

# Discovering Sustainable Solutions to Environmental Challenges



**Cedar Creek Ecosystem Science Reserve**  
2022 - 2023 Report







**OUR MISSION** is to understand our planet's ecosystems and how people influence and depend on nature. Our vision is to create a world where nature and the full diversity of people thrive. Our commitment is to be an inclusive place for research, mutual learning and community for people of all identities. We achieve this through research, education and conservation in partnership with members of our local and global community.

Cover: Ecology, Evolution and Behavior Ph.D. candidate Maggie Anderson. Photo: Adara Taylor.  
Images in this report courtesy of: Lydia Winkler, Maggie Anderson, Caitlin Barale Potter, Savannah Henning, Forest Isbell, Ben Wymer, Megan Lauzon, Eric Miller, Sidh St. Clair, Adara Taylor and Megan Wilcots.



# ABOUT CEDAR CREEK

Cedar Creek Ecosystem Science Reserve is an ecological field station in the University of Minnesota's College of Biological Sciences. Cedar Creek has a diverse array of ecosystems and species found throughout the forests, grasslands and wetlands of North America. The reserve hosts a Long-Term Ecological Research program and a Biological Integration Institute, both supported by the National Science Foundation, as well as dozens of other research projects.



## Our Work

### RESEARCH

Understanding the fundamental processes that determine the dynamics and functioning of ecological communities and ecosystems while training the next generation of scientists.

### DIVERSITY, EQUITY, INCLUSION AND JUSTICE

Working collaboratively to identify and address issues of access, climate and equity to create an environment where all people are valued and have the opportunity to learn and contribute.

### EDUCATION

Providing engaging science field trips, classroom programs, undergraduate courses and educational resources for learners of all ages, and sharing Cedar Creek's research with members of the local and global community.

### CONSERVATION

Investigating and conserving natural landscapes as platforms for scientific study and as examples of relatively intact ecosystems.



# DIRECTOR'S NOTE

It has been my privilege to serve as Cedar Creek's director for more than three decades. I first visited Cedar Creek as a new faculty member in 1976 and was entranced by its savannas, grasslands and lakes. Within two years most of my research was at Cedar Creek, which helped position us to receive a National Science Foundation grant for Long-Term Ecological Research (LTER) in 1982. We were off to the races, to the challenges and excitement of ecological discovery. I cannot imagine a better place for fundamental ecological research than Cedar Creek, nor a better group of collaborators than assembled around our LTER grants, nor a better way to have dedicated my career.

Cedar Creek is more than just a site for research, it is a nine-square-mile ecological reserve. The preservation of its ecological diversity has been my ethical responsibility. It has been almost a half century since I first came to Cedar Creek. We must all ensure that, a half century from now and beyond, Cedar Creek will retain its incredible diversity of species and ecosystems, and provide future researchers, students and visitors with excellent opportunities to observe, study, and love nature.

Science is a team sport. Cedar Creek's numerous achievements would never have been possible without the skill, dedication and creativity of its staff, researchers and educators. It has been a pleasure to work with each of you. I thank you for your ideas, energy and commitment, which helped shape Cedar Creek's profound scientific discoveries and its vibrant education and outreach program.

I thank the College of Biological Sciences, and especially Dean Bob Elde, Dean Valery Forbes and Dean Saara DeWalt for their support and guidance and thank the donors who have so generously stepped forward when Cedar Creek faced problems that could only be solved with their help. I offer special thanks to Troy Mielke, Dan Bahauddin, and Kally Worm for their long-term contributions to our research mission, and to Forest Isbell and Caitlin Potter for their many contributions while serving as associate director with me.



Collaboration is central to Cedar Creek's success. While at Cedar Creek, it has been my pleasure to collaborate with many wonderful ecologists, including Clarence Lehman, Sarah Hobbie, Peter Reich, Eric Seabloom, Elizabeth Borer, Jeannine Cavender-Bares, Johannes Knops, David Wedin, Nancy Johnson, David Grigal, Nick Haddad, Forest Isbell, Jason Hill, Joe Fargione, Shahid Naeem and Mark Ritchie. Our intellectual diversity was essential for our discoveries. I lack space to mention by name many others, including the more than 60 Ph.D. students and post-doctoral researchers with whom I have been privileged to work, and the summer interns who have contributed so greatly to the day-to-day operation and sampling Cedar Creek's experiments for the past 40 years.

