



# Fisheries & Aquatic Resources Program

# fish lines

## Finding Endangered Mussels?

You Gotta Get Your Feet Wet

Aqua Kids TV  
Show- Day 1:  
The Battle against Asian  
Carp

Aqua Kids  
TV Show-  
Day 2:  
Lake Michigan Lake  
Sturgeon Restoration





# Fish Lines

Fisheries & Aquatic Resources Program - Midwest 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.

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.

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Biologist Joseph Gerbyshak, Central Michigan University graduate student David Reynolds and technician Melvin Hass return from sampling the fish community on the Tittabawassee River in a new 14 foot pontoon electrofishing vessel specifically designed for sampling in riverine environments.

To view other issues of "Fish Lines," visit our website at:  
<http://www.fws.gov/midwest/Fisheries/library/fishlines.htm>

# *Fish Lines*

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-USFWS/HeatherCalkins  
**Brandon Baumhoer explains how a fish stringer works at the Neosho National Fish Hatchery fishing derby.**

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# Finding Endangered Mussels? You Gotta Get Your Feet Wet

BY HEATHER CALKINS, COLUMBIA FWCO

It was about six years ago when an interesting string of events led the Missouri Department of Conservation's (MDC) malacologist (aka, mussel

prove itself, producing at least one, and up to four winged mapleleaf mussels per trip. Found at Bailey's last year was the scaleshell, another federally endangered species. The sheepnose and snuffbox, both proposed to be added to the endangered species list, have also been observed. An impressive 28 species of mussels have been found at this bed over the years, making it one of the most diverse beds known in the entire state.



-USFWS/HeatherCalkins

**Pictured is a sample of the 22 species of freshwater mussels found during a survey on the Bourbeuse River, Missouri. An impressive 28 species of mussels have been found at this bed over the years, making it one of the most diverse beds known in the entire state, which included a winged mapleleaf, a species that is federally endangered and never previously found in Missouri.**

guy), Stephen McMurray, and crew to one of the many horseshoe bends in the winding Bourbeuse River. This site was on the Bailey Farm, just south of the small town of Beaufort, owned by Clarence Calkins, my very own granddad. The Bourbeuse is an extremely crooked river having several long stretches with minimal access, so when I offered the crew an opportunity of easy entry to sample the river habitat at Bailey's (what we call it) they were eager to see what naiads this place had to offer. The first trip landed them a winged mapleleaf, a species that is federally endangered and had never before been seen in Missouri, with only four other known populations in the United States. The MDC crew has returned to this site at least once every year since and it continues to

In early June, I was thrilled with the opportunity to get my feet wet, and tag along on the Bailey Farm mussel survey. The "mussel guy" Steve was joined by the usual suspects, Scott Faiman and Josh Hundley (both of MDC) and a couple newbies to the site, Fish & Wildlife Service biologists Andy



-USFWS/HeatherCalkins

**This cylindrical papershell was observed from the mussel survey on the Bourbeuse River. This species has not been found in Missouri for 30 years.**





-USFWS/HeatherCalkins

**Heather Calkins of the Columbia Fish and Wildlife Conservation Office holds a federally endangered winged mapleleaf mussel found in the Bourbeuse River.**

Roberts and Bryan Simmons of the Columbia Fish and Wildlife Conservation Office (FWCO). Everyone bared great patience with me as they showed me the ropes searching for some of our longest lived invertebrate friends. We found 22 different species that day— by way of snorkeling and tactual examination of the river bed. Our find included two winged mapleleaf, several sheepsnose, a snuffbox and a cylindrical papershell, which hadn't been found in the state in 30 years! The trip was a blast and I gained an array of mussel knowledge. It bewilders me that there is such a diverse population of native mussels right under our noses - which my family and I never even knew about. It's interesting how a mention of my granddad's river

property during some small talk in the lab has turned into such a valuable site for state and federal mussel efforts.

The MDC and Fish and Wildlife Service malacologists are no strangers; these agencies, along with other states and universities, have been collaborating for years. A shortage of biologists in this field makes it hard to undertake their mission and meet their goals unless they partner together. This group strives to reduce and reverse the habitat and water quality degradation quality, that has contributed to much of the decline of our native mussels. This group has also joined forces to recover mussels by propagating those species of greatest concern. This cooperative effort will greatly contribute to the recovery of imperiled Missouri mussels.



-USFWS

**This snuffbox mussel was found during the Bourbeuse River survey. This mussel species is proposed to be added to the endangered species list.**

For further info about the Columbia FWCO: <http://www.fws.gov/midwest/columbiafisheries/>



# Aqua Kids TV Show- Day 1: The Battle against Asian Carp

BY TERESA CAMPBELL, CARTERVILLE FWCO

It is not every day that Carterville Fish and Wildlife Conservation Office (FWCO) members get to be television stars, but on June 14<sup>th</sup> they claimed the spotlight. Project Leader Rob Simmonds, Assistant Project Leader Sam Finney, biologist Jeff Stewart, and biological technician Teresa Campbell

The Carterville FWCO and *Aqua Kids* crews, along with Tim Smigielski, Regional Fisheries outreach coordinator, and Pam Goldstein, the media coordinator from Diversity Marketing and Communications, LLC, met on Tuesday morning at the Starved Rock boat ramp on the Illinois River. The sun shone down

on the water and blessed the day with perfect weather for fishing and filming. The

Carterville team put the boats in the water while the “kids,”

Rachel, Clark, Katie, and

Drew, suited up in

their new field gear,

and the sound and

camera crew, Adam

Shinn and Bob Koenig,

readied their equip-

ment. The high-energy

and down-to-business

executive producer of

the show, George

Stover (also creator

and chief

videographer), moti-

ivated everyone to get

ready and on the

water— so the cam-

eras could start rolling.



-USFWS/TeresaCampbell

**Aqua Kids Rachel and Drew give the introduction to the episode.**

brought three boats out to Starved Rock State Park in Utica, Illinois, to host cast and crew of the TV show *Aqua Kids*. *Aqua Kids* is an award-winning children’s television show, based out of Baltimore, Maryland, that promotes conservation of aquatic habitats and organisms. The *Aqua Kids* have visited labs, aquariums and unique environments up and down the East Coast, Texas and the Bahamas. But this time, they made their first venture into the Midwest to help fight invasive Asian carp!

control Asian carp and other aquatic invasive species. George jumped in and stopped them several times, adjusting a microphone here and a smile there, but after only a few takes, he was satisfied and ready to set out.

After Rob led a quick safety briefing, everyone donned life jackets, the kids and camera crew piled into the boats, and all headed out to check trammel nets that the Carterville FWCO staff had set earlier



that morning. Jeff drove the netting boat, while Rob showed *Aqua Kids* Rachel and Drew how to pull in the nets, remove the fish, and keep them in the live well. They were rewarded with a large channel cat, a common carp, and, the star of the day, a bighead carp.

lence. Sam taught them how to step on the pedals to keep the electricity flowing, and be ready with the long dip nets to net the fish as they were stunned. It was a little difficult for Katie to handle the long net, but she got the hang of it by the end, and they both caught several fish. And, sure enough, as soon as the electricity hit the water, several silvers sailed through the air in an exciting display of their bothersome behavior.



