



UNIVERSITY OF MOUNT UNION HUSTON-BRUMBAUGH **NATURE CENTER**

Discover the Wonder of Nature's Ever-Changing Story



FALL/WINTER
2025

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John T. Huston – Dr. John D. Brumbaugh Nature Center

Mission Statement

The John T. Huston - Dr. John D. Brumbaugh Nature Center provides and supports opportunities for enjoying and learning about our natural and cultural heritage.

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Horticulture and Facility Coordinator

Michael Greiner

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Instagram

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From the Director

Jason A. Smith, Ph.D.

It's early October, and we have been feeling the "chill" of fall for a couple of weeks now. I can't speak for everyone, but I know Simon, Pedro, Lilly, and Cedric appreciate it! How do I know that farm animals appreciate the cooler air? Because the crisp air puts them in a fantastic moo-d!

I think we are all in a good mood right now with so many exciting things going on at the Nature Center. We are excited about the grand opening of our new wetland and prairie trail and viewing areas where visitors get to see the results of over two years of hard work by University of Mount Union faculty, staff, students, HBNC volunteers, and numerous others. This new resource will be a legacy for the future to enjoy and is already a haven for abundant new wildlife.

As we begin to forge ahead with a bold new vision outlined in our new strategic plan and supported by University administration, faculty, staff and students, we invite you to get involved and learn about new programs. We will be calling on our patrons, volunteers, alumni, and students to help us achieve this bold new vision that will require a team effort to make the HBNC a destination for undergraduate research, community resource for sustainable living, and continue our wonderful legacy of environmental education and outreach.

Lastly, I am excited to announce that Amy Miller has joined our team as Environmental Education Outreach Coordinator. Amy has a wealth of experience working in Stark County schools, having also worked previously (in our early years) at the HBNC when she was student at UMU. Her wealth of knowledge and skills will enable us to embark on a new chapter of environmental education outreach to high schools while simultaneously working with the UMU Office of Admissions to recruit top science-oriented high school graduates to our programs. Amy will be a wonderful addition to not only the HBNC, but the University of Mount Union. Please join me in welcoming Amy (back) to the Raider community!



Green Raider Community Events

Community cleanup sponsored by the Alliance Green Commission will occur on Saturday Oct. 25 from 9AM-1PM. Volunteers should meet at College Plaza on East State Street to help clean up the wooded area behind the plaza. Wear long pants, long sleeves, and boots that you don't mind getting dirty. Work gloves will be provided but bring your own if you have them!

Green Raider sponsored Ironhorse Trail cleanup will occur on Sunday Nov. 23 at 1PM. Volunteers should meet in the lobby of Bracy Hall on the University of Mount Union campus. Buckets and trash grabbers will be provided as well as latex free gloves. Wear long pants, long sleeves, and boots that you don't mind getting dirty. Transportation to and from the trail head is provided for UMU students that need it.

Green Raiders 3rd Annual Holiday Exchange is occurring the week after Thanksgiving. Do you have holiday items that you no longer want for use? Would you like to find "new to you" holiday items for your celebrations this year? Join the Green Raiders in keeping holiday decorations, clothing, wrapping paper, lights, and anything else you have that's holiday themed out of our landfills. Bring items you want to donate or pick up items that you want to take home. Join us Monday Dec. 1, Tuesday Dec. 2, or Thursday Dec. 4 in the Alumni Room of the University of Mount Union's Hoover Price Campus Center (HPCC) anytime between 8AM and 9PM. This event is first come first served! Items may be dropped off or picked up anytime during the event.

All Persons Trail Replacement

A portion of the Huston Farm Loop and Pond Trail known as the All Persons Trail is comprised of approximately 1,800 linear feet of boardwalk surface connecting the Visitors Center to the vernal pool, Huston barnyard, and pond. The boardwalk was constructed nearly 25 years ago with the assistance of volunteers from the community and Washington Township Ruritans. At the time, installing a boardwalk across the seasonally soggy soil was a major upgrade to the trail system and one of the first wheelchair and stroller-friendly trails in eastern Stark County. The All Persons Trail permits access to the natural and cultural resources of the Nature Center for visitors of all abilities.



