NEWS FROM FRIENDS OF Carlone Alter

Volume 4, Issue 2

PRESERVING THE LAND AND ITS STORIES

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MESSAGE FROM THE CHAIR

Enhancing Education at Pope Farm Conservancy in 2020

BY MEL POPE

In 2004, the Town of Middleton (TOM) master plan for Pope Farm Conservancy (PFC) was created and approved. The plan called for the Conservancy to be positioned as an educational facility. It would contain numerous interpretive signs about the stories of the land, and would be targeted toward teaching the public and students about them. The TOM has spent hundreds of thousands of dollars developing its master plan for PFC, and overall have done a very good job creating an Educational Conservancy (per its plan) as we know it



today. The trails, prairies, amphitheaters, parking, and infrastructure are there. The challenge is that limited research has been done on most of the features and the stories that exist at Pope Farm Conservancy, and more work is needed to make those stories teachable to the public.

In 2019 the Friends of Pope Farm Conservancy (FOPFC) began refocusing its efforts to provide content to the public about the many lessons of the land. Our Education Team finished the "Ken Burns" style video on German Immigration. Currently, we are working on another video about the history of the ownership and corresponding historical stories of the land.

We are uncovering many interesting facts. Did you know:

- That originally PFC was ceded by the Government to a Ho Chunk-French family?
- That part of the land was owned by a brewery to grow hops?
- That the first reverend of the white church on the corner of Old Sauk Road and Pleasant View Road located his cabin close to where the new school is being built?
 We currently have 5 descendants from different families who lived on the land that is now

PFC, writing and sharing stories about their family history during that period.

The team is also discussing possible topics for research with the Middleton Cross Plains Area School District (MCPASD). We are creating spreadsheets with topics and sources of information, and we are asking the MCPASD to provide its preferences so that we can prioritize research and develop information for their use. Many of these lessons will include information about the plants, insects, and animals that call PFC their home. The team will also assist the school district with 4th grade field trips at PFC again next year, and we will continue to provide walking tour pamphlets for the public.

Another goal for next year is to develop a woodland trail on adjacent land for field trips. Students can learn about trees, plants, and fauna. All of this will be done by our wonderful volunteers.

The goals of the Adult Education Team are to offer 12 talks that are free and open to the public next year. We have been told that Pope Farm Elementary School will offer a room that will be open to the public, and the FOPFC is interested in using it to provide a variety of talks during the winter months.

In summary, we hope you enjoy this FOPFC news magazine. Annually, we provide our members with 10 monthly updates about PFC, and 2 news magazines. We put a lot into our news magazine, and we hope you find our stories interesting.

Our goals for 2020 are ambitious. We are a 501 C (3) nonprofit corporation, and our only financial support comes from membership dues and donations from the public. If you are interested please go to page 9 where you can find how you can support us.

Thank you for your consideration, and we very much appreciate the support so many of you have given us over the years.

Mel Pope, Chairman Friends of Pope Farm Conservancy



WINTER 2019-2020 Volume 4 - Issue 2

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FOPFC Mission

Our mission is to contribute to the enrichment of Pope Farm Conservancy as a community and educational asset. We strive to protect and preserve the balance of the conservancy's unique natural, agricultural and historical features and volunteer as stewards to promote our passive conservancy.

Contact Us

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Purposes

In recognition that Pope Farm Conservancy is an educational and community asset, the Corporation shall have the following Purposes:

- Through volunteer participation and support, create, advance and facilitate the development and implementation of educational opportunities and programming in, on and around the Pope Farm Conservancy for students of all ages from public and private schools and the general public. Without limitation because of enumeration, this shall include but not be limited to assisting and working with the Pope Farm Elementary School and the Pope Farm Middle School (when constructed) from the Middleton-Cross Plains Area School District, the Blackhawk Ski Club, the Aldo Learned Mathematical School School Ski Club, the Aldo
- Leopold Nature Center and similar organizations. • To assist in the preservation of the balance of wildlife habitat, and historic, geologic, agricultural, environmental and scenic features of the Pope Farm Conservancy.
- To assist in the protection of natural landscapes and grass trails, wildlife and their habitat and the general public's tranquil enjoyment of the Pope Farm Conservancy as a passive conservancy free from commercial activity, motorized vehicles and bicycles, dogs and organized sports that require athletic fields or open space.
- To assist the Town of Middleton with the maintenance, improvement and general enrichment of the Pope Farm Conservancy as an educational and community asset.
- In accord with Article Four of these Bylaws, the Board of Directors shall have the specific authority and discretion to interpret, apply and implement these purposes, provided that at all times, it complies with rules and regulations of the IRS regarding the fulfillment and preservation of the requirements of the Corporation's 501(c)(3) status.





