Technology

## Night-Time Electrofishing on the Missouri River.

This technique is known to produce greater numbers and different species of fish as fish tend to congregate to near shore habitats at night and it samples nocturnally active fishes. Until this season, Columbia FRO has never sampled the Lower Missouri River using night-time electrofishing. In June our electrofishing boat was outfitted with lights and the mitigation crew began using this technique as a wild gear type to analyze fish populations in side chutes and adjacent main river channel. Since then, weekly sampling trips were made to one of three sites using both day and night electrofishing techniques. We hope this information will help us determine if underrepresented species were found more frequently at night. The data is currently being analyzed to see if there is a significant difference. If this is the case a motion to change electrofishing efforts will be made. General observation of the data suggests blue sucker, sauger and big mouth buffalo were more common in night time samples than in day time samples. In addition fewer gar, gizzard shad and river carp sucker and other fish that typically dominate daytime samples, were observed.


Incorporating known methods to new applications such as this supports the Services's Science and Technology Goal of the Fisheries Program Vision for the future.

*Jeff M. Finley*



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# Aquatic Habitat Conservation and Management

## Columbia FRO Biologists Serve on Regional Watershed Committee

In the spring of 2005, Region 3 assembled a committee to address issues relating to the implementation of a more watershed based approach to some activities in the fisheries program. The committee contains representatives from the five fisheries offices within Region 3 and the Regional office. Nick Frohnauer and Joanne Grady represent the Columbia FRO. The committee broke its task down into three charges. The first charge was finding current or potential projects that displayed a watershed/geographical approach for potential funding on the national level and to help guide our development of a protocol for watershed plans. The second charge was developing a protocol for developing watershed plans. The last charge was revising the current fish passage funding process. Joanne and Nick are serving on the committees addressing charge 2 and charge 3. To date, there have been approximately 10 conference calls developing drafts for charge 2 and 3 protocols. Currently, charge two has a draft on preparing watershed/joint venture plans and is working on ranking criteria, gathering information, prioritizing watersheds, and approaching potential partners. Charge 3 has a process developed for year 2006 funding and will be adjusting it to fit more in the watershed plan for years thereafter.

Serving on the regional committee to develop a more watershed based approach for some fisheries activities is helping promote the Service's goal of facilitating management of aquatic habitats on National and Regional scales.

*Nicholas K. Frohnauer*

# Workforce Management

## CFRO Welcomes Volunteer Library Assistant

The Columbia FRO welcomed volunteer library assistant Casey Schacher to the office on September 22, 2005. Casey comes to Columbia from Chicago, Illinois where she completed her undergraduate degree. Casey is currently pursing her Master's degree in Library Science at the University of Missouri-Columbia. She will update our on-line large river literature reference database and add recent publications necessary to our work on the Missouri River. Casey has also expressed an interest in cataloguing our thirty-year collection of Missouri and Mississippi River science and management documents.

*Jennifer L. Johnson*

**Columbia FRO Staff**

Tracy D. Hill– Project Leader
Joanne M. Grady – Branch Chief, Fisheries Conservation
Wyatt J. Doyle – Branch Chief, Corps Operations
Andrew B. Starostka – Team Leader, ANS/Habitat Assessment
Jeff M. Finley – Fishery Biologist
Corey W. Lee – Fishery Biologist
(Geno)Wells E. Adams – Fishery Biologist
Nicholas K. Frohnauer – Fishery Biologist
Nicholas J. Utrup – Fishery Biologist
Andy T. Plauck – Fishery Biologist
Cliff D. Wilson – Fishery Biologist
Jennifer L. Johnson – Fisheries Biological Sciences Technician
Casey L. Bergthold – Fisheries Biological Sciences Technician
Ryan P. Tilley – Fisheries Biological Sciences Technician