The All Persons Trail needs to be replaced. The plastic lumber surface of the boardwalk is in decent shape but is inferior to present-day materials that provide better traction and drainage of rainwater and snowmelt. It hides the condition of the structural components of the boardwalk that have survived over two decades of frost heaving, fallen trees, and the inevitable degradation of wood lumber. Repairs and readjustments of misaligned sections are made regularly but doing so more resembles a game of Whack-a-mole than a long-term solution.

The replacement of the boardwalk is expected to cost nearly \$200,000. A redesign will use new decking material like that which is currently in use on the new decks at the North Woods wetland. The new decking material has more traction, will facilitate the drainage of rain and snowmelt, and expand the width of the boardwalk by twelve inches. The skeletal components of the boardwalk will be aluminum tubing for ground contact and treated lumber to support the decking. With new materials and frost-resistant construction, it is expected that the new boardwalk will be easier to maintain and last for another two decades or more.

If you would like to provide financial support for this project, the Nature Center can accept donations through the University of Mount Union's Office of Advancement. Donations may be sent to University of Mount Union, Office of University Advancement, 1972 Clark Ave., Alliance, OH 44601. Please indicate that your donation is for the "Nature Center boardwalk".

Donations can be made online at <https://giving.mountunion.edu/>. If giving online, use "nature center" to search available funds to support, click the + next to Brumbaugh Nature Center, choose the amount you would like to contribute, and click the "continue" button to move to the details section. On the additional details page, use the section for additional gift instructions to indicate that you want your donation to support the Nature Center boardwalk.

All donations of any amount are appreciated to assist with the cost of materials and construction of a new and improved All Persons Trail. Removal and replacement of a section of the boardwalk is expected to begin late this fall. Additional sections of the boardwalk will be replaced in sequence to avoid complete disruption of access for visitors. Work is expected to continue well into calendar year 2026, which is also the 40th year of the Huston-Brumbaugh Nature Center.

Summer Projects

It's been another busy summer around the property! Work continued in the wetland area with the construction of two observation platforms on the lower pool of the wetland. Benches were installed at each location, too. The garden at the North Woods had many updates including rearranging garden beds, irrigation, and deer fencing.

The Huston barn received some T.L.C. All eight of the vents on the barn were removed, rebuilt or repaired, scraped, painted, and reinstalled. The siding on the south side of the barn was removed and replaced. Coming this fall, the entire barn and surrounding buildings will get a fresh coat of paint. A small greenhouse was constructed near the operations building to start the process of propagating native plants. The staff room kitchen received an upgrade with sliding drawers in the cabinets and a new sink and faucet thanks to a generous gift from Shirley DeMaiolo.

We also had an Eagle Scout candidate working on assembling and installing benches on the property along with a wildlife mural for one of our trail overlook areas. This is only a snapshot of the many projects completed around the Nature Center recently. We welcome you to visit and see the many improvements.



Huston-Brumbaugh Nature Center's Schedule of Events

General Information

Events marked with an asterisk (*) require registration. All other events are informal, open to adults and families, and are available without registration. All events begin at the Visitors Center and are held rain or shine unless otherwise indicated.

To register or inquire about events, call 330-823-7487 or email naturecenter@mountunion.edu.

North Woods Open House

Sunday, October 5 | 1-3 p.m.

Celebrate and explore seven more acres of wildlife habitat with Nature Center staff. Once used for conventional agricultural crops, the North Woods field and wetland habitat are home to over 100 species of plants and an increasing number of wildlife species. Learn about the site's transition from row crops to habitat and explore the diversity of life residing there. Walks led by Nature Center staff. Pre-open house bird count will be held from 9am to Noon. No registration required.



Acoustic Music Jam

Sunday, October 5 | 2 - 4 p.m.

Join us at the Nature Center for a music jam. Bring an instrument or just come to listen. Beginners are welcome. Make new friends, have fun, and learn a new tune or two! No registration required.

*Fall Insect Walk

Saturday, October 11 | 2 - 3 p.m.

As the days get shorter and the nights get colder, insects are preparing for the coming winter. Come and walk around the Nature Center to see how many different types of insects we can find, catch and discuss as they brace for the long cold months ahead. *Registration is required.

*Wildflower Seed Collection

Sunday, October 26 | 1 - 2:30 p.m.

Assist the staff with collecting seeds from a variety of flowering plants. Participants will learn how to collect and process seeds for future planting and can take some seeds home. Wear sturdy shoes and long pants. May be canceled for inclement weather. *Registration is required.

Acoustic Music Jam

Sunday, November 2 | 2 - 4 p.m.