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THE ANCIENT TRAIL

An interpretive sign in the Native American amphitheater at Pope Farm Conservancy refers to a "major trail" that was an early and important transportation route between the Mississippi River and the "Four Lakes" (Lake Mendota) area.



FOPFC Goals for 2020

Every fall, when our educational programs and events have come to an end, we take some time to look back at everything the Friends accomplished this year, and then we begin the exciting task of planning for the future. Here are our goals for 2020.

RED-TAILED HAWKS

Found throughout the United States, Mexico, and much of Canada, the Redtailed Hawk (Buteo jamaicensis) is one of the most widespread and common birds of prey or raptor. In fact, not only can you find them at just about any wooded or grassy natural area, Red-tails have habituated very well to urbanizedscaped developments.



MONARCHS BY THE THOUSANDS An incredible natural phenomenon occurred at Pope Farm Conservancy this fall. Thousands upon thousands of migrating monarch butterflies were seen feeding on wildflowers in the prairies and congregating in dense roosts in the Burr Oak trees across from the Sunflower field. (*Photo by Mike McDowell*)



POLLINATORS

Wisconsin has many types of pollinators, but the most effective are bees. There are 500 species of native bees in the state, from tiny specialist bees that use only one native flower species, to large generalist bees like bumble bees that forage on flowers from spring through fall. (Photo by Jack Sherman)



A STORY OF THE ANCIENT SOUTH OF THE POPE FARM CONSERVANCY

BY JIM BOLITHO, WITH CONTRIBUTIONS FROM AMY ROSEBROUGH



An interpretive sign in the Native American amphitheater at Pope Farm Conservancy refers to a "major trail" that was an early and important transportation route between the Mississippi River and the "Four Lakes" (Lake Mendota) area. The trail passed south of and in sight of the future Conservancy. From the shores of Lake Mendota, the trail traversed a southwesterly course through what became the Town of Middleton, Dane County, Wisconsin, to the Blue Mounds, a prominent geographic landmark.

Long before Europeans arrived in the Americas, ancient trails crisscrossed the continents. Originally established by animals, the trails became corridors of transportation for humans. Whether an animal or a human, the goal was the same—to traverse a route by means that would require the least amount of physical effort. Thus, terrain was the deciding factor for a route. Animals and humans made the same decision—whether to follow the shortest course and climb and descend hills, or to go around them on a longer route. If the 20 mile "bee line" route



between Lake Mendota and the Blue Mounds had been followed, the trail would have crossed north of the Conservancy, on a line that would have approximately intersected Blackhawk Road and Twin Valley Road.

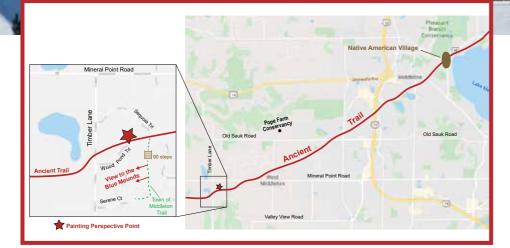
An Ancient Trail, A Military Road

I was not aware of the ancient trail between Lake Mendota and the Blue Mounds until after my wife and I moved to the Town of Middleton in 1990. As a Wisconsin native, however, I knew of the Military Road. After our move, my interest in learning more about the road was piqued. I came to believe that the road passed through our neighborhood, which is located south of Mineral Point Road and east of Timber Lane. Timber Lane in this area runs roughly parallel to and only a few hundred feet west of the

Johnstown Moraine, a terminal moraine of the Wisconsin Age glaciation.

