

IOWA NATURAL HERITAGE

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



PRESERVING THE SLOUGH
One family comes together to
preserve 1,000+ acres **8**

THE STATE OF CLIMATE
How Iowa can make an impact on
our changing climate **14**

THE LAST LINK
Two popular trails will soon
connect **18**



8 Preserving the Slough

One family comes together, deciding to sell a 1000+-acre piece of family history, preserving a birding spot and inevitable outdoor recreation hub in central Iowa.

12 Lending a Hand For The Land

INHF's volunteer program and land ambassadors make a difference year after year.

14 The State of Climate

Iowa, like the rest of the world has been affected by a changing climate; here's what we can do about it.

18 The Last Link

A project years in the making is coming to an end as two of the most popular trails in Iowa will finally connect.

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

Southern blue flag iris (*Iris virginica*) is a wetland species that primarily blooms in June. Blooms can vary from light blue to deep purple.

Photo by Jacob Pitzenberger



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

505 Fifth Ave., Suite 444 Des Moines, Iowa 50309
www.inhf.org | 515-288-1846 | info@inhf.org

STAFF

Joe McGovern
President

Sydney Algreen-Hunter
Communications Assistant

Ross Baxter
Senior Land Protection Director and Counsel

Maeve Bittle
Conservation Easement Assistant

Andrea Boulton
Trails and Community Conservation Director

Jered Bourquin
Blufflands Associate

Jessica Riebkes Clough
Land Conservation Specialist

Stacie Couvillon
Planned Giving & Major Gifts Officer

Kevin Cutsforth
System Administrator

Brian Fankhauser
Senior Land Stewardship and Blufflands Director

Diane Graves
Administrative Assistant

Anna Gray
Public Policy Director

Erin Griffin
Donor Services Coordinator

Lisa Hein
Senior Director for Conservation Programs

Joe Jayjack
Communications Director

Heather Jobst
Senior Land Protection Facilitator

Susan Johnson
Chief Financial Officer

Bill Kohler
Eastern Iowa Land Stewardship Director

Destiny Magee
Eastern Iowa Land Stewardship Assistant

Emily Martin
Conservation Programs Coordinator

Derek Miner
Land Stewardship Associate

Patrick McNaughton
Blufflands Land Stewardship Assistant

Erica Place
Communications Specialist

Tylar Samuels
Conservation Easement Specialist

Taryn Samuels
Data Entry Specialist

Melanie Schmidt
Volunteer Coordinator

Ryan Schmidt
Central Iowa Land Stewardship Director

Abby Hade Terpstra
Director of Philanthropy

Erin Van Waus
Conservation Easement Director

Kari Walker
Human Resources Director

Kody Wohlers
Loess Hills Land Stewardship Director

BOARD OF DIRECTORS

Chair
John Fisher, *Des Moines*

1st Vice Chair
Greg Grupp, *Spirit Lake*

2nd Vice Chair
David Brown, *Des Moines*

Secretary
Peg Armstrong-Gustafson, *Waukee*

Treasurer
Wendy Wiedner, *West Des Moines*

Garth Adams, *Des Moines*

Amy Anderson, *Des Moines*

Will Anderson, *Des Moines*

Gilda Boyer, *Cedar Rapids*

Cindy Burke, *Central City*

Ed Cox, *Centerville*

Mike DeCook, *Lovilia*

Paul Easter, *Des Moines*

Vern Fish, *Waterloo*

John Gray, *Sioux City*

Rob Hall, *Harlan*

Neil Hamilton, *Waukee*

Rajee Harris, *Des Moines*

Kirsten Heine, *Decorah*

Thomas Hoff, *Iowa City*

Lori Howe, *Adel*

Robert Jester, *Des Moines*

Jeff Lockwood, *Bettendorf*

Jan Lovell, *Clear Lake*

David Mackaman, *Des Moines*

Paul Morf, *Cedar Rapids*

Liz Neumann, *Des Moines*

John Newman, *Honey Creek*

Richard Ramsay, *Des Moines*

Carole Reichardt, *Clive*

Susan Salterberg, *Iowa City*

Susan Shullaw, *Iowa City*

Seth Watkins, *Clarinda*

Paul Willis, *Thornton*

EDITORIAL

Joe Jayjack
Editor/Publisher

Erica Place
Managing Editor

Sydney Algreen-Hunter
Design Editor

Iowa Natural Heritage is published quarterly by Iowa Natural Heritage Foundation for its supporters and friends. Articles appearing in *Iowa Natural Heritage* may be reprinted with permission of the publisher.

Circulation 10,000



Resiliency in a changing climate

Resiliency is a word we use often, especially when talking about people and their ability to overcome hard times. But when we apply it to our natural landscape it can take on a whole new meaning, especially in the context of a changing climate and all the impacts it can have on our land, water and wildlife.



JOE MCGOVERN
President

Nature IS resilient, but only if we give it the opportunity to thrive — both meeting its needs for survival and creating an environment for growth. We can apply the same concept to Iowa's communities, especially rural areas struggling to attract and retain a viable workforce. One way INHF helps our partners build resiliency in our rural communities is by helping to create outdoor recreation opportunities like parks, trails and wildlife areas that people can enjoy year-round.

The new trail connection between the High Trestle Trail and the Raccoon River Valley Trail in Dallas County is a shining example of that partnership. The soon-to-be-finished trail is not only linking two of Iowa's most popular trails and getting people outdoors, it is connecting communities and creating an amenity that is attracting people to live, work and play in a rural part of Iowa. And you can

see how the business community is responding statewide, with new restaurants and shops popping up along trails.

Resiliency is also a great way to describe our newest project, Brenton Slough. This wonder of a natural area has been in the Brenton family for over 125 years. Having this vast wetland and woodland complex in the fastest-growing area of Iowa is a testament to nature's resiliency, but also to the Brenton family's great stewardship of the property. The Brentons are now continuing that legacy by trusting INHF and Polk County Conservation to permanently protect this amazing place for future generations.

Iowa's farmers and ranchers are resilient, but they are facing challenges as extreme weather events become more common. Can we work together to find and implement tools to create resilient agricultural lands? Soil health and water quality measures will be imperative if the farmer and the farmland are going to continue to thrive in a changing climate.

Of course, INHF's resiliency over the past 44 years would not be possible without the thousands of supporters, like you, trusting us to deliver much needed protection and stewardship of our precious natural areas. **Thank you** for giving us the opportunity to serve you, serve nature and serve future generations!

Lanz Heritage Area in Jasper County is a great example of how agriculture and native habitat can work together to make crops and land more resilient.

It's not uncommon for my out-of-office reply to read, "Off to see the saguaros." Or maybe, "Hugging sequoias, be back Monday!" The nature vacation has endless appeal for me: days with nothing to do but hike a new trail, view charismatic plant life and camp in unideal temperatures.

