



## Lakeshore Nature Preserve

FACILITIES PLANNING & MANAGEMENT  
UNIVERSITY OF WISCONSIN-MADISON

### Lakeshore Nature Preserve Committee

Friday December 15, 2023

10:30am to noon

Remote Zoom meeting

Notes

#### Present

Rob Beattie, Rhonda James, Cole Koffron, Missy Nergard, Anna Pidgeon, Will Vuyk

#### Also Present

Ann Burgess, Adam Gundlach, Heidi Horn, Seth McGee, Prisma Ruacho, Bryn Scriver, Ronan Montgomery-Taylor, Laura Wyatt

#### Minutes

The minutes from November 17, 2023 could not be approved without quorum.

#### Public Comment

Congratulations to Cole Koffron who is graduating Sunday!

**Student Engagement Grant presentation** – Nurturing in Nature: A Playing, Growing, Reflecting Experience for BIPOC Students (Prisma Ruacho, Assistant Director – Multicultural Student Center)

#### Overview:

Prisma created a 6-part series offered over the first half of Fall 2023 semester for a cohort of BIPOC students affiliated with the MSC to have the opportunity to learn about the benefit of nature, share cultural practices, gain foundational skills and explore the Lakeshore Nature Preserve. She partnered with Wunk Sheek, Color in the Outdoors, Outdoor UW, Hoofers and experienced students to lead the sessions.

#### Sessions:

- Getting Grounded, Muir Woods, led by Claudia Guzman
- Wilderness safety, Frautschi Point, led by Chris Kilgore
- Camping 101, Picnic Point, Noreen Siddiqui
- Foraging and Farming, Wunk Sheek garden plot in FH King Student farm, led by Melina Dennis
- Cultural Practices, EHW mounds and Raymer's Cove, Prisma
- Water recreation session was canceled due to rough water, will reschedule for the spring

#### Objectives

- Provide guidance on how to use the Preserve and opportunities
- Offer a network of resources for students to connect with for support
- To teach basic skills for outdoor use, such as camping, water recreation, grounding, and meditation
- To strengthen student's confidence in engaging on their own with their peers or with groups that focus in outdoor engagement
- To clarify the impacts of nature on their mental health, on culture sharing and environmental justice work

Impact (students reflected on outcomes):

- 60% agreed they gained familiarity with outdoor skills
- 100% agreed they gained confidence in outdoor activities
- 100% agreed they were aware of the benefits of nature mentally, physically, and spiritually

Likelihood of future engagement either with the Preserve with what we taught them:

- 85% we're more likely to go on a hike/ reserve a fire circle
- 70% we're more likely to go camping
- 60% we're more likely to engage in sustainable agriculture/ connect with the facilitators
- 100% were more likely to visit any part of the Lakeshore Nature Preserve

Prisma also asked them to give open responses to the following questions:

- What did they gain out of the series?
- Describe how they feel in nature after attending the series.
- How do they hope to engage with nature after this series?

Moving forward:

- Continuing to work with Outdoor UW and to create open sessions to students at the MSC
- Host a wilderness safety session part 2 with Color in the Outdoors this winter
- Host an Earth Week event with GSCC
- Make up the water 101 session in May
- Recap video on social media to encourage students to visit Preserve
- Open events to all student instead of just a cohort
- Utilize student org collaborations
- Continue low-cost events on nature and walks with students
- Not every session needs a lecture—being outside was enough for students to reflect, rejuvenate, and experience joy

Anna Pidgeon: Great to see all the things that you accomplished. There is another student org to engage with—ASUM (Audubon Society, UW-Madison); they have binoculars purchased through another student engagement grant; undergrads providing opportunities for other undergrads to connect through bird walks.

Adam Gundlach: BIPOC Birding Club of Wisconsin

Seth McGee: Great project and presentation; what motivated you take this project on?

Prisma Ruacho: I learned how to camp and hike as an adult. I wanted to learn with the students and let them know it's okay to not be experienced. And you can gain that confidence. And you can gain the skill. It's been a really fun experience.

**Student Engagement Grant presentation** – Flowering Phenology in the Lakeshore Nature Preserve (Ronan Montgomery-Taylor)

Ronan is a 4<sup>th</sup> year Botany student, graduate of Biocore Program, member of Biocore Prairie Crew, and works in the Lankau and Baum Labs.

Phenology is the study of cyclical biologic events; it requires long term data collection for it to be meaningful. Oftentimes these cyclical habits are dependent on interspecific variation as well as environmental factors. Phenology can be very useful as a diagnostic tool and a predictive tool.

The Biocore Prairie has 2 existing phenological studies:

1. A characterization of general flowering times completed by the Biocore Prairie Crew—first flower date, peak bloom, and the best time to collect seed (tool for conservation and to plan for future years).
2. A staking experiment established by former Biocore students Alder Levin and Olympia Mathiaraman in 2016. The experiment involved the individual staking of target species and replicates to enable the long-term sampling of specific clonal populations or individuals, isolating genetic variation and microclimate variation. The small sample size was limiting.