After joining the Friends of Pope Farm Conservancy, l read all the interpretive signs. When I came upon the sign entitled "12,000 Years of Human History," I noticed that an ancient trail ran through our neighborhood. I wanted to know more. Could the Military Road have followed the

Blue Mounds



Timber Lane

The route of the ancient trail across undisturbed landforms west of Timber Lane can be envisioned from the top of the terminal moraine along a Town of Middleton trail.

ancient trail? Could they have been located on our property? I began researching literature and asking questions of many people, none more than Dr. Amy Rosebrough with the Wisconsin Historical Society and keeper of the Native American Garden at Pope Farm Conservancy. Amy was very generous in sharing her knowledge and very professional in answering my incessant barrage of questions.

In the course of research, I found that:

• A segment of the ancient trail formed part of the boundary line for the Prairie du Chien Treaty of 1829 in which the Winnebago Nation ceded certain lands to the United States. The boundary line through the Town of Middleton is shown in the illustration on page 7.

- The Military Road was constructed in 1835. It did not pass through our neighborhood. Rather, it cut off from the ancient trail east of Mt. Horeb and headed northeasterly near Pine Bluff.
- A discussion about the Town of Cross Plains contained in a history and guide of Dane County, dated 1877, includes what appears to be a reference to the terminal moraine and events related to it. It was written by Henry

Photo by Janie Starzewski

Winkle, Esq., a man engaged in many commercial and civic pursuits in the community:

"In approaching the town of Cross Plains from the east on the Madison and Mineral Point road, we come to the dividing ridge or ancient beach, so well defined and preserved as to be observed by every student of geology. This beach, or ancient sea shore on this road, comes within ten rods of the east line of the town of Cross Plains. On its summit there is yet to be seen an old log, behind which Ebenezer Brigham (the first white settler of Dane County) and Zach. Taylor (ex-President of United States), slept all night.

From the highest part of this ridge, on the Mineral Point road, we have one of the finest landscapes presented to our view that can perhaps be found anywhere in our state, taking in the beautiful valley in which the head waters of Sugar river rise ... There is a painting now in the land office at Washington, D.C., taken from a point on this ridge near where the Mineral Point road descends into the valley, which is pronounced by good judges as being the finest landscape painting



in that department. It was made by a celebrated English artist, and takes in the valley with its undulating prairie, the surrounding hills, and the Blue Mounds in the distance."

Although the terms "ancient beach" or "ancient sea shore" would not be used to describe the terminal moraine today, Henry Winkle's recognition of the geological significance of the landform and the sublime beauty of the landscape surrounding the ancient trail is irrefutable.

• The gap in the terminal moraine at Wood Pond Trail in the Timber Ridge subdivision was created about 1922 when gravel was excavated to surface Mineral Point Road.

Genesis of a Painting

At some point in my research, I began to wonder what the landscape along the ancient trail in the environs of the terminal moraine, with a view toward the Blue Mounds, might have looked like prior to settlement. Efforts to find a print of the landscape painting by the English artist were unsuccessful. They were likened to "searching for a needle in a haystack." I then decided that an artist could at least paint an interpretation of the landscape around the ancient trail.

Where to find the artist? Madison's

The Ancient Trail formed part of the boundary for lands ceded to the United States by the Winnebago nation under the Prairie du Chien treaty of 1829... "up the Pee-kee-tol-a-ka, to the mouth of Sugar Creek; thence, up the said creek, to the source of the eastern branch thereof; thence, by a line running due North, to the road leading from the Eastern blue mound, by the most Northern of the four lakes, to the portage of the Wisconsin and Fox rivers." Art Fair on the Square provided the answer. In the course of visiting the fair over a couple of years, I became acquainted with Artist Jan Norsetter of Verona. Jan's work is predominantly impressionistic. After learning what I was seeking to achieve, she graciously suggested that I work with Artist Thomas Buchs of Waukesha. I contacted Tom

The ancient trail crossed through what became the Town of Middleton

Treaty Boundary Plat of 1833 Public Land Survey Town of Middleton and unloaded my research work and goal on him. Tom visited the site from which I wanted the perspective of the scene painted. Although plein air painting is his forte, the perspective site no longer provided a view of the scene. Changes since settlement had obscured the view. We relied on photographs taken with a drone, ground photos taken from a nearby Town of Middleton trail and old topographic maps to create an interpretation of the scene. The result of this effort is Tom's painting entitled *Ancient Trail to the Blue Mounds*.

