

Preservation | Education | Research



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DEAR FRIENDS,

In Richard Louv's book, *The Nature Principle: Reconnecting with Life in a Virtual Age*, he says, "Reconnection to the natural world is fundamental to human health, well-being, spirit, and survival." These words could not ring truer, and I feel we could take this even one step further. Reconnection to the natural world is also fundamental to our reconnection with each other. Nature provides a sense of togetherness that many of us take for granted.

Every day, our staff gathers at lunchtime. The conversations are usually playful and lighthearted, but more often, they start by sharing something exciting experienced earlier in the day or week. One of our educators will come in after teaching for the morning and say, "You will not guess what we saw today!" The story is laid out, and quickly we discover that while the students were hiking, a green heron was flushed from the swale and flew off and perched in a nearby tree. Then we find out that later during sit spot, one of the students was so inspired by the bird encounter that he tells a story of an eagle that came down and perched on his arm during sit spot; what an imagination! These moments are awe-inspired and cherished. They create a connection between individuals that would not be established without those wild, natural, exhilarating moments. Every week we see this sense of appreciation shared among these groups, while they continue to search for the next great moment.

I don't just witness these moments in formalized programs or opportunities hosted by The Ridges; I see them around every corner. It is fun to witness families gathering, while grandparents tell stories – like when they were younger, how they would run down the road to their favorite local stream to pick crayfish out and see if it was a female holding a cluster of eggs. And even on a recent visit with my mom, she got to help me release a monarch butterfly form our rearing program. She was astonished by the undenying beauty of the monarch while she carefully held it up close before it was released. These experiences





Green Heron, Tom Turriff

and opportunities to get up close and personal with the natural world that surrounds us create the greatest sense of attachment with nature, each other, and ourselves.

This is what education is about at The Ridges. We strive to inspire the conservation of Nature through impactful educational experiences, some facilitated, some not. These moments of appreciation inspire growth and curiosity in people of all ages. The child who imagined an eagle on their arm, the grandparents reminiscing about the days when they explored nature without hesitation – learning and engagement is for all ages.

This season I encourage you to connect with each other and explore nature. Whether it is during programs and activities hosted at The Ridges, citizen science and volunteering, opportunities made available by our incredible community of partners, or just on your own, I know that each of these moments will create a greater sense of belonging, gratitude, and connection with each other.

Las

Katie Krouse, Executive Director

"I believe that the root of true learning, growing children as individuals, members of a community, and the natural world we live in is outdoor education, in multiage settings, which my family has found at The Ridges. We have children in all of the educational programs this year: Tiny Trekkers, Dragonfly Preschool, and Forest School! This setup, across the ages, I think best prepares them for the real world. There is a lot of emphasis on diversity today, which is wonderful. However, I feel age diversity is often overlooked, and multiage teaches children to embrace age differences and experiences. I love that they can be outdoors, interacting with a variety of ages in ALL weather and truly getting to know the forest ecosystems we live in so intimately. I'd say that Forest School and The Ridges is truly the crux of our education and homeschooling journey."

Brittney Larsen, Parent







In The Field



Backpack Adventure Camp

Forest School

Always Something To See



American Woodcock Flight Display, Lang Elliott

SEEING THE WORLD THROUGH A DIFFERENT LIGHT

The Spring Night Hike started on Hidden Brook Boardwalk as the sun set below the tree line. While my co-leader, Katie, pointed out the function of the Range Lights as a navigational aid, I listened to the sounds of the Sanctuary. Suddenly, out of the woods, I heard a distant "...peent..."

I gasped! It couldn't be...I motioned the group to be quiet and pointed to the woods. We listened in silence for another moment, and then, "...peent...peent"

The peenting came from an American woodcock displaying his mating dance in one of the swales. Woodcocks typically perform their mating dance in open fields and clearings. It seemed unusual that one would do so in the semi-enclosed ridges and swales. As we continued to the Lower Range Light, we heard more peenting. More woodcocks! We watched a woodcock perform the most impressive part of his mating ritual, a sky dance, taking off from the ground, flying in a circular pattern hundreds of feet in the air, and spiraling back to the ground. One commented, "He does all that just to attract a mate?" Another wondered, "How do they know how to do that?" As we continued our hike, we remained in wonderment of what we stumbled upon that evening.

Woodcocks are just one of hundreds of wonderous creatures in the Sanctuary with complex adaptations and behaviors. Every hike is an opportunity to learn something that makes you see the world differently.

