

Erythronium

IOWA NATIVE PLANT SOCIETY NEWSLETTER
WINTER 2025

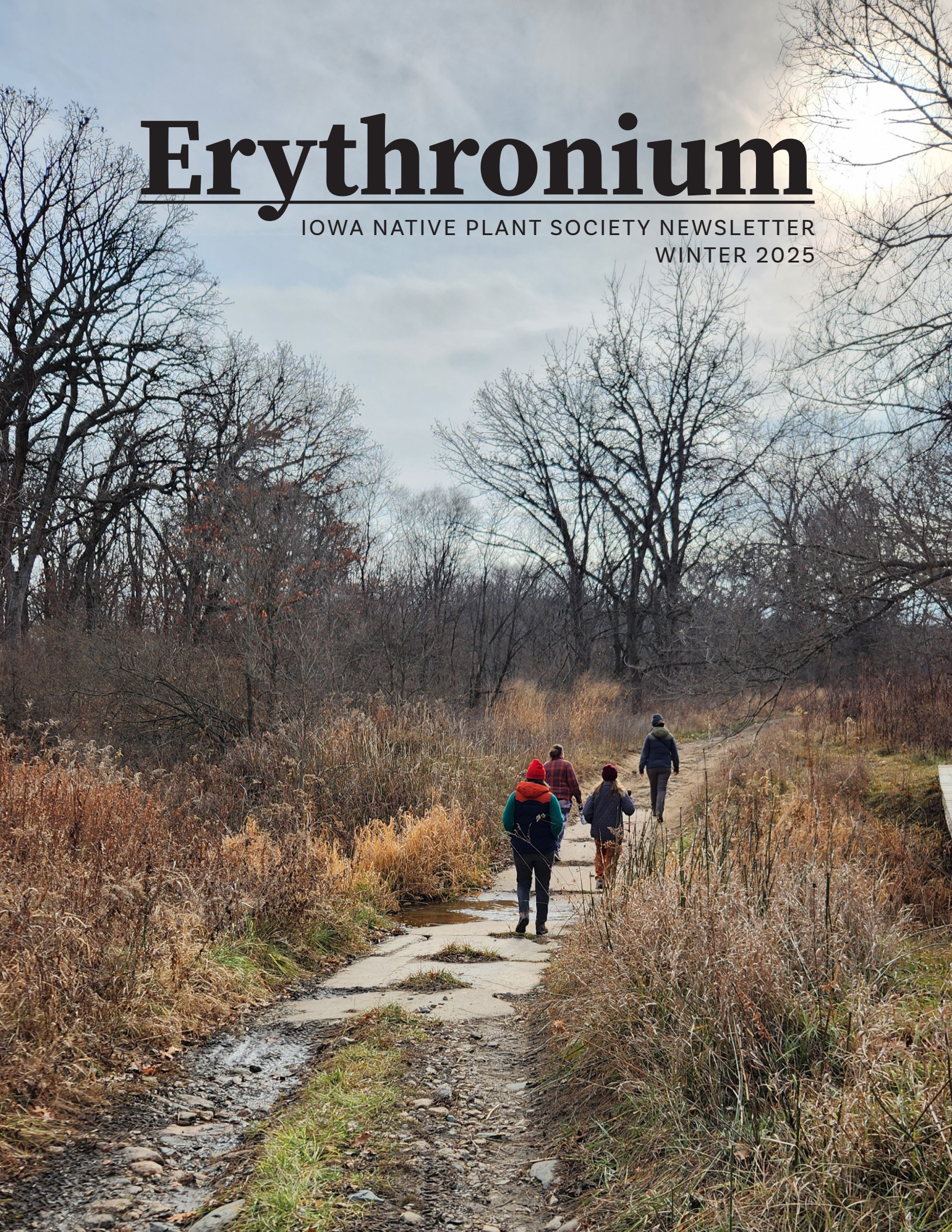


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Erythronium is the official publication of the Iowa Native Plant Society. It is published twice per year in the winter and spring. If you are interested in writing for *Erythronium* newsletter, please contact us at iowanativeplantsociety@gmail.com. Include your idea, photos, relevant experience, and any other information to support your idea.

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Leaves from the President's Notebook

I will be honest. The last few weeks have been rough. My mind has been an emotional rollercoaster of stress, dread, and anger with fleeting moments of ambitious drive and determination. Keeping my eye on target has been challenging.

As I write this, it's hard to believe November is coming to a close. The leaves have nearly all fallen. The landscape is bare and the air is quite crisp. The northwesterly winds have been hallowing for days. A literal reminder of the stiff headwinds many of us will face in the coming months and years. We are entering into a period of time where our actions in conservation will be tested. Much uncertainty looms over us, but the future does not look promising in the short-term for conservation professionals and enthusiasts.

Our efforts to conserve and protect, educate, volunteer, advocate, and fundraise will be absolutely vital. The only way to weather the turbulence is together. We must not give in or give up. We must remain strong in our conservation values and ethics. Our conservation agencies, non-profits, private entities, etc. need our strength and support.

The Iowa Native Plant Society (INPS) board has been working together behind the scenes to strategically figure out how best to help our partners in conservation. We have many goals for the upcoming year and exciting updates to unveil in time. It is important now, perhaps more than ever, to take steps in ensuring our organization can remain strong for years and generations to come. We will continue offering field trips to various ecosystems across the state, and we will continue funding projects for land acquisition, research, restoration, education, and more.

We do not do this work in isolation. It is with the help of dedicated individuals and organizations we are able to make forward progress. We appreciate all our members and communities who support us and we hope you all will continue to aid in our work in whatever way you're able.

It is a privilege to steer the ship of the Iowa Native Plant Society. I have the great pleasure of working alongside incredible people who all love and enjoy this small but mighty grassroots organization. I am thankful for their time, dedication, and knowledge. We must also highlight those who helped lead field trips this past spring and summer. Tom Rosburg led several field trips across the state, and Tamra Elliott led a hike at MacBride Nature Recreation Area. Dozens of individuals were able to experience the natural wonders Iowa has to offer thanks to our field trip leaders. It is important to acknowledge volunteerism is often a thankless task. Next time you run into an INPS board member or field trip leader – or any other volunteer – be sure to recognize their contributions to the betterment of the world.

