

IOWA NATURAL HERITAGE

WINTER 2024

Protecting and restoring Iowa's land, water and wildlife.



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INHF Land Acknowledgement:

As a land trust it is important for us to continuously acknowledge and understand the full scope of history that has brought us to reside on, protect and steward this land. The land between two rivers is home to many indigenous people, historically and today. We acknowledge the value of indigenous communities and work to honor them on the land.



ON THE COVER
A deer mouse seeks cover in a frosty field. While deer mice (*Peromyscus* sp.) aren't usually welcomed visitors in our homes, they play a key role in the ecosystem, both as a food source for predators and as seed dispersers for native plants. *Photo by Ben Neff*



Protecting and restoring Iowa's land, water and wildlife.

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Invested in Iowa, invested in the land

My father taught me to fish, hunt and camp around Mason City and Clear Lake where I grew up. During those formative years I also worked on my grandfather's farm — tending livestock and working the land provided me an early sense of our connection to the earth and all that sustains us. A man of faith, Grandpa Lehman instilled in his family, "if you love the Creator, we must be good stewards of Creation."



GREG GRUPP
Board Chair

Those values grew into a passion for the outdoors and conservation as an adult. It was during my tenure serving on Woodbury County Conservation Board and this past decade serving on the board of Iowa Natural Heritage Foundation that I gained a fundamental knowledge of land stewardship. This includes conservation practices that my family implements on our own farm and have applied to help others protect soil and water on their land.

Throughout my career as a Sioux City Banker and my years serving the Siouxland Chamber of Commerce as a volunteer board member, I also came to appreciate the value of parks, trails and wildlife areas as critical elements to economic and workforce

development. Today's skilled workforce and the companies who recruit them rank clean water and outdoor recreation highly along with access to good education, health care and affordable housing as quality-of-life initiatives necessary to consider a community for living and for capital investment. Active retirees seek the same qualities when contemplating where to enjoy their leisure years. Iowa must continue to prioritize outdoor recreation and environmental health to remain economically relevant.

American philosopher William James (1842-1910) said, "The greatest use of a life is to spend it on something that will outlast it." I do not view a contribution to INHF as a momentary gift in time. Rather, it is a gift for all time. Whether it be a sustaining membership, a contribution to fund an INHF project, a gift of land or the gift of your time or advocacy, I view it as an ownership investment in Iowa's future. Our water, our soil, our wildlife and our quality of life... for generations to come.

Following four decades of career and community service, I find myself excited and eager to serve as the newly appointed chair of Iowa Natural Heritage Foundation's Board of Directors. In this issue, we'll explore some ways that you can become owner investors of Iowa's land, water and wildlife.

Green Pastures is a 163-acre parcel of land in Dickinson County. Along with his board member duties, Greg Grupp also serves as an INHF land ambassador at Green Pastures, a property donated to INHF by Ann and Sigurd Anderson. As a Land Ambassador, Greg performs restoration work on the site and also keeps INHF staff updated on needs, issues and progress on the property. *Photo by Nathan Houck*

The explosive energy of summer is attractive. When the world is awake, we feel invigorated. But the chaos of full-tilt living cannot persist. This is a truth purported by nature. For every summer, there must come a winter. For every endless sun-soaked day on the prairie, there must be a whiteout blizzard that forces us to bundle up and stay home.

The first snowflakes of winter signify a time to rest and reflect. The energy that has been spent all summer needs to be recharged. Though it may not always feel like it, daylight gets longer every single day of winter, contrasted by summer where every day is shorter than the last as energy is squeezed from the sun. Winter is the great rebuilding.

Iowa's prairies are lovers of winter, so much so that many seeds need a period of intense cold before they can germinate, otherwise known as 'cold stratification.' Because of this, frost seeding, or planting prairies in the winter, is a common practice. The seeds pick up moisture when nestled in packed snow and slowly work their way into the soil with each freeze-thaw cycle. It's only because of winter that these seeds can burst forth with energy in summer.

Prairies teach us a different perspective of winter. This season is meant for quiet ponderance and relishing in slowness. We have the time to rethink, rebuild, and recharge in preparation for a beautiful season of growth. Winter is the season where seeds are planted so life may thrive. When next you look out over the frosty landscape of Iowa, think of those tiny seeds savoring the freezing cold, knowing they will take root in the months to come.

— EMILY MARTIN,
Conservation Programs Coordinator

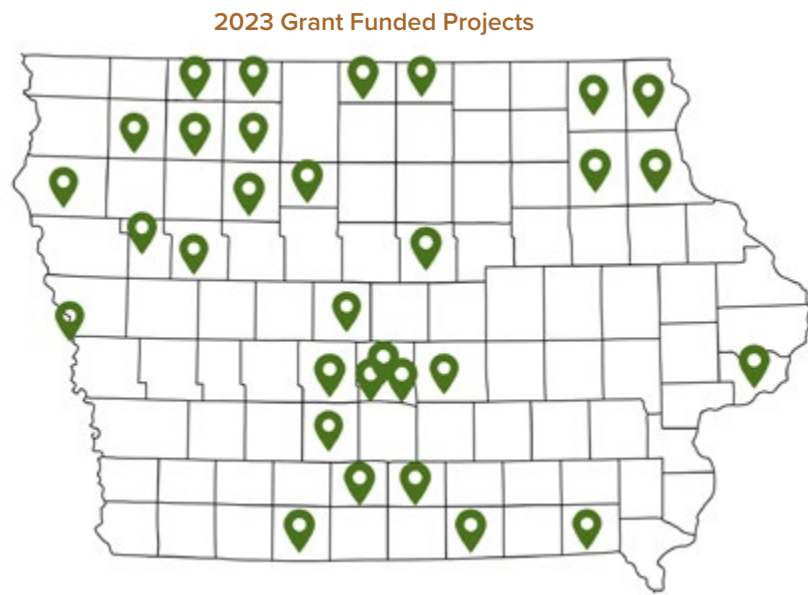


Look closely at the seed heads of wild bergamot (*Monarda fistulosa*). Small tube like structures, called a calyx, hold even smaller seeds. Although winter may seem drab and dull, a few seconds of contemplation can reveal an array of muted colors and interesting textures and shapes, even in a sleeping prairie. *Photo by Sydney Algreen-Hunter*

Leveraging your support through grants

INHF was recently awarded a grant through the REI Cooperative Action Fund, which is a community-supported public charity bringing together the collective strength of the community to support organizations that are improving the well-being of people through time outside. INHF plans to use these dollars to engage underserved communities and increase access to outdoor spaces.

