# The Merry Leaflet

Merry Lea Environmental Learning Center of Goshen College | P.O. Box 263, Wolf Lake, IN 46796 | 260.799.5869 | merrylea@goshen.edu | goshen.edu/merrylea



Vernal pond location between trail markers F and G, by the Learning Center.

### Lessons from a Vernal Pond

AFTER A DARK AND GLOOMY WINTER, there is always something that we look forward to here at Merry Lea: watching life re-emerge in our woodland vernal ponds. Located between trail markers F & G, you will find one of our favorite vernal ponds, although this is not the only one located on our property.

These pools can be as small as a puddle or as big as a lake. They form year after year when lower places in the land fill up with rain and melted snow in early spring and then dry up later in the summer, which means fish and other predators that need water year round can't live in them.

As the vernal ponds fill with water in spring, amphibians such as frogs and salamanders emerge from hibernation to breed. They then lay their eggs or dormant eggs that were laid in previous summers, and begin to hatch as well. As summer progresses and the water begins to recede, many of these aquatic organisms seek refuge in other nearby habitats or they begin metamorphosis, a process where they undergo rapid physical changes, such as when tadpoles turn into frogs. One unique macroinvertebrate species in most vernal ponds is the fairy shrimp. These little creatures need the pond to dry up and then fill up with cold water in the spring to emerge again. When the water begins to warm up, fairy shrimp lay their eggs and the adults begin to die off. The eggs sink to the bottom and dry out as the water evaporates. Come next spring, after the pond begins to fill up, freezes in the winter, and thaws out next spring, some of the dried up eggs will hatch while some can remain dormant for more than 15 years.

Beyond their ecological significance, vernal ponds also serve important functions for humans. They contribute to water filtration and groundwater recharge, helping to maintain the health of surrounding ecosystems. Additionally, these ponds provide valuable opportunities for scientific research and environmental education, allowing us to better understand the complex dynamics of temporary wetlands.

Filled with wood frogs, spotted salamanders, fairy shrimp, snails, fingernail clams, dragonfly larva, crayfish, water scorpions, and many other macroinvertebrates, amphibians, reptiles, and plant species, these ponds bring new life year after year. Lots of field trip students enjoy visiting this pond in the spring to discover the various organisms and species that are living within the water. To do this, we use metal colanders and dip them down into the shallow water. When they find a critter in their colander, they transfer them into a tub where everyone can gather around and identify their findings and look at them closer. Once they are done dipping and investigating, we gently put all of the critters back into the vernal pond so they can continue their life cycle.

In a world where change is constant and unpredictable, vernal ponds stand as a reminder of nature's resilience and adaptability. These seasonal ponds and the creatures that inhabit them can teach us a lot about some of the fundamentals of life:

### **Nurturing Diversity**

Since there are so many types of macroinvertebrates that inhabit these vernal ponds, we can take a step back and appreciate the vast diversity these ponds hold. We can learn the invaluable lesson of nurturing diversity in our own lives. Each organism within a vernal pond, from the tiny fairy shrimp to robust wood frogs, plays a vital role in maintaining a balanced ecosystem. Similarly, embracing diversity in our lives fosters creativity, innovation, and inclusivity.

### **Adapting to Change**

The ever-changing nature of vernal ponds mirrors the dynamic landscape of life itself. From the fluctuating water levels to the seasonal emergence and dormancy of species, these ponds exemplify the necessity of adapting to change. In the face of shifting circumstances, whether personal or environmental, the ability to adapt is important. Like the resilient inhabitants of the vernal pond, we must learn to adjust our strategies, behaviors, and perspectives to navigate the currents of change and emerge stronger and more resilient.

