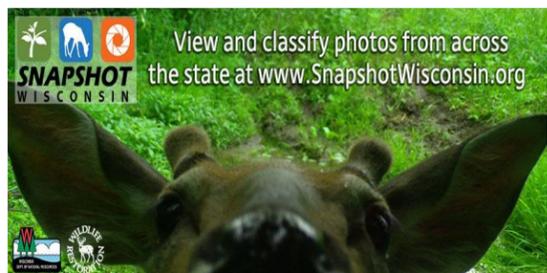


NORTHWOODS JOURNAL – JULY 2019

A Free Publication about Enjoying and Protecting Marinette County's Outdoor Life

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Let's discover our wildlife together! **Snapshot Wisconsin** is a partnership to monitor wildlife year-round, using a statewide network of trail cameras. The project provides data needed for wildlife management decision support. It is also a unique opportunity for individuals, families, and students to get involved in monitoring the state's valuable natural resources.

See page 3 for more about Snapshot Wisconsin, and how you can help! You can visit the website listed above for more information about the project, or go to www.zooniverse.org to see what other citizen science projects are going on.

For other Wisconsin-based projects, you can also visit the **Wisconsin Citizen-based Monitoring Network** at <http://wiatri.net/cbm/>. There are multiple projects going on throughout the state you can learn about, as well as resources, events, and other information.

Adapting to Climate Change – Protecting Our Waters for the Future

By Chuck Druckrey - Water Resource Specialist, Land & Water Conservation Division

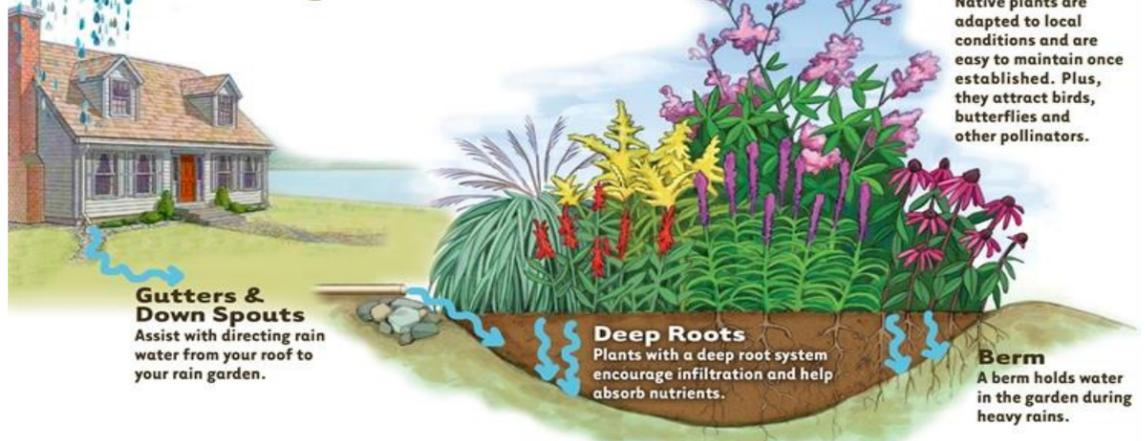
As was discussed in the June issue of the *Northwoods Journal*, we are already experiencing the early effects of global climate change. This can be seen in long-term temperature and precipitation data for Wisconsin. These changes were set in motion during the industrial revolution over 200 years ago, and unfortunately, many of the changes we will see by the end of the century are unavoidable. **There are, however, things we can do to protect our lakes and streams from the worst effects and adapt to those changes we cannot avoid.**

Increasing rain in the fall and spring, and an increase in the number of severe rain events will lead to higher nutrient concentrations in runoff entering our lakes and streams. Combined with hotter and drier summers, we are likely to see higher nutrient levels in our lakes with increased weed and algae growth.



To combat this, every effort should be made to reduce the nutrient concentration in runoff entering our lakes and streams. This means protecting forested areas and wetlands that supply water to our lakes to reduce nutrient runoff and ensure more stable flows. Farmers and lakefront property owners should also adopt best management practices to reduce nutrient runoff and infiltrate rain water before it reaches the lake. For lakefront property owners, this means adding more native vegetation, reducing fertilizer use, and reducing the amount of impervious surface or installing rain gardens to help infiltrate the runoff.

How does a rain garden work?



A shoreline restoration with native plantings

In many lakes, increasing nutrients and a longer growing season will result in more rooted aquatic plants. Lake residents will need to take a more active role in managing aquatic plants to maintain the recreational potential of their lakes. However, the desire to do away with "lake weeds" entirely needs to be tempered since the alternative is often increased algae growth, and a weedy lake is preferable to a lake suffering from repeated algae blooms.

Fluctuating lake levels are also expected as the amount and timing of precipitation changes. Drainage lakes and seepage lakes lower in the watershed are expected to see increased flooding while many seepage lakes high in the watershed will see falling lake levels, especially during the hotter summer months. Again, protecting forested drainage areas and wetland systems will help stabilize flows. Lake groups can also protect or even improve woody habitat along the shores so fish have access to habitat as water levels fluctuate. **Cont. pg. 2**



Piles of brush like this one create fish attracting reefs when weighted and sunk in area lakes.

Continued from page 1

As the climate warms, area lakes will be at increased risk as aquatic invasive species (AIS) expand their range northwards and new species make their way to the United States. As always, the most effective strategy to combat AIS is to prevent their spread. This means increasing education, strengthening laws to combat the intentional and unintentional spread of AIS, and increasing decontamination efforts at boat landings. Researchers also need to increase efforts to decontaminate commercial and recreational watercraft and develop new prevention and control measures for these invasive species.



Increasing water temperatures will also impact fish populations. We are already seeing warm-water species such as largemouth bass expanding their range and numbers while cool-water fish like walleye and smallmouth bass are in decline. This trend will accelerate over the next 50 years.