Anna Foster, Director of Programming



Bill Wolff Leading Sanctuary Guided Hike

MORE THAN JUST A WALK IN THE WOODS

A visit to The Ridges Sanctuary is a transformative experience. The beauty and wonder of nature as you look at the rare and endangered dwarf lake iris, the glorious orchids and other magnificent examples of biodiversity that exist here are treasures to be savored.

As a hike leader, it is gratifying to witness the incredible moment when a participant realizes that they are standing in a boreal forest and experiences a feeling of awe as they view the magnificence of a ridge and swale hallway. This beauty is fragile, and we must all embrace the need to protect and enhance it in light of the present threats to its existence.

We also hope our visitors are encouraged by the work of our citizen scientists and their efforts to understand our rare orchids. Their participation in conservation activities is so critical to our survival. The transformative experience also extends to our youth. The sights and sounds of young people immersed in a nature education classroom, beginning to understand their role as future conservationists, are truly remarkable.

We hope that the experience of a visit to The Ridges inspires visitors of all ages to reflect on their future role in preserving the glory of nature.

When that occurs, they will surely have had an experience that is more than just a walk in the woods.

Bill Wolff. Volunteer Hike Leader



Jelly Tree, Libby Humphries

THE SONG OF THE FOREST

As explore time came to an end and "sit spot" began, a hush came over the Hemlock Area. Perhaps sensing that they were no longer intruding on the sacred space of discovery, squirrels began to bound upon the leaves. Chickadees fluttered about and sang their "chick-a-deedee-dee." There, we sat with microscopes and wondered.

Mosses formed a thick canopy that overwhelmed the viewfinder. Roly polys looked big enough to ride through the cavernous white pine bark. As I rested in my spot under the graceful branches of a cedar, a set of frantic hands appeared from behind a sapling. A whisper urging "Come here! Come here!" beckoned me to a grand tree. The tree looked to be crying, with clear liquid welling up and dripping from its base all the way to the branches high above our heads.

"What is that?"

"I'm not sure. Let's figure it out together. Should we feel it?"

"Yeah!!!

Together, we each reached out an apprehensive finger and poked a blob. It was cold and wet and slimy. This was no sap. Sap was sticky and left the smell of resin. Curious faces emerged in quick succession.

Bodies stirred, waiting...waiting for...

"Everyone look! There's crystal brain fungus!"

As soon as the excitement ended, it roared once again. Eager hands explored the jelly-like structure while others frantically focused their microscopes. Conversations overlapped into a chorus. Our song of the forest.

As we sat around the jelly tree, all but the present melted away. There was no drama, no strife, just us and our wonder.

"Can we come back here again some time? Or every time?"

Libby Humphries, Environmental Educator



Squirrel Midden

STORIES OF THE SNOW

The winter season at the Ridges Sanctuary grants forest school students the chance to experience a completely different forest than other seasons. Winter's harsh cold changes the landscape, providing a new habitat to explore. The blanket of snow that covers the ground provides the perfect cast of animal tracks.

Identifying tracks allows students to learn what animals are hiking around The Ridges Sanctuary in the winter, rather than the survival strategies of sleeping through the desolate season or migrating away. Observing where tracks came from and where they went provides a look into the animals' lives. Did a red squirrel leave a midden? Was a vole running to a burrow? Tracks tell us stories; we just need to know where to look.

During the investigation 'Evidence of Small Mammals,' forest school students at The Ridges Sanctuary observed the tracks of small mammals in January to see what critters they could identify. Aspen, an eight-year-old in the program, noticed small tracks leading to a burrow! The burrow even had scat along the inside edge, affirming that it was in use by a small mammal, exactly what we were hoping to find! Based on the tracks, burrow size, and placement in an open area, we determined that she found a meadow vole.

Winter might be the quietest time to observe the forest; but when you look down, you might be able to read the story left in the snow.

Ana Hinkle, Environmental Educator

Helping Wisconsin Bats

Imagine walking down a boardwalk by the light of the moon, feeling the cool breeze from Lake Michigan through the boreal forest, and hearing the distant call of a barred owl marking its territory.

Sanctuary Night Hikes are a popular program because they are completely immersive and require participants to engage with all their senses.

Our initial connection with the forest is through our senses. Smells, sounds, and textures are all incorporated into our sense of place. In fact, there is no better way to understand the forest than to observe it.

Whether you're participating in a Night Hike, a Sanctuary Guided Hike, a workshop, or simply taking a solitary walk on the trails, experiencing the Sanctuary is, by nature, sensorial. You are more likely to remember how to identify a white pine tree if you can see the tree, feel the bark, and count the bunches of pine needles. Programs also allow Ridges staff to teach people about organisms that they wouldn't be likely to learn on their own.

