

The Merry Leaflet

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

At Home in Noble County: First in a Series

Local Relationships Strengthen

In the coming school year, five of the eleven students in Merry Lea's Master's in Environmental Education program will focus their yearlong projects on Central Noble schools. Two students will work with the primary school in Wolf Lake, one will devote herself to Central Noble Middle School, and two are developing curriculum for Central Noble High School students.

This is just one example of a trend that Dr. Jan Bender Shetler observed when she reviewed Merry Lea's history for a research project in late 2017. Jan, a history professor at Goshen College, was struck by the way relationships with the local community have deepened in the last decade.

"[W]ith a paradigm shift in environmental education from sanctuary to sustainability in the 2000s, Merry Lea's staff and students have begun to see the community as much more central to their work and approach," Jan said in her report.

Jan views the greater attention to the local community as part of a larger trend in environmental fields. In the 1960s and 70s when Merry Lea was founded, environmental visionaries focused on preserving wilderness. These lands were viewed as a space distinct from civilization and the damage that human beings cause to natural areas. In contrast, recent literature in the field emphasizes the need for a healthy environment in the spaces humans inhabit. Humans are regarded as a species within the natural world that must learn to co-exist with other species in mutually

beneficial ways.

"This brings the concerns of environmentalists back to human communities and their work to create healthier places to live and work at home rather than preserving primal nature alone. It recognizes the intimate way that nature and people have always been connected and mutually influencing each other

over time," Jan said.

The increasing number of Merry Lea's staff and programs has aided this trend. Fifteen years ago, Merry Lea had nine permanent employees, three of whom lived in Noble County. Today, there are 18 employees, and six live in Noble County. Master's and undergraduate students also live and shop in the com-

[See Local Relationships, page 3](#)

Farmers Visit for Pasture Walk

Nearly forty people gathered at the Merry Lea Sustainable Farm (MLSF) for a pasture walk July 12.

"How can we improve our pastures?" Assistant Professor Ruth Mischler asked them.

The seasoned farmers in the crowd were able to speak from their own experiences with livestock. In return, they asked about Merry Lea's five-acre woody perennial polyculture (WPP) where livestock grazed between rows of nut and fruit trees, vines and brambles.

[see Pasture, page 4](#)



Stephan Powless, a student in Merry Lea's Agroecology Summer Intensive, talks shop with a visitor at Merry Lea's July 14 pasture walk.



DIRECTOR'S DESK
DR. LUKE A. GASHCO

Time and Change

Twenty years ago, I wrote the following in this column:

“I enjoyed the sweat of last week as I assisted [Merry Lea team members] in tearing apart the bake shed attached to the granary at Kesling Farm. We were excited because we were beginning the process of renovating and bringing health to the farm buildings. To bring new life we needed to remove some of the old, but we could visualize the restored results. Much of the work at Merry Lea is like this. Dream, plan, sweat, labor, renew, and then see results.”

What a delight to have participated in the rhythm of this approach with team members for two decades! The work has been much broader than improving the buildings at Merry Lea. We have pursued the pattern of dreaming, planning, sweating, laboring, renewing and results with ecosystem restorations, the advancement of many educational programs and the building of relationships in our communities of influence.

Time often seemed to move slowly as we worked through the steps required to achieve results on an array of fronts. The efforts all intersect with what is known as ecological time—patterns such as days, seasons, years and cycles inherent to the planet we live on. Owning that “it takes time” is essential in the pursuit of change and renewal. Ecological time must be respected in all processes. We can develop concepts and apply energy, but trying to speed up time usually ends in frustration.

**“Dream, plan, sweat,
labor, renew, and then
see results.”**

I am filled with gratitude as I reflect back over the past twenty years of my involvement with ecological time at Merry Lea. During the past week, I observed many stages of change in between dreaming and results. Here are a few of them:

- healthy wetlands, prairies, savannas, woodlands, meadows and lakeshores
- dynamic interactions between the Environmental Education Outreach Team and local school teachers
- laughter and conversation with agroecology students and summer researchers around the lunch table at Rieth Village
- sounds of graduate students learning in the classroom down the hall from my office
- engaging conference calls with people interested in caring for creation
- excited visitors of all ages enjoying the trails, programs and facilities

We all have the privilege to continue in these dynamic activities in pursuit of the Merry Lea mission. I concluded the “Director’s Desk” 20 years ago by writing, “Taking on the challenge and persevering will yield fruit and flower, restoration and health. What a rich opportunity to be a steward in 1998.”

