



# IOWA NATURAL HERITAGE

SUMMER 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**

The sun beams through the canopy at Wildcat Den State Park near Muscatine. Beautiful bluffs, winding trails and historical attractions make this park a destination for many.

*Photo by Josh Meier*



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

505 Fifth Ave., Suite 444 Des Moines, Iowa 50309  
[www.inhf.org](http://www.inhf.org) | 515-288-1846 | [info@inhf.org](mailto:info@inhf.org)

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**Joe Jayjack**  
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**A commitment to the future**

On this year's summer solstice, Iowa Natural Heritage Foundation will celebrate its 45th anniversary. The thoughtful conservation leadership that created INHF led to nearly 200,000 acres of land protected — the parks, trails, prairies, wetlands, woodlands, wildlife areas and family farms we love so much. Partnership with conservation agencies, fellow nonprofits and private landowners was one of our guiding principles on that bright day more than four decades ago, and it continues to be today.



JOE MCGOVERN  
*President*

Sometimes, it can be hard to celebrate with so many ills facing our state, our country and our planet. One does not have to look far to find something wrong. However, there is hope. We can, and must, keep working in partnership to improve Iowa's water quality, protect the remaining vestiges of nature and restore what we have lost. And yes, we should take time celebrate.

We should point to our successes and let it motivate us to work hard together to do even more, and at a faster pace. While being naïve and ignoring the problems nature faces

doesn't serve us well, I believe devout cynicism is equally unproductive. You will see in this magazine just a few of the success stories of endangered species habitat restoration, landowners wanting their special land open to the public, careful nurturing of remnant prairies and people finding value in what was once considered a noxious weed doomed for eradication.

I can only imagine what the next 45 years has in store for nature, for us and for future generations. We know we need to do more for our land, water and wildlife to ensure those future generations have a better planet to call home. It understandably seems like an impossible task to some, but that is not our attitude at INHF.

Because of your support, we are able to actively partner with landowners and other organizations to make measurable differences in Iowa, not just today, but for decades to come. This is manifested in thousands of acres of protected land all across Iowa. Indeed, 45 years is something to celebrate, but only if we are fixing our sights on future success — success rooted in a rich history of collaboration and positive results. Thank you for being such an integral part of our first four-and-a-half decades and for your commitment to the future!

Families explore a wetland during a public program at F.W. Kent Park in Johnson County. The park hosts 1000's of visitors and school groups each year and offers high quality prairies and wetlands.



**H**ave you ever yearned for a deeper connection to the landscape around you? I was raised in a military family and moved often, and I have wondered if this contributed to an extra big desire for a sense of place. I live in Iowa's Loess Hills, a place I first started visiting over 40 years ago, where I purchased property 17 years ago, and where I've been living full-time for the last 10 years. In spite of that, I continually felt an urge to better understand my landscape. How was I supposed to do that?

When the pandemic closed down so many of our usual activities, it created an opening for me to pursue that deeper connection I was looking for. Following a hunch, I set out to walk the entire length of Iowa's Loess Hills. I wanted to understand the place I was living, on foot.

In the fall of 2020, I did just that. Starting at the South Dakota/Iowa border just west of a little town called Westfield, I started walking and didn't stop until I hit the Missouri border south of Hamburg, Iowa six weeks later. Along the way, I slept in a tent, I car camped, I stayed with friends, I rented cabins, and at times slept in my own bed at home. I had some company along the way from time to time but spent many days walking by myself.

I tried to include as many public areas and parks as possible, and to take the most scenic route available. I walked across wildlife areas where there was no trail, used marked trails in state parks, walked minimally maintained "Level B" roads, crawled across a fallen tree to cross a stream, and also spent time on gravel roads and paved highways. I made a commitment not to trespass, and to hug the actual hills as much as possible.

I could not imagine that my personal walk would spark such a reaction in others, but it did. Hundreds of people reached out to me asking for a trail map, for ideas about how they could replicate my walk, or just to cheer me on. Many said I was doing something they had dreamed of themselves, for years.

I realized there was a pent-up love for these hills I was walking, and a desire to get to know them more intimately. Partnering with Golden Hills RC&D and a handful of other organizations and agencies, I organized an annual multi-day walk through the Loess Hills. The first LoHi Trek happened in the spring of 2021 and has sold out quickly each year. It has been answering the request for on-foot, supported exploration in this unique and ecologically vital landform.

— **KELLY MADIGAN**  
Special to INHF



Find your connection with this grand landscape through INHF volunteer events, traveling the Loess Hills National Scenic Byway or by setting off on a trail on your own or as part of an organized trek. In 2024, the LoHi Trek will be at the peak of fall color, in Mills and Fremont counties. For more details about this year's trek, visit [goldenhillsrkd.org/lohi](https://goldenhillsrkd.org/lohi).  
*Photo by Nathan Houck*



HEADLINES FROM THE HILLS



A Forest Legacy

INHF is excited to announce that the recently protected Little Sioux Scout Ranch in Monona County has received partial funding from the U.S. Forest Service's Forest Legacy Program.

The 1,776-acre Little Sioux Scout Ranch INHF purchased from the Mid-America Council of the Boy Scouts of America early in 2023 is primarily forested and adjacent to the Loess Hills State Forest, making it a prime candidate for funding despite strong competition across the nation.

“This grant is crucial in getting us across the fundraising finish line,” says Heather Jobst, INHF’s Senior Land Protection Facilitator and one of the staff members who worked on the grant application. “National funding stands as a testament to what everyone who loves this place already knows so well — this vast and unique piece of Iowa is worth protecting.”

This rapidly accelerates the goal to transfer Little Sioux Scout Ranch into public partner ownership. Watch for updates at [inhf.org](https://www.inhf.org)!

Getting more done, together

The Loess Hills Alliance (LHA) — an organization dedicated to protecting the natural and cultural resources in Iowa’s Loess Hills — is providing instrumental and generous support for INHF’s work in this fragile ecosystem. Since 2019, LHA has awarded INHF nearly \$50,000, which has helped us clear 75 acres of land of invasive species, bolstered other stewardship work by funding INHF internships and provided consistent funding for the Loess Hills Cooperative Burn Week, an intensive prescribed fire training for natural resource professionals. Funding from LHA helped offset costs for the 101 participants who attended Cooperative Burn Week in 2024.

“The Loess Hills Alliance has been a strong partner in boosting stewardship in the Loess Hills region,” says Kody Wohlers, INHF’s Loess Hills Land Stewardship Director. “They routinely help absorb partner agencies’ costs through grant opportunities or other assistance and advocate for protecting our remnant landscapes. We continue to be very thankful for their support.”

UPCOMING EVENTS

JUNE 20, JULY 18, AUGUST 15

UpCycle Stewards  
*Ewing Park, Des Moines*

Together, volunteers will help restore land for native plants by removing invasive species that will later be “upcycled” into food for the animals of Blank Park Zoo.

JUNE 26

Summer Hike at Snyder Heritage Farm  
*Elkhart, IA*

Enjoy a leisurely hike at Snyder Heritage Farm to see blooming prairies plants and grassland birds and discuss land stewardship efforts on site.

JULY 8

Heritage Valley Summer Seed Harvest  
*Waukon, IA*

This relaxing and peaceful activity is a favorite among volunteers. Together, we’ll hand-harvest native seeds from Heritage Valley’s hillside prairies. Seed collected will be used to diversify and expand area prairies.

JULY 13, AUG. 10, SEPT. 14

Kothenbeutel Heritage Prairie Workdays  
*Sheffield, IA*

Every second Saturday, April-October, you can join INHF Land Ambassador volunteers for a workday at Kothenbeutel Heritage Prairie. Activities will range from invasive species removal to seed harvesting.

