SPRING 2025

THE RESEARCH ISSUE

SANCTUARY

A NEWSLETTER OF THE RIDGES

Preservation | Education | Research

THE RIDGES

DEAR FRIENDS,

For nearly 88 years, The Ridges has remained dedicated to a vision to *carry on educational and scientific activities which will promote the conservation and preservation of wild plant and animal life and natural scenery* (1937 Articles of Incorporation). This vision was ignited by the grassroots movement of Albert Fuller and our founders who had the foresight to see the value and significance of the ecosystems surrounding Baileys Harbor. Central to these efforts is research—scientific **research** that has guided critical decision-making on the stewardship of the Sanctuary, deepened the scientific community's understanding of the delicate boreal forest ecosystem we protect, and propelled our mission to protect and conserve the natural world.

The Ridges has grown to protect over 1,700 acres of incredibly diverse habitats including boreal forest, northern wet mesic forest, forested uplands, sedge meadows, open bogs, beach/ridge formations, and spring-fed ponds to name a few. The cool breezes off Lake Michigan and the ridge-swale topography combined to create arguably the greatest concentration of rare species in Wisconsin. This diverse landscape, teeming with nesting and migrating birds, orchids, rare plants, and animals, has become a vital research hub not only for local scientists but also for researchers from across the nation and beyond. Notable studies have focused on federally endangered Hine's emerald dragonflies, threatened Ram's head lady's slipper orchids, and other remarkable species.

Our internal efforts, alongside the invaluable work of our partners, seamlessly integrate with the impactful citizen science driven by our dedicated volunteers. Citizen science, where members of the public collaborate with professional scientists to collect and analyze data about the natural world—has become a focus of our research. Through these collaborative projects, we continue to gain critical insights into the health of our wetlands, the status of nesting

Orchid Trekking Marking Waypoints

Plotters Taking a Break

Cover Photo: Hines Emerald Dragonfly © iStock by Getty Images (photo by bookguy)

eagle populations, and much more. As habitats face growing threats from climate change, shifting lake levels, and habitat degradation, both research and citizen science will become increasingly important.

Looking ahead, we are eager to expand our community-based scientific research initiatives. Our 20-year master plan, approved in 2023, outlines key investments, including the addition of a research station to our campus. This facility will not only bolster scientific research at The Ridges but also support the broader work conducted throughout Door County.

As we look to the future, our commitment to research and the impact it has on our entire operation remains stronger than ever. With ongoing collaboration, innovation, and a shared vision to inspire the conservation of Nature, we are positioned to continue making meaningful strides in protecting the unique ecosystems of The Ridges. This spring, we are excited to offer a glimpse into the current research efforts that are shaping our work and advancing our understanding of the natural world. We look forward to the continued progress of these initiatives and the valuable impact they will have on conservation efforts here in Door County and beyond.

Together in the conservation of Nature,

Katie Krouse, Executive Director

Spring into Citizen Science

Spring in Door County marks a season of renewal—wildlife awakens, flowers bloom, and sandhill cranes return to the landscape. It is also a time when citizen scientists play an essential role in deepening our understanding of the natural world. Whether drawn by a passion for a specific issue or the camaraderie of working alongside others, citizen scientists make a meaningful impact. If you would like to become part of this effort, The Ridges offers opportunities to engage in real-world research that informs conservation decisions. Visit ridgessanctuary.org or scan the QR code to learn how you can contribute!

Trekkers

Protecting Native Plant Diversity: Conservation Efforts at The Ridges

With over 500 vascular and non-vascular plant species, The Ridges Sanctuary has a well-deserved reputation for incredible plant diversity. This biodiversity includes at least 16 recently documented species listed as either Special Concern, Threatened, or Endangered by the Wisconsin Natural Heritage Working List *(Bleser, J Wisconsin NHI)*. Following the idea that "lack of knowledge is as big a threat as any to sensitive species" *(Brzeskiewicz, M. September 25, 2000)*, The Ridges Sanctuary's goal is to develop institutionalized processes and protocols for the preservation and protection of native plant species. Members of our research team have identified the following statements as the major components of our conservation focus:

- **Problem:** Changing environmental conditions threatening the existence of native plants
- **Vision:** Multiple robust colonies of selected plants on Ridges property
- **Mission:** Outplanting to create new colonies
- **Goal:** Identifying locations likely to support out-planted colonies
- **Approach:** Correlating plant conditions at existing colonies with environmental conditions to identify environmental conditions that support robust colonies
- **Action:** Surveying environmental conditions within The Ridges to identify specific locations that could support robust out-planted colonies

With these statements as our guide, The Ridges Sanctuary has been working on two multifaceted research for restoration projects to better understand the best methodology for preserving and protecting native plants, including restoration and translocation.