The same is true in 2018! 

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 owned 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. Jennifer Halteman Schrock is its editor and the author of articles without bylines. See the news tab at goshen.edu/merrylea for more news.

TEAM MEMBERS

Chad Agler, Building Manager

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Kerry Goodrich, Property Supervisor

Carol Good-Elliott,
Environmental Educator

Tom Hartzell, Coordinator of
Undergraduate Programs

Jane Litwiller, Environmental Educator

Bill Minter, Director of Land
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John Mischler, Director of Agroecology

Ruth Mischler, Assist. Professor, SEED

Dave Ostergren, Director of the
Graduate Program

Joel Pontius, Director of the
Sustainability Leadership Semester

Ellie Schertz, Assistant Farm Manager

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Jennifer Halteman Schrock,
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Environmental Education Outreach

Maria Tice, Admin. Assistant / Volunteer
Coordinator

Jon Zirkle, Farm Manager

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munity. Numbers peaked in July 2018 when over 25 students were living on Merry Lea property.

The hands-on nature of Merry Lea's educational philosophy means that Merry Lea's students are dependent on the local community for major chunks of their education, just as they depend on local grocery stores. The time required for long distance commuting means that many field trips and research projects take place in Noble County.

Two-Mile Farm Field Trips

The Agroecology Summer Intensive (ASI), a ten-week program for undergraduates, is a case in point. ASI Director John Mischler ticks off the destinations within two miles that his students visit:

- At Metzger's Dairy, a farm with over 2,000 cows, students can see how

large-scale farms that supply the typical grocery store are managed.


- The Wysong Farm owns large equipment with instruments that can map organic matter and crop yields. Here, students learn about precision agriculture.
- At the Wolf Lake Food Pantry, students get to see food distribution at the local level, and the laws that manage agricultural surpluses become concrete. They also have the satisfaction of seeing food they grew reaching people who need it, since the Merry Lea Sustainable Farm is a contributor.

- Bender's Orchard offers lessons in fruit growing.

A bit further afield at Foxtrail Farm, Albion, Ind., students see a market garden with soils and marketing strategies

very different from those at Merry Lea. South on 109, ASI students learn about butchering at Goss' Grocery.

"Our area offers such a rich mosaic for learning about the food system," John marvels. He values the opportunity to integrate convenient nearby stops into regular class periods and to reinforce in students minds the idea that they live within a patchwork of growers.

At this writing, two master's students are pondering ways to teach youth about the ecosystems surrounding Central Noble High School. Tom Hartzell, Coordinator of Undergraduate Programs, is scheduling local field trips for this fall's Sustainability Leadership Semester. And Administrative Assistant Maria Tice is on her way to the Wolf Lake Post Office, which she describes as "a community water cooler." May fruitful connections continue. 

Hallway Poll: Describe a recent interaction you had with the community near Merry Lea.

MARCOS STOLTZFUS Director of Environmental Education Outreach Team

Recently I was shopping for ingredients for brick oven pizza at Goss' Grocery. A man in a white apron approached me and handed me a half-pint of honey. We didn't know each other, but I was wearing my Merry Lea T-shirt. "Take this up to Merry Lea," he said. "I just harvested it this week!"

My most transformative experience in the past year came through KinderForest, a program that Wolf Lake Elementary initiated. The process became very relational and collaborative. Throughout the year, we worked closely with the teachers, Jody and Nancy, as well as with Robby (the principal) and other school staff.

In our work, we often only see students once in a given year. By contrast, I was able to observe the growth of individual students throughout the year. It was immensely satisfying to watch a young child move from being frozen in place because of a lone bramble in her path to moving more confidently through the woods. Similarly, I appreciated seeing teachers become more comfortable teaching in the forest. I look forward to year two of the program, as we continue to transfer ownership of the program to the school.


JON ZIRKLE Farm Manager

On August 10, some of our Agroecology Summer Intensive graduates and our intern, Jess Raffel, and I went to thin sorghum at Old Loon Farm. Growing sorghum is a small-scale operation and a lot of work, so we are exploring how to go about cooperative production with

a number of Noble County farmers. We have young volunteers with strong backs to share, so we got a lot of work done in an hour. In October, farmers will come to us to help with our sorghum crop.

JANE LITWILLER Environmental Educator

Junior Gray [a neighboring farmer] stopped by the Merry Lea booth at Onion Days. I was particularly interested to hear his memories of growing onions and mint and some of the older crops this area was known for. He described all the hoeing that was needed and the old mint stills around the area.