-USFWS/TeresaCampbell

**Aqua Kids Katie and Clark stand ready with dip nets, waiting to net up shocked fish.**

As the kids learned and asked questions, George bustled around the netting boat, getting close-up shots of the kids pulling in the nets and the fish they caught. Adam was right on hand with the sound boom to make sure everyone was heard clearly over the noise of the boat motors. The “Carp Caddy,” the Carterville electrofishing boat, hovered close by so Bob could get shots from a different perspective. Teresa drove a third boat so coordinators Tim and Pam could have front-row seats at the event they helped put together.

After the netting, Sam prepared the Carp Caddy to get ready to shock up some carp. The Illinois River is a known hot spot for Asian carps, so there was a good chance of getting jumping silvers on camera. This time, *Aqua Kids* Katie and Clark took on the chal-

After the sampling, the boats headed back to the ramp for some closing comments from Sam, Rob and the “kids.” Then, with the filming done, everyone gathered for a big group photo and to say their goodbyes. It turned out to be a fun day, and the Carterville office is enthusiastic about having their efforts to control Asian carp promoted in such an exciting and positive fashion.



-PamGoldstein

**The crews. Front row (Lt. to Rt.): George Stover, Jeff Stewart, Drew, Rachel, Katie, Bob Koenig. Back row (Lt. to Rt.): Rob Simmonds, Sam Finney, Tim Smigielski, Clark, Teresa Campbell, Adam Shinn.**

For further info about the Carterville FWC: <http://www.fws.gov/midwest/Fisheries/library/StationFactSheets/carterville.pdf>



# Aqua Kids TV Show- Day 2: Lake Michigan Lake Sturgeon Restoration

BY ROB ELLIOTT, GREEN BAY FWCO

**A**qua Kids, an award-winning children's TV series dedicated to educating young people about our nation's aquatic ecosystems, visited the Milwaukee River lake sturgeon streamside rearing facility to film an upcoming show about native species restoration. Wisconsin Department of Natural Resources (DNR) Fisheries Supervisor Brad Eggold, Riveredge Nature Center Science Educator Mary Holleback, and Fish and Wildlife Service biologist Rob Elliott spent a fast paced morning with three "Stars" of the show and Executive Producer and Chief Videographer George Stover, showcasing the ins and outs of this lake sturgeon restoration project, and giving the show's cast a hands-on experience they could share with their TV audience. This was one of several shows that the Fish and Wildlife

This Milwaukee River project is one of six similar lake sturgeon restoration efforts around Lake Michigan that State and Tribal resource agencies have been implementing for the past six years with assistance from the Fish and Wildlife Service. Together, these facilities are releasing approximately 5,000 fingerling lake sturgeon per year into Lake Michigan



-USFWS/RobertElliott

**The film crew and cast from the Aqua Kids TV show learn about lake sturgeon streamside rearing restoration efforts on the Milwaukee River from Brad Eggold, Wisconsin DNR Fisheries Supervisor.**

Service assisted Aqua Kids in producing. The Milwaukee River lake sturgeon facility is particularly noteworthy because it is operated largely by volunteers from Riveredge Nature Center under the supervision of the Wisconsin DNR, with funding assistance from the Fish and Wildlife Service and the Great Lakes Fisheries Trust fund.

tributaries in a focused and coordinated long-term effort to reestablish self-sustaining populations in historic sturgeon rivers where the species is either extirpated or severely depleted.

For further information about lake sturgeon restoration in Lake Michigan, contact Rob Elliott of the Green Bay FWCO at: [robert\\_elliott@fws.gov](mailto:robert_elliott@fws.gov).

For further info about the Green Bay FWCO: <http://www.fws.gov/midwest/Fisheries/library/StationFactSheets/greenbay.pdf>



## Fishers & Farmers Make Hay This Summer

BY HEIDI KEULER. LA CROSSE FWCO

The Fishers & Farmers Partnership (FFP) for the Upper Mississippi River basin has been busy in recent months working on projects, holding its annual steering committee meeting, hosting site visits and convening workshops.



-USFWS

**Fishers & Farmers Partnership and Missouri Department of Conservation staff discuss management actions with a rancher, to improve livestock health and stream water quality.**

In May, Minnesota Department of Natural Resources (DNR) fisheries manager Jack Lauer and fisheries specialist Craig Soupier joined Nicollet County Soil and Water Conservation District manager Kevin Ostermann in hosting FFP science advisor Chris Jones (Iowa Soybean Association), science team leader Ken Lubinski (U.S. Geological Survey), and coordinator Heidi Keuler of the La Crosse Fish and Wildlife Conservation Office (FWCO) on a tour of the Seven Mile Creek watershed, a FFP priority project in south central Minnesota.

Participants observed a completed project (including a successful water and sediment control basin) as well as several sites for potential new projects. Land use practices of concern here were drainage tiling and tilling near deep ravines.

In mid-June, the Missouri Department of Conservation (MDOC) hosted the first of three scheduled FFP Science Team workshops. Workshop participants learned about the current range of stream monitoring

efforts in Missouri, as well as the purpose and scope of a monitoring strategy

that the FFP Science Team is working on with the Fish and Wildlife Service's Plaines and Prairie Potholes Landscape Conservation Cooperative (LCC).

Highlights of the workshop included: great discussions held at Meramec State Park; a first-hand look at the Meramec River from canoes; a tour of three project areas; and meetings with cooperating landowners. "Thanks" go to state fish chief Chris Vitello, his MDOC staff, and Chris Jones for hosting this successful gathering.

Later in June, Lauer and his Minnesota DNR staff hosted the Fishers & Farmers Partnership steering committee at the Nicollet County Treaty Site History Center in St. Peter. Key topics of discussion at this well-attended meeting were: procedures to add new partners; pros and cons of transitioning the FFP into a non-profit (501c3) entity; an update on the FFP - Plaines and Prairie Potholes LCC monitoring plan; science needs and bio-response variables for a basin-wide fish habitat assessment; communications update; and strategies to improve landowner participation.

At the conclusion of the steering committee meeting, a media event was held to announce the signing of the Fishers & Farmers Partnership Charter. Representatives from twelve different federal, state and local agencies, as well as conservation groups and agricultural organizations (including the Iowa Soybean Association and the MN Corn Growers Association) signed the charter.

Also attending the media event were representatives from many state and local groups (Iowa DNR, MDOC, Wisconsin DNR, Minnesota Pollution Control Agency, Minnesota Board of Soil & Water Resources, Minnesota Department of Agriculture, Nicollet/Blue Earth Soil & Water Conservation Districts, Nicollet County Parks, Coalition for a Clean Minnesota River, Friends of Minnesota Valley, Minnesota River Board/Minnesota State University- Mankato, Trout Unlimited-Minnesota Chapter.

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.

For further info about the La Crosse FWCO: <http://www.fws.gov/midwest/lacrossefisheries/>



## La Crosse Area Garden Club and YCC Team Up to Help Pollinators

BY DOUG ALOISI, GENOA NFH

The Genoa National Fish Hatchery (NFH) recently invited the LaCrosse Area Garden Club to visit the station and help us revitalize our butterfly garden and increase its effectiveness in attracting and benefiting pollinators. Pollinators such as bees, butterflies, bats, etc. pollinate an estimated 75% of all of our flowering plants and crops, so maintaining healthy pollinator populations could be considered self-preservation for us humanoids. Pollinator populations are at risk due to a number of different stressors, some which include improper use of pesticides, and habitat fragmentation and loss due to land development.

