U.S. Fish & Wildlife Service

Alpena Fishery Resources Office
FY 2007 Station Activities

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.

Asian Carp Information provided during Inland Seas Education Association's 2007 Seminar Series

Submitted by Anjanette Bowen
Fishery Biologist

On January 9, 2007, Biologist Bowen presented information on Asian carp as part of the Inland Seas Education Association's 2007 Seminar Series. Asian carp refer to four species of non-native carp (bighead carp, silver carp, black carp, and grass carp) that have become established and are spreading within the Mississippi River and its tributaries. Some species have become very abundant in areas of the Mississippi River drainage. They may reduce the diversity of native species and be hazardous to water users. There is concern they may spread into the Great Lakes.

A PowerPoint presentation was used to relay information about Asian carp during the seminar. Topics included characteristics, identification, current distribution, and concerns associated with Asian Carp. Efforts to slow the spread of Asian carp into the Great Lakes via the Chicago Dispersal barrier project were also discussed. Information was provided on what the public can do to prevent the spread of Asian carp and other invasive species. At the end of the presentation, a short DVD detailing the jumping behaviors and problems associated with Asian carp was played. The DVD, titled "Nuisance Fish", is an outreach tool that was recorded in partnership with Bill Dance, the Tennessee Wildlife Resources Agency and the U. S. Fish and Wildlife Service. There were a number of questions from those attending.

The Inland Seas Education Association's mission is “to use shipboard and onshore educational programs to inspire young people to pursue academic interests related to the Great Lakes, particularly the sciences and to enhance public understanding and stewardship of the Great Lakes and global freshwater systems." The seminar was held at Inland Seas Education Center located in Suttons Bay, Michigan.

Public education about invasive species is an important means of preventing their spread and helps to promote healthy native species populations. This effort is consistent with the Fisheries Program Vision for the Future priorities of “Aquatic Invasive Species”, "Public Use" and "Aquatic Species Conservation and Management".

Implications of Viral Hemorrhagic Septicemia (VHS) in Michigan Discussed

Submitted by Jerry McClain
Fishery Biologist

Project Leader McClain was interviewed by Shawn Dalton of the Southgate, Michigan Herald Press on January 31, 2007 to discuss Viral Hemorrhagic Septicemia (VHS) in Michigan waters of the Great Lakes and implications to the fisheries.

McClain discussed locations where fish kills have occurred and the virus has been detected, as well as how the Service is involved in sample collection and diagnostic work of the LaCrosse, Wisconsin Fish Health Center. Dalton was interested in documenting what recreational anglers might observe if a fish kill occurs, what risks are associated with the fish virus and precautions that should be taken. McClain noted that a primary concern is transfer of the virus to uninfected waters, particularly transfer from open Great Lakes waters to inland lakes and streams of the state and outlined precautions that can be taken to help prevent the spread.

Continue outreach with local and regional media outlets is an important tool for delivery and improved visibility of Service programs. This activity is consistent with and supportive of the Service's Fisheries Program Vision for the Future priorities of “Aquatic Invasive Species” and “Public Use”.

Annual Spring Ruffe Surveillance conducted in Thunder Bay area of Lake Huron

Submitted by Anjanette Bowen
Fishery Biologist

The Alpena FRO conducted Eurasian ruffe (ruffe) surveillance in the Thunder Bay River, Lafarge harbor, and Partridge Point marina areas of Thunder Bay during the month of April 2007. The survey was conducted to detect the presence of spawning phase ruffe. Small mesh (1.3cm) gill nets (33 x 1.6m) were used during the survey. Nets were set overnight, biweekly during the month of April. No ruffe were captured. All bycatch were measured and released. Tissue samples were collected from yellow perch and walleye for a genetic study conducted by The University of Toledo

- Great Lakes Genetic Laboratory to determine unique DNA markers for spawning populations of these native species.

