

Program: Two of Marian University's Important Resources: STEM Camps and the Nina Mason Pulliam EcoLab

Speakers: Janice Hicks Slaughter, Director of Outreach and Partnerships, Klipsch Educators College, Marian University and Stephanie Schuck, Outdoor Education and Restoration Coordinator, Nina Mason Pulliam EcoLab, Marian University

Introduced by: Jeff Rasley

Attendance: 112

Guests: Alli Badgero, Ken Brett, Autumn Nelson, Janice Short

Scribe: Tom Lauer

Editor: Carl Warner

Speakers: Janice Hicks Slaughter and Stephanie Schuck. Janice is director of Outreach and Partnerships at Marian University Klipsch Educators College. In this role, she oversees K-12 grade outreach initiatives, such as the Ruth Lilly Health Education, outreach programming of Marian's Nina Mason Pulliam EcoLab and others. She has led the Marian University Math and Science STEM Camps since 2008 and maintains her commitment to providing quality education and development opportunities for all students. Stephanie is the Outdoor Education and Restoration Coordinator for the Nina Mason Pulliam EcoLab at Marian University. She is the land manager and restoration ecologist for the over 75-acre EcoLab property on Marian's campus and leads many of the K-12 environmental education programs there. She creates and implements much of the program curriculum for all visitors to the EcoLab with a focus on the native flora and fauna of Indiana.

The program was divided into two parts: 1. The STEM Summer camps and, 2. The EcoLab.

The STEM summer camps: Janice Hicks Slaughter

The STEM camps for 2020 have four different week-long sessions during June-July for K-8:

- STEAM Camp: The ART of STEM.
- Animals and Other Living Things Camp.
- The Way Things Work Camp.
- Environmental Science Camp.

These summer camps:

- Are available for students in first through eighth grade.
- Are full of fun with hands-on STEM activities and experiments.
- Aligned with the Indiana Department of Education's academic standards.
- Include outdoor, classroom and lab activities, field trips, and exploration in the 75 acre EcoLab.
- Include meals, T-shirts, and other cool stuff.

Thanks to the Sciencetech Club Foundation grant, they have been able to provide camp application funds to at-need students. In addition, some materials and supplies have been paid for by the Foundation.

Camps are hands-on not lecturing. Students are doing STEM, not just hearing about it. Real world issues are addressed (e.g., water quality, invasive species). Students are guided by the engineering design process and are encouraged to learn from what went wrong. Students work in teams generally comprised of individuals from around the Indianapolis area. The camps engage curiosity, foster thinking outside the box, and create mental stimulation during summer break. During the camps, students will be outside everyday which helps reconnect them to nature. It also introduces them to career opportunities in STEM fields. Lastly, they have fun.

EcoLab – Stephanie Schuck

Stephanie's full-time job is working in Ecolab. Specifically, she manages the 75-acre natural space to foster wildlife, forest, wetlands, prairie, and the riparian area next to the White River.

The EcoLab has three miles of trails and has had a lot of restoration aimed at going back to its original natural state. EcoLab has approximately 5000 visitors per year, and it is open to the public daily dawn to dusk.

The mission of EcoLab is "to encourage exploration of science and stewardship of the environment" and does so with the following tenets:

- Inquiry based education.
- Interactive and hands-on learning.
- Focus on exploration of environmental science, life science, and other science disciplines.
- Engaging youth to be captivated by science early and often.
- Lots of family programs.

Its history began 100 years ago as a pasture when James Allison bought the property. His intent was to restore the property back to its native state. He hired landscape architect Jens Jensen to re-design the property using plants that were indigenous to the area. The original plan is still available and shows all species that were identified and where they were located 100 years ago. In the interim, much was forgotten regarding the plants, but several of the historical structures remained. Since 2001, the property has been renewed to a functioning EcoLab and is currently managed using the following activities:

- Reducing and removing invasive species.
- Native plant installation.
- Prescribed fire.
- Bird banding.
- Microbiology on water quality, etc.

Work is principally accomplished by volunteers, field camp students, Marian undergrad students, and internships. The property history and intent was to have, as defined by Jens Jensen, a natural area using “nature as an antidote for city” where individuals could learn lots about the quality of life.

The EcoLab defines the importance of urban natural areas, including the function of the area. The lab is more than grass and trees, and way more than concrete and asphalt. As Richard Louv said, “Time in nature is not leisure time; it’s an essential investment in our children’s health.”

Questions/Comments

1. Regarding chestnut trees, will they come back? Maybe; Purdue is working on it.
2. Beaver Lodge – colony on the pond. Use beavers a lot in programming. Beavers are part of the wetland ecosystem – a keystone species.
3. Is there anything Club members can help with? Not at the moment. For STEM camp, if you can come to the camp and spend 30 to 90 minutes instructing with a hands-on experience that would be awesome. Up to 25 campers would attend your demonstration.
4. For over 100 years, urban people have been alienated to the environment. With attachment to phones/screens, is it more difficult to get kids to relate to nature? Yes, it is harder to get kids to relate. Kids are also overscheduled. Technology also can help: iNaturalist app, etc.
5. What sort of evaluation process goes on with the kids? STEM camps have 3 different evaluations: kids, parents, and staff. There are “before/after” evaluations of a kid’s understanding.
6. How do you arrange field trips and tours? All curriculum is aligned with state standards making it easier for teachers and students to get approval and funding to attend.
7. Appreciate the hands-on experience of the teaching
8. Parking problems in accessing the EcoLab. Currently, the gate is not normally left open for security purposes. You can contact them to let them know you are coming. Accessible parking nearest the EcoLab is quite limited.
9. Anything going on in winter? Not as much activity in winter. Usually planning time for the rest of the year – programming, maintenance, plant ordering, STEM camp prep, etc. Some owls are in the area now.

10. Bees? Hives? Comes and goes with students' interest. Have the hive and equipment, but need some student volunteers. Honeybees are not native, but they are used as a hook to introduce pollination and invasive species.

11. Native plant sale going on with 30 species – order online. See last two pages for info.



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