

Autumn 2013



# The Merry Leaflet

Merry Lea Environmental Learning Center of Goshen College

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## Environmental Educators Hit the Road

An orange school bus parked in front of Merry Lea's Learning Center Building...Students clustered around a black snake found on the trail...The clatter of gravel running through screens during a rock cycle program near Merry Lea's esker...Waders and dip nets piled beside a wetland. These are sights and sounds one might associate with Merry Lea's Pre-K to 12 program.

Add to that a new series of images: tubs of leaf litter packed into a van, students clustered around a bird mount in a classroom, groups exploring a floodplain adjacent to their school. These too, are all in a day's work for the education team.

While in-school programs are not new for Merry Lea, in 2013, its environmental educators have put extra effort into reaching children at their own schools. Environmental educator Carol Good-Elliott lists several factors that have led the Pre-K to 12 team in this direction.

For one thing, the closing of the Yoder Sugar Bush in 2012 left a six-week gap in Merry Lea's schedule. Without the enticement of maple syrup, schools are less inclined to come out in the winter months. Hence, in-school programs provide a way to stay connected with schools and provide practicum experience for the master's students in environmental education during the winter months.

School finances also played into the decision. Funding for transportation has taken hits lately as the property tax caps that Indiana voters approved in 2008 are phased in. Gas and maintenance for a bus is over two dollars per mile. Add in the driver's wages and the cost of bringing a group to Merry Lea from 30 miles away tops \$200. This adds another \$4 per student to the \$6 cost of the program.

Good-Elliott reports that this fall is the first year that the number of school field trips booked has dropped noticeably. She still has gaps in the fall schedule, which is unusual this time of year.

"Some teachers that I would normally hear from by now, I have not heard from, and quite a few teachers who have come for years and years have called to ask if they can book a slot even if they don't know if they have funding available yet," she said.

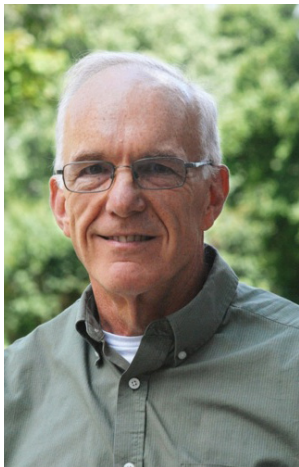
Thirdly, developing in-school programming broadens the teaching experiences available for graduate students studying environmental education at Merry Lea. Since some of the graduate students plan to be schoolteachers,

in-school programs help them learn to do environmental education in that context.

Not every Merry Lea program can be adapted to an in-school setting. Exploring Nature, for example, which depends on what can be found along Merry Lea's trails, does not transfer well. Topics need to be focused and portable. Among Merry Lea's current listing of in-school options are Insects of Indiana, Endangered Species of Indiana, Mammals of Indiana and We Love Worms!



Above, Merry Lea's Jane Litwiller, center, with bandana, helps children discover worms at the Ligonier Public Library, Ligonier, Indiana. We Love Worms is one of Merry Lea's traveling offerings.



## Director's Desk

# Connecting to a Legacy

by Luke Gascho

Merry Lea has a special way of captivating the attention of people who spend time here. This is still true for me after being here for sixteen years. It is also true for the first time visitor who spends part of a day on the land.

This issue of *The Merry Leaflet* focuses on the environmental education programs that we deliver

with preschool through 12th grade students. This age group has been a focus of Merry Lea's programmatic history since the late 1960s. That means that four generations categorized as Boomers, Gen 'X'ers, Millennials, and Gen 'Z'ers—each with their own traits and trends—have engaged in programming on this landscape. While it is difficult to assess the impact of a day-long environmental education experience in quantifiable terms, it is clear from many anecdotes that being at Merry Lea has influenced people.

Several examples quickly come to mind for me. I think of a family that visited recently. As I talked with the parents and the two college students, the son said, "I fondly recall my visit here in fourth grade." He went on to say that the day trip was a very meaningful experience in his elementary education.

As I meet professional people working in this region, I often hear stories about Pre-K to 12 visits to Merry Lea that they have experienced, including some detail that has stuck with them throughout the years. This includes the person who developed our new website, a professional working on tourism in Noble County, medical personnel and teachers.