To help local pollinators, Genoa NFH built a butterfly garden in 2009 to help provide some new habitat. Over the last two years some of the native plants had begun to be replaced by weeds and sedges, not the most ideal or aesthetic species for attracting and benefiting pollinators. At a recent Friends group meeting volunteer opportunities were shared with our local supporters. Ken Visger, executive board member of our Friends group suggested that the La

Crosse area Garden club may be interested in helping rejuvenate our butterfly garden as one of their service projects. The club was contacted and they were very interested in helping us out. We planned this volunteer opportunity to begin when our Youth Conservation Corps (YCC) students came on board in June. Remarkably it was right on the Fish and Wildlife Service's National Pollinator Week observance. Candace Brown of the Garden club and her team donated many different flowering species that attract and hold pollinators. Many of the species have yellow and purple blooms, particularly attractive to butterflies and bees. Working with our YCC enrollees Quentin James and Austin Lockington, the club made short work of the weeds and quickly added beneficial species and mulched the entire area. The results are truly amazing, and bees by the score have been flocking in all summer. We are very grateful to our YCC enrollees and Candace, Phyllis and Peg of the La Crosse Area Garden Club for making this finished project a reality.

For further info about the Genoa NFH: <http://www.fws.gov/midwest/genoa/>

## Sampling the Tittabawassee River Fish Community

BY JOSEPH GERBYSHAK, ALPENA FWCO

On July 26<sup>th</sup> and 27<sup>th</sup> biologist Joseph Gerbyshak aided Central Michigan University (CMU) and Michigan State University (MSU) graduate students in sampling the fish communities in the Tittabawassee River. The graduate students are studying fish communities and movement on the river systems with varying levels of connectivity in the Saginaw Bay watershed. The Tittabawassee River, a fully dammed system, has the lowest level of connectivity of the rivers in the study. Sampling occurred above and below the Dow Dam in Midland, Michigan, to assess differences in the fish communities that may be attributed to the damming of the river.

Gerbyshak operated a new electrofishing vessel purchased by the Alpena Fish and Wildlife Conservation Office (FWCO) earlier this year. The new vessel, a 14 foot aluminum pontoon, was designed to sample in shallow riverine environments. It performed well in

the shallow riffles of the river due to the low draft of the vessel. A primary advantage of the vessel is that it is short in length and has a tiller motor, making it quite maneuverable. Due to the high degree of maneuverability of the vessel, it was nimble enough to effectively sample habitat types that would be problematic for a larger vessel to sample, such as between large woody debris on the river banks. The ability of the vessel to effectively sample all habitat types, including habitat types that have been logistically difficult in the past, was essential in obtaining a representative sample of the fish community. It appeared an accurate sample of the fish community was obtained, catching 28 different species. The dominant species were redhorse suckers, channel catfish and smallmouth bass. Gerbyshak will lend assistance to CMU and MSU graduate students next month to complete sampling for this field season.

For further info about the Alpena FWCO: <http://www.fws.gov/midwest/alpena/index.htm>



## GLRI Funds Green Bay Biologist to Assist with “Headhunting” Tagged Salmon and Trout on Lake Ontario

BY KEVIN PANKOW, GREEN BAY FWCO

On July 7<sup>th</sup> mass marking biologist Kevin Pankow from the Green Bay Fish and Wildlife Conservation Office (FWCO) traveled to upstate New York to assist the New York State Department of Environmental Conservation (DEC) with collecting biological data from angler caught salmon and trout that had been tagged before stocking. Pankow collected data for ten days at five different ports covering three fishing derbies and assisted the DEC with two fishing boat surveys.



-NYSDEC/Mike Connerton

**A handheld wand detector is used to scan for a coded-wire tag in a Chinook salmon by Great Lakes Mass Marking biologist Kevin Pankow at the Wayne County Pro-Am in Sodus Point, New York.**

The New York DEC and the Ontario Ministry of Natural Resources (OMNR) annually stock 2.3 million Chinook salmon into Lake Ontario. Annual stocking of lake trout also occurs, and in 2010 Lake Ontario was stocked with 454,000 lake trout by the Fish and Wildlife Service and 482,000 by OMNR. In 2008, the DEC purchased an automated fish marking trailer (AutoFish) from Northwest Marine Technology to efficiently adipose clip and coded-wire tag (CWT) hatchery reared Chinook salmon. This is part of a basin-wide effort to CWT all stocked salmon and trout in the Great lakes, to better evaluate Great

Lakes fisheries. The Fish and Wildlife Service owns and operates four automated trailers

and uses the New York DEC trailer to tag lake trout stocked into lakes Erie and Ontario.

A CWT is a length of magnetized stainless steel wire 0.25 mm in diameter marked with rows of numbers denoting a specific batch or individual code. The main objective of the Lake Ontario study is to determine the relative proportion of wild and hatchery Chinook salmon in the harvest and to determine the relative degree of homing and straying to and from stocking sites. The Fish and Wildlife Service has cooperated with the New York DEC by purchasing tags and providing assistance to “headhunt” for biological data and recover tagged fish. By analyzing data on the proportion of tagged salmonids captured in the sport fishery, managers can better understand how stocking methods and numbers can influence the dynamics of wild and stocked populations in the Great Lakes. This project was funded by a \$1.5 million grant from the Great Lakes Restoration Initiative (GLRI) to the Fish and Wildlife Service to support federal/state/tribal mass marking programs in 2011.

At each port, angler caught salmon and trout were identified, measured, weighed, and examined for clips. Scale samples were also collected for aging. Fish were also retrieved from local fishing charters that required fish otoliths (ear bones) to be extracted for aging. All Chinook salmon, coho salmon and lake trout were scanned for CWTs using a handheld tag detector. If a tag was detected, the snout of the fish was removed if allowed by the angler. All snouts were taken to the Lower Great Lakes Fish and Wildlife Conservation Office in Amherst, New York, to be frozen for storage. The tags will be extracted and read later, revealing a specific six digit code that corresponds to the rearing facility, stocking location and year class.

Pankow worked with many New York DEC employees, local charter captains and fishing derby organizers during the operation. On July 8<sup>th</sup> he assisted DEC biologist Mike Connerton at the Oswego County Pro-Am Derby in Oswego, New York. July 9<sup>th</sup>

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.



was spent with DEC creel agent Ron Harrington “headhunting” at Oswego Marina. Pankow also assisted with a fishing boat survey at Wright’s Landing in Oswego that day with Harrington and creel agent Richard Chiavelli. During July 10<sup>th</sup> -12<sup>th</sup>, Pankow began his independent efforts at Newfane Marina in Olcott, New York, followed by data collections at Point Breeze on Oak Orchard Creek on July 13<sup>th</sup>. Sampling continued on July 14<sup>th</sup> at Sodus Point and at the Kurt Meddaugh Memorial Tournament on July 15<sup>th</sup> at Newfane Marina in Olcott. Pankow worked with DEC creel agent Joe Dallas on July 16<sup>th</sup> conducting a fishing boat survey on Twelve Mile Creek near Wilson, New York. The final day of the mission re-

turned Pankow to Sodus Point for the Wayne County Pro-Am Derby where he was assisted by DEC biologists and technicians.

During the ten day period, data was collected on 645 fish, of which 65% were Chinook salmon, recovering 77 Chinook salmon and 24 lake trout snouts containing CWTs. On July 18<sup>th</sup> Pankow delivered the compiled data and gear to DEC Cape Vincent Research Station along with retrieving Chinook salmon parr from the Salmon River State Fish Hatchery. The parr will have a quality control check performed at the Great Lakes Mass Marking recovery lab in New Franken, Wisconsin, where Pankow returned on July 19<sup>th</sup>.