Because of our organization's deep-rooted relationship with orchids, assistance from numerous partner organizations, and a fantastic citizen science cohort, it was determined that orchid research and recovery would be a priority of our endeavors. We are currently working on an orchid inventory, gathering data to understand specific environmental conditions for orchid growth and reproduction, asymbiotic germination techniques, shade house orchid growth, and determining the best possible restoration/translocation habitats in our Hidden Brook living laboratory area.

Our amazing team of orchid trekkers is on a quest to locate as many orchids as possible that are naturally growing in The Ridges Sanctuary. Thus far, 29 species have been identified, with certain species recorded for the first time in Door County. This tenacious group will spend an entire year focused on a specific area of The Ridges Sanctuary and compile an orchid list, including locations within that area. For example, in 2022 this group reported over 6,000 individual orchids and 21 species. In comparison, the 2023 survey area had the same species count, but 1,700 individual orchids. This trekking also provides opportunities to collect orchid tissue samples that are submitted for analysis to the North American Orchid Conservation Center Project, as part of the Smithsonian Environmental Conservation program.

Shade House Maintenance

Showy and Yellows, Tom Turiff

RAM'S HEAD LADY'S SLIPPER ORCHID *(Cypripedium arietinum)* PROJECT

Starting with hand pollination, seed collection, lab germination, plot development, and seedling out-planting, 11 research plots of orchids have been citizen scientist monitored since 2015 and an additional eight plots since 2016. A total of seven extant wild populations serve as monitored controls. Sixteen HOBO monitors (weird white trees) are collecting data on soil temperature, soil moisture, and Photosynthetically Active Radiation electronically throughout the growing season. The purpose of this project is to identify the abiotic and potential biotic conditions and trends necessary for locating suitable habitats for the restoration/translocation of this threatened species of orchid. By comparing the planted plots with the wild plots, using survivorship, flowering, seed production, and seedling recruitment as success criteria, we are in the process of quantifying environmental parameters that will allow for the sustainability of *Cypripedium arietinum* populations.

SHOWY LADY'S SLIPPER ORCHID *(Cypripedium reginae)* RESEARCH

The showy lady's slipper orchid *(Cypripedium reginae)* is one of our five research targeted orchid species. Because of this orchid's relative abundance and size, our laboratory work is currently focused on this species. The work that is taking place on this orchid involves hand pollination, seed capsule and dry seed collection, lab germination, seed/fungal traps, and root fungi collection and isolation.

Almost all orchids in the wild require a fungal partner for seed germination. Because of our current mycological limitations, we are using techniques developed by partner organizations to germinate orchid seeds in the absence of this fungal partner for our restoration/translocation needs. We will continue this asymbiotic approach until we have more data on the actual fungi needed for our orchids to germinate. Following germination, the seedlings are reflasked in media, grown for months, vernalized for a selected time period in refrigeration, and planted in the shade house for transition. Ultimately, out-planting of these orchids for population restoration/translocation will include extensive monitoring. Our plans are to establish research plots in the Hidden Brook area for further data collection.

The orchid shade houses were established and are maintained by another group of citizen scientists. These folks planted the orchid seedlings and ensure that the plants are watered and the flats weeded throughout the season. This group also sets up the houses in the spring and strikes them in the fall, tucking in the orchids for the winter. The shade houses are important for our vernalization experiments and provide an opportunity for our guests to view three species of orchids in one spot, with great photo possibilities.

Orchids are fascinating plants that have evolved unique characteristics dependent on a multitude of factors that determine their survivorship. As some of these specific parameters are undergoing change, our hope is that the knowledge we are gaining through this project will contribute to the conservation of this marvelous group of plants.

