U.S. Fish & Wildlife Service

Alpena Fish and Wildlife Conservation Office

August – September 2009 Station Activities

The Alpena Fish and Wildlife Conservation Office (FWCO) is located in Alpena, Michigan and works to meet the U. S. Fish and Wildlife Service's Fishery and Ecosystem goals within Lake Huron, Western Lake Erie, and connecting waters of the St. Marys River, St. Clair River, and Detroit River. Activities include Aquatic Species Conservation and Management, Aquatic Habitat Conservation and Management, Aquatic Invasive Species, Cooperation with Native Americans, Leadership in Science and Technology, Partnerships and Accountability, Public Use, and Workforce Management – all of which are conducted in alignment with the Service Fisheries Program's Vision for the Future. The station is one of many field offices located within Region 3, the Midwest Region.

Partnerships and Accountability

Conservation Workshop Hosted By Congresswoman Candice Miller

Submitted by James Boase
Fishery Biologist

On September 28, 2009, Congresswoman Candice Miller hosted a Conservation Workshop at the Huron Pointe Sportsmen's Association in Lenox Township, Michigan. The meeting was attended by approximately 100 people from surrounding communities, including a number of local government officials. James Boase, Fisheries Biologist from the U.S. Fish & Wildlife Service, was invited to present the State of the Great Lakes Fisheries. James Boase teamed up with other agency

Congresswoman Candice Miller at the Conservation Workshop on September 28, 2009. Photo credit: USFWS, James Boase.

partners to give the presentation, including Mike Thomas and Bob Haas from the Michigan Department of Natural Resources, and Greg Kennedy and Bruce Manny from the U.S. Geological Survey. Presentations were also given by Rose Ellison from the Environmental Protection Agency on the Great Lakes Restoration Initiative, Anne Vaara from the Clinton River Watershed Council, Barry Paulson from the U.S. Forest Service on Michigan's National Forests, and Dale Allen form U.S. Department of Agriculture on Wildlife Habitat Conservation. A thirty minute question and answer period followed the presentations.
This presentation provided an excellent opportunity to explain to the public the Service's mission and efforts to restore native fish populations and control exotic species. This project is consistent with the "Partnerships and Accountability," "Aquatic Species Conservation and Management," and "Leadership in Science and Technology" priorities of the Fisheries Program's Vision for the Future.

Lake Sturgeon Recovery Efforts Highlighted in National Geographic Series "Megafish"

Submitted by James Boase
Fishery Biologist

Mega-fish host Zeb Hogan with students from Stevenson high school hold a juvenile and adult lake sturgeon captured in the St Clair River on August 12, 2009. Photo credit: USFWS, James Boase.

James Boase, Fishery Biologist from the Alpena Fish and Wildlife Conservation Office (Alpena FWCO), gave presentations at Livonia Stevenson and Clarenceville High Schools in late May. Boase presented information on the daily life of a fishery biologist and educated students about the mission and goals of the U.S. Fish and Wildlife Service. Following his presentation, Boase was approached by a group of students, asking if there were any opportunities to job shadow biologists in the field. Seeing an opportunity to potentially inspire students to seek a career as fishery biologists, Boase agreed to schedule a day for students interested in participating in the job shadow. After contacting partners from the Michigan Department of Natural Resources (MDNR), Ontario Ministry of Natural Resources (Ontario MNR), and United States Geological Survey (USGS) to assistance with the event, the students were contacted and the date was set for August 12th in Algonac, Michigan.

On July 31st film producer Clare Nolan from National Geographic contacted Boase about filming a segment on lake surgeon and asked if there would be any opportunities in the coming weeks. It

was decided by both parties that the footage Ms. Nolan was looking for could likely be captured during the job shadow event. On August 12th Producer Clare Nolan and Mega-fish host Zeb Hogan met with Fishery Biologists Mike Thomas from MDNR, Karen Soper from Ontario MNR, Greg Kennedy from USGS, and James Boase from Alpena FWCO.

The goal was to capture both large and small lake sturgeon using setlines to provide the students an opportunity to handle these magnificent fish and see the differences between individual fish up close while also enabling the National Geographic film crew to obtain footage. A total of five setlines were place in the St. Clair River the day before. Three setlines were lifted with no fish on the lines and it was looking questionable if there would be any film footage shot that day. However, two lake sturgeons were found hooked on the fourth line. One fish was small, measuring 24 inches and the second fish was large, measuring 60 inches. The 60 inch fish put up a good fight, providing excellent footage.