Perhaps the most controversial portion of our Night Hikes is when we observe bats swooping over the swales. Participants often murmur or cringe in disgust. I understand their reaction. Bats have a strong connotation with disease - particularly rabies. However, bats play a critical role in our ecosystems. They eat flying insects, like mosquitoes and other agricultural and woodland pests. They are also responsible for reducing diseases such as West Nile Virus¹ and helping Wisconsin farmers produce about 500-700 million dollars in crops every year through pest prevention².

Wisconsin is home to eight species of bats: Cave bats include the big brown bat, the little brown bat, the northern long-eared bat, and the tricolored bat. These bats spend winters hibernating in cave sites called hibernacula. Tree bats include the silver-haired bat, the eastern red bat, the hoary bat, and the evening bat. These bats spend their summers in Wisconsin, migrating south in the winter months³.

The Ridges hosts bat programs and workshops to spread awareness of Wisconsin bat species and white-nose syndrome. The acquisition of an acoustic monitor in 2023 allowed us to conduct bat surveys during the 2024 summer season. On the evening of June 18th, Ridges staff unexpectedly captured twelve recordings of the northern long-eared bat in the Sanctuary!



Filled Bat Box, Anna Foster, Director of Programming

Wisconsin Bat Wingding

Get to Know Wisconsin's Bats Presentation Friday, October 18th, 2:00PM-3:30PM

Fee: Public \$8 | Member \$5 | 12 & Under Free Curious about Wisconsin's bats? Want to know more about white-nose syndrome? Join us for a presentation all about Wisconsin bat species, white-nose syndrome, and current population data. **Location:** Cook-Albert Fuller Nature Center

Bat House Workshop

Friday, October 18th, 3:30PM-4:30PM

Fee: Public \$45 | Member \$40

Build your own bat house to hang on your property! We'll help you assemble your own bat house and give you instructions on hanging and maintenance so you can provide important shelter for native bat species.

Location: Ridges Workshop

Unfortunately, the northern long-eared bat is rarely recorded in the state of Wisconsin is federally endangered and listed as "threatened" in the state⁴. Northern long-eared bat populations have been severely impacted by white-nose syndrome, a fungal disease that has spread across the eastern and central United States over the past 17 years. In some locations, hibernacula have lost up to 95% of their populations⁵. In Door County, white-nose syndrome has killed over 90% of cave bats. Horseshoe Bay Cave bat populations dropped from 1,100 bats in 2015 to 24 bats in 2019. Luckily, some populations have survived⁶.

While humans cannot catch white-nose syndrome, they can spread it. Thoroughly decontaminating clothing or material worn in a cave can help prevent disease from spreading between cave environments. In fact, decontamination is required for any person entering or exiting caves in Wisconsin to help prevent the spread of the disease.

There are additional ways to help Wisconsin's bats. The Ridges holds several programs in October to bring awareness to Wisconsin bat species, including a Bat House Workshop. Bat houses can be important summer roost sites and provide shelter for bats in our area. The Ridges Bat House Workshop can get you started in attracting bats to your property. If you can't make the Bat House Workshop, the Wisconsin DNR has detailed instructions for building bat houses.

Protecting habitat is another critical component to helping to restore bat populations in Wisconsin. Bats rely on healthy wetlands and forests for food and shelter throughout the summer months. Ensuring that bats have access to these resources will help populations recover from white-nose syndrome⁴. The 1,700 acres of the Sanctuary provide both wooded habitat for bat roosts and wetlands for hunting grounds. Other protected places in the county also provide critical habitat for bat populations.

Lastly, education about Wisconsin's bat species is paramount to their recovery. We share information about bats on Night Hikes and in other programs to dispel prevalent misconceptions about them and to teach people how important they are to ecosystems like the boreal forest. At the very least, we hope people smile rather than cringe when they see bats flying above them in the night sky!

For a list of sources cited and additional sources, go to https://ridgessanctuary.org/nature-notes-helping-wisconsin-bats/

Bat Facts

- Bats are the only mammals that have adapted to true flight.
- Insectivorous bats use clicks to echolocate.
 Their clicks are ultrasonic, meaning they are outside the range of human hearing.
- A single little brown bat can eat 1,000 mosquito-sized insects in an hour.
- Northern long-eared bats are especially good at hunting moths! Moths have a hard time hearing the high-frequency calls that northern long-eared bats produce.
- Bats can live a long time for their size. The oldest recorded bat in Wisconsin was at least 32 years old!