AUGUST 3

Iowa Young Birders Field Trip  
*Elkhart, IA*

Join INHF and our partner Iowa Young Birders for a morning of birding at Snyder Heritage Farm near Elkhart. This program is geared towards youth and families.

For more information on upcoming events, visit [www.inhf.org/events](https://www.inhf.org/events)

QUARTERLY PROTECTION REPORT

A quick look at new INHF protection projects and land transferred between **February–April 2024**.

Newly protected areas

**Marion County**  
197 acres of agricultural land, grassland and mature timber south of Pella in Marion County. Prevents further development and preserves open space and perennial habitat, providing water quality benefits for a tributary to the Des Moines River. *(Conservation easement donated by Duane Rempe)*

**Butler County**  
15 acres of riparian woodland bordered by existing public land southeast of Shell Rock in Butler County. Permanent protection will benefit the water quality of the Shell Rock River and improve travel corridors for wildlife and people. Provides habitat for species like Wild Turkey, river otter and northern water snakes. *(Proposed public partner ownership)*

**Jasper County**  
136 acres adjacent to Neal Smith National Wildlife Refuge and Prairie City in Jasper County. Permanent protection will preclude development that would impact the scenic nature of the refuge and provides opportunity for prairie restoration. *(Proposed public partner ownership)*

**Osceola County**  
129 acres of wetland, grassland and agricultural land adjacent to Rush Lake near Ocheyedan in Osceola County. Falls within a Prairie Pothole Joint Venture priority area, which identifies this region as crucial for sustaining bird populations. Adds restorable upland habitat that can buffer nutrients and sediment before they enter Rush Lake, and builds on existing outdoor recreation opportunities. *(Proposed public partner ownership)*

**Clay County**  
40 acres of mixed habitat adjacent to Hawk Valley WMA near Dickens in Clay County. Connects existing public lands along the Little Sioux River creating an over 1,300-acre contiguous protected corridor. This stretch of the Little Sioux River is one of five river stretches in Iowa designated as a Protected Water Area due to its significant cultural and natural resource values. *(Proposed public partner ownership)*

**Story County**  
60 acres primed for prairie restoration near Cambridge in Story County. Protection and restoration will have a positive impact on water quality in the South Skunk River by reducing runoff on highly erodible land. *(To be owned and stewarded by INHF)*

**Clayton County**  
156 acres of mixed habitat near Volga in Clayton County. Bordered by Hewett Creek and features woodland, reconstructed prairie and several small springs. Protects habitat, provides outdoor recreation opportunities and helps maintain water quality of the adjacent cold-water stream. *(Portion of land value donated by Pete V. Etringer & Sons. Proposed public partner ownership)*

**Bremer County**  
40 acres of restored prairie adjacent to Sweet Marsh WMA near Tripoli in Bremer County. Provides habitat for migratory birds, insects, reptiles and amphibians. Located within the historic range of the eastern massasauga, protection of this property combats the loss and fragmentation of the wet prairie habitat these rare rattlesnakes need. Buffers a small tributary of the Wapsipinicon River, filtering water and reducing soil loss. *(Proposed public partner ownership)*



**Wild bergamot blooms** in this reconstructed prairie near Sweet Marsh WMA in Bremer County. *Photo by Ross Baxter, INHF*

**Eckoff Nature Preserve**  
80 acres of remnant and restored prairie, oak savanna and woodland near St. Charles in Warren County. Features notable plant species like Indian pipe, purple milkweed and Michigan lily. Will offer outdoor recreation opportunities like hiking and environmental education while benefiting area pollinators, wildlife and water quality. *(Donated by Ron and Barbara Eckoff, now owned and managed by Warren County Conservation)*

**Echo Woods**  
71.5 acres of woodland near Union in Hardin County. Protection and restoration of this parcel, coupled with a 60-acre tract protected last quarter, will benefit sensitive bat species like Northern Long-eared Bats, Tri-colored Bats and Little Brown Bats. Lies adjacent to the Iowa River, safeguarding wildlife corridors and enhancing water quality. *(To be owned and stewarded by INHF)*

Land transfers to public partners

**Story County**  
42 acres adjacent to the Ronald “Dick” Jordan Family Wildlife Area near Ames in Story County. Provides opportunities for prairie restoration and habitat expansion along the South Skunk River. *(Owned by City of Ames, managed by Story County Conservation)*

**White Horse WMA Addition**  
The final parcel of a 303-acre addition to White Horse WMA near Lake View in Sac County. Lies along a segment of the North Raccoon River, which is on Iowa’s Impaired Waters List. The restored prairie will have positive impacts on water quality and benefit species such as the Eastern Meadowlark. *(Owned and managed by the Iowa Department of Natural Resources)*

**Big Marsh WMA Addition**  
142 acres of riparian woodland adjacent to Big Marsh WMA near Dumont in Butler County. Bisected by the West Fork of the Cedar River, the property provides quality habitat for species like river otters, mink, Belted Kingfishers and Wood Ducks. Maintains water quality benefits and soil integrity and holds opportunity for oxbow restoration. *(Owned and managed by the Iowa Department of Natural Resources)*



# Becoming the BISON

A new take on land stewardship with an ancient inspiration

BY ERICA PLACE  
Communications Specialist | [eplace@inhf.org](mailto:eplace@inhf.org)

Ray Hamilton first noticed the strange plant atop the rocky, rolling peaks at Codfish Hollow Hill Prairie, a 60-acre parcel of remnant and reconstructed prairie near Maquoketa he and his wife Patti had purchased in 1984.

Ray became intimately familiar with the property, diligently removing trees that punctuated the grassland and taking inventory of the species around him while he worked. He created buffer zones around the native knolls, planting and spreading seeds with carefully selected site-specific genetics. With the help of others, he'd amassed an impressive list for the biological preserve he was stewarding: 100 prairie flower species, 20 species of grasses or sedges, 30 species of woodland flowers, 20 species of trees and shrubs and many bird, mammal, reptile and insect species that find haven in the habitat Ray and Patti have worked so hard to restore. But this plant was something new.

The stranger was a short-statured thistle with wavy leaves, markedly different than other thistles he knew, but his books and references gave few clues. When a bio foray — a weeklong effort by experts in the field to identify species in natural areas — was later scheduled for Jackson County, Ray decided to take in a sample, roots and all, for help with identification.

The verdict was that he had an “undulating thistle,” and Ray called it by that name for the decades that followed, not knowing if it was important.

“I knew it was growing among other high quality native prairie species, but not much was known about this thistle at the time,” remembers Ray. “I’d never heard anyone talk about this plant.”

As part of his lifelong effort to gather

as much knowledge as he can about all the species calling Codfish Hollow home, Ray kept researching and noticed the undulating thistle was regularly referred to as aggressive and problematic. That wasn’t how it was behaving at Codfish Hollow. Some time later, after comparing pictures and descriptions in guides that just didn’t match up, Ray came to realize that it was a different species entirely: the Hill’s thistle.

Iowa has six species of native thistles, beloved by bees, birds and butterflies. Though they belong in this state, provide an important food source in late summer and fall and don’t pose any ecological issues, Iowa’s native thistles are still listed as “noxious weeds” under Iowa code. While a rule change within the last decade means landowners are no longer required to control these six species, the perception widely persists that all thistles are bad. Three of those six species are now also listed as species of special concern, including the Hill’s thistle.

Native to the upper Midwest and in primarily the eastern half of Iowa, Hill’s thistles (*Cirsium pumilum* var. *hillii*) are quickly disappearing from their range. They’re a short-lived perennial, typically blooming only once in their lifetime.