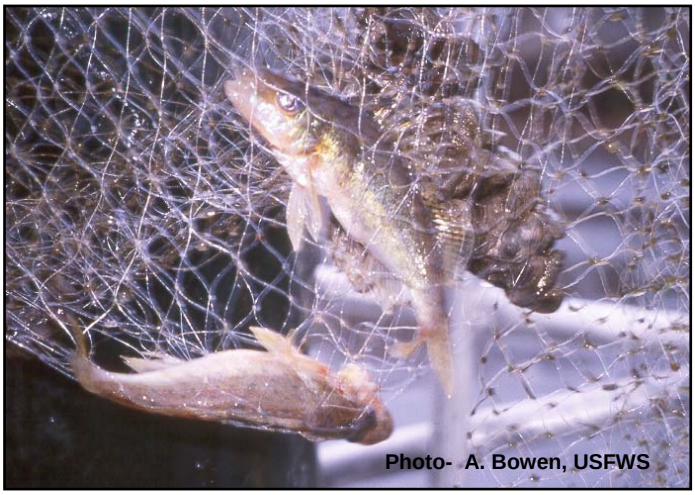
Photo- A. Bowen, USFWS

The ruffe is an invasive fish species, native to north central Europe that is related to the yellow perch. It is thought to compete with native species - including yellow perch - for food and habitat resources. Ruffe were first found in the Thunder Bay area of Lake Huron in 1995. It is the only area of the lake where the invasive has been captured. Their population increased and peaked in 1999, then began to decline. In 1996 the Alpena FRO initiated fall efforts to remove young-of-the-year ruffe, and in 2002 annual efforts were initiated in the spring to remove adult spawning ruffe. Young of the year were last collected in the fall in 1991 and spawning phase ruffe were last captured in the spring of 2003. Ruffe have not been captured in the Thunder Bay area since 2003. Efforts continue to detect any remnant or resurgence of the population.

Aquatic nuisance species monitoring and control is essential to promoting healthy native species populations. This project is consistent with the "Aquatic Invasive Species" and "Aquatic Species Conservation and Management" priorities of the Fisheries Program Vision for the Future.

Michigan Hosts 2007 Earth Day Celebration at Constitution Hall

Submitted by Anjanette Bowen
Fishery Biologist

The Michigan Department of Environmental Quality, Department of Agriculture, and Department of Natural Resources hosted the annual Earth Day Celebration at Constitution Hall in Lansing, Michigan. The celebration brought together a number of organizations and agencies to help teach children about the Earth and Earth processes/properties. Over one thousand students attended the event, many bused in from their schools. The USFWS was invited to participate in the celebration, as were a number of other agencies and organizations. Barbara Hosler with East Lansing Field Office and Anjanette Bowen of the Alpena Fishery Resources Office represented the Service and provided hands on displays and live fish at the Aquatic Invasive Species Display. Alpena brought an aquarium with live sea lamprey that were provided by the US Geological Survey's Hammond Bay Biological Station. Plastomounts with invasive species mounted in plastic were also available to be examined and there were a number of fishery games for children to play. The celebration was excellently organized and was a lot of fun for students and for those attending booths. This event

supports the "Aquatic Invasive Species", "Partnerships and Accountability" and "Public Use" components of the Service Fishery Program's Vision for the Future.

Michigan's Aquatic Invasive Species Awareness Week

Submitted by Anjanette Bowen
Fishery Biologist

The Alpena Fishery Resources Office (Alpena FRO) got the word out about aquatic invasive species during Michigan's Aquatic Invasive Species Awareness Week from May 22-28, 2007. Biologist Bowen met with and/or provided invasive species materials to over 45 bait and license vendors along the St. Marys River and Lake Huron shoreline from Sault Ste. Marie to Bay City, Michigan. The goal of the effort was to make vendors and anglers aware of invasive species that may spread into nearby areas. WATCH identification cards were provided with information about two invasive fish species, the Eurasian ruffe and the round goby. Both species have been found within the Lake Huron basin and other areas of the Great Lakes. They are thought to compete with native species for food and habitat resources. Both are able to become abundant quickly and have become a nuisance in areas where they are found. The Alpena FRO surveys Lake Huron and St. Marys River locations for new and existing populations of these species. Neither species has been found in the St. Marys River.