A representation of the painted scene can be viewed from the top of the terminal moraine along the Town of Middleton trail. The trail is located between Serene Court and a path that connects Wood Pond Trail and Sequoia Trail. The Wood Pond/Sequoia access features a stairway with 90 steps (route shown by the inset map on page 6). Here, one can visualize where the trail crossed what became Timber Lane, skirted the south edge of Coyle Pond and ascended a rise before fading off in the undulating and descending terrain to the west. A snowy scene from this vantage point is shown in the photograph at the top of pages 6 and 7. Viewed from this perspective, one can imagine events that took place along the trail through its many centuries of existence.

Mapping the Trail

The oldest maps of the ancient trail are those created in the 1830s by surveyors with the General Land Office of the United States government The surveyors performed cadastral surveys which established the grid system of townships and square-mile sections that form the basis for land divisions and local governments in Wisconsin. The surveyors laid out north-south and east-west lines to establish the boundaries of the sections. They also noted features of interest, including roads or trails that crossed the grid lines. As a result, it is known exactly where the ancient trail crossed section lines. Determining where the trail ran between the section lines is a matter of topography and some guesswork.

Who Used the Trail, and When

Together with the waterways of the Americas, the ancient trails of the Americas formed a vast transportation network. From Lake Mendota, the trail turned north to the portage between the Wisconsin and Fox Rivers. From the Blue Mounds, it continued west to the confluence of the Mississippi and Wisconsin Rivers. A long-distance traveler or trader from the north Atlantic coast might well have passed along the trail on his or her way to the Gulf Coast or to the Rocky Mountains.

It is known that the trail was used by the human population of the Four Lakes by at least 1000 AD, since local residents built effigy and other burial mounds along its route every half-mile or so, all the way from Lake Mendota to the Blue Mounds. It is likely that the trail was in use much earlier, and it certainly continued in use long after that. During the centuries prior to European Contact, the trail would have been used for transporting goods such as obsidian, copper, flint, marine shell, pipestone, and cloth, and by long distance travelers and people visiting family and friends in neighboring communities. After European Contact, the trail was used by Meskwaki and Ho-Chunk moving back and forth between villages and Native-run lead mines, traveling to treaty locations, and fleeing European settlement and conflict.

Epilogue

History does not record what Juliette Kinzie and her party thought on the late winter day when they crested the terminal moraine and took view of the distant Blue Mounds (see box below). We can only imagine what the view looked like then, and how it changed through the ages. We can wonder about it, however, and then let our minds wander to visualize the scenes ... just as we choose! •

AN EYE-WITNESS ACCOUNT OF THE TRAIL:

There are some eye-witness descriptions of the trail system left by Juliette Kinzie in her book Wau-bun, available at: *http://www.gutenberg.org/cache/epub/12183/pg12183-images.html.*

As the wife of John H. Kinzie, a U.S. Army paymaster for Michigan, Wisconsin and Illinois, Juliette traveled the ancient trail in 1830-31 from Green Bay, past Lake Mendota and future Pope Farm Conservancy to the Blue Mounds and beyond. Her account of the journey includes the following:

"...if you lose your trail, there is almost as little hope of regaining it as of finding a pathway in the midst of the ocean. The trail is a narrow path, deeply indented by the hoofs of the horses on which the Indians travel in single file. So deeply is it sunk in the sod which covers the prairies, that it is difficult, sometimes, to distinguish it at a distance of a few rods."

Juliette did not devote any additional space specifically to the trail itself, merely describing the Ho-Chunk village on Lake Mendota and then the journey to Blue Mound:

"March 9th. {1831} - Our journey this day led us past the first of the Four Lakes. Scattered along its banks was an encampment of Winnebagoes. Our road, after leaving the lake, lay over a rolling prairie, now bare and desolate enough. Sometimes the elevations were covered with a thicket or copse, in which our dogs would generally rouse up one or more deer. It was about the middle of the afternoon when we reached the Blue Mound. {T}he miles are unconscionably long in this country."



