



Seeds of Revery

By Seth McGee, Biocore Laboratory Manager

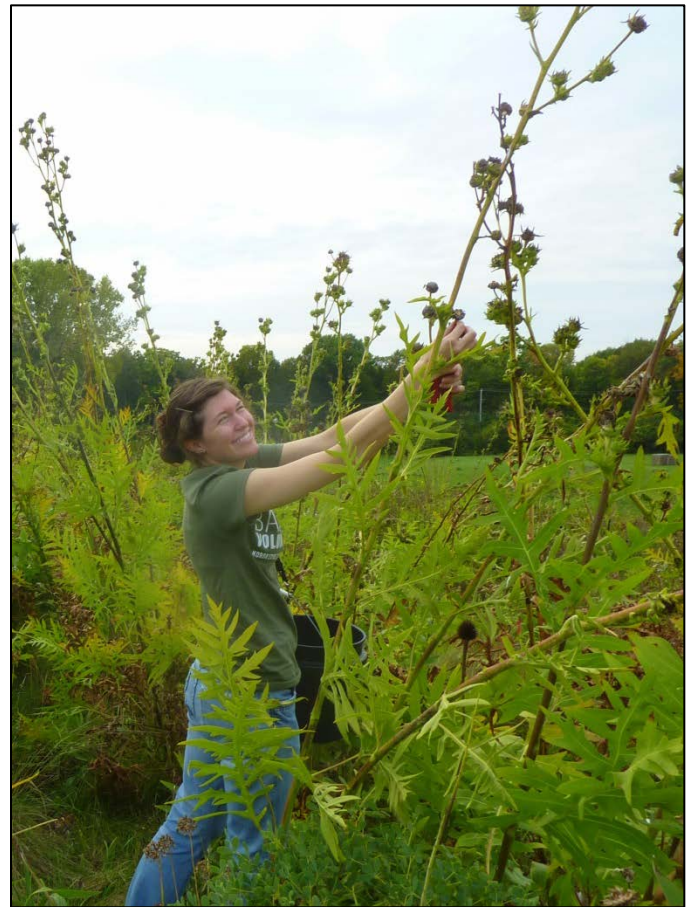
Long before the birth of restoration ecology as a discipline, Emily Dickinson mused that “To make a prairie it takes a clover and one bee. One clover, and a bee, And revery.” Perhaps she was anticipating the current decline in bee populations when she added that “The revery alone will do if bees are few”. At the Biocore Prairie, we’re fortunate to still have many pollinators buzzing about during the growing season, helping to restore the site to tallgrass prairie. Bees? Check. Revery? We’re certainly not short on that. In fact, the prairie is such a place of wonderment that Biocore Associate Director Janet Batzli has incorporated exploration and mindfulness into our prairie lab curriculum.

So we’ve got the bees and revery, but pollinators and wonderment alone aren’t going to get the job done when it comes to reconstructing a native ecosystem in a weed field. A modern day version of Dickinson’s lovely poem about making a prairie would need to incorporate students, volunteers and many contributing consultants and collaborators into the story.

Just as it has been for the past 17 years, 2014 has been a busy year at the Biocore Prairie. The site was used by numerous classes and researchers; serving as a living laboratory for the study of a diversity of subjects ranging from plant-insect interactions to the effects of simulated global climate change on native/nonnative vegetation. In addition to class projects and collaborations with campus researchers, the prairie was busy with work done by the Biocore Prairie Crew. Similar to the role of the Lakeshore Nature Preserve interns, the Prairie Crew spends much of their summer controlling invasive species and planting native plants. They also tend the many ongoing research projects at the site and collect data throughout the summer.

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A Badger Volunteer collects compass plant seed in Biocore Prairie. Photo by Bryn Scriver.

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This year was particularly busy with seed collecting efforts. The demand for seed is high as we plan to plant the area just north of the Eagle Heights Gardens this fall and seed the southernmost area of the Biocore Prairie (Area 3b) in 2015. Biocore staff and students, along with many volunteers lead by Preserve staff, helped turn the Biocore lab in Noland Hall into a makeshift barn, with prairie seeds spread out on every inch of available lab bench and floor space. To add to the piles of drying seeds from the Biocore Prairie, we bussed 45 Biocore students to a Madison Audubon Society (MAS) prairie and spent a blustery Saturday collecting and cleaning seed. Biocore is partnering with Mark Martin at Goose Pond Sanctuary, to help ensure that MAS and the Biocore Program have all the seed needed for future plantings.