A while back, I took a trip to see rare orchids. It was hot and humid, but I donned long sleeves, boots and pants for the mosquitoes. I was glad for the gear as I climbed around vines and stopped to watch birds. Eventually, I spotted the orchids. I gasped in awe.

Orchids are a prolific taxa (around 28,000 species!), so this story could be from a trip to nearly anywhere in the world. This time, though, the "trip" was just within Iowa. The orchid I saw was the endangered western prairie fringed orchid (*Platanthera praeclara*) — a lifer for me. This particular population is carefully stewarded on public land.

We may not have record-size trees or towering cacti, but what we have here in our state is worth saving and exploring. All of the things I travel for — destination parks, trails, outdoor recreation — Iowa's got it. This summer, may your nature vacation start just outside your front door.

— JESSICA RIEBKES CLOUGH
Land Conservation Specialist

The western prairie fringed orchid is rare, in Iowa and across the U.S. While you may not be able to find this plant in the wild, you can enjoy it perpetually by visiting inhf.org/acorn-crew and downloading a coloring page featuring the orchid and one of its pollinators. *Photo by Derek Miner/INHF*



RECAP OF 2023 LEGISLATIVE SESSION

Your voice made a difference for conservation. While a bill intended to fund the Natural Resources and Outdoor Recreation Trust Fund did not pass, neither did a bill that would have threatened the growth and enhancement of Iowa's parks, trails and wildlife areas. Your consistent advocacy throughout the legislative session helped shape conservation policy, and we'll call on you to do the same next year. Visit www.inhf.org/blog for the full session recap.

COOPERATIVE BURN WEEK

The 8th annual Cooperative Burn Week was held late April with many INHF staff in leadership and coordination roles or participating as attendees. Cooperative Burn Week is a 5-day practicum on the land coordinated by multiple agencies that aims to build partnerships, skills and confidence amongst conservation professionals. Held in the Loess Hills — the portion of the state holding many of our remaining sensitive prairies — participants practice a variety of prescribed fire techniques while navigating difficult landscapes, learning alongside mentors and gaining skills to take back to their own projects and organizations.

“One of the magical things about Cooperative Burn Week is that it's not training out of a book,” explains Doug Chafa, Wildlife Biologist with the Iowa DNR. “It's not training from an internet video. It's person to person.”

This training and networking is not only valuable in achieving restoration goals through planned burns, but equips people across the state to respond to unintended fire.



Photo by Kody Wohlers, INHF

UPDATED LANDOWNER OPTIONS BOOKLET

First printed in 1982, the INHF's Landowner Options booklet has long been a tool for those exploring methods for permanently protecting the land they hold dear. The booklet guides you through various protection options and associated benefits, whether you want to keep your farm in the family or create a new wildlife area for all Iowans to enjoy. You can find the updated info at IowaLandOptions.org or request a hard copy through info@inhf.org.

HAGIE HERITAGE AWARD NOMINATIONS

Know an outstanding conservationist that goes above and beyond? Nominate them for the 2023 Lawrence and Eula Hagie Heritage Award. The Hagie Heritage Award recognizes Iowans who have demonstrated extraordinary personal service and commitment to improving the quality of Iowa's natural environment and who encourage others to do the same. Applications are due July 1, 2023. Visit inhf.org/hagieheritageaward to learn more and view a complete list of past honorees.

UPCOMING EVENTS

JUNE 24

Loess Hills Summer Hike
Sergeant Bluff

Join INHF and the Northwest Iowa Sierra Club for a hike at the Wendel Family Prairie Preserve.

JUNE 26-29

North American Prairie Conference
Altoona

The NAPC brings together leading experts, prairie enthusiasts and professionals for presentations, keynote speakers and field trips highlighting the value of one of the continent's most important and endangered ecosystems.

JULY 8, AUGUST 12

Kothenbeutel Heritage Prairie
Workdays
Sheffield

Join INHF Land Ambassador volunteers for a series of workdays at Kothenbeutel Heritage Prairie. Activities will include invasive species removal and/or prairie seed harvesting. Workdays will occur every second Saturday, April-October from 1-4 p.m.

JULY 10

Heritage Valley Summer Seed Harvest
Waukon

Hand-harvest native seeds from Heritage Valley's hillside prairies. Seed collected will be used to diversify and expand area prairies.

JULY 19

Pollinators of the Iowa Prairie Field Day
St. Anthony

INHF is partnering with Practical Farmers of Iowa to provide a field day with the theme of Pollinators of the Iowa Prairie: Conservation 70 Years in the Making. Carl Kurtz, writer, teacher, naturalist, and photographer, will host the event.

JULY 20, AUGUST 17

UpCycle Stewards
Gray's Lake, Des Moines

Together, volunteers will help restore land for native plants by removing invasive species from the park. After the event, organizers will take the plants to Blank Park Zoo where they will be “upcycled” into food for the zoo animals.

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

QUARTERLY PROTECTION REPORT

A quick look at new INHF protection projects and land transferred between **February-April 2023**

Newly Protected Areas

Polk County

257 acres of restorable floodplain near Ankeny. A previous INHF project, the additional protection of this conservation easement will open avenues for wetland, streambank and prairie restoration, positively impacting the water quality of Fourmile Creek and creating needed habitat near city limits. *(Conservation easement granted by Polk County Conservation)*

Sojourn Grove

215 acres of grassland and wooded draws near Williamson in Lucas County. In addition to being located within a target watershed for the protection of bat habitat, the property is adjacent to Stephens State Forest and located within the Stephens Forest Bird Conservation Area. *(Owned and managed by INHF)*

Appanoose County

32 acres of riparian woodland adjacent to Sedan Bottoms Wildlife Management Area near Exline. Mature hickories and oaks along with oxbows and wetlands provide excellent habitat for amphibians, reptiles, birds and other wildlife. Located within the Sedan Bottoms Bird Conservation Area and the Chariton River floodplain. *(Proposed public ownership)*

Harrison County

40 acres of woodland west of Dunlap. Recognizing the mature stands of bur oak, black walnut, bitternut hickory and basswood provide ample habitat and outdoor recreation opportunities, the landowners wished to see the property become a public space for all to enjoy. *(Portion of land value donated by James Doidge. Proposed public ownership)*

Marion County

172.5 acres of mixed habitat west of Marysville in Marion County. Provides opportunity for restoration of the woodland and grassland and a reduction in erosion. *(To be protected by a conservation easement held by INHF)*

Woodbury County

200 acres of remnant prairie and mixed habitat in southern Woodbury County. Located within the Grant Center Special Landscape Area in the Loess Hills, permanent protection and restoration will positively impact water quality in the Little Sioux River and preserve prairie species like yucca, purple and white prairie clover and multiple blazing star species. *(Proposed public ownership)*



Sojourn Grove, Lucas County

Land Transfers to Public Partners

Chichaqua Bottoms Greenbelt Addition

48 acres along the South Skunk River within the Chichaqua Bottoms Greenbelt near Bondurant in Polk County. Connects existing public land and wildlife habitat, including a natural corridor connection on the north side of the river, and allows for soil stabilization and water infiltration during high water events. *(Owned and managed by Polk County Conservation Board)*

