

University of Wisconsin—  
Green Bay's

# Cofrin Center for Biodiversity

Summer 2022  
Newsletter



## Highlights

Message from the Director

Wild Rice

Founders Award

Bird Banding

PhragFest 2022

Dr. Howe Retirement

Bridge Dedication

Nelson Family Fund

Howe and Giese Co-Author Paper

Silver Sustainability Rating

Peregrine Naming

Piping Plovers

Student Employees

Oneida Nation Camp

Paul Sager and the Sager Scholarship

Museum Collaboration

Biodiversity Day

Meinhardt Co-Author Paper

Plant Post

Cofrin Student Grants

## Land Acknowledgement

We at the University of Wisconsin-Green Bay's Cofrin Center for Biodiversity acknowledge the First Nations people who are the original inhabitants of the region. The Ho-Chunk (Hoocąk) Nation and the Menominee (Kāēyās maceqtawak) Nation are the original First People of Wisconsin and both Nations have ancient historical and spiritual connections to the land that our institution now resides upon.

Today, Wisconsin is home to 12 First Nations communities including the Oneida Nation of Wisconsin (Onoyote?a·ká), Forest County Potawatomi (Bodwéwadmí), Ojibwe (Anishinaabe) Nation communities, Stockbridge (Moheconnew)-Munsee (Lunaapeew) Band of the Mohicans, and the Brothertown Indian Nation.

We acknowledge the First Nations Peoples of Wisconsin.



## A Message From the Director, Dr. Robert Howe

Universities are places where human knowledge is conveyed to students; but universities also engage in the development of new knowledge. I have always remembered this important distinction between universities and other types of educational institutions, although I can't remember exactly where and when I first heard it. Jonathan Cole, in his 2016 article in *The Atlantic* entitled "The Triumph of America's Research University," argues that the production of knowledge is what makes universities truly exceptional. Lasers, global positioning systems, bar codes, antibiotics, recombinant DNA, scientific agriculture, and even Gatorade are all outcomes of university research. During 49 years as a university student and professor, I've witnessed another important (and exciting) feature of universities: students are welcomed and often essential participants in the knowledge-generating process. The University of Wisconsin-Green Bay is an active contributor to the international university community and its knowledge-generating function. The Cofrin Center for Biodiversity, whose mission encompasses both active learning and applied conservation, has been particularly successful in engaging students in this community. This summer we employed more than 25 students in a wide variety of research and ecological restoration projects. History suggests that many of these student-researchers will enter professional careers where they will continue to explore (and apply) frontiers of knowledge – in both small and sometimes big ways.

This brings me to the central point of this message – the importance of mentors. The knowledge-generating function of universities, and especially the involvement of students in this function, wouldn't happen without dedicated mentors who are committed to the

shared pursuit of knowledge. Meaningful research is never easy, and guiding student researchers can be especially challenging. Yet the rewards are lasting. We are fortunate in the Cofrin Center for Biodiversity to have a wealth of talented staff and faculty collaborators who are experienced and passionate mentors. We're not unique in this regard – UW-Green Bay is full of people who share this passion for knowledge and student engagement. It's what makes us a university. I'm very proud and honored to work with these people. Since its beginning, the Cofrin Center for Biodiversity has enjoyed both internal and external support of our mentoring role. I see no signs of this support slowing, leading to justified optimism about the future of the Center and its role in the University of Wisconsin-Green Bay's mission. I'm thrilled to have this space to express my gratitude to the University leadership; our generous supporters from the Cofrin family, The 1923 Fund, and other donors and granting agencies; and our dedicated staff and skilled faculty colleagues; together creating a culture of successful mentoring – one of the most critical roles that we fulfill as a university.



**Robert Howe, Director** | Bob Howe is the founding Director of the Cofrin Center for Biodiversity and a Professor of Biology in the Department of Natural and Applied Sciences. He has been a faculty member at UW-Green Bay since 1984, teaching courses in environmental science, conservation, ecology, mammalogy, and ornithology. Bob also maintains an active research program involving bird population dynamics, restoration ecology, forest ecosystems, endangered species, ecological indicators, and the ecology and conservation of Great Lakes coastal wetlands.

## **Announcements**

### **Dr. Howe Retirement**

After 38 years with the University, the Cofrin Center for Biodiversity's Founding Director, Dr. Robert Howe, will be retiring on December 31, 2022. We invite you to share well wishes, stories, or cards with him. Please see page 8 for more details.

### **Cofrin Center for Biodiversity Hiring New Director**

The Cofrin Center for Biodiversity is looking to hire a new Director. The position description and application information can be found [here](#).

### **Volunteers Needed**

One of our students is leading an investigation on the importance of river mouths to coastal birds along the shores of Lake Michigan! We seek community scientists who are willing to conduct some basic coastal bird surveys in the Algoma, Milwaukee, and Kenosha areas. You will get the opportunity to visit some beautiful places while watching birds. Contact [biodiversity@uwgb.edu](mailto:biodiversity@uwgb.edu) if you are interested!



# Wild Rice, Watershed Restoration and Hands-on High School Learning

By The Freshwater Collaborative of Wisconsin

As a first-year science teacher at Aldo Leopold Community School in Green Bay, Wis., Mark Valentine was looking for experts to help him teach lessons about our environment and ecosystems. He found the perfect way to fulfill this goal: growing wild rice in the classroom.

Valentine was one of 17 teachers and more than 400 students from 14 schools who participated in the University of Wisconsin–Green Bay’s Wild Rice in the Classroom program during the 2021-2022 school year. The program engages local teachers and K-12 students in conservation efforts that enhance native wetland plant communities in the Bay of Green Bay coastal wetlands and beyond.

Teachers are given all the materials — lights, buckets, growing medium and wild rice seed — to successfully grow the rice. They also learn about the historical, cultural and ecological importance of Manoomin (wild rice in Ojibwe).