FOPFC Goals for 2020

In the fall, when all of the educational programs have come to an end and the growing season winds down, we take some time to reflect upon all that we've accomplished throughout the year. We review things that went well and assess the things we'd like to improve upon, and then we begin the energizing process of planning for the year ahead. After thoughtful consideration, we are excited to present our list of goals for 2020:

Restoration/Prairie Team

- Monitor the Bluebird Trail
- Collect and plant prairie seeds
- Support the Native American Garden and the Interpretive Garden
- Lead citizen science projects, such as Monarch Tagging
- Advise and assist Pope Farm Elementary School with its Prairie Restoration

Education Team

- Complete the "History of the Land" video documentary
- Begin researching the History of Farming and the Environment at PFC
- Expand our educational programs during the winter months
- Print and maintain the Self-Guided Tour Pamphlets at PFC
- Research donating Soil Erosion Signs for PFC
- Develop a woodland trail, and possibly a wetland trail, for elementary school field trips
- Provide lesson plan ideas for grades 1-4 to the Middleton Cross Plains School District (MCPASD)
- Educate MCPASD teachers and staff on the educational opportunities that are available at PFC, Blackhawk and adjacent lands

• Assist with and coordinate the MCPASD 4th-grade field trips at PFC

Communications Team

- Send 10 e-news updates to the FOPFC membership and donors
- Deliver 2 editions of the FOPFC news magazine for our membership and donors

Events Team 12 Public Talks/Tours in 2020:

- *Plein Air Painting:* Discover the art of outdoor painting and capturing land-scapes and views in natural light.
- *Fungi and Mushroom Logs:* Learn how to inoculate mushroom logs for outdoor growing.
- *Managing Invasive Species and Jumping Worms:* Learn how to live with and manage the latest invasive species that are plaguing Wisconsin's landscapes.
- *Forest Bathing at PFC:* Immerse yourself into the natural world with the practice of forest bathing. Also known as "Shinrin-yoku," forest bathing refers to the practice of spending time in forested areas for the purpose of enhancing health, wellness, and happiness.
- *Monarch Butterfly Presentation:* Learn about the incredible life cycle and

migratory habits of the monarch butterfly, and find out how you can support the continuing conservation efforts of this iconic insect.

- Native American Spirituality and Care for the Earth: See the land through the eyes of this area's earliest inhabitants and discover the spiritual wisdom Native Americans offer us in this time of environmental challenge.
- *Nature and Landscape Photography:* Maximize the impact of your nature photography and learn how to take epic landscape shots.
- *Winter Hike at PFC:* For a truly wonderful winter experience, join us for a nature walk at Pope Farm Conservancy where the crisp air and fresh snow welcomes you.
- *Prairie Plants in the Conservancy:* Come along on a beautiful scenic tour of Pope Farm Conservancy's six different prairies and a restored oak savanna.
- *Migrating Birds Walk:* Grab your binoculars and come see how the PFC prairies and restored oak savanna provide habitat for numerous bird species.
- *Blue Bird Trail Walk:* Join us for a tour of the bluebird nesting areas in the conservancy, and get tips on how to attract bluebirds to your own yard.



There is so much we hope to achieve in the coming year, and we need YOUR help to do it!

Please consider joining the Friends! A membership form and envelope has been provided for your convenience.

Whether you choose to become a member, make a donation, or volunteer your time, your contribution to the Friends of Pope Farm Conservancy will help to preserve an important natural resource in your community and provide educational opportunities for all ages!



REDTAIL IN POPE FARM CONSERVANCY

BY MIKE MCDOWELL

Found throughout the United States, Mexico, and much of Canada, the Red-tailed Hawk (Buteo jamaicensis) is one of the most widespread and common birds of prey or raptor. In fact, not only can you find them at just about any wooded or grassy natural area, Red-tails have habituated very well to urbanizedscaped developments. In cities large and small, you can find Red-tails perched on building ledges or utility poles with their eyes fixed to the ground scanning for prey. Incidentally, Pale Male, the famous New York Central Park hawk, is a Red-tailed Hawk.

