

THE SPROUT



NICHES LAND TRUST | Winter 2020 | VOLUME 24 ISSUE 1

Secrets of the Sand Savanna | Restoring Swanson's Bluff | A Love for the Water

"You can blow out a candle, but you can't blow out a fire" - Peter Gabriel

Learning from *Morus Rubra*

The mulberry tree is a familiar sight for most Hoosier hikers and landowners. Recognized by most as a species found in woodland edges or fence rows where it often drops purple-to-white fruits by the bucketful in early summer. What most don't realize is that these familiar trees are in fact an invasive species, *Morus alba*, native to northern Asia. Varieties of this species have been introduced around the temperate regions of the world as food for the silkworm, used in the commercial production of the namesake decadent fabric for centuries.



Serious forest plant enthusiasts know that we do have a native species of mulberry in the eastern United States, *Morus rubra*, or red mulberry. I was introduced to a couple of individuals of this species during my dendrology course at Purdue, but so few were available to see that I did not develop an eye for spotting them until much later. In the northern portion of the range for red mulberry, the invasive white mulberry is much more common, and the latter produces hybrid individuals with the native species, creating further confusion in identification. Around 2016 I started to notice pure red mulberry occurring on NICHES properties and currently I have recorded them at eight NICHES preserves. I find the species where Charles Deam indicates in “Flora of Indiana”, as a scattered tree in forest openings. In fact, Deam collected a specimen on September 11th, 1911 that he notes as –“Along Pine Creek about 2 miles north of Mudlavia”, putting his collection right in the heart of our extant occurrences in the Big Pine Creek Valley.

Recognizing that this unique native species is still present on our preserves is the first step to ensuring there are functional populations in the future. It is apparent to me that the populations are doing better with NICHES management providing openings for them to colonize inside wooded areas. Targeting *Morus alba* for removal to reduce cross pollination and collecting fruits from female red mulberry for production of restoration material is underway. I am also considering the purchase of restoration material from southern Indiana to help improve limited genetics in our small populations.

-Bob Easter, NICHES Stewardship Director

Cheers to Conservation!

On October 19th People's Brewery in Lafayette hosted their annual Fall Bash fundraiser, complete with food, games, live music, and of course beer! The re-occurring event began 10 years ago as a way to bring the community together to celebrate and support the work of local non-profits. In late July NICHES was excited to learn from People's founder Chris Johnson that we were selected to be the beneficiary of this year's Fall Bash. After a lively autumn evening celebrating with friends and supporters of conservation, People's Brewery announced that they had raised \$4,500 that will go directly to the stewardship of our native ecosystems. True to their name People's is all about bringing the community together behind good beer and good causes!



Chris Johnson, People's founder

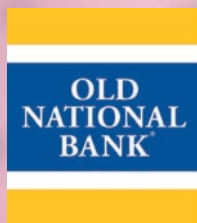
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Secrets of the Sand Savanna

Much of the time that we spend in nature is in degraded systems, and we internalize those images and come to think of them as normal and healthy. These misguided assumptions and impressions can serve to the detriment of the change that is needed to bring natural systems into a healthy state.

In 1996, when I began working to restore sand savannas in Indiana, I didn't really understand what ecosystem components were needed to maximize the full potential of the land. We attacked the honeysuckle, autumn olive, black cherry and sassafras on the edges of the most herbaceously rich areas of the properties and created conditions conducive for blazing star, new jersey tea, lupine and a host of rare flora to flourish in those spaces. In those few years we were able to slowly help the system regain some of what it had lost. But in hindsight, we did not affect the change in the canopy that was needed at a time scale that matched the needs of the flora and fauna of the savanna.