“The students and I learned so much about the importance of wild rice for indigenous people and the ecosystem where it grows,” Valentine says. “It felt extra special to be a part of the process of helping to restore this plant to the watershed.”

In May 2022, UW-Green Bay staff and students hosted a series of field trips to L.H. Barkhausen Waterfowl Preserve in Suamico, Wis., where teachers and more than 100 students transplanted their plants as part of a wetland restoration effort. In addition, students learned about freshwater turtles and met a painted turtle education ambassador, participated in a nature walk, and engaged in an interactive activity with Atlas Science Center staff to simulate the environmental and economic impacts of invasive species.

“Students were able to actively participate in the growing and planting of a native species to combat a non-native. This activity gave them a sense of ownership of their environment and what they did does matter,” says Lynn Ponto, a teacher at Weyauwega-Fremont High School Science in Weyauwega, Wis. “Being able to plant under the guidance of professionals allowed them to feel the importance of protecting the diversity in our environment.”

Students also learned about diverse water science career experiences. Valentine says listening to UW-Green Bay students share their stories about pursuing degrees and careers in the natural resources inspired his students.

“Many of my science students dream of following similar paths in the future!” he says.

The field trips were supported by UW-Green Bay's College of Science, Engineering and Technology, Atlas Science Center, Brown County Parks, and Ducks Unlimited, with funding from the U.S. Fish and Wildlife Service Coastal Program and NEW Water.

This year, the Freshwater Collaborative of Wisconsin provided funding to UW-Green Bay to expand the program and further develop an educator network that will link water-related research activities in the region; help teachers share curriculum, best practices, data and resources; and fuel continued engagement in water science and student career development.

These kinds of collaborations are important to Dave Landers, a sixth-grade science teacher at Pulaski Community Middle School in Pulaski, Wis., and Kelly Koller, technology integration specialist at Bay View Middle School in Green Bay. They facilitate an after-school program called Great Lakes Explorers, which connects students to the Great Lakes watershed. The wild rice program was a fantastic activity for the group.

“The experience is a great example of using the outdoor learning classroom to foster and engage students’ natural curiosity and wonder.”

“Students really enjoyed planting our wild rice at Barkhausen, learning more about the cultural and scientific significance of wild rice in our area and doing other ecosystem-related activities,” Koller says.



Landers says place-based experiences engage and empower students to better understand the ecosystem, gain a cultural perspective and then take action within their local watersheds. It could also prompt them to explore water-related careers.

“One of the highlights was surely putting on the rubber boots and getting their hands wet and feet dirty as they seeded and later planted the wild rice,” he says. “This experience is a great example of using the outdoor learning classroom to foster and engage students’ natural curiosity and wonder.”

Visit our Wild Rice in the Classroom webpage [here](#) to learn more information.



**Colin Ritchie '23, Masters of Science in Environmental Science and Policy | Wetland Research Assistant**

“One of my favorite parts of working for the CCB this summer was the many opportunities to branch out and explore the different aspects of ecological restoration. Aside from our primary responsibility of wild rice monitoring and restoration, we also participated in goose banding, fish sampling, frog-bit monitoring, and many community outreach events like leading tours at our restoration sites. It was hands down, one of the best summers I’ve had thus far!”



**Noah Hoffmann '24, Bachelor of Science in Environmental Science | Wetland Research Assistant**

“One of my favorite parts about this summer internship was the broad spectrum of conservation efforts we got to participate in. It was fun to expand my horizons on what being a scientist really is, because it involves a lot of unique skills that are not easy. I enjoyed working with animals the most!”



## Cofrin Center for Biodiversity Receives Founders Award - University Award for Excellence in Collaborative Achievement

UW-Green Bay's Fall Convocation was held on Wednesday, August 24th where a number of faculty and staff were honored for receiving the University's annual Founders Awards, a high honor presented by their peers.

This year's recipient of the University Award for Excellence in Collaborative Achievement was the Cofrin Center for Biodiversity! The Awards and Recognition Committee stated the following when announcing this year's winner: "The recipient of the University Award for Excellence in Collaborative Achievement is a group that was set up to encourage collaborative achievement, which has done quite well since it was created over 20 years ago. Not only is there frequent collaboration within UWGB, but its impact is felt beyond UWGB as well. One faculty member at another midwestern university wrote to tell us about the first-of-their-kind studies that were published together with this group's faculty members, which would not have happened if our faculty had not been so predisposed to collaboration from the time that he met them. A UWGB alumna wrote that her journey from, as she put it, 'confused first-generation college student' to PhD student and research fellow would not have been possible without the mentorship, the undergraduate student research grant she received, and her life-changing travel course to Panama, all through this Center. The synergistic trifecta of the Cofrin Arboretum (and other natural areas), scientific natural history collections (in the Richter Museum and the Fewless Herbarium), and UWGB faculty with an interest in biodiversity bolster our legacy as Eco-U. This year's recipient of the University Award for Excellence in Collaborative Achievement is the **Cofrin Center for Biodiversity.**"

The University Award for Excellence in Collaborative Achievement offers recognition to members of a committee, task force, special group or department working to advance the mission of the University. The group may include faculty, staff, students and community members. Criteria include but are not limited to willingness and ability to work across campus reporting lines and ability to engage in creative initiatives.

You can view the other award winners from this year [here](#).



# UW-Green Bay Researchers “Band” Together With Agencies and Others for Scientific Gains

By Daniel Moore

What do lower Green Bay, Kewaunee Harbor, Peshtigo River, Lake Koshkonong, and Horicon Marsh have in common? Answer: Places where American White Pelicans have visited during the last two weeks in May after being fitted with cellular transmitters by a team of UW-Green Bay scientists and collaborators.

