

ALPENA FWCO NEWSLETTER

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Archaeological Survey Conducted for Riverbank Planting Project (Rifle River Watershed, Michigan)

By Andrea Ania and James Myster

Riparian planting projects are typically thought of as beneficial from a biological perspective. Native riparian vegetation (vegetation along a riverbank) creates a protective buffer between the land and water, providing fish and wildlife with food and cover, controlling streambank erosion, reducing water pollution, and minimizing impacts from flooding. However, such projects also need to be evaluated from an archaeological perspective to ensure significant historic resources are protected.

Projects that received federal funding must be reviewed under the National Historic Preservation Act (NHPA of 1966, as amended [USC Sec. 470-470t]) to ensure significant historical and archaeological sites in the United States of America are preserved. Thus, all habitat projects that involve any type of ground disturbance must be reviewed for potential impacts. In Region 3, James Myster is the Regional Historic Preservation Officer and reviews projects for potential effects.

Myster reviewed a proposed riparian planting project planned for spring 2014 in Arenac County, Michigan and determined that an archaeological survey would be required. The project site is located Rifle River Watershed, which is known to have been used by Native Americans. On November 19th and 20th 2013 the Historical Society of Saginaw County, Inc. conducted a Phase I Archaeological Survey of the Proposed Stoddard Landing Riparian Planting Project along the Rifle River in Arenac County, Michigan. The project area includes two Areas of Potential Effect (APE) totaling 3.3 acres. Fieldwork consisted of surface inspection of exposed

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Jeffrey Sommer, Curator of Archaeology at the Historical Society of Saginaw County, Inc. conducts a shovel test at the project site. All sediment was screened through ¼" mesh hardware cloth. Photo credit: USFWS.

ground in each APE and shovel-testing of a single transect in each APE. The Phase I report indicated that "No significant archaeological material were found or collected at the site, and there were no catalogued or accessioned artifacts associated with the project." Historic review of projects ensures responsible stewardship and compliance with state and federal laws.

Fish Biologist Presents Research at Fish and Wildlife Conference in Kansas City, Missouri

By Andrew Briggs

U.S. Fish and Wildlife Service fish biologist Andrew Briggs attended the 74th Annual Midwest Fish and Wildlife Conference in Kansas City, Missouri. The conference took place January 26th through 29th and had over 900 attendees representing many agencies, groups, and academic institutions. The theme of this year's Midwest Fish and Wildlife Conference was "Modern Conservation: Celebrating Legacy, Discovery and Innovation."

While attending the conference, Andrew presented both an oral and poster presentation highlighting work being done by the Alpena Fish and Wildlife Conservation Office. His oral presentation was titled "Bathothermal Habitat Use of Lake Sturgeon in the Open Waters of Lake Huron" and discussed the depths and temperatures occupied by lake sturgeon during multiple seasons. This study offers important insight into lake sturgeon habitat use, particularly during non-spawning periods. Andrew's poster presentation was titled "Survey of Fish Communities Upstream and Downstream of a Dam Prior to Rock-Ramp Installation." This poster highlighted the differences in fish communities upstream and downstream of a dam and discussed the potential impacts of replacing the dam with a rock-ramp.

As is the case with most Midwest Fish and Wildlife Conferences, the topics presented were very diverse. Species discussed included amphibians, birds, fish,



Kansas City skyline at the location of the 74th Annual Midwest Fish and Wildlife Conference held in Kansas City, Missouri. Photo credits: USFWS.

mammals, reptiles, and plants and presentations focused on various aspects, including conservation, control, ecology, management, restoration, techniques and technology, and outreach. With such a large array of topics, attendees were given the opportunity to broaden their horizons and incorporate ideas from multiple disciplines. The conference also provided the opportunity to network with other scientists and build relationships for future collaboration while learning about the work being done throughout the Midwest region.

Placed-based Science Education

By Heather Rawlings

Starting in 2009, the Alpena Fish and Wildlife Conservation Office (FWCO) focused outreach efforts on one grade of children at Wilson Elementary School (Alpena Public Schools) for four years, following them from second to fifth grade. Office staff visited their classroom once a month to teach a science lesson that coincided with items tested by the Michigan

Educational Assessment Program (MEAP). Lessons provided a lab setting to encourage hands-on learning.

The U.S. Fish and Wildlife Service sponsored several field trips each year to expose the children to various local ecosystems. Our intent was to repeatedly expose

a select group of children to our tutelage to make the science curriculum fun as well as educational. The 2012 school year culminated with MEAP testing. We were surprised and gratified to find that this group of children attained the highest MEAP Science scores in Alpena County. We wanted to repeat this success but reach a larger number of children. Since MEAP tests are given at the beginning of the fifth grade, our efforts are now focused on enriching the science curriculum of all third and fourth graders at Wilson Elementary School.