Last but not least, as always, be sure to check out the events calendar on our website to keep up to date on what activities are happening across the state. ■



Sarah Nizzi, President
Iowa Native Plant Society

They were always there

A floral poem & photo essay by Kara Grady



Top: White wood aster (Eurybia divaricata) in my backyard.

Middle: Dusty Goldenrod (Solidago puberula), an endangered Ohio native that I planted in the Butterfly Garden at Cleveland Botanical Garden.

Bottom: A collection of milkweed seedlings I cared for over the summer and gave away to a friend.

They were always there
Bright green umbrellas
Pushing forth from moist, dark soil
Into the light
Opening up to shelter
Soft, sweet, white blossoms
From raindrops and sun
While the tree above
Slowly turned to fire
And buried them beneath
A blanket of crimson maple leaves
They were always there
New school, new house
Yet in the derelict lot beside us
Vibrant purple towers rise skyward
Amidst a pit of weeds and thistles
Invite regal monarchs to rest
On their southward journey
Before being mowed down
For a new set of neighbors
And our street's namesake
Becomes another conquest casualty
They were always there
Fragile giants of shifting silt
Slumber beneath a blanket of snow
As we drive to Omaha
As I dream dreams of Christmas magic
They were always there
Rays of purple open and close
Revealing sunbursts of yellow
As I work day by day
Amongst the golden, verdant prairie
We're here! We're here!
I finally hear them cry
And awake to what was always there
I now awaken others
So that what was always there
Will always be.



Left: A milkweed plant that grew in our yard being eaten by "Corn cob," the fifth instar monarch caterpillar.

Below: The Master Rain Garden I helped install for HOLA Ohio, with a focus on monarch butterfly plants.



Far Left: Enormous Great Blue Lobelias (*Lobelia siphilitica*) in my grandparent's yard.

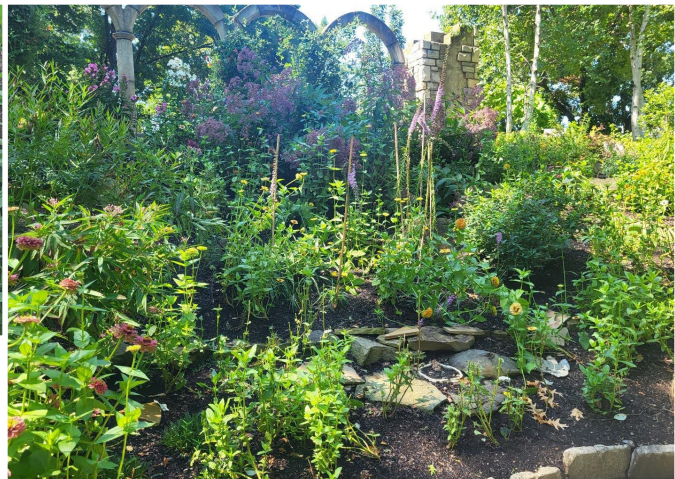


Left: Planting the annuals in the Butterfly Garden at Cleveland Botanical Garden.



Left: Oxeye sunflower (*Heliopsis helianthoides*) surrounded by 'Goldenblitz' Black-eyed Susans in my backyard.

Right: The first monarch butterfly I saw this year perched upon one of the zinnias I planted in the Butterfly Garden at Cleveland Botanical Garden.



Above: The Butterfly Garden at Cleveland Botanical Garden that I installed annuals in.

Minutes from the Iowa Native Plant Society Annual Meeting on September 14

By Dianne Blankenship, Secretary, Iowa Native Plant Society

Iowa Native Plant Society (INPS) President Sarah Nizzi welcomed all at 1:05 pm and called the meeting to order. She confirmed board members Tom Scherer, Lael Neal, Bill Blankenship, Deb Lewis, Connie Mutel, and Loren Lown were in person. Attending via Zoom were Dianne Blankenship and Molly McNicol. The excused board members were Pauline Drobney and Carl Kurtz.

Other attendees at the meeting were: Sydney Kaizer, Tom Gust, Wolf Oesterreigh, Tom Rosburg, Laura Miner, and Gina Bartleson.

2023 Minutes

INPS Secretary Dianne read the minutes of the 2023 meeting. Lael moved for approval, and Tom Rosburg seconded. Approved by all.

Treasurer Report

Lael, INPS treasurer, reported we have just over \$17,230. Year-to-date debts are \$8,209.01. Year to date credits are \$6,060.98. Lael noted the year is not over, and she is optimistic that close to \$2,000 more will be coming in. Note this is the first year INPS is matching its financial year to the calendar year, as membership has always been calendar year.

We will have a fiscal year wrap up meeting in January. Deb moved for approval and Tom R. seconded. Approved by all.

Membership Report

Lael continued with the membership report. Minimum of 42 new members. This is the most new members in one year we have ever had! Next closest was 27 (2023), 25 (2019), and 23 (2022).

Currently we have a minimum of 113 members, which is close to our average of a little over 120 members a year for the last 5 years.

There was concern around us raising the cost of membership and the number of individuals we would lose because of it. Here are the current numbers (and remember there is still room for improvement because the year isn't over yet):

- **21 people** who participated at the minimum level of \$15 last year (2023) but have NOT yet paid for 2024. These are potential losses. However...
- **37 people** who participated at a level greater than \$15 last year (2023) that have NOT yet paid for 2024. So, I don't think cost is the reason most people have not renewed for 2024.

We did not move and second this report, but it will be official when the year is final.

Grants Report

Molly gave the grants report. INPS awarded six grants in 2024, up from 3 last year. They included funding for remnant management, volunteer capacity growth, education through restoration, fire equipment, and a land acquisition project. The recipients were Loess Hills Preservation Society, Pottawattamie County, Bur Oak Land Trust, Seed Savers Exchange, Iowa DNR-Rathbun Wildlife Unit-Sedan Bottoms subunit, and Benton County Conservation.

Grants were made possible by member dues and generous donations to INPS. An additional large thank you goes out to our panel of reviewers for their time and effort. There was mention of starting a grants and funding subcommittee.