For further info about the Green Bay FWCO: <http://www.fws.gov/midwest/Fisheries/library/StationFactSheets/greenbay.pdf>

## Where Do Fish Go When the River Floods?

BY COLBY WRASSE, COLUMBIA FWCO

The prolonged flooding of the Missouri River has affected the lives of millions of people who reside and work within its floodplain. Snowmelt from a record snowpack in the Rocky Mountains and heavy spring rains in the upper Missouri River basin combined to create serious flood conditions. Within the



-USFWS

**Chubs, paddlefish, sturgeon and catfish are some of the species collected during the Missouri River flood of 2011.**

state of Missouri, flooding began in late May and is expected to continue through the fall.

During normal summer flows, we at the Columbia Fish and Wildlife Conservation Office (FWCO) would

be utilizing stern trawling, drifted trammel nets, and mini-fyke nets to sample for the Pallid Sturgeon Population Assessment project; however, at flood levels these gears can be dangerous to use and ineffective for catching fish. With the prospects of a long duration flood, we went back to the drawing board to devise a sampling regiment that would be safe, effective and hopefully answer questions about how Missouri River fish are responding to the 2011 flood.

Our current sampling regimen utilizes bow trawling and push trawling with a small mesh net specially designed to capture young-of-year (YOY) fish and other small bodied fish. With these gears, we are able to safely and effectively sample diverse habitats such as: flooded vegetation, mud banks, side channels and inundated sandbars. The results thus far have been promising. We have captured many interesting species including pallid sturgeon, paddlefish and sauger.

When this year’s data is analyzed, we are optimistic that we will be able to answer some long standing questions regarding the effects of flooding on the fish community of the Missouri River. Based on field observations, we have already begun to make inferences regarding habitat use of fish during this high water, and we are excited about the prospects of continuing our sampling regimen throughout the summer and into fall. While the flood of 2011 has negatively impacted the lives of many people within the Missouri River basin, we hope that the data collected by our office and other agencies working on the river will add to the scientific community’s understanding of the Missouri River.

For further info about the Columbia FWCO: <http://www.fws.gov/midwest/columbiafisheries/>

## Searching for Buried Treasurers

BY MARK STEINGRAEBER, LA CROSSE FWCO

The timing couldn't have been better. Back in late June, when health warnings were posted throughout much of the Midwest due to a prolonged and deadly heat wave, I received a request for assistance from Nathan Eckert, mussel propagation biologist at the Genoa National Fish Hatchery (NFH), to go snorkeling and help collect sheepsnose mussels from the clear, cool tannin-stained waters of the sand laden Chippewa River in west central Wisconsin.



-USFWS

**This young sheepsnose mussel was found stranded in a warm, isolated pool of water on Wisconsin's Chippewa River.**

The sheepsnose mussel has declined significantly across its original range. Once found in 77 rivers and streams, today it can be found in only 24. Large river habitats throughout nearly all of its range have been impounded, leaving only short, isolated patches of shallow water below dams where moderate to swift currents flow over the coarse sand/gravel substrates preferred by this threatened species. Threats to remaining sheepsnose populations are further exacerbated due to their small size and isolation. Likewise, the life cycle of the sheepsnose is complex and includes a stage that is parasitic on fish like golden shiners and fathead minnows.

Wanting to disappoint neither Nathan, myself, nor this threatened population of mussels, I enthusiastically responded "Yes" to his request and enlisted additional help from La Crosse Fish and Wildlife Conservation Office (FWCO) colleagues Nathan Bloomfield, Julia Egan, Ann Runstrom and volunteer

Michael Terry. Along with Genoa NFH biologist Jorge Buening and volunteer Lloyd Lorenz, the two-day mission of our crew was to collect and reaggregate sheepsnose mussels in the Chippewa River near Meridean, Wisconsin.

On July 1, after a quarter-mile trek downstream across a sandy landscape of deserted islands, waist-deep channels, and isolated pools of ankle-deep water that harbored mussels stranded by diminished river flows, we reached the approximate location of a sheepsnose aggregation site established a few years earlier. After snorkeling our way along the bottom of this shallow, sun-drenched stretch of river for an hour, searching for our mostly buried quarry in the relatively cool and refreshing water, we recovered 13 previously unmarked sheepsnose, three of which were females containing glochidia (embryonic mussels).

Upon finding my one and only sheepsnose that day, Nathan complimented my accomplishment stating "Even a blind squirrel can find nuts!" Now imprinted with the proper sheepsnose search image, our return trip here on July 7 proved more successful than our first. After happening upon the original aggregation site that second day, I felt like a kid turned loose in a candy store as we collected a total of 30 sheepsnose including 21 recaptures and 15 females with glochidia.

As a result of this two-day effort, 25 sheepsnose were tagged and immediately placed in a new, well-marked aggregation site here. This should help improve reproductive success as well as improve the efficiency of collecting glochidia for future recovery efforts.

Meanwhile, we slogged our way back upstream to the landing toting heavy buckets filled with our treasure of 18 gravid females. These were transported to the Genoa NFH where the glochidia were used to infest host fish for later reintroduction at other sites.

After having thoroughly enjoyed this mid-summer adventure, I can't wait for the next opportunity to snorkel for more buried treasures like this! For more information on the sheepsnose mussel, visit:

[www.fws.gov/midwest/Endangered/clams/sheepsnose/index.html](http://www.fws.gov/midwest/Endangered/clams/sheepsnose/index.html)

For further info about the La Crosse FWCO: <http://www.fws.gov/midwest/lacrossefisheries/>



## Brook Trout Clipping Complete at Genoa NFH

BY CAREY EDWARDS, IRON RIVER NFH

For many years, the experienced fin-clippers from Iron River National Fish Hatchery (NFH) have been assisting Genoa NFH with clipping brook trout destined for tributaries to Lake Superior on the Grand Portage Reservation. On August 15-17th, four veteran fin-clippers and student employee Katie Jardine headed down to Genoa NFH to clip 11,000 coaster brook trout.

The brook trout originated from Iron River NFH as eyed-eggs and were transferred to Genoa NFH in February where they will be reared until April 2012 and stocked as yearlings. The brook trout received a left ventral fin-clip. Fin-clipping is a management tool used to determine if a fish is a native or a hatchery reared fish, when doing population assessments.

For further info about the Iron River NFH: <http://www.fws.gov/midwest/ironriver/>

Future brood stock is also reared at Genoa NFH for Iron River NFH, and the crew clipped an additional 2,000 Tobin Harbor strain coaster brook trout. These fish will be held at Genoa NFH until late fall and then transferred back to Iron River NFH to join the ranks of the other brood fish on hand. Optimally, eggs from brood lots are split in half, one group remaining at Iron River NFH and the other sent to Genoa NFH. Should a problem arise with the eggs at Iron River NFH, a back-up group is on hand at Genoa NFH. This avoids keeping all of our eggs in one basket, so to speak. Progeny from these brood fish will reach Genoa NFH in two years to continue the cycle.

## Shocking News

BY CAREY EDWARDS, IRON RIVER NFH

The Iron River National Fish Hatchery (NFH) produces approximately two million lake trout and coaster brook trout every year for restoration purposes in the upper Great Lakes. Schacte Creek provides 4,000 gallons of water per minute to support this production. The head waters are collected through three different water intakes, then passes through the hatchery into effluent ponds and exits back into Schacte Creek. Shortly after the water returns to the creek, it passes through a barrier that prevents large fish from entering the water supply and possibly contaminating the water and fish produced at the hatchery.