Paul and Becky Kelley Family Wildlife Area

155 acres of woodland bisected by Twelve Mile Creek near Afton in Union County. Large white oaks and a restored wetland provide a great diversity of habitats, and its proximity to Union County Conservation's headquarters lends itself to environmental education opportunities. *(Owned and managed by Union County Conservation Board)*

Ochee Yahola Park Addition

123 acres of grassland and woodland in northern Worth County near Northwood. Connects the existing Ochee Yahola Park with nearby Panicum Prairie, forming contiguous habitat and outdoor recreation opportunities. Protects an undrained wetland, safeguarding valuable habitat for species like Sandhill Cranes and other wildlife. *(Owned by the U.S. Fish & Wildlife Service and managed by the Iowa DNR)*

Dekalb Wildlife Management Area Addition

80 acres of oak savanna and grassland near Leon in Decatur County. Builds on existing public land, expanding wildlife habitat and outdoor recreation opportunities. Falls within the Sand Creek Bird Conservation Area. *(Owned and managed by the Iowa DNR)*

Riverton Wildlife Area Addition

35 acres of floodplain along the Ocheyedon River and west of Spencer in Clay County. Adds contiguous land to a previous INHF project and will positively impact water quality in the river by protecting sensitive floodplain. *(Owned and managed by Clay County Conservation)*

Preserving the Slough

A piece of family history will be preserved as a birding hot-spot and inevitable outdoor recreation hub in central Iowa.

BY ABBY HADE TERPSTRA
Director of Philanthropy | aterpstra@inhf.org

Sitting on the edge of Polk and Dallas Counties, with 1,114 acres of wetlands, woodlands and oak savanna, the gravel road running through Brenton Slough is a mecca for birders, naturalists and nature photographers. Often the road's edge is lined with folks peering into the private property to glimpse where Sandhill Cranes nest, tiger salamanders skitter, and soft shelled turtles as big as platters bask.

Back in the day, part of the Department of Natural Resources annual display at the Iowa State Fair was a live exhibit of Iowa's wildlife. "This is where they'd go to catch turtles and snakes," shares Bill Brenton. "They'd return them afterwards. They knew they could find lots of good examples here."

The valley that the Brenton Slough property sits in is at the very southern end of the Prairie Pothole Region and was formed by the Des Moines Lobe of the Wisconsin Glacier over 12,000 years ago. The glacier picked up sediment as it carved through the earth and then, as it receded through the bend in valley, meltwater deposited sand bars on a massive scale. Those sand bars created a wetland stream corridor filled with ridges and hills — a unique place where forest, prairie, river and wetland systems intermingle.

The main body of water on the property meets the national definition of a slough — one of only fifteen mapped as such in Iowa. The 52 acres of water there tends to be stagnant or flowing slowly on a seasonal basis, with its deepest point only around three feet.

"At the right time of year, from the edge of the water up the shoreline about five feet is ringed with frogs," said Bill. "The chorus is just astounding."

Beaver Creek and its oxbows are a dynamic part the property, prone to seasonal flooding that leaves the area spongy or at times like a backwater marsh. Its seclusion and the proliferation of wildlife there led W. Harold Brenton to have it designated as a Game Refuge in the early 1900s, right as the conservation movement began.

Over time, Bill has noted the fluctuations of wildlife populations at the slough. "When I was a kid, it was all Snows and Blues [geese]," he said. "The skies and ponds were filled with white. Then, twenty years ago, Canada geese started taking over. Now the Snows and Blues are coming back."

"Mixed habitat types make for maximum bird diversity," said Ty Smedes, an area wildlife photographer and bird enthusiast who has long admired Brenton Slough through his lens. "It's great to see that not just the water but also the surrounding upland will be protected. Having land adjacent keeps predators from working the edges of the wetland, raiding nests of waterfowls and birds like pheasants that would have nowhere else to nest."

The Brenton family has long used the property as a playground and retreat. W. Harold Brenton inherited the land from his father, Charles, and his uncle, Clyde. Charles and Clyde purchased the property and additional surrounding 900 acres from two lumber

A Sandhill Crane and her two colts
browse for food at the Brenton Slough.
Photo by Ty Smedes



Birding enthusiasts and nature lovers often flock to see this view from the gravel road that intersects the Brenton Slough. In the distance, an old railroad bridge is visible. *Photo by Erica Place/INHF*

Brenton Slough

Polk and Dallas counties



LAND: 1,114 acres of wetland, grass and woodland habitats

SPECIAL FEATURES: Hotspot for many migratory and water birds; rare species recorded on site. One of only 15 sloughs in Iowa.

PARTNERS: Polk County Conservation

companies and an individual from New York State, Mr. Ingersoll. The Brenton family has farmed the land for over a hundred years. Currently it is owned by the family members of Charles Robert “Bob” Brenton and Junius Clyde “Buz” Brenton, who are the sons of W. Harold Brenton and Etta Spurgeon Brenton, operating as Brenton Brothers Inc. and Brenton Farms Inc. Bill Brenton, son of Bob, has been the operating farm manager for decades.

“Dad would come tour the farms every weekend,” Bill remembers. “We’d tour the cattle feed lot, the hog farm, the crops, shake hands and say hello to all the men, ask about their families. He always said that was his golf game.” Bob kept touring the farms with Bill every Saturday until about ten years ago.

Ken, Bill’s cousin, grew up nearby in Dallas Center. “I’d run through the cornfield out back to get over there,” Ken remembers. “We’d go out, pick up eggs and go get bags of sausages and hamburger from the Granger meat market, all from the farms.”

They both remember their grandfather, Harold, bringing folks to the slough for duck hunting or lobster boils. “Harold was the Treasurer of the National Republican Party, and Bob was the President of the American Bankers Association,” Ken shared. “This was a place to bring people together, get to know them, and do a little business.”

Bill adds, “When my kids were growing up we’d camp out there in the summer and have ice skating parties in the winter. We’d collect whatever skates we could find for friends who would come. It was a great place for that.”

The surrounding area has been seeing significant change as development from

Johnston, Grimes, Granger and Urbandale surge around its borders. But standing in the property’s interior, sheltered by the undulations of glacial moraine and the canopy of mature trees, nature surrounds you fully.