Other Madison area historical investigations on flowering phenology:

- Aldo Leopold in 1935-1945
- Stanley Temple and Nina Leopold Bradley 1977-2012

We can use phenology as a tool to generate predictive models for different things like climatological data. If we understand changes in climate over time, we can use that to predict changes in the ecosystem over time. That's why these big data sets become very valuable to us in a modern time.

Ronan's investigations contributed to the longstanding tradition of collecting phenological data in Biocore Prairie.

He used iNaturalist, a photo identification tool that allows field identification of plant species with just a few photos at about 92% accuracy. iNaturalist provides an outlet for easily indexing citizen collection data and you can access data through API scrubbing, manual export, or compiled databases. You get coordinate data, phenologic data, and consensus data.

Sample size concerns with iNaturalist:

- Smaller samples reduce ability to predict sensitive data like phenology
- Larger samples more accurately reflect student survey findings
- Lack of annotations—example, stating whether or not it's flowering or budding

Future:

- Expand staking experiment and make more accessible for future students by mapping out staked plants
- Go through iNaturalist observations and retroactively add annotations and do outreach to try to encourage people to annotate their observations
- Consolidate stored data for Biocore phenology to make more accessible for future students to use

In addition to doing the phenology work, Ronan also developed a key to Solidago species of Dane County and did a lot of macro photography. He also grew endangered prairie plants for transplant onto the Biocore plant nursery and is working on a new project to create high-definition photographs for identification of plants by seed, especially the goldenrods which lack diagnostic characters.

Laura Wyatt: Great presentation! How can more students get involved with this?

Ronan: Through the Biocore Prairie Crew and Biocore Adventure Club; Also he is an undergraduate representative on the Botany Department curriculum review committee which is looking at a certificate in Botany which would provide courses in plant ecology and botany field courses.

Laura Wyatt: Have you provided any outreach or programming for the community?

Ronan: That's the next step to get the word out about the importance of annotations in iNaturalist. While a volunteer could key in the annotation retroactively, information in a kiosk or word of mouth can help to get people to annotate in the field.

Laura Wyatt: We will have 2 post-doc projects in the Preserve including one working in the Damschen lab looking at biodiversity. She will connect the postdoc with Ronan and Seth, since Biocore is such a significant part of the Preserve in terms of biodiversity.

## **Staff Reports**

### 1) Operations (Laura Wyatt)

*See Preserve Staff Reports – Dec 15, 2023*

Through the Office of Sustainability and the Nelson Institute, the Preserve will benefit from 2 post-doc positions looking into biodiversity on the campus, and carbon sequestration. The biodiversity project will provide a foundation of information as we begin to work off the master plan. We'll really be able to analyze and evaluate our progress.

### 2) Capital Projects (Rhonda James)

*See Preserve Staff Reports – Dec 15, 2023*

An ongoing study of the east end of the Temin Lakeshore Path first proposed putting a bridge out in front of the Limology Building over the lake to facilitate bike traffic in a safer manner, but the current proposal is looking at an option on the south side of the building (in the Preserve). They would expand the bike path by cutting into the slope and building a wall. Some of the big trees on that steep slope may need to be removed, but they are not in good health and may need to come down soon anyway. I will encourage the project to include revegetating at least a portion of that slope. The project is still in the preliminary stages.

### 3) Field Activities (Adam Gundlach)

*See Preserve Staff Reports – Dec 15, 2023*

An electric utility sub-contractor drove some equipment onto the edge of Eagle Heights Woods at the Shady Lane entrance moving logs, cutting some small trees, and rutting up the ground. When I talked with the MG&E project coordinator said they thought they were on Shorewood Hills property. I raked out the ruts and remediated as best as I could. This is not the first time we've had issues with utility contractors. Laura will follow up with them.

Laura Wyatt: MG&E does have a 10-foot easement but this damage was done outside of that. Missy will also be following up with FP&M procedures, because anytime there's work done on university property beyond the easement there needs to be a conversation and formal notification. We don't know if the university wasn't notified at all. There needs to be some special introduction to contractors that come near or on university Preserve property.

### 4) Volunteers and Outreach (Bryn Scriver)

*See Preserve Staff Reports – Dec 15, 2023*

Thank you to the Friends of the Lakeshore Nature Preserve who contributed \$500 to the firewood rack project. And thank you to Rhonda for going through all the extra training required to work with a minor on this project.

## **Friends of the Lakeshore Nature Preserve report (Will Vuyk)**

*See Friends of the Lakeshore Nature Preserve Report—Dec 15, 2023*

## **MOU with Friends of the Lakeshore Nature Preserve (Laura Wyatt for Missy Nergard)**

In October I had a meeting with Missy, Bryn, three members of the Friends of the Preserve including Will Vuyk, the Director of the Arboretum Karen Oberhauser and the President of the Friends of the Arboretum to discuss the need for an MOU with the Friends of the Preserve and how the UW Arboretum and their Friends group did this. I anticipate that at the beginning of this next semester we be sharing a draft MOU with the Friends of the Preserve Board.

Will reschedule Claudia Guzman's **Introduction to the Multicultural Center**

**Adjournment**

Submitted by Bryn Scriver, Preserve Volunteer & Outreach Coordinator