I will remain a faculty member and will continue my research at Cedar Creek and my efforts to find solutions to major environmental problems that the Earth faces.

I offered my resignation as director knowing that the Cedar Creek team would greatly benefit from the enthusiasm, vision, and scientific leadership of a new director. Similarly, the LTER renewal grant, currently being written, will explore exciting new hypotheses and add many new members to the Cedar Creek team. Our education and outreach team and our research team are about to acquire much-needed space that will alleviate overcrowding during our summer research season and our K-12 education season.

Nothing delights me more than Cedar Creek's bright future.

David Tilman

Regents Professor and McKnight Presidential Chair in Ecology

## Our Impacts 2022-2023

### EDUCATION

More than 6,600 students and their teachers and more than 8,000 community members participated in live online or in-person programs, contributed to participatory science projects, or learned from our digital resource library.

### PUBLICATIONS

More than 142 scientific articles were published by Cedar Creek researchers and affiliates, in a wide variety of journals.

### GRANTS

Researchers at Cedar Creek were supported by more than 50 grants in 2022-2023, including support from the National Science Foundation, the USDA and Minnesota's Environment and Natural Resources Trust Fund.

### RESEARCH TRAINING

Cedar Creek contributed to the scientific development of over 120 students in 2022-2023.



# RESEARCH

A sampling of recent **PUBLICATIONS** in top journals out of more than 142 total from 2022-2023:

Short-term plant-soil feedback experiment fails to predict outcome of competition observed in long-term field experiment, *Ecology*, 2023

NG Beckman, R Dybzinski, D Tilman

Pocket gopher disturbance slows soil carbon accumulation in abandoned agricultural lands, *Ecology*, 2022

Yi Yang, Johannes MH Knops, Chad E Brassil

Reflectance spectroscopy allows rapid, accurate and non-destructive estimates of functional traits from pressed leaves, *Methods in Ecology and Evolution*, 2023

Shan Kothari, Rosalie Beauchamp-Rioux, Etienne Laliberté, Jeannine Cavender-Bares

Soil enzymes as indicators of soil function: A step toward greater realism in microbial ecological modeling, *Global Change Biology*, 2022

G Wang, Q Gao, Y Yang, SE Hobbie, PB Reich, J Zhou

Neighbours consistently influence tree growth and survival in a frequently burned open oak landscape, *Journal of Ecology*, 2022

Mark A Davis, Richard Condit

Long-term nitrogen enrichment mediates the effects of nitrogen supply and co-inoculation on a viral pathogen, *Ecology and Evolution*, 2022

CA Easterday, AE Kendig, C Lacroix, EW Seabloom, ET Borer

# GRANTS

A sampling of **GRANTS** out of more than 50 awards that were active during 2022-2023 and that together totaled more than \$45 million:

National Science Foundation

Long-Term Ecological Research

Seabloom and others, 2019-2025

Hobbie and others, 2021-2027

National Science Foundation

Collaborative Research

Kennedy and others, 2022-2025

European Research Council

Pellegrini, 2023-2028

Catford, 2021-2026

College of Biological Sciences Diversity, Equity, Inclusion and Justice grants

Park and Cárdenas, 2022

Baldwin and Potter, 2023





# Selection of New Projects in 2023

## **Distribution and movements of fishers in southern Minnesota**

Joyce, Potter, Mangan, McMahon, and Secrist

## **Reintroducing rescued rare plants and seed into suitable habitat at Cedar Creek Ecosystem Science Reserve**

Taylor, J. Husveth, A. Husveth, Remucal, and Drewiske

## **Assessing rubus wild crop relatives for caneberry genetic improvement**

Patrick and Clark

## **Tamarack resin flow methodology trial**

Graham, Windmuller-Campione, and Aukema

## **Malaise trapping of North American insects**

Grossman, Dunn, and Mohl

## **Roost ecology of red-headed woodpeckers**

West, Jacobson, Howitz, St. Clair, Bahls, R. Refsnider, M. Refsnider, Johnson, Closmore, and Jaeger