Newsletter Report

Deb handed over the editing of the newsletter, which she had done since 1997, to Sydney Kaizer, who edited our spring edition with a



new format and many color photos. Sydney has a full-time marketing job and also makes and sells raised garden beds in the community.

As they wrapped up, Dianne interrupted and announced Deb was being honored for her many years as newsletter editor as well as INPS historian and many other positions she has held. She is our only charter board member as she co-founded INPS in 1995 with Bill Norris. She received a framed photo and a gift card to Wheatsfield Co-op. Thank you, Deb!

Field Trips Report

Sarah shared Pauline's report:

- **March 16** - Pasque flower hunt in the Loess Hills, plus oak woodland wildflower hike, led by Tom Rosburg, well-attended
- **May 18** - MacBride Nature Recreation Area savanna remnant and prairie hike, led by Tamra Elliott, attended by 20 people
- **May 21, June 18, July 16, August 20, September 17** - Doolittle Prairie walks, led by Tom Rosburg
- **June 15** - Corriell Preserve owned by Bur Oak Land Trust, led by Tom Rosburg, well-attended
- **August 16-18** - Iowa Prairie Conference, INPS-sponsored, 9 field trips total

Pauline has resigned as field trip coordinator and no one volunteered to fill this position, so it will be handled at our January meeting.

INPS Discussion List

MJ/Dianne's report is delayed for the January meeting.

President Report

Sarah's report is delayed until January.

Election of Officers

- **President** - Sarah Nizzi
- **Vice President** - Tom Scherer
- **Secretary** - Dianne Blankenship
- **Treasurer** - Lael Neal

All nominations were unchallenged, and all were moved and seconded and approved by everyone.

Election of New Board Members

Sydney was the only nominee, and Lael moved, Deb seconded, and all approved. Welcome, Sydney!

New Logo

Sarah and Lael's discussion about a new logo is delayed to January.

Merchandising

Sarah and Lael's discussion about merchandising is delayed until January.

Other Topics

A request for volunteers to help a board member with a topic is delayed.

Open Discussion

There had been many discussions among the members and board during the reports, but at this time, Connie announced Glenn Pollock, who attended via Zoom, will be honored with the Iowa Natural Heritage Foundation (INHF) Hagie Heritage Award at a luncheon on October 11. We all congratulated him.

Adjournment

Adjournment at just after 1:00 pm. On to the guest speaker, Dr. Greg Courtney.

An optional tour of the Iowa State University's insect collection was made available for attendees. Following the tour of the insect lab, attendees toured Pohl State Preserve at the Ames High School. ■



The Long-Awaited Monarch Listing Decision: Threatened Proposal

By Sarah Nizzi, President, Iowa Native Plant Society



Two monarch butterflies rest on a flower cluster in Pacific Grove, CA in 2022. Monarch overwintering sites in coastal California are likely to be named critical habitat. (Photo: Isis Howard/Xerces Society.)

The public can provide input on the United States Fish and Wildlife Service’s proposal to list the monarch butterfly (*Danaus plexippus*) as threatened with species-specific protections and flexibilities to advance and encourage conservation under section 4(d) of the Endangered Species Act (ESA).

The proposal to list the monarch butterfly, and designate critical habitat, will be available for open comment until March 12, 2025. Information on how organizations, agencies, etc. can submit feedback can be found by searching for docket number FWS-R3-ES-2024-0137 on <https://www.regulations.gov/>.

“Please note that submissions merely stating support for, or opposition to, the action under consideration without providing supporting information, although noted, do not provide

substantial information necessary to support a determination. Section 4(b)(1)(A) of the Act directs that determinations as to whether any species is an endangered or a threatened species must be made solely on the basis of the best scientific and commercial data available, and section 4(b)(2) of the Act directs that the Secretary [of Interior] shall designate critical habitat on the basis of the best scientific data available.”

For more information about the monarch and the proposed listing decision please visit the websites below:

- **U.S. Fish and Wildlife Service:** <https://rb.gy/5rj1io>
- **Xerces Society:** <https://rb.gy/ri1mhb>
- **U.S. Fish and Wildlife Service Q&A:** <https://rb.gy/9hx5g9> ■

A Short Story: Starry Champion, *Silene stellata*

By MJ Hatfield

In 2004 I was lucky enough to be hired as an AmeriCorps member, working for the Iowa Department of Natural Resources (DNR) Prairie Seed Harvest Team (now the Iowa DNR Prairie Resource Center). Bill Johnson was my supervisor and taught me much about plants and prairies (thank you, Bill). Also, somewhat to my surprise (or should I say delight), I was able to learn more about insects, specifically insects connected to prairie plants.

Every so often, Bill would send one or some of us to collect seed from prairie remnants. After all, that was part of our job – collecting diverse seed from various locations to grow more seed for Iowa DNR lands. Previously Bill had introduced us to Root Cellar Prairie at Brushy Creek State Recreation Area, an interesting prairie in that a portion of it was transplants, very large transplants, a front end loader digging and transporting large chunks of prairie sod from the downhill portion of the prairie that was to be flooded to an area above the prairie where the Brome-dominated sod

had been removed to a depth of 6 inches. Bill showed us various prairie plants, including Starry Champion, *Silene stellata*, which I had never met.

On this day, summer 2005, Bill sent me to Root Cellar Prairie to collect seed, particularly Starry Champion seed. I did find the plants and tried to collect seed, but the round pods were empty, every one of them. I don't recall noticing herbivory, but I returned to the office empty handed of seeds of this species.

Fast forward to 2011 and the several day Bug Guide Gathering, hosted by Iowa State University Entomology and John van Dyk, with field trips around Ames and surrounding counties. It was here that both Moni Hayne and I photographed a larva on what appeared to be a host plant, but at the time neither of us recognized the plant or the larva.



A Bug Guide field trip at Sand Hill Prairie in Polk County on July 29, 2011.



On a July 30, 2011 BG field trip to Brushy Creek State Recreation Area, Moni Hayne and Lloyd Crim found a larva with Lloyd identifying the plant it was feeding on as Starry Champion (actually, knowing Lloyd, he probably said *Silene stellata*). They collected the larva with some host plant giving it to me to try to rear.

Finally, some pieces started to fit. Yes, this was the Campion Coronet, *Hadena ectypa*, feeding on its host plant. And yes, I was able to rear it.