Reproducing populations of native fish, such as brook trout and slimy sculpin, reside in the areas between the intakes and barrier. Three times a year, Fish and Wildlife Service technicians remove as many fish as possible using backpack electroshocking equipment. This typically coincides with one of the bi-annual fish health inspections where fish from the hatchery and creek are sampled for a variety of certified fish pathogens.

On August 10<sup>th</sup>, the joint effort was strictly to sample creek fish. Biologist Scott Yess from the La Crosse Fish and Wildlife Conservation Office and staff from the La Crosse Fish Health Center visited Iron River NFH to shock and sample fish. Youth

Conservation Corps employee Brian Lind was on hand to assist Scott with shocking in the creek. Fish were collected, placed in holding cages and transported to fish health specialists for inspection. The staff at Iron River NFH thanks the crew from La Crosse for all their hard work, and awaits the results from the examination.



-USFWS

**Biologist Scott Yess and Youth Conservation Corps employee Brian Lind remove fish from Schacte Creek for disease analysis. Schacte Creek is the water source for the Iron River National Fish Hatchery.**

For further info about the Iron River NFH: <http://www.fws.gov/midwest/ironriver/>

## Aquatic Invasive Species Outreach in Support of the Northeast Michigan Great Lakes Stewardship Initiative

BY ANJANETTE BOWEN, ALPENA FWCO

Biologist Anjanette Bowen of the Alpena Fish and Wildlife Conservation Office (FWCO) participated in the first of a two day environmental education event hosted by Sprinkler Lake Education Center in Glennie, Michigan. The event was organized to introduce elementary school aged children (2<sup>nd</sup> through 4<sup>th</sup> grade) to environmental and man induced impacts on natural resources and was funded by a small grant from the Northeast Michigan Great Lakes Stewardship Initiative (NEMGLSI). The Alpena FWCO is a resource partner on the project and a resource and leadership team member of the NEMGLSI.

The Alpena FWCO station focused on the impacts of aquatic invasive species. Bowen provided a presentation to introduce students to invasive species issues and provided examples of some common invasives, including zebra mussels, purple loosestrife, phragmites and sea lamprey. Students viewed preserved specimens, including round goby and zebra mussels, and also interacted with a live sea lamprey

provided by the U.S. Geological Survey - Hammond Bay Biological Station. Approximately 120 students from Oscoda area schools attended the event. Students also learned about the impacts of fire, physical disturbances, and food chains on natural resources.

The mission of the NEMGLSI is to encourage, coordinate and connect school children to natural resource and community projects in northeast Michigan. The NEMGLSI covers six counties and is one of eight Great Lake Stewardship Initiative hubs funded by the Great Lakes Fishery Trust. For more information about the NEMGLSI and this project visit their website at <http://nemglisi.org>.

### 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.

For further info about the Alpena FWCO: <http://www.fws.gov/midwest/alpena/index.htm>

## Environmental DNA Elicits Rapid Response

BY HEATHER CALKINS, ADAM MCDANIEL AND CLAYTON RIDENOUR, COLUMBIA FWCO

Preventing and monitoring the expansion of Asian carp in Region 3 and minimizing their impacts continues to be a priority for the Fish and Wildlife Service. As part of our continued efforts to monitor the invasive fish species, Columbia Fish and Wildlife Conservation Office (FWCO) biologists Adam McDaniel and Clayton Ridenour made their way to Lake Calumet and the Cal-Sag Channel to collect water samples for eDNA analysis. The Environmental Protection Agency (EPA) continues to be a valued partner by assisting us with the logistics and collection for each of these outings. Peggy Donnelly from EPA and Alexander Benziger with the U.S. Army Corps of Engineers (USACE) provided assistance collecting water samples. That round of sampling marked the second of three consecutive sampling events at this site recently, all resulting in at least one positive eDNA “hit” for silver carp in Lake Calumet.



-USFWS/AdamMcDaniel

Heather Calkins holds a brook silverside captured while electrofishing Lake Calumet during a Rapid Response event.



These successive positive hits in the Calumet area initiated a Rapid Response and Columbia FWCO headed back to assist with the event. Brett Witte, Heather Calkins and Adam McDaniel went equipped with the new Midwest Lake Electrofishing Systems Infinity control box and electrofishing boat. Columbia FWCO joined other Fish and Wildlife Service offices, USACE, Illinois Department of Natural Resources, Southern Illinois University at Carbondale and com-

mercial fisherman in an extensive effort to capture Asian carp. Three days of electrofishing, trammel netting, trap netting and seining were used to evaluate the presence of Asian carp in Lake Calumet. The event went well with no injuries, cooperative weather and, best of all, NO Asian carp. It's always great to join forces with other agencies in an effort to protect our ecosystems.

For further info about the Columbia FWCO: <http://www.fws.gov/midwest/columbiafisheries/>

## Goby Roundup

BY NICHOLAS BROOMFIELD, LA CROSSE FWCO

On August 1<sup>st</sup>, Julia Egan, Scott Yess and I headed for Beardstown, a small hamlet in west central Illinois, to take part in the 2011 Goby Roundup. Mike Wilson, a graduate student at the University of Illinois, volunteered to round out our crew here on the Illinois River.



-USFWS

The invasive round goby's range expansion in the Illinois River has been monitored since the fish was first found in the Illinois River in the 1990's.

This event has taken place annually since the invasive round goby arrived in the Illinois River basin in the 1990's. The goal is to monitor the leading edge of the migration downstream towards the Mississippi River. This is accomplished using baited minnow traps

and angling with small hooks and wax worms that take advantage of their aggressive behavior.

Ann Runstrom organized the survey this year, which included five surveillance sites. The furthest downstream a round goby has been collected to date was in 2010 at the town of Bath, located more than 200 miles downstream of Chicago and 110 miles upstream from the Mississippi River confluence. The sites assigned to our office were just downstream from there.

After a pit stop in Havana to drop off surveillance gear for the Illinois Department of Natural Resources and the Illinois Natural History Survey, we continued to Beardstown and set our minnow traps that evening. It was hot, just a precursor to the upcoming days. Temperatures reached triple digits on Tuesday with heat indices topping 110° F and water temperatures approaching 90° F. Ann made several motherly suggestions via cell phone for battling the heat. It's nice to know she was thinking of us.

The heat made angling in one spot for too long pretty tough, but the fish were biting. We caught catfish, drum, and bluegill in the mornings before the heat got us moving. Fishermen in the area were bringing in big stringers of catfish. Thursday turned out to be the nicest day, but we were pulling traps and heading home with no time to fish.

No round gobies turned up, so it will be interesting to see if any of the sites upstream catch some. Scott did manage to catch a nickel though, so hopes are high for more river treasure next year.

