

Volume 8 Issue 1 (Fall 2014)

"Nature always wears the colors of the spirit." ~Ralph Waldo Emerson

The Environmental Focus Group

This October marks the seventh anniversary of the Environmental Focus Group. Since 2007 we have worked to fulfill our mission of promoting and supporting activities, experiences, and structures that encourage students, faculty, and staff to develop a stronger sense of place for Lock Haven University and central Pennsylvania. It seems like a good time to reflect on what we've accomplished.

- We've developed two new degrees: a minor in Environmental Studies that has enrolled 93 and graduated 32 students since 2010; and the new Associates in Sustainability Studies.
- We've published 31 issues of *The Hemlock*, which have contained articles written by over 140 different authors, including students, faculty, staff, administrators, and members of the community.
- We restored the LHU Nature Trail, rededicating it on Earth Day, 2014.
- We helped develop the LHU Environmental Club, which has adopted and cleaned Glen Road.
- We've sponsored such events as environmental films, panel discussions, guest speakers, the PA Culture Festival, Earth Day Events, and tree plantings on campus.

From the original five members who met in October 2007, the EFG has expanded to include 40 members (22 faculty from 18 different disciplines; 8 staff members; 4 students; 5 administrators; and 1 community member). If you're interested in being part of the EFG as we move forward, contact Bob Myers.

A Tribute to Lillian E. Russell (1878-1958)

~Joby Topper (LHU Library Director)

In my essay about Professor Levi Ulmer in the <u>Fall 2013 issue of *The Hemlock*</u>, I mentioned that Ulmer founded the Naturalist Club, the ancestor of today's



Environmental Club, and served as the club's first faculty advisor. I also mentioned the construction of the Naturalist Club Cabin and its official opening on April 25, 1941, when the cabin was dedicated not just to Ulmer but to his faculty colleague and club co-advisor, Lillian E. Russell.

A few people have since asked me for more details about Russell. The campus building that bears her name—Russell Hall—will be demolished next summer, so this seems like a good time to share what I've learned about Russell and her career.

Born in Kentucky in April 1878, Russell grew up in West Finley Township, Washington County, Pennsylvania. She graduated from the Southwestern State Normal School in California, PA (now California University of Pennsylvania), in 1901. After teaching for several years in the elementary schools of Washington County, she moved north to

Lawrence County to teach 8th Grade Social Studies at the old North Street Junior High School in New Castle.

In 1924, while teaching full-time in New Castle, Russell completed her bachelor's degree at Geneva College in nearby Beaver Falls. The following year she was lured to the Central State Normal School in Lock Haven by Principal Dallas W. Armstrong, who had been a school superintendent in the New Castle area before coming to Lock Haven. Armstrong realized that Russell's twenty-five years of teaching experience made her a perfect fit as a teacher-supervisor in the campus Model School, where she would be showing young student-teachers the ropes of the classroom.

The terms "Model School" and "Normal School" have disappeared from the modern education vocabulary and therefore warrant an explanation and a brief digression from the life of Lillian Russell. A *Normal School* was a vocational school (usually a two or three-year course of study) where students were trained to be public school teachers for grades K through 6. A *Model School*, also called a "Training School" or "Laboratory School," was a public school located on the Normal School property where the Normal School students did their student teaching. In other words, students did not have to be placed in an off-campus school district for their teaching experience. The entire course of study, both theoretical and practical, took place at the Normal School.

Russell was hired in 1925 to perform two roles. First, she was the fifth grade teacher in the Model School. It was her responsibility to set the daily lesson plans and to ensure that her fifth graders fulfilled the requirements for admission to the sixth grade. Second, she was a mentor and evaluator for all Normal School students who did their student teaching in her fifth grade classroom. As part of this same role, she taught social studies and social studies pedagogy in the Normal School.

