Alpena Youth Recover School Nature Area, Enhance Bagley Creek

Students research water quality, remove invasive species, and restore natural habitat within Bagley Creek and beyond.

Connecting the health of a creek near their school to the water quality of Lake Huron, students gain a larger perspective living in a watershed community. They are combating the invasive species buckthorn, collecting aquatic-invertebrates as bio-indicators of water quality, and interpreting the habitats along the nearby nature trail.

Getting Started

In 2009, Pete Doubek's advanced biology class from Alpena High School began an in-depth biology project collecting data to study the water quality of the Great Lakes region, more specifically from Island Park within the Alpena Wildlife Sanctuary.

Supported by Michigan Sea Grant and the 4-H2O Water Education Program, students collected terrestrial and aquatic invertebrates to help study the water quality on Island Park. Current students are in the process of building on the foundation laid in years past.

Students also look at biodiversity, which is the variation of species in an area, and consequently learn that generally the more species in an environment the better the water quality and health of habitats.

> *"I like just having the chance to get out of class and collect bugs. I like having hands-on education and not just sitting in a classroom."*
> ***Aaron Senchuck***
> *AHS Advanced Biology student*

Connecting Classrooms

Tracing their way upstream, the classes eventually returned back to school at Bagley Creek. A tributary of the Thunder Bay River, the creek was being choked by invasive buckthorn near the Thunder Bay Junior High and High school campuses. Buckthorn is a problem in wetlands across Northeast Michigan, particularly in the Alpena area. This shrub crowds out all other plant life and makes wetlands impassable.

As part of the school's Nature Trail there are two creek crossings which provide ideal locations to study and improve the quality of Bagley Creek.

Community partners benefit too!

The U.S. Fish and Wildlife Service's Alpena Fish and Wildlife Conservation Office (FWCO), Huron Pines, and Michigan DNR Fire Management assisted the classes with removal of buckthorn from the banks of Bagley Creek in the Alpena High School nature area. This effort is consistent with the U.S. Fish and Wildlife Service's priority of connecting children with nature.

Huron Pines, a not-for-profit conservation organization serving Northeast Michigan works to achieve its mission through projects such as this and have put buckthorn at the top of the list along with purple loosestrife and invasive phragmites for removal efforts. Their assistance in Bagley Creek restoration provides valuable expertise for the success of the project.

Annual Buckthorn Day

In April of 2012 approximately 200 students assisted in removing buckthorn

Project Partners

from ¼ mile of the creek. Alpena FWCO biologists, Heather Rawlings and Anjanette Bowen, and Huron Pines staff Casey Ressl, Tim Englehart and Ken Reed, and AmeriCorps member Daniel Moffatt, cut buckthorn and worked with students from the Advanced Biology class and 6th grade Science classes to remove buckthorn from the creek.

The stumps have been treated with herbicide and the branches will be chipped for trails in the nature area. Teachers plan to hold similar events annually each spring combating buckthorn, recovering their school's nature area, and creating awareness for succeeding classes.

The future is bright

With a holistic approach to projects like this, students learn much more than how to classify insects or remove invasive plants; they learn about the value of contributing to their community through stewardship of local natural resources.

The project does not finish with buckthorn removal, but actually begins as the classes prepare to restore the creek with native plant species, provide trail interpretation, and continue education with water quality monitoring.

Teachers and their community partners are currently in the process of creating a comprehensive management plan for the creek and nature trail; a benefit for the students, created by the students.

"Coordinating with the Alpena Public Schools to remove invasive buckthorn is a perfect fit with our conservation efforts. By partnering with the schools, students are continuing to monitor the treated areas, ensuring long-term eradication of this aggressive invader. The stream is being restored and the area can be utilized as an outdoor classroom, a win-win for everyone."

-Jennifer Muladore
Ecologist, Huron Pines

What is Place-Based Education?

Place-Based Education (PBE) or Community Based Education (CBE) utilizes the local, natural and built environments as a context for learning and in doing so brings students into closer contact with their communities. This method is proven to develop knowledgeable and active stewards of the environment. When schools and communities work together, everybody wins!

Why:

This education strategy protects Great Lakes ecosystems, strengthens Northeast Michigan communities and provides critical support to schools as they strive to serve the academic and developmental needs of their students.

How:

Teachers and students are supported through project mini grants, connection to resource partnerships, and high-quality Professional Development that provides essential tools and techniques for fostering a collaborative culture of place-based learning within and among schools and their communities.

Supporting Community Development and Resource Stewardship Priorities through education:

Since 2006, numerous local and regional partners have engaged in Great Lakes education, networking and planning efforts across Michigan's "sunrise side." These efforts mobilized a network of school and community partners committed to identifying needs and developing strategies for enhancing coastal access, education, and sustainable resource management. Empowered through funding support from the Great Lakes Fishery Trust (GLFT), this collaboration now comprises the Northeast Michigan Great Lakes Stewardship Initiative, one of nine regional hubs through which GLFT furthers the principals and practices of place and community-based education as the Great Lakes Stewardhsip Initiative.

You are invited:

If you care about Northeast Michigan and want to make a difference for the future of our region, please contact NEMI GLSI to find out how you can get involved.

Phone: 989.356.8805 x41 or daniel.moffatt@noaa.gov

Northeast Michigan GLSI network programs and materials are open to all without regard to race, color, national or ethnic origin, gender, gender identity, religion, age, height, weight, disability, political beliefs, sexual orientation, marital status, family status, or veteran status.

How can I participate in the NE Michigan GLSI Network?

Many partners are currently exploring community- or place-based education development opportunities within the NE Michigan region. For more information, visit us on the web: www.nemiglsi.org

Who Can I Contact?

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