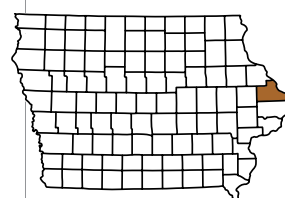
“I’ve seen some estimates where there are perhaps 4,000 individuals left across maybe 400 sites in the upper Midwest,” explains Ray.

The population as a whole is in severe decline, but at Codfish Hollow, they are thriving. Something about this prairie is unique.

Ray began marking the thistles with whatever he had handy — a scrap piece of wood, a rock, a bit of flagging. Over the years, Ray observed the thistles were congregated in specific areas — where he’d cleared brush,

## Codfish Hollow Hill Prairie

Jackson County



### LAND:

60 acres of privately owned quality remnant and reconstructed prairie

### SPECIAL FEATURES:

Supports over 100 species of native plants and rare wildlife

### PROTECTION:

In 2019, Ray and Patti Hamilton chose to permanently protect Codfish Hollow Hill Prairie by donating a conservation easement, a popular protection method that allows a landowner to preserve their land’s special features while retaining private ownership and use, to INHF.

Learn more about Iowa’s native thistles at [xerces.org](http://xerces.org).



Ray Hamilton overlooking the prairie at Codfish Hollow

driven the tractor or dragged equipment; spots that had seen significant disturbance.

“The thistles were doing very well in areas that honestly had been completely trampled,” says Ray.

Curiosity warranted an educated experiment. One day, Ray hooked a mower up to his tractor and set off through the prairie, leaving a mostly vegetation-free swath in his wake. Sure enough, in the next year or two, Hill’s thistles took root in the mowed path. He continued monitoring areas where he thought Hill’s thistle might pop up, carefully flagging every young thistle he found.

Codfish Hollow is now more than dotted with flags. Leaned against the fence he built around the newest 100 or so baby plants, Ray beams knowing he’s cracked the code for Hill’s thistle regeneration. It’s something trained ecologists haven’t yet been able to emulate. He doesn’t know whether it’s the roughed-up and compacted soil, the lack of competition, the increased sunlight or a combination of all three, but the Hill’s thistle is happy.

“I’m just trying to reproduce natural systems as carefully as I can,” says Ray.

Is a mower a natural system? Sort of. Ray’s referring to large herbivores like bison and elk that once moved across Iowa’s prairies in large herds, trampling the vegetation as they grazed. Ray’s mower is the new grazing, his tractor paths the new bison wallows.

Yes, there’s something unique about Codfish Hollow Hill Prairie. It’s Ray and Patti Hamilton and their stewardship philosophy.

Though it’s clear Ray is proud that the thistle is doing so well here while it’s

struggling elsewhere, he’s also careful not to get too wrapped up in the needs of one thing. It’s a lesson he’d learned early on in his prairie stewardship after a visit from Dennis Schlicht, author of ‘The Butterflies of Iowa.’

Not long after the Hamilton’s purchased the property, Dennis documented the presence of a rare prairie-dependent butterfly called the Ottoe Skipper (*Hesperia ottoe*). The Ottoe Skipper spends its entire life cycle above ground, making it susceptible to fire or other disturbances if it has nowhere to escape. Dennis explained to Ray that if the whole prairie is burned at once, an entire population could be eliminated in a matter of seconds.

“Hearing that a simple choice — even with the best intentions — could have such enormous consequences was jarring,” remembers Ray.

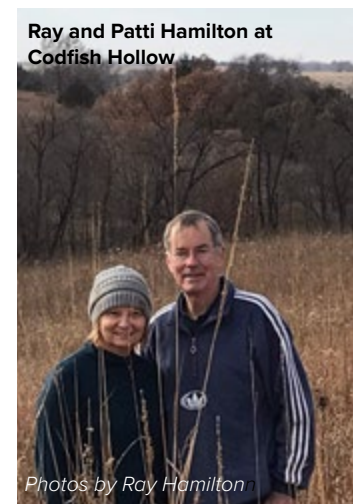
It’s not just the butterflies on Ray’s mind, but other insects nestled in the vegetation, the slow-moving amphibians and reptiles, or the nest full of eggs tucked under a bunch of grass. Ray understands that each action holds positives and negatives, and he’s careful to never apply one practice to all of Codfish Hollow Hill Prairie. There are some practices he chooses to avoid entirely. But watch him decisively nip unwanted brush or pocket a handful of seeds, and you’ll see — he’s become the bison, grazing and churning the soil, controlling out-of-place plants and transporting seeds to new locations. He’s part and parcel of the ecosystem he cares for, making sure Codfish Hollow Hill Prairie is as balanced as it can be. 🦋



Blooming Hill's thistle



Leaves of a Hill's thistle



Ray and Patti Hamilton at Codfish Hollow

Photos by Ray Hamilton



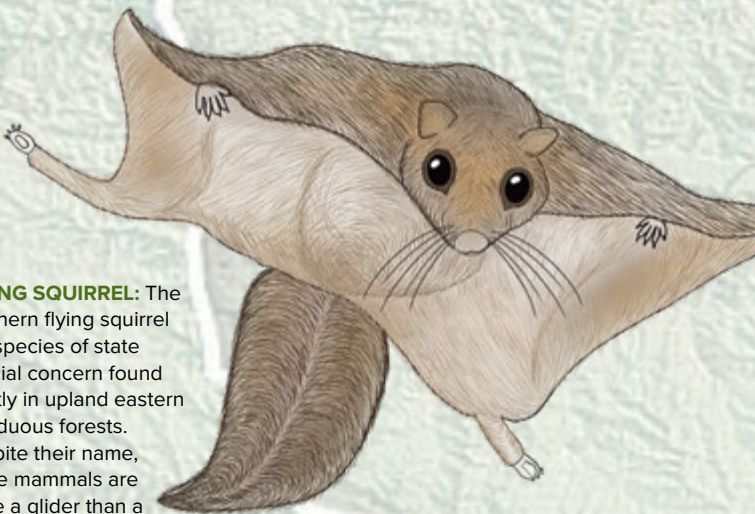
“A rose by any other name would smell as sweet.” At least that’s what somebody named Shakespeare said. But it’s hard to imagine that any flower would inspire you to wander the prairie, or think about our natural heritage — or smell quite as sweet — as does the wild rose. So, maybe there is something in a name. The light pink bloom was designated Iowa’s official state flower in 1897. It is one of relatively few Iowa designations compared to other states. We have a

state bird (the American Goldfinch), a state rock (the geode), and a state tree (the oak). And that’s it. There was an ill-fated effort in the legislature this year to name the Iowa darter our state fish. Despite the fact that the small, colorful, threatened darter is the only fish with “Iowa” in its name, the bill never made it out of committee. It got us thinking, “What else should represent Iowa?” So, we polled some of our INHF board and staff to help fill in the blanks by asking them...





**IOWA DARTER:** A bill introduced by Rep. John Wills and supported by the Iowa Chapter of the American Fisheries Society would have named the Iowa darter the official fish of Iowa because it is representative of native fish diversity and an indicator of good water quality.



**FLYING SQUIRREL:** The southern flying squirrel is a species of state special concern found mostly in upland eastern deciduous forests. Despite their name, these mammals are more a glider than a flyer, using the folds of skin between their legs to act as a parachute.