A total of three fish were captured that day. All fish were landed in the boat and then transferred to a holding tub on a pier where the Stevenson and Clarenceville high school students were waiting. After a long day of filming and answering questions, the fish were tagged and released safely back into the St Clair River. The Mega-fish series featuring the Great Lakes lake sturgeon in scheduled to air on the National Geographic Channel in February 2010.

Mega-fish host Zeb Hogan and MDNR Biologist Mike Thomas watch as James Boase inserts a PIT tag into an adult lake sturgeon. Photo credit: Margaret Hutton.

What was originally planned to be a job shadow opportunity for a small group of local high school students turned out to be a mega-media event as filmmakers from National Geographic came to Michigan to capture footage of lake sturgeon.

This collaborative effort provided an excellent opportunity to broadcast to a large public audience and provided an opportunity to explain the Service's mission and the role that Alpena FWCO plays in providing assistance for management of Great Lakes fish and wildlife resources. Specifically, information was provided about the efforts of the Service and its partners to rehabilitate native lake sturgeon populations in the Great Lakes and the role that Alpena FWCO has in this endeavor. This outreach event supports the “Partnerships and Accountability” and “Aquatic Species Conservation and Management” priorities of the Fisheries Program Vision for the Future.

Pilot Study Relocates Native Mussels to the Detroit River International Wildlife Refuge

Submitted by James Boase
Fishery Biologist

Fatmucket receiving an individual identification tag. Photo credit: Michigan DNR, Mike Thomas.

Researchers from the Michigan Department of Natural Resources Mt. Clemens Field Station (MDNR Field Station), Ontario Ministry of Natural Resources (Ontario MNR), and Alpena Fish and Wildlife Conservation Office (Alpena FWCO) met over a two week period during the month of August to conduct a pilot study to relocate native mussels back into the Detroit River International Wildlife Refuge (Refuge). The goal of the project was to determine if native mussel species could survive in the Refuge and if placed in the correct environment would avoid being parasitized by two exotic mussels, the zebra mussel (*Dreissena polymorpha*) or the quagga mussel (*Dreissena bugensis*). During a 2006 study conducted by the Michigan Natural Features Inventory, researchers were unable to find any native mussels surviving in the Refuge. Although water pollution, habitat loss, and the loss of fish host species have impacted native mussel populations in the Detroit River, in the last two decades zebra mussels and, more recently, quagga mussels have had the greatest negative impact on native mussels. In addition to out-competing native mussels for food (due to their sheer numbers), zebra and quagga mussels negatively impact native mussels by attaching to their shell, preventing movement, reproduction and respiration, which will eventually suffocate them.

The mussels used for the project were collected from the St. Clair River Delta (Delta) in Goose and Fisher Bay. The native mussel known as the Fatmucket (*Lampsilis siliquoidea*) was used because it one of the few remaining species still found on the Delta in fairly high numbers. In shallow areas of Goose and Fisher Bay, fatmuckets were collected by hand using snorkeling gear. Most of the native mussels collected were not significantly impacted by zebra or quagga mussels. Those that were parasitized by zebra or the quagga mussels were cleaned in the field using a scrub pad to remove the mussels and any attachment fibers. The fatmuckets were then taken the MDNR Field Station to be individually measured and tagged. Once processed, the fatmuckets were transported and relocated in the lower Detroit River at four locations. Over the next two summers attempts will be made to relocate all of the fatmuckets to determine growth and survival rates, and impacts by zebra and quagga mussels.

Funding for this project was provided by the Service's Challenge Cost Share Grant Program with in-kind support provided by Michigan DNR and Ontario MNR. Future plans by the group are to

continue to identify mussel research needs and knowledge gaps within Huron-Erie Corridor. The Alpena FWCO will continue to promote existing partnerships and build new partnerships in an effort to solve ongoing resource problems related to native mussels in the Great Lakes Region.

This effort supports the "Partnerships and Accountability" and "Aquatic Species Conservation and Management" priorities of the Service's Fisheries Program Vision for the Future.

Aquatic Habitat Conservation and Management

Black River Work Crew Completes 2009 Season

Submitted by Heather Rawlings
Fish and Wildlife Biologist

Before (left) and after (right) pictures of large woody debris placement on the main branch of the Upper Black River, Montmorency County. Photo credit: Montmorency Conservation District, June 2009.