Adaptation strategies include protecting forested watersheds and wetlands to improve water quality and maintain lower temperatures, adding habitat that is resistant to water level fluctuations, and potentially aerating lakes with low dissolved oxygen. Fish managers can also change regulations to protect at-risk species and stock genetic strains that are better adapted to warmer waters.

Wisconsin and Walleye
a great combination just got better

The Wisconsin Walleye Initiative

- \$8.2 million in existing unencumbered bonding authority to expand hatchery capacities.
- \$1.8 million for operating costs over the biennium.
- \$2 million over the biennium for a competitive grant program for private organizations to expand walleye production and to cover operational costs.
- \$160,000 in one-time funds for the UW Extension to continue their work with private aquaculture through the end of Fiscal Year 2014.
- \$500,000 annually beginning in Fiscal Year 2015 to contract with organizations to acquire additional walleye fingerlings.
- \$250,000 annually to expand the summer Tribal Youth Program. The program is a state-tribal partnership giving high school-aged tribal youth the opportunity to work on natural resource-related projects.

For more details, go to dnr.wi.gov and search "walleye"

Adaptation to a warming climate will require the support of government officials at all levels, lake users, and lakefront property owners alike. *The key to protecting our lakes is to protect the areas draining to our lakes (Resistance), improving the health of our lakes so they can bounce back from repeated stresses (Resilience), and developing plans to manage changes when they occur (Response).*

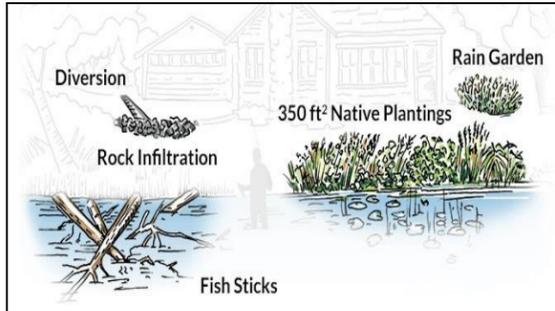


Illustration of five best practices used to improve lakeshore property, by Karen Engelbretson.

The planet is warming. We are already seeing the effects on our environment and many of the changes described here are unavoidable. We can, however, reduce the impact on our lakes through better management. Beyond that, we desperately need to reduce carbon emissions on a global level or risk even more drastic changes to our lakes and streams.



For more information on how you can help improve lakeshore property or native shoreline plantings, visit:

- <https://www.marinettecounty.com/departments/land-information/lake-associations/> - Marinette County Lake Association information
- <https://healthylakeswi.com/> - Healthy Lakes Wisconsin
- <http://www.wisconsinlakes.org/> - Wisconsin Lakes Association
- <https://wisconsinwetlands.org/> - Wisconsin Wetlands Association
- <https://dnr.wi.gov/lakes/> - Wisconsin Department of Natural Resources
- <https://www.uwsp.edu/cnr-ap/UWEXLakes> - UW-Extension Lakes
- <https://www.uwsp.edu/cnr-ap/UWEXLakes/Pages/ecology/shoreland/raingardens.aspx> - Rain Garden information
- <https://www.glri.us/> - Great Lakes Restoration Initiative
- <https://www.fisheries.noaa.gov/national/habitat-conservation/great-lakes-habitat-restoration> - NOAA Fisheries Great Lakes Habitat Restoration



Top 5 Developmental Benefits of Nature Play

1. MOTOR SKILLS

Children who play in natural settings perform better on gross and fine motor skills assessments than those who play on traditional playgrounds.



2. SENSORY PROCESSING



Nature offers a healthy balance of sensory stimulation. Spending time in nature supports sensory integration and minimizes anxiety due to overstimulation or sensory processing disorders.

3. CREATIVITY

Nature is full of endless possibilities, so it's no surprise that children who engage in nature play think more creatively and are better problem-solvers.



4. INDEPENDENCE



Nature play provides opportunities for children to challenge themselves and assess risks, encouraging independence and building self-confidence.

5. EMPATHY

Children are less likely to be bullied in natural play spaces than on traditional playgrounds.



Northwoods Journal Volume 17, Issue 2

The *Northwoods Journal* focuses on various outdoor recreation opportunities and local environmental topics to inform readers about natural resource use, management, and recreation in Marinette County.

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- Marinette Co. Land & Water Conservation
- Marinette Co. Parks & Outdoor Recreation
- Marinette Co. UW-Extension

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Snapshot Wisconsin Reveals the Hidden Lives of Wild Animals: How a Network of Trail Cameras and Volunteers Reshape the State's Wildlife Management

From: <https://www.wiscontext.org/snapshot-wisconsin-reveals-hidden-lives-wild-animals>



Launched in April 2016, **Snapshot Wisconsin** is a project of the Wisconsin Department of Natural Resources. It has two major goals, according to Jennifer Stenglein, a DNR research scientist: to beef up the agency's wildlife monitoring efforts, and to involve members of the public in those efforts as broadly as possible.

Snapshot Wisconsin's roots come from funding provided through a federal excise tax on guns, ammunition and archery equipment. The 11 percent sales tax originated in the Pittman-Robertson Federal Aid in Wildlife Restoration Act, passed in 1937. Proceeds from the federal tax are divided up to the states to fund wildlife habitat restoration and research.

The project came into being as Wisconsin received a windfall of new Pittman-Robertson dollars following the election of President Barack Obama, Stenglein said, when gun and ammunition sales skyrocketed. The additional sales, and the additional Pittman-Robertson funding that accompanied them, became known locally as the "Obama bump," according to Stenglein. Snapshot also received funding via a grant from NASA to support research by scientists at UW-Madison.