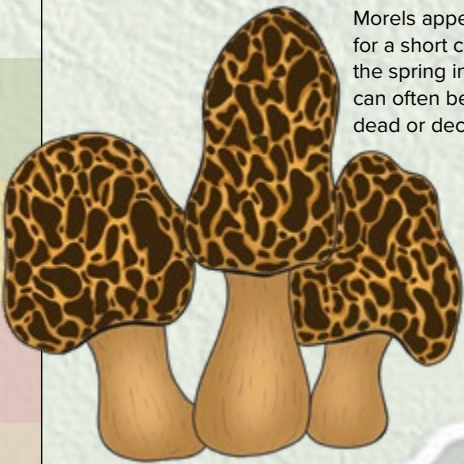


# What should be Iowa’s official state \_\_\_\_\_?

	INSECT	MAMMAL	REPTILE OR AMPHIBIAN
 <b>Vern Fish</b> INHF board member	Monarch butterfly	Coyote	Blue-spotted salamander
 <b>Tylar Samuels</b> Conservation Easement Specialist	Abbott’s sphinx moth	Badger	Timber rattlesnake
 <b>Rajee Harris</b> INHF board member	Regal fritillary	Fox squirrel	Snapping turtle
 <b>Sydney Algreen-Hunter</b> Communications Associate	Red milkweed beetle	Southern flying squirrel	Black rat snake
 <b>Susan Salterberg</b> INHF board member	Firefly	Woolly mammoth	Spring peeper
 <b>Ross Baxter</b> Senior Land Protection Director and Counsel	Regal fritillary	Northern long-eared bat	Smooth green snake

FISH	FRUIT	WILDCARD
Iowa darter	Wild strawberry	<b>Landform:</b> Paha
American eel	Highbush cranberry	<b>Grass:</b> Big bluestem
Iowa darter	Red delicious apple	<b>Mushroom:</b> Morel
Bluegill	Wild strawberry	<b>Fossil:</b> Crinoids
Bluegill	Muscatine melons	<b>Vegetable:</b> Corn on the cob
Iowa darter	Wild strawberry	<b>Fossil:</b> Trilobites

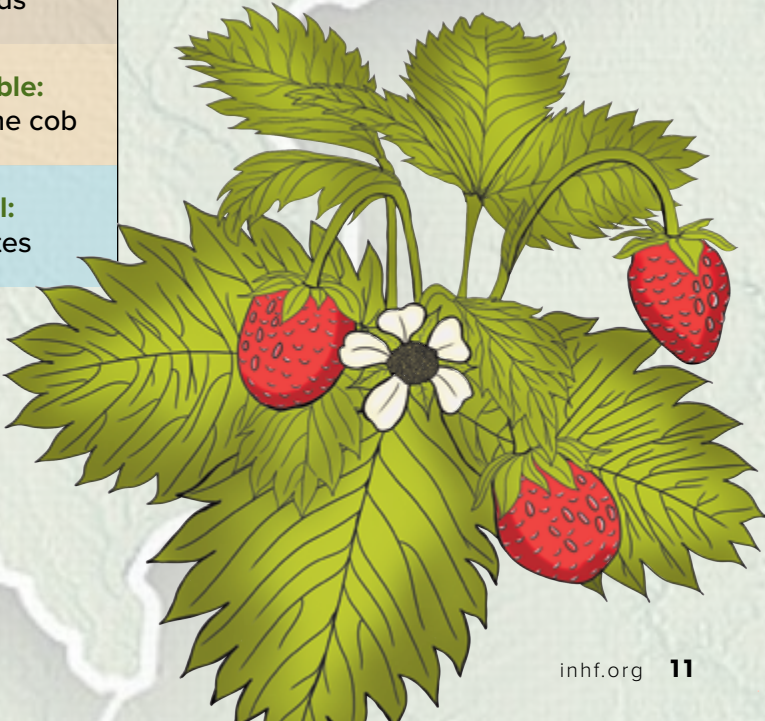
**MOREL MUSHROOMS:** Morels appear for a short couple months in the spring in Iowa, and they can often be found near dead or decaying trees.



**SMOOTH GREEN SNAKE:** This is a species of state special concern and its appearance is often an indicator of high quality native prairies and marshes.



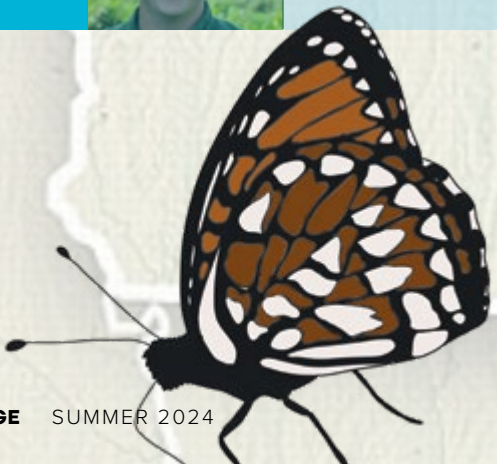
**WILD STRAWBERRY:** These edible beauties are mostly found in woodlands in June and July, but they are highly adaptable to different environments.



COMPILED BY  
JOE JAYJACK  
Communications director  
jjayjack@inhf.org

ILLUSTRATIONS BY  
JORDAN McDOWELL  
Design intern  
jmcowell@inhf.org

**REGAL FRITILLARY:** This beautiful butterfly can infrequently be found statewide in tallgrass prairies. Iowa is one of only four states without a state butterfly, and no other state claims the regal fritillary as its own.





# DEEPENING ROOTS: *Building an ecosystem*

BY EMILY MARTIN  
Conservation Programs Coordinator | [emartin@inhf.org](mailto:emartin@inhf.org)

**I**n 1986, Iowa Natural Heritage Foundation (INHF) hired its first intern. At a time when our staff was small but mighty, having an intern made all the difference. As INHF's staff has grown over the last four decades, so has the positive impact of the intern program on Iowa's land, water and wildlife.

Today, we hire over 20 interns every year, filling roles in land stewardship, communications, design, conservation programs, policy and trails. INHF's intern program has grown a robust ecosystem of conservation advocates with diverse skills. Over 400 interns have come through INHF's doors in the last 38 years. Like prairie plants,

each one of those past interns has grown into their careers with roots firmly planted in the natural resources community.

Some have stayed right here at INHF. Currently, seven of our 30 staff members are former interns. Some of those former interns now get to supervise their own interns – an intergenerational connection within INHF.

These connections run beyond our staff. Susan Salterberg was an intern in 1990 and boomeranged back to INHF as a board member 15 years later. As an intern, she interviewed people throughout Iowa to complete an environmental education needs assessment. Today, Salterberg works as a Program Manager at University of Northern Iowa's Center for Energy & Environmental Education.

"The internship program gave me an opportunity to make some lifetime friends," says Susan. "Most importantly, I was

mentored by a dedicated and passionate professional who cared deeply about my growth, professionally and personally. My time with INHF deepened my passion for work in environmental education."



Some former interns have stayed within the field of conservation in Iowa. Adam Shirley is the CEO of Iowa's County Conservation System, a key role that works to unite Iowa's 99 County Conservation

Boards in vision and voice.

Before he stepped into his role as CEO, Shirley cut his teeth through internships at Sioux County Conservation and INHF. He served on the summer 2009 Land Stewardship intern crew between semesters studying Environmental Studies at Dordt University.

"That summer, I had my eyes opened to conservation in Iowa. Before I interned at INHF, I wanted to move out west to work in conservation. But getting to travel all over the state and work in a diversity of ecosystems really opened my eyes to the work that needed to be done here," Shirley shared.

The call to move west is a frequently voiced sentiment among college students studying conservation in Iowa. The outdoors is associated with grand spaces — towering mountains, vast forests and winding canyons. Iowa has no national parks or national forests; envisioning a permanent career in conservation in one of the most altered states in the country can be difficult.

But through INHF's intern program, generations of Iowans are deepening their connection with our native ecosystems — towering loess hills, vast prairies and winding river valleys.

"I discovered the magic of Iowa. It sparked a passion in me that continues to this day. I realized Iowa's resources are worth fighting for and that I could have a bigger impact by staying," Shirley said.