The Black River Watershed, part of the Cheboygan River Watershed and a Partners for Fish and Wildlife Focus Area, is a high-quality coldwater river that has been designated by the State of Michigan as a 'Blue-Ribbon Trout Stream". This is the only watershed in Northern Michigan that exclusively supports the native brook trout. The USFWS has supported restoration work in this watershed for over 10 years with both financial and technical assistance, and 2009 was no exception. As with many Michigan rivers, logging and development (primarily road building) have altered the dimension, pattern, and profile of several reaches of the Black River. These reaches of the Black River are devoid of large woody debris and carry excessive sediment loads due to human activity. The Black River Watershed Restoration Committee is working in conjunction with numerous partners to place large woody debris in the Black River, which will provide fishery habitat without negatively altering the river.

Strategic placement of large woody debris structures is designed to flush sediment downstream, which will uncover riffle and pool habitat previously clogged by large amounts of sediment. Sediment will be captured in sand traps located downstream of the sites and maintained by the Michigan Department of Natural Resources and Canada Creek Ranch.

Large woody debris placement that occurred in 2009 benefitted brook trout, the federally endangered Hungerford's crawling water beetle population, and coldwater aquatic habitat in the

Black River for over 10 river-miles. All structures placed were subject to approval (both design and placement site) by the Michigan Department of Environmental Quality permit process, the Michigan Department of Natural Resources (Fisheries Division) and the Service Partners for Fish and Wildlife Coordinator. A Michigan Department of Environmental Quality permit has been received for the 2009-2010 field work seasons.

The summer work crew, consisting of four college students and a crew chief began on May 18, 2009. The crew started the season with the placement of large woody debris (LWD) structures in the main branch of the Black River. 79 structures were placed on approximately a 3-mile stretch of the river to improve brook trout habitat by either providing cover in a part of the river that had little cover, or by slightly altering the flow of the river to restore the river to a deeper, narrower morphology and in the process uncovering potential spawning habitat, pools and riffles.

In August the work crew began work in Canada Creek, a large tributary of the Black River. Thirty-two large woody debris structures were placed, improving two miles of Canada Creek. Time was spent in the placement of new structures and the removal/modification of woody structures that were placed in the 1970's.

Throughout the summer the work crew removed beaver dams in which the beaver had either been trapped and removed or had abandoned the dam. Active dams that were encountered were noted, GPS coordinates collected, and this information will be passed on to local trappers this winter. In total 27 beaver dams were removed in 3 different tributaries of the river.

This restoration work may additionally benefit the federally endangered Hungerford's crawling water beetle (beetle). This small riffle beetle exists in only 3 watersheds in the United States, and the Black River is one of them. During the permitting process care was taken to keep work out of known locations of the beetle, but since this work improves the river habitat the belief is that the beetle will eventually benefit from this work.

Service funding provided for labor (work crew), and the transportation of crew and materials. Project partners included the Montmorency Conservation District which employed the work crew, Canada Creek Ranch which contributed funds and technical assistance on the work done in Canada Creek, the Michigan Department of Natural Resources which coordinates the Black River Watershed trapping program, and has collected the fisheries data to guide the location of the LWD placement, North-East Michigan Council of Governments which allowed one of their employees, Nico Tucker, to supervise the group as crew chief, the Michigan Flyfishing Club, Trout Unlimited, Montmorency County Conservation Club and Upper Black River Watershed Restoration Committee which all provided financial support for the work crew. This work was prompted by the completion of the Black Lake Watershed EPA 319 Plan in 1998.

Aquatic Invasive Species

Alpena FWCO Conducts Annual Early Detection and Monitoring for Aquatic Invasive Fish Species on Lake Huron and the St. Marys River

Submitted by Anjanette Bowen
Fishery Biologist

During September, the Alpena FWCO conducted an annual survey to detect new populations and to monitor existing populations of invasive fish species. Bottom trawling gear was used during the survey to detect new populations of Eurasian ruffe and round goby, and to monitor existing populations of round goby. Sampling was conducted at a total of six nearshore locations in US waters of Lake Huron and six nearshore locations in the St. Marys River. Efforts were expanded in the St. Marys River in 2009. No new populations of the invasive species were discovered; however, round goby continue to persist at all locations where they were previously found.

Biologist Jim Boase measures round goby captured from Port Dolomite in northern Lake Huron during an annual survey to detect and monitor new and existing populations of round goby and Eurasian ruffe. Photo credit: Anjanette Bowen, USFWS.