Join us at the Nature Center for a music jam. Bring an instrument or just come to listen. Beginners are welcome. Make new friends, have fun, and learn a new tune or two! No registration required.

*How to Make a Meadow

Sunday, November 9 | 1 - 2:30pm

Have you daydreamed about turning a portion of your property into a meadow full of blooming wildflowers? Whether it's a few square feet or a few acres, there are some things we've learned over the last several years about converting turf and agricultural land into meadow habitat. We'll share our mistakes and successes and hope to inspire you to make a meadow. *Registration is required.

Holiday Celebration Open House

Sunday, December 7 | 1 - 5 p.m.

The Visitors Center and Huston Cabin are dressed up for the holidays. Stop in from 1-5pm to make some ornaments, enjoy acoustic music, drink cocoa, and make s'mores at the Visitors Center. Visit Santa Claus in the Huston cabin from 2-4pm! Free and fun for the whole family.

Acoustic Music Jam

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*Geminid Meteor Shower Viewing

Saturday, December 13 | 9 p.m. - TBD

Bring the whole family and join us in the Northwoods area of the Nature Center to view the spectacular Geminid Meteor Shower! The Geminids are considered one of the most reliable annual meteor showers and one of the best showers for young viewers since this shower starts around 9 or 10 p.m. Be patient as this show will last until dawn, so you have plenty of time to catch a glimpse. Come dressed for cold winter weather: winter

clothing, sleeping bags and blankets. The warmer you are the longer you can stay. Bring a comfortable chair to recline in and observe the night sky. Hot chocolate and light snacks will be provided. Weather permitting. *Registration is required.

126th Christmas Bird Count
December 14 – January 5 | All Day

Participate in the Audubon 126th Christmas Bird Count as a volunteer in the Canton, Wilmot, or Quail Hollow count circles. Join a team of volunteers to count birds in the field, or you may be able to participate at home. Visit the Audubon Society online <https://www.audubon.org/community-science/christmas-bird-count/join-christmas-bird-count>.

Holiday Break
December 24 – January 3

The Visitors Center will be closed as part of the University of Mount Union’s holiday break. Staff will be present daily for limited hours to respond to email, voice messages, and care for the animals. The Visitors Center will reopen on Sunday, January 4.

Acoustic Music Jam
Sunday, January 4 | 2 - 4 p.m.

Join us at the Nature Center for a music jam. Bring an instrument or just come to listen. Beginners are welcome. Make new friends, have fun, and learn a new tune or two! No registration required.

***Trail Camera Treasures**
Sunday, January 11 | 2 - 3 p.m.

Nature Center trail cameras run nearly all year long on over 250-acres of land managed by the Nature Center. Thousands of photos of local wildlife are recorded, and we are looking forward to sharing some of our recent images and sequences captured on camera. *Register by January 9.

Great Backyard Bird Count
February 13-16

Join Nature Center staff as participants in the Great Backyard Bird Count in the comfort of the Bird Observatory. Save the dates!

Photo Contest and Exhibit Open House
Sunday, February 22 | 1 - 5 p.m.

Save the date! Preliminary contest details are to the right.

Volunteer Recognition

We extend a sincere thank you to our April, May, June, and July Volunteers! Our outstanding Volunteer staff assists us in maintaining high-quality programming and a beautiful facility. Thank you for ALL that you do!

Rick Blessing	Shirley DeMaiolo	Jim Miller
Ruth Border	Al Eibel	Joe Planisky
Thaddeus Border	Janet Fox	Karen Planisky
Patty Bruey	Paul Hobe	Geri Senczyszak
Mark Clough	Judy Horn	Kelly Slutz
Kerry Cochran	Mary Lindsay	Keith Swartz
Paula Cope	Amy McElhinney	Bonnie Twaddle

24th Annual Photo Contest

Save the Date!

Photo submissions for the Nature Center’s 24th Annual Nature Photography Contest and Exhibit will be accepted beginning in February 2026. There is still plenty of time to capture the perfect shot of your favorite subject, season, or landscape. Participation is free, but submissions are limited to nature photos captured in eastern Ohio, including Lake Erie and the Ohio River basin. Photographers must be amateurs.

The contest requires photo submissions being printed at 8"x10" size and matted (no frame or glass). An artists’ reception and exhibit opening are scheduled for Sunday, February 22, 2026 from 1-5:00 p.m. Contest details and entry forms will be available by February 1.





