



New Invasive Plant Monitoring and Control Project

By Anne Pearce, Field Technician

This summer, with a \$100,000 donation from a generous donor we have begun a new four-year project to expand our efforts to manage invasive biennial species like garlic mustard, Japanese hedge parsley, and thistles in areas along the Howard Temin Lakeshore Path, Picnic Point Marsh, and the Class of 1918 Marsh.

The gift allows the Preserve to hire a seasonal field technician to lead two groups of Badger Volunteers, teams of UW students who meet weekly during the summer term, to identify, pull, cut, and pile the targeted problem plants.

However, donated funds also allow us to go beyond simply removing the invasive species. They also allow us to map the infestations to understand how targeted species are distributed in the Preserve and how distribution changes over time. Mapping is done with a smart phone and the Great Lakes Early Detection Network (GLEDN) app.

The funds also allow us to monitor overall species composition in project areas. We have partnered with Agronomy Professor Mark Renz's lab to conduct a plant survey which will allow us to understand whether and how plant species composition is changing over time with our new management efforts.

In the future, we hope that the efforts made possible through this project will improve our ability to track invasive species infestations, increase our knowledge of managing biennial herbaceous species in disturbed edge habitats, and provide support for new volunteer opportunities in the Preserve.

Our enthusiastic Badger Volunteers: (right top) Ziyi Pan, Erin Baldwin, Shannon Ting, Weiyang Guan and (right bottom) Jack O'Connor, Erin Ard, Emma Czarnecki, Morgan Schleicher. Photos by Anne Pearce.

INSIDE THIS ISSUE:

New Invasive Plant Monitoring and Control Project	1
Welcome New Seasonal Staff/Eagle Heights Woods Update	2
Student Engagement Grants Awarded	3
Arbor Day Observance and Tree Planting	3
Preserve Prairie Partners Interns	4
New Slackline, Hammock, and Rope Swing Policy	4
Friends Get Hands Dirty / Volunteer Opportunities	5
Narrow-leaf Bittercress/ Free Friends Naturalist-led Walks	6
Reserve Fire Circles Online/ Preserve Committee Members	7
Scenes from the Preserve	7
Staff/Join Us on Facebook and Twitter/ Subscribe	8



Welcome Our New Seasonal Staff

Anne Pearce was hired to lead the invasive plant monitoring and control project for the 2016 growing season. She is a recent graduate of the Nelson Institute's Water Resources Management program, and has spent countless hours in the Preserve as a student, a Prairie Partners Intern, a Preserve Committee member, and nature enthusiast. She is excited to be working on this new project for the Preserve.



Photo by Bryn Scriver.

UW student, Jonah Burns, joined the Preserve staff on June 27 as a seasonal field technician. One of Jonah's main duties is to keep the Picnic Point fire circles clean and the wood racks well stocked. If you see Jonah in the Preserve give him a friendly "welcome" and "thank you" for his part in maintaining a healthy, safe, and enjoyable natural area for the UW.



Photo by Adam Gundlach.

Eagle Heights Woods Update

By Adam Gundlach, Field Projects Coordinator

This past winter Good Oak Ecological Services removed invasive woody plants from 5 acres in Eagle Heights Woods extending south from the Indian mounds at the top of the hill. The wood chips generated by the brush removal were spread on trails this spring by Army ROTC volunteers.

In April land managers attempted a prescribed fire where woody plants were removed. Less than ideal weather conditions resulted in a patchy burn, but where there was enough fuel to carry small flames, buckthorn seedlings succumbed to the heat and shrubs were top-killed, opening more sunlight to the woodland floor.

This summer, staff will assess how the plant and animal communities responded to previous management efforts —noting areas where sunlight beaming through a canopy gap encourages more vigorous growth and diversity, or how a dense patch of jewelweed suppresses seedlings of grasses and sedges sown across portions of the Indian Mounds zone.

As Fall and Winter approach, plans will be put into place for continued removal of woody invasive plants and hazard trees as well as another chance to use fire as a tool to prevent buckthorn and honeysuckle resprouting.



In April a group of 60 Army ROTC volunteers moved wood chips onto trails in Eagle Heights Woods. Photo by Bryn Scriver.

Student Engagement Grants Awarded

By Laura Wyatt, Program Manager

The Lakeshore Nature Preserve Committee awarded five grants made possible by the Academic Endowment Fund of the Preserve, established by former faculty members, Robert M. Goodman and Henry Hart. The maximum individual award was \$1,000. Winning proposals were selected in part based on the degree of student engagement and scientific, educational, or applied value.