Three days ago, I had the privilege of welcoming the first year students at Goshen College to Merry Lea. They were here for the afternoon as part of their orientation activities. Approximately a quarter of the students raised their hands when asked if they had ever been to Merry Lea before! During the sessions I led on sustainability concepts at Rieth Village, multiple students referenced earlier experiences of being at Merry Lea for a program. Now 100 percent of the first-year students have been to Merry Lea—and their environmental education experiences can continue at the collegiate level!

These are just a few examples that represent the great array of stories told and untold. It boggles my mind when I think that more than 200,000 K-12 students have come to Merry Lea during the past 40 years.

How did Lee and Mary Jane Rieth know that environmental education would become this kind of reality when they purchased the first piece of land in 1964? They clearly believed that people needed to connect with nature. Our slogan—"Where Earth and People Meet"—plays itself out for those who come to Merry Lea whether their time on site is long or short. May the legacy remain strong for the generations still coming. Ω

The education team also works with schools to develop custom programs related to their own habitats. Many schools do have open land nearby. Prairie View School in Goshen, Ind., owns a 15-acre field that Pre-K to 12 Coordinator Paul Steury thinks would be ideal for a farm-to-school program. Goshen High School has easy access to Abshire Park, a sixty-acre tract that contains wetlands, forest, prairie restorations and a creek. The West Noble Schools have a fishing pond, a large prairie, access to a tamarack swamp and the Charger Trail, which passes through a wooded area.

Last May, Merry Lea's education team designed a custom program for Goshen Middle School, which owns a flood plain just east of their building. They prepared stations for a sixth grade session on predator-prey relationships and a seventh grade

*"At school sites, we can study biodiversity, geology, entomology, ornithology, dendrology, water quality and environmental issues facing the community."*

- Paul Steury, Pre-K to 12 Coordinator

session on soils as habitat. The plan was to get students outdoors exploring the flood plain, but heavy rains kept the program indoors. Staff scrambled to fill two vans with enough leaf litter and sod to occupy 475 seventh graders.

In-school programs can also supplement field trips. Katherine Johnson, a 2013 graduate of Merry Lea's masters in environmental

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.

### ADMINISTRATION AND STAFF

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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. Look online at [www.goshen.edu/merrylea/latest](http://www.goshen.edu/merrylea/latest) for more news.



education program, did her research project on the merits of school visits that precede site visits. Johnson worked with school groups attending the Rock Cycle program. She gave half of the groups a pre-visit at their schools while the other groups just came for the field trip. She then tested the students after they completed their time at Merry Lea. Her results showed at least a short-term improvement in retention of facts in those groups who had a pre-visit.

Johnson's research did not measure attitudes, but education team member, Lisa Zinn, reports that children arrive more engaged and ready to learn if environmental educators visited the school the day before a field trip. They can also spend more of their time at Merry Lea in the field rather than absorbing preliminary input.

Nevertheless, programs on site at Merry Lea will continue to play a critical role in many children's education. The diverse ecosystems available for comparison and contrast cannot be replicated in a schoolyard. Nor do we know of a single school in Northern Indiana with an esker on the property! Many of our fans will continue to save their pennies in order to get here, no matter what. Ω

# The Year of the Worm



For Merry Lea's pre-K to 12 environmental education staff, 2013 will long be remembered as the **Year of the Worm.**

While an in-school program entitled, **We Love Worms**, has long been listed on Merry Lea's website, worms were never before in such demand. Between mid-March and mid-July 2013, staff delivered 13 off-site programs featuring worms, worm bins and worm composting. The number of classrooms visited is higher than that, as staff sometimes deliver a single program multiple times to as many as five different classrooms.

Some of the worm craze can be traced to Leah Dresser, a librarian at the Kendallville Public Library, who became acquainted with Merry Lea through a night hike last summer. She later saw the worm program on Merry Lea's website and thought it would fit well with the libraries' summer reading theme, "Dig into Reading." The word spread to other librarians in the area, and so the worm bins went from Kendallville to Rome City to Ligonier to Albion to Columbia City and back again. By midsummer, Merry Lea's well-traveled worms had been to all the public libraries in Noble County at least once, plus a Whitley County library.

The worm program works especially well with first through fourth graders. Worms are portable and hands-on. They are familiar enough to pique kids' interest but still alien enough to intrigue. Education team member Tom Hartzell recalls coaxing a little girl to hold a worm. She was reluctant at first but quite proud when she had done it.