INHF is writing and applying for grants year-round, leveraging the gifts you make to support our programs and projects across the state. In 2023, INHF and our partners were awarded \$2,212,301 for projects across the state.



Mighty oaks from little acorns grow



Acorn Crew is INHF's initiative to get children and families outdoors and exploring nature, together! Our free activities and resources will help you tap into the enormous potential of our future conservationists. Find coloring pages, scavenger hunts and more at inhf.org/acorn-crew.

The What's Good Project

As part of The What's Good Project, a collection of artworks inspired by conversations with folks across the country about what they feel is good in their communities, Iowa artist Jennifer Drinkwater donates a portion of the sales back to those communities. This winter, twenty percent of the profits from her limited-edition print titled "Snow Prairie" will come back to INHF, helping us accomplish more through the power of art.

UPCOMING EVENTS

WINTER WORKDAYS

JANUARY 27
Smokey Hills Complex (Loess Hills)
Moorehead

JANUARY 31
Brandes
Cedar Falls

FEBRUARY 8
Snyder Heritage Farm
Elkhart

FEBRUARY 10
Smokey Hills
Monona Co.

FEBRUARY 22
Perkins Prairie Preserve
Jefferson

MARCH 2
Mathes
Pella

MARCH 16
Loess Hills
Turin

OTHER EVENTS

JANUARY 19-20
Practical Farmers of Iowa Conference
Des Moines

JANUARY 27
Iowa Bike Expo
Des Moines

JANUARY 27
Pheasants Forever State Conference
Des Moines

For more information, and other upcoming events, visit www.inhf.org/events

QUARTERLY PROTECTION REPORT

A quick look at new INHF protection projects and land transferred between **August 1–October 31, 2023.**

Newly protected areas

Madison County
107 acres protected through an Agricultural Land Easement (ALE) near Cumming in Madison County. Located within the Bader Creek – North River watershed and in one of the fastest growing areas in the state, protection of the perennial habitat will benefit water quality and preserve wildlife habitat. (ALE partially donated by the McLaughlin family and grant funding provided by the Natural Resources Conservation Service)

Story County
23 acres of restored grassland and woodland edges near Cambridge in Story County. Provides quality habitat for wildlife and protects riparian corridor along the South Skunk River. (To be owned and stewarded by INHF)

Howard County
80 acres of woodland bisected by the Upper Iowa River near Chester in Howard County. The riparian corridor provides habitat for species like Green Heron, Belted Kingfisher and mink, and its protection will maintain a scenic viewshed from the river and benefit water quality for those downstream. (Proposed public partner ownership)

Monona County
More than 347 acres of Loess Hills prairie and woodland near Rodney in Monona County. High quality remnant prairie, indicated by the presence of species like locoweed, yucca, prairie larkspur, and skeleton weed, covers its ridges. The balance of the property contains high quality woodland with an open understory. (Proposed public partner ownership)

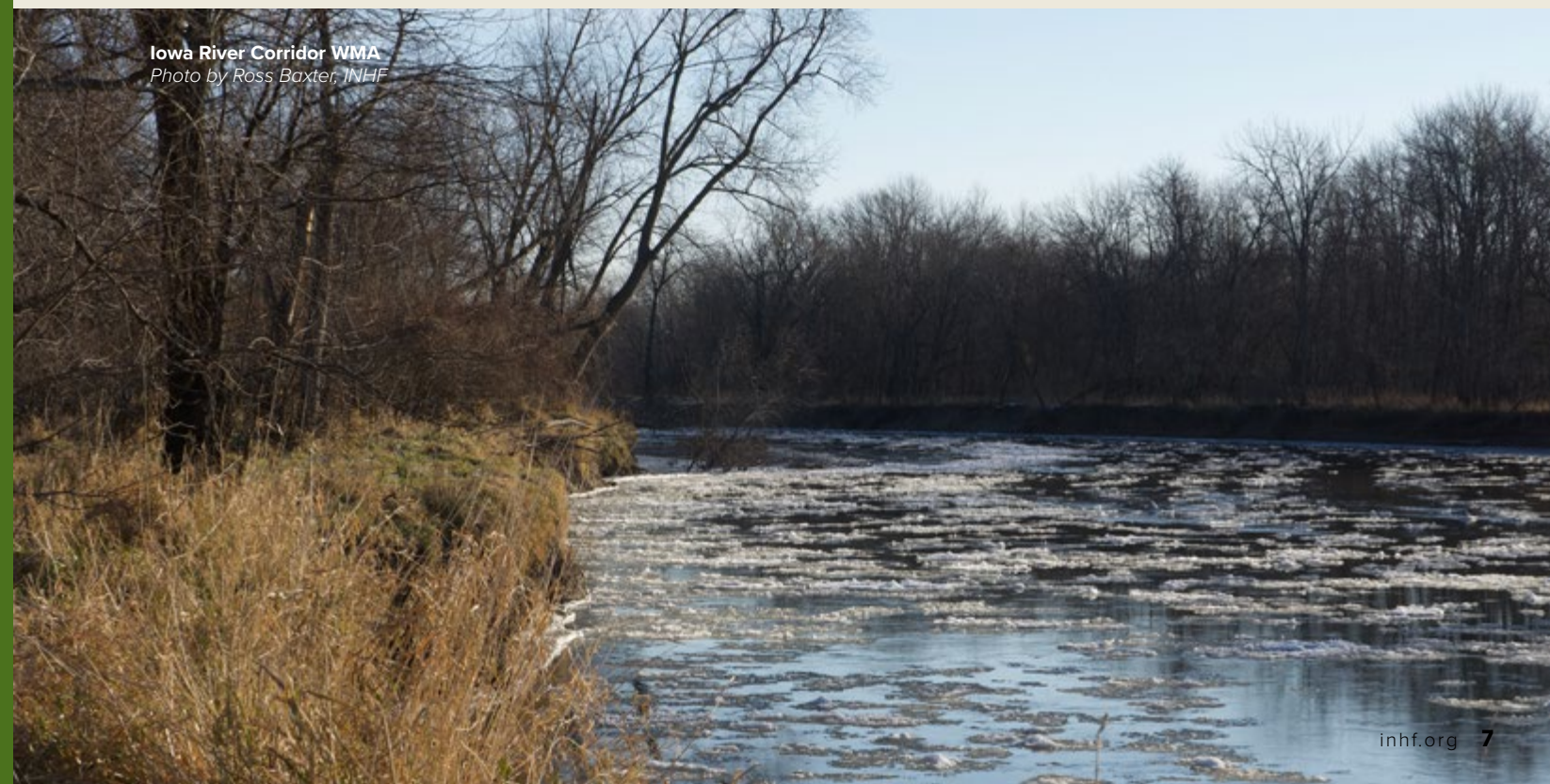
Boone County
Twenty acres of existing and restorable wetland habitat adjacent to Harrier Marsh near Ogden in Boone County. Located in a Prairie Pothole Joint Venture priority area, its protection and restoration secures critical habitat for species like Yellow-headed Blackbirds and Blue-winged Teal, and builds on existing recreation opportunities. (Proposed public partner ownership)