## **Climate change and terrestrial cyanobacteria: how nitrogen addition, high carbon dioxide concentrations, and seasonality affect the community**

Fávaro, Stanton, and Cervera

## **Manipulating microbial abundance in grassland soils: implications for fungal necromass decay and decomposer communities**

Beidler, Kennedy, and DeLancey

## **Tick abundance and pathogen prevalence in large parks of the seven-county Twin Cities metropolitan area**

Larson and Novotny

## **Seed collection for climate adaptation project on Superior National Forest**

Labonte, Rogers, and McTighe

## **Investigation of *Salix humilis* propagation and stress tolerance**

Schrader, Miller, and Larsen



# NEW STAFF

We added three new faces to the permanent staff at Cedar Creek in 2022 and 2023.



**Dr. Kara Baldwin** is Cedar Creek's education and community engagement coordinator! Kara has been a high school science teacher, park naturalist, and museum educator at locations across the country. In addition, she has conducted research in informal and science education spaces. She completed her M.S. in science education from Oregon State University with a capstone project focused on field trip experiences and teacher preferences. She went on to complete her Ph.D. in biology from Illinois State University with a focus on STEM education and science, mathematics, and engineering processes and practices.



**Dr. Maowei Liang** is Cedar Creek's new site research scientist! Maowei was awarded his Ph.D. from Inner Mongolia University, China in 2019. He is broadly interested in community and ecosystem ecology. Specifically, his work investigates how changes in ecosystem functioning across spatial-temporal scales are associated with plant compositional shifts (e.g., biodiversity) in the face of climate and land-use changes. As site research scientist, he conducts and publishes results of ecological research, and coordinates ecosystem restoration and land management work to strengthen and complement Cedar Creek's mission.



**Lydia Winkler** is Cedar Creek's new operations associate! Lydia pursued a biology and environmental science degree at University of Minnesota Morris and got a taste of the field station life during a summer internship at Itasca Biological Station. She puts her administrative skills to use managing housing, finance, HR and anything else that comes up at the station.



## ILTER Synthesis Groups

The LTER synthesis working group process is designed to capitalize on the experiments, contextual knowledge, data, and creativity of the LTER Network. By funding small groups of scientists from inside and outside the Network to work intensely together on a synthesis project, the process encourages the ecological community to use existing data to probe novel theories, test generality, and search for gaps in our understanding.

In 2023, Cedar Creek hosted three synthesis group in-person meetings. One of these synthesis groups is co-led by Dr. Maria Cristina Portales-Reyes and Dr. Anny Chung. Cedar Creek-affiliated scientists have participated and led the NCEAS/LTER network Ecosystem Transitions working group since 2021. The goal of the working group is to synthesize long-term data (including Cedar Creek data products) to answer: 1) What is the current evidence for difficult to reverse ecosystem transitions? 2) How does dominance and rarity play a role in plant community response to extreme drought and recovery? 3) How does nutrient addition alter the climate sensitivity of primary productivity in grasslands? Synthesis group participants include Maria Cristina Portales-Reyes (PI, Cedar Creek-affiliated), Anny Chung (co-PI), Carmen Watkins, Beatriz Aguirre, Megan Wilcots (Cedar Creek-affiliated), Joan Dudney, Lauren Hallett, Laureano Gherardi, David Hoover, Jennifer Rudgers, Tadashi Fukami, Katherine Suding, Hanan Farah (Cedar Creek-affiliated), Lukas Bell-Dereske, Forest Isbell (Cedar Creek-affiliated).

To learn more about the LTER synthesis groups, visit the webpage at [lternet.edu/synthesis](https://lternet.edu/synthesis)



# Featured Researcher: Neha Mohanbabu

If a seed falls in a prairie, and no one is around to see it, does anyone really know where it lands? This is a question Dr. Neha Mohanbabu is asking as part of her postdoctoral research at Cedar Creek. How a seed falls — and how global stressors affect its dispersal — is something she aims to model in a lab.

Dr. Mohanbabu collects seeds from a variety of prairie species in Cedar Creek's BioCON (Biodiversity, CO<sub>2</sub>, and Nitrogen) experiment, which simulates global change stressors on native prairie ecosystems. In a controlled setting, she drops the seeds in a vacuum cylinder to estimate how quickly they fall. She then uses wind speed and drop height data from field measurements to model how far the seeds can travel. Her work could be especially useful in investigating how species in restored prairies maintain their populations amidst shifting ecosystem dynamics.

