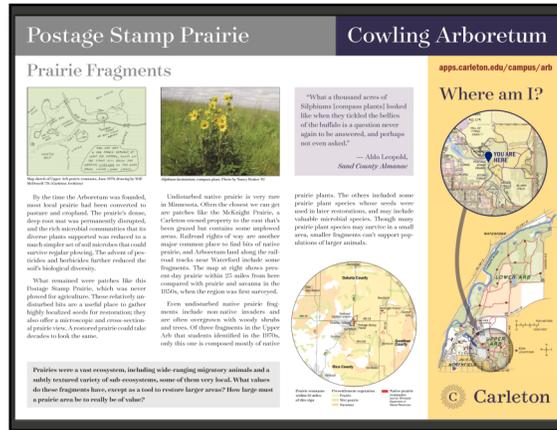


# Cowling Arboretum



## New: Interpretive Signs Throughout Arboretum

For several years, the Arboretum has been working on interpretative signage, and in 2018 the project was finished. The signs were installed in 15 locations throughout the Arboretum. With photos, diagrams, and a map of the Arboretum trails, the signs tell a story about each of the 15 locations. The signs cover topics ranging from natural history, geology, cultural history, the founding of the Arboretum, student use, and land management. Each sign also includes questions for the reader to ponder, such as “If pines re-seed and propagate here, why aren’t they considered native local species? What makes a species a native local species?” and “Does natural beauty ‘improve’ us? Does drawing or photographing it help us see it better?” The goal of the project is to engage Arboretum users, while also providing more information about the Arboretum and its history. Although there are only 15 locations throughout the Arboretum with signs, there are 30 signs in total so they can be rotated every two years to provide new information to the community.



## Cowling Arboretum Mission

- Provide opportunities for education and research.
- Preserve and restore native plant and animal communities on College natural lands.
- Provide opportunities for outdoor recreation and nature appreciation.



## Special Funding

*In addition to operating support provided by Carleton College, the Arboretum's programs are supported by grants and funds that have been established through generous gifts (listed alphabetically):*

- Arboretum Endowed Fund
- Arboretum Restoration Fund
- The Cole Family Memorial Arboretum Fund
- U.S. Department of Agriculture (Conservation Reserve Program and Environmental Quality Incentive Program)
- Family and Friends of Julie Klassen
- George W. Megeath Fund for the Cowling Arboretum
- The Louise '51 and Frank '50 Wright Endowed Arboretum Fund
- The Puzak Family

*We wish to thank the Arboretum's many benefactors who help make our work possible.*

## Arboretum Academics

*Not all classes are offered each year.*

### Archaeology

Archaeological Methods

### Biology

Ecosystem Ecology  
Entomology  
Grassland Ecology  
Introductory Biology  
Plant Biology  
Population Ecology

### Cinema and Media Studies

Digital Foundations

### Educational Studies

Methods of Teaching Science

### English

American Nature Writing

### Environmental Studies

Environmental Ethics  
Introduction to Environmental Studies  
Introduction to Geospatial Analysis

### Geology

Introduction to Geology  
Geology of Soils  
Geochemistry of Natural Waters  
Geomorphology

### Math

Sample Survey Design and Analysis

### Physical Education

Nordic Skiing  
Outdoor Skills—Adventure  
Winter Sports Fitness

### Political Science

Measuring and Evaluating Social and Ecological Systems

### Religion

The Sacred Body

### Sociology/Anthropology

Environmental Anthropology

### Studio Art

Advanced Ceramics  
Advanced Photography  
Field Drawing  
Intro to Digital and Film Photography  
Sculpture: Form and Context  
Table Making  
The Digital Landscape  
Woodworking

**The Arboretum Partners with the Minnesota Zoo**

Starting this year, we have been working with the Minnesota Zoo on two conservation research projects. Researchers from the Zoo, in collaboration with the Minnesota Department of Natural Resources, are working on projects to improve our knowledge of rare species and how to best manage and improve their habitats.

Currently, there are two projects taking place in the Arboretum. Dr. Tricia Markle, a wildlife conservation specialist, is tracking threatened turtle species in the Arboretum and in other locations to better understand the threats the species are facing in Minnesota. Specifically, the study aims to clarify turtles' habitat needs, investigate strategies to reduce turtle road mortality, and devise ways to better protect turtle nests. Her goal is to boost population sizes of threatened species and "keep common species common."