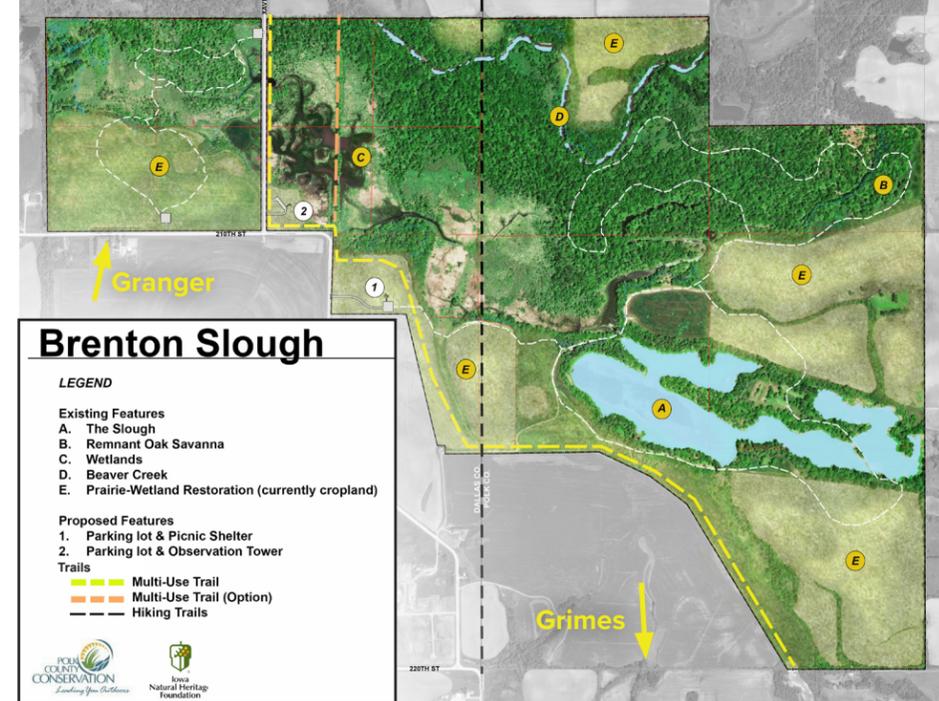
Thirty-two members of the Brenton family have been contemplating for years what the best future of the property would be. “It became apparent to the family that the land should be held in perpetuity by an entity that can assure its preservation,” wrote Ken Brenton. “We wanted a partner that could assure its preservation and provide it to the community as an asset to be protected and experienced.”

“We were honored to be invited to the table,” says Joe McGovern, President of Iowa Natural Heritage Foundation. “This is a very special place with a rich history, in an area of the state seeing rapid changes to the landscape.”

An agreement was reached late in the winter of 2023. This July, Iowa Natural Heritage Foundation will be purchasing the property from the Brenton family with a plan to transfer ownership and management to Polk County Conservation following fundraising. Brenton Slough will eventually be open to the public once all the funding is in place.

“Ken’s and my family have owned [Brenton Slough] together since the ‘90s,” said Bill Brenton. “We wanted to make it into a park, keep it as natural as we can and keep as much of the wildlife as we can. It is important to us to preserve the naturalness, the rustic-ness of it. We wanted to preserve this forever and this is a great way to do it.”

A project of this size and scope comes with



considerable cost – it will take \$8 million to secure the property. Already, Polk County Conservation has identified \$3 million in funding, and a generous donor has pledged an additional \$500 thousand. Iowa Natural Heritage Foundation is assisting with fundraising efforts with a goal to raise the remaining \$4.5 million through a public donation campaign and grants.

“Public show of support is crucial in leveraging fundraising at the state and federal level,” said Heather Jobst, Senior Land Protection Facilitator at INHF. “A donor campaign will increase our chances at scoring well and leveraging these competitive dollars.” INHF’s goal is to have an additional \$3 million in public support pledged by Labor Day 2023.

“This gives a chance for people to be directly involved in protecting a place where habitat is crucial to conserve,” adds Stacie Couvillon, INHF’s Planned Giving and Major Gifts Officer. “Brenton Slough is already a place people travel to see, even if they can currently only do so from the public road. To be able to invite quiet recreation into it while preserving this ecosystem is quite a treat.”

Polk County Conservation is working to finalize their vision of what Brenton Slough will look like in the future. Currently the staff is planning to facilitate light recreation through mowed hiking paths, infrastructure for birders, and occasional volunteer or educational events. A mixed-use trail is likely to run along the property as part of the larger trail development plans in the area. Even with these additions, Polk County Conservation

will manage Brenton Slough with the goal of maintaining, increasing and improving wildlife habitat.

“This is nature being nature,” said Rich Leopold, director of Polk County Conservation. “We will let it thrive on its own where appropriate, and in other areas we’ll carefully manage the land to restore or improve it. It’s a vibrant, wild place we get to experience right here.”

“It is important to get kids interested in science and biology,” said Ken Brenton. “That way they become interested in protecting this, protecting nature. We’d like young kids to be able to visit this place and maybe get interested, take a science course.”

In a booklet detailing the land and wildlife of Brenton Slough, put together in 2020 by Chuck Brenton, Bill’s son, he says, “The way I see it...the land of Iowa has been extremely generous to the Brenton family for well over 150 years, and now is our time to give back.”

“The Brenton family has taken good care of the land,” said McGovern. “We are pleased that this will continue under Polk County Conservation ownership in perpetuity.”

In a county undergoing such rapid change, conservation of properties with existing quality wildlife habitat, especially such a large parcel, is a rare and wondrous opportunity. Brenton Slough will forever continue to be, thanks to the conservation desires of the Brenton family, a gem of central Iowa and a birder’s paradise. 🦋



The Brenton family visited the slough yearround. Pictured here is Charles Robert “Bob” Brenton with daughter Jane and other family members. *Photo provided by William “Bill” Brenton*

HOW YOU CAN HELP

INHF has a goal to raise \$4.5 million to purchase Brenton Slough and make sure that it is protected forever.

Learn more about the project and how to donate by visiting www.inhf.org/brenton-slough

If you have questions or want to learn more about how you can support the project, contact INHF Director of Philanthropy Abby Hade Terpstra at aterpstra@inhf.org or **515-288-1846**, ext. 15.

— Lending a hand — FOR THE LAND

"No one will protect what they don't care about; and no one will care about what they have never experienced."

— David Attenborough

BY ERICA PLACE
Communications Specialist | eplace@inhf.org

Not surprisingly for an organization whose mission centers on protecting and restoring Iowa's natural resources, many of Iowa Natural Heritage Foundation's volunteer projects take place outdoors. Projects on the land are by far INHF's most numerous and most popular way in which we engage with volunteers. While much of INHF's land stewardship is amplified through groups and individuals lending their time and talents, the impact is much greater than that.

Structured workdays quickly became a staple of INHF's volunteer program following their debut in 2013. Nearly all these public events require no prior experience and supplies are provided, making them great options for individuals, families or corporate groups to lend a hand for the land. Projects often coincide with nature-related events like Earth Day or National Trails Day, but most often they align with windows of opportunity for certain restoration goals. Pulling garlic mustard — a plant invading Iowa's woodlands — is an effective management method for only a few weeks each spring. Prescribed fire — an

important tool in our restoration toolbox that requires many hands — can only be done during specific environmental and weather conditions that can be hard to predict far in advance. Some machine-harvested prairie seed mixes — collected in the fall — are incomplete without the seeds of long-gone early bloomers, and so must be supplemented with seeds carefully hand-harvested in the summer heat. Other prairies are only hand-harvested, taking just the seeds with the understanding that the stems and stalks will be important winter cover in a few months. The natural rhythms that dictate our work also provide opportunity to make connections with the world around us, and INHF staff work to weave those lessons into each workday.