From a restoration standpoint, Area 3b has been particularly challenging due to its large weed seed bank and existing population of perennial invasives. The most troublesome invaders are crown vetch, reed canary grass, and Canada thistle. Over the past few years, a series of research projects have focused on site preparation techniques to prepare the site for planting. With a bit of luck from the weather, and a lot of help from Biocore students and Preserve staff/volunteers (and of course the bees), we'll soon have a beautifully blooming prairie, affording students and nature lovers new opportunities to explore the diverse ecosystems of the Preserve.



After seed is collected it is “cleaned” to remove chaff. This is compass plant seed laid out to dry in the Biocore lab. Photo by Seth McGee.



Volunteers admire their booty—compass plant and nodding onion seed. Photo by Adam Gundlach.



Biocore Prairie and Eagle Heights Gardens showing the 2014 planting area and Area 3b, the 2015 planting area.

Laura Wyatt Joins Preserve Team

The UW Division of Facilities Planning and Management is pleased to announce Laura Wyatt is the new Program Manager for the Lakeshore Nature Preserve. Reporting to Preserve Director Gary Brown, Laura will work with our stakeholders in planning and implementation of the broad goals of the Preserve master plan, in addition to managing day-to-day operations.



Laura brings an assortment of training and experiences which support the Preserve's mission. Laura earned a BS in Horticulture from Purdue University and an MS in Horticulture

from UW-Madison—specializing in woody plants. She honed her skills as an educator and communicator while serving as a University of Illinois Extension Educator. With her passion for open spaces, Laura later became the founding director of the Klehm Arboretum and Botanic Gardens in Rockford, IL. While there she raised over \$5 million and guided a fledging non-profit through the planning and development process of creating a 300-acre outdoor classroom and museum of plants, offering educational opportunities for students of all ages. Most recently, Laura worked for the Wisconsin DNR Urban Forestry program as a partnership specialist and liaison to the Wisconsin Urban Forestry Council. Woven throughout Laura's career experiences, is a reoccurring theme of connecting people to natural resources and experiential learning.

Laura grew up in the Chicagoland area and attributes her life's work to childhood experiences exploring DuPage County Forest Preserve properties and the Morton Arboretum. She is thrilled to be part of the Lakeshore Nature Preserve team, and to have the opportunity to be part of the larger network of stakeholders supporting UW natural areas and education.



Time for Thanksgiving!

Fall color at the Preserve couldn't have been more spectacular! A kaleidoscope of color swept across the Preserve as if sending a special thank you to all Preserve partners and stakeholders.

Thank you to students, committee members, FPM staff and friends for the hours of volunteer time and the sharing of treasures. This iconic place would not be what it is today without your collective support.

Even with temperatures dropping and days getting shorter, there are still opportunities to volunteer. And during this season of giving, please consider a gift to the [UW Foundation](#) in support of the Lakeshore Nature Preserve Stewardship Fund.



Preserve a “Jewel” for UW Instructors and Students

By Quentin Carpenter with Bryn Scriver

Quentin Carpenter, Senior Lecturer at the Nelson Institute for Environmental Studies, considers the Preserve a “jewel” for UW instructors and students, citing its accessibility and its diversity of habitats from forest to prairie to aquatic habitats.

Carpenter teaches *Wetland Ecology* and *Field Ecology Workshop* and uses the Preserve for both. The *Wetland Ecology* class has a field component that requires students to observe a wetland from January to May, noting the changes they see over the semester. The Preserve’s Class of 1918 Marsh and the Picnic Point Marsh are favorites for students who only have feet for transportation.



Students in the Field Ecology Workshop sample vegetation in Eagle Heights Woods.

In the Field Ecology Workshop, students take on a real research project that requires data collection, analysis and communication of results to a client. The Preserve often benefits from these student projects. In fact, Carpenter has been using the Preserve for the past 21 years which allows for longitudinal studies (same area, different time). These studies are valuable for assessing changes in specific areas over time. Carpenter says longitudinal studies are also a favorite of students, perhaps because it provides a connection to past classes.

According to Carpenter, one of the most memorable studies took place about 15 years ago. Students in the Field Ecology Workshop were going to assess the effects of the first prescribed burn to be conducted in the Class of 1918 Marsh on the marsh vegetation. Then on the week of the survey the Lake Mendota breached its banks flooding Observatory Drive, the marsh, and the playing fields. One student sent Carpenter a photo showing a bike rider dodging giant carp on the Lakeshore Path. Undeterred, however, the students rented a canoe and did the survey looking down upon the vegetation!



Quentin Carpenter uses the Preserve to teach two Environmental Studies courses.