Campion Coronet, *Hadena ectypa*, documented in Iowa

- **June 29, 2014:** Algona, Kossuth County, Iowa
- **July 24, 2019:** Plymouth Rock (planted prairie), Winneshiek County, Iowa
- **August 5, 2019:** Indiangrass Hills, Iowa County, Iowa
- **July 20, 2020:** Blankenship Prairie, Woodbury County, Iowa. With this one, I ran out of easy access host plant so gave the larva White campion, *Silene latifolia*.

The above *Hadena ectypa* Iowa locations can be viewed on Jim Durbin's Insects of Iowa website at https://www.insectsofiowa.org/taxon/hadena_ectypa and BugGuide at https://bugguide.net/adv_search/bgsearch.



Seeds of the Starry Champion, *Silene stellata*.

[http://bugguide.net/node.action/bug.php?taxon=607012&location\[\]=IA](http://bugguide.net/node.action/bug.php?taxon=607012&location[]=IA).

Note that all of the above were found as larvae, and the adults then reared from larvae. David Wagner notes, "Occasionally, moth larvae can

be collected more reliably than adults.

Examples... *Hadena ectypa*..."

Here's a question: is this herbivory enough to determine the insect? ■



A note from the author:

When I began to think about writing an article, I thought this moth would be great fun, an adult species that pollinates its larval host plant, and the larvae feeding on the reproductive flower parts, something akin to the well-known Yucca moth and its Yucca host.

But as I read more of the research, I discovered that as of 2012, over a decade ago, other moth species have been documented pollinating this plant, and the pizzazz was gone. Also, probably a good thing for the moth, its larvae have been documented feeding on non-native Bladder campion, *Silene vulgaris*, and more than likely White campion, *Silene latifolia*. So, should I scrap this little story or should I fess up that the moth, *Hadena ectypa*, isn't quite as cool as I first learned? Still, when you see this plant, when you check the flowers and the seed set, or lack thereof, you may look a bit closer and even meet the larvae, as well as knowing something of the connection between plant and insect. Many of our native insects have larvae or nymphs that require a few or even a specific host plant for their very life.

The City of Ames Pollinator-Friendly Community Plan

By **Laura Beskow**, Education Committee Chair, Ames Pollinator-Friendly Community Task Force



Did you know? The City of Ames has an official 10-year-plan to become a pollinator friendly community! Partnering with Prairie Rivers of Iowa, the plan focuses on education, research, policy, and partnerships to increase native habitat, monitor abundance and diversity, reduce pesticide use, and raise awareness.

Iowa has over 2,500 native pollinators, including nearly 400 bee species, 110 butterfly species, and 2,000 moth species! Unfortunately, pollinator populations across the US are in steep decline. You can help us take action to protect these small, yet vital creatures.

Learn more about the City of Ames' Pollinator-Friendly Community Plan at <https://www.prrcd.org/ames-pollinator-plan/>. ■

“We don’t inherit the earth from our ancestors, we borrow it from our children.”

– Chief Seattle

We find ourselves amidst abrupt ecological change, the planet’s 6th mass extinction. While distracted by screens, ecosystems are degrading more quickly than we can study or record, and on a scale beyond our comprehension.

Meanwhile, more and more people are recognizing our interconnectedness with nature. An understanding of our well-being is intertwined with the health of the environment. Our connection to nature has a pivotal role not just in physical health, but in mental, emotional, and community health as well.

We can build strong ecosystems with beauty and abundance by using native plants and smart landscaping. As we mend connections **IN** nature, we automatically mend our connection **TO** nature.

Resilience: the capacity to withstand or to recover quickly from difficulties; toughness.

Connections **IN Nature = Resilience**

“Look closely at nature. Every species is a masterpiece, exquisitely adapted to the particular environment in which it has survived.”

– E.O. Wilson

Nature is teeming with seemingly invisible connections. From the symbiotic relationship between the sun and plants to the interdependence of plants and animals, these connections stitch the fabric of our ecosystems. This intricate network extends globally, with every mushroom, flower, and tree linked to the surrounding plants and animals. It is this interconnectedness that fuels ecosystems, generating clean air, freshwater, and a stable climate.

Connections like monarch butterflies and milkweed. Milkweed is a host plant of monarchs. Connections like native bumble bees and pollen from certain native plants. Twenty-five percent of all native bees are



Cultivating Connections

MADISON COUNTY CONSERVATION

By **Jessie Lowry**, Outreach Coordinator,
Madison County Conservation

pollen specialists and can only use pollen from certain plants. And, connections like the bison and the prairie.

“When one tugs at a single thing in nature, he finds it attached to the rest of the world.”

– John Muir

Connections TO Nature = Resilience

“Where flowers bloom, so does hope.”

– Lady Bird Johnson

Our brains and bodies are literally wired for a connection to nature. Sights and sounds of nature seem to have a special way of making us feel good. Studies have shown that being in nature can lower the stress hormone cortisol in our bodies, helping us feel more relaxed and at ease.

But nature does more than just calm our nerves – it lifts our spirits, too. Being surrounded by trees and greenery can boost our mood and even help chase away feelings of sadness or depression. It’s like a breath of fresh air for our mental well-being.

And when it comes to thinking clearly, nature is like brain fuel. Taking a stroll in the great outdoors can sharpen our focus and help us concentrate better, making it easier to tackle whatever life throws our way.

Nature is good for our bodies, too. Whether it’s going for a walk or hiking a trail, getting moving in nature can strengthen our muscles, keep our hearts healthy, and leave us feeling energized and alive.

So, whether we’re seeking solace, clarity, or just a bit of fun, nature has everything we need to thrive. It’s in the great outdoors we find true well-being, where our hearts, minds, and bodies can truly come alive.

Cultivating Connections to Each Other = Resilience

“The Earth is what we all have in common.”

– Wendell Berry

When it comes to feeling good, having strong social connections is like a magic potion. It helps keep feelings of loneliness, anxiety, and

depression at bay. Having people to talk to and share experiences with can lift your spirits and make tough times easier to bear.

But social connections aren’t just good for the soul—they’re good for your body too. Studies show having a solid social support system can boost your immune system, making you less likely to get sick, and add years to your life.