Undergraduate student **Emily Nettesheim**, with co-advisors Laura Ladwig and Associate Professor Ellen Damschen (Zoology), was awarded funding to gather data in the Preserve's Biocore Prairie on the ability of native prairie plants to gain and lose cold tolerance as a measure of how future prairie community composition might change as winters continue warming.

Undergraduate student **Martin Jarzyna**, with mentor Quinn Langdon and principal investigator Chris Todd Hittinger (Genetics), was awarded funding to investigate wild yeast populations within the Preserve's various habitats. Yeast ecology is an active and growing field whose findings can be utilized in the industries of brewing and biofuel production.

David Drake, Extension Wildlife Specialist and Professor of Forest and Wildlife Ecology, secured funding to support a continuing study of the ecology and health of red fox and coyotes in the Madison urban landscape. Students in the Wildlife Damage Management and Wildlife Management Techniques classes, the Wildlife Society, and the School of Veterinary Medicine are involved in the research.

Matt Hayes and **Mara McDonald** (Zoology) received a grant to research the estimated survival, dispersal, and habitat use of common yellowthroats and song sparrows in the Biocore Prairie. By undertaking the research, they will train undergraduate students in field research.

Assistant Professor **Jonathan Pauli** from the Department of Forest and Wildlife Ecology was awarded funding to study the mechanisms behind the success of the eastern gray squirrel in urban environments. Students enrolled in Wildlife Management Techniques (WE561) will track the movement, habitat use, and sources of mortality for a population of eastern gray squirrels in Bill's Woods within the Preserve.

Any student, faculty, or staff member at UW-Madison may apply for a Lakeshore Nature Preserve Student Engagement Grant. A request for proposals will be announced in early 2017 with a deadline of March 1, 2017. To find out more about the program contact Laura Wyatt, Program Manager at laura.wyatt@wisc.edu.

Arbor Day Observance and Tree Planting

By Bryn Scriver, Outreach Specialist

Preserve and Physical Plant Grounds staff teamed up with students as part of the All Campus Day of Service on April 27 to observe Arbor Day with a tree planting event. Despite a steady rain, 21 student volunteers and staff planted 6 serviceberry trees, 5 bur oak trees, and 5 swamp white oak trees near the stone wall entrance to Picnic Point. This area was disturbed in late 2015 when damaged iron gates were removed from the wall. The new trees also replace 3 Japanese tree lilacs that were removed due to concerns that they were spreading via seeding into the adjacent woods.



Above: Undeterred by a steady rain students plant trees near the entrance to Picnic Point in observance of Arbor Day. Photo by Bryn Scriver.



Left: Serviceberry trees replace Japanese tree lilacs that had begun to invade the adjacent woodland. Photo by Glenda Denniston.

Preserve Prairie Partners Interns

By Adam Gundlach, Field Projects Coordinator

The Prairie Partners intern program continues to attract bright, motivated students and recent graduates as they explore a career in ecological restoration and natural resources management.

This season, the crew features students from UW-Stevens Point, UW-Eau Claire, and UW-Madison. The five-person crew rotates between different sites in the Madison area, spending one day a week working for each of the partner organizations. This year, in addition to the Preserve, the partners include the Madison Audubon Society, Friends of Pheasant Branch Conservancy, Natural Heritage Land Trust, and Friends of Pope Farm Conservancy.

The Friends of the Lakeshore Nature Preserve continue to sponsor the interns, and several Friends members offered their time and expertise over the summer to meet with them to discuss topics ranging from the historic cultural landscapes we manage to the Lake Mendota ecosystem as viewed from the deck of the Center for Limnology's *Limnos* research vessel.

The crew has traversed the far corners of the Preserve controlling invasive plants—starting with garlic mustard. But not all time is spent hounding unwanted plants; the growing season also brings opportunities for planting

grasses and wildflowers and monitoring restoration areas. The crew joined Friends members Suzy Will-Wolf and Glenda Denniston to survey the vegetation in Eagle Heights Woods.

As the summer days grow more humid and shorter, the crew will wrap up their internship. We hope they take away new skills and insights into natural area management as well as lasting memories of caring for the Lakeshore Nature Preserve.



Interns (from left to right: Adelyn Hanchette, Gina Lehner, and Kurt Bennet) study an aquatic macrophyte sample. Interns Allison Earl and Ali Ban-Herr are not pictured. Photo by Arlene Koziol.

