ALPENA FWCO NEWSLETTER

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Alpena Fish and Wildlife Conservation Office Celebrates Wetlands

By Jennifer Johnson

Every year people all across the world gather on February 2nd to celebrate World Wetland's Day. Starting in 1997, World Wetland's Day was established to honor the Rasmar Convention on Wetlands of 1971, and to serve as a reminder of the importance wetlands to natural ecosystems and human health. Specifically, southeast Michigan has been celebrating this day for the past seven years at Carlson High School in Gibraltar, Michigan. This annual celebration of World Wetland's Day started when Humbug Marsh, located in the U.S. Fish and Wildlife Service Detroit River International Wildlife Refuge and just two short miles from the high school, was designated Michigan's only "Wetland of International Importance."

This year staff from the Alpena Fish and Wildlife Conservation Office (FWCO) – Waterford substation partnered with our counterparts from the Detroit River International Wildlife Refuge, Shiawassee National Wildlife Refuge, Seney National Wildlife Refuge, Ottawa National Wildlife Refuge, National Park Service, and other state and local agencies to participate in the 7th annual World Wetland's Day celebration. Over twenty interactive displays and presentations taught students the importance of these unique habitats and their benefit to various organisms including humans. The Alpena FWCO took along two young Lake Sturgeon, photos and videos of adult Lake Sturgeon, Asian Carp mounts, examples of tags and sampling gear, and various Metro handouts and stickers for students to enjoy. Focus was on teaching students about the life history of Lake Sturgeon, methods used to catch fish, the data that is collected from them, and the importance of preventing the spread of aquatic invasive species. The Alpena FWCO staff also instilled in the students that within the Detroit area, they have a number amazing natural resources right in their backyard.

INSIDE THIS ISSUE

Top: Brandon Harris of the Alpena FWCO discusses the importance of preventing aquatic invasive species, including Asian Carp, with a student at the World Wetland's Day Event at Carlson High School in Gibralter, MI. Bottom: James Boase discusses lake sturgeon life history with a student at the World Wetland's Day Event. Photo credits: USFWS, Jennifer Johnson.

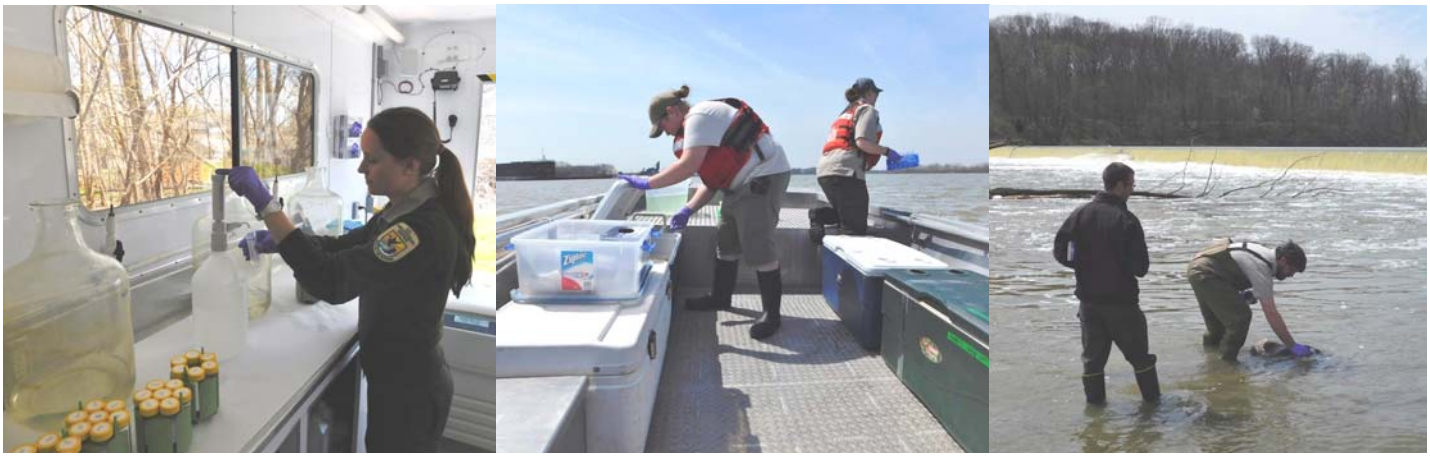
Curiosity got the best of many students. Students flocked to booths containing live animals, including the Alpena FWCO's lake sturgeon. A fox snake, wood turtle, and barred owl were also popular. Several asked if the sturgeon were little sharks or catfish, and the look of surprise and shock on student's faces when they saw photos of adult sturgeon (6.5 ft.) and learned their age (~70 years) was priceless.