After his internship, Shirley went on to work for Cerro Gordo County Conservation



Adam Shirley, far left, with the 2009 Land Stewardship intern crew and INHF staff member Brian Fankhauser (center).

as a Roadside Biologist before accepting a role as Deputy Director for Mitchell County Conservation, where he was eventually promoted to Executive Director. In 2023, he moved into his current role.

**"As long as we continue these connections [to nature], Iowa has a bright future ahead."**

— ADAM SHIRLEY,  
CEO OF IOWA'S COUNTY CONSERVATION SYSTEM

"I've stayed connected to INHF over the years. They took the time to teach me about Iowa's ecosystems and to help me develop as a leader. I think we need to continue these connections to nature. As long as we encourage these connections, Iowa has a bright future ahead," said Shirley.

Shirley's experience in 2009 is the same as felt by Riggs Wilson, who served on the Land Stewardship intern crew exactly a decade later.

"My internship with INHF allowed me to travel and see amazing areas in Iowa. I saw the Loess Hills, Northeast Iowa and ecosystems I hadn't been exposed to before. It shaped my passion for conservation."





Wilson is currently working with the Iowa Department of Natural Resources Wildlife Diversity Program as a Wildlife Research Specialist while finishing his Master of Science degree in Wildlife Ecology at Iowa State University. It was his time at INHF that helped build his network and guided his career to where it is now.



Riggs Wilson takes a break with another land stewardship intern.

“Making connections is one of the most important things you can do with your career. Attend professional events, meet like-minded people in conservation and learn as much as you can. That’s how I got my start.”



Hannah Howard poses for a midday photo after working hard on INHF partner lands with the rest of the 2013 intern crew.

Some of INHF’s past interns have stayed in Iowa but found career paths that led to other fields. Hannah Howard, a 2013 Land Stewardship intern crew member, stoked her passion for conservation through a different path. As Howard describes it, her career path was like a jungle gym, where every position played into the next.

After studying Forestry and Animal Ecology at Iowa State University, Howard found work in private land restoration in the Iowa City area. Not long after, she accepted a position as

a Project Coordinator for Trees Forever, where she got to use her degree, her experience with INHF and her love of connecting with people, all in her hometown of Muscatine, Iowa.

“On my INHF intern crew, everyone had different strengths. Some people liked showing up and chopping brush in silence. Some of us liked getting to chat while we worked, asking questions to learn about what we were seeing. Our supervisors were instrumental in creating a unique experience and fostering a learning environment,” Howard shared.

Howard went on to accept a position as a Community Coordinator for The Nature Conservancy’s Land of the Swamp White Oak Preserve. Combining her love of community outreach and conservation helped her thrive in this role before making the leap outside of the conservation world to work with Muscatine’s Chamber of Commerce. Finally, her connections led her to accept her current role at Lead(h)er.

Like Wilson, her advice to someone beginning their career in conservation is to make as many connections as possible.

“My network is how I ended up where I am now. My mentors encouraged me to apply for positions I didn’t think I was qualified for. That’s how I moved through the jungle gym of my career,” said Howard. At Lead(h)er, Howard continues to promote the importance of connections in the Quad Cities area, fostering

over 900 mentorship relationships among professional women in the last seven years.

What Iowa lacks in national parks, it makes up for in connections — to each other and to our special protected places. The world of conservation here is tight-knit and strong. Internships are a key part of how we ensure the future of Iowa’s natural resources.

No matter where interns end up in their careers, they’re still working to spread the roots of their passion for natural resources. Taking their children to a park to teach them native plants, advocating for their next work retreat to include a hike, volunteering with a local conservation organization, hanging a picture of their favorite tree in their office — every action, big or small, matters. These are the sparks for interns that remind them of what it was like to stand on top of a bluff above the Mississippi River after a long day of restoring Iowa’s natural spaces.

Take, for example, Sydney Samples, who joined INHF in 2020 as a Conservation



Programs Intern, a position that combines grant writing with research. In her time at INHF, Samples assisted partners across the state with submitting grants to build trails and protect land. When not writing

grants, she headed into the field to gather water quality data showing how conservation practices like wetlands and prairies work to reduce the amount of nitrate in Iowa’s streams.

Four years later, with a Master of Arts in International Environmental Policy under her belt, Samples works just outside of Washington D.C. with The Water Research Foundation as a Research Program Manager.

“Because of my internship, I learned that I wanted to take on project management roles. Beyond that, I gained an appreciation for specific plants and wildlife, no matter where I’m living. I always try to learn about the environment I’m living in and get involved with local organizations doing conservation work,” said Samples.

Like Howard, Samples loved community engagement in conservation. In her work now, she manages research projects that provide the water sector with the knowledge needed to provide high-quality, safe, accessible, and affordable water services to their communities while engaging with key stakeholders. Her time at INHF deepened the roots of her passion and skills.

Reflecting on her internship, Samples shared one of the most poignant memories that has stuck with her. She wrote a successful grant to fund a 40-acre addition to Falcon Springs Wildlife Management Area in Winneshiek County, just outside Decorah. The addition boasted remnant white pines, restored prairie, and a cold-water stream.

“That fall, I took a trip to Decorah with my family. I was able to show them the addition to Falcon Springs WMA. Standing there and seeing the impact my work had was incredible,” Samples shared.

Connections to the land are what tie every former intern together. Ask anyone who has come through INHF’s doors, and they’ll likely have a favorite property and a memory that brings a smile to their face. As the paths of INHF’s interns diverge and lead them to different corners of the world, one truth endures: the profound connections forged with the land and each other during their internships keep them firmly rooted in INHF’s mission. 🌱



INHF internships and fellowships are funded through annual donations from individuals, by a grant from the R.J. McElroy Trust, and through funds established in honor of Mark C. Ackelson, Robert & Grace Buckmaster, Ding Darling, Richard “Andy” Isenhardt, Daniel & Ann Krumm, Chuck & Helen McLaughlin, Richard “Sandy” Rhodes, Jon Stegge, Jon Jon & Jonah Stravers, and Carl Svare. If you’re interested in supporting our internship program, please visit: [www.inhf.org/donate](http://www.inhf.org/donate)

Sydney Samples conducts fieldwork with INHF staff members Emily Martin and Lisa Hein in 2020.



# RISK, REWARD & RECOVERY

One of Iowa's tiniest fish holds some of the biggest conservation lessons

BY ERICA PLACE  
Communications Specialist  
eplace@inhf.org

**S**mall and unassuming, the Topeka shiner (*Notropis topeka*) might not immediately catch your eye. Outside of late summer when the male's tiny fins and abdomens take on a reddish hue to attract mates, the two-inch minnow isn't particularly colorful. Their stout, silvery-olive bodies are accented only by a thin line down their sides and a spot at the base of their tail. Especially when you consider there are 147 other fish species (50 of which are in the minnow family) swimming in Iowa waters, Topeka shiners don't exactly stand out. It would be easy to overlook the specific needs of such a little fish, which is exactly how they almost disappeared from their native range across the Great Plains.

Though the Topeka shiner was first described in 1884, very little was known about its habits, life cycle or ecological requirements for the more than century that followed. It was assumed they could be found in any flowing water body, so when surveys done across the Midwest in the 1980s and 1990s showed really low numbers, alarm bells sounded. Iowa State University's Dr. Bruce Menzel found Topeka shiners in only 66 of the 614 Iowa locations sampled. They were seemingly vanishing across their range — populations were so small and segmented that the fish was listed as federally endangered in 1998. Where could they have gone? What could be done?