I also have fun telling the employees at the gas station in town why I buy bait minnows every week. I encourage them to come out and visit the snakes, but I've not had any takers. 

ASI Adds Animal Husbandry Course

HAVE YOU EVER THOUGHT about what the person who produced the meat you see at your local grocery store or farmer's market needed to know? This field is known as animal husbandry.


The 2018 Agroecology Summer Intensive students piloted Merry Lea's first animal husbandry course. Assistant Professor Ruth Mischler taught the class, passing on her knowledge of the farm's turkeys, cattle, pigs, milk goats, honey bees, laying hens and meat chickens.

In addition to animal life cycles, feeding and basic veterinarian care, Merry Lea's course emphasized the role animals play in sustainable agricultural systems where their wastes nourish vegetable crops. A related assignment involved preparing a presentation to share with community members attending the pasture walk in the woody perennial polyculture area.

One memorable aspect of the class began with a peeping package of baby chicks and ended with butchering and feasting. Raising chickens was both a research project and an exercise in personal ethics. Students compared two breeds of

meat chickens to see which did best in a particular farm niche: Cornish Crosses or Red Rangers? Their methods ranged from weighing the chickens to tasting them at the end of the course. They also became familiar with equipment such as portable pens and nipple waterers. The ethical part of the assignment required students to write out their own philosophy of humane care of animals and of eating meat.

Husband: Old Norse. A peasant landowner. Over time, the word became a verb so that to "husband" was to care for a farm.

Lab periods capitalized on the diversity of animals now in residence at Merry Lea or nearby. During one lab, students donned protective equipment and met with a beekeeper. In another, they visited a fiber artist to learn about animals raised for wool. They also made cheese and lard and met with a animal enrichment specialist who had experience with zoo animals. 



A student in Merry Lea's Agroecology Summer Intensive trims the hooves of a goat kid during a lab in the new animal husbandry course.

Pasture, continued from page 1


"Do you have depredation from wildlife?" one person asked. Another wondered about the rate of gain on the cattle and a third wanted to know if any spray was used on the fruit trees.

The interchanges were part of a pasture walk sponsored by the La Grange County Soil and Water Conservation District (SWCD). The organization has been offering opportunities for farmers to share their pastures and talk shop about grazing since 1999.

Ruth decided to host a pasture walk after attending the Northern Indiana Grazing Conference. She saw it as a way to learn from other people and build relationships. She also felt that the MLSF had unique features to share. As a farm that is an educational nonprofit, the MLSF has the freedom to try out a wide variety of crops—from okra to goats to fruit trees.

The WPP is an experiment in land sharing: between crops and farm animals, between human agriculture and the natural world. The mix of nut trees, fruit trees, grape vines and brambles in the WPP mimics a savanna ecosystem. Confined by portable fencing, several Belted Galloway cattle graze between the rows of perennial crops. The black-and-white breed from Scotland produces very lean meat and does well on rough forage. Black Australorp laying hens strut freely throughout the WPP.

Black currants were ripe at the time of the pasture walk, allowing for human grazing and a lesson on the pros and cons of raising chickens and currant plants together. Ruth remarked that on the one hand, they turn dropped fruit into meat, but they also scratch at the roots of the plants.

Not every farm has time to experiment with perennial polycultures. By building mutually beneficial relationships with local farmers, the MLSF Team hopes to share what they're learning beyond the walls of the classroom. 

Research as Service:

Hickory Scholars Tackle Practical Farming Questions

THREE OF THE FIVE Goshen College students who participated in Merry Lea's Hickory Scholars program this summer studied agricultural topics. Hickory Scholars live at Rieth Village for the summer, honing their research skills as they work under the guidance of a professor.

Dr. John Mischler, who directs Merry Lea's Agroecology Summer Intensive, hopes the farm-related research that happens at Merry Lea can contribute to the wellbeing of the local community as well as to the students who gain experience. He understands his job to include uniting stakeholders in their common task of stewarding the watershed.

"We all want the same things," John said. "We all care about the land; we all want the soil to be productive long term, we all want clean, healthy lakes."

What would enable farmers to use cover crops more frequently?

Ben Wiebe, a 2018 environmental science graduate of Goshen College, spent his summer at Merry Lea interviewing local farmers about the barriers they faced when considering whether or not to plant cover crops.