The WATCH cards aid in the identification of these invasives, and explains to anglers how they can help prevent the spread of invasive species and how to report an invasive sighting. We are hopeful anglers will take steps to prevent the spread of invasives and will report any unusual fish they catch to the Alpena FRO or their local DNR office.

Aquatic invasive species awareness is an important priority of the "Aquatic Invasive Species", "Aquatic Species Conservation and Management" and "Public Use" components of the Fisheries Program's Vision for the Future.

Service Participates in Sixth Annual Invasive Species Field Course hosted by Inland Seas Education Association

Submitted by Anjanette Bowen
Fishery Biologist

Barry Matthews (Ludington Biological Station) and Anjanette Bowen (Alpena Fishery Resources Office) participated in the sixth annual Invasive Species Field Course hosted by Inland Seas Education Association (ISEA) on June 25-27, 2007. The course was held at the Great Lakes Campus of Northwestern Michigan College in Traverse City, Michigan.

The course educates teachers from across the Great Lakes Region about invasive species issues and allows them the ability to directly interact with invasive species researchers from a number of management agencies.

Barry Matthews provided a video with information on sea lamprey in the Great Lakes, showing the history behind their invasion, life cycle characteristics, and current methods of control. Bowen provided a PowerPoint presentation with information on problems associated with Asian carp, identifying characteristics, and their current distribution.

Other management agencies that participated in the course included Michigan Sea Grant, US Coast Guard, NOAA-Great Lakes Environmental Research Laboratory, Michigan Department of Environmental Quality, Michigan State University, and DTE Energy. Over 25 teachers attended the course.

ISEA is a non-profit organization whose mission is to provide a floating classroom where people of all ages can gain first-hand training and experience in the Great Lakes ecosystem.

Partnerships and public education are important tools to combat and prevent the spread of invasive species and help to promote healthy native species populations. This effort is consistent with the Fisheries Program Vision for the Future priorities of “Aquatic Invasive Species”, “Partnerships and Accountability”, “Public Use” and “Aquatic Species Conservation and Management”.

No Eurasian Ruffe Captured During Fall Netting Survey

Submitted by Anjanette Bowen
Fishery Biologist

No Eurasian ruffe (ruffe) were captured during a netting survey conducted in the Thunder Bay River and surrounding areas of Thunder Bay near Alpena, Michigan in late September 2007. Small-mesh gillnets were used during the annual survey which targeted ruffe in areas where the invasive was once found. Biologists McClain, Koproski, Ania, and Bowen participated in the survey. This is the fourth consecutive year that ruffe have not been captured.

The Eurasian ruffe is a perch-like invasive fish species that was first found in the Great Lakes in western Lake Superior during the 1980's. They are believed to have been accidentally transported to the Great Lakes in the ballast water of an ocean-going ship.

In 1995 ruffe were discovered in Lake Huron in the Thunder Bay River. The abundance of ruffe in the Thunder Bay River slowly increased and peaked in 1999, when they were the most abundant bottom dwelling fish captured during fall trawling surveys. Efforts were initiated to remove

spawning adult ruffe in the spring to prevent reproduction and to remove young-of-the-year ruffe captured in the fall. Their abundance declined and they were last captured in the spring of 2003.

It is believed that Eurasian ruffe may have become extirpated from the Thunder Bay area and Lake Huron based on survey findings from 2003 to present. We are unsure why ruffe have disappeared from the area but believe it may be related to the subsequent invasion of the round goby, another aggressive bottom dwelling invasive, and/or our removal efforts. The possible extirpation of ruffe is a remarkable outcome considering established invasive species generally become a part of the fish community into the future. Ruffe continue to persist in Lake Superior and in the Green Bay area of Lake Michigan.

Invasive species monitoring is consistent with the "Aquatic Invasive Species" and "Aquatic Species Conservation and Management" priorities of the Fisheries Program Vision for the Future.

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

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