DWARF LAKE IRIS *(Iris lacustris)* PROJECT

The mandated tree removal process that has occurred along the Range Light Corridor presented an opportunity to develop a dwarf lake iris restoration/translocation project. Using our research statements as a guide, the goal of this project is to determine abiotic and biotic conditions needed for maximum flower production, seed production, and seedling recruitment of the federally threatened *Iris lacustris* to enhance the population in the manipulated area and establish populations in secondary locations for restoration/translocation of *Iris lacustris*. Putting our orchid project protocols to the test as a template, we deployed four HOBO monitors to collect data on soil moisture, soil temperature, and light PAR values in three different locations in the Range Light Corridor, and one location in the Hidden Brook Boardwalk area. The Hidden Brook HOBO is set in an area of a robust extant population of dwarf lake iris and serves as a monitored control plot while the three HOBO deployment areas in the Range Light Corridor collected environmental baseline data before disturbance of the area occurred. A Corridor plant inventory established our overall biodiversity baseline. The actual tree removal took place in January and February of 2024, with protections established for our native species. Additional trees were removed in projected research plot areas. Five dwarf lake iris transplant plots areas were selected based on tree canopy and established in October of 2024 with two additional extant plots identified giving us a total of eight dwarf lake iris research plots and one control plot. Additional HOBO monitors will be deployed at the transplanted plots to go along with the current monitors. Since a primary research focus is on the light availability for the iris populations, canopy densities were recorded at each plot and will be annually recorded. Along with our other data sets, this information will help direct us in selecting feasible restoration/translocation areas of the Sanctuary for the threatened dwarf lake iris.

Tony Kiszonas, Director of Research

Planting Trees & Measuring Survival in a Warming Door County

Perched at the southernmost edge of boreal forest habitats, Door County's unique geography and geology make it especially vulnerable to climate change. Rising temperatures threaten to shift the balance of tree species from boreal varieties like spruce, fir, and paper birch to more temperate species, such as oak and maple.

The Climate Change Coalition of Door County (CCCDC), a partner of Lakeshore Natural Resource Partnership (LNRP), is thrilled to collaborate with The Ridges Sanctuary on the **Boreal and Temperate Mesic Forest Climate Survivability Project**, a new reforestation science research initiative supported by a grant from the Daybreak Fund. Together, our two organizations will initiate tree planting and ecosystem monitoring research to accelerate the success of reforestation in Door County, Wisconsin – an effort with global ecosystem resiliency implications.

The project seeks to answer fundamental questions relating to Door County's ecosystem health:

1. How will our forests change when climate changes?
2. Which trees will "win"... and which will not?
3. Will the boreal lower boundary move north?
4. What will be the larger environmental impact?
5. As conservation leaders and concerned community members, how should we respond?

PROTECTING DOOR COUNTY'S FORESTS FOR THE FUTURE

Door County, and particularly the lands of The Ridges Sanctuary, is an ecologically unique community, containing North America's southernmost boreal forest at its elevation, as well as bordering temperate forests (both northern wet temperate mesic and northern dry temperate mesic forested habitat).

As the climate warms, increasing challenges, including irregular rainfall, heat stress, new invasive species, and larger fire disturbances, have been witnessed and are progressively expected in Door County and beyond. These new climate patterns threaten the survivability of newly planted trees and more established forested ecosystems.

This three-year initiative, in partnership with The Ridges Sanctuary, CCCDC, and LNRP, will study the adaptability of trees and other species in various habitats. Observations will be used to ensure the long-term success of reforestation efforts to increase climate mitigation, climate resilience, carbon sequestration, water protection, and biodiversity. The project will be guided and informed by the University of Minnesota's Center for Forest Ecology, and work in tandem with the Door County Big Plant and conservation-leader partners.

This project will take advantage of the ecology and environmental research culture in Door County to pilot a study on the survivability of trees over time. Five half-acre test plots will be planted on land owned and conserved by The Ridges Sanctuary, each with a respective control group. These sites (two boreal, two temperate mesic dry upland, and one temperate mesic wet lowland) were chosen to represent different forested ecosystems found in the Door Peninsula.

Site-specific native trees will be systematically and progressively planted over three years, based on carbon sequestration, survivability, and climate resilience. The study will utilize genetically unique tree varieties, including conifers (pines, spruces, firs, cedars, hemlocks) and deciduous trees (birches, maples, oaks, black cherry). At each of the test planting sites, soil condition, tree survivorship, tree growth, and flora and fauna ecosystem biodiversity data will be collected.