### Resiliency

Despite facing adversity from droughts,



VIEWS FROM THE CORNER OFFICE DR. JASON MARTIN

### Unveiling Merry Lea's Next Strategic Plan

**I'M THRILLED TO SHARE THAT THE 2024-2027 STRATEGIC PLAN** for Merry Lea Environmental Learning Center of Goshen College is finished! Building this plan was truly a collaborative effort among the entire Merry Lea staff, the Merry Lea Board, the Goshen College administration, and members of the Friends of Merry Lea. I can't thank these folks enough for the hours of time spent in meetings reflecting on our past and dreaming about our future. The resulting plan will serve as our North Star for the next 3 years as we continue to contribute to a biologically diverse and sustainable planet for the benefit of future generations by fostering and empowering courageous, creative and compassionate environmentally minded leaders.

Our strategic plan is centered on 4 key aspirations:

### Aspiration 1: Transformative education programs

Transformative education programs at Merry Lea integrate academic excellence with real-world application within a place-based environmental context, providing indelible learning opportunities for people of all ages. While continuing to deliver the high quality, nature-based education programs for which we are known, we will seek deeper and broader engagement with both our current and new audiences, especially those from underserved communities in northeast Indiana. We will also expand onsite research opportunities, especially for undergraduate students from Goshen College and other academic institutions, that serve as hands-on learning experiences and improve our understanding of our land and the life that it harbors.

#### **Aspiration 2: Responsibly stewarded resources**

Responsibly stewarded resources, including native habitat, sustainable infrastructure, a teaching farm, diverse personnel, and adequate finances, provide spaces, context and the means to pursue our mission. Over the next three years we will develop and implement plans, policies and procedures focused on enhancing the efficiency and effectiveness of how we manage and utilize these resources while also improving transparency, clarity and accountability within our team of staff and faculty. We will also seek to expand and diversify our funding sources to improve our fiscal resilience and increase our capacity to pursue our mission by broadening volunteer engagement opportunities throughout Merry Lea.

#### Aspiration 3: Authentically collaborative partnerships

Authentically collaborative partnerships with colleagues and programs both within the Goshen College community and from external organizations amplify our impact. We will seek innovation within our team by emphasizing cooperative pursuits across Merry Lea program areas, pursue mutually beneficial partnerships with academic departments and programs in the wider Goshen College community, and increase our connectivity with, and capacity to serve, communities throughout northeast Indiana, especially those in Noble and Allen Counties.

see **Strategic Plan**, page 3

### ABOUT MERRY LEA

Merry Lea was created with the assistance of The Nature Conservancy and through the generosity of Lee A. and Mary Jane Rieth. It is operated by Goshen College. The center provides a comprehensive program of environmental education and recreation.

The Merry Leaflet, published in spring, summer, fall and winter, provides news about programs and developments at Merry Lea. Kayla Beasley is its editor and the author of articles without bylines.

#### **TEAM MEMBERS**

Kayla Beasley Associate Director of Communications &

Marketing

Kaeli Evans

Carol Good-Elliott Environmental Educator

Kerry Goodrich

Property Supervisor

Carla Gull Coordinator, Master of Arts in Environmental Education program / Associate Professor, SEED

Luke Kreider Assistant Professor, SEED

Melinda Long Office Manager

Jason Martin Executive Director

**Bill Minter** Director of Land Management

John Mischler Associate Professor, SEED

Ruth Mischler Assistant Professor, SEED

Jonathon Schramm Associate Professor, SEED / Director of Institute for Ecological Regeneration

Jeremiah Sharp Residence Life Coordinator & Environmental Educator

Foy Spicer Environmental Educator

**Alan Stadler** Building Manager & Grounds Assistant

Kaitlyn Sproles Environmental Education Outreach & Volunteer Coordinator

Marcos Stoltzfus Director of Environmental Education Outreach / Assistant Executive Director Josie Strader

Land & Facilities Management Assistant

#### **BOARD MEMBERS**

Andy Rieth, Chair Greg Perigo, Vice Chair Ben Bontrager Doug Vendrely Carl Weaver Bekah Houff Ex Officio: Ann Vendrely Ex Officio: Marcos Stoltzfus Ex Officio: Jason Martin

#### Strategic Plan, continued from page 2

### Aspiration 4: A vibrant workplace community

A vibrant workplace community is a place where mission-driven, broadly diverse employees thrive in response to a culture of trust, transparency and clarity of purpose. The staff and faculty of Merry Lea are our biggest strength. We will continue to invest in these special people by ensuring that they have the tools, resources and skills to excel in both their work and their lives. We commit to never losing sight of the importance of creating a welcoming and safe workplace for all. By celebrating the contributions of every team member and continually seeking ways to care for ourselves and each other, we will ensure that Merry Lea remains a place where employees find belonging and community.