One of Russell's main interests within the broad field of "social studies" was civics—that part of political science concerned with the rights and duties of citizenship. To Russell and many other civics teachers of the Progressive Era, reforestation and other forms of natural resource conservation were civic duties. Her belief in conservation as a community obligation is probably what pulled her into the school's Naturalist Club, which she joined in 1932 as faculty co-advisor with Ulmer. Civics textbook questions regarding conservation and community beautification often combined civics and the natural sciences (See Ames & Eldred's *Community Civics*, 1921):

- What natural resources did your community possess which led to its settlement? What natural resources still contribute to its prosperity?
- Does government in any form (local, state, or national) regulate the natural resources of your community?
- What does your state do to help forward the work of planting trees?
- Is your school a benediction of beauty upon the community? How might your school grounds be improved?



Lillian Russell (bottom row, 3rd from left) at the Naturalist Cabin

Did Russell use similar questions to guide discussions at meetings of the Naturalist Club? I don't know. I do know that Russell and Ulmer brought different academic perspectives to the Club—namely, civics and biology—and they appear to have made a good team. During their ten years as co-advisors—from 1932 until Ulmer's death in 1942—the club's membership grew, hundreds of trees were planted, the Nature Trail was blazed, and the Club Cabin was built. In 1934, the

Naturalist Club was hailed as "the most active club on campus." And by 1940, it was considered "one of the finest organizations" at the college.

Russell brought something else to the Club that was far more important than civics. At picnics, club meetings, holiday events, and homecomings, Russell was always there with her famous brownies. It is hard to find stories of club outings in the student newspaper that do *not* mention Russell's brownies. I haven't yet discovered the Russell Recipe in the library archives – but I keep searching.

In 1943, shortly after finishing her master's degree at the Peabody College of Education in Nashville (now part of Vanderbilt University), Russell was relieved of her duties as Principal of the Junior High Training School and promoted by President Richard T. Parsons to direct the geography and civics department of the Teachers College. She retired in August 1945 after forty-five years of teaching—twenty-five in Washington and Lawrence counties, and the last twenty in Lock Haven.

Russell settled in Valhalla, New York, near her niece, Alathea Wallace Harmon. She returned to Lock Haven for the Naturalist Club's annual homecoming dinners at the Club Cabin. She also returned in May 1953 to cut the ribbon to officially open the new women's dormitory that bears her name—Russell Hall.

The dedication of Russell Hall was one part of a naming initiative that included all eleven buildings and athletic fields on campus. The names were chosen by a ballot mailed to active members of the Alumni Association. It was a special event. Prior to 1953, only one campus building had ever been named in someone's honor—Old Price Hall, named in honor of the school's first great benefactor Philip M. Price in 1877 and destroyed by fire in 1888. Of the eleven people honored in 1953 "for distinguished service to the college"—Akeley, High, Lawrence, McCollum, Price, Rogers, Russell, Stevenson, Sullivan, Thomas, and Ulmer—Russell was the only woman.

She lived her last years in New Castle with her sister Ida Wallace and her nephew Harold. She died at age 79 on January 3, 1958, just three weeks after the death of her sister. She and Ida are buried next to each other in the Westfield Presbyterian Church Cemetery in New Castle. May they rest in peace.

Russell Hall will come down in May or June of next summer. To restore the building would cost nearly as much as to rebuild it from scratch. The good news is that the university is planning to replace the building with a large green space, a feature that Russell and the Naturalist Club would appreciate. I hope that we can create a small memorial to Lillian E. Russell—maybe a flower garden, with a historical marker posted nearby—in the midst of this campus park. She deserves it. If you would like to join me in my effort to create a Russell Memorial, please call me, send me an email, or drop by my office.

The People's Climate March: A Milestone Event for the Environmental Movement ~Md. Khalequzzaman (LHU Geology Professor)

The People's Climate March (PCM) took place in Manhattan, NY on September 21, 2014 on the eve of the UN Climate Summit called for by the UN Secretary General Ban Ki Moon to discuss the imminent danger posed by human-induced climate change.