"My soul always feels better after I've been out doing this kind of thing," said David Behrens while volunteering at a recent brush removal workday at Snyder Heritage Farm. "It does wildlife good. It does us people good."

Some events involve other partners, like collaborative workdays with Pheasants Forever chapters or county conservation departments.



At the UPCYCLE series held every summer at Gray's Lake in Des Moines, multiple entities come together to lead volunteers in removing invasive plants, benefiting the woodland, fostering community connections and resulting in lots of cut vegetation for browse and enrichment for animals at the Blank Park Zoo. Another event series, held annually since 2013 at a property in Boone County, brings graduate students in the Natural Resource Ecology and Management program at Iowa State University back to the same spot to continue prairie restoration started by their predecessors. Despite individual students being in the program for a short time, word of the workday is passed down as a meaningful and educational experience that should be continued. Collaborative events like these provide a lift for all parties, including the land.

Events often serve as a conduit, building confidence and skills that move people along the continuum towards roles with increased involvement and responsibility. INHF's Land Ambassador program — started in 2016 — is full of people who first connected with INHF through a public event and wanted to do more.

"Being a Land Ambassador helps fulfill a long-held desire to be connected to the land," explains Jeff Jutting, Land Ambassador at Perkins Prairie Preserve in Greene County since 2017. "Each prairie remnant is a beacon of hope for a sustainable future. Helping to keep Perkins Prairie Preserve healthy is my contribution to that future."

Land Ambassadors make a year-long commitment to assist INHF as the "eyes and ears" of a designated piece of land, agreeing to regular visits with the option to also partake in tasks like species inventory, photography or habitat restoration. The variety of potential tasks attracts many different motivations.

For Jutting, his time on the prairie not only connects him to nature, but to his family. His work honors the memory of his late son Chris, who held degrees in Environmental Science and Geology, noting that, "When I'm on the prairie, he is always right next to me." Jutting's four grandsons also accompany him in prairie work, learning to love the land just like he does.

Some Land Ambassadors, like those assigned to Kothenbeutel Prairie in Franklin County, are organizing and leading their own monthly public workdays, recruiting additional volunteers to help with INHF-directed land stewardship.

"It has given me the opportunity to connect with people who are likeminded and who care about the prairie and the land in my direct area, as well as an opportunity to continue to learn," explains Caitlin Golle, one of the Land Ambassadors for Kothenbeutel Prairie. "We all have a different perspective about what's valuable about the land and the little treasures hidden within it."

Bringing others into our work is what it's all about — you can't care about what you haven't experienced. Attendees of a tree planting workday can return later and see that they are responsible for shade, cover and food. Volunteers who remove invasive honeysuckle can see the fruits of their labor marked by blooming wildflowers on the woodland floor the next spring. Those who collect seeds can observe all the life using the prairie they helped create. They make connections between themselves and the natural world, and they begin to care; to gain a sense of ownership and responsibility. Advocates for Iowa's land, water and wildlife are created. 🌱

INHF volunteers extend our mission statewide.

Volunteers who participate in organized group workdays like the UPCYCLE events, pictured above, substantially supplement our staff's work. Prescribed fire volunteers, like Jeff Jutting and David Brady (pictured left), often make the fire possible when staff numbers are limited. You can learn about upcoming volunteer events at inhf.org/events. Photos by INHF

The State of Climate

Iowa's climate is changing; nature-based solutions are a key tool to help.

BY EMILY MARTIN
Conservation Programs Coordinator | emartin@inhf.org

When most people think of climate change, images of melting ice and polar bears spring to mind. It makes the issue feel distant, as though it will always happen to someone else but never come to our landlocked state. Iowa doesn't have glaciers to melt, but we're still facing very real issues because of the advancing climate crisis. Rural bridges and roads that wash out because of overwhelming rain events. Loss of wildlife diversity once so abundant it inspired novels. It is undeniable that Iowa's climate is already changing.

It can be overwhelming to know where to begin to tackle Iowa's climate emergency. The last time Iowa created a comprehensive publicly-funded climate report was in 2011. Since then, Iowa has lost \$20 billion to \$50 billion to natural disasters (NOAA National Centers for Environmental Information). There is urgency in acting now on both a statewide and individual level. Despite the scale of the issues Iowa is facing, there is hope.

Fighting climate change starts with understanding what we know has changed and reliably predicting what we know will change moving forward. INHF is proud to be publishing the Iowa Climate Assessment, being written voluntarily by several of Iowa's top climate scientists. Dr. Gene Takle, professor emeritus of Iowa State University and lead author of the Iowa Climate Assessment, explains more.

What's Happening in Iowa?

COURTESY OF DR. GENE TAKLE
Reviewed by the Iowa Climate Assessment lead authors

We usually associate the term "climate change" with hotter conditions. And, in fact, at the global scale, higher temperatures during the planet's warm seasons are, indeed, becoming more frequent. The latest international report, compiled and agreed upon by thousands of scientists from over 195 nations, found that 43 of 45 global land regions are experiencing more extreme heat events.

But Iowa is not in one of these 43 regions. Over the 20th century Iowa's average temperature increased by only 0.2 °F, and over the last 30 years the average rose by 0.8 °F from the 20th-century average — far less than the global temperature rise of over twice as much, 1.9 °F. A closer look reveals that our daily maximum temperatures in summer have actually gone down over the last 30 years by 1.1 °F. Of course,

most Iowans think our summers are already hot enough, so this observation sounds like good news. But there's more to the story.

Iowa is getting wetter. Weather records confirm this and further reveal that the statewide rainfall in the April-May-June period now has gone up by 2.4 inches over the same 3-month period in the 20th century. For comparison, this excess rain, averaged over the entire state of Iowa, is enough to fill an empty Lake Red Rock (Iowa's largest lake) 36 times every year.

Not only that, but 4 and 6-inch-per-day rains have become much more frequent. Also, summer nights feel warmer and more humid, and winters seem warmer with fewer days below, say, -15 °F. Overall, there seems to be more weird

weather. Throw in an occasional flood, derecho, -30°F wind chill, and severe drought, and we are prompted to ask, "Is this climate change?" Are these a part of natural variations in Iowa's weather or are they caused by changing conditions outside of our state? What are the impacts of these and future changes?

The Iowa Climate Assessment, to be completed by a team of Iowa scientists in 2024, will be an extensive collection of scientific literature on Iowa climate and how its trends, variability and extremes have been changing and will affect future water resources, natural systems, agriculture and human health. It also will address climate adaptation and mitigation, including the unique opportunities and challenges posed by Iowa's future climate.