I am extremely privileged to work with a group of such dedicated and talented people in building Merry Lea's future! Be on the lookout over the coming months for updates as we write the next chapter of our story.



PreK students helping us "fly" into our next Strategic Plan!

## Looking for ways to make a difference?

Merry Lea relies on the generosity of people like you to provide quality environmental education programs that are accessible for all ages.

Please consider becoming a Friend of Merry Lea. Thanks so much for your consideration.

You may give online at <u>goshen.edu/merrylea/</u> <u>donate</u> or call our office at **(260) 799-5869**.

### Thank you for your support

Thank you to the following people for donating to Merry Lea during this quarter. Your support has contributed to delivering safe environmental programming, maintaining facilities and upkeeping hiking trails.

John & Barbara Allyn Patricia & David Baer Ray & Carol Beauregard Victoria Benko Malinda Berry & John Stoltzfus Janeen & Barry Bertsche Johnson **Arlene Bohnke** Jonathan Bontrager **Carol Sue Borkholder Francis Bundy** Jon & Deborah Byler Lee & Patricia Casebere John DeGood Rod & Gwen Diller Fred & Joyce Driver Barry Dupen & Julie Davidson Steven & Pamela Etheridge Brook & Barbra Frymier Bruce & Helen Glick Gloria & Thomas Gusching Robert & Christine Guth Fred Habegger Trisha Handrich Roy & Lois Hartzler Jean Hartzler Heather Harwood Patricia & Daniel Heath Thushan & Jill Hemachandra Cheryl High-Beckford **Ruby Hochstedler** Jack & Mary Hostetler Carl & Mary Hurst Kathy Kauffman Douglas Kaufman Amanda & Lane Kaufmann LaDene King & Gretchen Nyce James & Gloria Kinnard Kathleen Kremer & Rich McFall Jan & Michael Landis Glen & Ann Linvill Douglas & Angie Lucker

Anita Martin & Russel Vernon III Eric Massanari Terry May & Diane Ebert-May Marla & Paul McAfee Thomas & Erika Meyer Laura Moshier Nike Inc Vietta Nofziger John Nyce & Dorothy Yoder Nyce **Peerless Manufacturing** Lisa Lee & Clifford Peterson Roger & Pamela Piper-Ruth Fancheon & Herbert Resler **Rexnord Foundation Inc James Rhodes** Mark & Val Rae Sadler Kara Schmucker **Beth Snider** Kaitlyn & Michael Sproles Loren & Miriam Stauffer Amanda & Chuck Thomson Amy Thut & Greg Imbur Doug & Jane Vendrely Patrick & Ann Vendrely Mrs. Arlan C. Haase Vernon H. Haase Foundation Russell & Sandra Voorhees Bridget Wakeman Robert & Ann Walton Bud & Phyllis Wulliman Donald & Marceil Yoder Lillian Yoder Marisa & Timothy Yoder Roberta & Larry Yoder Wayne & Roveen Yoder Evelyn & Roger zumFelde Anonymous in honor of Culver Family

in honor of Culver Family Foundation

Anonymous (x4)



### THANK YOU TO OUR VOLUNTEERS FROM JULY 2023 - NOW

Because of the following people, we are able to provide environmental education for people of all ages and a natural sanctuary for northern Indiana's plants and animals.

From July 2023 to March 2024, we have had a total of 991.75 hours donated to our various program areas here at Merry Lea including Education & Outreach, the Merry Lea Teaching Farm, Administrative Support, Stewardship, and various other areas as well!