In Iowa, it seemed the fish was now likely living only in the North Raccoon River and its tributaries as well as portions of the Boone, Rock and Little Rock Rivers. Was it pollution? Problems with water levels, dissolved oxygen or temperature? No one was sure, but the U.S. Fish and Wildlife Service (USFWS) thought that Iowa Natural Heritage Foundation — already working in the North Raccoon River

watershed on water quality projects — was well positioned to respond.

A partnership formed in the early 2000s and a plan to restore Topeka shiner habitat started to take shape. The USFWS could provide funding, Iowa Natural Heritage Foundation could provide a few more boots on the ground. The section of the North Raccoon River falling within Greene, Calhoun and Sac counties was the highest priority. But what exactly would work look like?

"We knew something needed to be done, but we didn't have a real clear idea how to accomplish it," remembers INHF President Joe McGovern, who at the time was land stewardship director. "Topeka shiners had been found in clear, first-order streams in Missouri and Kansas. It was logical to think that must be what they needed."

Action steps centered on a tributary of the North Raccoon River, Buttrick Creek, just east of Jefferson in Greene County. It was thought that Topeka shiners needed pockets of slower water for reproduction and feeding, so preliminary efforts included diverting water with field stone, excavating deeper pools and other attempts to create in-channel habitat. But the team would soon discover the solution lay completely outside of the creeks when they investigated oxbows on adjacent property.

Oxbows are U-shaped pools formed by the natural meanderings of a river or stream. Over time, the curves become so exaggerated that the flowing water forges a new path, bypassing the bend and cutting it off from the main channel. The resulting pool is elevated above the rest of the water table (often referred to as "perched") and might only reconnect with the main channel during high water events. They're a special type of wetland relied upon by many wildlife species including, as it turns out, Topeka shiners. This off-channel habitat — providing calmer water and safety from predators — was becoming scarcer as people intentionally altered and straightened streams and rivers. Whatever oxbows remained were filled with silt from erosion.

The good news was that Topeka shiners weren't as sensitive to water quality as previously thought. While they can be found in clear prairie streams, they can also tolerate surprisingly low dissolved oxygen levels and higher temperatures, consistent with what you'd expect in the still, shallow waters of an oxbow. Solving this habitat problem got a little more straightforward — we just needed to revive the oxbows.

The revelation meant that even though we no longer needed to worry about complicated, engineered alterations to the creek, the restoration work would need to more deeply involve private landowners whose properties held the precious oxbows. Excavation to remove the silt was simple and would come at no cost to the landowner, but Joe and others worried that few people would have interest in signing up to help an endangered species on their property.

"We thought people might be concerned that if we created habitat and the Topeka shiner showed up, that they would lose the ability to do what they wanted with the land," says Joe.

But that just wasn't the case. The first three landowners contacted by Wayne Fischer, who was a USFWS private lands biologist at the time, jumped on board.

"They immediately said 'yes,'" recalls Joe. "They wanted to help be part of Topeka shiner recovery."

Kraig McPeck, who took over for Wayne and is now a USFWS Field Office Supervisor, remembers how the stars seemingly aligned to get this idea off the ground.

"This was so organic and ground up," says Kraig. "We found local champions in Caroline Schwartz, Greene County's Engineer, and Kurt Goetch, the Pheasants Forever Biologist out of Jefferson. People knew and trusted Caroline and Kurt, and after several key landowners who the rest of the community looked up to agreed to sign on, the projects just happened like dominoes."

The idea was that these oxbows would serve as demonstration sites, modeling how species recovery and private land ownership can go hand in hand. Landowners signed a 10-year



Oxbow restoration  
at Buttrick Creek in 2002



Two months after restoration



22 years after restoration

agreement that the oxbow would remain intact on the property, giving Topeka shiners a chance to thrive. In less than a decade, USFWS and INHF restored 20 oxbows in the region. The projects were the first of their kind in the nation and yielded impressive results.

Kraig described those 20 oxbow sites as 'unable to support aquatic life' prior to restoration. But surveys done later showed they all were providing habitat to a variety of wildlife species like amphibians, reptiles, fish and more.

"Researchers found at least one Topeka shiner in 9 of 10 restored oxbows, including 354 Topeka shiners in one oxbow alone," remembers Kraig.

The model was confirmed: restore the oxbows, and the Topeka shiner will rebound.





Oxbow restoration quickly lost its novelty and became a standard practice adopted by conservation organizations across the country.

“As restoration work grew, so did INHF, and we started overseeing more restoration projects,” says Erin Van Waus, INHF’s Conservation Easement Director.

Erin, who in 2013 became the INHF point person for Topeka shiner projects, remembers seining (a method of surveying with nets) for the minnows as an INHF intern.

“It was a really cool opportunity to see the different angles of research,” Erin says. “It helped me understand why we should take notice of and care about the little things... why we should care about this tiny minnow. To have that experience as I was beginning my career in conservation was invaluable.”

Continuing to collaborate with USFWS as part of their now robust Fish and Wildlife Partners Program, Erin helped support the work of other partners like The Nature Conservancy, Natural Resources Conservation Service (NRCS) and Iowa Department of Natural Resources (DNR) by administering grant funding from USFWS. Since 2013, INHF has helped administer nearly \$70,000 in grants for habitat restoration projects in the North Raccoon and Boone River watersheds.

Today, Topeka shiner populations have shown enough growth that their status as federally endangered is being reevaluated.

“This is arguably one of the most successful accounts of species recovery in the country,” Kraig reflects.

The tiny minnow’s success story holds many lessons. One, the value in being willing to try new things, especially when the stakes are high. To never discount the importance of collaboration or the human element of a project and to always seek unlikely partners. That despite our backgrounds and priorities, we all still have common ground. That private land conservation not only can happen but is crucial in the protection of the species who also call Iowa home. That being listed as federally endangered doesn’t have to be a death sentence; it might initially be bad news and a tough road, but it opens doors to rally

together and change the trajectory.

“We don’t often get to contemplate reversing a decision to list a species as federally endangered,” says Kraig. “Once you’ve reached that point — where systems are so altered that something is hanging in the balance — it usually takes a long time to correct it, if you even can. This small minnow’s success story hinged on being embraced by local landowners, conservation organizations and others in a way that never felt negative. It wasn’t a regulatory burden, but an opportunity to place conservation into a working landscape so it could be a landscape that also worked. Like with the preservation of any species or habitat, it just wouldn’t have been possible without private landowners.”

Our work to protect things on the brink of disappearance continues. Since the Topeka shiner kicked off our partnership more than 25 years ago, INHF has also worked with USFWS to research the presence of the Iowa Pleistocene snail (federally endangered) and timber rattlesnake (Iowa species of greatest conservation need) and to restore habitat for the rusty patched bumble bee (federally endangered). We embarked on a decades-long initiative with MidAmerican Energy to protect critical habitat for federally endangered Indiana bats and a successful statewide volunteer project to gather valuable acoustic data on all of Iowa’s bat species. Through nine grants from the National Fish and Wildlife Foundation, we’ve restored or improved more than 36,000 acres of habitat across Iowa for monarch butterflies and other struggling pollinators. And we continually seek opportunities to do what we were founded to do: preserve and restore Iowa’s dwindling habitats like oak savanna, tallgrass prairie or wetland complexes, all of which support a multitude of plant and animal species in need of refuge. The list goes on.

“While there are many plants, animals and habitats we should safeguard now before they’re considered endangered or become absent from our landscape, the Topeka shiner is a good reminder that it’s not too late to turn something around,” says Joe. “It’s possible, as long as we all work together.”

“While there are many plants, animals and habitats we should safeguard now before they’re considered endangered—the Topeka shiner is a good reminder that it’s not too late to turn something around.”