The UW Sea Grant funded project is led by UW-Green Bay Profs. Amy Wolf and Bob Howe, and Cofrin Center for Biodiversity Research Specialist, Erin Giese, in collaboration with Prof. Brian Dorr of Mississippi State University/USDA Wildlife Services; former UW-Green Bay student and Wisconsin DNR Biologist, Josh Martinez, and Bradley Smith, fisheries biologist with the U.S. Fish and Wildlife Service.

The field research team includes 12 current UW-Green Bay students, led by graduate students Jacob Wouff and Brandon Byrne, whose master’s theses involve specific aspects of the project. The pelicans, in addition to Double-crested Cormorants, received transmitters that send signals to the cellular communications network every 10 minutes, enabling the research team to determine where these birds are feeding and “hanging out.” More than 4,000 pelicans and about 1,000 cormorants are present in lower Green Bay this summer. The project aims to determine the impacts of these fish-eating birds on fish populations and other characteristics of this highly productive ecosystem.



*Photos and text submitted by UW-Green Bay Prof. of Natural and Applied Sciences and Director of the Cofrin Center for Biodiversity, Bob Howe.*

View more photos [here](#).

Before

After



# PhragFest 2022

By Colin Ritchie

UW-Green Bay staff and students organized a Phragfest event to remove invasive Phragmites (*Phragmites australis*) from the marsh study area at L.H. Barkhausen Waterfowl Preserve in Suamico, WI. Once established, Phragmites can create dense, tall populations that outcompete native species, including wild rice which has been seeded and is thriving at the site. On two mornings in July and August 2022, a total of 31 staff and volunteers worked to manually remove Phragmites from the site. Using primarily cane cutters and shovels, Phragmites stems were cut below the surface of the water to slow growth and stress the remaining stem and root system. The removed portions of the Phragmites were collected into bags and left to dry to ensure the plant material was no longer viable before disposal.

At the conclusion of this event, a total of 40 garbage bags equaling 570 pounds were successfully removed from the site. This not only greatly increased the aesthetic value and functionality of the marsh study area, but temporarily freed significant portions of wild rice from the negative effects of Phragmites. This can be seen in the before and after pictures of the marsh study area above.

The event coordinators want to thank everyone for attending and getting their hands (and boots!) dirty. These results would not be possible without your hard work!

## Well Wishes and Farewells to Founding Director, Bob Howe

After 38 years at UW-Green Bay, Dr. Bob Howe is retiring! If you would like to share a story, well wishes, or send him a card, please email them to [biodiversity@uwgb.edu](mailto:biodiversity@uwgb.edu) or mail them to UW-Green Bay, Attn: Cofrin Center for Biodiversity (MAC 212), 2420 Nicolet Drive, Green Bay, WI 54311. The Biodiversity staff will gather these and share them with Bob during his retirement party.

## Arboretum Bridges Dedicated

By Daniel Moore



On Saturday, April 23, 2022, the University community and friends came together to celebrate the dedication of new bridges for the Cofrin Memorial Arboretum. With the assistance of private donations, the University has invested more than \$400,000 in upgrades to the Arboretum which surrounds the Green Bay Campus. The event was followed by an opportunity for volunteers to participate in a cleanup of the Arboretum.

View more photos from the dedication [here](#).





# Generous Gift Provides \$6.24 Million to Northeast Wisconsin Non-Profit Organizations

By Kristin Bouchard

Thirty-two nonprofits throughout northeastern Wisconsin received a much-needed boost when the David L. and Rita E. Nelson Family Fund within the Community Foundation for the Fox Valley Region awarded more than \$6.24 million in grants. The fund has provided over \$21 million in grants since its creation four years ago.

The Nelsons, who lived in De Pere, died in 2017. She was a teacher, (and UW-Green Bay alumna) and he was the chief financial officer for the Post-Crescent in Appleton and the Green Bay Press-Gazette until the family newspapers were sold. He then invested in radio stations and other businesses. The Nelsons left more than \$100 million from their estate to their family fund at the Community Foundation. The gift was by far the largest ever received by the Community Foundation and one of the largest charitable gifts in the state's history.

UW-Green Bay has now received more than \$350K in funding since 2019. The most recent donation is specific to:

University of Wisconsin-Green Bay, \$100,000 to help finalize Phase II of the project that refurbished and replaced the Cofrin Arboretum bridges and improved the trail system at UW-Green Bay's Cofrin Memorial Arboretum and its 290-acre natural area with more than 6 miles of trails. This area provides opportunities for recreation, nature appreciation, research, education, and environmental conservation.

Read the full list of organizations receiving funds on the [Community Foundation for the Fox Valley Region web site](#).

## Bob Howe and Erin Giese Co-Author Paper

By Kristin Bouchard

UW-Green Bay's Cofrin Center for Biodiversity Director, Bob Howe, and Senior Research Specialist, Erin Giese, were co-authors on a manuscript published in *Avian Conservation and Ecology* that investigated the effects of human land use on bird functional and taxonomic diversity. University of Minnesota-Duluth researchers led this exciting paper; breeding bird data used in the analyses were originally collected by Dr. Howe and other researchers in the Great Lakes coastal zone in the early 2000s.



You can read their paper [here](#).

# Seeing Stars: UW-Green Bay Earns Strong Sustainability Rating

---

By Sue Bodilly



The University of Wisconsin-Green Bay is seeing STARS thanks to a “Silver” environmental rating from the Association for the Advancement of Sustainability in Higher Education AASHE. STARS—the Sustainability Tracking, Assessment & Rating System—is a program that measures and encourages sustainability in all aspects of higher education. The designation is both a nod to UW-Green Bay’s “Eco U” roots and a springboard for ongoing and future environmental efforts.

The University was also “Silver” in 2017 with a score of 45; but this time, its rating of 54.4 is far closer to the 65-point threshold for “Gold” — a sustainability goal in the years’ ahead.

UW-Green Bay’s Sustainability Coordinator, Daniela Beall, said the University improved more than six points for Academic Courses and another six for Learning Outcomes.