According to the *New York* Times, over 300,000 people (over 600,000 by some accounts) from all walks of life, representing over 1,200 organizations from 146 countries organized the protest rally to voice their concerns over the lack of action by world leaders to address the pathways that various countries must take to mitigate the climate change by curtailing greenhouse gas emission. The PCM was telecast by numerous TV

channels and was covered by journalists from all around the world. The rally stretched over 2.2 miles and took five hours to march about 30 city blocks. Accompanied by drumbeats, wearing costumes and carrying signs, thousands of demonstrators filled the streets of Manhattan and other cities around the world to urge policy makers to take action on climate change.

The PCM started at Columbus Circle and continued through Midtown, Times Square, and the Far West Side of Manhattan. It was a spectacle even for a city known for doing things big. There were 2,646 solidarity events organized by 162 countries. The PCM will go down in the history of environmental movement as the largest public solidarity event ever organized in the world on the issue of climate change. Up until now, most of the climate change discussions were limited to academic analysis, news and media reporting, independent protest rallies in various countries to demand climate justice; and the negotiations are primarily confined among the world leaders under the United Nations Framework Convention on Climate Change (UNFCCC). This was the first time that a coordinated event involving environmentalists and activists from all around the world took to the streets in a unified voice to demand actions by world leaders to find solutions to the greatest threat that our planet faces.

The participants were organized in six different categories, with the groups representing the most vulnerable communities and direct victims of climate change, such as the people from low-lying island nations and the victims of Hurricane Sandy. I joined the PCM as a representative of Bangladesh Environment Network (BEN), which was a member of the South Asians for Climate Justice. Our group was put in the front section by the organizers since Bangladesh is a low-lying and densely populated

country and thus is considered ground zero for the impact of climate change. Once the march started, I walked around freely to meet with members of other organizations and exchanged views with them. I met people from Pennsylvania who were carrying banners with messages against hydrofracking and for environmental justice. The mood of the rally was very festive and the participants were singing, dancing, chanting slogans, and carrying festoons and banners.



Although the main focus of the PCM was to voice concern about the danger of climate change and to demand action from the world leaders, the participants also chanted slogans such as "Flood Wall Street, Not Kashmir", "End CO₂-lonialism", "Bangladesh and Manhattan will Drown Together", and "Don't Frack with US." Many world leaders and celebrities from around the world expressed solidarity with the PCM. The UN Secretary General Ban Ki Moon voiced his concerns over the menace of climate change. In his short speech, he said that the heat and pressure from the participants of the PCM on world leaders hopefully will help to keep the planets temperature cool.

Many world leaders who attended and delivered speeches at the UN Climate Summit that took place on September 23 mentioned the importance of the message delivered by the PCM. Leaders from several countries, including Germany and Sweden made concrete promises to do their share for the UN Climate Resilience Fund. The world leaders will meet again next year in Paris at the Conference of Parties (COP 21) under the UNFCCC to negotiate a plan to tackle increase in greenhouse gases and to address adaptation measures against climate change. The participants of the PCM know that one rally will not be enough to force the world leaders to agree on a viable plan to mitigate and adapt against climate change to secure climate justice for the most vulnerable nations and ecosystems; however, they left the march with a sense of unity and power of the people as a catalyst for change. One of the banners at the PCM read "We can build our future." Let's hope that the people of the world will rise above nationalistic interest to save the common future of the humanity and our only home – the Planet Earth.

Reflections on 3 Tubers

~Susan Rimby (LHU Dean of Liberal Arts and Education)

Huck Finns, of a fashion –
Rubber tubes, not wooden rafts –
The West Branch, not the Mississippi.
What are you leaving -Stressful class, boring job, hot apartment?
What are you seeking –
Coolness, camaraderie, a memory

Breaking In

~Laurie Cannady (LHU English Professor)

One week into basic, I lost the toenail of my big toe. It wasn't a momentous or even painful occasion. I pulled off my Army issue, wool socks, peered down at my swollen, raw foot, and realized the nail was gone. I searched under my bunk, on my green wool covers, in the inside of my boot, on the whole of my foot. I searched feverishly, for that lost part of me.

