Developing Environmental Leaders: Outdoor Education for the Next Generation

Huron Pines is going back to school in a big way. Environmental Education Coordinator Emily Vogelgesang spent her summer synthesizing student data, coordinating with teachers and planning the next steps for our growing education program. With projects in full swing across five school districts, we have our pencils sharpened and our clipboards ready for the fall.

Cultivating Student Scientists

Huron Pines has the privilege of working with schools that prioritize hands-on, place-based education. They see the value in letting students take the lead in tackling stewardship projects and environmental issues in their own communities.


Freeman’s class spent the 2018-19 school year on a rain garden project connected to Huron Pines stormwater management work in Au Gres. Freeman’s class began the year learning about stormwater runoff—what it is, it’s impact on the environment and how to reduce it—and ended by installing a rain garden on the school property.

“Everything from designing, to reaching out to community partners [for funding and in-kind donations of garden materials], coming up with a budget, selecting plants, coming up with a slide show to present to city managers—the students did 100% of the work.”

What Freeman’s class experienced is what we hope to accomplish with every school that engages in place-based stewardship. We want to get students out in the environment, interacting with and bettering their communities through projects that allow them to take ownership and build critical thinking skills to accomplish their goals.

Vogelgesang sees her role in helping schools achieve success as two-fold. For students, she reviews work, provides feedback and validates the progress they make along the way. For teachers, she encourages them to give students as much ownership as possible, and helps them focus on long-term outcomes.

As Freeman explained, it’s one thing to have students read a case study about a stewardship project, it’s another experience entirely when they get to own the whole project from beginning to end. For nine months his class planned every aspect of the rain...
Above: Grayling Middle School students take their first field trip to explore the school district’s 40-acre forest property. They learned about logging history, forest health and invasive species management. Below: An Au Gres-Sims high school and middle school student work together to install native plants in the school’s rain garden. The 6th grade science class researched and presented a list of 50 plants native to Michigan to the high school Environmental Science students to help them choose the best options for the rain garden.

garden project. They were given a list of tasks to choose from each day with the freedom to figure out how best to check each item off of the list. The payoff for the students is that “they get to see tangible results,” said Freeman.

“Place-based education, and this rain garden project, in particular, enables a teacher to model for students the scientific process, in that I was learning alongside my students. If I had a question or students had questions that we didn’t know the immediate answer to, we researched the answer together. We were able to learn side by side, instead of the traditional teacher in the middle throwing out questions, trying to fish for only one right answer. It brought us together and helped us think and problem-solve as a team of scientists.”

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“It has been the best year of my teaching career hands-down. I know the students are seeing our ideas grow and grow and grow.”

A Network of Support

Huron Pines is able to help more teachers have experiences like Freeman’s through our involvement with the Northeast Michigan Great Lakes Stewardship Initiative Network. The network is made up of educators and community partners who share a goal of bringing students into closer contact with their communities, through youth-led stewardship projects.

Huron Pines sits on the leadership team of the network and helps coordinate programs and partnerships across the region. The network has been collaborating for over a decade to share resources and help educators and community members build capacity for stewardship education programs.
This summer, Huron Pines helped the network host the Lake Huron Place-Based Education Summer Institute in Grayling to give educators an opportunity to prepare place-based lessons for the coming school year.

This year’s Forest to Fish theme focused on connecting forest health and water quality. A packed agenda of activities included a tour of the old growth forest at Hartwick Pines State Park and a live demonstration of a macro-invertebrate lesson on the Au Sable River.

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The two-day institute included teachers from six statewide school districts. The teachers were able to see lessons in action and were given time to dive into their own project plans with the help of experienced partners and educators.

Each teacher received a $500 stipend to help get their projects off the ground. The stipends, along with the costs associated with attending the institute, are supported by Great Lakes Fishery Trust’s Great Lakes Stewardship Initiative and Great Lakes Sea Grant Network’s Center for Great Lakes Literacy, with support through the Great Lakes Restoration Initiative. Projects coming out of this year’s institute focus on land use, school forests and raising fish in the classroom.

Skill Building and Goal Setting

You don’t have to be a science teacher to engage students in the outdoors. Sarah Hechlik, an English teacher with Alcona High School was one of three teachers involved in Alcona’s school forest program during the 2018-19 school year. English, science and agriculture classes were each involved in different aspects of school forest planning with the support of Huron Pines.

When Hechlik was invited to incorporate the school forest program into her English class she quickly agreed to participate. She was drawn to the community connection and the sense of autonomy the program provided. She also immediately saw the value of getting her students outside. “I love nature. Any time I can get my kids out in nature to inspire them, that’s helpful,” said Hechlik.

Hechlik’s students helped gather data to set goals for the eventual uses of the school’s forest properties. They practiced professional communication skills along the way—planning questions, sending emails and executing one-on-one interviews with students and staff to capture what people wanted from the school forest. As Hechlik explained, “English is reading and writing, but it’s also speaking and listening.”

Her students learned to be flexible, ask questions, interpret answers and engage with people outside of their immediate peer group.

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Student interview findings were shared with Huron Pines so that Vogelgesang could distill them into a set of shared goals and priorities for the school’s forest properties. After presenting them to the students for final feedback, the goals were integrated into the official Forest Stewardship Plan, which will guide the actions and activities that take place on the land over the next ten years.

Taking the Long View

Huron Pines is moving into the third year of partnering with Vanderbilt Area School on place-based education through their school forest program. As a single building K-12 school, the school forest
program at Vanderbilt has touched students across every grade. From building trails and installing signs to enjoying a winter snowshoe or a spring hike, all of the students have had a chance to interact with the school forest.

Amie Byelich has been working with Huron Pines to incorporate the forest into the classroom since the beginning. As the K-12 Art teacher, Athletic Director and Student Services Coordinator, she works closely with students from every grade level and she has seen the positive impact the forest program has had.

She’s noticed improvements in attendance as students get excited about getting outside or working on school forest projects. Students have been able to take ownership of different aspects of the planning and progress along the way.

Byelich integrated the school forest into her art class by having students design and build an outdoor classroom. The students started with interviews to determine what students and teachers wanted from the space. The results included seating, a place to store supplies and a white board. From there, the students got to work designing benches and a storage box for clipboards, textbooks and writing utensils with a lid that doubles as a white board. The outdoor classroom project has spanned several school years.

“They realize, this is actually going to be around forever and [they] get to be a big part of it from the beginning,” Byelich said.

Her advice to new teachers getting started with place-based education is to take it piece by piece. She explained that these projects don’t necessarily have a clear beginning, middle and end each semester or school year. They are projects that build and evolve over time. She imagines students being part of the school forest program for years to come. “I’m hoping it never really ends and it will keep getting better and better and better.”

Acknowledgments

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Without our early funders, we could not commit the time and resources necessary to partner with schools and communities to build education programs that make a positive impact on students and the environment. Thank you to Americana Foundation, Bay Area Community Foundation, Consumers Energy Foundation, Great Lakes Fishery Trust, Michigan Department of Natural Resources, Michigan Forest Foundation and Saginaw Bay WIN for believing in our vision.

Clockwise from top: Huron Pines board chair Joe Jarecki helps a student assemble the new school forest sign. Vanderbilt students dig post holes to install bench seating for their outdoor classroom. Vogelgesang and Byelich pose next to the new welcome sign after a productive day of hard work by students and volunteers.