For further info about the La Crosse FWCO: <http://www.fws.gov/midwest/lacrossefisheries/>

## Big Muddy Speaker Series

BY TRACY HILL, COLUMBIA FWCO

Project Leader Tracy Hill of the Columbia Fish and Wildlife Conservation Office (FWCO) gave a presentation on pallid sturgeon at the “Big Muddy Speaker Series.” The talk titled “Stocking Up on Pallid Sturgeon - The Not So Short or Smooth Road to Recovery” detailed the steps necessary to stock pallid sturgeon in the Missouri River. About 20 people were in attendance at the talk which was one of a series of monthly talks about the Missouri River hosted by a partnership of Missouri River Relief, *Friends of Big Muddy*, Fish and Wildlife Service, Big Muddy National Fish and Wildlife Refuge and Les Bourgeois Vineyards. The presentation detailed the various steps involved in stocking pallid sturgeon, from collecting wild brood fish from the river to the varied genetic testing necessary to ensure the fish are appropriate parents to the spawning, rearing, tagging and eventual stocking of the progeny. The purpose for the series is to educate the local public

about natural resource issues surrounding the Missouri River.

The Kansas City Big Muddy Speaker Series was kicked off on September 8 with a presentation by Robb Jacobson called “Floods and Mud - The Challenges of Managing the Missouri River.”

More information can be found at: <http://www.riverrelief.org/updates/entry/sept-8-big-muddy-speaker-series-kansas-city/>.

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.

For further info about the Columbia FWCO: <http://www.fws.gov/midwest/columbiafisheries/>

## Sprinkler Lake Jr. High Math Science Conference

BY ANJANETTE BOWEN, ALPENA FWCO

Biologist Anjanette Bowen with the Alpena Fish and Wildlife Conservation Office (FWCO) prepared materials and chaperoned a learning station on fish identification during the Junior High Math Science Conference that was held at Sprinkler Lake Education Center in Glennie, Michigan. The conference was held to get students excited about math and science by allowing them to participate in applied learning about a variety of subjects in the math and science fields and to exposing them to careers. Students also won prizes based on activities presented at each of the stations.

Students worked in teams and answered questions at each station. The Alpena FWCO station focused on educating students about the distinguishing characteristics of fish and using a dichotomous key to identify

different fish species. Students answered questions and learned about three species of fish found in the Great Lakes.

Overall, 131 seventh and eighth grade students from six classrooms participated in the daylong event. This event was funded by a small grant provided by the Northeast Michigan Great Lakes Stewardship Initiative (NEMIGLSI). The Alpena FWCO is a partner with the Sprinkler Lake Education Center on this project and a resource member of the NEMIGLSI. The NEMIGLSI encourages place-based education by connecting school children with natural resources and community education projects. For more information about the NEMIGLSI, visit their website at <http://nemiglsi.org>.

For further info about the Alpena FWCO: <http://www.fws.gov/midwest/alpena/index.htm>



## Green Bay Biologist assists Wisconsin DNR with Great Lakes Fisheries Modeling Efforts

TED TRESKA, GREEN BAY FWCO

Green Bay Fish and Wildlife Conservation Office (FWCO) biologist Ted Treska works with biologists from the Wisconsin Department of Natural Resources to assist with catch at age models that are used to monitor populations and set sustainable harvest of lake whitefish, lake trout and yellow perch. Recently, Treska worked with biologist Scott Hansen on efforts to incorporate data from the ever growing recreational fishery in the Green Bay area of Lake Michigan into models used to set commercial quotas on in the waters surrounding the Door County peninsula. In addition to introducing data to the model, work is done to improve the model fit to the data that is gathered from commercial sampling, biological sampling and other sources. With hundreds of vari-

ables estimated in each model, finding the most accurate model is sometimes difficult. Using techniques that are practiced by the agencies and tribes around Lake Michigan that are members of the Modeling Subcommittee, of which Treska is a part of, knowledge can be passed on to estimate parameters like catchability and gear selectivity. Providing assistance on these complicated models is just one of the ways that the Fish and Wildlife Service can provide assistance to these biologists who are also heavily involved in field work, public relations and other duties.

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.

For further info about the Green Bay FWCO: <http://www.fws.gov/midwest/Fisheries/library/StationFactSheets/greenbay.pdf>

## Service Biologists Present Research at 54<sup>th</sup> Annual IAGLR Conference in Duluth, MN

BY ASHLEE HORNE, ALPENA FWCO

From May 31 through June 3<sup>rd</sup>, biologists Ashlee Horne, Justin Chiotti and James Boase from the Alpena Fish and Wildlife Conservation Office (FWCO)-Waterford substation attended and presented at the 54<sup>th</sup> International Association for Great Lakes Research (IAGLR) conference in Duluth, Minnesota, the world's busiest freshwater port. This large organization is comprised of a scientific community that studies and manages the watersheds, ecosystems and organisms of the Laurentian Great Lakes and other large lakes (e.g. Lakes Victoria, Tanganyika and Baikal). While at the meeting, biologists from around the world were able to network and interact at any one of 39 platform sessions, a poster session and several social events, including the annual Team Canada vs. Team USA hockey fundraising event. The three plenary talks boasted information on Lake Baikal, the African Great Lakes and Asian carp control strategies.

The three day long trade show was informative about the latest technologies from popular vendors of scientific equipment. There was also a student only mixer and self-guided tours on the research vessels *Blue Heron* and *Lake Explorer II*. In addition, the Great Lakes Aquarium, only seconds from the convention center, granted free admission to all IAGLR attendees. The talks given by Alpena FWCO biologists included *Lake Sturgeon Movements Associated with Spawning in a Great Lakes Connecting Channel* (Horne), *Habitats Occupied by Juvenile Lake Sturgeon in the North Channel of the St. Clair River* (Boase) and *Comparing Fish Communities among Different Wetland Types within the Huron-Erie Corridor* (Chiotti). All three of the presentations will be highlighted in a special issue of the Journal of Great Lakes Research titled "Great Lake Connecting Channels."

For further info about the Alpena FWCO: <http://www.fws.gov/midwest/alpena/index.htm>

## Federally Endangered Water Beetle Remains On-Site Following Construction

BY HEATHER RAWLINGS, ALPENA FWCO

The Federally Endangered Hungerford's crawling water beetle (beetle) was discovered in Van Hellon creek, a tributary of the Black River (Montmorency County, Michigan) in July of 1999. The beetles were located just downstream of the Roth Road/Van Hellon Creek crossing. The culvert located at the crossing was in poor condition, and an estimated nine tons of silt and sediment washed into the creek from the road annually. The Fish and Wildlife Service's Partners for Fish and Wildlife Program and the Fish Passage Program teamed up with Huron Pines, Inc. (a former RC&D office), the Upper Black River Council and the Montmorency County Road Commission in 2009, to pool funding and resources to improve the road crossing and potentially improve the habitat for the beetle. The Alpena Fish and Wildlife Conservation (FWCO) entered into formal consultation with the East Lansing Ecological Services Office in 2010 in order to begin the construction phase with the least amount of damage/take to the population of beetles at the crossing.

Construction was originally scheduled for fall 2010 but was delayed until December 2010 in order to get paperwork and survey work completed. The construction action area was thoroughly surveyed on November 23, 2010 in extremely cold weather conditions to locate all adult beetles and remove them to a downstream site with suitable habitat. Three individuals were netted and relocated downstream, which was much fewer than anticipated. This caused a reinstatement of formal consultation and population and take numbers to be recalculated. A revised analysis was provided on November 30<sup>th</sup> and construction began on December 1, 2010.

The ageing 25 foot long, 3 foot diameter round concrete culvert was removed and replaced with a 60 foot long, 69 inch x 45 inch corrugated steel arched

culvert. The culvert replacement was completed by December 8, 2010. Frigid winter temperatures forced the road commission to wait until June 2011 to complete the road approach work to the crossing.