The program covers the anatomy of worms and the ecosystem services they provide, such as breaking down dead material into worm castings, which makes excellent fertilizer. Children also learn how to make a worm bin for kitchen composting. Ω

## Fun Facts About Worms

### Why do worms feel moist and slimy?

Worms are covered with mucus. They breathe through their skin, and they need this coating to help them breathe. The kids in Merry Lea's worm programs used wet paper towels and spray bottles to keep their worms moist and breathing.

### What predators do worms have?

Moles are one big consumer of worms. In fact, some pest companies get rid of moles by injecting a castor oil-based substance into the ground. This coats the worms without harming them and makes the moles say, "Bleah! I'm leaving."

### What senses do worms have?

They have no eyes and ears, so they can't see or hear. However, they can feel vibrations.

### How do worms eat without teeth? How do they move without legs?

They have a gizzard to help grind up their food. They have tiny bristles called setae on each segment that help them get a grip. Ω



# Busing Cuts Require Creativity

Environmental Education  
with Paul Steury

“We will no longer fund field trips.” That was the recommendation that Assistant Superintendent Bob Evans gave the Goshen School Board on May 28, 2013 after a transportation study group investigated options. Cutting busing for field trips will save the Goshen Community Schools about \$350,000.

Goshen Community Schools is just one of many districts struggling to make ends meet as Indiana’s property tax caps take full effect. In 2008, Indiana voters approved circuit breaker tax caps, and in 2010 they made the provisions a permanent

part of the Indiana constitution. The tax caps limit the amount of property taxes homeowners and businesses pay to a percentage of the value of their properties. Unfortunately, this tax relief has cut funding for our local schools and is changing the way children are educated.

“There will still be a few field trips that will be funded, but not the number that are now,” Goshen Community Schools Superintendent Diane Woodworth said. “For example, all of our elementary students go to either Camp Amigo or Camp Friedenswald for outdoor education,

and that will still be funded.” Merry Lea’s name was not on that list, dagnabit.

So what should we do if taxpayers say it’s necessary to eliminate transporting students outside of school boundaries? Let’s talk about going to the students.

I have been visiting school superintendents in order to discuss that. I have already met with Woodworth and Central Noble’s Chris Daughtry. I also have meetings scheduled with the superintendents of West Noble and Fort Wayne Community Schools.

# Trails Serve a Hidden Population of Nature Lovers



Hiker Sherri Patterson captured this photo of an inviting trail.

The hiking trails at Merry Lea stretch over eight miles and are open to the public everyday from sunrise to sunset. Most of the trails are concentrated on the east side of the property, around and between the Learning Center Building, Farmstead Site, and Rieth Village. They wind through thick forests, around lakes and wetlands, and through prairies, shrub carr and meadows. Since the whole of Merry Lea property is considered a classroom for learners all along the age spectrum, the trails are designed to give access to the various ecosystems and wildlife that inhabit this 1,189-acre natural sanctuary.

While the trails are used for children’s field trips, undergraduate and graduate research projects, and training future environmental educators, a lesser-known population also uses the trails: the general public. This is a population that is difficult to keep track of because casual hikers may come in the early morning, evening or weekends when staff aren’t around. Trail users are invited to sign in at the information kiosks located at the Learning

Center and Farmstead sites, but many do not, or are repeat visitors. Hence, their presence at Merry Lea remains somewhat of a mystery. What happens on the trails without the protective shell of a program? Who are the mysterious and illusive trail-users?

Meet Sherri Patterson, a routine trail-walker at Merry Lea. Almost every day in the summer, she bikes the less-than-two-mile stretch of road from her house to the trails near High Lake to enjoy a brisk walk among trees and wildflowers. This is a relaxing, peaceful time for her to spend quality one-on-one time with nature. Along her way, she has encountered many deer and was once greeted at the trail entrance by a small spotted fawn. What keeps drawing her back are all of the beautiful wildflowers along the trail. “There is some sort of wild rose that blooms in the summer. It is so fragrant that it made me want to come back just to get another whiff!” she remarked.

Interestingly, Patterson lived next door to Merry Lea for almost two years before she realized the trails here are open to the public.



Busing Cuts continued

During the hour and a half I spent with Superintendent Woodworth, we both agreed that students need to go outside, that they must have experiential education, and that the more time outside, the better.

But how do we do that when property taxes are in short supply and transportation has been cut? Either look for grants/sponsors to pay for the busing or go to the schools!