Bat House Workshop



Little Brown Bats, Wisconsin DNR

School Forests to Nature Preschools

THE RIDGES JOURNEY IN ENVIRONMENTAL EDUCATION

In 1928, Wisconsin established the first school forest program in the nation. Many early school forests in our state were created to involve school students in replanting forests. And plant they did! Today in Wisconsin, 27,000 acres of school forest lands serve 255 public schools. In Door County, Sevastopol School District's School Forest ("Ecolab") is located 5 minutes from the school, and features meadows, forest, stream, and pond. Gibraltar School District perches on the edge of the beautiful Peninsula State Park, providing students with access to snowshoeing, cross-country skiing, and science classes. The connection between conservation and public school districts is longstanding. This connection has been more robust in some decades than others, depending on the presence (or lack thereof) of school personnel with strong commitments to environmental education. In 2018, the Wisconsin Standards of Environmental Literacy and Sustainability were adopted to support student engagement with the environment.

The Ridges Sanctuary has a tradition of partnering with local schools for field trips and other programming. After a successful start to partnerships with Peninsula Preschool and Northern Door Children's Center in 2017, we began a project to engage Gibraltar kindergarten students with their forest. A 90-minute Forest Day experience was designed for students that included a lesson, a hike, a "lay spot," a "sit spot," and free explore time. Every month, each kindergarten class looked forward to this Forest Day, outside in nature. By January of 2019, first grade teachers asked to be included, followed by second grade teachers in March. By the fall of 2021, every class from K– 6 hiked into the forest each month! In 2021, The Ridges extended this Forest Day project to include Sevastopol classes in K–2.

Administrators, teachers, students, and parents think Forest Day is an important part of the Gibraltar and Sevastopol educational experience. Forest Day lessons build month to month and year to year. The impact on children is significant. The Ridges has created a program and curriculum that is much more than an annual visit to a school forest. Children engage with the diverse micro-habitats in their forest every month. Their experiences are aligned with state standards; lessons are integrated with literacy and math lessons; and sensory and hands-on experiences reveal the complexity and diversity of a healthy, sustainable ecosystem.

This innovative, ambitious partnership has led the Northern Door Community to embrace Environmental Education as an integral part of our culture for children. All children. As part of their school day. Free. The energy for this work led

"There are very few times in life where we as people are only around others exactly our age. Giving children the opportunity to learn alongside children of various ages helps them to grow and explore in innumerable ways. Older children lead the younger and are taught how to be patient and helpful. Younger children look up to the older and learn self-control and being still in the world around them. Getting to experience this camaraderie out in nature helps both parties to observe things they might not have seen on their own. The younger child might point out a slug on the ground, the older might show how the wind sounds in the trees when they are quiet. They ultimately learn that people are people no matter the age and we all can learn from each other."

Sarah Myers, Parent

"I feel like I'm part of the earth. I used to think the forest was scary. But now I know it is wonderful. So wonderful I wish we could come here every week."

Forest Day Student



Dragonfly Nature Preschool Students

the Gibraltar School District Administrators and School Board to enthusiastically support a giant step forward in putting nature at the heart of child development: They approved The Ridges' "Dragonfly Nature Preschool" as an official public school 4K offering. Now any parent of a 4-year-old in the Gibraltar School District (in fact, parents from other districts can "school choice" into the program as well) can enroll their child in Dragonfly Nature Preschool for free. This fall, school began with a full class of nature preschoolers!

These children will spend hours rather than minutes outside each day. They will breathe fresh air, feel the breeze, and hear the birds. They will develop social skills and creative thinking through imaginative play in meadows and forests. They will count and compare and sort and investigate and measure real things in nature. They will make their own discoveries and ask their own questions about a forest that is not just a picture in a book but is completely real and alive! They will grow a relationship to "their" trees and moss and herbs and wildlife. This learning will be more than superficial; rather, they will experience the nuanced connections and changes that make "their" forest and meadow healthy. They will come to know cedar trees as unique and individual saplings, stumps, and nurse logs. They will come to know "this" pine tree and "that nurse log" and witness the other life that is intertwined with the resources they provide. Throughout all of this, they will build "prior knowledge" that is fundamental for later academic achievement and expand their language as they engage in all of this sensuous richness.

This year The Ridges continues an adventure that began generations ago. We are committed to an ever-increasing effort to enrich the way Door County children perceive their role in their ecosystem.

Sheryl Honig, Director of Education

"Tiny Trekkers has been a wonderful program for my son to interact with nature and other children while learning about the incredible Ridges Sanctuary and the beautiful environment we live in. I've also enjoyed connecting with other caregivers and watching our children grow together over the past two years. It's been a highlight of his childhood - he's always so excited to go to Tiny Trekkers and loves to talk about what he learned. Tiny Trekkers has fostered an appreciation for nature in my son that's truly special and a joy to watch unfold."