The reasoning for my frantic search was not readily apparent. It wasn't like I could reattach it or it would be a suitable candidate for burial, but something in me needed to find it, needed to know where it resided, since it, a part of me, no longer elected to live on my body. There was no blood at the assumed site of abscondence, just peach, pliable flesh, without nail, an empty bowl of a toe. Luckily for me, I eventually found it in the toe of my sock; perfectly rounded, basic-training manicured, a toenail with no toe. My discovery instructed me on where to look when the second one fell, and it had me watching all my piggies, for fear each of my toe helmets would abandon me one day. I only lost the two, but that was just the beginning of my foot dilemma, a dilemma that arose all because we marched.

From the moment we received BDUs and boots, we marched. If we went to the chow hall, we marched. If we had business at the range, we marched. Even if we were going to sick call, we marched, lock step, cadenced movements, left, right, left—our feet, leather-headed mallets, and the earth, a bass drum—we marched. Our boots against rocks, crunched like corn nuts against teeth. In wet grass, they swished, as we slid like skiers. Uphill, they clunked like encyclopedias flung from shelves, and downhill, they scraped, gripping road like tires tattooing streets. And when we marched in place, arms swinging, heads locked forward, we were music, our bodies, instruments, the trees, our audience. Drill Sergeant Fuller served as conductor, and the birds, the sun, the clouds, were notes written across the sky's skin.



All that music led me to sick call with foot crippling emergencies. My baby toe, once dainty and lazy leaning against its neighbor, grew in size and color until it resembled a stemless cherry. Corns, I'd chided Momma for whenever she wore sandals, invaded my toes. My heels were not immune as golf-sized pus and blood-filled blisters set up shop. When I walked, it felt as if a water balloon were wedged between my heel and my boot. The only relief required popping the blisters and allowing them to drain, but my Drill Sergeant had warned doing that would mean more pain and possible infections that could cost us our feet.

Not listening to my drill sergeant had landed me in my predicament. He'd instructed all of us soldiers to wear boots at all times, even after we'd completed work for the day. He warned if we didn't, we'd later regret it, but I being my hard-headed, know-everything self pulled off my boots as soon as we were dismissed, put on my tennis shoes, and gave my tired feet some much needed rest. Those poor darlings paid later, as my boots were broken in during road marches and runs, instead of in the comfort of my barracks. For that act of disobedience, I paid with pus-drenched socks that crackled once they dried. No amount of moleskin or ointment

offered relief, so I walked on the sides of my booted feet, rather than place pressure on newly formed corns and balloon blisters.

The worst of the pedi-pain was the road marches, which occurred in spite of the open sores. Parts of my feet vacillated from numbness to raw stinging whenever we were forced to put foot to pavement. Uncertain of how long we had to march and how far we had to travel, our first road march had been grueling. We kept a steady pace, but small hills and curves in the road quickly became train tracks, I, heavily, chugged my way up. I cried in my mind as my feet throbbed in my boots, my back ached under the weight of my LBE, and my neck could barely hold the weight of my head and my BDU cap. That first march had seemed like the worst hell a body could endure, until the next day, with the second march, and the next day with the third. After the second week of road marches, landmarks I'd been happy to reach before, because they meant we had completed our journey, became mere mile markers, denoting the miles left to travel.

As we marched, I pondered the importance of feet, the only segments of body, when mobilized, in constant contact with earth. When I had been naive, light-footedly tramping on each minute of the day, my feet were invisible to me. Only when I tripped down a step or stubbed a toe, did I notice they were there. But during the road marches, my feet were my whole body, pulsing steps, blood congregating in the outer regions of each toe, threatening to spew with pound after pound against dirt. During those moments I thought, I should have been nicer to those feet and let them know how much I appreciated them holding me upright, even when I fought to be bent.

Despite my desire to stop, I never broke ranks, never took a seat. My Drill Sergeant's voice in my ears, screaming, demanding, overshadowed the cries of my gnarled feet. He commanded that we march harder, longer, until blisters popped, mended, popped again, then hardened. Until corns calloused over, becoming more armored toe than compromised cherry. Until toenails grew back, stronger, more resilient, and never abandoned again. Until rigid leather conceded, fit every curve of heel, softly kissed the tips of toes, cradled the balls of feet, supported arch, like the gentle pressure, pressing of a mother's thumb.