The Roth Road crossing site was surveyed on July 28, 2011 by Great Lakes Ecosystems (Mike Grant, Bob Vande Kopple and Bert Ebbbers) and Alpena FWCO biologist Heather Rawlings for the presence of the Hungerford's crawling water beetle. Five individuals were immediately located, which led us to believe that either individuals at the site survived the construction, or that heavy spring rains washed some individuals down from a small upstream population. Whatever the case, habitat at the crossing is currently suitable to support a beetle population, and was not destroyed during the construction process.

This finding provides a favorable atmosphere for future projects within the watershed located in close proximity to beetle populations. These sites were not considered for restoration in the past due to the existence of the beetle, but the culvert at this site had deteriorated to the point failure of the structure was certain. Improved road crossings allow for natural stream flow and substrate to be mimicked through the length of the culvert (or whatever structure is placed), and virtually eliminates sediment loading from the roadway. This creates a healthier ecosystem for all stream organisms, in this case brook trout, and allows for passage through the crossing, and may improve and/or expand habitat for the endangered beetle. Completion of this road improvement opened fish passage to four miles of coldwater in-stream habitat and eliminates sediment loading of nine tons of sediment/year to Van Hellon Creek.

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.

For further info about the Alpena FWCO: <http://www.fws.gov/midwest/alpena/index.htm>



## Green Bay Biologist Participates in UW-Stevens Point Natural Resources Career Camp

BY ALLEN LANE, GREEN BAY FWCO

Biologist Allen Lane from the Green Bay Fish and Wildlife Conservation Office (FWCO) participated in the Central Wisconsin Environmental Stations (CWES) Natural Resources Career Camp July 25th and 26th. CWES, an affiliate of University of Wisconsin (UW)-Stevens Point, is located near Amherst, Wisconsin, and provides day or week long camps based on an environmental curriculum. The Camp is for students 15 to 18 years old interested in natural resource use and management.



-Margot Davies

**Biologist Allen Lane helps Central Wisconsin Environmental Station campers take data from captured fish.**

In addition to meeting with environmental professionals, the 15 campers from Wisconsin and Arkansas toured the Wild Rose State Fish Hatchery, Emmons Creek State Park, and the UW-Stevens Point campus. Forestry, wildlife and soils professionals delivered a brief history of their educational background, related work experience and answered questions, and provided advice to the future environmentalists.

After a short presentation on various aspects of fisheries management, Lane provided the campers with hands-on experience using a fyke net to collect fish samples from Sunset Lake. Biologists use fyke nets to safely capture and release fish after collecting data that managers can use for population estimates

For further info about the Green Bay FWCO: <http://www.fws.gov/midwest/Fisheries/library/StationFactSheets/greenbay.pdf>

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.

and lake composition studies. From the catch, the campers collected lengths, weights

and scale samples used to age the fish. Campers were then introduced to a microfiche reader, which is used to magnify scales, and a scale press used to make impressions of fish scales. Students processed the fish scales they collected by pressing them into acetate and using the microfiche reader to identify parts of the scales as well as determining the age of the fish.

By participating in outreach programs such as CWES, Fish and Wildlife Service biologists have the opportunity to spark students' interest in natural resource management. The valuable hands-on experience students receive may shape their career goals, and develop their love and respect for the environment.



-Margot Davies

**Central Wisconsin Environmental Station campers collect data from captured fish.**

# Congressional Actions

S. 1201 (is) To conserve fish and aquatic communities in the United States through partnerships that foster fish habitat conservation, to improve the quality of life for the people of the United States, and for other purposes. [Introduced in Senate]

S. 52 (is) To establish uniform administrative and enforcement procedures and penalties for the enforcement of the High Seas Driftnet Fishing Moratorium Protection Act and similar statutes, and for other purposes. [Introduced in Senate]

H.R. 2373 (ih) To establish a regulatory system and research program for sustainable offshore aquaculture in the United States exclusive economic zone, and for other purposes. [Introduced in House]

H.R. 1917 (ih) To authorize the Secretary of the Interior, through the United States Fish and Wildlife Service, to conduct a Joint Venture Program to protect, restore, enhance, and manage migratory bird populations, their habitats, and the ecosystems they rely on, through voluntary actions on public and private lands, and for other purposes. [Introduced in House]

S. 1401 (is) To conserve wild Pacific salmon, and for other purposes. [Introduced in Senate]

S. 1494 (is) To reauthorize and amend the National Fish and Wildlife Foundation Establishment Act. [Introduced in Senate]

H.R. 1160 (rh) To require the Secretary of the Interior to convey the McKinney Lake National Fish Hatchery to the State of North Carolina, and for other purposes. [Reported in House]

H.R. 2325 (ih) To direct the Secretary of the Interior to establish a program to build on and help coordinate funding for restoration and protection efforts of the 4-State Delaware River Basin region, and for other purposes. [Introduced in House]

H.R. 2351 (ih) To direct the Secretary of the Interior to continue stocking fish in certain lakes in the North Cascades National Park, Ross Lake National Recreation Area, and Lake Chelan National Recreation Area. [Introduced in House]

S. 651 (is) To require the Secretary of the Interior to convey the McKinney Lake National Fish Hatchery to the State of North Carolina, and for other purposes. [Introduced in Senate]

H.R. 1160 (ih) To require the Secretary of the Interior to convey the McKinney Lake National Fish Hatchery to the State of North Carolina, and for other purposes. [Introduced in House]

S. 1266 (is) To direct the Secretary of the Interior to establish a program to build on and help coordinate funding for restoration and protection efforts of the 4-State Delaware River Basin region, and for other purposes. [Introduced in Senate]

H.R. 2834 (ih) To recognize the heritage of recreational fishing, hunting, and shooting on Federal public lands and ensure continued opportunities for these activities. [Introduced in House]

H.R. 1837 (ih) To address certain water-related concerns on the San Joaquin River, and for other purposes. [Introduced in House]

H.Con.Res. 15 (ih) Expressing the sense of the Congress that the United States Fish and Wildlife Service should incorporate consideration of global warming and sea-level rise into the comprehensive conservation plans for coastal national wildlife refuges, and for other purposes. [Introduced in House]

S. 1183 (is) To establish a national mercury monitoring program, and for other purposes. [Introduced in Senate]

S. 1224 (is) To amend Public Law 106-392 to maintain annual base funding for the Upper Colorado and San Juan fish recovery programs through fiscal year 2023. [Introduced in Senate]

S. 632 (is) To amend the Magnuson-Stevens Fishery Conservation and Management Act to extend the authorized period for rebuilding of certain overfished fisheries, and for other purposes. [Introduced in Senate]

H.R. 521 (ih) To amend the Federal Food, Drug, and Cosmetic Act to prevent the approval of genetically engineered fish. [Introduced in House]

S. 230 (is) To amend the Federal Food, Drug, and Cosmetic Act to prevent the approval of genetically-engineered fish. [Introduced in Senate]

H.R. 520 (ih) To amend the Federal Food, Drug, and Cosmetic Act to require labeling of genetically engineered fish. [Introduced in House]

H.R. 1646 (ih) To amend the Magnuson-Stevens Fishery Conservation and Management Act to preserve jobs and coastal communities through transparency and accountability in fishery management, and for other purposes. [Introduced in House]

Source is <http://www.gpoaccess.gov/bills/index.html>  
Searched database by keyword = "fish"



# Midwest Region Fisheries Divisions

## 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.

## Fish and Wildlife Conservation Offices

Fish and Wildlife Conservation 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