“Overall, academics, and specifically curriculum is where we are strongest for sustainability,” said Beall. “We also earned “innovation and leadership” bonus points for our Campus Cupboard, high Campus Pride Index, Sustainability Projects Fund, Pay Scale Equity, and Sustainability Course Designation. None of this would be possible without partnerships with faculty, staff, students, and community members. I’m excited to continue collaborative efforts to improve our impact, and subsequently our STARS score, and invite anyone interested in supporting these efforts to reach out—we can do so much more together.”

Long known for its Eco U reputation, UW-Green Bay Chancellor Michael Alexander created a focus on sustainability as one of the institutions six key initiatives.

“UW-Green Bay’s participation in STARS provides a valuable measuring tool to help us define and quantify our strengths,” Alexander said. “It also brings to light those areas where we can take action to better meet the challenge of sustainability across the University. One of these priorities is to go back to our roots as Eco U and focus on the sustainability and environmental health of our region. We have hired a University Sustainability Coordinator and aligned all efforts in sustainability under an Office of Sustainability that connects across the University. We are investing in the condition of the natural spaces that we manage and will be hosting the third National Estuary Research Reserve on the Great Lakes. We are fortunate to be next to the largest freshwater estuary in the world and seek to be a leader in sustaining the abundant natural resources that surround our campuses. I am also proud that our students embrace this effort and have even created a student fee to support sustainability efforts at UW-Green Bay.”

With more than 900 participants in 40 countries, AASHE’s STARS program is the most widely recognized framework in the world for publicly reporting comprehensive information related to a college or university’s sustainability performance. Participants report achievements in five overall areas: 1) academics, 2) engagement, 3) operations, 4) planning and administration, and 5) innovation and leadership.

Unlike other rating or ranking systems, this program is open to all institutions of higher education, and the criteria that determine a STARS rating are transparent and accessible to anyone. Because STARS is a program based on credits earned, it allows for both internal comparisons as well as comparisons with similar institutions.



## Meet Wilson, Stotts, and Gladys

By Sue Bodilly

In May, the newest Peregrine Falcon chicks were banded by master raptor bander, Greg Septon. Due to the risk of avian influenza, the banding was not open to the public.

There were two males and one female named:

- Wilson (male), named after the famous American biologist and naturalist, E.O. Wilson.
- Stotts (male), named after the famous African American falconer, Rodney Stotts, who introduces nature and raptors to city kids.
- Gladys (female), not named after anyone - "The bird just looked like a Gladys."

Learn more about UW-Green Bay's peregrines [here](#).

*Photos by Bob Howe, Director, Cofrin Center for Biodiversity*

## Piping Plover Chicks Banded and Released at Cat Island

By Jena Richter Landers

UW-Green Bay students and alumni monitor Piping Plovers at Cat Island each year and recently helped with the banding of plover chicks! See more from Fox 11:

"The population for some endangered birds got a helping hand Wednesday. Conservationists banded four Piping Plover chicks on the Cat Island Chain on the waters just north of Green Bay. The mission combines patience, good reaction and a little luck.

'You basically surround the chicks, and you close that circle. And, since they can't fly yet, you got to have quick reflexes, but, usually, you can catch them,' said Tom Prestby, Audubon Great Lakes Wisconsin Conservation Manager.

Seven years ago, as a UW-Green Bay graduate student, Prestby documented the first successful Piping Plover nest in about 70 years at the site. On Wednesday morning, he says three nests produced 12 tiny Piping Plover chicks. Crews weighed and banded the one-ounce birds that morning."



# Meet our Student Employees

We would not be able to do what we do without them!



**Emily Swagel '23, Bachelor of Arts in History, minor in Environmental Humanities | Data Coordinator - Oneida Bird Monitoring Project; Image Database Assistant - Richter Museum and Fewless Herbarium**

"It's been wonderful to meet new people, learn about everyone's projects and their impacts, and go out in the field for bird monitoring."



**Griffin Geib '23, Bachelor of Science in Environmental Science and Biology for Educators | Wequiock Creek Restoration Crew**

"My favorite experience from my internship with the CCB was visiting Toft Point with everyone and exploring the natural area in Door County. I also enjoyed learning about native wildflower identification while working in Wequiock!"



**Haley Spargur '23, Bachelor of Science Biology with Animal Science Emphasis | Anuran Technician; Natural Areas Crew**

"It's hard to pick one definitive thing, but I would say getting to know all of the incredible people here. The work that we do wouldn't be possible without such a passionate, knowledgeable, and friendly group. Working on various projects over the summer with the CCB has been great, I'm excited to have the opportunity to work with everyone in the future!"



**Sam Gerarden '23, Bachelor of Science in Biology with an Ecology and Conservation emphasis | Natural Areas Crew; Wequiock Creek Restoration Crew; and Piscivorous Birds Research**

"Working for the Cofrin Center this summer has provided me a wealth of opportunities and experience in multiple different facets of my career. I thoroughly enjoyed everyone I had the chance to work with and cherish the experiences I gained while working here. I found over the course of the summer that I indeed picked the correct career path and look forward to finishing my education and furthering my career."



**Evelyn Loo '22, Bachelor of Science in Environmental Science | Wequiock Creek Restoration Crew**

"My favorite thing about working for the CBB is that I was able to recognize my own interest through different daily tasks and opportunities. Also, I loved working with the people here because they encouraged me to do things that fit my interests and were always willing to answer my questions about work. It was an amazing experience that helped me realize the areas I excelled at and those I needed to develop more in my future career."



**Tamara Kancoglu '23, Bachelor of Science in Biology with an Animal Science, Ecology and Conservation emphasis | Natural Areas Crew; Piscivorous Birds Research**

"This overall experience has led me to not only build great relationships and a whole lot of knowledge, but it has helped me to grow as a person and decide my path for the future. I am now certain that I want to continue field work and research throughout my future professional career and continuing education."