Your heart benefits too. Spending time with friends can lower your blood pressure and reduce your risk of heart disease. And don’t forget about your brain! Socializing keeps your mind sharp and may even stave off cognitive decline as you get older.

And here’s the icing on the cake: spending time together in nature amplifies these benefits. Whether it’s a hike in the woods or a picnic in the park, being outdoors with friends enhances the positive effects of social interaction. The fresh air, sunshine, and natural beauty add an extra layer of joy and rejuvenation to your time together.

So, next time you’re feeling stressed or down, reach out to a friend and plan a nature outing. It’s a recipe for happiness, health, and lasting memories.

“Some old-fashioned things like fresh air and sunshine are hard to beat.”

– Laura Ingalls Wilder

Cultivating Connections is sponsored by Drake University, J.N. Darling Institute, AmeriCorps, and REAP (Resource Enhancement and Protection).

Find out more about Madison County Conservation’s Cultivating Connections Campaign at www.cultivatingconnectionsIA.org. ■

Cultivating Connections

We can BUILD and PROTECT ecosystems by
Cultivating Connections IN nature
and TO each other



**Energy
from the Sun**



**Feeds Native
Plants**



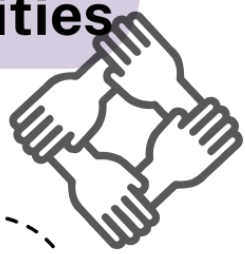
**Supporting
Wildlife**



Driving Ecosystems



**Creating
Clean Air
Clean Water
Climate
Stability
& Food**



**Creating
Healthy Humans &
Healthy Communities**

MENDING CONNECTIONS: THE RESULTS

We can build strong ecosystems with beauty and abundance by using native plants and smart landscaping. As we mend connections IN nature, we automatically mend our connection TO nature. Nature doesn't only make our bodies and minds stronger but strengthens social and community connections as well. Join us!



Cultivating Connections
MADISON COUNTY CONSERVATION



Celebration of a Distinguished Career as Ada Hayden Herbarium Curator: Deborah Q. Lewis

By William R. Norris, Professor of Ecology and Evolutionary Biology, Western New Mexico University

I met Deb in the summer of 1991, when we were both students in a fern class taught by Dr. Don Farrar. This was a memorable class, my first at Iowa State, with the highlight being a trip in a university van to Michigan's Upper Peninsula to look for all those little Botrychium species Don is so fond of. Little did I know at that time Deb and I would become close friends and collaborate on numerous botanical projects for the next 30 plus years continuing through the present day.

I was and am a serious herbarium rat, and during my nine years as an Iowa State University grad student Deb tolerated my piles of unmounted plants on a table in one corner in the back of the herbarium. At that time, Deb and I had numerous conversations about the Iowa flora, and out of these grew the realization there was a need for a state native plant society to complement the fine work of the Iowa Prairie Network with

its focus on prairie. In particular, we wanted to provide opportunities for Iowa plant enthusiasts to learn about all native habitats in the state such as, forest, woodland, savanna, wetlands, and of course prairie. So, together we organized meetings across the state in the mid-1990s to meet with potential members to obtain their ideas for what the mission and focus of an "Iowa Native Plant Society" should be. And thus this now very successful organization was born, which today, almost 30 years later, offers numerous field trips, grant programs to fund worthy conservation and research projects, a high quality website, and a biannual newsletter which Deb edited until passing the baton last year.

As curator of the Ada Hayden Herbarium, Deb has been endlessly supportive of the research of others - just ask all the graduate students, plant systematists, agency



Photo by Christopher Gannon, Iowa State University

botanists and [community] scientists in attendance today - at this celebration of her career. Many people do not realize she has had a distinguished research record of her own. In 2001, she was awarded the Minnie and Richard Windler Award recognizing her paper on the systematics of *Lindernia* as the best paper in the botanical journal *Castanea* that year. For almost 40 years, she has worked with numerous plant enthusiasts, including [community] scientist extraordinaire Jimmie Thompson, on various floristic projects in central and northeast Iowa. To date, she is co-author of published papers focused on the floras of the municipality of Ames, Bixby State Preserve, Malanaphy Springs State Preserve, the Richard W. Pohl Preserve at Ames High School, Dolliver State Park, and Ledges State Park. The latter paper was also recognized as the best paper in *Castanea* in 2009, making Deb the only two-time recipient of the Windler Award, and a paper on the flora of



Deb Lewis hosted a tour of the Ada Hayden Herbarium on January 14, 2023. Photo by Sarah Nizzi.

Iowa's oldest state park – Backbone – is in the works. When future students of the Iowa flora review the work done in the late 20th century into the first three decades of this one, Deb's name will figure prominently.

What will Deb do in “retirement”? Probably many of the same things she has done for nearly 40 years – lead field trips, contribute to various state botanical projects, and advocate for herbaria. How many of you know that Deb and Lynn were recently interviewed by Ira Flatow to discuss the relevancy and future of herbaria in the 21st century which was featured on a national broadcast of Science Friday on NPR? As for research, she is currently collaborating with Mark Widrlechner, Tom Rosburg and me on a comprehensive study of the flora of Story County. Stay tuned for publications co-authored by the four of us and, posthumously, Jimmie Thompson, that will result from this project.

So Deb, I know you and Terry will now be able to enjoy travel whenever you want, without worrying about reporting to “work” on Monday morning. That said, I know your almost 40 years as curator of the herbarium was never “work” in the traditional sense. You absolutely love most of it and you will continue to volunteer there on occasion and to mentor the next curator. Congratulations Deb on a distinguished career, with the final chapters still to be written. See you in the herbarium next spring! ■

These remarks were originally shared at Deb's retirement celebration on October 29, 2024 at Iowa State University's Bessey Hall.

The Early Days of Deb Lewis

By **Cindy Johnson**, (Graduate of ISU, Masters and Ph.D. and long time friend of Deb's)

Deb Lewis arrived at Iowa State University with all the credentials and skills necessary to begin her career as the ISU herbarium curator. While she had plenty of herbarium experience, she had little to no experience living in a northern climate. Her roots in Arkansas did little to prepare her for Iowa winters. That job fell to me, a graduate student at that time. As a long time Minnesotan, I had the necessary qualifications to help Deb to not only adapt to winters, but learn to enjoy winter.

