



THE SPROUT

NICHES LAND TRUST | WINTER 2024 | VOLUME 28 ISSUE 4

USFWS Partners Program | New Acres Protected on Sugar Creek | Farris Estate Insect Survey

Cover art by: Gabriela Sincich

"The Earth is what we all have in common." -Wendell Berry

Executive Director Update

NICHES Land Trust was founded by a small group of concerned community members in 1995 and has grown over the last 29 years into a prominent nonprofit organization with 1,000 members and nearly 5,000 acres of protected land. NICHES has always been a membership-based organization, meaning that the members (YOU!) drive the implementation of the mission. Our success has come from the active participation of our members and strategic partnerships for nature's benefit.

I am especially grateful for 3 member written articles this edition of The Sprout. Their kind words provide a warm comfort as winter days approach and their stories highlight NICHES core beliefs:

- The Northern Indiana landscape is home to ecosystems of native plants and animals that should be protected.
- Access to and connection with natural areas and open space improves the quality of people's lives. People in our region should be able to live among sustainable, healthy, attractive landscapes.
- Private landowners have an important role to play in helping to provide larger ecological and social benefits for the local community.
- Fostering an ethic of stewardship for the land and water is an important step to achieving lasting protection of native plants and animals.

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- The study of the natural resources of our region contributes to our understanding and appreciation of the lands and waters.
- The long-term viability of our organization is a critical component to being able to achieve our vision so that future generations can enjoy the same quality natural experiences as today.

2024 has been a remarkable year for embodying these core beliefs. Thank you all for your support of NICHES's mission to protect, restore, and sustain Northern Indiana's ecosystems by providing habitat for native species and offering natural places for the education, appreciation and enjoyment of current and future generations. Thank you for your financial contributions that provide stable funding for operations and expanding protected acreage, thank you for stewardship contributions to make the natural areas we protect healthy and accessible, and thank you for your goodwill that expands NICHES impact beyond measure. Please consider ending your year with generosity towards nature. Happy winter solstice to you and yours. I look forward to growing together in the new year.

-NICHES Executive Director, Shannon Stanis
shannon@nicheslandtrust.org

Amphibian Disease Research

Amphibians play an important role in ecosystems. Frogs, toads, and salamanders act as indicator species or “canaries in a coal mine”; due to their semi-permeable skin they are often some of the first species impacted by environmental change. Amphibian species are also declining globally. Over 40% of all amphibian species are either threatened or endangered. One driver of this decline is disease.

The Searle Lab at Purdue University began researching NICHES Land Trust properties in 2021 under the direction of Dr. Catherine Searle. Focused on aquatic disease ecology, specifically amphibian disease dynamics, the lab investigated how the fungal pathogen *Batrachochytrium dendrobatidis* (Bd) affected frog populations. The lab's long-term research explored patterns of Bd infection over time and across frog species at these sites.

Two NICHES sites, Mulvey Pond and Parker's Indian Creek Basin, served as study locations. During the active frog season (early spring through fall), researchers located frogs along designated transects (three, 10-meter sections) and recorded biological characteristics, including species, length, body temperature, mass, and sex. Physical abnormalities were also noted, and swabs were collected from the frogs' stomachs and legs to detect any Bd residue. Back at the research lab, these swabs underwent DNA extraction and quantitative PCR

to confirm the presence and quantity of Bd DNA, allowing the team to assess the prevalence and intensity of infection over time and across study sites.

From 2023 to 2024, the Searle Lab visited the NICHES sites 22 times, documenting American bullfrogs, green frogs, northern leopard frogs, and western chorus frogs at both locations. Mulvey Pond yielded additional species, including Blanchard's cricket frogs and American toads, while Parker's Indian Creek Basin revealed spring peepers and gray treefrogs. The Bd pathogen, commonly found in the Midwest, was confirmed at Mulvey Pond.

With this data, the Searle Lab aims to enhance understanding of biodiversity and disease dynamics across space to develop informed strategies for managing frog populations affected by disease. Aligned with NICHES' mission to preserve land and foster connection to nature, the lab values the ecological insights gained from these habitats as a foundation for long-term conservation efforts.