Three undergraduate students from the University of Mount Union conducted research projects as part of the 2025 Brumbaugh Scholars Program. Each student worked with a mentor to design, conduct, and present the results of a research project during the months of May through August. The Brumbaugh Scholars Program is a competitive, application-based research program funded by the Nature Center's Brumbaugh Endowment. Each student and mentor were compensated for their work and provided funding to purchase supplies for their research projects.

Mount Union senior Emily Krizner (biology and Spanish major) investigated the presence of the Lyme disease bacterium *Borrelia burgdorferi* and *Wolbachia* spp. bacteria in Black-legged ticks (*Ixodes scapularis*) at the Nature Center. Lyme disease is spread primarily through black-legged ticks infected with the Lyme-causing bacteria and is a rapidly spreading disease in the United States. *Wolbachia* bacteria are known to inhibit the spread of mosquito-transmitted viruses like Chikungunya, Dengue, and Zika, but little is known about its potential to halt the spread of bacterial pathogens like Lyme disease in ticks. Emily's research indicates that both the Lyme bacteria and *Wolbachia* bacteria are present in ticks collected at the Nature Center. Further research is needed to determine or disprove a correlation between Lyme- and *Wolbachia*-infected ticks. Emily's research mentor was Dr. Heather Milliken-Mercer, Mount Union assistant professor of biology.

Senior Ahmed Alzoubi (computing engineering major) developed a virtual exploration of the Nature Center to "make the center's resources accessible to a wider audience, including students, researchers, and community members." The tour features 360° imagery integrated into a web-based platform that can be hosted on the Nature Center's webpage. Ahmed spent the summer collecting imagery and developing a Google Maps-like tour of the Nature Center. The virtual tour is expected to be available this fall, so check the Nature Center's Facebook and Instagram pages for an announcement and link to the tour. Ahmed's research mentor was Dr. Thuan Do, Mount Union assistant professor of computer engineering.

Junior Eleanor Pace (biology major) investigated the effects of eutrophication on the diversity of freshwater parasites in the Nature Center's ponds. Using a combination of invertebrate collection, snail dissections, and fish necropsy, Eleanor found that the West Pond (near the Visitors Center) had a more diverse invertebrate population than the East Pond (near the Hickory Trail). The East Pond is known to be highly eutrophic, which means the water is overly rich with nutrients leading to excessive plant and algal growth. When the excessive plant life dies and decomposes, it depletes oxygen levels in the water which has adverse effects on aquatic life. Due to the complex lifecycles of parasites and their multiple hosts, eutrophication can have an impact on their diversity as well as Eleanor discovered via parasite counts during snail dissections and fish necropsies. Eleanor's research mentor was Dr. Mike Zimmermann, Mount Union associate professor of biology.

Seed Donations Requested



Do you have a plethora of native trees and/or shrubs in your landscape? Do you find yourself cleaning up seeds or nuts from your lawn, sidewalk, or driveway each fall? The Nature Center may be able to use some of your unwanted seed stock for propagation this winter. Please read carefully if you are interested in making a donation this fall!

Donations of seeds/nuts from the following species are requested: White Oak (*Quercus alba*), Swamp White Oak (*Quercus bicolor*), Pin Oak (*Quercus palustris*), Ohio Buckeye

(*Aesculus glabra*), American Beech (*Fagus grandifolia*) – no BLD symptoms, Sweetgum (*Liquidambar styraciflua*), and native dogwood tree (*Cornus florida*) or shrubs (*Cornus amomum*, *Cornus racemosa*, *Cornus sericea*).

We only need enough material to fit into a small paper bag. The collected seeds/nuts do not have to be processed. Husks, shells, and/or fleshy fruits around the seeds are fine. Seeds must be collected when dry. If the collected material is wet, damp, or otherwise full of moisture (especially fruit), lay the seeds out in a single layer in the bottom of a box, board, cookie sheet, etc. and permit the seeds to air dry in a weather-protected area. You may need to ensure your collection is inaccessible to wildlife while drying as well.

Once dry, place your collected material into a lunch-sized paper bag. Label the bag with the species of seeds/nuts inside, and staple or tape the bag closed. Please do not package seeds in plastic bags or air-tight containers such as coffee cans, Tupperware, etc. since humidity can cause moisture to accumulate and permit mold to grow. Keep your bag of seeds in a climate-controlled location until you can give it to a Nature Center staff member.