Joe McGovern,  
INHF President



# Inaugural year of the State Parks of Iowa Fund

BY ABBY HADE TERPSTRA | *Director of Philanthropy* [aterpstra@inhf.org](mailto:aterpstra@inhf.org)

Since 2017, annual state park visitors have increased by roughly 1.7 million, according to a study done by MSA Professional Services for the Iowa Department of Natural Resources. Even as the COVID-19 pandemic stabilized, park tourism has stayed high, showing a heightened interest in outdoor recreation. Meanwhile, the demand for infrastructure repairs and improvements to accommodate increased usage is far beyond the state funding available. According to an article published in the Cedar Rapids Gazette in March, Iowa’s state parks have over \$100M in outstanding infrastructure needs while being funded at the status quo level of \$7.2M annually.

“State Parks need all the help that Iowans can give them,” says Kevin Szcodronski, retired DNR State Parks Bureau Chief. “With SPIF, a small group of state park believers has created a means to fill a niche for private individuals and groups to aid state parks. These people care. They have pride for their state park.”

“Iowa’s beloved state parks are worthy of special stewardship and care,” says Anna Gray, INHF’s Public Policy Director and Counsel. “While INHF and our partners work to create more parks, trails and wildlife areas to meet the public demand for outdoor recreation opportunities, we have also been long-time advocates for the care of existing areas and for funding solutions, like the Natural Resources and Outdoor Recreation Trust Fund. SPIF is a way for local communities to show support for their parks and lead in their care and stewardship.”

Proceeds from the sale of the book ‘Iowa’s State Parks, A Century of Stewardship, 1920-2020,’ combined with private fundraising efforts, launched the State Parks of Iowa Fund in 2023. A group of citizens with a joint love of Iowa’s outdoors; Gerald Schnepf, Mark Ackelson, Ann Raisch and Kevin Szcodronski; met with Iowa Natural Heritage Foundation to create a grantmaking program to assist

established Friends groups with improvement projects that better visitor experiences.

Bellevue, Stone, Wildcat Den, Ledges, Lake Anita and Maquoketa Caves State Parks’ Friend groups were the six recipients chosen for grants of \$1000 each in SPIF’s inaugural year out of fifteen applicants. The projects funded range from ADA bathroom renovations to youth outreach materials to nature playscape repairs.

“After ten years of our Discovery Forest Nature Playscape being a popular destination, it is time for repairs and replacement of some features,” said Theresa Kruid of Woodbury County Conservation Foundation, which provides Friends support to Stone State Park and the Dorothy Pecaut Nature Center. “The SPIF funding helps us to add musical, climbing and inclusive elements that encourage children to connect with the natural world.”

“Iowa’s State Parks and the State Park Friends groups that love them need our support. We can share the work and need by increasing the State Parks of Iowa Fund,” adds Gerry Schnepf. “With an increase in the fund, we can provide more dollar support to these Friends groups around Iowa — a great way to help improve the best of Iowa’s natural heritage and support local citizen efforts.”



Friends of Maquoketa Caves used their award for infrastructure around the sugar shack at the park

## LEARN MORE

Application guidelines, additional information and a link to donate to the State Parks of Iowa Fund are all found at [www.inhf.org/spif](http://www.inhf.org/spif). The next grant cycle will be open August 1 to October 15, 2024.



# CITY ESCAPE

## Creating places of respite close to home

BY CAMILLA PRICE Mark C. Ackelson Fellow

Kirke Woods WMA Photo by Ross Baxter

When Iowans think of Des Moines, they may picture colorful city buses, popular restaurants or towering buildings. INHF and the Iowa Department of Natural Resources are working to broaden that image, creating new opportunities for Iowans to protect and enjoy the outdoors within a short drive from downtown Des Moines.

Recently, two more natural gems have been opened to the public 40 minutes south of the metro. Like many of INHF's projects, the Kirke Woods Wildlife Management Area and Rolling Hills Wildlife Management Area began with the landowners' desire to see their land preserved.

INHF partnered with these conservation-minded individuals to permanently protect the land's natural value and transition their properties into public ownership, where they will continue to educate and engage Iowans for years to come.

### A river runs through it

The Kirke Woods Wildlife Management Area in northeast Madison County hosts adventurous Iowans eager to hike, hunt and "get lost" in the 684-acre woodland, just two miles west of I-35. Three miles of the North River flow through the property, which features mature oaks and hickories, riparian woodland and a 30-acre wetland.

As an avid sportsperson, Iowa business leader Gary Kirke had hunted and fished across the globe. When he saw the large, unbroken tract of nature, he couldn't pass up

the opportunity to protect the landscape back home. Gary bought the property with the intent to preserve it over 15 years ago.

"I'd just hate to see it all get developed. It's such a beautiful piece of forestry," he said. "I'm glad that the state's taking it over and making it available to the public."

Over several years, INHF worked with Gary and the Iowa Department of Natural Resources to permanently protect the property as a state wildlife management area. Today, Kirke Woods WMA is open for outdoor recreation and hunting as one of central Iowa's newest public lands.

DNR officials say the recreation opportunities offered by Kirke Woods are already making it a popular destination.

The property gives visitors a feeling of seclusion, providing an "intense" nature experience, said Brian Hickman, Iowa DNR's southwest wildlife district supervisor. "It's a place that I hope Iowans eventually, at least once, get an opportunity to explore, because it's really unique."

Preserving the forest within the riparian corridor will provide lasting water quality benefits, including reduced soil erosion and better water infiltration in the floodplain. A variety of wildlife also call the property home, including deer, turkeys, reptiles, amphibians and migratory birds.

Without Gary's foresight, the property would likely have been developed. Instead, the public wildlife area will serve Iowans, wildlife and plants for decades to come.



An eastern giant tiger swallowtail visits butterfly milkweed at Kirke Woods WMA. Photo by Ross Baxter

also provides important habitat for imperiled grassland birds and other wildlife.

Sharon grew up exploring Iowa's county parks and bike trails and called sustainability a "lifelong passion." She views her family's partnership with INHF and Iowa DNR as part of a bigger picture.

By preserving the land as a functioning ecosystem, local residents reap the benefits of improved water quality, more recreation opportunities and healthier communities, she said.

### Leaving a legacy

Thanks to the landowners' desires to see their properties preserved in perpetuity, Rolling Hills and Kirke Woods will provide Iowans with new access to nature, especially for the more than 700,000 people who call the Des Moines metro home.

And by sharing their protection stories, these landowners could inspire the next.

"Many landowners that love their land are unaware what options are available to them," said INHF Senior Land Protection Facilitator Heather Jobst. "A simple 'what if?' conversation with a partner like INHF can open doors for protection."

Sharon recalled walking the Rolling Hills property with staff from INHF and the Iowa DNR, watching as they discovered the many native species that could thrive on protected land. "It told us that we did the right thing," she said. 🌿

### A wider view

Also in Madison County, Rolling Hills Wildlife Management Area is aptly named. The property showcases open grassland and remnant prairie with steep ravines, pockets of oak savanna and wetlands and a stream running through the middle of the landscape.

The seeds for protecting this land were planted when Teamwork Ranch, a family-owned business focused on conservation agriculture, chose to take a hard look at the the property they'd managed for nearly 25 years. There were signs that this tract of land wasn't ideally suited to farming or ranching. The family felt there was a better, more conservation-forward way to steward the land and wanted to give back by opening it to the public.

"We looked at it as an opportunity to turn it into something that could be enjoyed and experienced by the local community," said Sharon Krause, one of the owners of Teamwork Ranch.

Sharon had previously served as an adviser to INHF and knew the organization would be a good fit for the project based on its history of helping partners create wildlife areas for the public to enjoy. She and her family approached INHF about transitioning the property to the Iowa DNR for permanent protection.