The mission of Merry Lea's Pre-K to 12 programming is to:

- Facilitate experiences in the outdoor world, which inspire

exploration, foster a sense of wonder, and share joy,

- Share information about ecosystems and natural processes of northeastern Indiana,
- Provoke interest in life-long investigation, and
- Encourage stewardship, a sense of place, and hope.

Can we accomplish that mission by going to schools? Yes! We would rather that students came to our 1200-acre classroom, but if our goal is to help students in our area to develop a sense of place and a natural

desire to care for that place—we will persevere no matter the property tax cuts!

At school sites, we can study biodiversity, geology, entomology, ornithology, dendrology, water quality, and environmental issues facing the community. Nature surrounds us every day, and it's our job—no matter what—to get the kids outdoors learning about their home from an ecological point of view. Ω

by Janie Beck Kreider

She knew the grounds were used for educational programs, but it took some investigation for her to feel comfortable using the trails on her own. She is so grateful to know this beautiful facility is in her backyard because she feels at home in the natural world. "Nature is so welcoming; the trees embrace me," she reflects.

Amanda Thomson, another recreational trail-user, described how she trained at Merry Lea for a strenuous coast-to-coast hike in England. "I was delighted when I discovered Merry Lea, and faithfully walked every day in preparation," Thomson recalls. "Hiking the trails here provided diversity and beauty that I was never able to appreciate on a treadmill!"

When the going got tough in England, Thomson would visualize the terrain she was familiar with at Merry Lea. Her time spent on the trails here was "critical to an enjoyable experience" on her trip.

Some trail users are runners. Jacob Guiser, who teaches the annual Wilderness First Aid course at Merry Lea each August, never fails to fit

in a jog during his brief time here. David Stoesz, who lived on site as an agroecology intern last year, ran the trails routinely for exercise. The practice earned him a third-place finish in the 2013 Turtle Trot 5-K. Cross-country skiing is also permitted when there is snow.

Throughout its nearly 50-year history, Merry Lea staff have cut and maintained trails to facilitate recreation and encounters with the natural world. Providing "a setting for re-creating opportunities that benefit the human body and spirit" is even woven into Merry Lea's mission statement. Patterson and Thomson represent ideal participants in the mission of Merry Lea.

Unfortunately, other trail-users are not as committed to preserving the diverse ecosystems, plants and animals that take refuge on this land. Kerry Goodrich, Merry Lea's property supervisor, is very familiar with the "underbelly of trail usage" that goes on here. The sad truth is that people do misuse the trails when left without supervision. Motorized vehicles,



Above, Land Manager Bill Minter wields a machete against overgrowth in a sunny gap near Onion Bottom.

*continued on page 7*

# Summer Research Yields Data on Bird and Plant Populations

## Bird Banding Passes Ten-Year Mark

The year 2013 marked the ten-year anniversary of the Monitoring Avian Productivity and Survivorship (MAPS) program at Merry Lea. More commonly known as “bird banding,” the MAPS program assesses the conservation status of a variety of bird species nationwide.

Merry Lea has two bird banding stations, each with 10 mist nets. Nets are located at the edges of forests because this is where the most birds can be caught. Nets are placed at the same locations each year, and are opened six hours a day, twice a week between June and August, with birds collected from the nets every half hour. The captured birds are examined to determine their age, gender and condition and then banded and released.

The ten-year anniversary of bird banding was an occasion for number crunching for Dr. Lisa Zinn and her assistant, Lydia Yoder, a 2013 environmental science graduate of Goshen College. In addition to overseeing the 11th season of bird banding, the two analyzed data from the past decade and compared it with national trends.

One of the main lessons from the ten-year review was that ten years is not enough data to see clear trends;

another 30 years of work should bring more clarity.

However, Zinn and Yoder were pleased to see the diversity of birds caught each year and believe this speaks well of Merry Lea’s ecosystems. They also noticed at least two short-term trends:

While the Eastern wood-pewee is in decline in most places, it is increasing in numbers at Merry Lea. “I was surprised to see the Eastern wood-pewee trend,” Zinn observed. “This may be due to the fact that our forests are maturing, providing a more appealing habitat for this bird.”

Field sparrows are another species that are clearly in decline across the U.S., but appear to be holding their own at Merry Lea. This bird relies on early successional fields, so the amount of burning done at Merry Lea may contribute to its success.