There are other trail camera networks around the United States, but Snapshot is unique because it's administered by a state government agency and depends heavily on volunteers. Among those volunteers are more than 1,500 Wisconsinites who place and monitor trail cameras on private and public land throughout the state. Many thousands more from Wisconsin and around the world volunteer to identify images of wildlife captured by the trail cameras after they are uploaded to Snapshot Wisconsin database on a crowdsourcing research platform called *Zooniverse*.



Stenglein said the trail camera network and citizen scientist volunteers are helping the DNR better understand populations of everything from deer to wolves and bobcats to prairie chickens. The information is particularly valuable in the southern two-thirds of the state, she said, where it fills a large gap in wildlife monitoring - the DNR has historically focused its on-the-ground monitoring in the state's wilder northern regions.

Trail cameras have long been a popular way for hunters and outdoor enthusiasts to track wildlife. Most, including those the DNR uses, employ sensitive motion detectors that trigger a quick burst of photos whenever something moves inside their field of view. The cameras also use unobtrusive infrared light to capture nighttime images of Wisconsin's nocturnal creatures. "What this [program] gets at is a way to monitor all types of wildlife," Stenglein said. But the DNR is interested in more than simply monitoring wildlife. The agency is beginning to use the data collected and confirmed by

volunteers to make wildlife management decisions.

In a March 2019 interview, Stenglein told WisContext the trail cameras are proving useful in helping the state plan for deer hunting season by supplementing on-the-ground surveys of fawn-to-doe ratios. This annual summertime estimation helps the DNR understand roughly how many fawns have survived their first few months, when mortality is highest.

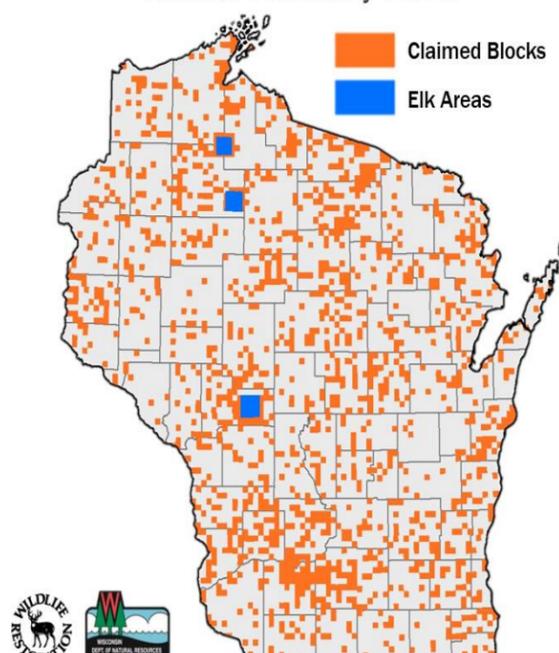
"Snapshot's been able to fill in gaps when there aren't as many observers in an area," Stenglein said. "All that information is one of the inputs in the population models, [and] that information is being used right now in the state as the deer advisory council is discussing the upcoming hunting season."

The trail cameras assist other on-the-ground monitoring efforts as well, including the agency's annual winter tracking of wolves and a new program that will closely monitor the state's only greater prairie chicken mating grounds, technically called "lekking" grounds, near Stevens Point. Even the images that don't include confirmed wildlife - about 85 percent of them - are of interest to researchers who want to better understand how seasonal vegetation cycles affect wildlife.

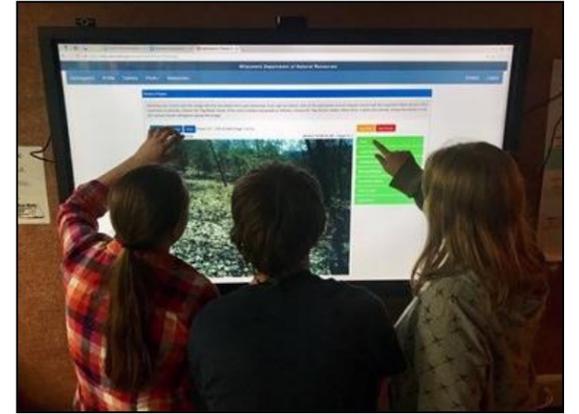


To that end, all of the Snapshot trail cameras are programmed to take a photo in unison late every morning, just as NASA's MODIS satellite cruises high above Wisconsin. The satellite tracks a number of environmental metrics, including cloud cover and photosynthesis activity. By taking on-the-ground photos just as MODIS captures images from high above, the Snapshot network can provide higher-resolution data related to green up. Researchers, including UW-Madison forest ecologist Phil Townsend, can then analyze the combined data to try to understand the interplay between wildlife and their living - and changing - environments.

Snapshot Wisconsin Active Survey Blocks February 2019



In the meantime, the DNR is focusing on expanding the trail camera network. After two years of pilot networks only in a handful of counties, Snapshot Wisconsin was expanded statewide in August 2018, Stenglein said. The near-term goal is to have a trail camera recording wildlife in 25 percent of the DNR's 6,273 survey blocks around the state. Each survey block represents one-quarter of a township, or roughly 9 square miles. Eventually, Stenglein said, the hope is for full coverage statewide, or at least one camera in each survey block. "Our goal is to have a trail camera in every single one of those survey blocks," she said. "We're just getting started though."



Snapshot Wisconsin provides a great opportunity to integrate science and technology in the classroom, and a unique way for students to learn about wildlife.