Join a family friendly
Bird and Nature Walk every
4th Sunday from 1:30-3pm!

Meet at Eagle Heights Gardens entrance on Lake Mendota Drive. Co-sponsored by Friends of the Preserve and Madison Audubon. Call Paul Noeldner (608-698-0104) for more info.

Undergraduate Student Engaged in Research

By Emma Geiduschek with Bryn Scriver

My name is Emma Geiduschek and I am currently a junior at the University of Wisconsin-Madison majoring in biology. This summer I had the opportunity to work under Ellen Damschen in Biocore Prairie as a recipient of the Lakeshore Nature Preserve Student Engagement Grant. Professor Damschen, working with Dr. Janet Batzli, is looking at how varying levels of winter precipitation and snow depth affect plant community composition in the Biocore prairie.

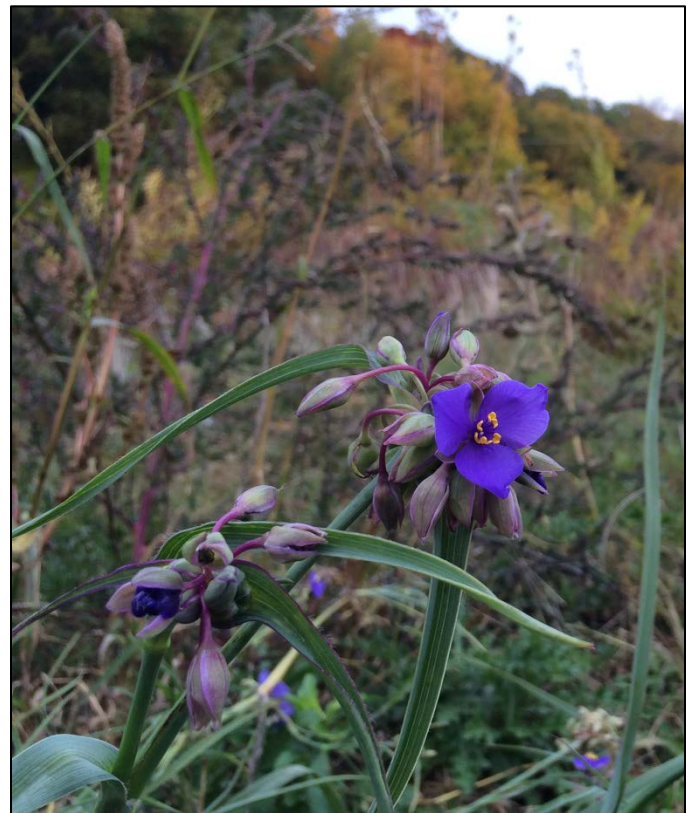
From 1950-2006, the average winter temperatures in Wisconsin increased by 1.5°C (Kucharik *et al.* 2010). Small temperature increases have resulted in large decreases in snowfall (Pauli *et al.* 2013). Decreased snowfall decreases insulation for prairie plants and increases the number of freeze/thaw cycles in the subnivian (the zone in and underneath the snowpack). Increased exposure to frost can significantly change the composition of plant communities in prairies. We hypothesize that plant communities will trend towards a higher composition of plants with functional traits that are more tolerant to rapid freeze/thaw cycles.

My research project focuses on the differences in root frost tolerance of weedy and native prairie plants in the Biocore Prairie. There is little known about the root frost tolerance of plants, let alone prairie plants, so I was drawn to the idea of the unknown. Specifically, I am testing the root frost tolerance between two species of the same genus: Canada goldenrod and showy goldenrod. Both plant species are technically tall-grass prairie natives, however, Biocore Prairie is a restored prairie and Canada goldenrod was not intentionally seeded during the restoration process, making it a weed for this study.

Much of my time this summer was spent mapping out zones for the snow fences which will be installed to create the artificial winter precipitation (snow) gradients. Working alongside two Biocore graduates, Nick Dykstra and Frances Shepard, I learned my prairie plants and took the initial ground cover percentages in plots that will be inside the artificial snow gradient. Without concrete results yet, I am predicting that the weedy Canada goldenrod will have a higher frost tolerance than its native counterpart. Luckily, root samples are being treated as we speak, so I am hoping for some interesting results very soon!



Emma's advisors Janet Batzli and Ellen Damschen consult on snow fence placement in Biocore Prairie. Photo by Emma Geiduschek.



Emma, originally from the West Coast, enjoyed learning to identify prairie plants such as this spiderwort. Photo by Emma Geiduschek.