A bright spot from MAPS research overall is the increase in wetland birds during the past 30 years. This is likely due to changes in laws. Current legislation encourages wetland protection and restoration efforts in ways it didn’t in the past. Meanwhile, the species of most concern are ground-nesting birds that favor forest interiors. These include wood thrushes, cerulean warblers and ovenbirds. Ω



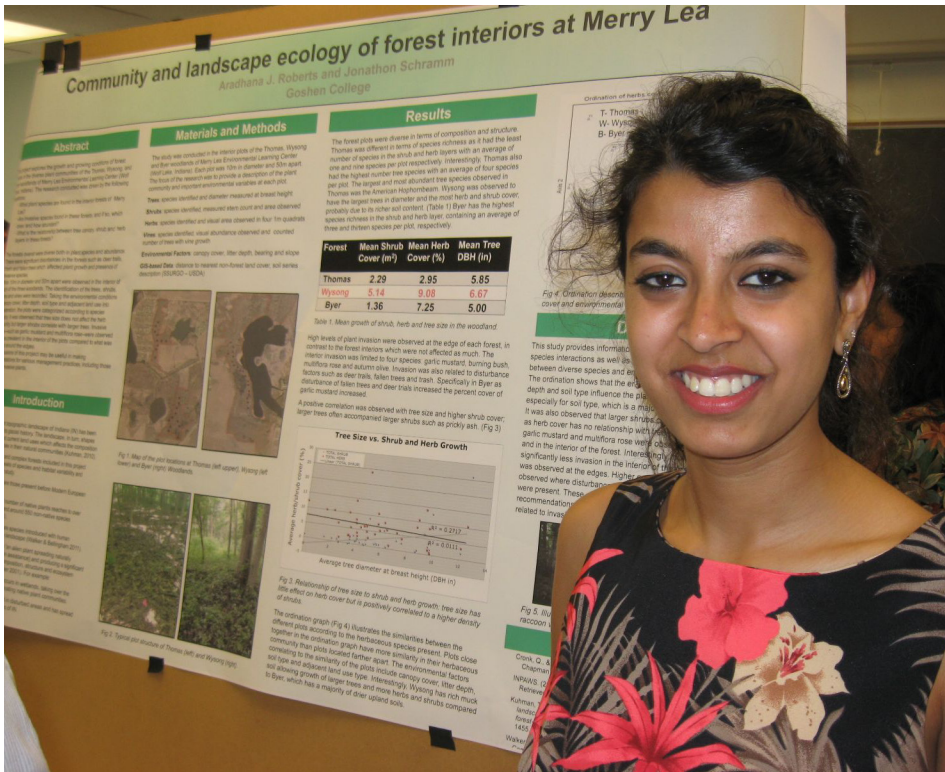
Lydia Yoder, a 2013 Goshen College graduate, pores over the columns of statistics that must be hand-logged for the MAPS program while a female red winged blackbird awaits its freedom.

## Also from the Bird Banding Review

- The total number of birds caught in 11 years was 3,527 birds of 76 different species. Of those birds, 1,037 were already wearing bands from previous captures. One bird-brained catbird holds the record for having flown into a net 10 times.
- The most surprising find from the summer’s banding was the capture of an indigo bunting wearing a 2003 band. Ten years is a very long life span for this species!
- The highest number of birds caught per year was 536 in 2007. The lowest number caught was 346 in 2010.
- The species caught most frequently were: catbird, song sparrow, common yellowthroat, field sparrow, cardinal and yellow warbler.
- Seven donors bought nets for the bird-banding program this year through the Adopt-a-Net program and enjoyed weekly reports on what was caught in their nets. Net four, near the Farmstead Site, garnered the most birds. It was sponsored by Emmaus Road Mennonite Fellowship, Berne, Ind. Ω



# Trails continued from page 5



Maple Scholars showcased their research with presentations and posters at a concluding celebration, July 25. Above Aradhana Roberts poses with her poster entitled, *Community and Landscape Ecology of Forest Interiors at Merry Lea*.

## Native Species Still Dominate Forest Interiors

Aradhana Roberts, a senior environmental science major at Goshen College, spent her summer at Merry Lea, working as a Maple Scholar under plant ecologist Dr. Jonathon Schramm. The purpose of the research was to analyze the extent to which invasive species were present in Merry Lea’s woodlands.

Goshen College’s Maple Scholars Program provides summer jobs for students interested in assisting a professor with his or her research. Maple Scholars live together on campus and meet weekly to hear about each other’s work.