- Snapshot Wisconsin is unique among public trail camera efforts because it's run by a government agency, the Wisconsin Department of Natural Resources.
- One of the DNR's goals with Snapshot Wisconsin is to increase the spatial and temporal resolution for all types of wildlife monitoring using one consistent method that is less time consuming and costly than other methods.
- Snapshot Wisconsin is intended to involve as many people as possible in the monitoring process, including volunteers to manage trail cameras and others who identify wildlife when the images are posted online. The crowdsourced identification process on Zooniverse requires roughly 15 different volunteers to agree on the identity of a species before it is confirmed as identified and enters the DNR's database.
- The photos Snapshot trail cameras take are encrypted. Volunteers responsible for maintaining the cameras upload the images, which are stored on an SD card, to a special program that decrypts the photos and uses artificial intelligence to remove any photos that might include a human. The photos are then sent back to the volunteer who uploaded them, who double checks that none contain humans and upload them to Zooniverse.
- The trail cameras shoot three photos every time they are triggered. This series of three shots in a row helps with the classification of animals, especially those that move quickly across the field of view.
- Snapshot Wisconsin maintains a blog to share updates about the program, as well as some of the more dramatic wildlife photos the trail camera network captures. It also recruits new volunteers who want to maintain a trail camera.

For more information about Snapshot Wisconsin and how to get involved, visit:

- <https://dnr.wi.gov/topic/research/projects/snapshot/> - WI DNR Snapshot Project website
- <https://www.zooniverse.org/projects/zooniverse/snapshot-wisconsin> - Zooniverse website



A Dozen Ways Families Can “Opt Outside” Every Day of the Year

by Richard Louv, www.childrenandnature.org

In 2015, the leaders of the retail outdoor equipment Co-op REI made a big decision. They closed their doors on Black Friday, the biggest day in the global retail calendar. Instead, they encouraged their 12,000 employees to “Opt Outside” (#OptOutside), to reconnect with family and friends outdoors. Thousands of companies, as well as the national and state parks, followed REI’s lead. Millions of Americans took the day off to “Opt Outside”.



This year, REI is suggesting that we think about our daily routines to look for opportunities to “Opt Outside” - not just for a day, but all year and for years to come. It’s about our routines - the ones we need and the ones we need to rethink. REI has also pledged \$1 million to the University of Washington, where a center for academic excellence called **Nature for Health** will be established within the school’s EarthLab to study the benefits of the outdoors on health. We’re proud to be a partner with EarthLab on Nature for Health (<https://earthlab.uw.edu/members-and-affiliates/nature-for-health/>).

*Here’s what we can all do: pledge to connect our kids and ourselves (even our companies and communities) to work throughout the year to give children, adults and communities the gifts of nature - to encourage them to take care of the natural world and themselves by experiencing its wonders as often as possible, a few minutes a day, a few hours a week, or even a few weeks a year. Here are 12 suggestions drawn from the book, **VITAMIN N**, which offers 500 actions for individuals, families and communities:*

1. View nature as an antidote to stress. All the health benefits that come to a child come to the adult who takes that child into nature. Children and parents feel better after spending time in the natural world, even if it’s in their own backyard.

2. Lose the cell phone; get a better connection. Tech isn’t the enemy, but it can certainly be a barrier. Vow to periodically leave your cell phone in your pocket, ringer off, cancelling all the beeps, tweets, and repeats, so you’re more present with your child. Limit access to texting, computers, and TV part of the day or week. For example, schedule Friday as a “Smartphone and iPad-Free Outdoor Play Day” for the family.



3. Go further - plan a techno-fast/vacation. Commit to a few days away from digital life. On your own or with kids, go camping, rent a cabin, or house - trade with someone who misses traffic jams. When my wife, Kathy, and I head out, I set my computer to send out this e-mail auto-reply: “I’m taking a brief break from all communications electronic . . . OK, here goes. Pulling the plug . . .” For emergencies, we bring Kathy’s not-so-smart flip phone but leave it in the car.

4. Put together a family G.O. Bag. Stuff a duffel bag with daypacks, a compass, binoculars, nature guides,

and maybe a topo-map of your region. Add granola bars, hats, gloves, fleece vests, sunglasses, collapsible hiking poles, some old hiking shoes or other comfortable footwear, and water bottles. Wrap your G.O. Bag. Stash it in your car trunk. Now your family can *Go Outside* on a moment’s notice (this is also a safety precaution for fires and other natural disasters).



5. Start or Join a Family Nature Club. Here’s a way to create a community of support for parents and children: join an existing family nature club, or form a new one. It’s a great way to create a community of support for families. This same concept can be adopted by teens or adults without children of their own, in the form of friendship nature clubs. Download a free toolkit (available in multiple languages) from C&NN.

6. Establish a Parent-Teacher Nature Club. Robert Bateman, the renowned Canadian artist, whose paintings often depict wildlife, suggests that teachers and other educators create their own Teacher Nature Clubs to organize weekend hikes and other nature experiences for teachers. Go further: create a Parent-Teacher Nature Club - call it the PTN. In fact, your PTA could take the lead and create a PTN. Such clubs would encourage teachers experienced in the natural world to share their knowledge with teachers less experienced in the outdoors.

7. Don’t cut down the tree, build up the kid! Provide training in the value and management of natural risk. Teachers, play leaders (or “playworkers” as they’re called in the UK), and parents who supervise groups of children need regular training in play leadership. “Such training has been successful in adventure playgrounds, and limited numbers of forest schools, zoos, child development centers, children’s museums and expanding integrated natural/built playgrounds at schools and parks,” says international play expert Joe Frost. Common sense helps. But up-to-date knowledge about play and risk is essential.

8. Make every school a “green haven.” In the public mind, schools are too often associated with stress and even violence. One way to change that perception is to turn them into “green havens,” writes Louise Chawla, professor of environmental design, University of Colorado in Boulder, and coeditor of the journal *Children, Youth and Environments*. “Not every family has natural areas around their home or a park down the block, but almost every family sends their children to a school where there is a playground or playing fields.” She recommends turning parts of school grounds into gardens, natural habitats for study and play. “Then all children could have a green haven in their lives. A place for calm, peace, and rapt absorption.”