We can't thank you all enough for all of your hard work and how you have helped shape Merry Lea into what it is today.

Alex, Melissa, and Morgan Baker	Carrie, Jayden, Jensen, Jordy Henthorn
Alta, Ben, and Phil Good-Elliott	Carson Gull
Andy Rieth	Cassi Cwiertnia
Anna McVay	Chuck Harvout
Ansel Kurtz	Cliff & Dirk Oyer
Avery, Ethan, & Kelly Wright	
Barbara Davidson	David & Linda McKee
Becky & Ken Horst	Dennis Householder
Becky Overholt	Doug Vendrely
	Ellen Fagan-Pryor
Benton, Easton, and Rebekah Kin	Emily Slabaugh
Beth Bontrager	Emma Schroeder
Brandon Kurtz	Eva Webb
Brieanna Moore	Freya Bernston
	rieya bernston

Heather Horst **Issak Prince** Isabel Woodcox Isabella Ruiz Jamie McBride **Janel Rogers** Jenna Parks Freeman Jerry Sweeten John Neimeyer Juan Perez Julie Davidson Karen Bradlev Katie & Sofia Hall Katie Kurtz **Kim Hosier Kristin Jantzer** Lee Bergey Lisa Seiler Lois Oyer Lucy Miner Luice Mast Marty Lehmar Mary McGee

Emily, Melika, Ross Hershberger Melissa Kinsey Mythili Munichetty **Oliver Kurtz** Pamela Weishaupt Pat Conway Paula Ousley **Rebecca Stevens** Reena Ramos Rian Bylsma **Roberta Miller Yoder Robin Lambert Russ Voorhees** Sally Krabill Sherrie Zou Simon Moshier Sowmya Vijayraj **Stephany Hancock** Suzanne Beyeler **Tarryn Lyons** Terri Habig **Troy Kirkpatrick** Wendell Yancy

### Can you "be-leaf" it?

Merry Lea has various rooms and buildings, such as the Gathering Room located at the Farmstead, that can be rented out for various occasions such as birthdays, conferences, meetings, and other occasions!

If you are interested in learning more about what buildings/rooms are available or would like to make a reservation, contact our Office Manager, Melinda Long at mlong@goshen.edu.

For more fun facts about Merry Lea, follow our social media outlets!

Facebook: Facebook.com/Merry LeaEnvironmentalLearningCenter

Instagram: Instagram.com/ merrylea goshen/



### Living on Island Time in Hawaii



SUNNY SKIES, RAINBOWS, AND WHITE **SANDY BEACHES?** While many think of Hawai'i as the ultimate vacation spot, students in our Master of Arts in Environmental Education program recently got to know a different side of the largest island in the Hawaiian archipelago during their Intercultural Environmental Education course. These sites often came with rain as they explored the wet or rainforest side of the island. This part of Hawai'i is also home to many coarse, black sand, and rocky beaches featuring tide pools and sea turtles, resting from the sea.

For three weeks in February, the graduate students, Dr. Carla Gull (coordinator of the graduate program and faculty member for the course), and Jeremiah Sharp (residence life coordinator and environmental educator) stayed with a local host family near Fissure 8.

Beyond seeing freshly built land from the lava flow, students quickly applied their natural history skills to learn about the unique flora and fauna on the island. Visiting a national park, national historic sites, local beaches, trails on Mauna Kea, and roadside ocean views, the group immersed themselves in place-based educational practices to learn about the unique plants, endemic birds, and geology of the space.

Luckily, Michael Yerge, one of the MAEE students, went on a geology trip to the island a year ago as part of his bachelor's degree in geology. He was able to share with the others about Pele's tears (small tear-like drops of volcanic glass), lava tubes, and other geological features throughout the trip.



From left to right: Hawai'i Audubon member, Jeremiah Sharp, Michael Yerge, Glen Malast, Carla Gull, & another Hawai'i Audubon member birding for l'iwi, apapane, and other birds on the PuuOo trail. Not pictured: Other members from Hawai'i Audubon, Big Island Hui.