Many southerners would hunker down next to the fireplace and wait for winter to play out – but not Deb. She was game for everything. Our first tasks were winter clothing followed by introductions to winter sports (skating, skiing, snowmen, and snow angels). What I remember most from those early days was Deb's unbridled enthusiasm and willingness to try just about anything. Her delightful laughter and humility in all the foibles made my job easy. She excelled in Winter 101 and adapted quickly to Iowa winters.

Back in the herbarium, Deb and I crossed paths often. I spent many hours working on the flora of Ledges State Park (for my master's degree) and organizing the Anderson Alaska collections. This was “back in the day” when physically rifling through herbarium collections was necessary as there were no digital resources then. I could always count on Deb for a much-needed conversational break or help finding specimens.

These conversations along with a joint field trip to Dolliver State Park resulted in an idea to document the flora of Dolliver State Park. Subsequently collecting trips, herbarium searches and literature reviews resulted in a publication on the Flora of Dolliver. This was the beginning of Deb's many contributions to understanding the flora of Iowa. ■

The Lewis and Clark Expedition

By Lynn Clark

The original Lewis and Clark Expedition, known as the Corps of Discovery Expedition, lasted from May 1804 to September 1806 – about two and a half years.

Deb Lewis, then Deb Qualls, started at Iowa State University in 1984 and retired on October 1, 2024 – 40 years and 3 months exactly.

Although mostly not as intense as the first expedition, the second Lewis and Clark adventure lasted a lot longer, and it has been my privilege to have worked closely with Deb during this time.

She is an accomplished botanist – her ability to identify scurf is legendary. Deb is also completely dedicated to natural history collections and all they represent, in particular the Ada Hayden Herbarium. She's also an outstanding colleague and dear friend.

Luckily, Deb will be sticking around for the foreseeable future, but we wish you all the best on your retirement! ■



As the former curator of the Ada Hayden Herbarium inside Bessey Hall at Iowa State, Deb Lewis is pictured handling historic specimens collected by George Washington Carver and Ada Hayden. Photo by Christopher Gannon, Iowa State University.

Native Plant Spotlight

Cutleaf Grapefern, *Sceptridium dissectum*

By Diane Porter, MyGaia.Substack.com

A golden wand slanted upward from the forest floor in Jefferson County, Iowa. It made me think of some slender, wild animal, perhaps mythical, standing on its hind legs to look around.

It was cutleaf grapefern, *Sceptridium dissectum*. It was less than a foot tall, festooned with delicate chains of gold. A closer look, the chains resolved into strings of tiny spheres – like miniature grapes. However, these are not fruits. These are sporangia, reproductive structures of ferns, each containing many microscopic spores.



Cutleaf Grapefern, *Sceptridium dissectum*, is inconspicuous on the floor of the woodlands. Photo by Diane Porter.



Small yellow globes are filled with spores. Photo by Diane Porter.

A mature cutleaf grapefern has only two fronds. The two fronds are about the same size, but they don't even look related.

Leafy Frond

In spring the fern puts up a frond that looks like a clump of light green leaves, close to the ground. Actually, it's all one frilly leaf, on a single stem. This sterile frond has no reproductive structures. It performs photosynthesis, to nourish the entire plant.

Fertile Frond

In fall, a taller stalk of

sporangia appears, bearing the golden orbs that contain spores. This fertile frond is responsible for reproduction.

The two fronds grow out of the same spot on the root, separating into two separate stalks just before emerging.

When I noticed a fertile frond in fall, I blew lightly on it, and a slight puff of fog wafted away from it. The spores!

Okay, I had to snip off a bit and take it home to the microscope.

Now I got a better look at the sporangia, which are about one millimeter in diameter.



The sterile, leafy frond does photosynthesis to nourish the whole fern.
Photo by Diane Porter.



In fall, a taller stalk of sporangia appears, bearing the golden orbs that contain spores. Photo by Diane Porter.



Fertile-frond stem and sterile-frond stem come up close together. Photo by Diane Porter.

Some sporangia showed a crease around the equator, and one was splitting. I zoomed in on it and gave the gentlest poke with my needle. The crease parted, revealing the spores packed inside.

Ferns make no flowers and no seeds. They reproduce by spores released into the air.

Two stages of life

Each spore is microscopic,

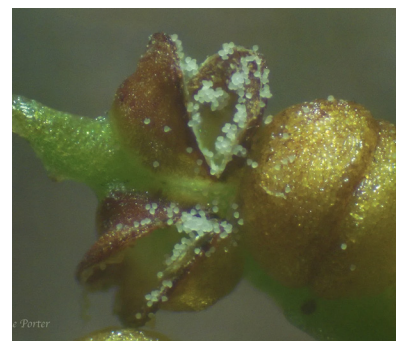
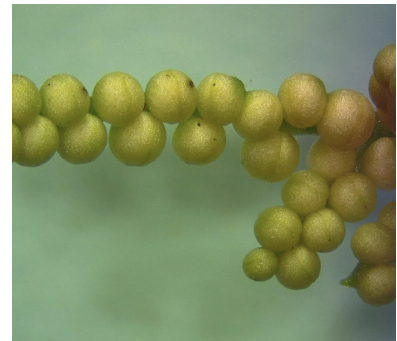
comprised of only one cell. Virtually weightless, it rides the air away from the fertile frond of its parent.

Gametophyte

If it lands in a suitable location, the spore grows into a tiny plant that lives its entire life underground. The spore contains no nourishment, and it has no access to sunlight for photosynthesis. Mycorrhizal fungi in the soil supply its nutrition as it slowly matures. This can take two to ten years. Eventually it produces eggs and sperm. Rain water carries the sperm within the soil to the eggs, and fertilization takes place. This is the gametophyte stage of the fern's life cycle.

Sporophyte

The fertilized egg is a new individual. It lives for a time attached to its parent, eventually developing roots and emerging aboveground.



Sporangia resemble golden grapes. Everything in this magnified view would fit under the tip of my little finger. Photos by Diane Porter.

The two open sporangia at left have shed most of their spores.