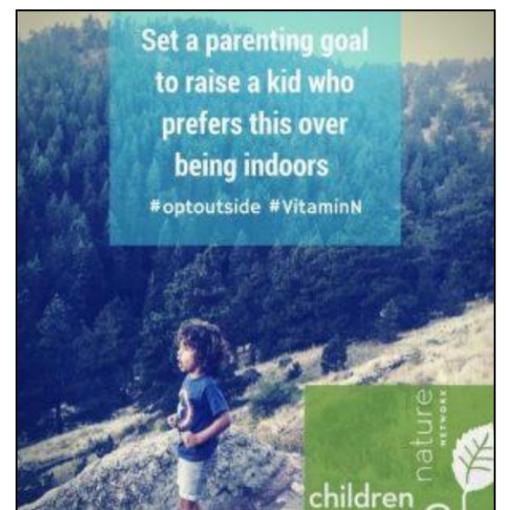


9. Work for natural equity. Every child has a right to experience the natural world, not just those of a certain economic or cultural group or set of abilities, not just those with parents who encourage nature play

and nature learning. Start or support a regional campaign to connect all children to nature in the city or county in which you live. Bring pediatricians and educators, business people and conservationists, liberals and conservatives, places of worship and service organizations together to reduce nature-deficit disorder in every neighborhood.

10. Champion the return of recess and other school programs that get kids outside. Engage your PTA and other organizations to help bring back recess and physical education - and then go the next step: encourage outdoor exercise and learning. In addition to improving physical and mental health, outdoor time can raise test scores.

11. Exert parent power. Parents can demand nature-rich education and have more influence to achieve that goal than they may believe. “School board members, trustees, administrators, and teachers listen to parents big-time,” says Tim Grant, editor in chief of the Canada-based journal *Green Teacher*. “Many teachers have said they’ve made suggestions to principals and received no response, but when the parent makes the same suggestions, things often start to happen” at the national, state, and local levels. Push to enact bills supporting environmental education in the classroom and outdoor experiential learning.



12. Put nature on the calendar. If you plan the family’s sports commitments and vacations in advance, do the same for time spent in nature. Try skipping organized sports for a season and use that time to get outside. That suggestion won’t work for everyone, but for busy parents, teachers and community leaders, taking time for nature requires making time, and putting it on the calendar. For ideas visit <https://www.rei.com/learn/c/family>.



Richard Louv is Co-Founder and Chairman Emeritus of the **Children & Nature Network**, an organization supporting the international movement to connect children, their families and their communities to the natural world.



Northwoods Journal Online

Would you like to read current issues of the *Northwoods Journal* online? Go to www.marinettecounty.com and search for “Northwoods Journal”. We can also send you an e-mail reminder when each new issue is posted online. Contact Anne Bartels, Information & Education Specialist at 715-732-7784 or email abartels@marinettecounty.com.



Five Things Everyone Should Know About Fireflies

From: <https://grow.cals.wisc.edu/departments/on-henry-mall/five-things-everyone-should-know-about-fireflies>



1. Fireflies, or lightning bugs, are a type of winged beetle known for producing light. There are more than 2,000 species found throughout the world, over 150 scattered across the United States, and around two dozen inhabiting the Great Lakes area, including Wisconsin. Many of Wisconsin's fireflies are most noticeable in June, July, and August, and it's hard to miss the light show after sundown.

2. Their glow is produced by bioluminescence, which stems from a biochemical reaction involving a compound known as luciferin and the enzyme luciferase. ("Lucifer" translates from Latin as "light bearer.") The reaction is highly efficient, converting roughly 90 percent of the energy into visible light that is often referred to as "cold light." In contrast, inefficient incandescent light bulbs produce "hot light" because most of their energy is lost as heat.

The flash patterns and colors that each firefly species produces through bioluminescence can differ slightly, and some species only produce light in the larval stage, not as adults. Flash colors range from orange to yellow to green and even blue. In most cases, the flash pattern is used for communicating with potential mates, although some deceptive fireflies are known to mimic the flash pattern of another species to lure and then ambush potential prey.



3. Fireflies can be a boon for your yard - at least, their larvae can. The black and pink juvenile fireflies, sometimes called glowworms because they also produce bioluminescent light, have an armor-plated appearance and live in damp areas, where they feed on slugs, snails, worms, and other soft-bodied creatures (see photo below). Anyone with hostas, marigolds, or other low-growing plants in their yard has likely noticed the feeding damage from slugs in these past few rainy years, but fireflies may help minimize the harm that slugs cause by thinning their ranks.



4. Fireflies can be distasteful or even poisonous to predators because they harbor defensive steroids called lucibufagins. These steroids are related to toxic chemicals that certain toads release when injured or threatened. Not all fireflies possess these chemicals, but some species in the Great Lakes region are among those that do, and they wield a potent defense and deterrent against predators such as spiders, bats, mice, and birds.



5. Scientists have raised concerns that fireflies may be in decline, and there could be a number of factors involved. Habitat loss and light pollution with changing land-use patterns may be important parts of the puzzle, and pesticides may play a role as well. *Anyone interested in helping fireflies in their yard can do so by reducing light pollution, avoiding pesticides, and keeping some "wild" areas on the property as potential firefly habitat.* To learn more about fireflies and get involved with a citizen science monitoring project, visit **Firefly Watch** at <https://scistarter.org/firefly-watch>.



P.J. Liesch, better known as UW-Madison's "bug guy," is director of the *Insect Diagnostic Lab* in the Department of Entomology and an entomologist with UW Cooperative Extension. Much of his job involves communicating insect information to the public and acting as a bug identification guru for curious residents and businesses from all over Wisconsin.

For questions about bugs around your home and in your garden or yard, visit <http://labs.russell.wisc.edu/insectlab/> for more information or for help with identification.



The Endangered Species Act is 46 Years Old!