Preserve Governance Committee Passes Policy that Prohibits the Use of Slacklines, Hammocks, and Rope Swings in the Preserve

The policy states, *"In accordance with the Preserve's mission statement, and in order to maintain the health and vitality of the trees and vegetation in the Preserve while minimizing personal safety risks for all users, the Preserve prohibits the use and attachment of weight bearing ropes, slings, belts, bands, and assorted other attachments to trees and/or posts within the Lakeshore Nature Preserve for recreation or leisure purposes. This specifically includes slacklines, hammocks, and rope swings."*

While we appreciate that slacklining, hammocking, and rope swings get people outside into nature, we have concerns that these activities are not consistent with the Preserve's mission.

The Preserve is managed as a conservation area. Trees within the Preserve are not evaluated with regards to safety, stability, and strength for use with active recreational activities. Some trees, especially those off-trail, may be weak-wooded or in decline and are left to fall in place to provide natural bio-habitat in the Preserve.

Mechanical attachments to trees, especially oaks and elms, can result in wounds and injuries increasing susceptibility of these trees to vascular diseases and insect infestations, such as oak wilt and Dutch elm disease, despite best efforts to protect the tree while attaching equipment.

Posts for attaching these devices into the ground are also not permitted because they may damage federally protected buried archeological sites prevalent throughout the Lakeshore Nature Preserve.

Friends Get Their Hands Dirty at Two Spring Events

By Bryn Scriver, Outreach Specialist

Hands-on restoration of the Preserve's natural areas has always been a part of the mission of the Friends of the Lakeshore Nature Preserve. This legacy continued in May with a Friends Garlic Mustard Pull and Spring Planting Festival in the woodlands at Frautschi Point.

Fifteen volunteers spent a cool spring morning pulling garlic mustard plants along the trail that runs from the Big Oak to the Lakeshore Path. The results yielded an impressive 50 trash bags of garlic mustard that will not produce seed and continue to spread on the forest floor.

Another 15 volunteers came out a week later for the 4th Planting Festival at Frautschi Point. Since the first event in 2013 volunteers have planted more than 3,500 native plants. The plants are spread out along the main Frautschi Point trail to supplement the sparse vegetation left on the forest floor after invasive buckthorn and honeysuckle shrubs are removed.

After each event, volunteers took time to enjoy refreshments and fellowship while admiring their accomplishments.

You can read more about these events on the Friends of the Preserve website (friendsslakeshorepreserve.com).



Volunteer Roma Lenehan counts the bags of garlic mustard. Photo by Bryn Scriver.



Friends members carry native seedlings to the planting site. Photo by Glenda Denniston.

Join the Fun! Summer Volunteer Opportunities

Volunteers care for the Preserve by removing invasive plants, planting native plugs, maintaining trails, and collecting trash. Tools and gloves are provided. Volunteers should dress to work outdoors; long pants and closed-toe shoes *are required*. Groups and minors should contact the Volunteer Coordinator.

Sat Aug 13, 9:00am-Noon. Meet at Picnic Point lot 129.*
Sun Aug 28, 9:00am-Noon Meet at Frautschi Point lot. ^
Sat Sept 10, 9:00am-Noon. Meet at Picnic Point lot 129.*

* Picnic Point lot 129 (2004 University Bay Drive)

^ Frautschi Point parking lot (3034 Lake Mendota Drive)

Check the Events Calendar on the Preserve website for more details and dates (lakeshorepreserve.wisc.edu).



In June, employees from RBC Wealth Management and Foley & Lardner LLP volunteered to plant native wildflowers and bare root trees. Photo by Katie Nicholas.

Invasive Plant Alert: Narrow-leaf Bittercress

By Bryn Scriver, Outreach Specialist

In 2015 an observant resident of the Village of Shorewood Hills (located on the western boundary of the Preserve) found and reported a population of about 150 mature narrow-leaf bittercress (*Cardamine impatiens*) plants on his half-acre wooded property. According to DNR Invasive Plant Specialist Kelly Kearns, this is the first reported occurrence of narrow-leaf bittercress in the state.

Narrow-leaf bittercress has been found to invade forests, meadows, wetlands, streams, and floodplains causing a loss of plant diversity and decreased value for wildlife. The small seeds are easily spread unknowingly by humans.

Preserve managers are very interested in knowing about any sightings of narrow-leaf bittercress in or near the Preserve. If you see this plant, please mark the location and contact the Preserve Program Manager at laura.wyatt@wisc.edu.



Multiple small flowers with 4 white petals produce slender seedpods from May to Sept.



First year plants form a basal rosette of leaves. Basal leaves are deeply divided and have round lobed leaflets.