The Minnesota Zoo is also monitoring water quality in relation to runoff from salted roads across three locations, including the Arboretum, to better understand how human caused stressors are affecting freshwater mussel populations. The primary goals are to improve survival rates of native species and increase successful reintroduction rates of captive-bred juveniles. This work follows up on the mussel inventory done by Professor Gary Wagenbach and students in 2007. This partnership between the Minnesota Zoo and the Arboretum demonstrates the Arboretum's commitment to conserving and protecting native species and ecosystems.



Freshwater mussels from the Cannon River



Gary Wagenbach and a mussel friend

**Interview with Summer Research Assistant**

Each summer, we hire a student as an Arboretum Research Assistant to help with research projects. This summer, Julia Braulick '20, a biology major, worked with us. She primarily focused on plant projects, such as conducting propagation trials for two little-known prairie plants, and assisted with land management work, including removing invasive wild parsnip. When asked about her experience, she responded, "I really liked working on plant research and feeling like the work I was doing made a difference. After this summer, prairie plants will always have a special place in my heart."



Research opportunities like this one are important because, as Julia put it, "Prairie landscapes are very rare now because of conversion to agriculture. Prairie plants' deep roots provide unparalleled protection against soil lost which is a huge problem in Minnesota." Also, prairies are drought resistant and provide habitat for a multitude of native species. Better understanding this important ecosystem can help us better manage it in the future.

**Cole Student Naturalist Program  
2018-2019**



**Student Naturalist Featured Seniors:**

**Andy Hoyt '19** was born and raised in Lexington, Kentucky. For much of his childhood he enjoyed canoeing, hiking, and camping. He became involved in the Boy Scouts of America, where he was introduced to backpacking and other outdoor activities. This love of the natural world matured into a desire to protect the environment through conservation efforts and share his knowledge of ecology and the environment. As a history major he is interested in environmental history as a means to pursue environmental activism. Andy has applied that interest as a student naturalist in his research on the history of the Arboretum.

**Eliza Malakoff '19** grew up in the D.C. area, hiking, birding, and paddling with her family. And was inspired early on by heroes like Rachel Carson and local whitewater-kayak racers. She enjoys sharing her fondness for spiders, bugs, stars, and ecology at the same Appalachian summer camp that deeply nurtured her own interest in the natural world. She fell in love with the Arboretum and the Cannon River, and enjoys sharing that passion.



Every week, one of the student naturalists writes a piece about current Arboretum events for the *Carletonian*, Carleton's student newspaper, and to be posted on the Arboretum's website. Topics range from Minnesotan history to information about species and prairie management.

### Environmental Education and Community Outreach

**Community Outreach** in the Arb includes field trips, workshops, volunteer opportunities, and cooperative programming. These vital Arboretum experiences are utilized by both the College and Northfield communities. In addition to the programming noted in the accompanying chart, 34 volunteer opportunities were offered in 2018, representing more than 530 total hours of assistance.

Group Type	Number of Events	Total Number of Attendees
College Related	7	276
Youth (K–12)	4	155
Adult (Local Community)	3	119

In collaboration with the University of Minnesota Extension Service, a **Minnesota Master Naturalist class** was enjoyed by 22 Northfield area residents. The program’s mission is to promote awareness, understanding, and active stewardship of Minnesota’s natural environment. According to Heather, a Northfield resident, “The Master Naturalist course increased my enthusiasm to get outdoors and learn as much as possible about our natural environment. The course was a perfect place to learn from the instructors and other students, and gave us numerous resources to continue our education outside of the class to keep the momentum going. The Arboretum provided a wonderful setting for this learning experience.”

### History in the Arboretum

In the spring of 2018, the history class “The Material World of the Anglo-Saxons” was taught by Austin Mason, lecturer in history. The goal of the class was to teach students how material culture changed throughout history by employing various methods to create a deeper understanding of material culture. At the end of term, the class held an early medieval craft fair, displaying pieces constructed with materials from the Arboretum. The fair included students teaching about their topics, an authentic food tasting, and the proceedings of a typical funerary process from the time.