By monitoring tree growth, soil conditions, climate variables, mammal and other species, the project will identify tree species and genetically unique varieties that can thrive under changing climate conditions, and best help forest health and reforestation efforts for the next decade. To accelerate regional learning and ecosystem growth, the project team will continuously communicate data and best practices to the public, Door County Big Plant partners, and regional conservation partners.

Appel's Bluff Plot Work

2025 FIRST-YEAR TIMELINE AND WORK PLAN

SPRING	SUMMER	FALL	WINTER
• Baseline data • Initial site prep • Tree planting • Establish monitoring of various species	• Baseline data • Establish monitoring of various species	• Baseline data • Tree survivorship • Additional tree planting • Establish monitoring of various species	• Baseline data • Share, present data with partners • Establish monitoring of various species

BUILDING ON THE SUCCESS OF THE BIG PLANT

This project builds on CCCDC's ongoing climate mission and the success of the county-wide Big Plant, launched in 2021. Conservation leaders - Crossroads at Big Creek, Door County Land Trust, Lakeshore Natural Resource Partnership, The Ridges Sanctuary, and Climate Change Coalition of Door County – along with over 50 other organizations, have planted 46,000 trees across Door County. The new grant with additional trees, data collection, and data sharing will ensure these efforts continue to evolve, improve, and grow.

Existing community-building Big Plant partnerships and methods will be utilized and expanded upon. In 2024, 13,900 trees were distributed and planted by 37 different organizations and 135 individual landowners. The current network includes environmental conservation partners, civic clubs, Friends groups, schools, LNRP partner groups, churches, DNR Green Tier communities, municipalities, business associations, and individual tree-planting partners.

The project and its data will directly lead to better tree survivability, carbon sequestration, and forest resiliency. And most significantly, the project will lead to better tree planting practices and methods for a wider public audience, ready to more effectively build resilient ecological and human communities throughout the region.

Jeff Lutsey, Executive Director, Climate Change Coalition of Door County

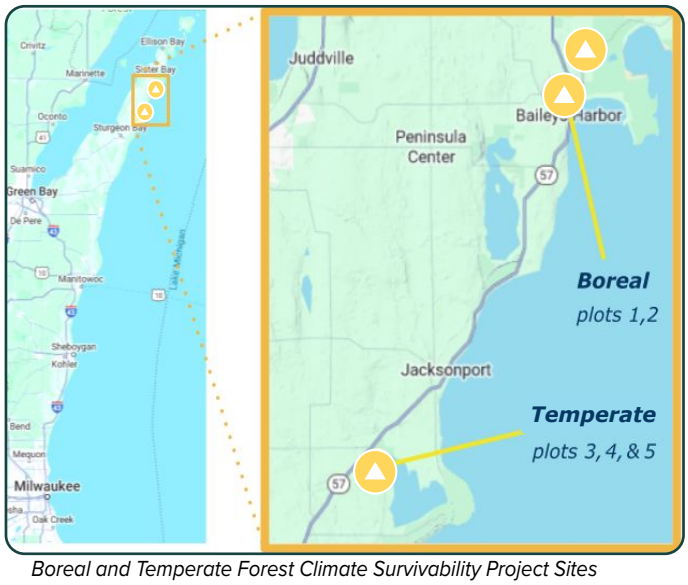
Call to Action

We are on a mission to significantly accelerate existing public tree-planting efforts and are actively seeking assistance from community members and citizen scientists to help with a number of important tasks, including:

- Site preparation this spring
- Tree planting in spring and fall, "tree-angel" monitoring, watering, and stewardship caring through the summer
- Species counting and monitoring (mammals, birds, amphibians, flora, etc.) over the seasons and years

If you want to make a difference and get involved, reach out to Tony Kiszonas, Director of Research, at tony@ridgessanctuary.org.