Land transfers to public partners

Brown's Lake WMA Addition
A one-acre parcel crucial for the management of Brown's Lake WMA and Bigelow Park in Woodbury County. Protection of this piece will improve outdoor recreation opportunities for park users. (Owned and managed by Woodbury County Conservation)

Kirke Woods WMA
Partial transfer of a 684-acre wooded property near Bevington in Madison County. In an area with increased development pressure, its protection safeguards upland woodland and floodplain habitat along three miles of the North River and provides added water quality and quantity benefits. (Owned and managed by the Iowa Department of Natural Resources)

Iowa River Corridor WMA Addition
516 additional acres of wooded oxbows along the Iowa River near Chelsea in Tama County. Connects large tracts of existing public land, creates larger travel corridors for wildlife and protects sensitive floodplain habitat. (Owned and managed by the Iowa Department of Natural Resources)



Iowa River Corridor WMA
Photo by Ross Baxter, INHF

Protection Patchwork

Building on existing habitat for a more resilient landscape

BY ERICA PLACE
Communications Specialist | eplace@inhf.org

Best known for expansive prairie landscapes and fragile, windblown soil, Iowa's Loess Hills also boast large tracts of forest. The north and east slopes of the steep ridges, shielded from the hot afternoon sun and strong winds, historically supported woodland communities. Combined with the prairie on opposing slopes and savanna in between, the mosaic landscape offers countless outdoor recreation opportunities and food and shelter for a wide array of wildlife. Around 11,500 acres of this mixed habitat now make up the Loess Hills State Forest, a patchwork of protected land in Harrison and Monona counties.

Room to Roam

Like our other state forests, the Loess Hills State Forest is managed by the Iowa Department of Natural Resources with a handful of environmental and economic goals in mind. In addition to safeguarding Iowa's timber resources, the state forests provide rugged outdoor experiences and protect water quality and contiguous, diverse wildlife habitat.

Photo by Carter Oliver

How habitat is arranged is as important as quality or quantity. Plant and animal populations tethered to postage stamps of habitat are isolated and segmented. Without a connection to other pockets of the woodland, prairie or wetland they need, individuals are less able to cope with challenges like disease, severe weather or predation. Corridors of protected land, like in the Loess Hills State Forest, give plants and animals room to move. Projects that connect existing habitat are a high priority.

Wildfire Strikes

On April 13, 2023, a large portion of this state forest and the surrounding area was reminded of the importance of contiguous habitat and how quickly things can change. The prolonged drought had made things critically dry, and a combination of dangerous temperature, humidity and wind conditions meant there was high risk for extreme fire danger. It was no surprise when trash set ablaze on private property just southwest of Preparation Canyon State Park escaped the burn barrel.

The Loess Hills Fire Partners — a highly skilled group of firefighters from various local conservation organizations — sprang into action. Private residences, the Scenic

Overlook platform and the state forest at large were all in jeopardy. Fifty-eight conservation professionals across western Iowa, including INHF staff, worked 28 hours straight to contain the fire, which ultimately burned 3,770 acres. The intensity of this fire was different than what you'd see in a prescribed burn meant to invigorate native species. It was unprecedented.

"This was a catastrophic, stand-replacing wildfire," said Jeff Seago, DNR Area Forester for the Loess Hills State Forest. "We think somewhere in the neighborhood of 640 acres of trees were immediately killed or mortally wounded. That's a square mile."

Wildlife able to flee found reprieve in the parts of the complex the fire didn't reach, but the area saw significant deciduous tree mortality and scorched earth completely void of life. The top couple of inches of soil were essentially cooked. Weeks after, when you'd expect to see things resprout, the land remained black. At the time of the fire, it's estimated that bur oak (*Quercus macrocarpa*) and black walnut (*Juglans nigra*) barks' moisture content was hovering around 17%. By comparison, quality seasoned firewood has a moisture content of 20% or lower. The forest was one big bundle of kindling.

The badly burned areas, now largely a blank slate, will face substantial challenges with invasive species such as black locust (*Robinia pseudoacacia*). Seago and others will have to implement heavy-handed strategies to salvage residual timber and help the forest recover. As devastating as the wildfire was, there are some silver linings.

"This gives us the opportunity to create larger blocks of young forest relied upon by declining species like Eastern Whip-poor-will (*Antrostomus vociferus*) and Northern Bobwhite (*Colinus virginianus*). It will also mean better connectivity between existing prairie areas, so pollinators and other grassland dwellers have safer travel corridors," Seago said.