“Some species are perennial and regrow every season, but there are lots of instances where seed input can be really important,” says Dr. Mohanbabu.

“Our understanding of what happens to seeds under global change scenarios mostly come from agricultural systems or really short-term studies. So this research would provide a basic understanding of how seeds of common prairie species might be responding to these global changes.”

**To learn more about Dr. Mohanbabu's work, visit [neha-mohanbabu.weebly.com](http://neha-mohanbabu.weebly.com).**

Original Article written by Adara Taylor





# Featured Researcher: Katilyn Beidler

Dr. Katilyn Beidler, a post-doctoral researcher in Dr. Peter Kennedy's lab, has been studying what happens to fungi when they die. Investigating the breakdown of dead microbes, collectively called necromass, could lead to a better understanding of carbon cycling. But thin threads of fungi spread diffusely through soil can be difficult to track. So Dr. Beidler grows it herself en masse. The microbial orbs look like tapioca pearls as they float, suspended in a flask filled with liquid culture. "We grow enough biomass to be able to measure its decomposition over time and the species we grow have traits that could be important for carbon storage."

Dr. Beidler packs the freeze-dried clumps of necromass into mesh bags, buries them in the soil, and waits. But not for long. In a recent experiment she led at Cedar Creek, Dr. Beidler resurrected buried samples from their sandy graves for investigation after only two weeks. Most of her samples lost about three-quarters of their biomass. So if the necromass was secure in the mesh bag, what happened to the mass? Exposure to elements accounts for some of the loss. When it rains, water floods the soil and soluble materials like sugars flush out of the bags. The rest likely comes down to other microbes. Dr. Beidler's team can identify the decomposers by analyzing the DNA in the remaining necromass. She also measures changes in necromass chemistry through time.

"It is all very circle of life, with living microbes recycling the carbon and nutrients contained within dead microbes," says Dr. Beidler. "Ultimately I am interested in how necromass becomes stable soil carbon and how the traits of living and dead fungi influence this transformation."

**Learn more about Dr. Beidler's work at [www.kvbeidler.com](http://www.kvbeidler.com).**

Original Article written by Adara Taylor



# Cedar Creek Summer Fellows Program

Each year, Cedar Creek provides six summer fellowships to graduate students and postdocs who offer professional development and serve as research mentors to our undergraduate and post-baccalaureate interns. Under the guidance of these Cedar Creek Summer Fellows, interns have the opportunity to participate in independent, original research projects. Interns and mentors are paired based on mutual project interests, then spend about nine weeks designing studies and collecting and analyzing data before presenting their findings at an end-of-summer symposium. In addition to supporting interns with their research projects, mentors also facilitate seminars, training workshops and community-building activities to help young scientists at Cedar Creek maximize their summer experience.



“The best part of the summer was definitely being a part of a positive community interested in ecology and research, and also getting the chance to work on research in a safe environment.”

- 2023 Research Mentee

“I had a PHENOMENAL team of mentors who supported me in my research and beyond!”

- 2023 Research Mentee





## Intern Project: Beckman Bog Sundews

Every summer, interns at Cedar Creek have the opportunity to conduct independent research projects. Working with a mentor — usually a graduate student or faculty member from the University of Minnesota — intern or group of interns designs and conducts their experiment before presenting findings at an end-of-season research symposium. After a long summer in the field, Cedar Creek interns Julia Franey and Ariel Schwartzman Miles share their project highlights.

Julia and Ariel studied the sundew populations in the Beckman Bog at Cedar Creek. Their mentor, Dr. Katrina Freund Saxhaug of the University of Minnesota, mentioned she'd seen sundew populations there in the past, but now could no longer see them from the boardwalk. Julia and Ariel got to go into the bog and surveyed the area, eventually finding sundew populations further into the bog, towards Beckman lake.

Going into this research project, only one species of sundew had been recorded at Cedar Creek, the round-leaved sundew, *Drosera rotundifolia* — but Julia and Ariel noticed some obvious morphological differences between sundews in the bog.