References:

- Kucharik, C. J., et al. 2010. Patterns of climate change across Wisconsin from 1950 to 2006. *Physical Geography* 31:1-28.
- Pauli, J. N., et al. 2013. The subnivium: a deteriorating seasonal refugium. *Frontiers in Ecology and the Environment* 11:260-267



Photo by Wil Gibb Photography

Captured Beauty

By Olivia Sanderfoot, President of Students for the Preserve

I am constantly awed by the beautiful landscapes of the Lakeshore Nature Preserve. Walking along the path from the Union, in a single afternoon I can watch the peaceful, slow moving waters of Willow Creek, listen to the birds that visit the nearby wetlands, and stroll beneath the forest canopy, amongst the trees that dot the way to Picnic Point. This land, three hundred acres of it, adds such unique character to the map of UW–Madison. I can truly think of no better place to foster curiosity and love for nature.

The Students for the Preserve wanted to create something that would inspire other students to connect to the Preserve as we have. This fall, we worked with students across campus to produce artwork that would illustrate the value of sustainable landscapes built at the interface of urban and natural settings. The result is a high fashion photographic collection entitled “Captured Beauty: Autumn in the Lakeshore Nature Preserve.”



Photo by Wil Gibb Photography

The collection, reminiscent of a modern-day fairy tale, tells the short story of three young women walking through the Preserve. The images are compelling, exploring the connection between people and nature. While the women are dressed in urban apparel, the earthy tones, leaves, and grasses incorporated into their hair and makeup show that their characters are intrinsically tied to the surrounding natural elements.

The artwork represents an incredible collaboration between students at UW–Madison. School of Human Ecology students created the clothing, which was modeled in the Preserve by members of the UW–Madison women’s swim team. The clothing was part of a recently finished project in which SoHE students in an introductory textile design course used over dyeing and “resist” techniques to create contemporary, fashionable outfits from secondhand clothing. A local artist also volunteered her time to help us with the project, creating an urban, fairy-like look for our models with stage makeup on the day of the fashion shoot. All the photos were taken and edited by a student photographer.

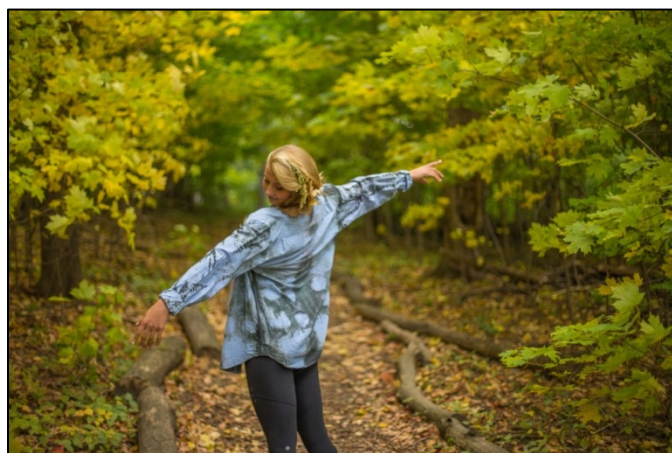


Photo by Wil Gibb Photography

We hope this collection encourages students to think about the connection between art, nature, and place, but more importantly we hope the photographs inspire our peers to go out and find their own ‘captured beauty’ in the Preserve. A picture is worth a thousand words, but memories last a lifetime. It’s time to go exploring.

See the [Students for the Preserve website](#) to access the Captured Beauty photo gallery.

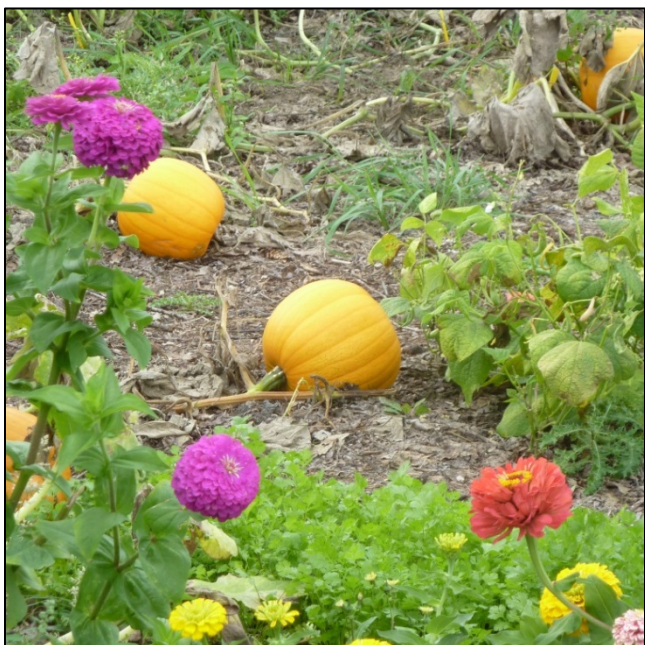


Photo by Bryn Scriver

Interested in gardening in a beautiful spot and enjoying the Preserve from another perspective?