Nature-based solutions like wetland restoration, reforestation and rotational grazing can help mitigate climate change in Iowa. *Illustrations by Madeline Shumaker, INHF Graphic Design Intern*

The path forward

As a conservation organization, INHF is deeply concerned by the changes we're seeing on the land. In a state already more altered than nearly any other in the country, we cannot afford to lose more of our natural resources that help mitigate climate change impacts. That's why we're taking action in partnership with private landowners and other conservation organizations to protect and restore land. Every acre protected or restored is another acre resilient to change. To floods and droughts. To temperatures inhospitable for playing or working outdoors.

Land protection and restoration have a significant role to play in preventing and mitigating climate change. According to a study published by Proceedings of the National Academy of Sciences of the United States of America in 2017, "nature-based solutions can provide up to 37% of the emission reductions needed by 2030 to keep global temperature increases below 2°C." Those nature-based solutions include reforestation, wetland restoration, rotational grazing and many other conservation practices. Agriculture is also part of the solution; if cover crops and no-till were implemented in every one of Iowa's agricultural fields, we could offset 18% of Iowa's total greenhouse gas emissions. These land-based climate solutions can be broken down into four main benefits.

Removing air pollution through land protection

The term "carbon sequestration" is often used when discussing climate change. Sequestration is another way of saying the long-term storage of carbon in plants, soils, geologic formations, and oceans, which is the natural cycle of carbon. As humans have interrupted the natural cycling of carbon, it's become necessary to restore these natural carbon absorbers. In Iowa, we look to plants and soils to absorb and hold that carbon. Prairies, forests, wetlands, and cover crops on agricultural land are all solutions to remove carbon from the atmosphere and hold it in place.

Preventing pollution of air and water

Conservation on the land can both help absorb greenhouse gases like carbon and prevent their emission. When a forest is clear-cut, a prairie is plowed, or a wetland is drained and paved over, much of the carbon is transferred to the atmosphere which further contributes to the climate imbalance. By protecting land long-term, INHF is making sure carbon stays where it is held by ecosystems – in plants and the soil. One of the best and most immediate actions INHF, landowners and other conservation organizations can take for climate change is to protect Iowa's native ecosystems so more carbon is not lost.

Providing habitat for wildlife

Just as humans need corridors to travel, interconnected landscapes are a key resource wildlife species currently need and will need as changes to their home range could force them to new areas. Wildlife already does not have many places to move in the state, so protecting areas where they can freely wander and adjust to impacts, such as river corridors or large tracts of forest or prairie, will be crucial to their survival.

Building resilient communities

Land protection and restoration also creates resilient communities. As Iowa faces increasing extreme weather events, our native ecosystems will help protect us. For example, when we receive more than average rainfall, wetlands and deep-rooted prairies upstream will help absorb that water before it enters rivers and streams to prevent flooding downstream. At the same time, that water is being cleaned of pollutants like nitrate.

To do our part in addressing climate challenges, we all must lean into what we love and let that drive our actions. For you, that may be creating a livable and thriving world for your children and grandchildren. For INHF, we are driven by our love of Iowa's land, water and wildlife. Together, we can take collective action and create a better world for future generations. 🌱



The Last Link

A highly-anticipated connection between two of Iowa's most popular multi-use trails is nearly complete.

BY ERICA PLACE | Communications Specialist | eplace@inhf.org
Contributions from Joshua Harris, Communications Intern



Photo by Lexi Ruskell

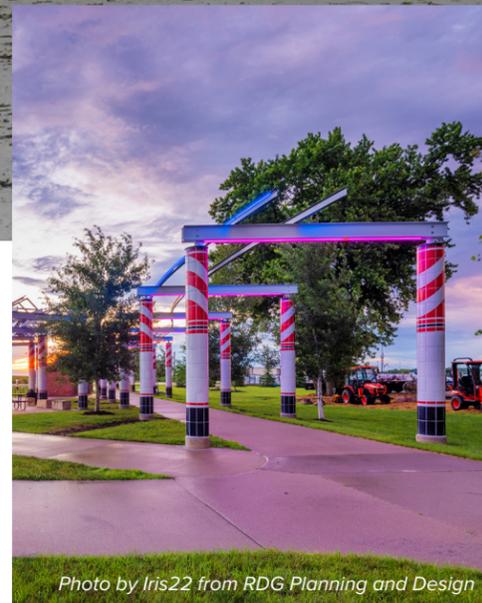


Photo by Iris22 from RDG Planning and Design



Photo by Lexi Ruskell

The Raccoon River Valley Trail includes 89 miles of paved trail and will soon connect to the High Trestle Trail, bringing even more visitors to the communities connected with the trail. Photo by Erica Place, INHF

Nearly all Iowa towns owe their location to a railroad. People gathered around amenities like fueling stations or train depots and rail service meant faster transportation of farmers' crops and meat. Iowa's rail network grew quickly, connecting communities to commerce. They linked everything together. Less than a century after construction first began, Iowa had more than 10,000 miles of railroad.

Railroad activity peaked by 1920 and trains fell out of favor as the main method of transportation of people and goods shifted to cars and roads. Deregulation in the 1980s caused many more rail lines to be discontinued, liquidated or abandoned. Less than half of those 10,000+ miles of track are still active today. But nearly 800 miles of former railroad corridors were saved and remain part of our transportation and recreation network. Constructed with gentle grades and sometimes following scenic rivers, they generally span 100 feet in width, preserving natural scenery on either side of a narrow path cleared wide enough for a train. Perfect, already existing infrastructure for future multi-use trails. Iowa Natural Heritage Foundation first began working on these conversion projects in the 1980s. Today, over 65% of Iowa's rail-trails are former INHF projects, including some of Iowa's most beloved multi-use trails.

The Raccoon River Valley Trail (RRVT) is a quintessential rail-trail conversion, making use of 89 miles of former railroad northwest of Des Moines. Trailside artwork, restaurants, lodging and other amenities have popped up along the route since it first opened in 1989. Today, RRVT is touted as the longest paved loop trail in the nation, joins 14 central Iowa communities across four counties and sees around 350,000 visits every year.

Nine miles to the east sits another notable rail-trail: the High Trestle Trail. Internationally-known for its half-mile, 13-story bridge over the Des Moines River — one of the largest trail bridges in the country — the High Trestle Trail attracts everyone from walkers and cyclists to bird watchers and those who just want to see the lighted bridge at night. It spans 25 miles

and joins five towns across four counties, breathing new life into rural communities since it opened in 2011.

Business boomed in the years following the debuts of these regional trails as new visitors began to arrive. Communities suddenly had a bigger audience, and drew trail users in with new restaurants, pubs or bike shops.

Chelsea Johnsen, a Madrid restaurant owner, has seen the impact firsthand. Though there were many reasons Madrid felt right for their business, Sisters in Cheese, Johnsen says there's no question the High Trestle Trail swayed their decision in favor of setting up shop in this small rural community. Harnessing the power of active trail users' word of mouth advertising, they've filled their menu with health-conscious options and collaborated on trail-centered community events like this summer's High Trestle Trail Fest.