USFWS Partners Program

On a misty morning in March, U.S. Fish and Wildlife Service Biologist Jared O'Brien met with NICHES Stewardship Director Bob Easter to check on the progress of an ongoing habitat restoration. The ashy scent from a recent prescribed burn lingered with the petrichor from the rain. The burn served as site preparation to remove weedy species and encourage growth from the native seedbank at the newly acquired Farris Estate property in White County. Jared works with the Partners for Fish and Wildlife (Partners) program, which provides financial and technical assistance to private landowners to restore habitat. NICHES and the Partners program are collaborating to restore approximately 175 acres of sand prairie, sedge meadow, and oak savanna at the Farris property. Both partners have a unique relationship that allows them to accomplish more for conservation than could be achieved alone.

NICHES is a leader and a pioneer in habitat restoration. Their stewardship staff go above and beyond to think outside the box and produce high-quality habitat improvements. Bob Easter has an infectious "get 'er done" attitude toward land stewardship, and it is easy to see that Bob and his staff are eager to do what is necessary to restore balance to an ecosystem. Working through the Partners program, Jared brings additional expertise on wildlife priorities and provides NICHES with funding to accomplish their goals. Jared also utilized an internal partnership with FWS staff from the National Wildlife Refuge System (NWRS). The Houze brothers are NWRS employees who have extensive experience operating heavy

machinery, and they previously collaborated with Bob and Jared on a similar project at Fall Creek Gorge. Over the course of many 12-hour days, the brothers used forestry mowers to remove invasive species.



Houze brothers removing woody invasive species on the Farris Property (Winter 2024).

Immediately following the invasive brush removal, NICHES stewardship staff, along with the restoration company Eco Logic, completed follow-up herbicide treatment over the cleared area. The immediate follow through on the herbicide application reinforced NICHES as a trusted partner who has proven time and time again that they are serious about habitat conservation.

It was not long before at-risk species found the new habitat. The Midwest Biological Survey identified several rare insects at the Farris property, many of which are specialist species that rely on a specific plant for survival. The results demonstrate the power of partnerships and the ability for NICHES and the USFWS to transform recently acquired properties in short order. Trust is a key aspect of any relationship, and both partners know that they can depend on one another to share resources, knowledge, and time. The Farris project is preceded by a history of collaboration between NICHES and the Partners program. Many NICHES properties are located

within the Partners program's Southwest River Corridors Focus Area, which is strategically located to improve habitat along the Wabash River in western and southern Indiana. Partners Biologists have provided cost-share and technical assistance for restoration on other NICHES properties including Shawnee Bottoms, Swanson's Bluff, Honey Branch Bluff, Crows Grove, and Whistler Hare Woods.

Previous projects include a mix of woodland, oak savanna, prairie, and sedge meadow restorations that provide habitat for a variety of state and federal threatened and endangered species. The oak woodland restorations benefit species such as the federally endangered Indiana Bat and Northern Long-eared Bat, and migratory birds such as a Kentucky Warblers and Eastern Whip-poor-wills. The prairie restorations provide habitat for grassland birds and pollinators, including the Monarch Butterfly and native bumblebees. NICHES prairie restorations also reintroduce remnant plants that are only found on sites with little to no human disturbance. Land stewards hand pick the seeds of the remnant species that might not be available through local nurseries, and the seeds are planted throughout the restoration. The result is a unique and high-quality composition of forbs and graminoids that are seldom found elsewhere in the state.

These projects accomplish the mission and goals of both organizations: the USFWS's mission to protect and conserve wildlife and

NICHES Land Trust's mission to preserve land in West-Central Indiana. Both NICHES and the Partners Program encourage the protection and conservation of habitat in a state where 96% of the land is in private ownership.

The Partners program is a voluntary federal cost-share program administered by the U.S. Fish and Wildlife Service. This program exists in all 50 states, and Partners biologists work with private landowners to restore habitat by providing technical and financial assistance. NICHES is just one landowner that accomplishes restoration work through the Partners program; in fact, biologists work throughout the state of Indiana to create habitat for federal trust species. Individual landowners, non-profits, city and county parks, and corporations are all eligible to receive assistance through the program.

Are you interested in improving habitat on your own property? Contact your local Partners Biologist to discuss your options (Southern Indiana Contact: Camille Verendia at camille_verendia@fws.gov; Northwest Indiana Contact: Jared O'Brien at jared_obrien@fws.gov; Northeast Indiana Contact: Scott Fetters at scott_fetters@fws.gov). Do you want to help NICHES improve their existing properties? Consider giving back to the land and your community by becoming a member and volunteering with NICHES.