They sent pictures to Dr. Freund Saxhaug, who forwarded them to Dr. Rebekah Mohn of UMN, who studies the genetic diversity of *Drosera*. Dr. Mohn confirmed they are two different species: the round-leaved sundew and the spatulate-leaved sundew! Julia and Ariel went into the field with Dr. Mohn to take samples for the herbarium and show her the different populations.

Ideally, their findings of new sundew species at Cedar Creek will pave the way for future *Drosera* studies, as well as inspire others to go into the bog and make observations!





# EDUCATION

## About Cedar Creek's Programs

Cedar Creek utilizes education and community outreach to be an inspiring catalyst and outstanding resource for science teaching and learning in Minnesota and beyond. We link students and teachers to Cedar Creek's research through field trips, in-class programs, and online resources. Our programs aim to connect audiences to Cedar Creek research and researchers to build scientific literacy and help our community better understand scientific principles and processes.

## K-12 Field Trips

In 2022, Cedar Creek's K-12 programming saw the transition of Dr. Caitlin Barale Potter to associate director of the Reserve and the addition of Dr. Kara Baldwin as the education and community engagement coordinator. During these transitions, Cedar Creek continued to welcome students for field trips. With field trips focused on authentic inquiry experiences, Cedar Creek hosted students and teachers from nearby communities, the greater Twin Cities Metro, and beyond. Cedar Creek education staff also brought Cedar Creek to classrooms and local festivals, providing engaging, hands-on programs and activities connected to wildlife ecology, snow science and water.

## 2022-2023 Achievements

- More than 6,600 K-12 Students participated in Cedar Creek educational programs in 2022 + 2023 with thousands more using Cedar Creek materials online.
- In late September 2023, Cedar Creek celebrated the dedication of the Richard and Judi Huempfer Minnesota Ecology Walk. This quarter-mile interpretive trail located behind Lindeman Center offers visitors an accessible way to learn about the state's major ecosystems.
- In 2022 and 2023, Cedar Creek supported two American Indian Education high school summer interns. These interns built and filled a Little Free Library with curated books highlighting Indigenous authors and resources and created arboretum-style signs along the Minnesota Ecology Walk that shared Dakota and Anishinaabe plant names.

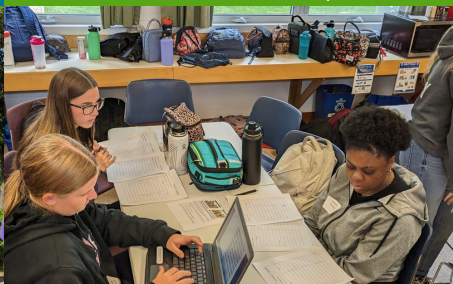
Pre-K Groups



Elementary Groups



Middle School Groups



High School Groups



## Community Programs

Cedar Creek also provides educational programs and opportunities for lifelong learners of all ages. Over the last two years, Cedar Creek hosted and led public programs including kayaking along Cedar Creek, solar viewing, moth lamping, star parties, birding hikes, and more. Individuals were also invited to support Cedar Creek science through winter bird counts, wildlife tracking surveys, and data analysis for the Eyes on the Wild and Red-Headed Woodpecker online platforms. In 2023, we also hosted our quinquennial open house, welcoming the community to explore Cedar Creek through experiment field tours, family activities, hikes, science talks, and more. We are so grateful to the organizations, community partners, and volunteers that continue to enhance and expand Cedar Creek public programs.



## New Educational Spaces – Coming Soon!

In late September, Cedar Creek welcomed supporters and guests to celebrate the construction kickoff for the Whitney and Elizabeth MacMillan Environmental Learning Center. The learning center will expand the capacity of the Lindeman Center with the addition of two classrooms. This will allow Cedar Creek to reach thousands more K-12 students each year. Whitney and Elizabeth MacMillan, longtime benefactors of the station, provided funding for the project and K-12 programs. Construction on the 3,200-square-foot addition began in November 2023 with expected completion in fall 2024.