After a couple of years on the job, I had the opportunity to visit 'Big Dune', an Illinois The Nature Conservancy site, which boasts a very open black oak savanna that appears to have never had a break in regular fires on the site in the last couple hundred years. Seeing the site brought my mind back to the savannas of Illinois Beach State Park, a place I would regularly explore and camp during college. As the pieces started to come together, the light bulb finally went off, I realized the common factor between these high quality sand savanna sites was an open and uncongested overstory. The level of exposure that was being afforded to the understory in these habitats was clearly allowing a greater degree of floristic potential to be expressed. At last, a vision of what a truly 'healthy' state looked like for these savanna ecosystems was beginning to come into focus

However, understanding where the openness of a savanna site should be and getting there are two totally separate battles. Over the years, NICHES has initiated invasive species removal, thinned sassafras, and reinstated fire as an essential process at our Fisher Oak Savanna, Holley Savanna and Vacendak Wildlife Area preserves. These steps have greatly increased the health of our savanna sites, but the work of thinning non-oaks and putting fire back in the system can only take the system so far. All three of the sites still have a fairly full canopy over the majority of the tracts that haven't been directly restored from ag fields.

Fisher Oak Savanna is a state dedicated Nature Preserve that has benefited from funds raised through the Indiana environmental license plate (Indiana Heritage Trust and Bicentennial Nature Trust). State dedicated Nature Preserve's receive the full protection of the State of Indiana as well as guidance from our partners in the DNR-Division of Nature Preserves. One component of these protections includes mandatory adherence to certain restrictions, including the statute that there is to be no commercial use of the property. In theory this restriction is well intended and designed to protect a preserve from exploitation, however it does remove certain stewardship options from our toolbox, one of which being the use of a timber harvest as a means to achieve a desired level of overstory openness. Holley Savanna and Vacendak Wildlife Area were donated to NICHES, and therefore do not have to adhere to the same restrictions as a state dedicated Nature Preserve. This frees our organization to the option of using a timber harvest as a means to simultaneously achieve our goals of decongesting the canopy on these sites and ensuring that the funds will exist to protect them in perpetuity.

NICHES Land Trust has engaged with a consultant forester to conduct a timber harvest at Holley and Vacendak with the goal of bringing the respective sites canopies to levels that we feel are appropriate for their long term health and vitality as high quality sand savanna systems. If you visit the site, you will notice blue dots on the trees that indicate which ones have been marked for harvest. We encourage you to visit the sites pre and post-harvest to observe and take part in this next chapter of their stewardship.

-Gus Nyberg, NICHES ED



Tree at Holley Savanna marked
for harvest

On March 14th NICHES staff will be leading 2 hikes at Holley Savanna. The first at 11 AM ET to discuss timber harvest as a means to revive sand savanna habitat, and a hike at 1 PM to explore the wetlands and search for fairy shrimp, one of the harbingers of spring, swimming in the fish free ephemeral ponds.

Restoring Swanson's Bluff

It was only 12 months ago when Bob and Roy Coolman donated their 26 acre property along the Big Pine Creek to NICHES and hung the name of Swanson's Bluff on it to honor the previous owners, John and Donna Swanson. Since that time, I have gotten to know both Roy and the property, and have formed a plan to take this preserve into the future. While some portions of the property contain fantastic ecological treasures, other areas are in need of work, and some portions are in line for major changes.

The initial stewardship funding for the property came from the Roy Whistler Foundation who put in over \$1,000 to get the boundaries marked and the ball rolling on stewardship tasks. As we got to know the property over the winter and into the spring we worked on cutting out mature autumn olive, multiflora rose, and honeysuckle. I took the time to do an initial light thinning over the sandstone barrens. We made note of the remnant species that existed and looked for clues of how to proceed in the different areas of the property, discovering rare barrens and seepage communities along the way. In addition to the glacial remnant white pines that we knew were clinging to the tops of the bluffs, we were also excited to discover state-endangered Forbe's saxifrage, state-rare forked-aster, snow trillium, and red mulberry along with many other uncommon species. Invasive removal and slow thinning, paired with prescribed fire, will recover most sections of the property to very high quality natural areas. However, one portion of the property will require a more drastic and active level of management in order to realize its full potential.