**Josh Dietzler '22, Bachelor of Science in Biology with an Animal Biology emphasis | Bird Researcher; Piscivorous Birds Research**

"My time with the Cofrin Center has truly allowed me to explore my career options after graduation. All the while, contributing to the scientific community with valuable data. I have received support from all my peers and supervisors to further my career and experiences. There is always a surplus of opportunities to explore new ways to help with the Cofrin Center whether it involve plants, animals, or ecology, there is a chance for you to learn and grow as a professional and a student."



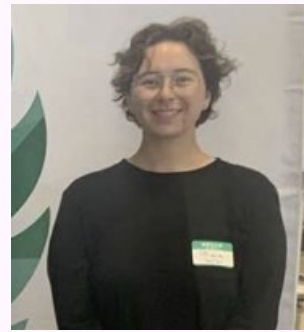
**Brenna Nicholson '23, Masters of Science in Environmental Science and Policy | Anuran Technician; Image Database Assistant; Natural Areas Crew; Piscivorous Birds Research**

“Working for the CCB has been an amazing experience in learning so much about the ecology of the Great Lakes area from some of the most well-renowned experts in their fields. I have met some close friends working these jobs and had the privilege of working under supervisors who truly care about students gaining valuable experiences during their time at UWGB. I have also been pleasantly surprised with the chance to collaborate in group settings in the field as well as being trusted with independent work, stepping into a leadership role on the Great Lakes Coastal Wetland Monitoring Program (Anuran Tech) crew. I would not be where I am today academically, personally, or professionally without the Cofrin Center!”



**Mack Gore '25, Bachelor of Science in Environmental Science | Egg Database and Cataloging - Richter Museum**

“I am so grateful for WiscAMP facilitating my work at the Richter Museum; I have learned so much from Dr. Meinhardt and from my time there. Many more doors have opened for me because of him and the experience I have gained. “



**Olivia Salm '22, Bachelor of Science in Biology with an Ecology and Conservation emphasis | Cofrin Arboretum Natural Areas Crew**

“This job gives you the freedom to explore environmental science and gain practical knowledge with a staff that's supportive and receptive to your interests.“

# Oneida Nation Summer Camp: Exploring the Natural World of Oneida

By Erin Giese



In close collaboration with the Oneida Nation and Northeastern Wisconsin Audubon, Senior Research Specialist, Erin Giese, and Camps and Outreach Coordinator, Sam Betancur, helped lead a hands-on, outdoor nature camp for Oneida fourth and fifth graders this past August. The camp took place on Oneida Nation land and at UW-Green Bay's campus and was also led by Oneida Nation's Wetland Ecologist, Tony Kuchma, Oneida Tribal Elder, Randy Cornelius, and Cofrin Center students. Randy shared Oneida Nation's rich culture and language through daily teachings, which included parts of Oneida's Creation Story. While at Oneida,

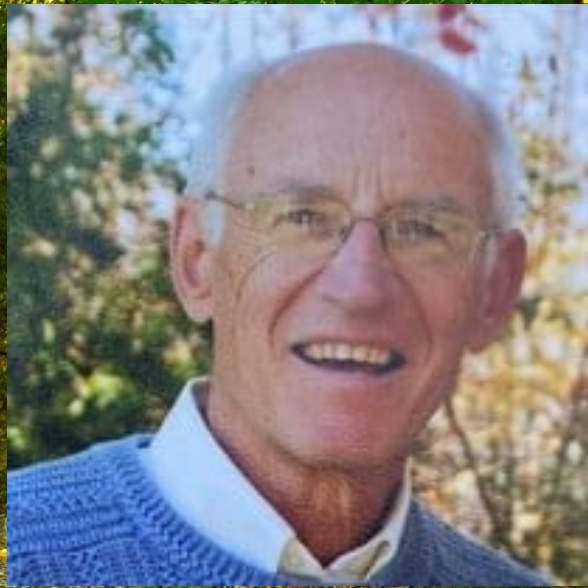


campers captured and released young frogs and toads, watched birds and pollinators, handled aquatic invertebrates, and participated in a bird banding and telemetry demonstration (with stuffed animals). During the UW-Green Bay campus visit, campers met Cofrin Center staff and students, visited the Gary A. Fewless Herbarium and did a leaf rubbing / coloring activity, learned about animal specimens at the Carl H. Richter Museum of Natural History, visited the First Nations Studies Center and met indigenous professors, and toured the Cofrin Memorial Arboretum. These young Oneida campers touched the hearts of the camp leaders, who hope to lead this camp next year!

# In Memoria

---

## Dr. Paul Sager



It is with great sadness that we announce the passing of Paul E. Sager of Green Bay. He died peacefully on August 25, 2022, under the compassionate and watchful care of the staff from Heartland/Promedica Hospice and The Courtyard at Bellevue and in the presence of his family. He is survived by his wife Dorothea, daughter Lauri (Doug), son Eric (Sheena) and sister Jean Wolf (Gale). Grandchildren Zachary, Ellise, Kal, Sam, and Ella will carry on in the spirit they learned from their grandfather.

Paul was born on February 9, 1937 in Kaukauna, WI, spending his formative years playing on the banks of the Fox River and developing a keen interest in the natural world through various fishing and hunting expeditions with his father. He graduated from Kaukauna High School in 1955 and earned a Bachelor of Science from the University of Michigan in 1959. Paul then went on to the University of Wisconsin Madison to study with Dr. Art Hasler in the Limnology Lab, graduating with a Master of Science in 1963, followed by a Ph.D. in 1967. It was during his time in Madison that he developed his interest in understanding the impact of human activity on aquatic ecosystems and the role that science can play in mitigating those impacts. In addition to the influence of Dr. Hasler and the other academic scholars he met and studied under while at Madison, it was the writings of Aldo Leopold and that author's prescient philosophy of environmental stewardship that would continually guide Paul throughout his lifetime.