The completion of this project connects a major gap in the central Iowa trails network. Thousands of people will benefit. — Mike Wallace, DCCB Director

"I grew up here and I've always had love for my hometown, but there were a few years when there just wasn't much happening. When the trail opened, you could see sparks of that once-vibrant community coming back. Because of the trail, lots of the businesses that have been around for decades are thriving and new businesses are showing interest in opening their doors in Madrid. It's given our community a lot of hope and we're very grateful that it's in our back yard."

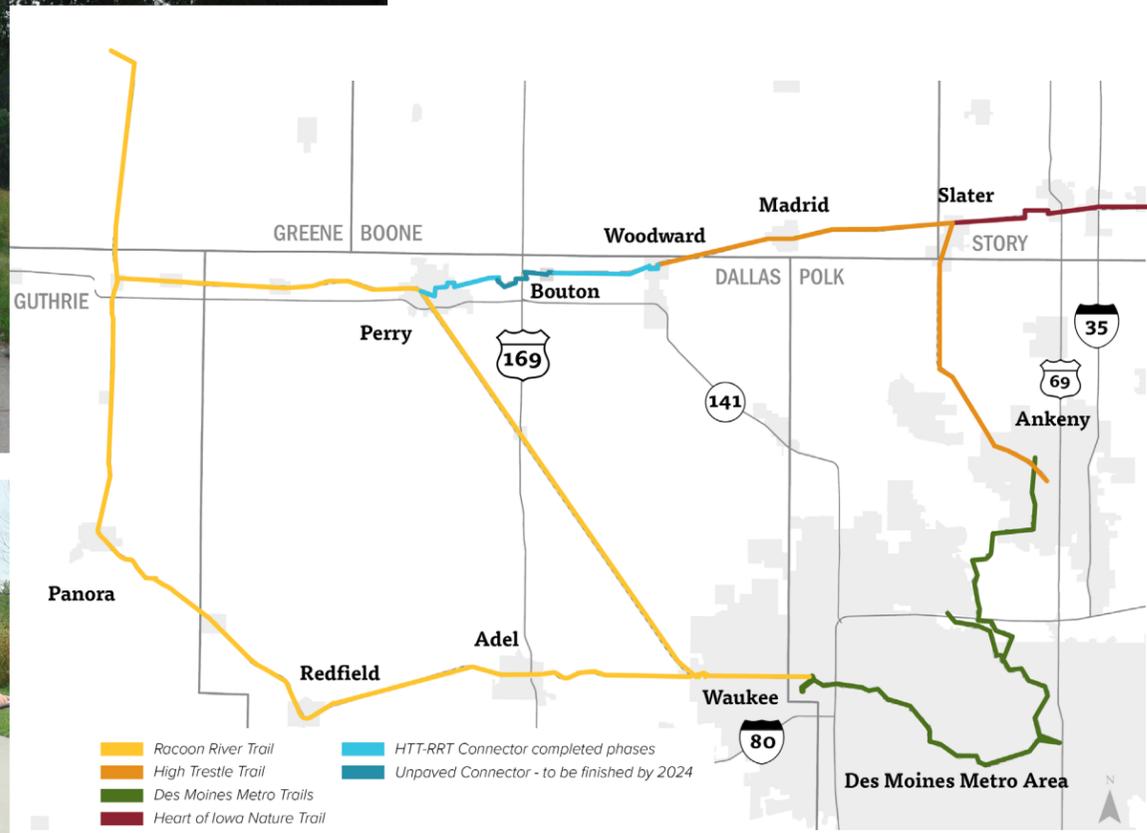
Each of these rail-trails continues to impact transportation and generate economic diversity long after trains last ran down their tracks. They paved the way for new businesses that help small towns thrive. They connect people to nature, and one community to the



Photo by Dallas County Conservation Board



Photo by Marlen Kemmet



next... imagine what would be possible if these two trail powerhouses were also connected to each other?

“When I started in 2006, we were helping to build the High Trestle Trail up to what it is now. Even back then, people were asking the question of when we were going to connect this to the Raccoon River Valley Trail,” remembers Andrea Boulton, INHF’s Trails and Community Conservation Director. “The desire for this connector does not come by surprise because trails are a community asset. They should be accessible and engaging for the folks that live there and be used as a tool for economic development and attracting people to your community.”

A nine-mile connector trail running between Perry and Woodward and through the town of Bouton would close the gap. Just like with the Raccoon River Valley Trail and the High Trestle Trail, an existing, former railroad corridor seemed a logical path forward for the trail alignment. But unlike other rail-trail projects, the corridor had long ago been parceled and sold to individual landowners, meaning all the needed pieces would have

to be secured one by one. Though there was little hesitation in the value and need for this trail, there were plenty of questions about how everything would fall into place.

“You never know how long a project like this will take until you get going with it,” remembers Dallas County Conservation Board Director Mike Wallace. “As with many large trail projects it is a marathon, not a sprint!”

It is precisely for projects like these that INHF exists; budget limitations and timing constraints of years-long projects are often hurdles that public agencies can’t overcome, making them less nimble to respond when opportunities to protect natural areas or create new trails come knocking. INHF agreed to assist in securing the connecting pieces, and planning formally began in 2016 when Dallas County Conservation Board stepped forward as the future trail owner and manager.

Wallace contacted landowners along the desired route, explaining the vision for and potential impact of the connector trail. It took time to have all those discussions. Since each section was only useful if it had adjoining sections on either side, it made good sense

to use option contracts — essentially putting each piece on hold until the entire route came into view. Every landowner’s willingness would be critical.

Holly Lester and Michelle Meier, whose father had purchased land with a section of the abandoned railbed in 1993, were excited when their family was among those approached about the trail project. “Mom was all about conservation, caring for natural habitat, and caring for the future of her community,” said Holly. Seeing this as an opportunity to give back to community and conservation, they agreed to sell a few acres of their family farm for trail development.

“We are excited to contribute to those efforts, even if just a small piece in the entire development of the trail. We are proud to be a part of providing bicyclists and trail users a chance to experience parts of Iowa from a different perspective.”

Through many similar conversations, the route was ultimately pieced together over the course of six years and via 17 individual parcels: 14 purchases, one bargain sale, one land donation and one easement donation. It followed the old railroad bed in most cases, but not all. Without any one of these pieces, the trail may have never been finished.

Identifying and securing the route was only part of the lift; funding was also needed for engineering and construction. A Federal Recreational Trail grant, State Recreational Trail grant, Resource Enhancement and Protection (REAP) grant, Destination Iowa grant and contributions from county and city budgets, local foundations and hundreds of trail supporters helped make this project’s nearly \$8 million price tag a reality.