Those first weeks of basic, a similar callousing, fitting, moved over me, as I no longer shrank under Sergeant Dorsey's attention, as I marched through knowing not much had changed from the civilian world to the military one. Men like Dorsey always got what they wanted. Soldiers like me, we marched as we had been ordered.

Eastern States 100: An Ultra Challenge

~Ashley Lister (LHU Rec Management Major)

This past August, a new outdoor recreation event, "ultrarunning" came to central Pennsylvania in the form of the first annual *Eastern States 100*. Ultrarunning is running long, or "ultra", distances (longer than the traditional marathon length of 26.2 miles). The Eastern States is a race covering 100 miles.



Planning for this event began early last year, when regular meetings were conducted by the race's organizing committee of diverse individuals who were all interested in drawing attention to the beauty and ruggedness of central Pennsylvania. This committee included local Race Directors, DCNR Forestry personnel, LHU Health Science professors, and experienced ultrarunners. Preparation entailed coordinating with DCNR to obtain the necessary permits, contacting potential sponsors, recruiting volunteers,

checking and clearing trails, acquiring supplies for 17 aid stations that would fuel runners along the course, and other essential duties affiliated with managing the event.

Utilizing some popular hiking trails such as the Mid State Trail, the Black Forest Trail, the Tiadaghton Trail, the Donut-Hole trail, and the West Rim, the race course was a 100-mile loop through three of the state's forests: Tioga, Sproul, and Tiadaghton State Forests. It began and ended in Little Pine State Park, which served as the headquarters for the event.

Those of you familiar with these trails know that this course was very challenging for even the most experienced of ultrarunners. But it was this challenge that made this race so attractive. In just a few weeks after registration opened, the maximum limit of 200 participants was reached. Many runners came from Pennsylvania, but runners from 17 different states, Canada, and Puerto Rico also signed up.

The event began at 5:00 a.m. on Saturday, August 16. Of the 200 registered runners, 158 actually started the race. Not only did runners need to finish this brutal course, but they had to do so under the time limit of 36 hours, which was 5:00 p.m. on Sunday. The organizers set cut-off times at a few of the aid stations to keep runners on track. By Halfway House aid station (mile 51.8), half of the starters had already dropped from the race. Reasons for dropping included failure to make the cut-offs, injuries, and fatigue – both physically and mentally.

In the end, 72 runners finished the race under the time limit. The reward for finishing? A shiny belt buckle with the Eastern States logo. Although it seems like a rather odd traditions for 100-mile races, belt buckles are symbols of accomplishment and a badge of pride in the running community.

Event planning is already underway for the second annual Eastern States 100, to take place on August 15, 2015. More information can be found at http://www.easternstates100.com/

The Beautiful Monarch Butterfly: Conservation Needed Now

~Jessica B. Hosley and Nathaniel S. Hosley (PreK-Grade 8 & Professional Studies Professors)

The beauty of the Monarch butterfly is rare and enticing, from its vibrant black and orange wings to the soft whisper as it glides from flower to flower, drinking its favorite nectar. Monarch butterflies remind us of all that is beautiful and perfect in this world. Some may see this butterfly as a simple insect, but careful study reveals the complexity of this beautiful butterfly.

In the United States the Indiana Bat, the Canada Lynx, the Gray Wolf & the Karner Blue Butterfly all appear on the Endangered Species list for the U.S. Fish and Wildlife Service. There are some who believe the Monarch butterfly may not be far behind. And, the Center for Biological Diversity & Center for Food Safety filed an endangered species act petition citing that the population has decreased by as much as 90 percent from a documented 20 year average and should be considered a *threatened species*

(monarchjointventure.org, 2014). The petition was joined by Xerces Society and monarch scientist Professor Lincoln Brower and was submitted to the Secretary of the Interior in August of this year.