Approximately 2,500 middle and high school students from throughout the region attended this year's event. The Alpena FWCO and students enjoyed interacting with one another and learning about significance of wetlands, and additionally, everyone went home with a better understanding of the great resources located in southeast Michigan.

The public use and partnerships and accountability criteria were met with this event. The Alpena FWCO staff educated the public on the importance of wetlands and the great resources they have in their area. Staff also worked with other agencies to build and maintain the partnerships that made this event great.

eDNA Sampling for Invasive Carp Species Begins in Lake Erie Tributaries

By Matthew McLean



LEFT: Biological Science Technician Janine Lajavic processing samples in the eDNA mobile lab. CENTER: Biological Science Technicians Lindsey Adams and Kaley Genther in the process of collecting samples on the Maumee River. RIGHT: Biological Science Technician Matt McLean along with Fish Biologist Chris Olds collecting samples at one of the wading sites that was not accessible by boat. Photo credits: USFWS. Ianine Laiavic and Matt McLean.

On April 18 the U.S. Fish and Wildlife Service (USFWS) Alpena Fish and Wildlife Conservation Office (FWCO) initiated 2016 field sampling for invasive carp environmental DNA (eDNA). This first effort was focused on Lake Erie tributaries including the Maumee, Sandusky, Cuyahoga, and Grand Rivers. The sampling crew consisted of Alpena FWCO and Lower Great Lakes FWCO staff.

The USFWS utilizes eDNA as a tool for the early detection of aquatic invasive species (AIS) and is focusing eDNA sampling on early detection for Bighead carp (Hypophthalmichthys nobilis) and Silver carp (Hypophthalmichthys molitrix), two species of non-native carp. Invasive carp species (commonly referred to as Asian carp) have been problematic in the Mississippi River system and its tributaries, mainly because they are strong competitors against many native fish species due to the resources they consume and their rate of reproduction. There is concern invasive carp may enter the Great Lakes, and an early detection program is critical to initiating rapid response to prevent their spread.

As fish move through water systems they leave behind genetic material in the water. Surface waters with large

amounts of accumulation were targeted as these areas were more likely to contain genetic material. Samples of eDNA were collected by dipping collection vials into the areas of accumulation.

After the samples were collected they were put on ice and taken to a mobile eDNA lab, where the collection vials that contained the water samples were placed in centrifuges to separate out any genetic material from the water. The samples were then packaged and sent to the USFWS Whitney Genetics Lab to be analyzed. Once sample processing is complete for a given area, the mobile lab is towed to the next sampling location.

Results are not yet available for 2016, but for results from previous years and additional information on the eDNA program visit http://www.fws.gov/midwest/fisheries/edna.html.

Alpena FWCO Waterford Substation Inspires Future Biologists at Career Fair

By Janine Lajavic

Every two years Schoolcraft College in Livonia, Michigan hosts a career fair organized by local high schools for hundreds of students and parents to provide insight on different career pathways and guide them to make better choices when finishing high school and beyond. Staff from the Alpena Fish and Wildlife Conservation Office (FWCO) Waterford Substation were excited to inspire and motivate students interested in biology at the Career Exploration Fair on April 13, 2016 at Schoolcraft College's VisTaTech Center.