Eurasian ruffe and round goby are two invasive fish species that are thought to compete with native species for food and habitat resources. They are native to Eurasia and were unintentionally introduced into the Great Lakes. Eurasian ruffe have been found in Lakes Superior, Huron, and Michigan, but are currently thought to be extirpated from Lake Huron. Round goby have been found in each of the five Great Lakes and are also in the Mississippi River system. Although both species have been found in the upper Great Lakes, only round goby has been detected in the St. Marys River, which is the connecting waterway between Lake Superior and Lakes Huron and Michigan. Round goby were captured in the St. Marys River for the first time during the summer of 2008 by recreational anglers.

This survey provides early detection and monitoring for aquatic invasive species at twelve locations in Lake Huron and the St. Marys River. This effort is consistent with the Service's "Aquatic Invasive Species" and "Aquatic Species Conservation and Management" priorities of the Fisheries Program Vision for the Future.

Alpena FWCO Assists with Invasive New Zealand Mudsnail Sampling Conducted in Thunder Bay, Lake Huron

Submitted by Anjanette Bowen
Fishery Biologist

On September 11, Biologist Anjanette Bowen assisted researcher Dr. Ed Levri of Penn State Altoona with obtaining bottom sediment samples from Thunder Bay, Lake Huron in an effort to search for the New Zealand mudsnail. The New Zealand mudsnail is a small snail that is native to New Zealand. The snail has reached high densities in rivers of the western U.S. and it threatens to disrupt food web dynamics within these systems. It has been unintentionally introduced in the Great Lakes, and is currently known to be present in Lakes Michigan, Superior, Ontario, and Erie. Dr. Levri has studied the mudsnail in New Zealand and is analyzing the distribution and impacts of the mudsnail in North America.

Thunder Bay sediment samples were collected with a ponar grab sampler along specific depth contours. The mudsnail was not identified in a preliminary examination of the sediment samples at the time of collection. The samples were preserved to conduct a more intensive examination back at the laboratory.

This effort is consistent with the 'Partnerships and Accountability' and "Aquatic Invasive Species" priorities of the Fisheries Program Vision for the Future.

Leadership in Science and Technology

Lake Sturgeon Research Presented at the 139th Annual AFS Meeting

Submitted by James Boase
Fishery Biologist

Fishery Biologist James Boase traveled to Nashville, Tennessee to attend the 139th Annual Meeting of the American Fisheries Society. The meeting was held from August 30th through September 3rd. Boase presented a talk on September 3rd during the sturgeon symposium titled "Movements and Habitats of Juvenile Lake Sturgeon in the Lower St. Clair River." Results of the study are being prepared for publication in the Journal of Applied Ichthyology. The sturgeon symposium was attended by hundreds of resource professionals over the three day period. Information from the meeting provided valuable insight into other research currently taking place with sturgeon around North America.

This presentation provided an excellent opportunity to interact with other resource professionals and to explain the Service's mission and efforts to restore native fish, specifically, the efforts to rehabilitate lake sturgeon populations in the Huron-Erie Corridor. This project is consistent with

the "Partnerships and Accountability," "Aquatic Species Conservation and Management," and "Leadership in Science and Technology" priorities of the Fisheries Program's Vision for the Future.

Workforce Management

Good Bye and Good Luck Kyle Krajniak

Submitted by Scott Koproski
Fishery Biologist

This past June Alpena FWCO hired a student under the Service's Student Temporary Employment Program (STEP). Many students were interviewed for the position and Kyle Krajniak was selected. Kyle is a young student from the Alpena area who attended Alpena Community College for two year after graduating high school and is presently enrolled to start coursework at Lake Superior State University this fall. He has been an avid outdoorsman his whole life and focused his studies on the biological sciences.

During the 2009 field season, Kyle was exposed to a number of projects. He worked with staff during outreach events and assisted with aquatic nuisance species projects just to name a few. However, his primary duties were to function as a crew member during the six week gill net survey conducted annually by Alpena FWCO. Kyle was very willing and eager to expand his knowledge about the resource. He mastered the necessary skills quickly and allowed Alpena FWCO staff to complete all their required field work.

Kyle's presence will be missed by Alpena FWCO staff and we wish him best of luck as he continues his education at Lake Superior State University. Without Kyle's presence this past field season, it is doubtful Alpena FWCO would have been able to complete its mission and fulfill the Service's obligation towards fishery management issues on Lake Huron.

This work exemplifies Alpena FWCO commitment to the following Fisheries Program Vision for the Future priorities: "Aquatic Species Conservation and Management", "Leadership in Science and Technology", "Aquatic Habitat Conservation and Management", and "Workforce Management".

For more information about Alpena FWCO programs and activities contact us at:

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