In 1991, weather conditions in Mexico led to the loss of nearly 70% of the overwintering population of Monarchs. A continued dramatic decrease in the population of Monarchs is a complex issue. Danaus Plexippus Plexippus (the scientific name for the Monarch) is threatened from several directions including: 1) habitat loss and degradation; 2) the commercial overutilization of the species; 3) disease and predation; 4) a lack of the regulations to assure population

recovery; and, 5) other factors including pesticides and the spread of invasive species (Center for Biological Diversity, et.al., 2014)

We first learned of the plight of this beautiful insect a number of years ago, and it happened to coincide with a time when we were clearing and replanting two meadows on our small farm just outside of Mill Hall, PA. As we began to learn more about the Monarch we came across the Monarch Watch website, which included a lot of information about the butterfly. In addition to providing information, the website suggests ways of getting involved. This led to our attempts to create a habitat that would attract butterflies and enable us to participate in the tagging efforts.

Creating the Habitat

Our home was built in 1798, and part of its charm is the surrounding farmland that includes two meadows among the 62 acres. For years prior to our arrival, the meadows were abandoned and overgrown with various unsightly and invasive species. A decision to begin the process of clearing the meadows roughly corresponded with our awareness of the plight of the Monarch butterfly. Creating habitats supports the efforts of many to provide opportunities for the Monarch to overcome one of the major threats to its existence. And doing so enhances opportunities for observation. So, we decided to incorporate a butterfly-friendly habitat in our plans.

A basic plan for creating habitat includes establishing food plants and nectar-producing plants. For monarchs, it is important to include milkweed as food plants. Milkweed loss during the past decade has been dramatic (Pleasants, J. & Oberhauser, K., 2013). Native to Pennsylvania is the Common Milkweed plant and this is an important food plant for the Monarch. We included two additional species: Swamp Milkweed (a

perennial) and Tropical Milkweed (an annual). Both are beautiful additions to the garden.

Scores of nectar-producing plants complete the necessities of basic habitat. From native meadow plants like Joe Pye Weed, Goldenrod and Queen Anne's Lace to Monarch favorites we added Buddleia, Echinacea, and Zinnias. The beauty turns ordinary spaces into an extraordinary butterfly habitat.

Although our focus has always been Monarchs, over the years our habitat has grown to include host plants and nectar-producing plants that attract other species. In fact, we have counted 19 species of butterflies and many beautiful birds and bees. Monarchs, hummingbirds, and bees are important pollinators. Without them, there could be considerable impact upon the food chain and ecosystem. A table including a number of our favorite plants and new plants to be added in 2015 is included at the end of the article (See Table 1).

Raising and tagging the butterfly

In June of each year the Monarch begins to appear in significant numbers in Pennsylvania gardens. Following the long trip north after a winter in the Oyamel Fir

trees in Mexico, the Monarchs are distributed across the mid-western, central, and eastern United States, and in Canada. In July, we begin to find eggs that are just slightly larger than a pinhead and the caterpillars that emerge from those eggs. These caterpillars are barely visible at first but grow quickly (in a matter of a couple of weeks) to nearly 2 ½ inches in length.

Eggs hatch approximately 4 days after they are laid. So from the first sighting of eggs, daily trips to examine the milkweed in our garden result in the collection of hundreds of eggs and caterpillars. During the first couple of years, our focus was on collecting caterpillars and, most often, larger caterpillars. In those years, the



loss of caterpillars was quite common, often due to the fact that the caterpillars had been bitten by the tachnid fly. This bite results in the implantation of an egg of the fly, which is fatal to the caterpillar and ends the life cycle. During the past year, we focused more upon the collection of eggs and smaller caterpillars. The result was that a very high percentage of the caterpillars made it to the chrysalis (pupa) and butterfly stages.

The collected eggs and caterpillars are raised in cages that become homes to as many as 60 caterpillars and butterflies at a time. The homemade cages must allow for adequate airflow. The cages we use measure approximately 15w x 22d x 22 h and have two screened sides, 3 plexi-glass sides, a door and a top access panel or door. The cages are

important because they provide the opportunity for observation of an amazing life cycle process; a life-cycle that progresses from egg to caterpillar to pupa/chrysalis to butterfly. A favorite period of observation in our family is that of the transformation from the 2 inch caterpillar which makes it way to the top of the cage, attaches to the cage with a silky thread and within hours is covered with a soft gold beaded, green shell that is its protective chrysalis.