Following his graduate work and post-doc, Paul was invited to become one of the founding faculty members at the new four-year UW campus being built in Green Bay. In addition to reaching the rank of full professor, and being named the Barbara Hauxhurst Cofrin Professor of Natural Sciences in 1986, he would teach and take on many significant administrative roles during his thirty-three years at UW-Green Bay. He retired with emeritus status in the spring of 2000. In addition to serving as a mentor and devoted instructor for undergraduate and graduate students, Paul also developed a respected and significant research program documenting the sources of excess nutrients running into the Bay of Green Bay, Lake Michigan and the impacts those nutrients were having on the ecology of the system. Over the course of his career, he was very involved with the Wisconsin Department of Natural Resources, serving as a member of the Science and Technical Advisory Committee for the Lower Green Bay and Fox River Remedial Action Plan and also as a member of the Natural Areas Preservation Council. During the final decade of his tenure at UW-Green Bay, Paul became the director of the University's Cofrin Memorial Arboretum, where he fostered a holistic approach to the restoration and management of the natural areas of the university. This culminated with the acquisition of a 20-acre parcel adjacent to the original acreage, which was christened the Paul Sager Tract.

Paul will be greatly missed by all those who knew him but the spirit he endowed to friends and family will carry on forever. In lieu of flowers, donations can be made to a scholarship established by the Sagers which supports student undergraduate research. Please go to <https://www.uwgb.edu/foundation/giving/give-today/> and choose Paul and Thea Sager Scholarship as your gift designation or contact UW-Green Bay Foundation at (920) 465-2074.

A memorial service will be held at Atonement Lutheran Church on Saturday, October 29 at 2pm.

Read the full obituary published by Simply Cremation [here](#).

# Donor Spotlight

---

## Dr. Paul Sager & Dr. Thea Sager



As faculty members at the University of Wisconsin-Green Bay, Professors Paul and Thea Sager always encouraged students to be involved in independent studies and research. The Sagers have since retired but have been carrying forward that commitment since 2009.

The couple made a five-figure charitable donation to create a scholarship award that recognizes UW-Green Bay's top student researchers. "We hope this scholarship will be an incentive for students to pursue excellence in undergraduate research in the natural sciences," Paul Sager said back in 2008.

Dorothea Sager, former chairperson of the Human Biology academic unit, was granted emeritus status in 1996 after a 25-year UW-Green Bay career. She earned widespread attention as well as major grants for her research on the effects of PCBs on reproduction. Both she (1992) and Paul (1993) received Founders Association Awards for Excellence for their contributions to institutional development.

"Ours was a rewarding experience," Paul said. "Starting as we did at the beginning of this University, you can't avoid a sense of ownership and pride. This scholarship is a way to give something back to the University."

The award's title, the Paul and Thea Sager Scholarship in Memory of Edward W. Weidner, reflects admiration for the institution's founding chancellor and his commitment to both hands-on student learning and the development of the University's natural areas.

Selection of the Sager Award recipient is made by a committee consisting of the Director of the Cofrin Center for Biodiversity and faculty or staff members from the College of Science, Engineering and Technology. The major selection criteria is based on the quality and originality of the writing, scientific validity of the content, and appropriate acknowledgment of information sources. The 2022 recipient received recognition and a monetary award of \$1,405.

This year's winner of the Sager Award was Tiffany Paalman for her paper entitled "Comparison of Polyploid Plant and Animal Lineages and their Relative Frequency." Paalman, a Biology major from Appleton, WI, wrote her submission as part of an independent study project mentored by Assistant Professor Keir Wefferling, curator of the Gary A. Fewless Herbarium. In addition to her award-winning paper, she presented results from her work at the Cofrin Student Research Symposium in April 2022.

More than 40 students submitted papers for this year's competition. The Cofrin Center for Biodiversity would like to thank all the candidates for their participation in science writing at UW-Green Bay.

You can learn more about the Sager Scholarship and how to apply [here](#).



# Milwaukee Public Museum Collaboration

By Brooke Schuler  
and Jillian Kurovski



The Milwaukee Public Museum (MPM) strives to connect people from across Wisconsin in learning together through doing science. The new Statewide Community Science Project (CSP) strives to actively engage students and communities across the state in collecting and analyzing scientific data. Founded in 2022, MPM is collaborated with three partner organizations, including the Cofrin Center for Biodiversity, to launch the program across Wisconsin, ranging from urban to rural communities. The goal of this program was to support a series of research topics that can be addressed with data from these three Wisconsin sites while expanding to more areas across the state.

UW-Green Bay's—MPM Community Science Outreach Team was led by graduate student, Jillian Kurovski, and undergraduate senior, Brooke Schuler. The goal of this team was to interact and create conversations around Wisconsin nature with the Green Bay community and beyond. Many of those interactions and conversations were conducted through social media by creating Facebook and Instagram posts that highlighted Wisconsin plant and animal species as well as ongoing projects and research happening at UW-Green Bay.



The Outreach team was also tasked with conducting plant and butterfly surveys at UW-Green Bay's Natural Areas including the Cofrin Arboretum, Wequiock Creek, and Kingfisher Farm. Plant surveys were conducted through iNaturalist. These projects are available for the public to view and participate in on the iNaturalist app and website. So far, there have been 807 observations and 292 documented species across the three UW-Green Bay natural areas!

The Outreach team continues to be active at UW-Green Bay. You can stay updated by following the Cofrin Center for Biodiversity on social media (@uwgbbiodiversity)! They are also encouraging community members to join in on surveying Wisconsin wildlife by downloading iNaturalist and visiting UW-Green Bay natural areas.

**Jillian Kurovski '22, Masters of Science in Environmental Science and Policy | Outreach Coordinator**

"Being the Outreach Coordinator for the CCB has been one of my favorite jobs because it combines two things I love: science and communication! I have learned so many valuable skills and lessons through my position and it has been incredibly fulfilling to be able to connect with so many people across many backgrounds over Wisconsin wildlife."