It then looks like a fern. This is the sporophyte stage.

Fern life plan

The fern lives by switching each generation between gametophyte and sporophyte stage. This life plan is called **alternation of generations**. It's characteristic of all ferns.

Common names

Cutleaf grapefern, dissected grapefern.

It's described as "cutleaf"

because it appears as if cut with scissors into frilly designs.

The name "grapefern" was inspired by the grape-y appearance of the sporangia.

Scientific names

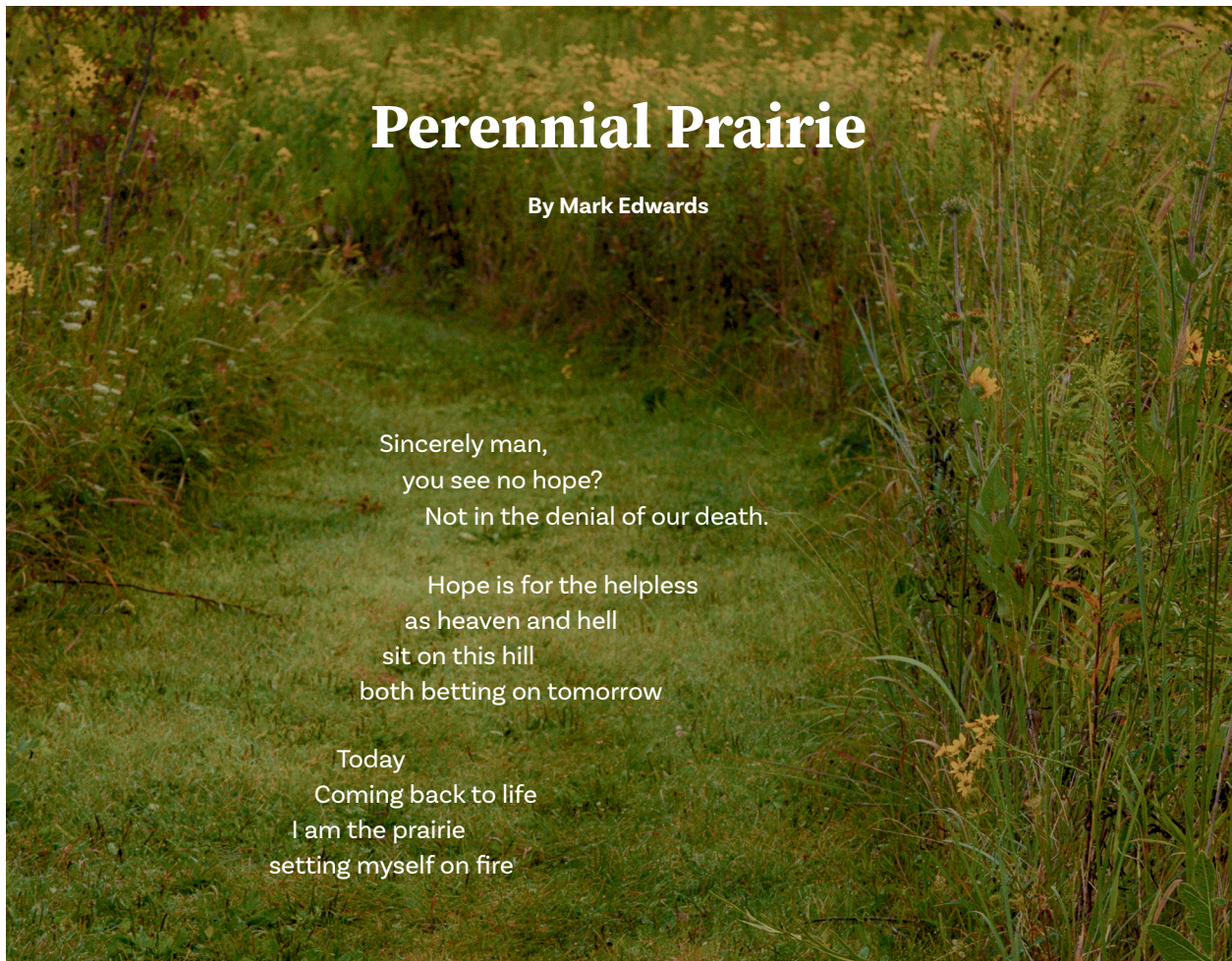
Sceptridium dissectum.

It used to be called *Botrychium dissectum*, but was renamed on the basis of new understanding of evolutionary relationships. The older name still remains

in many books and online sources.

The first part of the scientific name, *Sceptridium*, comes from a Greek word meaning scepter, from the upright, curving shape of the fertile frond.

The second part of the scientific name, *dissectum* refers to the leafy frond's ruffled appearance, which looks as if it's been cut many times. ■



Loess Hills Prairie Seminar

May 30 - June 1, 2025

"Imagining Conservation in Western Iowa"



loesshillsprairieseminar.com



Upcoming Events

Iowa Prairie Network Winter Seminar

Event Details

Iowa Prairie Network's Winter Seminar—a day of sessions and talks about Iowa's prairies. Speakers include a variety of experts on prairie ecosystems, native landscaping and prairie wildlife.

This event is free to attend, but registration is required.

Date:

Saturday, February 15, 2025

Time:

8:30am – 5:15pm

Location:

Ames High School
1801 Ridgewood Avenue,
Ames, Iowa 50010

Hosted by:

Iowa Prairie Network

More Information:

For more info and to register online, please visit <https://www.iowaprairienetwork.org/events/2025-winter-meeting>.

Iowa Women in Natural Resources 2025 Conference

Event Details

The Iowa Women in Natural Resources (IWINR) annual conference is a great opportunity for those in the conservation field (or have an interest of any kind in conservation) to network with others in natural resources across a variety of disciplines and sectors. Students are encouraged and more than welcome to attend.

Date:

Friday, February 21, 2025

Time:

9:00am – 3:00pm

Location:

Dickinson County
Conservation Maser Monarch
Lodge
22785 Nature Center Road,
Okoboji, Iowa 51355

Hosted by:

Iowa Women in Natural Resources

More Information:

For more info and to register online, please visit <https://www.iwinr.com/annualconference>.