Of course the final stage, the emergence of the Monarch butterfly, is nothing short of amazing. The butterfly appears with a bloated abdomen and crinkled wet wings. Within minutes fluid is pumped from the abdomen into the wings and they expand to their full size. Within another hour or two the wings dry and the butterfly is soon ready for flight.

Tagging and releasing is fun. Tagging monarchs is a way of monitoring their numbers and tracking any shifts in the origins of monarchs that reach Mexico. Regional tagging helps in that it demonstrates how monarchs respond to the physical conditions and quality of the habitats in these areas. Tagging, then, helps illuminate the dynamics of the monarch population (Lovett, 2014). Each year we order tags from Monarch Watch. These tiny sticker-like dots include an identifying number. Our children are excellent at tagging the butterflies. Tiny hands that have learned over time to be gentle, press the stickers on the discal cell of the butterfly.

After the butterfly is tagged the number and sex of the butterfly is logged. There are several ways to identify the sex of the butterfly. The most common way is to look at the open wings of the butterfly and check for black pheromone sacks that appear as black dots on the lower section of the wings. If they are present, the butterfly is a male. If not, it is a female. As a final task in tagging and logging, our children make up a name for each butterfly and this name is entered in the log. Monarchs weigh somewhere between .25 and .75 grams. (Oberhauser, K., 2014). Once released the butterfly will fly up to 3000 miles to roost in the Oyamel fir trees in Mexico. The monarch is the only known butterfly to migrate in a similar fashion to birds.

Taking the message to our schools

As a hobby, creating garden habitat and raising butterflies is a wonderful family activity. However, the science of the butterfly, its life cycle and migration, and the threat to its very existence are all potential contributors to a school science curriculum and a way to meet state standards for young students in our schools. This realization shifted our focus in the past year to how our hobby and project could make a difference in regional schools. We worked with three schools to collect caterpillars, teach the life cycle, tag and release butterflies. Students were excited and engaged in science. Nearly 180 third grades students and 20 first grade students participated in Monarch science lessons.

Student, teacher and administrator interest in the project is phenomenal. We have encouraged schools to begin creating habitat. So far, four schools have expressed an interest in working with us or on their own to develop habitat on their school grounds. The idea of adults assisting children in cultivating ground, planting, caring for plants, collecting eggs and caterpillars, observing and keeping data, tagging and releasing butterflies is inspiring. For many students it could turn into an exciting adventure in science.

References/For More Information

Monarch Joint Venture. (September, 2014) Petition for listing of monarch butterflies as threatened under the Endangered Species Act.

MonarchWatch (2014)

Oberhauser, K. (2014) *Anatomy/Characteristics of monarchs*. <u>Journey North</u>.

Pleasants, J. and Oberhauser, K. (2013) Milkweed loss in agricultural fields because of herbicide: effect on the monarch butterfly population. Insect Conservation and Diversity 6 (2). Xerces Society (2014) Partnership for Monarchs.

The LHU Nature Trail

~Bob Myers (LHU English Professor)

It was an easy choice for this issue's hike: The LHU Nature Trail was rededicated just this past spring, on April 22, and since then it has received a lot of use from students, faculty, and staff. The trail itself was built by the LHU Naturalist Club in the 1930s, but it had fallen into disrepair until the Environmental Focus Group restored it.

The beginning of the trail is in front of Robinson, on the Akeley side, where you'll see a plaque. The trail forms a 1.5 mile loop over fairly even surfaces. The steepest climb (about 800 feet) is at the beginning—after that it's all level or downhill. The trail is blazed in red, and you can go either way, but for this hike we will go clockwise.