Cover crops keep the land under a vegetative blanket in between cash crops. They can enrich the soil, prevent erosion and improve water quality. Yet many farmers are reluctant to use them. The topic is of considerable interest to both John and Ruth Mischler. Ruth has a research background in cover cropping while John's background is in nutrient cycling.

Ben interviewed nine local grain farmers. He learned that the farmers were well-educated regarding their options. The two primary barriers that made some hesitant to use cover crops were the added cost and the challenge of fitting



Hickory Scholars Christian Gehman and Ariana Diener-Perez stand almost as tall as the prairie grasses they were studying for a summer research project involving grazing cattle.

the crops into farmers' rotations. A cover crop requires the purchase of additional seed as well as fuel to plant it and till it in. If the cover crop is to follow corn, for example, the corn may come off the field too late in the season to gain maximum benefit from the cover crop.

John Mischler describes the project as an opportunity to connect with local farmers and listen to them. "We don't see ourselves as the experts. Farmers are the experts on their own plots of land. But we can connect farmers to others who have generated workable solutions for their own fields," John says.

What happens when cattle graze on prairie grasses?

For Christian Gehman and Ariana Diener-Perez, summer break included peering at cattle and testing the pH of soils in a prairie on the west side of Merry Lea property. The two environmental science majors were part of a multi-year study

investigating the effects of grazing beef cattle on native prairie rather than on the typical grasses. If prairie and cattle can coexist in a profitable way, then farmers can improve biodiversity and earn a living at the same time.

Christian and Ariana assessed both the prairie and the cattle. The prairie was divided into several transects. Some of the prairie had been burned; another area was grazed and a third plot was both burned and grazed. The researchers compared soils, the content of the plant cover and the heights of plants. They also observed the one and two-year-old Angus Lowline cattle to see what plants they ate and weighed them at the beginning and end of the season.

"You can see a clear line between plots that have been grazed and plots that have not. The grazed plots have many more plants," observed Christian. This is because the cattle prefer grasses and graze them heavily. 🌱



MERRY LEA'S Master's in Environmental Education program welcomed a cohort of 11 in July: its largest ever. The students fill every available rental space on the property and sparked the lease of a 15-passenger bus.

At left, students relax at Bradford Woods, an outdoor center that specializes in adventure education. The ropes course they completed was both an opportunity for team-building and a chance to see a pedagogy not available at Merry Lea.

L to R: Josh Crawford, Vicky Benko, Ali Sanders, T.J. Rayhill, Sarah Gothe, Sam Buchanan, Terri Habig, James Austin, Delanie Bruce, Andrew Beal and Dave Ostergren, director of the graduate program. Emily Hayne is not pictured.

Bird Banders Seek Reasons for Population Declines

CAROL GOOD-ELLIOTT earned a new title this year: the environmental educator is now a master bird bander. Carol oversees Merry Lea's contribution to a long-running national research program called Monitoring Avian Productivity

and Survivorship (MAPS). Once a week from May until the end of July, she manages a series of nets, supervises interns and volunteers and provides the final word on confusing juveniles. Here's how Carol describes her craft:

What is a master bird bander?

A master bird bander has gone through intensive hands-on training with more advanced banders and has a permit to receive bird bands from the subdivision of the U.S. Geological Service that regulates bird banding. My permit allows me to band passerines and near-passerines: birds that perch in trees.

Why do researchers band birds?

The goal of the MAPS program is to gauge how successful different bird species are at surviving migration and at reproducing. We want to get a sense of the overall health of the birds as well.

It is not enough to know if a given species is declining. We also need to know where the challenges are that are causing the decline. Is it a lack of habitat for breeding? Is the quality of the food on the wintering grounds poor? Have rest stops on the species' migration path suddenly disappeared? If we can answer these questions, we will know where conservation energies can be most effective.



Volunteer Lois Oyer, Goshen, Ind., helps Environmental Educator Carol Good-Elliott with record-keeping during a bird banding morning at Merry Lea. Lois is an Indiana Master Naturalist.

[See Bird Banding, page 8](#)

Visiting Scholar Moved by Missing Salmon



Dr. Joel Pontius aboard a halibut charter on the Cook Inlet during a visit to Alaska to learn about place-based fishing and foraging in this context.

DR. JOEL PONTIUS thinks a great deal about the ways that hunting, gathering and fishing for food connect people to the land. He's even writing a book on the topic. So when Joel got a chance to travel to Alaska—one of the few places in the U.S. where families still sustain themselves through fishing—he jumped at it.