**Brooke Schuler '22, Bachelor of Science in Biology and Environmental Science with an Animal Science emphasis | Outreach Assistant**

"My favorite experience about this summer was seeing the way Biodiversity Day came together on the day of the event. We worked so hard to make the event everything we wanted, and to see it all come together without any problems was incredible. "





# Cofrin Center for Biodiversity Hosts “Biodiversity Day”

By Jillian Kurovski and Brooke Schuler



## Garlic Mustard

Scientific Names: *Alliaria officinalis*, *Alliaria alliaria*, *Alliaria petiolata*

- ◆ Identification: Heart shaped leaves with scalloped edges, white four-petal flowers, white taproot, smells of garlic when damaged.
- ◆ Removal/Control Techniques: Hand pull plants before plants go to seed, bag flowering plants. Apply glyphosate in early spring/late fall.
- ◆ Fun Fact: They are edible! Often used in salads or in pesto.

Biodiversity Day was held on August 12th, 2022 at the STEM Innovation Center and was hosted by the Cofrin Center for Biodiversity - Community Science Outreach Team. The event centered around Wisconsin biodiversity and featured activities led by many of UW-Green Bay’s students and staff. Some activities included making DIY plant presses with the Einstein Project, up-close looks at plants and mosses with the Gary A. Fewless Herbarium, discovering aquatic invertebrates with graduate student, Tania Rojas, friendly spiders with Freddie Woulf, Exploring Wisconsin Outdoors with UREC, and scientific illustration with the UW-Green Bay natural areas crew. There was also an artistic exploration of the Carl Richter Museum led by Dr. Daniel Meinhardt, featuring museum specimen and artist works by Collette LaRue, and a live art demonstration with local muralist, Peter Koury. There were also community workshops led by UW-Green Bay student researchers including Norah Swenson, who spoke on bumble bee identification, Sarah Baughman on community birding, and Natalie Hanneman on invasive species. Community members of all ages came out to enjoy the event; the Outreach Team anticipates the return of the event for next year!

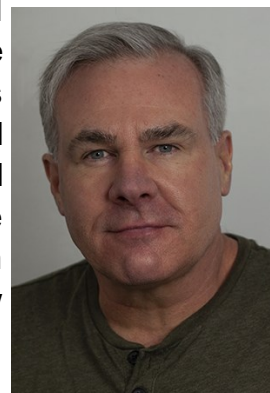


## Daniel Meinhardt Co-Authors Paper Published in fsm.

By Daniel Meinhardt

After becoming Curator of the Richter Museum of Natural History in 2018, one of Daniel Meinhardt's main goals was to increase public awareness of this little-known gem. He solicited artists to tour the museum and used the collections to inspire new work, which was then exhibited at the University’s Lawton Gallery in fall 2019. Twenty-six artists completed work for the show, which was called “Museum of Natural Inspiration” and contained well over 50 individual pieces (some of which were exhibited at the Artless Bastard gallery in De Pere). In a recent article for the August issue of fsm. Magazine, Meinhardt collaborated with Art Professor, Emerita Carol Emmons, to use two pieces from the show to explore how nature is represented in art and science.

You can read the whole article [here](#).



# The Plant Post

By Keir Wefferling,  
Curator of the Fewless Herbarium



The Fewless Herbarium has been a busy place this year; students (and I) have been focused on a number of different endeavors. Some have started on the monumental task of digitizing the vascular plant collection (checking taxonomy, barcoding, and photographing each specimen); searchable metadata from each specimen in our collection are now available through the [Consortium of Midwest Herbaria](#); specimen images will follow (I'd like to gratefully acknowledge that this initiative was funded mainly by the Office of the Dean of CSET).

Other students are continuing work on machine learning for phenological stage detection from digitized herbarium specimens, and exploring the tools available through Microsoft's [Planetary Computer](#). Our Community Science partnership (with Milwaukee Public Museum, Marquette University, Harbor District, and Cable Museum) had a fruitful first season (please see the article by Brooke Schuler and Jillian Kurovski in this same newsletter).

During the spring and summer, I was mainly focused on collecting and identifying peatland bryophytes and visiting as many minerotrophic peat-accumulating wetlands as possible (and I also spent an epic week in Maine studying mosses with the amazing Jerry Jenkins, Director of the [Northern Forest Atlas](#)). In Wisconsin, I mainly visited open and forested mineral- and nutrient-rich, alkaline, sites in Door and Oconto Counties. For this newsletter, I want to highlight one exciting discovery from the field and contrast it with an arguably more remarkable discovery from closer to home.

First of all, meet three-ranked hump moss, *Meesia triquetra*, Meesiaceae (pictured above)! This beautiful and distinctive plant was encountered while visiting and surveying the bryophytes of US Forest Service land in Oconto County in June 2022 (with UWGB alum, Jason Miller); the plants were found growing with the famed tufted fen moss, *Paludella squarrosa*, also Meesiaceae—this species was mentioned in our previous newsletter ("A moss exciting discovery..."), and was previously undocumented in Wisconsin. *Meesia triquetra*, a striking member of the dung moss order (yes; another story), is quite rare or under-documented in Wisconsin, having been collected only a handful of times: by L.S. Cheney in 1893 (Vilas County); again by L.S. Cheney in 1896 (Bayfield County); by P.C. Standley in 1929 (Rock County); by J.T. Curtis in 1932 (Ozaukee County); and finally by J. Glime in 1982 (Door County). Notably, John T. Curtis is the author of *The Vegetation of Wisconsin* (1959), and on the herbarium label for his Cedarburg Swamp collection he (or someone transcribing his field notes) remarks: "A good find. Found in a 1000 acre swamp."