ELL Groups



Undergraduate Groups



Lifelong Learners



To learn more about our education resources and programs, visit [z.umn.edu/programs-cc](https://z.umn.edu/programs-cc)



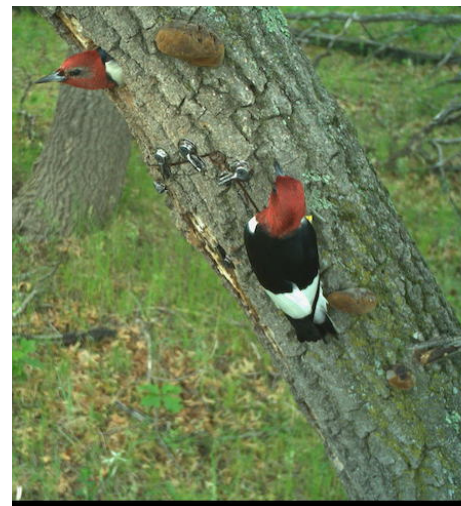
# PARTICIPATORY SCIENCE

Cedar Creek is a place of learning and exploration for professional and novice scientists alike.



The Woodpecker Cavity Cam project augments ongoing research and fills additional knowledge gaps about red-headed woodpeckers. We are working to learn more about their nesting ecology and behavior and the many other animals that use and compete for the cavities these woodpeckers create. Researchers at Cedar Creek Ecosystem Science Reserve, the University of Minnesota's Fisheries, Wildlife and Conservation Biology Department, and volunteers with the Red-headed Woodpecker Recovery Project and Audubon Chapter of Minneapolis have collaborated to place trail cameras outside of red-headed woodpecker cavities at Cedar Creek. Now volunteers can help go through the thousands of videos we've collected to document how and when different animals use these cavities, and how nest predators and competition may impact nesting red-headed woodpeckers.

**To help classify images and help with the project, go to [z.umn.edu/woodpeckercams](https://z.umn.edu/woodpeckercams).**



To learn about other Participatory Science projects taking place at Cedar Creek and how to get involved, visit [z.umn.edu/cc\\_volunteer](https://z.umn.edu/cc_volunteer)

# ARTISTS IN RESIDENCE

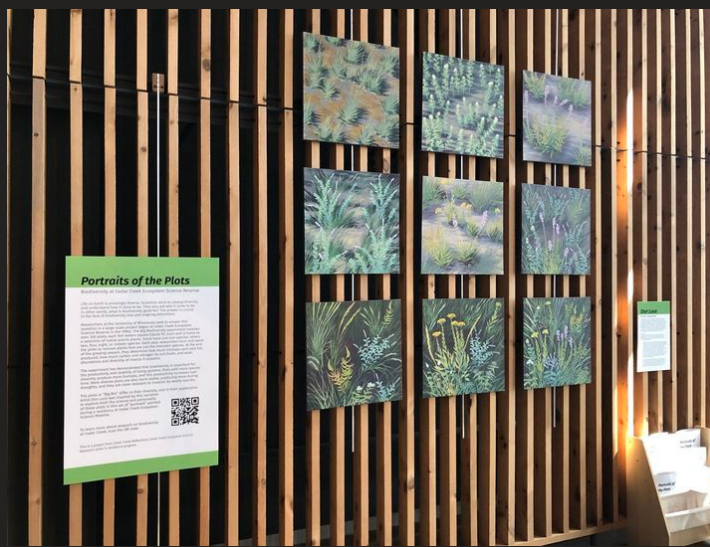
Each year, Cedar Creek staff and scientists solicit applications from Artists in Residence. The group of artists selected work closely with scientists and reserve staff on projects that tell stories of Cedar Creek's research through unique, artistic lenses.



## 2022-2023 ARTIST

Don Luce - Visual Art  
"Portraits of the Plots"

Don's work was displayed at the Bell Museum on the University's St. Paul campus in spring 2023.



To see additional examples of the artists' work and to learn more about the program, visit [z.umn.edu/cc\\_artists](https://z.umn.edu/cc_artists)



# OPPORTUNITIES TO CONTRIBUTE

Support Cedar Creek! We greatly appreciate your contributions to any of the following areas:

- Our **research funds** support ecological research that discovers sustainable solutions to environmental challenges, including training young researchers.
- Our **public programs funds** support education and engagement programs for students and visitors, including supporting K-12 in-school programs and science field trips, public events, our artist in residence program, classes and participatory science initiatives.
- Our **conservation fund** helps protect and restore healthy populations of species, such as red-headed woodpeckers and bison, and threatened ecosystems, including oak savannas.
- Our **capital improvements fund** supports the development of infrastructure on-site.