In 1972, President Nixon declared that conservation efforts in the United States aimed toward preventing the extinction of species were inadequate and called on the 93rd Congress to develop comprehensive endangered species legislation. Congress responded, and on December 28th, the Endangered Species Act of 1973 was signed into law.



When Congress passed the Endangered Species Act (ESA) in 1973, it recognized that our rich natural heritage is of "esthetic, ecological, educational, recreational, and scientific value to our Nation and its people." It further expressed concern that many of our nation's native plants and animals were in danger of becoming extinct. **The purpose of the ESA is to protect and recover imperiled species and the ecosystems upon which they depend.** It is administered by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service (NMFS).



Under the ESA, species may be listed as either endangered or threatened. **"Endangered" means a species is in danger of extinction throughout all or a significant portion of its range.** **"Threatened" means a species is likely to become endangered within the foreseeable future.** All species of plants and animals, except pest insects, are eligible for listing as endangered or threatened. For the purposes of the ESA, Congress defined species to include subspecies, varieties, and, for vertebrates, distinct population segments.



Tennessee purple coneflower

Thanks to the Endangered Species Act, gray wolves have now started to recover in the continental United States after human persecution brought them to the brink of extinction. Wolves play an important role in the entire natural system, bringing balance and maintaining healthy herds by reducing the spread of wildlife disease like Chronic Wasting Disease (CWD). Research shows that gray wolves regulate the behavior of elk and deer populations, keeping herds from overgrazing. This allows trees to grow in greater abundance, grasses to grow taller, and other animals down the food chain to flourish, strengthening the resiliency of the entire ecosystem. The reintroduction of wolves to Yellowstone National Park is an example of this success.

Excerpts from:

- <https://www.sierraclub.org/home>
- <https://abcbirds.org/bald-eagle-the-ultimate-endangered-species-act-success-story/>
- <https://www.popsci.com/endangered-species-act-recovered#page-8>



7 Steps to Add Native Plants to Your Yard to Benefit Birds, Bees, Butterflies and Other Wildlife

From: <https://dnr.wi.gov/news/Weekly/article/?id=4249>



Cedar Waxwing with Juneberry, also called Serviceberry

Adding even one or two native plant species to a property, whether a city lot of hundreds of acres, can make a difference for birds, bees, butterflies and other wildlife, state conservation biologists say. They encourage gardeners to dip a toe in the water - or jump right in - this planting season by following these steps.

- 1. Figure out what kind of soils you have, how moist or dry those soils are, what growing zone you are in, and the amount of sunlight your property receives** to determine what kind of native plants will work for your area.
- 2. Consider wildlife needs when creating the list of plants to include.** Providing multiple species in flower throughout the growing season will allow multiple types of animals - birds, bees, butterflies and more - to use your garden. Plants with open, bowl-like flowers are good for bees while those with more specialized flowers, like blazing stars, mints, milkweeds etc., can be good for butterflies, hummingbirds and bees.

Colors also are important in attracting a variety of animals. Hummingbirds, for example, are attracted to bright flowers. Many plants in the aster family, including coneflowers, sunflowers, asters, and goldenrods, are excellent food sources for songbirds by attracting insects in the spring and providing seeds in the fall. Native shrubs such as serviceberries, dogwoods and viburnums can supply food and shelter for song birds as well. Native grasses can be used as host plants for butterflies and habitat for songbirds.



Eastern Tiger Swallowtail on Joe Pye Weed

3. Do some prep work before you put your new native plants in the ground. You'll have to remove the existing vegetation. This may be done most easily with a rototiller, although smothering the existing vegetation with mulch for up to a year is also effective and less destructive to soil. You may also spray a systemic herbicide a few weeks before planting.



4. Amending soils may be a good idea, particularly if they are compacted. Incorporating organic materials such as compost or peat moss can battle compaction by improving water infiltration, allowing young plants to establish. *Generally, it is unnecessary to fertilize native plants;* fertilizing may only encourage weeds.

5. Decide whether to use seed or plants. Plants will establish faster but cost more. Seed can be cheap but some species are difficult to establish by seed and others will not appear aboveground for a few years. Seeding is generally more effective for prairie or wetland plants, whereas woodland plantings generally require starting with plants. Favor seed and plants that are locally-sourced (generally within 50 miles to the north/south, and 100 miles east/west), open pollinated, and seed-grown, as they will more reliably support Wisconsin's native wildlife.



Wild Lupine, a host plant for the endangered Karner Blue Butterfly



6. In a prairie garden, decide what ratio of grasses to flowering plants, or "forbs," you want. Grasses can establish quickly and become abundant, so plant a greater percentage (by weight of total seed mix) of forbs. In a prairie garden, tall forbs may flop over if not supported within a matrix of grasses. Consider using a cover crop of an annual grain like oats or rye if planting a prairie garden with seed.

7. Once the plants are in the ground, keep up the weeding, especially in the first couple seasons, to allow native plants to gain a strong foothold. Ultimately, a native plant garden can lessen the amount of time you spend watering, mowing and fertilizing your yard, but it may take a few years.