Projects included a calligraphy display, which used goose and turkey feathers from the Arboretum for the quills; a bone working table, using antlers provided by the Arboretum office; a textile exhibit that used grass to make rope; and a funeral and burial procession, which included wood from the Arboretum’s brush pile. The point of the craft fair was to allow students to explore topics that interested them while also providing a hands-on way of identifying with materials and various material uses. A website sharing the history of each display, the process of creating the object, and thoughts from the students was created to document the experience.

### Theater in the Arboretum

In the fall of 2018, the Arboretum was able to collaborate with Arts at Carleton in some wonderful ways!

In October, the Arboretum once again welcomed Minneapolis theater company Mixed Precipitation for a performance of *Dr. Falstaff* and the *Working Wives of Lake County: A Picnic Operetta*. The production took place in the Arboretum, providing a natural backdrop. Attendees were treated not to just a show and lovely scenery but also a performance inspired picnic featuring locally-sourced seasonal ingredients. The show itself was a tribute to Minnesota history based off Otto Nicolai’s short opera *Merry Wives of Windsor* and featured the music of Bruce Springsteen.

The Arboretum experienced some significant blow down damage after a storm cell, which produced tornadoes in other locales, ripped through campus in late September. Luckily, some of that debris could be put to good use for a fall theater production. The Carleton Players, Carleton’s primary theater group, staged Shakespeare’s *As You Like It* in October and were able to use downed branches from the Arboretum to create part of a dynamic set.



**Prairie Planting in Memory of Julie Klassen**

The Arboretum lost a dear friend this past year with professor emerita Julie Klassen’s passing. Julie taught German language and culture at Carleton from 1978 until her emeritus retirement in 2009. She co-taught courses in ENTS, often using the journals of immigrants to explore earlier engagements between people and the natural world. Julie was active in volunteering in local natural areas, including the Arboretum, helping to collect seeds for our prairie restoration work. Julie also allowed us to collect nuts from yellow-bud hickory from her property to help with our forest restorations; she referred to our student collectors as “the squirrels.” Donations from Julie’s family and friends helped with restoration of native prairie habitat in the Lower Arboretum. We look forward to thinking about Julie as we walk past the beautiful prairie blazing star, yellow coneflower and compass plant that she loved so much.



**Alumni Reunion Service Project**

Since 2010, we have hosted an all-class service project during Reunion every June. This year, the project was tree planting and sponsored by the class of 1973, who paid for the trees and necessary supplies. According to Janet Polasky '73, “Members of the Class of '73 have always joined the service project at reunions. This time we wanted to do more. We’re hoping for our 50<sup>th</sup> to keep planting trees.” The goal is to provide alumni with the opportunity to reconnect with the Arboretum and learn about current projects while also working towards restoration goals. We greatly appreciate all the help we have received from Carleton alumni.



**The Garden of Quiet Listening**

Materials from the Arboretum are used by Carleton College students and faculty in a variety of ways. One of these ways is maintaining a fence in The Garden of Quiet Listening, Carleton’s Japanese Garden. Branches collected from the Arboretum make up the fence’s structure, and can easily be replaced with new branches when the current set gets old or damaged.



The garden was designed and constructed by Dr. David Slawson from 1974 to 1976, with the purpose of providing a place for the community to go to and find “tranquility of mind, body, and spirit.”

**Arboretum Outreach Assistants**

From updating the Arboretum’s social media pages and managing the website to advertising for events, Nancy Braker and her public outreach assistants, Anna Schumacher '21 and Heather Luedke '20, are busy. The student workers love the work they do. Anna’s favorite part is creating ways for people to engage with the Arboretum, and Heather says, “The work I’ve done has made me want to pursue an environmental communications career.” Their work helps to make the Arboretum more accessible to both students and the local community.

Photos in report by: Klay Christianson '82, Nancy Braker '81, Heather Luedke '20, Steve Braker, Austin Mason, Carleton staff

**Arboretum Aperture**



Photo by Heather Luedke '20



Photo by Hannah Marty '17



Photo by Hannah Klein '21



Photo by Christopher McTaggart '22

**For additional information, contact the Arboretum director or visit our website, Facebook, or Instagram page:**

**<https://apps.carleton.edu/campus/arb/>**

**[www.facebook.com/carletonarboretum](http://www.facebook.com/carletonarboretum)**

**carletonarboretum on Instagram**

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