Contact:

contact.iwinr@gmail.com

Iowa Natural Heritage Foundation Loess Hills Winter Workday (Moorhead)

Event Details

Join Iowa Natural Heritage Foundation (INHF) for a winter workday to help the native hill prairie thrive!

We'll use various hand tools (handsaws or loppers) to manually cut invasive or unwanted brush, chemically treating every stump we cut. No prior experience necessary! Instruction will be provided onsite.

Hosted by:

Iowa Natural Heritage Foundation

More Information:

For more info, please visit <https://www.inhf.org/events/eid/e18c58ab2e1acad6/volunteer/loess-hills-winter-workday-moorhead/>.

Date:

Saturday, February 22, 2025

Time:

12:00pm – 3:00pm

Location:

Larpenteur Memorial Road
Moorhead, Iowa

Contact:

Erica Place
eplace@inhf.org

Polk City Cemetery Work Day

Event Details

Help INPS President Sarah Nizzi, and Drake University Professor Dr. Thomas Rosburg remove unwanted brush and litter from this valuable remnant.

Please prepare for the event by wearing long pants, boots, gloves, and a hat. Sunscreen and bug spray are also recommended. More details can be found on our website.

Hosted by:

Sarah Nizzi, President, Iowa Native Plant Society and Dr. Thomas Rosburg, Professor, Department of Biology, Drake University

More Information:

For more info, please contact Sarah Nizzi at iowanativeplantsociety@gmail.com.

Date:

Saturday, March 8, 2025

Time:

1:00pm – 3:00pm

Location:

Polk City Cemetery
652 E Northside Drive,
Polk City, IA 50226

Contact:

Sarah Nizzi
iowanativeplantsociety@gmail.com

Iowa Natural Heritage Foundation Loess Hills Winter Workday (Ida County)

Event Details

Join Iowa Natural Heritage Foundation (INHF) for our very first workday on this Ida County property!

We'll use various hand tools (handsaws or loppers) to manually cut invasive or unwanted brush, chemically treating every stump we cut. No prior experience necessary! Instruction will be provided onsite.

Hosted by:

Iowa Natural Heritage Foundation

More Information:

For more info, please visit <https://www.inhf.org/events/eid/0ac4027c25fe9fb3/volunteer/loess-hills-winter-workday-/>.

Date:

Saturday, March 15, 2025

Time:

12:00pm – 3:00pm

Location:

Intersection of Story Avenue and 105th Street (half mile south of Washta, Iowa)

Contact:

Erica Place
eplace@inhf.org

Celebrate Iowa's Outdoors Day

Event Details

Iowa's parks, trails, wildlife, soil and water are all part of our quality of life and cause for celebration! Connect with legislators and meet other Iowans passionate about protecting spaces for outdoor recreation and caring for our natural resources. The day will feature breakfast, interactive displays, engaging speakers and the opportunity to share your own motivations for celebration.

Hosted by:

Iowa Natural Heritage Foundation, The Nature Conservancy Iowa, Iowa Bicycle Coalition, Iowa County Conservation System, Izaak Walton League, and Iowa Wildlife Federation

More Information:

For more info and to register, please visit <https://www.inhf.org/events/eid/2077337602acdb75/partner-events/celebrate-iowas-outdoors-day/>.

Date:

Thursday, March 20, 2025

Time:

7:45am – 12:00pm

Location:

Iowa State Capitol
1007 East Grand Avenue
Des Moines, Iowa 50319

Contact:

Anna Gray
agray@inhf.org

Field Trip: Hayden Prairie State Preserve*

Event Details

Please join Dr. Thomas Rosburg in the exploration of one of Iowa's most iconic state preserves in northeast Iowa. Featured spring prairie plants may include prairie smoke, shooting star, spring cress, and starry campion.

Attendees are encouraged to bring a lunch and are free to leave as needed. More details can be found on our website.

Date:

Saturday, May 3, 2025

Time:

10:00am – 2:00pm

Location:

Hayden Prairie State Preserve
Lime Springs, IA 52155

Hosted by:

Dr. Thomas Rosburg, Professor, Department of Biology, Drake University

More Information:

For more info, please visit <https://www.iowanativeplants.org/calendar/>.

***Sponsored by the Iowa Native Plant Society**

Loess Hills Wild Ones Spring Native Plant Sales

Event Details

Shop for native wildflowers and grasses at the Loess Hills Wild Ones native plant sale!

Friday's event is for members only. Members get reduced pricing and first choice at the plants. The public is welcome to shop at the Saturday morning event.

Date:

Members: Friday, May 16, 2025
at 4:00pm – 7:00pm

Public: Saturday, May 17, 2025
at 9:00am – 12:00pm

Location:

Tom & Cheri's Backyard
2801 S Cecilia Street
Sioux City, IA 51106

Hosted by:

Loess Hills Wild Ones

More Information:

For more info, please visit https://loesshills.wildones.org/events/?wo_event_id=8516.

Join the Iowa Native Plant Society!

Iowa Native Plant Society (INPS) members receive the biannual newsletter, updates on all native plant happenings across the state, and discounts on INPS merchandise.

Dues are payable on a calendar year basis (from January 1 to December 31). Annual contributions beyond the basic membership level are tax deductible (marked with * below).

**Please complete and mail this form along with your dues to:
Iowa Native Plant Society, 4486 88th Street, Urbandale, IA 50322**

Your information is *never* distributed to other organizations or companies.

For questions, please contact membership.inps@gmail.com.

Contact Information

First and Last Name

Street Address

City/State

Zip Code

Phone Number

Email Address

Membership Type

- | | | |
|--|--|---|
| <input type="checkbox"/> Basic Membership (\$25) | <input type="checkbox"/> One-Time Student Membership (\$5) (school email required) | |
| <input type="checkbox"/> Anemone (\$40)* | <input type="checkbox"/> Botrychium (\$50)* | <input type="checkbox"/> Calamagrostis (\$100)* |
| <input type="checkbox"/> Dodecatheon (\$150)* | <input type="checkbox"/> Erythronium (\$200+)* | |

Newsletter Sign-Up

I wish to receive the biannual newsletter by: Email USPS (\$10 extra)

Iowa Native Plant Society is a 501(c)(3) non-profit organization.