Beech Leaf Disease (BLD) is a prominent blemish and potentially fatal affliction of American beech trees (*Fagus grandifolia*). Since 2017, BLD has spread from a few symptomatic leaves to nearly every beech tree on Nature Center property. You have likely read about the research being conducted by the Nature Center's Dr. Jason Smith and Hannah Mitchell in previous newsletters. Research continues at other public and private universities, non-profit organizations, and government agencies, as well as researchers working for the country's largest tree care companies. Everyone is looking for a solution to a rapidly growing problem.

In July, Dr. Smith, Nature Center director and professor of biology at the University of Mount Union, leveraged his connections with a former graduate student of his who also happens to be working on the BLD problem at The F. A. Bartlett Tree Expert Company. Dr. Andrew Loyd is a plant pathologist who trained under Dr. Smith's tutelage while they were at the University of Florida. Dr. Loyd is experimenting with dosage rates of an

Fighting Beech Leaf Disease

antifungal and anti-parasitic chemical called thiabendazole, which shows promising results at reducing the number of BLD-causing nematodes on treated beech trees.

Dr. Loyd is experimenting with various concentration levels of thiabendazole to find the appropriate balance between tree diameter and effective dosage rates. Thiabendazole is effective at high dosage rates, but it is also quite expensive. Experimentation is seeking to find the sweet spot where efficacy and economics meet to boost tree health in a variety of beech tree sizes. To do so, pairs of equally sized trees were injected with a solution of thiabendazole. One tree received a high dose, and the partner tree of equal size received a lower dose.

The injections took place at the root flare of the trunk. A pressure tank forced the prescribed volume of solution into the trees' xylem, the layer of tissue that carries water from the roots to the leaves. The solution is known to reduce the number of BLD-causing nematodes on the leaves before they attempt to migrate into leaf buds at the end of the growing season. Positive results should be seen next spring with fewer nematode-damaged leaves emerging from buds next April and May.

Observational data will be recorded next spring to determine how effective the treatment was. In the meantime, Dr. Smith's Field Studies course (ENV 301) will attempt to measure nematode populations on beech leaves this fall. Treated trees should show a higher presence of dead nematodes on their leaves compared to leaves from untreated trees. Stay tuned for the results of this investigation and Dr. Loyd's research!

Developing a Forest Management Plan

The Nature Center is pleased to be partnering with Katie Downie, Forester at Better Meadows and Woodlands, to develop a comprehensive forest management plan for the Nature Center. Katie and her crew are tasked with developing a management plan that will help the Nature Center control invasive species, improve wildlife habitat, and improve seedling and sapling regeneration among other objectives. The overarching goal is to improve the health of the various forest stands across the property in the near term and into the future.

Field work with Katie will begin in late September or early October. You may see her and her colleagues setting up plots for gathering data, measuring tree diameter, and estimating densities of invasive species cover. Most of their work will take place off trail, so do not be alarmed if you see folks roaming through the property during that time. A fairly exhaustive list of measurements and observations are needed before a management plan can be written with prescribed actions to remediate or improve sections of the forest.

Funding for the development of a forest management is provided by the Environmental Quality Incentives Program

(EQIP) through the Natural Resources Conservation Service (NRCS). EQIP provides financial and technical assistance to agricultural producers and non-industrial forest managers. Once the forest management plan is completed, it may make the Nature Center eligible to apply for further assistance through EQIP to enact the prescribed practices written into the plan.

Contact your local NRCS field office if you would like to inquire about your eligibility for assistance or reach out to us to learn about our journey through the EQIP program.





John T. Huston-Dr. John D.
Brumbaugh Nature Center
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Alliance, OH 44601

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Discover the Wonder of Nature's Ever-Changing Story

Visitors Center and Bird Observatory Hours

April through October
Tuesday through Friday, 9 a.m. to 4 p.m.
Saturday and Sunday, 1-5 p.m.
Closed Mondays

November through March
Tuesday through Friday, 9 a.m. to 4 p.m.
Sunday 1-5 p.m.
Closed Mondays and Saturdays

Our trails are open from dawn to dusk every day.

**The Nature Center is located six miles south of
the University of Mount Union on Daniel Street, just off Route 183**



Contact us at:

Phone: (330) 823-7487

Email: naturecenter@mountunion.edu
mountunion.edu/nature-center