-Private Lands Biologist, Camille Verendia
US Fish and Wildlife Service



New Acres Protected on Sugar Creek

This September, NICHES closed on an 18.44-acre bargain sale of Oak-Hemlock forest along Sugar Creek in Montgomery County, successfully advancing conservation strategies within our strategic plan for the Sugar Creek watershed.

Last year, NICHES was contacted by the landowner, Terry. Terry's late sister Leslie had been a member and advocate of NICHES for years. Terry and Leslie loved the forest and always wanted it to be protected, rather than be developed. Terry came across one of Leslie's old editions of *The Sprout* and gave us a call right away, excited about the idea of the beloved forest becoming a nature preserve.

When I walked the property with Terry, I could feel the sisterly love in this special place. The hemlock trees add a bit of magic to the oak woods along Sugar Creek, and this property is along a high sandstone bluff with stunning views across the creek. Overall botanical diversity on the property is strong, with oak-hickory upland woods, ravines, and exposed sandstone bedrock facing Sugar Creek.

The property has a great landscape context with much of the acreage upstream and downstream owned by conservation partners. Adding this strategically placed parcel at a bargain sale is a great way to showcase to the community that we are committed to continuing acquisition projects in the Sugar Creek Valley.

Terry's generosity with the bargain sale was amplified by gifts from the Roy Whistler Foundation, the McAllister Foundation, and the Laura Hare Charitable Trust for the acquisition of this property.



A population of uncommon *Cunila organoides* living near a rock wall on slopes above Sugar Creek.

The property will be protected from development so that the native flora and fauna can thrive at the site without encroachment. NICHES has legal access to the property from the road, but it is not the most accessible site, so we will have special outings here with guided hikes or tours rather than being open to the public daily for general visitation. One of the overlooks will be named for Laura Hare, who loved Sugar Creek and created the charitable trust that has supported numerous acquisitions for NICHES Land Trust.



Exposed Mansfield Sandstone formations on this preserve were formed during the Indiana's Carboniferous Period (300–600 million years ago).

-NICHES Executive Director, Shannon Stanis
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Nurturing Indiana's Natural Habitats

As a hunting crew leader and volunteer land steward for NICHES properties in Carroll County, Indiana, I'm honored to serve alongside the NICHES team, working to keep these beautiful landscapes accessible, protected, and ecologically balanced. Our hunting group doesn't just participate in seasonal hunting; we take an active role throughout the year to ensure that these properties thrive for both visitors and the native species that depend on them. Our responsibilities as volunteer land stewards extend far beyond hunting. We regularly mow and clear public trails, remove downed trees, and maintain fences, bridges, and signage. This ongoing care makes the preserves safe and accessible for all while allowing us to monitor the properties to make sure they're being used appropriately.

A significant part of our stewardship also focuses on removing invasive plants that threaten the health of these habitats. Each spring, we pull garlic mustard as part of NICHES "War of the Weeds" effort and work to eliminate honeysuckle, multiflora rose, and other invasive species throughout the year. It's rewarding to see the family and friends of our hunting crew members come together to tackle these projects because each effort makes a real difference. Personally,

my family has applied what we've learned from NICHES to our own property, removing invasive plants whenever we spot them. This ripple effect is one of NICHES' greatest strengths: equipping the community with the knowledge and skills to create healthier habitats for native Indiana species on a broader scale. In addition to year-round stewardship, our hunting group participates in NICHES' annual whitetail deer cull. When deer populations grow too large, they strain both themselves and the native vegetation they browse on, making population control essential. Our family relies on deer meat as a primary source of protein, so the annual harvest allows us to provide sustainably for ourselves while supporting the ecological health of these lands.

If you haven't visited a NICHES property yet, I highly encourage you to explore one. These are places where dedicated stewards work tirelessly to restore Indiana's natural landscapes, and where you'll encounter amazing people who genuinely care for the land. I'm grateful to be part of the NICHES family and look forward to continuing this important work for years to come.

-NICHES Volunteer Land Steward & Hunting Crew Leader, Ross Larimore





Fall Colors at NICHES Crow's Grove Preserve

Photograph by: Chad Phelps



Quarterly Highlights

On July 25th, NICHES partnered with Wolf Park to talk about "Building Communities around Land Conservation" with Jr. Keeper Camp participants. Thank you, campers, for the time, participation, and interest in protecting our natural world!