Approximately 350 parents and students attended the event that held exhibits representing different career paths including: Arts & Communication, Health Sciences, Human Services, Engineering/Manufacturing, Natural Resources, Business, Management, and Marketing & Technology. Fish Biologists Jim Boase and Justin Chiotti and Biological Science Technician Janine Lajavic from the U.S. Fish and Wildlife Service (USFWS) represented professionals in the natural resources field.

The USFWS display attracted many attendees with their full-sized mounts of Asian Carps, a fish tank containing live juvenile Lake Sturgeon, and underwater video footage of field work. Along with visual displays, staff distributed handouts with information on how to get involved with the USFWS and stay updated with the Alpena FWCO through their Facebook page. Staff described their educational paths that lead them to their fisheries positions today while making suggestions on college coursework and degree programs to best prepare students for a career with the USFWS. Students were encouraged to actively participate in volunteer and job-shadow opportunities accessible to them in high school and college. Since not everyone has a passion for fish, it was emphasized that there are many different job roles within the USFWS ranging from biologists, IT personnel, office assistants, and law enforcement officers, to name just a few.

Alpena FWCO staff James Boase and Janine Lajavic describing their daily routines as U.S. Fish and Wildlife Service employees at a Career Exploration Fair at Schoolcraft College in Livonia, MI. Photo credit: USFWS, Justin Chiotti.

Inspiring young people to take an interest in working with and conserving natural resources is imperative to ensuring that they will be around for future generations to appreciate. Events like these allow the USFWS to educate the public about aspects of nature that they otherwise would not be familiar with and hopefully give an appreciation for the environment. This is the third year the Alpena FWCO Waterford Substation has participated in the event and staff look forward to continue motivating youth to pursue a career in fisheries.

Inspiring Students to Get Involved with the Great Lakes

By Janine Lajavic

On March 18, two Biological Science Technicians from the Alpena Fish and Wildlife Conservation Office-Waterford, MI substation, visited Christine Montemayor's 7th grade students at Wilson Middle School in Wyandotte, MI. Lisa Kaulfersch and Janine Lajavic shared important concepts regarding the conservation and restoration of Great Lakes fishes as well as their daily responsibilities working for the U.S. Fish and Wildlife Service.

Kaulfersch familiarized the students with the objectives and activities of the Native Species Restoration Program, concentrating on Lake Sturgeon (Acipenser fulvescens) restoration work. Kaulfersch discussed the life history of Lake Sturgeon, reasons for the Lake Sturgeon's threatened species status, importance of the species, and current restoration efforts being done to reestablish historic population levels in the St. Clair/Detroit River System. The students were shocked and amazed to learn that one female Lake Sturgeon will lay 200,000 eggs and only one will most likely make it to adulthood. The technicians brought with them a juvenile Lake Sturgeon, which was a big hit with the students as many had not seen a Lake Sturgeon before.

To ensure the quality and health of the world's largest surface freshwater ecosystem, the Great Lakes, the Aquatic Invasive Species Issues Program works to find innovative techniques and strategies for the detection and monitoring of invasive species. This program's purpose is to prevent or delay the establishment of new non-native species and to reduce or eliminate invasive species currently established in the Great Lakes. Lajavic shared how non-native species are introduced, examples of potential Great Lakes invaders, and different sampling strategies used to detect and monitor new non-native species. Most students could name several invasive species in the Great Lakes. Students were informed not to intentionally or accidentally release their pets into the wild, to make sure their boating equipment is clean, and not to release fishing bait after use. Most students were surprised to learn that the Goldfish (*Carassius auratus*) found in aquariums are considered an invasive species in the entire Western Hemisphere.

Top: Biological Science Technicians Lisa Kaulfersch and Janine Lajavic speaking to 7th graders at Wilson Middle School in Wyandotte, MI. Bottom: Seventh grade students listening and learning about native and invasive species of the Great Lakes. Photo credits: Wilson Middle School, Wyandotte, MI.

Kaulfersch and Lajavic discussed their career paths and the variety of professions associated with biology and ecology in an effort to introduce the students to a potential career in biology. They also informed the students of various local opportunities and events to get involved with science and the outdoors. The technicians enjoyed interacting with approximately 400 students and inspiring them to get outside and get involved!

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