Boreal Test Plots, Appel's Bluff, Baileys Harbor



Boreal and Temperate Forest Climate Survivability Project Sites

Advancing Environmental Knowledge

Because of the incredible diversity of habitats that make up The Ridges Sanctuary, numerous outside organizations choose to utilize this area for their research. We have organisms here that are not found anywhere else in the county or the entire state. Following a research permit application process, The Ridges will grant research permits to those organizations and individuals whose projects align with our vision and mission, fit with the Master Plan, and enhance the knowledge base of our organization and the greater scientific community. The following project summaries are a few of these partnership endeavors, each unique and focused while sharing a common theme of providing a better understanding of those things that we are charged with protecting. Whether the studies are directed at gathering baseline inventory information, focused on the symbiosis of species, or trying to understand the intricate relationships between groundwater and Lake Michigan, each adds to the overall picture of our environment for us and future generations.

BRYOPHYTES

Dr. Keir Wefferling, curator of the Gary A. Fewless Herbarium and an Assistant Professor of Biology at UW-Green Bay, is working with students and recent graduates at UW Green Bay to identify and inventory the bryophytes (mosses and liverworts) of the peatlands at The Ridges Sanctuary. Peatland communities at The Ridges are structurally diverse and species-rich and include boreal-rich fen, northern sedge meadow, and northern wet-mesic forest (or white cedar swamp) in the system of ridges and swales.

In the fall of 2024, the team located a State Record moss species (i.e., a species that had not been previously reported for Wisconsin), *Catoscopium nigritum*, the small but distinctive “golf-club moss” growing in sedge tussocks in a boreal rich fen. In addition to compiling a complete list of bryophytes at The Ridges, the team has completed several vegetation “meander surveys” (including both vascular and non-vascular plants) in the fens at The Ridges to calculate floristic quality assessments and test the feasibility of integrating mosses and liverworts into existing floristic quality analyses used in Wisconsin wetlands. Future projects will test whether and how species assemblages change along the spectrum of young-to-old swales as one moves inland from Baileys Harbor.

Additionally, a student working with Keir is identifying lichens (and estimating their abundance/density) that grow in the white cedar swamps at ridge-swale edges; this student’s work includes wetland and upland study plots at Toft Point SNA and is funded by the Friends of Toft Point.

Help Track Plants and Waterways

Citizen science at The Ridges Sanctuary plays a vital role in understanding local plant life and water health. Volunteers contribute to orchid and iris restoration by monitoring rare species, assist in Budburst Phenology to track seasonal plant changes, and support the Plant Inventory Project to document native flora. Water Action Volunteers help assess stream health by measuring key environmental factors. Join us in protecting the landscapes that make The Ridges special! Contact Tony Kiszonas at tony@ridgessanctuary.org or call 920-839-2802 to learn more.

MOTHS, BUTTERFLIES

Kyle Johnson, Honorary Fellow UW Madison, UW Insect Research Collection at Department of Entomology, University of Wisconsin, is researching Lepidoptera (moths and butterflies), dominant herbivores in terrestrial ecosystems, both in terms of species richness and biomass. Despite this importance, most preserves have little or no baseline data. The goals of this project are to:

1. Provide baseline Lepidoptera biodiversity data
2. Identify species of conservation interest
3. Identify areas of “high quality” Lepidoptera habitat
4. Provide management suggestions

This project will build upon baseline data gathered in 2023, as well as from historical records from other researchers. Surveys in 2025 will target a wide variety of habitats using a variety of methods, including meandering diurnal searches, UV (ultraviolet) and MV (mercury vapor) lighted sheets and traps, fermenting fruit baits, pheromone traps, nocturnal floral searches, and larval searches. Focal sites will be The Ridges Sanctuary (including Appel’s Bluff) and Logan Creek; sampling areas will overlap with a tree planting study.

Moth Inventory, Kyle Johnson

"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 our natural world. Our researchers come from diverse backgrounds yet when coalesced, they are incredibly focused on learning about our environment from each other. The mission of The Ridges Sanctuary depends on citizen science."
Tony Kiszonas, Director of Research

DRAGONFLIES

JD Arnston, Odonate Researcher, is compiling a baseline species list of all odonata (dragonflies and damselflies) that inhabit The Ridges properties. The species list will contain all the species found as well as the property where the species has been found. The list will be built by using data from the following: JD's own field surveys of each property, records submitted by others to the Wisconsin Odonata Survey, as well as records from other volunteers at The Ridges. The goal of this list is to provide future researchers with baseline data of what species can be found at The Ridges properties and what habitats support these insects. Additionally, the results of this list will provide insight into any rare odonata species and where they can be found to help The Ridges manage those habitats for sensitive species. This includes the federally endangered Hine's emerald dragonfly which is a focus species for researchers, including Dr. Dan Soluk of the University of South Dakota. Dr. Soluk has been working with this dragonfly for many years, including numerous adventures at The Ridges, conducting population and habitat studies.