On August 10th and 17th, volunteers gathered at NICHES Granville Sand Barrens and Swanson's Bluff Preserves to help pull Queen Anne's Lace and sweet clover from developing prairie restorations. Removing these invasive plants is essential to prevent them from displacing native species and compromising ecological integrity. Special thanks to volunteer Tyler Brown who has returned to Swanson's Bluff every year to assist with this task.

On Friday, August 30th, NICHES hosted a cleanup of Wildcat Creek with volunteers from Caterpillar Lafayette! This is the third year in a row that Caterpillar volunteers have returned to remove trash between NICHES Peter's Mill Access Point and Davis Ferry on the Wabash River. This is the final stretch of the Wildcat Creek and often receives upstream trash during high water events throughout the year. In addition to removing 16 tires and 1,000+ pounds of trash, the volunteer crew also helped cut out log jams using hand tools. With 24 volunteers attending, this was also NICHES largest creek cleanup crew in our organization's history!



On September 4-6, NICHES Land Trust's Stewardship Team attended the 2024 Indiana Stewardship Gathering at Asherwood Nature Preserve, hosted by ACRES Land Trust. Thank you to the stewardship professionals, speakers, and supporters who made this event a success.

This September, NICHES installed new signage at several nature preserves in Fountain and Warren counties. These signs serve as a welcome to visitors and offer deeper insights into the rich cultural and biological history of each location.



On September 21st and 25th, NICHES Stewardship Director Bob Easter led two public hikes at our Shawnee Bottoms Preserve in Fountain County to discuss the process, benefits, and impacts of a timber harvest at that site.

On September 21st, NICHES hosted its annual Black Rock Society Dinner at the Wabash and Erie Canal Interpretive Center in Delphi. Members of our Black Rock Society have donated land, included NICHES in their estate plan, or given a sizeable gift annually or over their lifetime.



On Saturday, October 12th, NICHES hosted an October "Big Day" birding event at Mulvey Pond in partnership with the Indiana Land Protection Alliance (ILPA) and Indiana Audubon! This statewide citizen science project helps provide a valuable snapshot of data for wildlife and conservation research.

On October 10th, NICHES partnered with Tipmont REMC to host a second cleanup of Wildcat Creek. The group's efforts were focused between Wildcat Creek Park and NICHES Peter's Mill access site. Volunteers spent the day thoroughly picking through log jams, stream banks, and, in some cases, even braved the cold water to extract tires from the creek bottom.



In September, NICHES friend and local conservation advocate Nicci Lee completed the incredible feat of through hiking the Appalachian Trail. Over the course of five months, she embarked on the 2,190-mile journey from Georgia to Maine with a mission to raise funds for NICHES' conservation efforts.

Farris Estate Insect Survey

In previous outreach articles, we have highlighted our efforts for the restoration of sand prairie at the Farris Estate in White County with a focus on the management of the plant community. With a significant remnant sand savanna retaining much of its original community and function under NICHES' care at Farris, understanding the insect community here is crucial for holistic management. Conservative, remnant-dependent insects are particularly important; while they contribute to processes like pollination and nutrient cycling similar to generalist insects, they have narrow ecological niches and are highly threatened by habitat destruction.

NICHES was awarded an Indiana Land Protection Alliance (ILPA) and Indiana Academy of Science Bioinventory grant which was paired with Farris funds to hire Nathanael Pilla of Midwest Biological Survey to conduct a baseline insect survey throughout 2024, subcontracting James Bess of Northland Environmental Surveys. The inventory consisted of visual surveying, sweep-net sampling, and UV light tray trapping.



Light tray sampling is a non-invasive survey method that uses light to attract insects, enabling low-impact observation and data collection.

The findings from the inventory and resulting recommendations from contracted experts will offer valuable insights for stewardship at Farris and other NICHES properties. Already, the absence of conservative leafhoppers and other fire-sensitive insects that overwinter aboveground found during surveying has influenced staff planning and implementation of prescribed fires, including:

- **Emphasizing** the division of remnant prairie into multiple burn units and conducting burns in smaller sections.
- **Adjusting** the frequency and timing of burns.
- **Prioritizing** the restoration of prairie habitat continuity to reduce dispersal barriers, such as thinning and overseeding between small pockets of prairie.