Janice Glime is a bryologist who has published an incredible resource, an e-book (continually updated) on bryophytes, [Bryophyte Ecology](#). The site where this was found this summer is in Oconto County and is an "extreme rich fen"; the appearance of *Meesia* and *Paludella* together, along with several other rich fen indicator species, suggests that anthropogenic disturbance at this site has been very low.



The other species I want to highlight is *Riccia cavernosa* (pictured right), a "lacunose" (full of cavities) thalloid liverwort. It was found (with students Nick Gabbard and Alyssa Powell) in cracks at the edge of a parking lot on the UWGB Green Bay Campus (and since observed between bricks in walkways and at edges of another parking lot on campus, pictured left). This is what I would think of as a harsh and extremely inhospitable habitat (salt, fuel, various vehicle drippings...), yet the plants seem to be absolutely thriving. This species is listed as Critically Imperiled by [NatureServe](#) and [Wisconsin Natural Heritage Inventory](#); there are no specific records of collections or observations in Wisconsin for the species, though it must have been observed to be listed.



I'm not sure what the message is here; what are the bryophytes "trying" to tell us? Perhaps that we should pay attention; that biodiversity is around us; that one size (or habitat) clearly does not fit all.

# Cofrin Student Research Grants



Since 1989, the Cofrin Center for Biodiversity has awarded funding through the Cofrin Student Research Grant program to nearly 200 students to assist with independent projects in the fields of ecology, biology, geology, water chemistry, environmental policy, exercise fitness, photography, and art. The proposed student project must take place at one or more of the six UW-Green Bay Natural Areas (Cofrin Memorial Arboretum, Kingfisher Farm, Peninsula Center, Point au Sable, Wequioc Creek, and Toft Point) and contribute to our understanding of these special places. Cofrin Student Research Grants are made possible thanks to a generous endowment from the family of Dr. David Cofrin and the late John Cofrin.



## **Chris Koch '22, Bachelor of Science in Biology with an Ecology and Conservation emphasis | Grant Title: Kingfisher Farm Spider Survey**

Chris' project is to determine which species of spiders can be found at Kingfisher Farms in Manitowoc, WI. This site is located by the lake and is a rare spot where the forest was not cut down, making it an old growth forest and a unique habitat in the county. Because this is a unique habitat, there is potential of endangered or rare species living in this site. This is the first spider survey that will be done at Kingfisher so data collected will help determine which species can be found at this site and help determine the health of the land as spiders can be a bioindicator species (a species that is used to determine the health of the environment around them).



## **Tamara Kancoglu '22, Bachelor of Science in Biology with an Animal Science and Ecology and Conservation emphasis | Grant Title: Testing Effectiveness of Newly Developed Bee Counting Protocol**

The goal of this investigation is to test and validate the suitability of a newly recommended bee survey and observation technique. The observations that have been collected by the natural areas crew throughout the summer on multiple UWGB natural areas, provided information that builds on the current knowledge of bee-plant relationships throughout northeastern Wisconsin. The new procedure being tested has been provided by USGS/FWS Native Bee Lab in Laurel, MD.

Gathering further understanding of bee – plant relationships may help in implementation of successful bee conservation programs and provide guidance on native planting in relation to bumblebee plant preference. The results from this study positively contribute to the scientific community and improve conservation efforts .

*Continued on next page*



**Sarah Baughman '24, Bachelor of Science in Environmental Science | Grant Title: A Community Science Analysis of River Mouths Along the Western Lake Michigan Shoreline**

The objectives of this project are 1) test the hypothesis that the mouths of small to medium-sized watercourses (including intermittent ones) are important sites for migratory and resident coastal birds along the Wisconsin Lake Michigan shoreline, 2) engage community scientists from multiple UW System campuses in collecting rigorous scientific data, and 3) provide recommendations of best land management practices of coastal habitats, including Great Lakes beach and river

mouths.

Over the summer, with the oversight of her advisors, Sarah scouted and established 24 shoreline sites with the plan of completing bi-weekly, 10-minute point count surveys of all birds visible and using habitat resources along the lake from June to October. She connected with volunteers living around the survey sites who kindly offered their bird knowledge and assisted with data collection. This huge project would not have been possible without the combined efforts of her advisors, volunteer surveyors, and CCB staff.



**Sam Gerarden '23, Bachelor of Science in Biology with an Ecology and Conservation emphasis | Grant Title: Survey of Grassland Butterflies on UW -Green Bay Campus and Wequiock Creek**

This summer, with help from Dr. Amy Wolf, Sam conducted surveys of butterflies at the UW-Green Bay Arboretum and Wequiock Creek with the intention of gathering data on what species of butterflies are found on these sites, where they are found, and their potential food sources and numbers. The goal of the Arboretum project was to compare the findings of a student who conducted a similar survey in 1989 to the current day. Sam used similar techniques to the previous study to gather data on species, location, behavior, and plants visited,

along with local weather. He conducted 30-minute surveys every week, May through August. The purpose of this was to identify what species are found today versus 1989; this will help determine what resources are needed to protect these crucial pollinators. The goal of the Wequiock Creek project was to provide the restoration project with baseline data on the presence of butterflies at the site for future conservation efforts. The surveys were conducted in a similar manner to those at the UWGB arboretum. Over the course of the summer, Sam found 31 species of butterflies between the two sites with many species being found at both sites. This data will help guide conservation and restoration efforts at both natural areas and provide a baseline for future efforts at surveying our local butterfly populations.

## Cofrin Center for Biodiversity Staff



**Bob Howe**

Director



**Erin Giese**

Senior Research Specialist



**Dan Meinhardt**

Richter Museum Curator



**Bobbie Webster**

Natural Areas Ecologist



**Keir Wefferling**

Fewless Herbarium Curator



**Andrew LaPlant**

Conservation Biologist



**Jacob Depas**

Director of Development



**Sam Betancur**

Camps and Outreach Coordinator