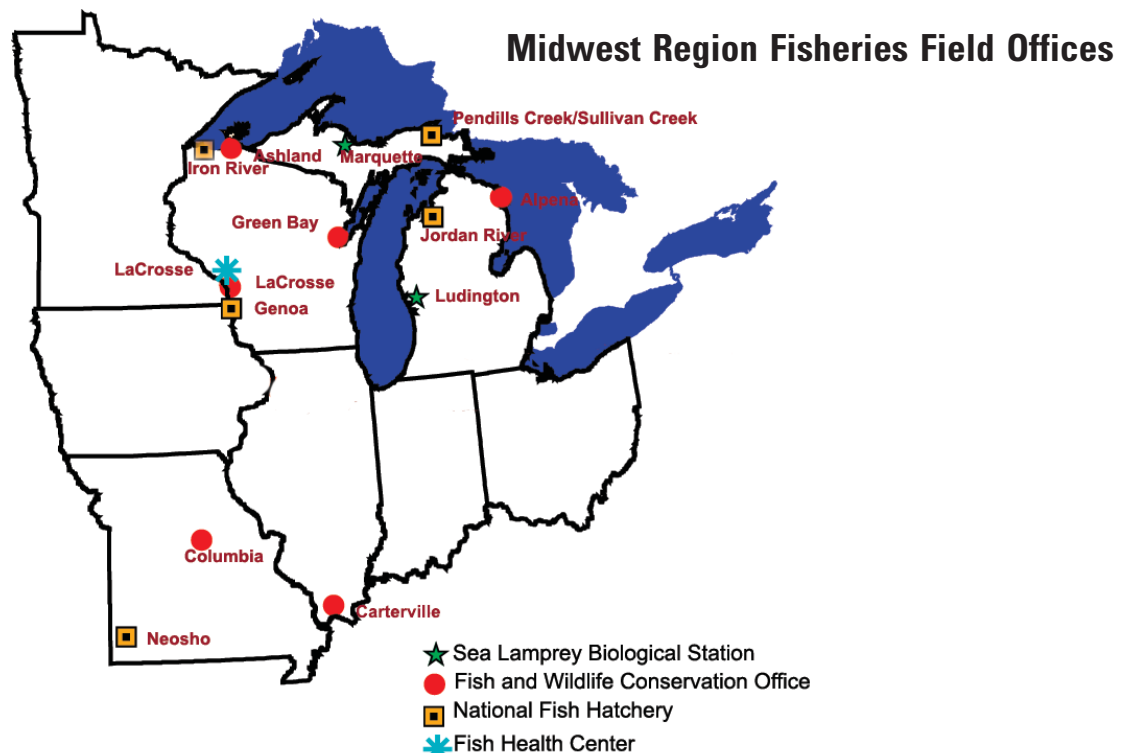
technical expertise to other Service programs addressing contaminants, endangered species, federal project review and hydro-power operation and relicensing; evaluate and manage fisheries on Service lands; and, provide technical support to 38 Native American tribal governments and treaty authorities.

## Sea Lamprey Biological Stations

The Fish and Wildlife Service is the United States Agent for sea lamprey control, with two Biological Stations assessing and managing sea lamprey populations throughout the Great Lakes. The Great Lakes Fishery Commission administers the Sea Lamprey Management Program, with funding provided through the U.S. Department of State, U.S. Department of the Interior, and Fisheries and Oceans Canada.

## Fish Health Center

The Fish Health Center provides specialized fish health evaluation and diagnostic services to federal, state and tribal hatcheries in the region; conducts extensive monitoring and evaluation of wild fish health; 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.



# Midwest Region Fisheries Contacts

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# Fish Tails

“Fish Tails” includes articles that are included in field station reports that are not published in the “Conservation Briefs.” These articles are categorized by focus area and includes the article title, author and field station. The website link, where the full article can be viewed, is highlighted in blue type.

## Partnerships and Accountability

### Aquatic Species Conservation and Management

- [St. Marys River Prey and Juvenile Fish Survey](#)
  - Anjanette Bowen, Alpena FWCO

### Aquatic Invasive Species

### Public Use

- [Sturgeon Teacher Workshop](#)
  - Anjanette Bowen, Alpena FWCO

## Cooperation with Native Americans

### Leadership in Science and Technology

- [Columbia FWCO Joins the Race for Space](#)
  - Clayton Ridenour, Columbia FWCO
- [Green Bay FWCO Supplies Data to Lake Michigan MSC Lake Whitefish Models](#)
  - Dale Hanson, Green Bay FWCO
- [How Many Annuli Do You See?](#)
  - Adam McDaniel and Heather Calkins, Columbia FWCO

## Aquatic Habitat Conservation and Management

- [Watersvliet Dam Removal Public Hearing](#)
  - Rick Westerhof, Green Bay FWCO

### Workforce Management

- [New STEP Student for Green Bay FWCO](#)
  - Kevin Mann, Green Bay FWCO

April-June 2011 June 30, 2011

## Iron River Hatchery Highlights

U.S. FISH & WILDLIFE SERVICE

### 5TH GRADE BUTTERFLY GARDEN

BY CAREY EDWARDS



**Above:** A tiger swallowtail feeds on lilac blossoms.



**Above:** 5th grade students from Iron River Elementary School assist with planting perennials in the butterfly garden. **Below:** A hummingbird moth feeds on garden phlox.



It seems like the new buzzword these days is pollinator and rightly so. They are an integral part of the world's life cycle. Efforts to cultivate areas where pollinators can reproduce, feed and grow are in effect across the country. At the Iron River National Fish Hatchery (IRNFH), where it is common place to find 1.65 million fish feeding and growing, a third pollinator garden is growing. The Iron River Elementary School is located in a small town 8 miles south of the hatchery. Fifth grade teacher and avid gardener, Jay Burfield, was contacted about participating once again in the third annual gardening event. On May 9<sup>th</sup>, twenty eight students arrived by 9:30 a.m. for the first step in the gardening process: creating stepping stones for the garden path.

In an effort to put more ownership into the project, the students would not only help plant the garden but they would also make their own stepping stone. After curing, the stones would be placed in the adjoining garden to last year's garden, creating a path that would allow hatchery visitors to view their hard work up close and personal. Hatchery staff hoped that students would come back repeatedly to view the garden and show family and friends the unique stones they had made. A site connecting last year's butterfly garden was prepared in advance of the student's arrival. Plants were ordered from a local greenhouse and nursery. Rounding out the list of over 500 plants were coreopsis, larkspur, salvia, asclepias, and rudbeckia.

Once the students smoothed out their concrete mixtures, it was time to plant. Students spent the remainder of the morning weeding the connecting gardens and planting flowers in the new one. Even though the weather was not agreeable, most students agreed that a windy and rainy day in the garden beat a day in the classroom anytime. After lunch, the students toured the hatchery and decorated their stepping stones. Stones were decorated with an assortment of stamps, stones and shells. Students enjoyed light refreshments before cleaning up the work area and catching the bus back to school at the end of the day. With a little bit of elbow grease and a lot of teamwork, a very successful and rewarding project was accomplished. The students were able to learn about gardening and butterflies as well as gaining awareness of fish hatchery processes. Stay tuned for next year's addition to the Iron River National Fish Hatchery's butterfly garden with the new fifth grade class.



**Flowers are in bloom at the Iron River National Fish Hatchery.**