A generalist species when it comes to food, Red-tailed Hawks will eat most anything that moves and occasionally resort to scavenging roadkill or other fallen critters. Bold as they can be, Red-tails will steal prey from other raptors. Their main prey items include medium-sized rodents like chipmunks, gophers, squirrels, rats, as well as rabbits, pheasants, quail, ducks, and even snakes. You might occasionally see a Red-tail

Photo by Jim Stewart

ED HAWKS

tearing flesh out of a deer carcass along the roadside.

If you come across a perched stubborn Red-tail that doesn't flush or fly away, you may want to give it some space and observe it for a while. This type of tolerance to human presence is often indicative of a hawk that has cornered prey and is waiting for it to reemerge. Patience may render a grizzly display of the circle of life!

As an apex predator, Red-tails have little to worry about as an adult. If they are taken by another predator it's usually when they're nestlings at unattended nests. Other animals known to eat hawk nestlings include American Crows and Great Horned Owls. Sadly, most adult hawk deaths are attributed to humanrelated causes, including poaching. Red-tails are also susceptible to West Nile virus with infested prey as the most common transmission vector.

Though there can be limited migration during spring and fall, Wisconsin's Red-tailed Hawks typically remain with us year-round. Those that do migrate south will often be absent only for a few weeks, or until the weather improves for hunting opportunities. The best time to watch and photograph Red-tails at Pope Farm Conservancy is during spring and early summer when adults are tending to their young. Check for them perched in the oaks or soaring above the rolling prairies!



Photo by Mike McDowell



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An incredible natural phenomenon occurred at Pope Farm Conservancy last fall. Thousands upon thousands of migrating monarch butterflies were seen feeding on wildflowers in the prairies and congregating in dense roosts in the Burr Oak trees across from the Sunflower field. Monarchs have been known to migrate through this area from late August through mid-September, but local naturalists who have tagged monarchs here for years have never seen numbers like this!

Reports of migrating monarchs at Pope Farm Conservancy began in late August. On August 30, an increase in monarch butterfly activity was noted in the Wheatfield prairie where the butterflies were seen nectaring on field thistle.

On September 13, we received an astonishing photo (shown on page 13) from FOPFC member Barbara Esser who frequents the PFC trails all year round. She wrote, "On this windy afternoon, I caught a sight I had never seen before. Hundreds of monarchs hanging from the oaks across from the sunflowers! Another sign that PFC is both biologically beautiful and important."

Many of the roosts observed at Pope

Farm Conservancy occurred during the early morning and evening hours. Since monarchs only migrate during the day, it's common to see them cluster in the trees at night. The daytime clusters occurred when the weather was breezy, cool, or rainy.

It's easy to see why monarchs would be attracted to this location. Pope Farm Conservancy provides an ideal habitat for these migrating insects. The trees provide both shelter from the wind and respite at night, while the prairies supply food during the day. As the prairies at PFC have matured over the years, there is now an abundance of Stiff goldenrod, Showy goldenrod, a variety of asters, Field thistle, and showy Blazing Star. The monarchs feed upon the nectarrich flowers of these native plants. This type of habitat is essential for monarchs to build up the fat reserves they need to survive not only the migration but the five-month overwintering period in Mexico.

Visitors to Pope Farm Conservancy were not the only ones to witness this epic monarch migration. A similar phenomenon was seen at Goose Pond Sanctuary, near Arlington, Wisconsin. Mark Martin, resident manager at the sanctuary, leads the monarch tagging project for the Madison Audubon Society.

"Since we began tagging monarchs in 2012, this has been a record year for monarch migration at Goose Pond," says Martin. With close to 220 volunteers, they successfully tagged 2,100 monarchs in only nine tagging sessions.

"We even conducted 20 roost counts with an average of 920 monarchs. On September 9, there was a record of 1,800 monarchs all in a single spruce tree buffered from the wind. On the morning of September 16, we counted another 1,800!"

While these observations may tell us that it was a really good year for monarch butterflies, the official tally of this year's Eastern monarch population will not be known until mid-winter.