Having long been in the hearts and minds of many, the project is finally nearing completion with the roughly four remaining miles slated for construction between now and 2024. Coupled with existing trails in the Des Moines metro, the new connector (which is an extension of the High Trestle Trail by name) will create two loops — one 86 miles with a spur to Jefferson, and the other a massive 118 miles — moving people through communities



Small businesses like Drifters in Bouton anticipate a boost in customers from the completion of the RRVT. Photo by Erica Place, INHF

and across the Iowa countryside.

The cities connected through this expanded trail system are sure to see the impact of increased outdoor recreation. Bouton’s population has been declining since the 1980s, on trend with other rural Iowa communities seeing an exodus to metros. Around 130 people currently call Bouton home. But situated almost exactly halfway between Perry and Madrid, Bouton is almost certain to become a trail user’s stopping point for lunch or leisure. And they’re ready.

“Bouton has been holding out hope for a recreational attraction for decades,” said a member of the Bouton Betterment Committee, a group dedicated to planning events and community improvements. “We’re ready to rally to support more visitors and make sure folks see Bouton as the caring small town it really is.”

Drifters, Bouton’s local pub, is also bracing for the increased tourism. Having only been the owner for about one year, Tara Klocke can recognize that the trail will bring opportunity.

“It feels like it’s putting Bouton on the map. It will be nice to see new people come through—they might travel from 60 miles away!”

The full impact could take years to realize, but the benefits of regional trails are well-proven. Just like the railroads that came before them, they provide economic opportunities and quality of life components. They’re a community’s invitation to visit and many residents’ reasons to stay. They offer connections to each other, to nature, to community and commerce. “The completion of this project connects a major gap in the central Iowa trails network,” said Wallace. “Thousands of people will benefit.”

With the transfer of the last connecting piece to Dallas County Conservation Board finalized in 2022, INHF’s role has concluded and we’re cheering them on to the finish line. 🏆

Support the completion of the trail

If you’re interested in supporting the trail as Dallas County Conservation rounds out its fundraising campaign, visit dallascountyiowa.gov/services/conservation-and-recreation



Photo by Lora Conrad



A GIFT FOR GENERATIONS – CHARLES EDWARD RUTH III

Leave a legacy for future generations:

If you'd like to establish a planned gift, please contact Stacie Couvillon, INHF's Planned Giving and Major Gifts Officer, at scouvillon@inhf.org or 515-288-1846.

If you are interested in contributing to the Deppe Family Conservation Area fundraising effort, please contact Abby Hade Terpstra, Director of Philanthropy, at aterpstra@inhf.org or 515-288-1846..

Charles Edward Ruth III was born in Des Moines in 1921. His service with the US Navy medical corps and on the Pacific front during World War II took him on incredible travels, and his time attending University of New Mexico inspired a love of the southwest.

During his childhood in central Iowa, Charley played basketball for Dowling High School and roved the Iowa State University campus. He was an avid sportsman and appreciator of nature, spending his recreational time outdoors and, later in his life, enjoying nature and history documentaries.

At the age of 98, Charley contacted Iowa Natural Heritage Foundation staff to talk about his plans to leave the “rest, residue and residual” of his estate to the organization in order to leave a legacy gift that could honor his mother, Margaret Callaghan Ruth, and

the Story County Home Staff (1936-1960) who helped care for her. He wanted his contribution to go toward protecting land specifically in Story County. He passed away shortly thereafter, and his estate closed in the fall of 2020.

INHF held onto Charley's gift, ready for the time to put it to use in the way he wanted. And that time has presented itself now, at the Deppe Family Conservation Area. INHF currently owns the property, purchased at a significant bargain sale from Bob and Carol Deppe, and is in process of transferring ownership to Story County Conservation. Charley's gift will help the current fundraising efforts that add 127 acres adjacent to McFarland Park and will be recognized using Charley's own words on the donor sign.

— ABBY HADE TERPSTRA, *Director of Philanthropy*

Up a Creek

BY TARYN SAMUELS
Data Entry Specialist | tarynsamuels@inhf.org

I have two daughters, ages six and ten, who are particularly drawn to mud and water. Creek walking is one of our favorite outdoor activities. They are encouraged to touch, smell, listen and notice all that is around them. These adventures in nature fuel their sense of wonder, grow awareness and appreciation and build autonomy.

The growing accumulation of muck on their boots and the promise of finding the makings for a perfect potion are powerful incentives to make the hike to the creek. This expansive outdoor classroom also instills a sense of being part of their environment. Olivia says going to the creek makes her happy. Finley says the opportunity to be outside is a time for her to express her feelings and helps her calm down after a long day. Creek walking is a big part of why they feel secure outside.

There are good lessons to be learned in the mud. What lives under that rock; where does the creek start; why is the water so much colder than the air. To see something's value you really need to experience it — including all the mucky parts.

Luckily, this particular outdoor activity requires little preparation. If you don't have a nearby creek, try the edge of a pond or even a puddle — just find mud! Start small and don't overthink it. You don't have to plan a day-long trip and get bogged down with supplies like nets or buckets (you can, of course). Often the most memorable adventures are unplanned and fed by curiosity and spontaneity.

Explore more: For the tech-savvy, download the free Creek Critters app created by the Audubon Naturalist Society and the Izaak Walton League of America. The app offers step-by-step instructions to collect and identify water invertebrates. The app will share a stream health score scored based on your found critters.

If you and your family are bookworms, check-out the children's book “Creeking: A True Story” written by Jacqueline Briggs Martin. It features a landowner's story of restoring a creek. INHF holds a conservation easement on the property.

TRIBUTE GIFTS

IN HONOR OF

Nina Beeghly
Finley and Olivia Brelsford
Don Coffin
Bruce Ecker
Neil Hamilton
Carol Janssen
Kate Mendenhall, Zach Borus
and Elias and Hattie Mendenhall-
Borus
Frank Olsen

Earl and Isabelle Salterberg
Tylar Samuels
Joseph H. Zalatel

IN MEMORY OF

Al Atkinson
Michael Axon
Terry E. Baxter
Sylvester and Emma Jean Blank
Doug Caulkins

Robert Hagins, Jr.
Janis Hubel
Ted Hutchison
Chris Jutting
Leta Kruse
Neva Lanning
Vanessa G Lee
Glenn Leggett
Phillip McFadden
Marvin D. Morris

Sandra Ostwinkle
H. Rand Petersen
Robert (Bob) Peterson
J. Edward Power
Sandy Reisinger
Ron Smrha
Everett Weaver
Milton Weller



Iowa
Natural Heritage
Foundation

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



NON-PROFIT ORG
US POSTAGE
PAID
DES MOINES, IA
PERMIT NO. 1713

Iowa has **18,000 miles of navigable streams and numerous lakes** and other water bodies that you can paddle. If you plan on paddling this summer, check out Iowa's designated water trails. A variety of access points, trip distances, amenities and routes through both rivers and lakes makes for an endless variety of summertime paddling fun. Some water trails also include historical, geological and archaeological points of interest. Find a water trail near you by visiting iowadnr.gov. *Photo by Diane Lowry*