You can donate using the envelope provided or online at

**[z.umn.edu/cc\\_give](https://z.umn.edu/cc_give)**

Questions? Contact Reede Webster, Chief Advancement Officer, at [webst033@umn.edu](mailto:webst033@umn.edu)/612-624-9460.



## Stay connected to Cedar Creek

Connect to Cedar Creek on Facebook and Instagram (@CedarCreekESR) for information on upcoming events and photos from the reserve. Follow us on Twitter (@CedarCreekESR) for updates on research, links to newly published papers and information about long-term ecology at Cedar Creek and other LTER sites. Read up on recent events in our bi-monthly newsletter at **[z.umn.edu/cc\\_fieldnotes](https://z.umn.edu/cc_fieldnotes)**.

# FINANCIALS

Cedar Creek Ecosystem Science Reserve gratefully recognizes our 2022-2023 donors:

## **\$3M+**

WEM Foundation

## **\$50,000 - \$100,000**

Monica M Schultz

## **\$10,000 - \$24,999**

Judi Huempfer

Dr. Jim D Winter

## **\$5,000 - \$9,999**

William R Hoffman

## **\$1,000 - \$4,999**

Catherine J & Joseph A Amato

Bradley & Elizabeth Hamilton

Michael M Herron and Susan L Herron

Jack and Terri McKeon

Dr. Deborah S & James E Nicholson

## **\$500 - \$999**

Mary Dawson

E J Kelley & Dawn Hofstrand

Drs Mary C Kemen & Brian C Randall

Dr. Scott & Mary Lagaard

Judy Mahle Lutter

Dr. Justine A Malinski

Mr Gene Merriam & Sara E Meyer

Dr. Daniel Stanton

Donn Waage & Virginia Housum

## **\$100 - \$499**

Kenneth W Bacher and Linda Marie

Thomas J Beer

Marcia F Birney

Dr. Christine Bremer & Raleigh Little

Joe and Jean Crocker

Chase C Davies

Scott and Lisa Dee

Marilyn J Doyle

Trudy C Dunham

Peggy L & Jonathan D Fargo

Rebecca C & Robert K Galkiewicz

Dr. James P Grover

Jon Hanson and Julie Maass-Hanson

Dr. James M Haynes

Virginia H Homme

Linda Johnson & Robert Julian

Kathy Kenworthy & Paul Barale

Betsy and Donald McNerney

Dr. Kevin J Niemi and Karen A Grikstas

Kee Palsansinsup & Daniel E Hathaway

Dr. Ernest M & Dawn Peaslee

Karl J Petersen

James W Peterson

Leanne K Phinney

Joel and Daina Rosen

Russell & Nina M Rothman

Kari Skoog

John L & Hilary Ann Stanton-Geddes

Geraldine Urbanski & Eric Anderson

Jeffrey R. Velline

Leny E & Don Wendel

E Pearson Young-Isebrand &

S D Isebrand

Ric True

## **\$1 - \$99**

Dr. Cindy Angerhofer & Tom O'Leary

Steven J Beuning

Dr. D Gordon Brown &

Charlene Irvin-Brown

Janna P. De Lue

Paul B Diers

Brad & Joan Johnson

Stephen Kriz

Elaine Mustari

Shanta Owens

Pranee C Prentice

Urho S & Pamela S Rahkola

Jo Lynn Rohady

Adrian Ruybe

Terri Schlegel-David & Andrew David

Helen Sievers

Kristin Sjolie

Kirsten Welge

Ralph Yehle

**Thank you!**





COLLEGE OF BIOLOGICAL SCIENCES

UNIVERSITY OF MINNESOTA

Cedar Creek Ecosystem Science Reserve

2660 Fawn Lake Dr NE

East Bethel, MN 55005

The Richard & Judi Huempfner Minnesota Ecology Walk is open to the public! Learn more at [z.umn.edu/mnecologywalk](http://z.umn.edu/mnecologywalk)