Bumblebee on Wild Bergamot, also called Beebalm

For more information on what native plants will do well in your area to support a variety of wildlife, for specific recommendations for pollinators and for birds, and where to get native plants, check out these resources:

- Wisconsin Native Plants: Recommendations for Landscaping and Native Community Restoration - <https://dnr.wi.gov/files/pdf/pubs/nh/nh0936.pdf>
- Wisconsin Stopover Bird Habitat links - <http://www.wisconsinbirds.org/migratory/links.html>
- Saving Wisconsin's Pollinators - <https://dnr.wi.gov/topic/EndangeredResources/pollinators.html>
- Wisconsin Native Plant Nurseries - <https://dnr.wi.gov/files/pdf/pubs/er/er0698.pdf>



Jay Watson, WDNR

Simple Steps to Help Pollinators



Plant Natives



Give Water & Shelter



Minimize Pesticides



Monitor & Report

Simple Steps to Help Pollinators

Plant Natives

Blazing Star
Liatris pycnostachya
Liatris aspera

Coneflower
Echinacea pallida
Echinacea purpurea

Aster
Symphotrichum laeve
Symphotrichum oolentangiense

Joe Pye Weed
Eutrochium maculatum
Eutrochium purpureum

Milkweed
Asclepias syriaca
Asclepias incarnata
Asclepias verticillata

Give Water & Shelter

Pollinators need water to drink and safe places to rest, avoid bad weather, and spend the winter. You can provide:

- ◆ Brush and leaf piles
- ◆ Bee nest boxes
- ◆ Bare earth
- ◆ Water such as a bird bath

Minimize Pesticides

Insecticides can harm or kill pollinators, and herbicides can kill the plants they need to survive. Avoid pesticide use in your pollinator garden.

Monitor & Report

Report your observations of bees, butterflies, and other pollinators. Visit watri.net/cbm to learn more.

Visit dnr.wi.gov and search for "Pollinators" to learn more



Farm & Garden Planting Problems

By Scott Reuss, Marinette County UW-Extension Agriculture/Horticulture Agent

Excess moisture has made 2019 into a difficult year getting most areas planted. Marinette County farms have only been able to get approximately 55-60% of their total crop acres planted. Additionally, perennial forages and winter wheat / winter rye had a very difficult winter, resulting in most fields having at least some dead spots and many fields not worth keeping. The primary reason for the overwintering problems was excess moisture in late fall and January, resulting in standing water and ice that killed almost anything under it. We also had some rather cold temperatures prior to our heavy snow months of February and March.

With the cooler weather, we are significantly behind normal in growing degree day accumulation. We are one full week of 80 degree high and 60 degree low temperature days behind 2018, which was also slightly cooler than normal in May/June. Although most individuals reading this article are not involved in production agriculture, I believe many will be interested in knowing what farms can do in such a difficult year. This article is split into options for our vegetable gardens and then a review of the options/choices facing our area's farms.

Later/Late Vegetable Planting

Most gardens did not get planted on time for their early season crops, such as peas, onions, brassicas (cabbage family), and a few other things. Many gardens are literally still under water or extremely muddy. For most warm-season crops, planting in the first couple weeks of June is fine, and should be alright throughout all of June if they are shorter-season cultivars. However, once we hit the first week of July, changes need to be made. Although it is not too late to plant a vegetable garden, it is definitely too late to plant some things. There are actually a number of vegetable crops that do better, or taste better, in the cooler days of late summer and fall than they do during the heat and long days of mid-summer. The key to a successful late planted garden (any planting dates from July 4th and later) is cultivar/species selection and paying attention to good plant management practices.

Species which can still work well: Radishes, turnips, broccoli, kohlrabi, peas, green onions, kale, collards, lettuces, green/yellow beans, mustard greens, swiss chard, beets, smaller carrot types, spinach (but heat may cause fast bolting), radicchio, most of the 'Asian' greens, and you may possibly be able to get a few other things to work if you have started plants. As another option, you could choose to plant a cover crop to use as a green manure for the 2020 garden season.

Cultivar selection is always a very important part of planting a later season garden, as well. For example, winter radishes will often do better than regular radishes; short-season cabbage or carrot cultivars will get mature whereas long-day cultivars may not; branching broccoli often matures faster and has higher yields than regular broccolis, and many other examples. Further, with some of these species, particularly leafy greens, you may be better served to wait until August to plant them, as the heat and sun of July cause them to be more bitter than normal.

What not to plant: Melons, squashes, or pumpkins; tomatoes, peppers, potatoes or eggplants; sweet corn; parsnips; rutabagas; dry beans; onions (except for green use); lima beans; root crops not mentioned above; cucumbers; long-season cabbage, cauliflower, carrots, or anything with a days-to-maturity rating of more than 60, unless you have started them as plants inside.

Some species may need extra care or a bit more thought. For example, green beans planted in early to mid-July will usually be very productive, but after August 5 or so, they are unlikely to get mature prior to a frost. Cabbages you start as plants will do quite well, but they need protection from the sun when you plant them. They do not want to experience the full sun and heat of July or early August, so consider placing shade cloth of some type over them for their first few weeks, mulching around them to keep the

soil cooler, and/or shading them so that they do not get full sun during mid-day at least.

Many young seedlings will also have better survival if you mulch the rows lightly with straw or something similar. Do not mulch so heavily that no sun gets to the soil, but 50-80% shade may be about right. Without any soil shading, the soil surface on a full sun July day can easily get over 100 degrees, and that can literally cook young seedlings. Watering your plants is important, especially during July and August, as the upper layers of soil may dry out fairly quickly, so pay extra attention to young plants and areas that you have just seeded. Frost protection is critical as September approaches. Getting your vegetables through those first cool nights with blankets isn't too hard. Most of the cabbage family plants can handle temperatures down to 26 or 27 degrees without damage. Plant thinning is more important, as there is less sunlight as the season progresses, so make sure you thin appropriately and weed timely. Consider planting some of these late-season vegetable or herb crops in some type of containers. Although water management is more critical, you will be able to move the containers in and out of the sun, AND move them in and out of a temperature-controlled area to get away from early frosts. For more information about container gardening, see resources at our website at <https://marinette.extension.wisc.edu/horticulture/>.

Agricultural Options

Realistically, we can call planting of corn and soybeans after May 10 as late planting, due to likely yield losses of these crops any time that we are planting after that date. Grain producers have a range of possibilities, due to the likelihood that they have crop insurance, those are reviewed in the next paragraphs. Livestock producers need to produce feed for their animals, so are most likely planting forage crops yet, but using different species or facing different realities of yield potential, harvest timing, and other management difficulties.