Mauna Kea.

Likewise, Glen Malast, another MAEE student with a passion for native plants, encouraged the group to slow down and explore the native fauna. They especially enjoyed visiting the 'ahinahina, or Mauna Kea Silversword. Glen stated it was the most beautiful plant they had ever seen and could now die happily. This alpine desert plant lives high on the mountains in very adverse conditions, blooming only once after 5-10 years of growth. Conservation efforts are in place to help repopulate this silvery plant.

As students learned more about the island and environmental concerns, they also applied their teaching skills. They worked with biology classes at a local high school, STEAM classes at a charter school, and did roving interpretation at a nearby zoo and discovery center.

Students grew in their confidence and teaching skills, crafted lesson plans and activities to help students learn about the evolution of the endemic honeycreepers. They also discovered

how an aquaponics system works, used apps to identify and catalog plants and animals, shared about animals with a call to action, and interpreted aspects of the Northern Hawaiian Islands.

Native Hawaiian and local culture also played an important role in the course, with students learning about historical aspects of Hawaiian people, the revival and importance of native Hawaiian language, the diverse mix of people in the area, and Hawaiian customs. As the group participated in field trips, a Hawaiian creation chant was often used to set a tone of reverence and respect for the place, people, and learning that was about to happen.

All of these opportunities collectively rounded out the course on the big island, giving our graduate students an in-depth glimpse at the diverse people, climates, plants, and animals, along with the environmental concerns and hard-working efforts to conserve and restore the endemic flora and fauna found only on the island. To see more photos from their intercultural trip, check out our social media outlets.

### Embracing the Flames at Luckey's Landing

AND IT BURNS, BURNS, BURNS at Luckey's Landing. While walking around Merry Lea during the months of March and April, you may notice various areas that look charred, burnt or smoky. However, far from being a result of a destructive wildfire, these controlled, or prescribed, burns are an intentional effort to manage grassland and woodland ecosystems on our property.

At Merry Lea, our commitment to ecological stewardship extends beyond mere preservation. It also encompasses active measures to enhance the biodiversity and resilience of our natural habitats. By burning various areas, it encourages the establishment and growth of herbaceous native species that have adapted to periodic fire. It also serves as a natural deterrent to woody species that threaten to dominate and overshadow the delicate balance of our natural habitats.



Bill Minter, Director of Land Management holding a drip torch as he descends down a hill after setting it on fire.



On left: ground that has not yet been burned. On right: ground that has been burnt.

Prescribed burns play a vital role in land management, specifically in prairies, oak woodlands, and oak savannas - you can learn more about these parts of the Merry Lea property on our website under the 'Conservation and Farming' tab.

These burns are performed every three to five years, given that the right conditions are in place and nature is on our side. The area (pictured above) at Luckey's Landing was last burned in 2018 and it just so happened that conditions were perfect to burn again this year.

Executing a prescribed burn is no simple task. It requires a balance of many environmental factors. To perform a burn safely, our land management team must ensure there has been no precipitation in the previous 48 hours, temperatures are in a range from 50-70 degrees Fahrenheit, the wind is only blowing three to ten miles per hour and in a south east, south, south west, or west direction, and the relative humidity is in the 40-60% range. These conditions must

be met for a three to five-hour period during the day to perform a burn with the actual burning being completed no later than 4pm.

Prescribed burns are conducted under strict supervision by trained and experienced professionals here at Merry Lea. Bill Minter, Director of Land Management, plans and executes every burn performed on our property. Our other operations team members, Kerry Goodrich, Alan Stadler, and Josie Strader, also assist with these controlled burns.

As you walk through our charred landscapes or see the flames dance across the land, it's worth thinking about the transformative power of fire. Far from being a force of destruction, when harnessed responsibly, fire becomes a tool for regeneration and renewal.