Over 200 species of insects have been documented so far in 2024. Of rare and notable species found, one was the leadplant flower moth (*Schinia lucens*), which feeds on the abundant seed heads of leadplant (*Amorpha canescens*). *Sciota dammersi* was another rare *Amorpha* specialist moth found; both are previously documented from only a single site in Indiana and classified as S1 State Endangered. Another State Threatened moth recorded was the Starry Champion Coronet (*Hadena ectypa*) feeding on *Silene stellata*. The pyralid moth *Sitochroa dasconalis*, a specialist of *Baptisia*, was collected by sweep net and is State Threatened, known from fewer than six sites in Indiana.

Bombus fraternus, a rare bee being considered for listing as federally endangered, was identified during visual surveys. The diversity of Peoria moths on the dry sand ridges is also notable.

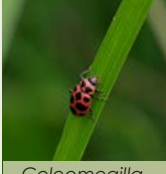
An extensive insect report along with vascular plant report will be available at the end of the year describing findings from 2024 observations at the site.

-**NICHES Steward, Zach Neff**
zach@nicheslandtrust.org

Coleoptera



Macroductylus angustatus



Coleomegilla maculata



Strangalia luteicornis



Kuschelina gibbifarsa



Anomoea laticlavata



Typocerus velutinus



Cicindela sexguttata



Coccinella septempunctata



(Left) Restoration Ecologist Jim Bess sweep net sampling. (Right) Zach Neff and Bob Easter visual surveying

Lepidoptera



Satyrium titus



Polygonia interrogationis



Lycaena hypophlaeas



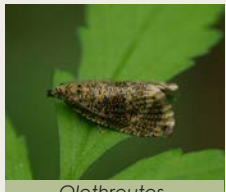
Danaus plexippus



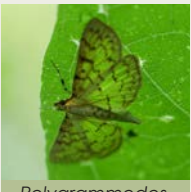
Haploa reversa



Hadenia ectypa



Olethreutes ferrolinaea



Polygrammodes flavidalis

NICHES Annual Fund

As you look forward to the peace of the winter season, NICHES Land Trust hopes you will join us in reimagining a world built upon shared humanity and generosity toward nature.

2024 has been a remarkable year for NICHES Land Trust: we have added 4 new properties to our list of preserves and 2 more areas are close to being officially protected! We have documented new presences of endangered species across multiple NICHES preserves, telling us that our restoration efforts are working to recover vulnerable populations. NICHES sets a high bar for conservation success, and we continue to exceed our own expectations.

Your generosity has made a measurable impact on conservation efforts in west central Indiana, and our membership continues to grow with likeminded individuals who want to preserve natural places.

We hope you will consider making an additional gift to NICHES so we can accomplish our operational goals before the end of the year.

If you've already renewed your membership for 2024 (thank you), we hope you will consider gifting a membership to a friend or supporting NICHES' Giving Tuesday campaign. On December 3, NICHES will once again participate in Giving Tuesday to raise funds in support of our mission to protect and restore native habitats in west central Indiana. Gifts to the Giving Tuesday campaign be matched by community members and our corporate partners NIPSCO and the NiSource Foundation.

These are great opportunities to support NICHES AND make a gift to nature this season. You can learn more and join our Giving Tuesday campaign at nicheslandtrust.org/give.

-NICHES Development Director, Ann Fields Monical
ann@nicheslandtrust.org

END YOUR YEAR
WITH GENEROSITY
FOR NATURE

Support Nature
on
GIVINGTUESDAY

December 3, 2024

A Community of Support

You can leave a legacy of conservation by including NICHES in your estate plan. Your gift shows a commitment to local natural areas and your legacy will provide opportunities for others to experience the wonders of the natural world. A few simple ways to empower this work in perpetuity include naming NICHES as a beneficiary in your:

1. IRA through a cash bequest or a charitable remainder trust.
2. Life Insurance
3. Will or Estate Plan
4. Brokerage, bank accounts, or donor advised funds

"The environment, after all, is where we all meet, where we all have a mutual interest. It is one thing that all of us share. It is not only a mirror of ourselves, but a focusing lens on what we can become."

-Lady Bird Johnson

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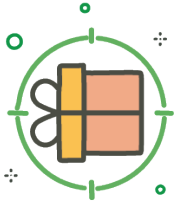


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