PJ Liesch, director of the UW-Madison Insect Diagnostic Lab, explains that "scientists have to estimate the area occupied by the densely-packed monarchs down in Mexico to assess the population." A sustained population of 6 hectares (about 15 acres) is the target for monarch recovery.

"Last year's overwintering tally was strong—nearly 10 times higher than FEATURE

MONARCHS BY JANIE STARZEWSKI BY THOUSANDS THE THOUSANDS

AT POPE FARM CONSERVANCY

the record-low numbers of the winter of 2013-14," says Liesch. "We won't know just how well the monarchs did this year until the next population report is released in January 2020."

Why was 2019 such a good year for monarchs?

"A few factors bode well for the Eastern monarch population," says Jennifer Thieme, Regional Monitoring Coordinator at Monarch Joint Venture. "First, 2018 saw the highest population of Eastern monarchs in over a decade, which gave them an advantage starting this year."

Other factors, such as weather conditions and food sources during the monarchs' breeding season also play a role in the overall health and abundance of these butterflies. Thieme goes on to explain that "this year, the Eastern U.S. had favorable weather conditions for monarch reproduction. In the south, the spring was quite warm, which can lead to faster development of larvae, ultimately increasing survival and potentially decreasing time between generations."

"Conditions were also good in the northern breeding grounds," adds Karen Oberhauser, Director of the UW-Madison Arboretum and a recognized expert on monarch butterflies. "It was wet, but not too wet, so milkweed and nectar plants were in good condition, and there weren't many rainy days that prevented monarchs from flying. It was warm, but not too warm. Extremely hot conditions slow monarch development and can lead to higher mortality, and cool conditions also slow development. Fast development minimizes the time that monarchs spend in their vulnerable egg and larva stages, and allow faster generation time. With more generations, monarch numbers can increase more during the summer."

Oberhauser also leads the Monarch Larva Monitoring Project (MLMP), a citizen science project which gives scientists a bigger and better understanding of the health of the monarch



Photo by Barbara Esser

population. In a recent MLMP newsletter, Oberhauser writes: "MLMP data show us that 2019 was good for monarchs through-out their breeding range. We received reports of high numbers of eggs and larvae throughout the spring and summer. In Minnesota, Wisconsin and Michigan, peak July or August densities of eggs and larvae reached over 0.4; on average, 4 out of 10 plants checked by observers had a monarch on them. Values were similarly high in 2018."

All of these reports are indeed a hopeful sign that with continued conservation efforts, the monarch populations will continue to rebound and stay strong. Restoring native habitat, planting milkweed, and participating in citizen science projects like monarch tagging are just a few of the ways that we can contribute to monarch conservation.

The Friends of Pope Farm Conservancy invite you to join our monarch tagging sessions each fall. It's well worth your time to help save this iconic black and orange butterfly. You may even get to see the extraordinary sight of a fall roost!

To learn more about monarch tracking and conservation efforts, check out these websites:

- Journey North An online citizen science platform that engages educators and the general public in a global study of wildlife migration and seasonal change. https://journeynorth.org/monarchs/
- Monarch Watch Tagging Program A citizen science project that helps understand the dynamics of the monarchs' fall migration through mark and recapture. https://monarchwatch.org/
- **Monarch Larva Monitoring Project** A program in which volunteer citizen scientists collect and report real scientific data on monarch egg and larval distribution and abundance from their monarch breeding habitats. *https://monarchlab.org/mlmp/*

Photo by Cassius J. Callender

FEATURE

HOW YOU CAN HELP POLLINATORS IN POPE FARM CONSERVANCY

BY SUSAN CARPENTER

Bumble Bee on systemically treated sunflower at Pope Farm Conservancy. (Photo by Jack Sherman) Winter is a cold and quiet time in the Conservancy, our yards and gardens, and across the Wisconsin landscape. But life is simply dormant in plant crowns, buds, roots, seeds, pupae, overwintering adult insects, larvae, eggs, nests, and hibernacula.

Wisconsin has many types of pollinators, but the most effective are bees. There are 500 species of native bees in the state, from tiny specialist bees that use only one native flower species, to large generalist bees like bumble bees that forage on flowers from spring through fall. When female bees visit flowers, they collect pollen, which is used to feed the young larvae in colonies. For solitary species, the females provide pollen with each egg that will later hatch to feed on that pollen throughout development. Adult bees (male and female) feed on nectar as an energy source.