The property will be managed as open grassland for Iowans to experience and learn about the native prairie ecosystem. Visitors can hike, hunt, birdwatch and observe native plants just a short drive from Des Moines. In an area of high development, Rolling Hills WMA

### Madison County Projects

**PARTNERS:** INHF, Iowa DNR and Warren and Madison county Pheasants Forever chapters



### ROLLING HILLS WMA

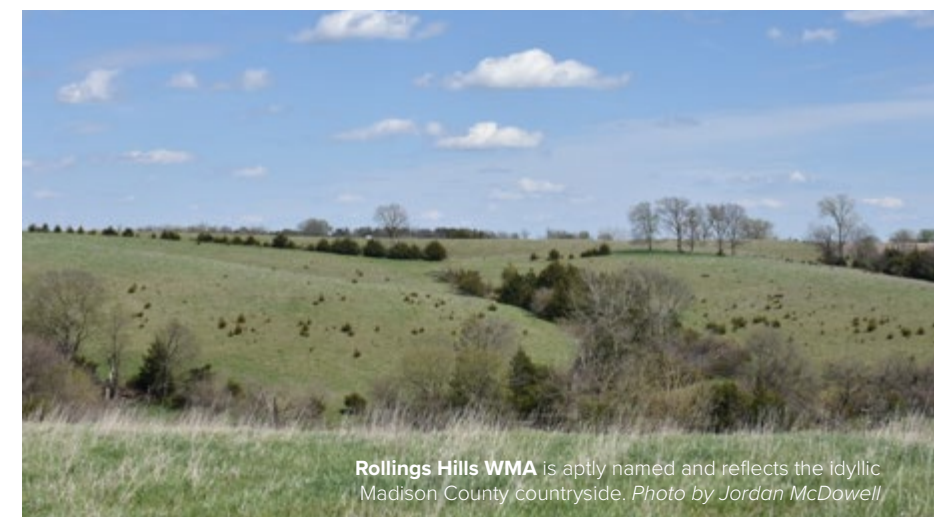
**LAND:** 234 acres of grassland

**SPECIAL FEATURES:** Rolling hills provide views of a creek and picturesque Madison County countryside

### KIRKE WOODS WMA

**LAND:** 684 acres of floodplain and upland woodland along the North River

**SPECIAL FEATURES:** Three miles of the North River meander through the floodplain with quality oak-hickory woodland above



Rollings Hills WMA is aptly named and reflects the idyllic Madison County countryside. Photo by Jordan McDowell



## DONATION WITH RESERVED LIFE ESTATE: FUTURE DONATION WITH BENEFITS TODAY

Long term land protection looks different for every landowner. For some this involves handing down the family farm to the next generation. For others this may mean putting legal protections, such as conservation easements or agricultural land easements, on the property to define use and stewardship into the future. Other people might choose to bequeath it to a conservation organization or make an outright donation of property during their lifetime. A donation with reserved life estate offers a middle ground between a bequest and outright land donation.

Janis Leise owns 154 acres of Grundy County cropland. Janis knew that she wanted her land to remain in production and continue to support a way of life she associates with her upbringing in a farm-focused Iowa town. A longtime INHF supporter, Janis started having conversations with INHF staff about land donation options about 10 years ago. As time went on and Janis talked to her financial advisor, she realized that a donation with reserved life estate made the most sense for her. She would have the peace of mind knowing her property would be protected from development and would continue to be sustainably farmed and cared for in the manner that she, her family and tenants had done. And while Janis retains that life interest and can use the property as she normally would, she can also use the tax

benefits available with a donation of land during her lifetime.

“The process of making the donation was very straightforward,” says Janis. “INHF staff were always available if I had any questions and were able to help with each step.”

She has enjoyed the ability to build a relationship with INHF staff and craft an intention letter — which will guide future land stewardship decisions — to accompany her generous donation.

If you are an Iowa landowner considering the future of your property and interested in creating your conservation legacy, perhaps a donation with reserved life estate is also the right fit for you. INHF staff would be happy to visit with you about your vision for your property and the many tools available for long term land protection.

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

**Leave a legacy for future generations:** If you are interested in exploring Reserved Life Estate or have questions about future land donations, contact Planned Giving & Major Gifts Officer Stacie Couvillon at [scouvillon@inhf.org](mailto:scouvillon@inhf.org) or 515-288-1846, ext. 45.

## TRIBUTE GIFTS

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Donald Maze  
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Jim Slitor  
LaVonne Summers  
Marlys Svare

Jim Todd  
Stephen R. Varcoe  
John Morgan Wanamaker  
Dr. Kent L. Webb

# Songs of Summer

BY JORDAN MCDOWELL  
*Design Intern | [jmcdowell@inhf.org](mailto:jmcdowell@inhf.org)*

Iowa has its own native rockstars that make a summer appearance, (and no, we’re not referring to the famed rock band *Slipknot*.) Crickets, katydids and cicadas all make their debut in the summertime and are known for being particularly noisy with their sweet songs.

These insects aren’t nonsensically reverberating. Their mating seasons fall in summer so that they can lay eggs in time to protect their nymphs from the coming winter. The males of each of these species are trying to out-shriek each other using their own distinct chorus at different times during the season with the purpose of attracting their perfect mate.

Katydid are often heard in the middle of the afternoon and typically make themselves known within the trees. A total of 23 katydid species live in the state, and while they each sound a little different, the melody they project sounds like, “katydid-katydid-katydid-did.”

To make their distinct “chirp,” cricket species will rub their wings together energetically, and the sound they project is a therapeutic repetitive ringing. They like to hide in tall grasses and trees, depending on the species. Crickets are often one of the last species to sing for the season, and you may hear them late into autumn.

Cicadas (often misidentified as locusts,) essentially have a drum on their abdomen that they rapidly click in and out to make their distinct buzzing tune, which has the potential to out-roar a jet plane. Once the cicada nymphs have hatched, they spend their earliest stages of life burrowed underground in wooded areas, and gorge on tree roots until

Learn more about Iowa’s singing insects at:  
[www.inhf.org/blog](http://www.inhf.org/blog)



All photos by Larry Reis

they are ready to reappear and begin the mating process all over again.

There are two categories of cicada species—annual and periodical cicadas. A new batch of annual cicadas appear, as you might expect, every summer. They are much larger than their periodical counterparts but only have a 2–5-year lifespan, nearly all of which is spent underground as a nymph except for a few short weeks midsummer. Periodical cicadas live much longer and only emerge every 13 or 17 years. This year is a special one in that two periodical cicada broods are expected to emerge around the same time as the annuals, filling the summer air with three distinct cicada songs. Periodical broods XIX and XIII will peak between May and June, but are only likely to be seen on the very eastern edge of the state.

Embrace nature’s songs of summer and spend some time making memories with your loved ones while listening to and identifying Iowa’s singing insects, right in your own backyard or at a nearby park. 🦗

**Top:** An annual cicada parks on the stem of a leaf.

**Left:** Annual cicada perches next to its molt.

**Right:** A Texas bush katydid enjoying the fruits of a prairie flower’s offerings.







**Iowa  
Natural Heritage  
Foundation**

505 5th Ave., Suite 444  
Des Moines, IA 50309



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**Two of the most common frogs** in Iowa are the American bullfrog (*Lithobates catesbeianus*) and the green frog (*Lithobates clamitans*). These species can be hard to distinguish from one another without seeing them side-by-side. One clue lies in the ridge of skin that runs behind the eye and tympanum, or eardrum. The frog pictured here is likely a bullfrog as this ridge of skin appears to curve behind the tympanum, instead of continuing down the back like in a green frog. The large round tympanum behind the eye can also indicate the sex of the frog. If the tympanum is larger than the eye, the frog is likely male and if smaller, it is likely a female. *Photo by Jacob Pitzenberger*