Joel's week as a visiting scholar at the University of Alaska Anchorage enabled him to talk with locals and learn about their relationship with salmon, halibut and other fish. Joel visited commercial and sport fishing communities on the Kenai Peninsula including Seward, Homer, and areas along the Russian River.

In this part of the world, food prices are high because of the limited growing season. Families have a strong incentive to live off the land. Many do, filling their freezers with hundreds of pounds of salmon. A family might also charter a boat to fish for halibut. Since these fish range from 20 to over 100 pounds, a day's fishing can normally see them through the year.

The people Joel encountered loved living off the land. When asked what they liked about living in Alaska, they'd say, "The fish." But this year, they were troubled: salmon runs were dying. Commercial fisheries get first dibs on what fish there are, and this year, there was little left for residents. That left many people wondering where their groceries were coming from.

"It was much worse on the ground than what I expected from reading about it," Joel said.

The loss of salmon is not only a problem for humans. Salmon are a keystone species in Alaska. They sustain the grizzly bears, and the bears keep herbivore populations in check and ecosystems stable.


Joel had hoped to go out on a boat fishing for king salmon, but two weeks before his arrival, fishing for this species was prohibited. One fleet with multiple boats that normally landed a half dozen king salmon a day only caught one of these fish the entire month of June.

A highlight of Joel's research was a morning on the Cook Inlet with a captain whose family has fished the area since 1910. Captain Michael Patterson fishes commercially and offers halibut charters. His livelihood depends on healthy fisheries.

"It was much worse on the ground than what I expected from reading about it."

The captain reported that he had seen a lot of changes in the last twenty years and was not optimistic about Alaskan fisheries in the future. In fact, he was making ends meet by teaching sport fishing in Costa Rica part of the year. He attributed the decline of salmon runs to a large pool of warm water in the Cook Inlet that had disrupted the salmon's feeding: one of the many ways that a warming climate is affecting Alaska.

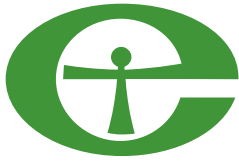
While Joel was on his boat, the captain received a text that would ripple around the world: the Copper River salmon run had just closed. Copper River sockeye are considered the tastiest salmon available. They are international delicacy shipped to fine restaurants in many countries.

As someone who teaches about sustainability and sense of place, Joel values experiences in places very different from Merry Lea. He now has contacts in Alaska and new stories to share with the six students arriving this fall for the Sustainability Leadership Semester he directs. 

DUE OUT IN 2019:

Hunting, Gathering and Fishing for Food: Place-based Learning for the Plate.

The book features essays that illuminate ways in which hunting, gathering and fishing for food relate people to land, water, community, spirituality, and place. Joel Pontius is the lead editor and Springer is the Publisher.



Merry Lea

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Bird Banding, continued from page 6


What does it take to be a good bird bander?

Love of birds is the key factor. Without that, why bother? You also need a good memory, attention to detail, a tolerance for uncomfortable outdoor conditions and patience with yourself and the birds. You need enough humility to know you will make mistakes and there's always more to learn.

What tasks are involved?

At the station, we weigh the birds, measure their wings, note gender and our best guess at the birds' age. Then we band them and set them free. In the off season, there is equipment to sort and a great deal of data to process. I will be working on that for months.

What is the best thing about supervising student researchers?

Every year, I love the awe and delight that students display as they handle the birds. It is such a helpful reminder to me as I manage aggressive cardinals and birds that defecate on my record books. They remind me that I am holding a living creature in my hand and can feel its heartbeat. I am deeply grateful to have the opportunity to interact with an animal in this way. 

Events

Learn more at:
goshen.edu/merrylea

FIRSTHAND FEST

WHERE: Merry Lea Farmstead Barn Site

WHEN: Friday, September 14, 6 PM to 9 PM

Hear from people who have experienced environmental problems—and solutions—firsthand. An open mic period will enable attendees to share their own experiences as well. The evening includes dinner and dessert.

COST: \$10/adults and \$5/students. Register by September 7.

SEEDS, SORGHUM & FARM FUN

WHERE: Merry Lea's Rieth Village Site

WHEN: Friday, October 12, 4 PM to 8:30 PM

Visit the Merry Lea Sustainable Farm for family activities and a home-cooked meal. Tour the gardens, greenhouse and animal barn. Learn about seed saving and growing sorghum. Come and go as you wish. Dinner is at 5:30 PM.

COST: \$5 adults, children free. Register by October 10.