Due to the furlough, our efforts began in November of 2013. Biologist Rawlings taught lessons on magnetism

(two classes of fourth graders) and sound (two classes of 3rd graders), approximately 100 children in total. Lessons were conducted as labs with many hands-on activities. Children were asked to predict results and then test their theories.

Alpena FWCO staff will continue to teach a lesson to both grades through the remainder of the school year. Two field trips per grade are planned for the spring months. MEAP testing results become available in January 2015. If successful, we would consider making these lessons available to a larger audience.

Lake Sturgeon in the Classroom

By Margaret Hutton

It is the job of a good teacher to keep students engaged in the classroom and relating the science learned in the classroom to what actually happens in nature. Many students do not live near any of the Great Lakes or, in southeastern Michigan, have access to wilderness areas. One teacher found an ingenious technique to link the lessons learned in the classroom to the processes of the great outdoors that may have been inaccessible to students previously. Waldon Middle School in Lake Orion, Michigan is approximately 40 miles away from Lake Huron, where a large population of lake sturgeon migrate to spawn near Port Huron, Michigan on an annual basis. Before taking Mr. Jon Gray's class, many students knew very little about the ancient giants that reside very close to their home town. But thanks to the resourcefulness and willingness of Mr. Gray to go above and beyond, and the help of partners such as the Michigan Department of Natural Resources and Sturgeon for Tomorrow, there are three resident lake sturgeon in the classroom that the students are required to maintain throughout the school year.

To further educate students, Mr. Gray invited fish biologist Margaret Hutton from the Alpena FWCO – Waterford Substation to present information about lake sturgeon physiology and biology to several of his classes. She also described the different projects and research priorities of the US Fish and Wildlife Service (Service) within the Great Lakes and more specifically near the students' home towns in the waters of southern Lake Huron, St. Clair River, and Detroit River.



Top: Fish biologist Margaret Hutton describes how lake sturgeon are captured to a class of 8th grade biology students. Bottom: Two 8th grade students and biologist Hutton pose with the juvenile lake sturgeon that reside in Mr. Jon Gray's biology classroom. Photo credits: USFWS.

Some of the projects that really interested the students included the artificial reef construction projects and the lake sturgeon movement study in the St. Clair Detroit River System. For those students interested in a career as a fish biologist, Margaret described a typical year for a fish biologist, from writing proposals and giving presentations in the winter to catching and tagging sturgeon in the spring and fall.

The students seemed very excited about the lake sturgeon in the classroom program. In some cases, before the class started, groups of students would head to the part of the classroom where the sturgeon were

housed to check how the fish were doing. As part of the program, the students learn what sturgeon eat, how big they grow, and what type of habitats sturgeon need to survive (factors such as bottom type, the flow of the river, etc.). While in the classroom, the students feed the fish, change the water and keep the tank clean, along with check the pH and temperature to make sure the fish are feeling right at home. This is a wonderful way for students to understand different biological and chemical processes that occur naturally while exposing them to resources that are no farther than their own backyard.

Biologist in the Classroom

By Steven Gambicki

For five years, staff from the Alpena Fish and Wildlife Conservation Office (FWCO) have been involved in teaching students about environmental topics that meet their current science curriculum. This school year, Alpena FWCO staff adopted two third grade classes and two fourth grade classes of students at Wilson Elementary School located in Wilson Township Michigan (Alpena public schools).

On February 13th 2014, biologist Steven Gambicki instructed the fourth grade classes about animal adaptations. The fourth graders were shown a PowerPoint presentation explaining different animal adaptations. They were also given a worksheet with pictures of a skunk, whitetail deer, camel, polar bear, elephant and northern pike, and asked to identify adaptations these animals had undergone. The worksheets were then openly discussed in class. Students were asked to name a fictitious animal that Gambicki could draw on the chalkboard. The two names

selected by the different classes were blob and dragon. Students were then asked to pick ears, tails, and legs for the fictitious animal. Students laughed at Gambicki's lack of artistic skill. "By letting the students design the fictitious animal, and by encouraging them to laugh at my drawing, they were very focused in on what I was trying to teach them. I was really able to drive home the point how animals can adapt to a change in their environment," noted Gambicki.

Alpena's FWCO staff gives students unique hands on experience, and insights from professionals in the conservation field. Students enjoy the presentations and change of pace from their daily routine. The biologists also enjoy giving the presentations. "It's great to see the excitement in their eyes when you walk into the classroom. It's also a great feeling to be told, "You are awesome", by several students when leaving the classroom" said Gambicki.



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