Hine's Emerald Dragonfly, Karen Schudson

ANTS

Dr. Grant Navid Doering, Postdoctoral Researcher, Arizona State University, is a behavioral ecologist studying ants. The main goal of his research is to discover how collective behaviors and biological rhythms evolve and diversify across organisms. In his work as a postdoctoral researcher at Arizona State University, Grant has been developing acorn ants (genera Temnothorax and Leptothorax) as a model clade for research in evolutionary biology. In his work conducting ant collecting trips at The Ridges Sanctuary, he has used several colonies of Leptothorax that enabled him to demonstrate that traits associated with synchronized activity rhythms in ants can evolve more rapidly than the traits of ants' intrinsic biological rhythms *(Doering et al. 2024, Proceedings of the National Academy of Sciences, 121(48), e2420078121. https://doi.org/10.1073/pnas.2420078121)*.

The study findings provided support to a hypothesized concept in evolutionary biology known as emergent evolution: the idea that collective phenotypes can evolve differently from the phenotypes of the individuals that make up the collective. Grant's work at The Ridges has also resulted in a natural history

Ant Study

publication *(Doering and Prebus 2023, Sociobiology, 70(2). https://doi.org/10.13102/sociobiology.v70i2.8374)*. During a collecting trip in 2021, he found a colony of the rare ant *Formicoxenus quebecensis* inside of a rotting stick. This ant species is xenobiotic, which means that their colonies live inside the nests of a different species (in this case *Myrmica alaskensis*). *Formicoxenus* ants are often dependent on their hosts for providing shelter and food. Prior to this discovery of *F. quebecensis* and *M. alaskensis* at the Ridges, these two species were not known to occur in the state of Wisconsin; both species are usually encountered in boreal habitats farther north in Canada. The new records of *F. quebecensis* and *M. alaskensis* suggest that the Ridges and the surrounding habitat may act as a southern refuge for ant species that are normally found at higher latitudes.

Documenting the occurrence of ant species in unique locations like The Ridges can help us understand how the geographic distribution of species might shift in response to climate change.

Monitor Birds, Butterflies, and Fish

Wildlife monitoring is a key part of citizen science at The Ridges! Volunteers help track bald eagle nesting success, document migrating cranes and winter birds, and participate in Monarch Watch by tagging butterflies. Sucker monitoring, in partnership with the Shedd Aquarium, provides insight into Great Lakes fish migration. Get involved and make a difference in local wildlife conservation! Contact Tony Kiszonas at tony@ridgessanctuary.org or call 920-839-2802 to learn more.

RIDGE AND SWALE ECOHYDROLOGY

Steve Loheide, Professor UW-Madison, **Evan Larson**, Professor UW-Platteville, and **Eric Kastelic**, PhD student UW-Madison, are working to quantify the impact of changing Great Lake water levels on coastal groundwater flows and storage. By monitoring groundwater and collecting tree-ring samples in the ridge and swale wetlands that line the Lake Michigan coast, they will be able to relate aquifer groundwater levels and forest productivity. Periods of low lake levels are expected to correspond to periods of lower groundwater levels in coastal aquifers. They are pairing this with a framework that says as the water table drops in forested wetlands, roots have less access to groundwater to subsidize plant growth and are more vulnerable to water stress. This water stress may appear in the tree-ring record as narrower annual growth increments.

