

Cowling Arboretum



Academic Engagement

This fall the Carleton College Cowling Arboretum hosted a performance of the walking play *Nature* by TigerLion Arts. A walking play is a performance where the audience moves along with the actors from scene to scene. *Nature* tells the story of Emerson and Thoreau and their love for and interest in the natural world. Community members and Carleton students were members of the chorus for this performance, and the chorus was co-directed by two Carleton students, Nora Katz '16, and Liza Davis '16. In an interview with Carleton College, Tyson Forbes (the producer/writer/creator/technical director) said that he “hope[s] audience members ask themselves what their relationship is to the bigger character in this piece. [He] want[s] them to reflect on nature.” The event drew in more than 300 audience members who hopefully did just that in the setting of the Upper Arboretum.



Cast members performing. By Audrey Kan '18

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)
- 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: Genes, Evolution, and Development
Plant Biology
Population Ecology

Cinema and Media Studies

Digital Foundations

Educational Studies

Methods of Teaching Science

English

American Nature Writing

Environmental and Technology Studies

Environmental Ethics
Introduction to Environmental Studies
Introduction to Geospatial Analysis

Geology

Introduction to Geology
Geology in the Field
Geology of Soils
Geochemistry of Natural Waters
Geomorphology

Math

Sample Survey Design and Analysis

Physical Education

Nordic Skiing
Outdoor Skills for the Backcountry
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
Critical Studies in Public Space with N55
Field Drawing
Intro to Digital and Film Photography
Sculpture: Form and Context
Table Making
The Digital Landscape
Woodworking

Photo by: Klay Christianson '82



Academic Highlights

Archaeological Methods

Alex Knodell, Assistant Professor of Classics, is interested in archaeological approaches to landscape, interaction, and long-term social change. During spring term 2015 his Archaeological Methods class chose the place of the Women's League Cabin as a site of archaeological interest in the Carleton Arboretum. The class excavated the area to see what they could learn about the habits of those who used the cabin. This project allowed students to learn about methods of archaeology, learn some Carleton history, and get their hands dirty while doing so. Their findings and photos were posted every week on their class website: archaeologyinthearb.wordpress.com.



2015 Featured Students:

Student Publication of Work

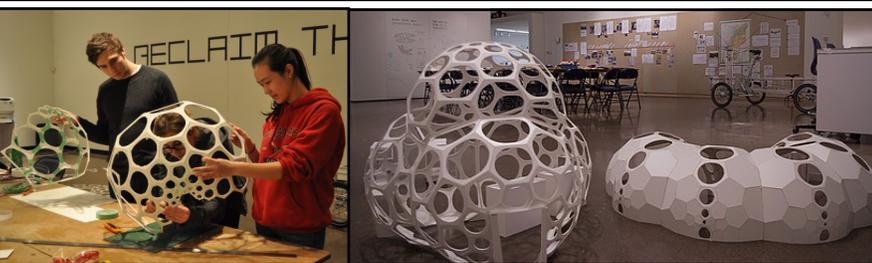
Nisi et al. (2015) published their paper "Patterns of Selective Herbivory on Five Prairie Legume Species" in the journal *The American Midland Naturalist*. Research for this paper was conducted in the Arboretum by Associate Professor of Biology, Dan Hernandez, and recent graduates Anna Nisi ('14), Lydia English ('13), and Emily Rogers ('13).



The Arboretum Sense of Place Project

Assistant Professor, Constanza Ocampo-Raeder and her Environmental Anthropology class aim at uncovering layers of meaning embedded in the Arboretum. Ocampo-Raeder trains students in ethnographic methods that help document perspectives, document and portray multiple meanings of the Arb, and evaluate if a more holistic understanding of a natural space can lead to improved environmental ethics. The students hope to show that the Arb is not only a natural space with recreational and research opportunities but also a social space where community is created, articulated, and remembered. Ocampo-Raeder and her students have been designing methods to document student activities, world views, and perceptions of the Arb. These include cultural mapping, interviews with students, focus group activities, and a photo assignment that asked participants to photograph places of the Arb that matter to them.

Preliminary findings show significant variation in the meaning and uses of the Arb. Differences are based on race, gender, providence, major, religious traditions, and involvement in athletics. In particular, there are radical differences between how campus natural scientists explain and see this area with how non-science students conceive of it. Ocampo-Raeder hopes to compare the Arb with her work in the Amazon to show that you do not need to live in a jungle to have a deep and meaningful connection with nature.



Critical Studies in Public Space with N55

Over Winter Term 2015, students worked with Danish art and design collective N55 and Assistant Professor of Art History, Ross Elfine, to develop a speculative proposal for a new Arboretum office. N55's practice embraces a critical investigation of how public spaces function in our contemporary era. Who has access to public space? Who has the right to build, and where? What is an environmentally ethical way to occupy the land? Students researched the needs and desires of the Arb staff and the community, then worked to fabricate models and structures to create a hypothetical new Arboretum Center. While there are no plans to build in the near future, the class and guest collective hope that their work may enrich and inform future conversations about the space.

Student Naturalists

Darcy Mishkind '16 grew up surrounded by the beautiful green mountains of Vermont. She spent much of her youth exploring the woods, building forts, and learning bits and pieces about native species. She was immediately drawn to the distinctly different ecosystem of the Carleton Arb, and has spent many happy hours exploring its prairies and forested lands. In particular, she has appreciated learning more about the birds found there and better understanding its distinctive habitats.