Around 8 acres of the property are dotted with some really impressive open grown white oak trees, but lurking underneath is a mix of non-native and ultra-aggressive native species including forage grasses, poison-ivy, and tall goldenrod. The degraded nature of this disturbed area is no doubt a result of long term grazing and the vegetative restructuring that followed. It just so happens that the restoration plan for a silt-loam savanna, which we just completed our first planting of in a restoration at Shawnee Bottoms, fits perfectly for Swanson's Bluff. The initial basis of the silt-loam savanna species mix for Warren/Fountain Counties came from the species composition of the Briscoe Cemetery prairie remnant found just 4+ miles NNE of Swanson's Bluff on a bluff overlooking Mud Pine Creek.

With the path to revitalization for this 8 acre section unfolding before us, we began seeking funding for the seed purchase and restoration costs. When the Big Pine Creek Watershed and the US Fish and Wildlife service stepped up as funders it was just a matter putting all the pieces together. I planned a seed mix for the project and put in an order of around 40 species to Spence Nursery, an additional ~80 species would be collected locally, bringing the near-final total up to 127 species. The seed is planned to be hand broadcast into zones based on the species' preferred light and soil conditions. While we collected, cleaned, and stored seed throughout the year we continued with other work on the property. Roy helped me mow everything in July and I completed several rounds of spraying to prepare the seeding areas. Staff and volunteers worked on invasive removal and thinning, treating, limbing, and piling of pole sized trees under the dripline of the old white oaks. Neighbors will utilize wood from anything large enough to split over the winter and the rest will be left piled for wildlife habitat.

In November Roy and his son hunted the property as they usually do, but this time as representatives of the NICHES deer cull program. Once they are done hunting we will get back to work finalizing the preparation of the seeding areas and we will seed our hard earned restoration mix. Our initial work on invasive species will continue, more thinning will be completed, and prescribed fire will be planned. With the right amount of effort and care, it is my vision that within 5 years this property will provide us with an opportunity to see what much of the bluffs along the creeks in Warren County would have looked like 200+ years ago. All of the pieces are in our grasp; we just have to put them back together.

-Bob Easter, NICHES Stewardship Director



Pictured Left: After cutting out and removing a canopy choked with maple and black cherry, a handful of towering oaks remain as the centerpiece to our upcoming Swansons Bluff Savanna Restoration.

Meet Your Board Slate

Terry Lacy

The natural world was the focus of my childhood, growing up swimming, boating, hiking and & developing a serious addiction to fishing. As a professional graphic designer and fine artist, I have focused my skill on the natural world in Indiana. I've worked as the chief designer for the Indiana Chapter of the Nature Conservancy and have also designed all of the NICHES interpretive panels for Clegg Gardens. I look forward to joining the NICHES board and working to develop strong relationships with county and city officials, acquire and connect natural sites, and create a stronger profile/awareness of NICHES in the public eye, which is something I think is very important at this point in time.



Jason Rakoczy

Originally from Hobart, Indiana, Jason grew up on over a hundred acres of land off Lake George in Northwest Indiana and was always around the outdoors. He went to Purdue University to pursue a bachelor's and Master's Degree in Construction. After graduating from Purdue and settling into his professional life, he wanted to take a more active role in helping to preserve and protect the ecosystem around the area. His professional life and passion for the outdoors, translates well into providing support to NICHES as an active volunteer and board member.



Denise Laussade

Denise Laussade joined Purdue University in 2006 and serves as the Senior Director of the Office of Treasury Operations. Her professional experience has been focused on finance, accounting and computer systems in a variety of industries. She enjoys visiting and being an active on NICHES properties. A highlight in connecting with those properties was during the Voyage of Discovery in 2017. Protecting land and wildlife are key passions to Denise, and donating expertise, funds, and serving as treasurer of NICHES delivers to that passion.



Mark Your Calendars!

Join us for our Annual Meeting

Founding member Susan Ulrich, Persis Newman, Greg Shaner and others will share stories about our beginnings as an organization, 25 years of conservation, and our journey forward. The event will be followed by an Owl Prowl at our nearby Weiler-Leopold Nature Preserve.

When: February 15, 2020. From 4 - 6 pm

Where: Ross Camp Dining Hall (9225 W 75 S, West Lafayette, IN 47906)

The Evolution of an Adventurer

Join National Geographic contributor, Jonathan Waterman, on April 25th, 2020 in Lafayette's Carnahan Hall for a lecture recounting his most challenging wilderness journeys and how they influenced him to pay it forward as an environmentalist. Tickets are \$25 and all proceeds will help protect local Northern Indiana Ecosystems.