Second year plants have sharply toothed leaves. Stem leaves are opposite each other and hairless.

Photos by Leo Michels.

Do you regularly spend time in the Preserve?

Be an extra set of eyes and ears.

If you have safety or crime prevention concerns call the UWPD non-emergency number **608-264-2677**.

Enter this number into your mobile phone contacts for easy access.



For emergencies
always call 911.



Free Naturalist-led Walks Sponsored by the Friends of the Preserve

Sun July 31, 9:00-11:00am—Native Pollinators in the Preserve. Leader: Susan Carpenter (886-7504)

Sun Aug 7, 1:00-3:00pm—A Different “View” of the Preserve. Leader: Paul Williams (274-1958)

Sunday August 28, 1:30-3:00pm—Bird & Nature Walk: Explore the Howard Temin Lakeshore Path.
Leader: Paul Noeldner (698-0104)

*Meet at Picnic Point lot 129 (2004 University Bay Drive).

For detailed descriptions go to the Friends website (friendsslakeshorepreserve.com).



Field trips introduce visitors to the Preserve through various topics. Above, staff member Adam Gundlach leads a walk through the restoration area at Eagle Heights Woods. Photo by Arlene Koziol.

Now Anyone Can Reserve a Picnic Point Fire Circle Online

Previously only University-affiliated individuals could reserve a fire circle online; now anyone can! Reservations can be made at union.wisc.edu/firepit. If you don't have access to the internet you can still reserve a site by calling 608-262-2511, Monday through Friday between the hours of 8:00am and 5:00pm. *Please note that it can take up to 2 business days to receive confirmation.* Reservations are not necessary, but you must forfeit a site to someone who has a reservation.



A visitor starts a fire in preparation for a cookout with friends at Picnic Point. Photo by Jeff Miller/UW-Madison.

Announcing New Preserve Committee Members

Preserve policy is guided by a shared governance committee made up of three faculty, three academic staff, and three students. They work closely with the Lakeshore Nature Preserve staff; their charge 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 pleased to announce that Professor Sara Hotchkiss (Botany) will serve as Committee Chair. New committee members include Professor Glen Stanosz (Forest and Wildlife Ecology), Dr. Janet Batzli (Biocore), and student members August McGinnity-Wake, Brooke Nelson, and Kendl Kobbervig. Faculty and staff can serve two three-year terms and students are appointed annually by Associated Students of Madison.

Preserve Committee meetings are open to the public; for meeting dates, times and locations please check the Preserve Calendar (lakeshorepreserve.wisc.edu/calendar).

Scenes from the Preserve...



Prairie partners interns work with Nelson Institute graduate student Katie Laushman to survey jumping worms. Photo by Bryn Scriver.

Summer berries ripen along the trails at Frautschi Point. Photo by Bryn Scriver.



Students in Professor Mark Kenoyer's Ancient Technology and Invention class build and fire a clay kiln. Photo by Adam Gundlach.

Support the
Lakeshore Nature Preserve

with a gift to the
Stewardship Fund
at the UW Foundation.

supportuw.org

Enter "Lakeshore Nature Preserve"
into search.

Lakeshore Nature Preserve
Facilities Planning & Management
University of Wisconsin-Madison
30 North Mills St., 4th floor
Madison, WI 53715-1211

Lakeshore Nature Preserve staff

Gary Brown, Director
gary.brown@wisc.edu

Laura Wyatt, Program Manager
laura.wyatt@wisc.edu

Bryn Scriver, Volunteer Coordinator/
Outreach Specialist
bryn.scriver@wisc.edu

Adam Gundlach, Field Projects Coordinator
adam.gundlach@wisc.edu



Sandhill cranes at the Class of 1918 Marsh.
Photo by John Magnuson.

For announcements, photos, and information on the Lakeshore Nature Preserve,
please join us on: facebook.com/Lakeshore.Nature.Preserve and twitter.com/UWPreserve



Subscribe to the Preserve's Electronic Newsletter.

If you want to stay informed on what's happening in the Lakeshore Nature Preserve you can have the electronic newsletter sent right to your inbox. The "E-newsletter" is produced three times a year with photos and information about Preserve activities.

To subscribe send an email request to:
bryn.scriver@wisc.edu



Banded hairstreak and small bee on butterfly weed.
Photo by Glenda Denniston.



Facilities Planning & Management
UNIVERSITY OF WISCONSIN-MADISON

Lakeshore
NATURE PRESERVE
UNIVERSITY OF WISCONSIN