Caitlin Macomber, Parent

WHAT DOES A DAY IN THE FOREST LOOK LIKE?

A day in the life of a Dragonfly Nature Preschool student is spent in The Ridges outdoor classroom and hiking through the Sanctuary.

The forest is a part of our curriculum. We begin our days together by saying good morning to the forest and to each other. We learn to count the surrounding rocks, sticks, and petals. We increase our vocabulary by learning the names of plants and animals. We develop our large motor skills by balancing on logs and rolling over small stumps to explore what's below.

The time we spend in the forest aids in our students' development, but also teaches our students an appreciation for the natural world. We want our students to know that they are a part of something special and that the forest is our special place.



ed Squirrel, Andrew Pirrung



Shelf Fungus, Libby Humphries

Explore, Learn, Connect

EDUCATIONAL PROGRAMS AT THE RIDGES SANCTUARY

The Ridges Sanctuary is committed to providing education programs for learners of all ages. Our goal is to increase the appreciation for our rich natural landscape and to foster a deep connection with nature. We offer a variety of year-round programs suitable for adults, children, and families.

Youth Education

Our programs are designed to nurture deep relationships between children and the natural world. We plan programs that feature frequent visits to nature across seasons, allowing students to immerse themselves in different ecosystems and learn from teachers while also exploring on their own. We encourage individual reflection and create an inclusive environment where all perspectives are valued and every student's unique abilities are recognized.

Family Friendly

We work hard to engage with learners and conservationists of all ages and in communities within and outside of the immediate Door County region. Through hikes, stories, crafts, and other activities, families explore plants and wildlife, and have a chance to recharge in nature.

Adult Education

Adult education programs are a great way to join others with shared passions. These include opportunities to get involved in preservation, citizen science and research.



Backpack Adventure Camp

YOUTH

FAMILY

ADULT

Swales & Ales

Ridges

Citizen Science

Symposium

Reads

Tiny Trekkers



TINY TOTS

Dragonfly Nature 4



Natural Christmas

*This is just a snapshot of what we offer. Visit ridgessanctuary.org for more programs offered all year long.

WI Bat Wingding Sanctuary Story Hour

"As someone who is quite fortunate to work with Citizen Science groups, I am constantly amazed at how willing and able our volunteer scientists are to embrace the many opportunities to enhance their knowledge of the natural world. Our researchers come from incredibly diverse backgrounds yet when coalesced, they are incredibly focused on learning about our environment from each other."

Tony Kiszonas, Director of Research

Fall Checklist

AT THE RIDGES SANCTUARY

Discover all these things while out hiking at The Ridges! Remember, rare and fragile plants grow on the sides of the trails and are vulnerable to disturbance. Please look with your eyes and leave nature where you find it.



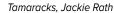
- A tree with red leaves
- A tree with yellow needles
- A tree with brown leaves
- A big hole in a
- Mushrooms on the ground
- An acorn
- Brown grass
- Fluffy white seeds on plants

- Origami spider home! Look for a folded leaf along the edges of the boardwalk
- Woolly bear caterpillars
- Animal tracks in the mud
- Cattails



- Sandhill crane
- Barred owl (Use Merlin Bird ID)







Sandhill Crane, Len Villano



The Ridges Sanctuary

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Electronic Service Requested





FOR MORE INFORMATION:

www.ridgessanctuary.org or call: (920) 839-2802

Support The Ridges Sanctuary

DONATE

The Ridges Sanctuary relies on the generosity of our supporters to protect our lands, advance research initiatives, expand adult and youth education, and build capacity to support the growth of the organization. There are various ways to donate, including undesignated contributions to offset operational expenses, designated contributions for specific initiatives, and endowment funds to ensure contributions are available in perpetuity. Additionally, planned giving can be one of the best ways for an individual or family to leave their legacy. Please consider making a tax-deductible gift today.

VOLUNTEER

Every year, more than 200 dedicated individuals volunteer to create a meaningful experience for everyone who visits the Sanctuary. They volunteer for roles such as the front desk team, Wednesday crew, guided hike leader, lighthouse docent, citizen science programs, and gardening projects. No prior experience is needed for any of these roles. Visit our website or call to find out how you can be part of the team!

JOIN

Whether you become a member to hike the trails, volunteer, or serve in a leadership role, you play an important part in ensuring that the future of The Ridges is bright, protected, and preserved for future generations. Membership includes free year-round admission to all Ridges trails, program guides and newsletters, discounts on Nature Store items, and member rates for our programs and events.