Tickets can be purchased online at nicheslandtrust.org

NICHES Summer Adventure Camp 2020

Enroll your bright young explorer in NICHES Summer camp to share a week of outdoor fun, art creation, and wildlife investigation! Each week 11 campers between 11-14 years old will learn about and interact with native ecosystems through experiential activities including hiking, paddling, rock climbing, and more! Visit our website for registration information.

Week 1: June 15 - 19

Week 2: June 22 - 26



Executive Director Reflection

What an exciting time for all of us at NICHES. Thank you for the strong finish to 2019. Great support from all of you throughout 2019. We appreciate your belief and faith in us.

2020 is NICHES 25th year of working to make a difference in our community; acquiring land, creating habitat for native plants and animals as well as creating places for people to explore, grow and connect to the natural world. Anniversaries are a good opportunity to reflect and celebrate, and NICHES has created plenty of opportunities to connect you and others to the natural world throughout 2020. I hope you will be able to join us for some of the year's events at a hike, cleanup, burn, seed collection, talk, etc. See inside this issue, sign up for our enews on the website nicheslandtrust.org and /or check out times and dates for more opportunities.

NICHES Annual Meeting is on Feb 15 at Ross Camp from 4 -6 PM, and we will have a panel of people that were essential to the start of the organization sharing their thoughts and remembrances of the formation of the organization in the early years. If you have anything you would like the panel to address / discuss at the meeting please send your questions in to niches@nicheslandtrust.org. It is remarkable what they were able to create as an all-volunteer led organization the first 12 years of NICHES existence!

2020 will not be all play, and we will be busy working at the preserves throughout the year, reducing invasive species cover, implementing controlled burns, tending rare plants, folding mailings, organizing files, collecting seed, taking photographs, writing and bringing awareness to the broader public of the work that we do. I encourage you to reach out and lend a hand in the field or office and help the organization continue to be a difference maker.

-Gus Nyberg

Pictured Right: NICHES Orange Fringed Orchid Hike 2018 (see centerfold), we will be hosting another orchid hike next July as a part of our 25th anniversary celebration.



25th Anniversary Events

2020 marks the 25th anniversary of our organization! As a part of our celebration NICHES staff will be hosting 25 special events designed to explore the natural features and highlights of the lands we protect. The fee for NICHES membership will also be reduced to only \$25 a person for the whole year! Our first quarter event highlights are listed below, visit our website for registration info and a list of all 25 events.

1. Winter Waterfowl Observation (Feb. 15th 2:00-3:30pm)

Join NICHES Stewardship Director Bob Easter for a trip to Cranberry Marsh, a NICHES Conservation Easement, to look for winter geese on the pond and see the restoration work that NICHES has accomplished on the land in the past year.



2. Owl Prowl (Feb. 15th 6:30-7:30pm)

Join NICHES Volunteer and Outreach Coordinator Sam Cody after our annual meeting for an owl themed hike at our Weiler-Leopold preserve.

Amaze your friends by learning how to call in Barred and Eastern Screech Owls!



3. Ephemeral Wetland Exploration (Mar. 14th 2:00-4:00pm)

Join NICHES executive director Gus Nyberg for a hike at our Holly Savannah preserve to explore the ephemeral ponds that occur on the property. Search for fairy shrimp, salamanders, and frogs in the pin oak flat wood ponds that only hold water in the spring, which provides a fish free habitat for the above to breed and thrive. Bring water boots.



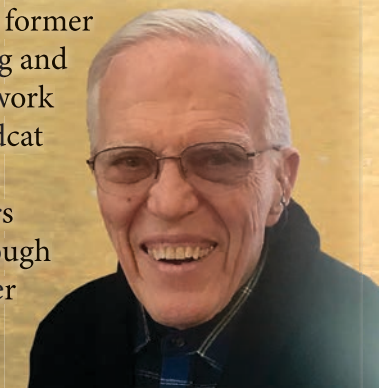
4. Hike of Birdfoot Barrens (Apr. 11th 1:00-3:00pm)

Join NICHES Land Steward Justin Harmeson for a hike to Birdfoot Barrens and a discussion of the stewardship work that is being conducted in the area. The barrens, located near our black rock preserve, are host to a healthy variety of spring ephemerals and native plant species, including glacial relict white pines!