Roberts braved mosquitoes and brambles in order to survey the presence of invasive plant species in three forest tracts on Merry Lea property: Thomas Woods, west of the Kesling Wetland; Wysong Woods, north of Cub Lake; and Byer Woods, between the Glacial Retreat Center and High Lake. Roberts mapped out circles 10 meters in diameter and fifty meters apart and then analyzed what grew within these plots.

The news on invasive species was good. While Roberts observed high levels of invasive species along forest edges, forest interiors were not affected much. Invasives were limited to garlic mustard, burning bush, autumn olive and multiflora rose.

Roberts also learned that no two forests are identical. She found that Wysong Forest had the largest trees and the most herb and shrub cover, probably due to richer soil. Meanwhile, Byer Woods had the highest species richness in the shrub and herb layer, and Thomas Woods has the greatest diversity of trees. There, she became very familiar with the American Hop Hornbeam.

Roberts, whose native country is India, enjoyed the peace and solitude of the forests and the chance to learn a new set of plants. Ω

bicycles, and horseback riding are prohibited, but these rules are not always observed. There are financial and environmental costs associated with maintaining the abused trails, and the hassle and danger of confrontation is a disturbing reality. There have also been problems with unwelcome off-trail hunting on the property, which poses obvious safety threats to humans and animals alike.

Even when trails are used appropriately, they require a surprising amount of behind-the-scenes care. Grassy areas must be mowed every ten days or so; trees and litter must be cleared after storms; brush will encroach on the trail if untended. Trails also settle at different rates, requiring filling.

Despite these issues, Merry Lea’s staff is committed to providing a safe, welcoming place for people of all ages to encounter the wonder of the natural world. Allison Broomhall, a current student in Merry Lea’s graduate program, recently took a poll of staff attitudes toward trail usage by the general public. As a resident of one of the graduate houses on Merry Lea property, she perceived a lack of day-to-day use of the trails by adults and children not participating in specific programs.

Through her research, Broomhall found that the overwhelming majority of staff would like to see an increase in foot traffic on the trails. They encourage more people to come and enjoy the beauty and natural diversity of Merry Lea.

Trail maps are available in the trailhead kiosks or at the Learning Center Building and Rieth Village during business hours. Ω



Merry Lea  
Environmental Learning Center  
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“Where Earth and People Meet”

## Autumn Public Programs at Merry Lea

### **Autumn Hope Conference 2013**

#### **Native Place: Disruption and Healing**

**Fri., September 20, 6 p.m. to Sun. the 22nd, noon**

How do we understand ourselves in relation to the land that we inhabit? Are we natives, settlers, owners, immigrants or something else? How can we live more peaceably and justly as members of the community of creation?

On our hikes, we will examine the disruptions that Merry Lea's 1,189 acres have experienced in the past 250 years and the varied communities that have shared this land over time. In our discussions, we will interact with ideas from Cherokee theologian, Randy Woodley, and consider how people with varying worldviews can communicate with each other and live in peace on this planet. The cost of \$125 includes five meals and all events. Register ASAP.

### **Sabbath Hike Series: Autumn Change**

**Sun., October 20, 3:30 to 5 p.m.; meet at the Farmstead**

We'll carpool to Luckey's Landing to enjoy the rich colors October provides, with gratitude for the changes that add color to our lives. Donation optional.

### **Nature and the Arts Weekend**

**Fri., October 11, 6 p.m. to Sun. October 13, 5 p.m.**

Merry Lea's annual nature photography workshop will broaden its scope to include three tracks:

- Nature Photography with Dave Miller and Paul McAfee
- Watercolor and Printmaking with Judy Wenig-Horswell
- Creative Writing with Ann Hostetler

The cost of \$325 per person includes instruction, meals and lodging at Merry Leas Rieth Village. Please register by October 1. The following sessions are open to the general public:

- Artists' Showcase, Friday, 7 to 9:30 p.m., \$10
- Beginners Session, Saturday, 1 to 3:30 p.m., \$30

### **Natural History Hike Series**

**Thursday afternoons, 3 to 4:30 p.m. on these dates:**

**September 26, October 3, 17, 24, 31 and November 7**

Join Merry Lea's grad students as they hone their knowledge of local plants and animals. Wild Edibles is up first with Paul Steury on September 26. Meet at the Learning Center. Check our web site for additional topics and locations. Ω