Applications for the 2015 Eagle Heights Community Gardens will be on the [Eagle Heights Gardens website](#) starting mid-December 2014 and closing on Feb. 15, 2015. Current students and residents of University Housing get first priority but faculty, staff, alumni and community members are eligible to apply. A waiting list is started once all plots are filled. Information on the priority system and fees is in the application.

Come have an opportunity to enjoy nature, build community, learn about gardening and the environment, and feed your family good local food.

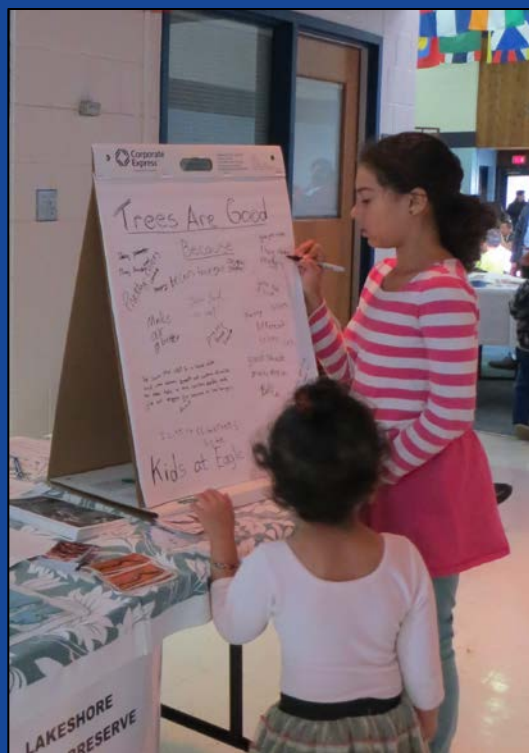
Just a Reminder...

Dogs are allowed in the Lakeshore Nature Preserve, including in the Eagle Heights Community Gardens, but they **must be on leash** and under control of their owners at all times. Please clean up and **properly dispose of pet waste** in available trash receptacles.

--Board of Regents policy [UWS 18.08 (1)]

Laura Wyatt, our new Preserve Program Manager spent part of a Saturday at the Eagle Heights Community Center for their annual Wisconsin Festival. Besides promoting field trips and volunteer opportunities and handing out trail maps for families to explore the Preserve on their own, Laura quizzed adults on their leaf identification skills. She also prompted kids to answer, "Trees are good because...". Here are some of their answers:

- They produce oxygen
- Pretty colors
- Grow food to eat
- I like to climb trees
- Good shade
- They save the soil in a landslide



Here's one young resident of the Eagle Heights Community writing her response to the prompt, "Trees are good because..."
Photo by Laura Wyatt.

The Preserve Policy Makers

Shared governance is a fundamental component of the University of Wisconsin. It ensures that faculty, academic staff, and students get a say in matters that affect them. A shared governance committee made up of three faculty, three academic staff, and three students get to do just that for the Lakeshore Nature Preserve. This is not insignificant since the Preserve, a living campus laboratory, represents 1/3 of the main campus land area. The charge of the [Lakeshore Nature Preserve Committee](#) is *“to ensure the integrity of these cherished campus resources through the provision of necessary and appropriate oversight, policies, guidelines, stewardship and management.”*

We are always looking for interested faculty, staff and students to serve on the committee. Faculty and academic staff are appointed for three-year terms while students are appointed annually by the Associated Students of Madison. Serving on the committee in advisory roles are: the Director of the Preserve, the President of the Friends of the Preserve, the UW Senior Landscape Architect, the Director of the University Apartments, and the Director of the UW Arboretum.

Preserve stakeholders, including the general public, are welcome to attend the meetings—held monthly during the academic year. The next meeting is Thursday Dec. 4, 2014 from 1-2:30pm at Memorial Union (check T.I.T.U. for the room).



The Preserve Committee takes their meeting to the tip of Picnic Point in May 2012.



The next Preserve stakeholder meeting is scheduled for Tuesday January 27 at 5pm in room 132 WARF (610 Walnut St.). Parking is free in lot 64 after 4:30pm. We hope you'll join us for a review of the draft 2015 work plan and budget.

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