Forrest Williams '16 grew up in rural Northern Lower Michigan where he spent much of his childhood playing in the woods and learning about the importance of living symbiotically with the land. From an early age he grew to love nature by going out on tree identification expeditions, cutting wood for the winter months, and working on his family's small organic farm. Forrest first fell in love with the Arb by running across its beautiful open landscape. He now spends a large portion of his time in the Arb helping the Arb Crew restore and protect the prairies, and seeking respite from the fast pace of life. Forrest is interested in the role species play in ecosystems and the slow, yet inevitable, way in which the natural world transforms itself.



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, 32 volunteer opportunities were offered in 2015, representing more than 500 total hours of assistance.

Prescribed Burn Education was offered to local landowners and volunteers, attracting 27 community members to learn about this valuable land management tool.

Type of Group	Number of Field Trips, Talks or Workshops	Total Number of Attendees
College Related	12	355
Youth (K-12 or Other)	3	208
Adult (Local Community)	8	85

Youth Programming - Teaching Kids Outdoors

The Arboretum served as the location for this workshop hosted by the University of Minnesota Extension. The event helped leaders to gain skills and confidence for leading hands-on, interactive science and nature activities to get youth engaged in the outdoors.

Carleton Arboretum hosts Kids for Conservation BioBlitz

This fall the Arboretum hosted a modified BioBlitz for youth in grades 3-5 who are part of the Kids for Conservation program in Northfield schools. This program is designed to help solve environmental issues by educating kids and giving them the tools to make informed decisions about their actions. They learn about big picture events and little things that they can do to have an individual impact. This fall's event was organized by Anna Guasco '16. Anna has been involved with the BioBlitz program on the national level, and she felt it would be a perfect fit for the Carleton Arboretum. A traditional BioBlitz lasts for 24 hours and is hosted by places like national parks. Community volunteers are used to canvas an area of the park and do an in-depth species survey of a chosen area, with experts available to answer questions and help with identification. This effort allows park staff to learn more about what is in the park, and sometimes discover new species! The Arboretum event was based on this model but designed to be a kid focused event, and was scaled down to be age appropriate. Over the course of the day, 120 children learned natural history, citizen science, and how to conduct a field survey. They worked with volunteers to identify plants and animals, and apply what they had learned in the classroom to the outdoor world.



By Anna Guasco '16



The Cole Student Naturalist Program is funded through an endowment created in memory of members of the Cole Family, especially Richard S. Cole '69 and Richard F. Cole '40. Students meet weekly, are trained in natural history and nature interpretation, and lead field trips and other events for the Carleton and Northfield communities.

Reforestation in the Arboretum



By: Anne Maple

As part of the long-term management of the forests in the Arboretum, staff continued reforestation projects. Thousands of tree seedlings were planted in two areas where invasive species and pine trees not native to this part of the state were removed in 2013. Native trees and shrubs were planted as replacements to help capture the sites before non-native invasive species like buckthorn and honeysuckle could return, and to eventually create a forest similar to the historic forests of the area.

Each year during New Student Week freshmen assist with tree planting in the Arboretum. This helps to educate freshmen about the Arboretum and the restoration efforts in place, while also fostering a connection between new students and the Arb. Students will return yearly to check on how their tree is doing, if they can find it again that is! This year the incoming class planted 250 trees. Additionally, Alumni at Reunion 2015 assisted with planting shrubs to help stabilize the banks of Spring Creek. Over 6,000 trees and shrubs were planted in the Arb in 2015 through these various efforts.

Running of the Cows Returns to the Cowling Arboretum After 5 Years



By: Emma Grisanzio '17



By: Emma Grisanzio '17

With the completion of a number of trail projects including opening a new section of trail, widening old trails, and reconfiguration of the start area, the Knights once again hosted the cross-country race "Running of the Cows." Carleton's men's team had the first place man, and narrowly took second in the meet. The women's team had the first place woman, and won the meet over all. Keep your eyes peeled for more races to come, specifically the 2016 and 2017 Central Region races--the qualifying race for the state event.

Awards

In 2015 the Carleton College Cowling Arboretum was ranked 4th in "The 50 Most Beautiful College Arboretums" as ranked by Best College Reviews. Arboretum size, age, size of collection and opportunities offered to students and the community were considered in the ranking process. Their review and the other Arboretums that made the top 50 list can be seen here:

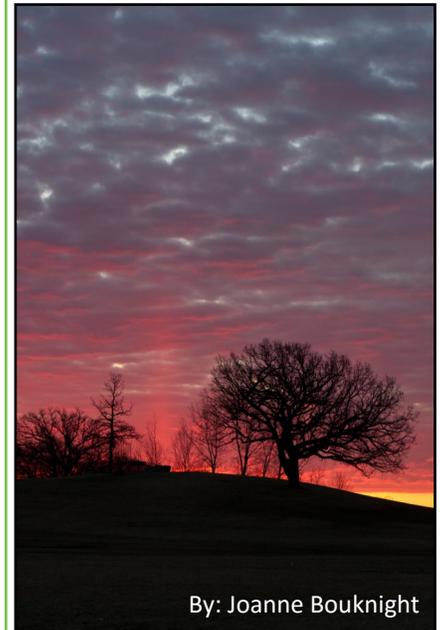
<http://www.bestcollegereviews.org/features/most-beautiful-arboretums/>

In July the Carleton College Cowling Arboretum was selected by the Rice County Soil and Water Conservation District (SWCD) to receive the 2015 Forest Stewardship Award. This award recognizes efforts to restore and manage lands for the purpose of protecting or restoring forested areas. Specifically, staff mentioned that forest management on lands available to the public allow community members to see how forest health improves with restoration of native species and invasive plant management.

Arboretum Aperture



By: Hannah Marty '17



By: Joanne Bouknight



By: Owen McMurtry '12

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

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

www.facebook.com/carletonarboretum

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