Follow the sidewalk to the right of Robinson and go towards the rear of the building (try to ignore the large AC units). Continue up



the stairs towards McEntire; at the top, turn left and follow the guard rail to the second plaque: Normal Hill. This plaque was paid for by Joby Topper, Director of LHU's Library, in honor of his great grandmother, Laura Hassinger Barnes (Class of 1891).

After you've read the plaque, continue into Ulmer Woods, following the trail. This part of the woods consists of mostly red and white oaks. You'll pass a water tower and cell phone tower on your left, and you'll be able to see the athletic fields on your right. After about 5 minutes, you'll reach the third plaque: Birds. This plaque was paid for by

Professor Lynn Bruner, in honor of her father, Edward R. Bruner. Depending on the season, you might well see all of the birds mentioned.

Continue on the trail. You'll soon pass a 4-way intersection. To the right, the trail descends steeply to the football field. If you go left, you can reach the top of the hill. The Nature Trail continues straight, through my favorite part of the trail. You'll see more white pines mixed in with the oaks, and if you look carefully, you might see an old tin can bottom nailed to a tree on the left—it's my theory that this was a tree identification plaque made by the original Naturalist Club. Eventually, you'll reach the 4th plaque: Mixed Hardwood Forest. This plaque was paid for by the LHU Recreation Management Society, and describes some of the most common trees you can see on the trail. In fact, from the plaque, you can see all four of the trees mentioned.

The trail curves left (south) and soon you reach an intersection. A sign indicates that the Nature Trail goes right, but continue straight for 75 yards, and you'll reach the site of the Naturalist Cabin. In the early 1940s the Naturalist Club purchased a cabin and



had it moved to this site. It was dedicated in 1941 and for years the club had events at the cabin (see Joby Topper's article above). The cabin fell into disrepair in the 1960s, and today all that's left is the chimney and the brick floor. A group of Recreation Management students is currently working on a plan to build a new cabin on the site, but we need donors (if interested, please contact me).

After you've finished inspecting the cabin, return to the tree with the sign and go left down the hill. The trail descends quickly before reaching an old road. Unfortunately, this is the least scenic part of the trail because of the private truck/trailer loaded with garbage (the same group of Rec Management students is working on rerouting the trail to avoid this eyesore). Turn right onto the road, which has an interesting history: it is the old Lusk Run Road, which used to run from where you are standing, through campus, and then on to Fairview Street. In 1932 the road was rerouted to Hill Street in order to protect the young children who were attending the model school housed in Akeley.

Continue on the road, noticing Lusk Run to your left, until you reach the football locker room. Stay to the right, on the path beside the trees. Go down the stairs to the paved road, and notice the plaque to your left. This plaque was paid for by the John Way Memorial Fund, and discusses the interesting geology of the region. A few hundred yards down the road is another plaque, also paid for by the John Way Fund. Back by the locker room, Lusk Run disappears into a pipe that runs under the football and softball fields (it was "buried" in 1929). It resurfaces briefly here and forms a nice

wetland, before going into another pipe that runs under the athletic field and ends up at the river. Follow the red blazes back to the first plaque, passing to the right of Akeley. Our hope is to paint a mural in the concrete canyon at the end of the trail.

If you're interested in participating in the trail maintenance projects that will be necessary in the future, please contact Bob Myers.

Environmental Focus Group

Bob Myers (Chair), Md. Khalequzzaman, Lenny Long, Jeff Walsh, Lee Putt, Ralph Harnishfeger, Barrie Overton, Todd Nesbitt, Sharon Stringer, Jamie Walker, Steve Guthrie, John Reid, Lynn Bruner, Elisabeth Lynch, Kevin Hamilton, Keith Roush, Steve Seiler, Elizabeth Gruber, Joby Topper, Ray Steele, Michael McSkimming, Mark Jones, Adam Nothstein, Susan Rimby, Stephen Neun, and Scott Carnicom. The committee is charged with promoting and supporting activities, experiences, and structures that encourage students, faculty, and staff to develop a stronger sense of place for Lock Haven University and central Pennsylvania. Such a sense of place involves a stewardship of natural resources (environmentalism), meaningful outdoor experiences, and appreciation for the heritage of the region.