Puzzle Piece

Just north of Pisgah and straight east of the Little Sioux Scout Ranch, a nearly 1,800-acre scout camp that INHF purchased in 2022,



The Jones Creek Wildfire severely burned the landscape in much of the Loess Hills State Forest. Subsequent reforestation and land stewardship will create habitat for declining species like the Northern Bobwhite. Top photo by Pete Hildreth, Iowa DNR; bottom photo by Larry Reis.



lies a 191-acre property in the heart of Loess Hills woodland. Its bur oak forest and prairie remnant ridges had been well cared for; species like locoweed (*Oxytropis lambertii pursh*), Missouri milkvetch (*Astragalus missouriensis*) and skeletonweed (*Lygodesmia juncea*) point to its quality. Despite a long history of prescribed fire on the property, a portion of the woodland was badly burned in the Jones Creek Wildfire. An opportunity to permanently protect the property came up late last summer when it was listed for sale, and agreeing they'd rather not see the property subdivided or the grassland removed, the family chose to sell to INHF.

"It's good to know this habitat can remain contiguous," said Kody Wohlers, INHF's Loess Hills Land Stewardship Director. "Puzzle pieces like this mean plants and animals can move freely and it gives land stewards options for more holistic natural resource management."

It's among the most recent of INHF's protection projects in the Loess Hills; more than 75% of this Special Landscape Area — one of twelve areas recognized by the National Park Service that signify especially important natural lands — is unprotected. But through projects like this and land voluntarily protected by private landowners with conservation easements, we and other conservation partners across the Loess Hills are working to fill in this patchwork of protection so the landscape is resilient, even when disaster strikes. 🌱



Who speaks for nature?

Everyday Iowans are advocating for Iowa's land, water and wildlife. You can, too.

BY JOE JAYJACK
Communications Director | jjayjack@inhf.org

What does advocacy for Iowa's land, water and wildlife look like?
It looks like you.

When you think about the beauty of your favorite place to get outdoors or the necessity of vulnerable plants and animals in our ecosystems, it may seem like these things speak for themselves. But the truth is they need an advocate.

They need someone that can inform lawmakers about the importance of conservation, preserve the programs and policies that work well, and advance new opportunities that enhance our quality of life by investing in our natural resources. They need you.

"Shaping public policy that reflects our values requires public input," said Anna Gray, INHF Public Policy Director and Counsel. "Consistent advocacy and engagement are central to creating a vision for our future and lending a voice to the voiceless."

While advocacy can take many forms, it is most effective when it is authentic. Talking directly with your legislators about what you care about — how policies affect you and your community — is the best way to affect change.

INHF speaks up for good conservation policy in Iowa, and we're fortunate there are many individuals that do the same.

Making a difference

Advocacy seems to come naturally to Heath Stolee, who farms in Hardin County and works at the USDA National Centers for Animal Health in Ames. If there is something he cares about, he talks to the people that can make a difference.

In 2009, Stolee was frustrated by the process veterans like himself had to go through to get financing to buy a home. He worked with State Sen. Annette Sweeney, who represents his district, to introduce a bill that changed the rules for veterans applying for home loans, making it easier for them to get competitive rates and terms. The bill passed unanimously, and Stolee attended the bill signing.

He said most of his advocacy involves "spreading the word of conservation and what it does for the community and the landscape." Stolee has hosted numerous field days and trips to his farm to showcase the water quality and wildlife benefits of the wetland that was constructed with the help of the Conservation Reserve Enhancement Program (CREP). He regularly invites policymakers and leaders of commodity groups to his farm, and he's active in habitat protection efforts with his local Pheasants Forever and Ducks Unlimited chapters.

That was why Stolee felt compelled to advocate for nature once again when a bill was introduced last spring that was intended to halt the growth and enhancement of Iowa's public parks, trails and wildlife areas. Senate File 516 would have created unnecessary burdens for agencies and communities working with willing, private landowners who want to protect land and contribute to Iowa's open spaces and recreational opportunities.

"In learning about the file that was being headed up in committee by my own state senator, I felt that it was prudent that I go down and speak," said Stolee, who spoke passionately about how agriculture and conservation can work hand-in-hand, without limiting new opportunities for outdoor recreation. "Conservation and habitat are important to me and it seems that we lose more than we gain every year. We must continue to fight for it!"

The bill passed out of the Senate, but failed to advance in the House despite being introduced in multiple committees. However, it is likely that a similar bill targeting Iowa's public parks, trails and wildlife areas could be introduced again this year. And Stolee will be ready.

"There has to be a voice for these important issues. In every group, there is someone who steps up and is able to speak for others and share a common vision," he said. "We have to have habitat on the landscape that is protected for our wildlife to thrive and people to enjoy."

An evolution in advocacy

Sarah Nizzi grew up on an acreage in Waukee next to her family's iconic restaurant, Alice's Spaghettiland. She says that spending time outside has been a staple in her life for as long as she can remember. Her love of nature led her to earn a degree in environmental science and to work in the field, currently as a pollinator conservation specialist with the Xerces Society for Invertebrate Conservation.

While she has always followed political issues, she said that for years her only advocacy was through voting. "I vividly remember voting yes to the create the [Natural Resources and Outdoor Recreation Trust Fund] in 2010," Nizzi said. "It was not until I was in my late twenties and early thirties I began doing more and paying closer attention to the issues related to conservation. Getting involved with organizations who prioritize policy has helped me stay on track."

Following issues that affect conservation has allowed Nizzi to stay engaged by having direct conversations with local policymakers, contacting state and federal legislators by email, and attending lobby days at the state Capitol. "It can be difficult to attend lobby days or meet with legislators in person, but making an effort any way you can helps."



INHF 2024 Legislative Priorities

Public policy and funding have a significant impact on how our natural resources are used, managed and protected. Iowa Natural Heritage Foundation will continue to advocate for Iowa's land, water and wildlife and for our right to do good work with our conservation partners. Here are a few of the programs we'll be advocating for this session:

Resource Enhancement & Protection (REAP)

REAP invests in the enhancement and protection of the state's diverse natural and cultural resources. REAP has supported over 15,000 projects across the state in each of Iowa's counties. We are asking that REAP be funded at its authorized level of \$20 million.

State Recreational Trails Program (SRT)

Iowa's SRT has leveraged private and public funding to construct over 2000 miles of trails. SRT is a competitive grant program to support local communities. SRT averages funding of \$2 million per year, but requests are regularly made for eight times that amount. We are asking that funding be increased for SRT.