Pope Farm Conservancy is home to the federally endangered rusty patched bumble bee and many other pollinator species. The prairies, savannas, and gardens provide pollinator habitat. Bumble bees visiting the Conservancy could be nesting and foraging on nearby land as well. Land managers and homeowners alike can take action to protect and support these important native pollinators.

- *Create and manage healthy habitat:* Plant many, diverse native flowers that provide blooms in sequence throughout the season. Ornamental flowers that are not invasive (such as zinnias or annual sunflowers) can also provide nectar and pollen. Avoid invasive non-native species that compete and reduce plant diversity.
- *Provide nesting and overwintering opportunities:* Leave leaf piles, compost, hollow logs, hollow stems and branches, clumps of bunch grass, loose soil free of mulch or landscaping fabric—these are just some of the places where stem-nesting or ground--nesting native bees will lay eggs or begin their colonies in spring.
- Learn which pollinators live in your area and join monitoring projects to learn more about which pollinators live in the Conservancy or in your own garden. Monitor bumble bees through the WDNR project, Bumble Bee Brigade. They offer trainings, will confirm or correct your bumble bee identifications, and provide many resources on their website.
- *Eliminate the use of insecticides, especially systemic ones.* Systemic insecticides are applied as a seed coating (for example, on crops like

corn, soybeans, and sunflowers), a soil drench, or injected (for example, on ash trees). The long-lasting insecticide moves throughout the plant as it grows, and remains in plant parts. These insecticides can be present in pollen and nectar. They are not specific to certain pests, but will harm beneficial insects and pollinators. Consult the Xerces Society of Invertebrate Conservation website and resources for much more detail.

Here are some specific recommendations that apply to the PFC landscape, based on Xerces Society research and publications:

- When buying seed or plants, make sure that they are not pre-treated with systemic insecticides.
- Stop the use of these insecticides in areas where imperiled species live.
- Protect waterways and aquatic life by not using systemic insecticides.
- Do not use insecticides for aesthetic reasons.

By following these guidelines and learning more about how to protect pollinators, you can make a difference. Be a friend to pollinators.

Editor's note: Susan Carpenter is an expert on pollinators, and has documented the existence of the endangered Rusty Patch Bumble Bee at Pope Farm Conservancy.

PROTECTING THE POLLINATORS IN OTHER AREA PARKS AND CONSERVANCIES

How do other local municipalities protect pollinators from neonicotinoid pesticides in their parks or conservancies?

"Neonicotinoids are a group of insecticides used widely on farms and in urban landscapes. They are absorbed by plants and can be present in pollen and nectar, making them toxic to bees. Four years ago, there was uncertainty about the impact these insecticides were having on bees. Research published since then clearly shows how neonicotinoids are killing bees or changing their behaviors"... Xerces Society of Invertebrate Conservation website. Given this research, attitudes about the impact of neonicotinoids on pollinators have changed, and this includes the Friends of Pope Farm Conservancy. Countries

around the world are beginning to ban the use of this product, including some states in the U.S.

City of Madison Parks

According to Eric Knepp, Madison Parks Superintendent, a great deal of effort has been made to eliminate the threat of neonicotinoids to the pollinator population. "All neonicotinoid use has been eliminated in developed Madison parks," Knepp says. Currently, the city is working on removing neonics from all Madison cemeteries and golf courses. According to Knepp, "We are making progress and are determined to totally eliminate neonics on lands under our control."

Dane County Parks Dane County Parks are working to protect the pollinator population by instituting a long-term program to eliminate neonicotinoids from lands controlled by Dane County Parks. Darren Marsh, Parks Director of Dane County Parks, said "We have prioritized areas in our park system, such as prairies and wildlife habitat, where we have begun to eliminate neonics to help our pollinator population. There is some neonic pesticide use by farmers on non-developed land and recent land acquisition sites, but the long-term goal is to eliminate the use of neonics there, as well."

Town of Middleton

We do not know if the Town of Middleton will continue to allow the use of this product in its parks and conservancies.



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