A Love for the Water

Dr. Guthrie Evans Carr, a West Lafayette native and former NICHES board member, found great joy in paddling and protecting the rivers of Indiana. In addition to his work with NICHES Land Trust, he paddled with the Wildcat Guardians and was active in their efforts to stop the damming of Wildcat Creek. He brought the wonders of paddling to the lives of countless individuals through his work as a Red Cross canoe instructor, a flat-water canoe instructor for the American Canoe Association, and as a leader of numerous Boy and Girl Scout canoe trips. Guthrie volunteered as a committee member for the annual Wabash River Canoe Race and the USCA National Marathon Canoe Championship. From 2003-2006, he served as a NICHES board member and photographer. When he was not on the river, Guthrie spent time with his family, served in many other philanthropic organizations, and built a successful Pediatric Dentistry practice.



Guthrie Carr Jr.
NICHES Board Member
2003-2006

After the turn of the century, Guthrie's declining health began to limit his paddling activities. When the opportunity to contribute to the sustained protection of a Wabash River island arose, Guthrie and his family saw it as a meaningful way to honor Guthrie's love for conservation and paddling. In June, NICHES will be formally dedicating "Carr Island" to our respected supporter, board member, and friend.



Picture of Guthrie Carr paddling on Wildcat Creek, June 7th, 2003.
This was Guthrie's last float with the Wildcat Creek Guardians.

The Legacy of the Land

As the size and scope of our organization steadily grows, so must our engagement with volunteers in the community. As we prepare to enter 2020 and the 25th year of NICHES, we welcome everyone to contribute to the legacy of the land. By celebrating and protecting our natural areas we are all contributing to a collective estate that will be studied and cherished by future generations. You can help be a part of creating this legacy by donating your time to the stewardship efforts of our organization. You can help continue the legacy by taking your loved ones to the natural places we protect. It is our charge to foster a generation that is aware and reactive to the problems facing the natural world and to leave them with high quality habitats and a caring culture built around them. Listed below are 3 volunteer tasks that we will be needing help with soon!

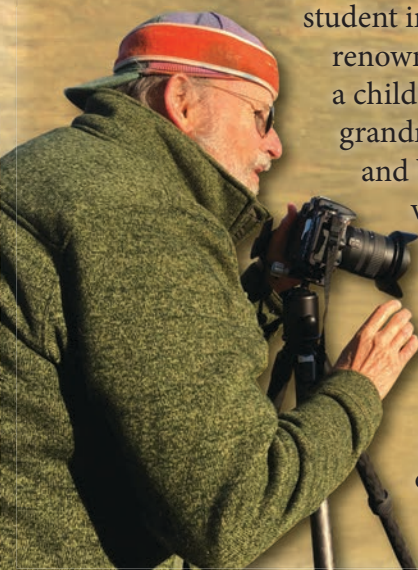
1. Join our fire squad and help us conduct controlled burns (March)
2. Hand pull invasive garlic mustard before it sets seed (March - May)
3. Assist us in cut stump treatment of invasive honeysuckle (Year Round)

Bringing Our Story Into Focus

Do you like the photos you see in the Sprout? We owe most of the stunning images in our paper and e-newsletters to NICHES friend, supporter, and volunteer Chad Phelps. Chad began taking photos when he was a medical

student in the 60's and went on to study under the renowned landscape photographer Pat O'Hara. As a child he fell in love with nature playing around his grandmothers primitive cabin in Northern Indiana and banding birds with his uncle. For Chad the

value of his photos comes from being able to share them. As he would put it, "Fishing is something I do where I take all the benefit, but with photography I can pass the beauty of a place or moment on to others". By capturing striking photos of the properties we protect Chad helps to inspire others to contribute to their protection and appreciation.







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