Natural Resources & Outdoor Recreation Trust Fund

Iowa voters approved a constitutional amendment in 2010 to create the Trust Fund, a dedicated funding source to improve water quality, protect our soil, enhance wildlife habitat and increase recreational opportunities, but it has never been funded. We are asking the legislature to finally fund the Trust.

The Trust Fund that Nizzi, along with 63 percent of voters in Iowa, created through a constitutional amendment in 2010 still exists today. But it has never been funded because it requires a sales tax increase of 3/8 of one percent, something the Iowa legislature hasn't enacted since it was created.

"Advocacy can be time consuming and at times frustrating, but it is critical to be engaged and informed. We can't give up fighting for conservation," Nizzi said.

While Nizzi's advocacy has evolved — including considering running for office herself someday — she says it's important to continue to be a voice for nature.

"I believe change happens from the ground up. I encourage anyone who values nature to vote at all levels of government. Policy is so important when it comes to preserving nature and advancing conservation and recreation. I would also encourage advocates to consider running for office." 🗳️

NATURE'S PUZZLE

Identifying trees in winter

CONTRIBUTED BY JOE HERRING
District Forester for the Iowa Department of Natural Resources

“So then what does a forester do in the winter time? You know, when the leaves are all gone and you can’t identify the trees?”

I remember being surprised the first time someone asked me this question. Winter, after all, is really the best time to be in the woods observing and taking inventory of the trees, identifying issues and maintenance needs and ultimately conducting management prescriptions such as thinning or harvesting. Like a heavy fog that has lifted, the winter forest scene provides 20/20 vision after the dense summer foliage has given way.

In order to “see the forest for the trees” during the dormant season, it does take some botanical teaching and practice. Winter tree identification commonly combines observations of bark color and texture; twig patterns and leaf scars; the size, color and shape of buds; attached fruit, nuts, leaves, or seeds; and overall size and shape of the tree. It’s no surprise that most people don’t venture further than the green summer leaves of maples or oaks when learning about tree identification.

But for the hardy adventurer, a winter hike or snowshoe through an Iowa forest can be a magical and rejuvenating experience. Learning to identify even just one or two of the most common trees that you encounter, as well as their ecological connections to the

wildlife and other parts of the forest, will make the experience so much richer. For example, once you learn that those wicked thorns on the Honey Locust evolved as a way to protect them from grazing mastodons and other megafauna of the Pleistocene, you will continue on your snowy journey with a little more appreciation for that tree species’ natural adaptations.

Here, I’ll shine a light on a few of the key characteristics of some of my favorite trees in winter.

1. Swamp white oak (*Quercus bicolor*)

These trees are becoming more common in our urban areas, and I could not be happier about that. They are an excellent all-around shade tree. In winter, look for orange leaves that are still attached all the way until spring. The leaves are diamond-shaped and have very shallow, serrated lobes like the teeth of a saw. The upper branches have “exfoliating” bark that peels off and reveals green color beneath. Most of these trees will be small or medium in size because they’ve only become popular to plant in the past thirty years or so. They tend to have very straight, vertical trunks compared to other oak species.

2. Hackberry (*Celtis occidentalis*)

Unbeknownst to many but extremely common, Hackberry is a very easy tree to

learn due to its unique “warty” or corky bark. Hackberry can be easily found in most forests as well as along streets and neighborhoods. The small berries, which are pea-sized and purple, often stay attached long into winter and provide food for Northern Cardinals, Northern Flickers and other birds.

3. Linden/Basswood (*Tilia americana*)

Basswood tends to be found in older, mature woodlands as it is a shade-tolerant, late-successional tree. Here, they are often found growing in clumps of multiple stems. But this beautiful shade tree can also be found planted along city streets or in yards. A key identifying characteristic is the bud, which is nearly globe-shaped, smooth and distinctively bright red in color. The bark on young trees is light gray and smooth (and is usually rubbed by deer), but on older trees will be shallowly furrowed with long, narrow, parallel ridges.

4. Bitternut hickory (*Carya cordiformis*)

Unlike its more commonly known shagbark companion, this widespread hickory has very smooth, tight bark. Its most unique trait is its bright yellow, mustard-colored buds. The trunk is nearly always very straight and vertical, and often will have noticeable concentric “rings” encircling it at higher points. These are an interesting response of the tree to the



Dr. Paul Wray,
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systematic horizontal pecking of Yellow-bellied Sapsuckers, a type of woodpecker.

5. Eastern white pine (*Pinus strobus*)

Our only native pine tree found naturally in northeast Iowa, the beautiful white pine has been planted all across the state in windbreaks, cemeteries and cities. Besides the dark green and very soft, flimsy needles, the best way to make a positive identification is that its needles come in bundles of five. Most other pines planted in Iowa (Jack, Red, Scots) will have needles bundled in groups of two. Its narrow, 8-to-10-inch cones are also unique to white pine.

6. Ironwood (*Ostrya virginiana*)

These small or medium trees are found widely across the state growing in the shady understory of many mature uplands. A key winter ID feature is the orange-brown leaves that remain attached through most of the winter—once your eye becomes trained to this, you'll see ironwoods everywhere! The bark on mature trees develops very narrow, long rectangular strands that can be shaggy and peel off with a gentle rub.

7. American bladdernut (*Staphylea trifolia*)

This native shrub occurs sporadically in

mature forests across the state but would be hard to identify if not for its unique seed pods. After its clusters of bell-shaped white flowers have completed their cycle in the spring, air-filled seed capsules with three distinct papery compartments are borne and remain attached well into the winter. The shrubs can form thickets or colonies that are often found near tributary streams, but also sometimes on upland sites. Winter twigs are reddish or greenish brown with white stripes and have buds directly opposite of one another.

8. Black cherry (*Prunus serotina*)

Many people don't know just how widespread and common our native wild cherry is. Growing tall, its trunk is dark black in color and older trees sport scaly, textured bark reminiscent of corn flakes cereal. Young trees and twigs are smooth, gray and have many white spots called lenticels. The leaves and flowers of the cherry and its shrubby relatives (chokecherry, pin cherry, and plum) are all very important for pollinators and caterpillars.