Across our 1,189 acres, controlled burns help us share the narrative of resilience and sustainability here at Merry Lea, reminding us of our interconnectedness with the land and northern Indiana's plants and animals.

#### Vernal Pond, continued from page 1

freezing temperatures, high heat, and predators, the creatures in vernal ponds persevere. Their resilience serves as a reminder that we can also overcome challenges and bounce back from setbacks. Just as the fairy shrimp can lay dormant for more than 15 years as they wait for the opportune moment to 'spring' back to life, we too can grasp life's storms and emerge successfully.

### Patience

From the process of egg-laying to the gradual hatching of eggs and metamorphosis of tadpoles and larvae into adults, life within these ponds unfolds at its own pace and own timeline. By observing patience in the pond, we can learn the importance of embracing the journey rather than just solely

life.

#### Transience

The short-term nature of vernal ponds serves as a reminder of life's transience, or temporary nature. As these ponds appear and disappear as the seasons change, we can learn how to appreciate and cherish each moment in the present time. Like the ever-changing landscape of these vernal ponds, life's transience urges us to live fully, love deeply, and appreciate nature and life in the present moment.

Amidst a vernal pond's chorus of croaking frogs and dancing of dragonflies, not only can you find a

### Photos from the Vernal Pond:



focusing on our end goals. Cultivating patience allows us to savor each moment and find solace in the ebb and flow of

sanctuary of nature, but also a classroom of life's most enduring lessons. If you are lucky enough to have time this spring to come over to Merry Lea and check out a vernal pond, we hope that you take that opportunity to soak in one of nature's wetland wonders.

If you have questions about the creatures that you observe in our vernal ponds, feel free to visit us in the Learning Center and we will be more than happy to answer your questions. If you are interested in learning more about macroinvertebrates, join us at Nature <u>Fest</u> - we will be having dipping sessions throughout the day on Saturday, May 11 from 8:30 am - 3:30 pm. We hope to hear about your fun findings and vernal pond adventures soon. 🕀



1700 S. Main St. Goshen, IN 46526 NONPROFIT ORGANIZATION U.S. POSTAGE **PAID** PERMIT 71 GOSHEN, IN 46526

### Events

### **Nature Fest**

WHERE: Merry Lea Farmstead

WHEN: Friday, May 10 | 7 – 10 p.m. & Saturday, May 11 | 8:30 a.m. – 3:30 p.m.

All ages are welcome to participate in canoeing and campfires Friday evening. Stick around after dark Friday evening to discover some of the insects active at night using light-lures & blacklights. On Saturday, there will be two different tracks that participants may engage in: family-oriented activities and BioBlitz (science investigations) activities.

Cost is free & registration is not required.

### **Family Tea Party**

 WHERE:
 Rieth Village

 WHEN:
 Saturday, July 13 | 9:30 - 11:30 a.m.

Put on your favorite summer outfit and come join us for a morning tea party. Everyone will start by tasting herbal teas, select their favorite flavors and learn how to make a cup of tea with garden herbs. We will also prepare fresh produce based finger foods.

Cost is \$5 per child and \$7 per adult. Registration required on our website.

### Learn more at: goshen.edu/merrylea

### Tales & Trails

WHERE: Various locations around Merry LeaWHEN: Last Tuesday each month | 10 - 11:30 a.m.

Hear a tale and hike a trail with your preschooler to discover the natural wonders around you together! This is a 1.5-hour monthly program designed for children ages 3-5 and their caregiver(s), led by a Merry Lea educator. Younger & older children are more than welcome to join.

Cost is free. Registration not required. See our website for more details about each session & to see locations for each month.

### **Pickles! Adult Workshop**

WHERE: Rieth Village WHEN: Saturday, July 13 | 1 – 4 p.m.

Learn how to preserve crunchy, salty, vinegary veggies in jars. During this workshop, we will do some taste testing and compare different methods for pickling, discuss what veggies (and flavor combinations) pickle well, and then process cucumbers to make refrigerator dill pickles to take home.

Cost is \$35 per person. Registration required on our website.