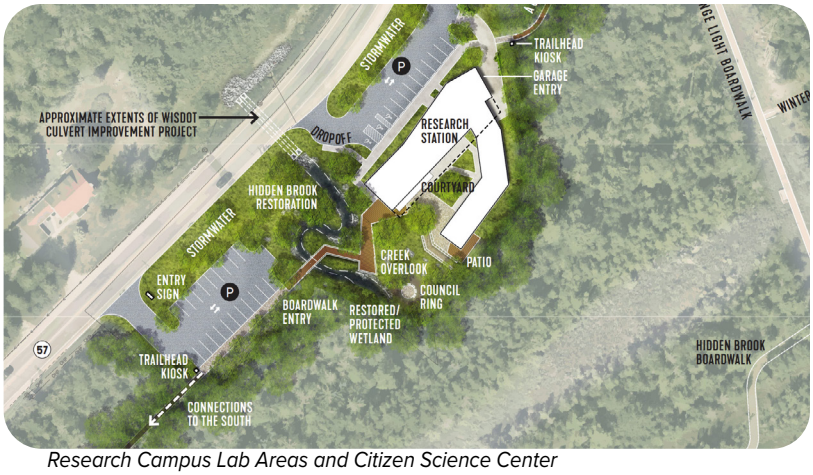
Furthermore, during extreme high lake levels nearly saturated conditions within the root zone may occur, particularly near swales which creates reduced tree transpiration and growth. Similarly, this oxygen stress may appear in the tree-ring record as smaller growth years. These annual tree-rings provide a historic record of groundwater influence on forest growth through long-term cycles of Great Lake water fluctuations. This work is possible through support of the University of Wisconsin Water Resources Institute, with fieldwork being conducted by a graduate student from the University of Wisconsin-Madison and undergraduate students from the University of Wisconsin-Platteville, University of Wisconsin-Madison, and William and Mary.

Hine's Researchers

Hine's DNA Work

Advancing Research & Citizen Science

Research Station, a Hub for Research and Citizen Science Activities



Research Campus Lab Areas and Citizen Science Center

Over the last few years, The Ridges Sanctuary has made intentional and significant advances to its research and citizen science efforts. Adding staff, recruiting volunteers, and bolstering partnerships have brought meaningful impact and positioned the organization to be a leader in environmental research. This growth also brought new challenges. Adequate storage for lab and field equipment, lab space for conducting research, storage of data archives, and even lodging opportunities for visiting partners have all been identified as limiting factors.

In May 2023, The Ridges Board of Directors approved a comprehensive Master Plan for the organization, its operations and capital upgrades. As a 20-year vision for the future, the Master Plan placed a focus on sustaining the organization and its resources while providing a blueprint that allows The Ridges to meet its potential as a leader in environmental research. To do so, the plan identifies the former Ridges Inn & Suites, purchased in 2022, as a new Research Station to accommodate the growth of research and citizen science.

The Ridges has worked diligently to advance recommendations for the Research Station through additional input from research partners, staff, and volunteers. Updated budgets, renderings, floor layouts, site plans, and design guidelines will serve as a decision-making tool through the remainder of design and implementation.

The Research Station will include facilities that house institutional research and citizen science through adaptive reuse of the former Ridges Inn. The renovated main lodge will allow for research-in-residence programs with on-site lodging for regional partners and institutions. The plans and concepts outlined in the master plan and predesign provide for:

- Communal classroom and gathering space that can accommodate up to 100 people
- Over 725 square feet dedicated to citizen science labs, storage, and meeting space
- Addition of approximately 500 square foot clean lab, 600 square foot field lab, and strategic entries for connecting the outdoor and shared research support spaces
- Additional 250 square feet of flex lab space
- Ample parking and garage space for easy load in-and-out of field equipment
- Over 4,500 square feet for lodging accommodations, that include showers, restrooms, shared communal space, and laundry

With the adaptive reuse of the Ridges Inn building, the new addition creates an outdoor courtyard that opens towards a boardwalk over Hidden Brook, creating a gathering space for Ridges staff, partners, volunteers to gather and interact. While the campus is highlighted with new facilities, emphasis will be put on restoration efforts on Hidden Brook and adjacent wetlands. New trail connections will tie the Research Campus to the Nature Center, Education Campus, and Hidden Brook Boardwalk.

Enhancements at the Research Station will not only support the growth of internal research and citizen science but provide critical space for our research partners. Imagine The Ridges Sanctuary serving as a central hub for research being conducted across the Door Peninsula. The sharing of knowledge and best practices will create a vibrant research community that benefits the entire peninsula and extends well beyond those borders.

Andy Gill, Assistant Director

THE RIDGES

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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.

Preservation | Education | Research