9. Elderberry (*Sambucus canadensis*)

This is another common shrub found across the state in floodplain forests, wet riparian zones and brushy ditches. In winter, elderberry

stands out for its white colored stems and twigs with prominent bumpy lenticels. The twigs and buds attach in "V"s opposite one another. In late winter you'll often see heavy deer browse on the twigs of this shrub.

10. Honey locust (*Gleditsia triacanthos*)

Found prominently in forests that used to be pastured, this tree is known for its conspicuous woody thorns and 8-12-inch-long flattened leathery seed pods that can hang on late into winter. The bark of older trees is very dark colored and often has long upturned ridges. However, not all trees bear seed pods (there are separate female vs. male trees); and, some specimens do not have any thorns, a genetic variant known as *Gleditsia triacanthos* var. "inermis", a latin word meaning "unarmed."

11. Kentucky coffee tree (*Gymnocladus dioica*)

An increasingly common tree to use for urban plantings, this legume also has unique bean pods like its relative the honey locust; however, the pods on this species are much shorter and fatter at 4-6 inches long and are more football shaped. Note that there are male trees and seedless cultivars which would not bear pods. The other standout trait of the coffee tree in winter is the combination of its scaly bark coupled with an austere crown of

stout, thick and crooked branches.

12. American sycamore (*Platanus occidentalis*)

The mighty sycamore stands out as a giant, attaining some of the largest heights, trunk diameters and leaf sizes of any native tree. Distinctive chalky white bark on the upper branches and trunk is exposed behind peeling layers of brownish bark, while golf ball-sized seed balls hang from the tree like ornaments all winter. You can find this tree generally in the southern half of Iowa along streams and rivers, but it and the hybridized London Planetree variety are sometimes planted in urban spaces, too.

Identifying trees and shrubs in winter is a challenging but fun skill to learn. Attending a forestry field day or just spending time hiking with a knowledgeable botanist, forester, naturalist or gardener is a great way to start learning. For more information on winter or year-round tree identification, check out *Forest and Shade Trees of Iowa* (Third Ed.) by Van der Linden and Farrar, or the Iowa State University Forestry Extension webpage. For history-minded plant lovers, the Iowa State College Extension Circular 246 by J.M. Aikman and Ada Hayden (1938) is a fascinating document, with original twig drawings by Dr. Hayden.

'Iowa's past holds lessons'

Cathy Irvine is looking to Iowa's prairie past to create promise for our future

BY GRETA SOLBRIG
Communications intern

Having grown up in a family with an appreciation for nature and outdoor activities, Cathy Irvine has spent her life connected to the land. She took extra steps to ensure nature was part of her students' understanding of the world throughout her career in special education in the Waterloo school district.

"I thought it was important for children to be outside," Cathy said. "We always planted a tree on Arbor Day, planted flower bulbs in the fall, had plants on windowsills."

She and her late husband David made their home on the Irvine family farm, more than 400 acres of rich agricultural land in Benton County. David had a deep love for the land, for Iowa and its history. The decades

spent together on the property deepened that connection for both of them. But a simple road trip and a good book would ignite a curiosity and change the trajectory of that farm.

"We had read John Madson's 'Where the Sky Began,' and it was pivotal," Cathy said. "We were fascinated to think how Iowa looked when Europeans first arrived."

Around that same time, the couple traveled to Neal Smith National Wildlife Refuge in Jasper County to visit the bison, elk and expansive prairie. It was on this trip they first became aware of how much prairie had been lost and the efforts to bring prairie back. The couple found themselves drawn to the rich biodiversity that once flourished on the land where they now lived.



Top: Laura Jackson of the Tallgrass Prairie Center, Cathy Irvine and Erin Van Waus of INHF together at the signing of the second donation and conservation easement on Irvine Prairie in 2023. **Right:** Cathy Irvine spreads prairie seeds at the dedication of Irvine Prairie in 2018. **Below and left:** Irvine Prairie in full summer bloom. The prairie is being restored in stages while being used as a research and education tool for students. *Photos courtesy of UNI*



After David's passing, Cathy felt the urge to transform their passion into something tangible.

"The strongest instinct I had was to preserve something he loved about living here," Cathy remembers. "Iowa's past holds lessons. We need reminders of what allowed Iowa farmers to do such a good job of raising healthy crops."

With her background on nurturing students and the couple's long history as INHF supporters, Cathy knew which organizations to pull together to discuss her goals. The University of Northern Iowa's Tallgrass Prairie Center (TPC) would be the perfect entity to steward the area with student involvement. In 2018, Cathy donated 77 acres of the Irvine Farm to INHF, who then transferred the land to TPC subject to a conservation easement.

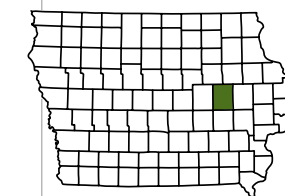
"Conservation easements restrict what can and cannot be done on the land in the future," explained Erin Van Waus, INHF Conservation Easement Director. "With this legal tool, the Irvine Prairie will remain prairie forever, regardless of future ownership."

But there was still a prairie to build.

"There's more to it than buying seed and scattering it around," Cathy said.

Cathy worked with Laura Jackson, biology professor and TPC Director, and others at the prairie center to evaluate the best course of action for the planting process. The land would be restored in distinct phases, splitting up the job into smaller, more manageable plots. First, the land was evaluated to determine the species the soil could support, along with consideration of what plants are most

Irvine Prairie Benton County



LAND: 292 acres of prairie — restoration in progress

SPECIAL FEATURES: Conservation easement permanently protects prairie, while providing education space for students

PARTNERS: Cathy Irvine, INHF, Tallgrass Prairie Center



Above: Union High School students learn about prairie planting and restoration at the dedication of Irvine Prairie in 2018. **Left:** Cathy Irvine donated two properties totaling 292 acres to the University of Northern Iowa Tallgrass Prairie Center. Both properties are protected by conservation easements held by INHF. *Photos courtesy of UNI*



“My vision twenty years from now is that young families will come out and their mom or dad will say, ‘I planted this prairie,’ and they will have that ownership.”

– CATHY IRVINE

successful in prairie reconstructions. Justin Meissen, TPC’s Research and Restoration Program Manager, designed the first seed mix to include a wide array of forbs, sedges, grasses and legumes. Cathy herself is very knowledgeable about the flora and fauna of prairie ecosystems and made sure species like rattlesnake master, golden alexander, compass plant, and aster varieties were in the mix.

“You can’t choose just one plant as a favorite. There’s something spectacular in every season,” said Cathy. “It’s all beautiful.”

The planting methods varied, including techniques ranging from no-till seed drilling to transplanting seedlings. Cathy remains consistently involved with the planning meetings and hands-on work, helping with mowing and watering when needed.

The large-scale restoration project has yielded many learning opportunities for the planters and caretakers. Data has been

gathered every step of the way, providing insight to how species germinate and respond to different practices.

“It is very unusual to have so much documented information about how the work is conducted,” said Laura.

Such a complete data set is also beneficial for studies on prairie’s efficiency in carbon sequestration. Lara recently attended a master’s thesis defense on the study of the prairie’s soil, which demonstrated that each hectare of the land is storing the equivalent of carbon emissions from one car.

Leaning into Cathy’s hope that this be a place for learning, TPC views the prairie as an educational resource for students to directly observe the effects of seed mix design, prairie diversity and evolving restoration techniques. Student workers, along with volunteers at TPC, have had the opportunity to assist in vegetation monitoring, taking photo points



Left: Cathy Irvine enlisted the help of local artist Adam Eikamp to paint an old silo on her property, displaying all of the unique beauty prairies have to offer. *Photo by Erin Van Waus*

Below: Irvine Prairie in bloom this summer. *Photo courtesy of UNI*



and participating in prescribed burns on the property. Irvine Prairie has already been incorporated into restoration ecology and wildlife ecology course curriculum, and UNI has incorporated three camera traps which have captured thousands of photos of the wildlife species who have already moved in. High schools such as Union High have also gotten involved with the project, transplanting hundreds of plants on the property.

“My vision twenty years from now is that young families will come out and their mom or dad will say, ‘I planted this prairie,’ and they will have that ownership,” Cathy explained.

A few years later, with the prairie restoration well underway and students and faculty learning alongside one another, Cathy again chose to make a gift. She donated another 215 acres of the Irvine farm — more than tripling the size of this teaching laboratory — so more prairie can take hold.

Restoration work is already in full swing.

“We are incredibly honored and privileged to work with Cathy and help make this dream a reality for her and for the whole community — the people and the wildlife,” said Laura.

Through an effort to merge a resplendent past and budding future, she is sowing the seeds for a more diverse Iowa landscape. The ever-enduring legacy of the Irvine family will extend for generations to come and help cultivate a state-wide passion for prairie ecosystems. Cathy’s vision and collaboration with UNI students has made the Irvine prairie a beloved piece of the Benton County community, who can immerse themselves in nature and enjoy the outdoors closer to home. Cathy’s exemplary stewardship will remain an example to those passionate about restoration.

“We need to be resilient in planning and thinking ahead,” urged Cathy. “The best way to do that is by looking back.” 🌱

Protect the land you love

Learn more about land donations, conservation easements and other ways to protect the land you love at IowaLandOptions.org

The RIPPLE EFFECT

BY KEVIN CUTSFORTH
System Administrator | kcutforth@inhf.org

In the ten years INHF's volunteer program has formally existed, it has engaged more than 7,000 people. Some interactions are brief, sharing just an hour or two while pulling garlic mustard or collecting prairie seeds. But sometimes, like a stone tossed into a pond with a sudden plunk, we watch the ripples of their involvement grow.

Back in 1970, Richard and Erna Kuehl set aside a piece of their family's cropland to build a pond. The fresh new pond looked a bit lonely, so they put a few walnut trees around it—but their work here was far from over. This 40-acre plot emerged as a family project decades in the making: the Kuehls, including daughters Tracey and Lisa, planted all manner of shrubs, flowers and trees to diversify and expand this growing sanctuary. As the years went by, this oasis became a powerful symbol of their family's shared love of nature and wildlife—binding generations in a physical space.

"It has been an unbelievable journey to grow up there as a little kid and see it transform from a naked pasture with nothing on it except a little creek to what it's become today," Tracey said. "It's been a privilege."

Richard Kuehl and his family graciously donated this land to INHF so that their family monument will not only remain but continue to grow. For Tracey, protection wasn't the end of the story. She's still volunteering her time as a land ambassador, helping staff steward the land to build and maintain this piece of her family's legacy. And beyond that, she wants to spread the word.

"My father had hoped this place could be used for public education one day, so if there was a way to use it to help people learn, that would be the icing on the cake for my family," Tracey said.

Tracey continues to live her family's passion while her volunteerism is benefiting more lives—humans, plants and animals alike.

David Marlow met his late wife Anna

Gardner at a pivotal time in his life. He'd spent his youth watching critters and climbing fences, but when David moved off the family farm and started school at Iowa State University, his connection to nature started to fray. When Anna came along, she brought him back to nature and introduced him to the finer points of species identification and diversity—Anna was a student of ecology and biology but also specialized in art, and she drew David into her world. Her father sold them some of his land, which became their haven for more than 20 years together. Her mission and passion became David's too, and before she passed in 2006, he promised that the land that meant so much to both of them would be protected.

Their land, now safeguarded with a conservation easement, sits adjacent to an 80-acre parcel Anna's father, JH Gardner, donated to INHF in 2009 in her memory. David's proximity and long history of helping JH tend to that land beckoned him into a new role: historian, guide and cheerleader. He now regularly partners with INHF to engage hordes of college students in ISU's Natural Resources Ecology and Management program in restoration activities to learn by doing.

"With the volunteers from Iowa State and INHF, we've been able to clear invasive species and cedar trees and expand the prairies," said David. "But it's not all work. We get to sit and enjoy the view and all the things that we discover there. Last fall, we got to see a flock of Sandhill Cranes fly over us while we were working out there, so we never know what exactly we're going to find but it's always interesting and it's always, always good."

David shares stories about his life on the land and the discoveries he's made with the students—pulling them into Anna's world just as she did for him decades ago. Through engaging others in what he loves, he's fostering new generations of passionate conservationists.

Even at a young age, Cindy Burke's mission in life was to help others. She was always rescuing baby birds or raccoons that were injured or orphaned and finding ways to help them get back into the wild. Her desire to help has expanded in scope throughout her life, from a career as a therapist to her efforts to preserve habitat and open space. As a landowner, she felt a personal responsibility to make sure the land supported people and wildlife into the future, which led her to INHF.

"When I reached out to INHF about protecting my property, they said, 'What do you want long term, and how can we help you?' and that really drew me in," Cindy said.

Heartened by the shared values and with a driving desire to give back, Cindy joined INHF's board in 2015. She's spreading the word to her neighbors about how INHF can help them, too.

"I've helped one neighbor protect their property, and I'm working with a couple of others," Cindy said. "Before I'm gone, I hope to help protect another 1,000 acres. I think I can."

As for the animals that inspired her to

devote her life to helping others all those years ago? "I'm working on turning a barn into an animal rehabilitation/reintroduction center," Cindy said. "I want to make it a place where we can help animals, but also educate kids about nature and wildlife in Iowa."

Cindy's intersection with INHF is drawing others into the work, lifting the mission and helping others imagine a better Iowa for the future.

We can never be sure how big of a splash we might make, or how far those ripples can go. Some of us are born with a need to serve, others are pulled in by loved ones, and some do it without even meaning to. However you serve nature, INHF is proud and grateful for all of our supporters: board members and partner organizations, stewardship and office volunteers, donors, educators, advocates and friends. Each and every one has made a splash, and the ripples will be seen long into the future. 🌊

Did you know: INHF's Board of Directors are all volunteers, lending their time and talents for the protection of Iowa's land, water and wildlife. INHF's 34-person board is an incredible show of dedication and expertise. INHF board members come from every region of the state, connecting our work with communities, landowners and organizations that help to make more conservation happen.



Top: A sign marks the boundary of the land the Kuehl's donated to INHF and continue to work on today. **Right:** Cindy Burke visits with land stewardship interns during a work day on her property. **Left:** David Marlow poses in front of an oak tree on the Gardner donation.

LAND BEQUESTS – PEACE OF MIND FOR YOUR LAND

Rita Dostal's 80-acre farm in Tama County has been owned by her family for 110 years. As its current steward, she's formed a good relationship with the tenant who farms it and has advocated for a variety of practices that preserve and replenish the soil. Her love for the land is further evidenced by the trees she's planted and her efforts to clean up the waterway that runs through the farm.

Rita realized she wanted her small family farm to forever remain as such and has decided to bequeath the property to INHF with the intention that it stays a working farm. When asked why she chose INHF to uphold the vision she held for the land, Rita replied, "I know they care about the land and care about the people. I trust them."

It's a privilege to be seen as an organization that listens to landowners, and that people like Rita have faith we will honor their wishes. We see value in discussing your vision and take very seriously how you would like to see your property protected or used into the future. INHF is a place of convergence for everyone; whether you seek to protect a prairie, safeguard a wetland or preserve your family farm as open space.

If you are considering the future of your land, INHF can help you put your passion into practice. We'd love to understand the history of the places you hold dear and have a conversation about how to balance our mission with your vision.

— STACIE COUVILLON, *Planned Giving and Major Gifts Officer*

Leave a legacy for future generations: If you are interested in exploring a Charitable Gift Annuity or have questions about leaving a legacy gift, contact Planned Giving and Major Gifts Officer Stacie Couvillon at scouvillon@inhf.org or 515-288-1846, ext. 45.



Photo by Zachary Gilbert

Keep on Casting

BY GRETA SOLBRIG
Communications Intern

Though fall's mild weather is behind us, you don't necessarily need to cast aside your fishing gear. Winter fishing has its perks. Picture a serene winter day, the quiet crunching of boots on ice and a vast sea of white with an unseen world moving just below the surface.

Winter wins

No need to rush for a spot on the dock or jetty; fishing in winter typically means more access and fewer crowds. While ice fishing is a popular winter fishing method, fly fishing is still a viable option if you can find open water. Large or moving waterbodies will stay ice-free the longest.

Location, location, location

Fish tend to cluster more tightly in the cold, gathering in deeper pools where the water is warmest, the most oxygenated and likely to have cover. Search for sunny areas or places where vegetation is still present. Locate the right spot and your lure could pack a punch!

What's on the menu

A fish's metabolism decreases in colder months, making them less likely to travel far for food as they must carefully conserve their calories. Since they're more sluggish and less hungry, use slow motions for a meal that seems worth chasing. In terms of bait selection, there are a lot of things to consider—from your target fish species to the clarity of the water. Your best bet is to mimic

what is naturally available in that waterbody. Don't be afraid to experiment!

Timing is key

There are different schools of thought, here. Some recommend fishing midday when the sun has had some time to warm things up. Others maintain that, just like in summer, prime time is in the first few hours of the morning and the last few hours before dusk. There are variations between species, too. But just like us, fish will decrease activity in extreme cold, so fishing right before a big cold front could hold rewards.

Testing the waters

Whether fly fishing or ice fishing, always stay aware of your surroundings as conditions can change rapidly. If you are venturing out onto the ice, avoid any areas covering flowing water—those are the most dangerous. Snow covered ice is also precarious due to pressure and insulation that can lead to cracking. Newly formed ice is strongest, and at least four inches of good clear ice is recommended for foot traffic. In contrast, older, cloudier ice can be unpredictable. Remember, safety on the ice is never guaranteed, so test the ice with a spud bar as you go. Inexpensive ice picks worn around the neck are a useful tool in the event of a self-rescue.

Now, you are ready to avoid cabin fever like a pro. Grab your gear and go enjoy all the winter fishing opportunities Iowa has to offer! 🎣

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Red-headed Woodpeckers (*Melanerpes erythrocephalus*) vibrant colors wow anytime of year as the birds flit through wooded areas in search of food. Unlike most woodpeckers, Red-headed Woodpeckers will cache food for later consumption, even wedging live grasshoppers into crevices. In winter these woodpeckers primarily consume nuts and seeds. *Photo by Larry Reis*