Forage Crops can be planted throughout the year, in some cases. Short-season crops such as oats, spring wheat or barley, or mixes of small grains and other annual forages can be planted until about mid-August or even a bit later and still get a viable, economically justifiable yield of good quality forage. However, highest yields are going to be achieved by planting corn silage, sorghum-sudangrass, or other summer annuals. As in the gardens, selection of what is planted and how they are managed become very critical.

In Marinette & Oconto Counties, the final planting dates for full crop insurance coverage are: corn for grain - May 31; corn for silage - June 5; and soybeans - June 10. If a farm planted fields after these dates (pretty much a guarantee for most farms this year), they had a couple different options to consider. Most farms will choose the 'Late Planting' option and will continue to plant and accept a slightly lower insurance coverage level, as the insurance guarantees decrease by 1% of the value per acre for each day after the final planting date. At 25 days after the final date, the crop insurance guarantee is set at 60% of the initial guarantee. However, late planting may not make the most sense for all farms and there is another option - 'Prevented Planting', of which there are actually two different options - Full or Partial. Prevented Planting is only an option if at least 20% of the farm's acres are affected (and at least 20 acres for smaller farms).

The final possibility is for farms to cancel their crop insurance on affected acres, meaning that they would not pay the premiums for those acres and there would be no coverage. However, they can then plant whatever they want on those acres and harvest as desired.

If you have questions about any of these concepts, or any other agricultural or horticultural questions, contact Scott at the Marinette County UW-Extension office at 715-732-7510 or e-mail sreuss@marinettecounty.com.

Area Farmers' & Flea Markets



Crivitz Flea & Farmers' Market: Open every Thursday from May 23 through August 29, 8am-4pm across from St. Mary's Catholic Church at 800 Henriette Avenue. Wide variety of vendors with handmade arts & crafts, antiques, collectables and much more! Contact Barbara Uhl at 715-854-2030 to rent space by day or season up to first market date. Bonus Flea Market - July 4, 8am - 4pm.

Stephenson Island Out to Lunch: Will be at Stephenson Island, north on Hwy. 41 off the Interstate Bridge between WI & MI border. Every Wednesday, beginning on June 19 from 11 am to 1 pm. Includes Farmers Market. For more information 715/732-4333.

Menominee County Farm & Food Exchange: Saturdays 9 am-noon outside by the Jack's Fresh Market grocery store at 1207 8th Ave., Menominee MI (just over Interstate Bridge to the right). On Facebook or call 906-639-3377.

Menominee Historic Downtown Farmers Market: June 1 to September 28, Saturdays 9am-noon. Located at 800 1st Street (near the library) in Menominee, MI. Contact Lucy Pier, 906-863-8718 for more information. Online at www.menomineefarmersmarket.com.

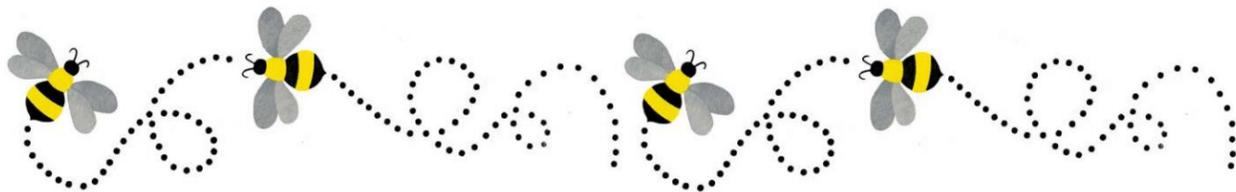
NLMGA Biennial Garden Walk this Month

Northern Lights Master Gardeners are holding their 9th, now biennial, Garden Walk on July 20, 2019. Eight gardens will be featured this year, with locations from Marinette to Crivitz. There are country gardens, waterfront gardens, and wooded gardens of all sizes to wander through.

Tickets will be available at Jack's Fresh Market, Marinette Farm & Garden, Piggly Wiggly in Crivitz and the Marinette Co. Extension office for \$10.00 prior to the walk. Walk day tickets will be sold at Harmony Arboretum and all garden locations for \$12.00. Children 12 and under may attend for free this year with an adult.



Area Events Calendar



- May 29** **Area Museums Open.** Marinette & Menominee County Historical Museums, Peshtigo Fire Museum, Amberg Historical Complex, Busville Doll Museum (Crivitz), Land of Oz Museum (Wausaukee) & West Shore Fishing Museum (M-35 north of Menominee, MI). Visit <http://therealnorth.com/index.php/features/museums> or call the Marinette/Menominee Area Chamber of Commerce at (715) 735-6681.
- May 23 - August 29** **Crivitz Flea & Farmers' Market**, every Thursday from May 23, 2019 through August 29, 2019, 8am-4pm located at the St. Mary's Catholic Church parking lot across from the Village Hall at 800 Henriette Avenue. Wide variety of vendors with handmade arts & crafts, antiques, collectables and much more! Contact Barbara Uhl at 715-854-2030 or buhl@vocwi.com to rent space by day or season up to first market date. **BONUS FLEA MARKET** – July 4, 2019 8am – 4pm
- June-October** **"Out to Lunch"**, Every Wednesday, beginning on June 19 from 11 am to 1 pm. Includes Farmers Market. be at Stephenson Island, located North on Hwy 41, off the Interstate Bridge between the WI and MI borders. 2pm-6pm on Fridays No Saturdays. For more information, please call 715/732-4333.
- June-Sept.** **Forgotten Fire Winery Summer Concert Series, Peshtigo.** Join the fun every Saturday in June, July, August and September for the outdoor concerts. Music starts at Noon and ends at 4 pm. No carry-ins please. Visit www.forgottenfirewinery.com events for a full listing of artists performing during the 2019 season.
- July 4** **Crivitz 4th of July Event.** American Legion Parade at 11am, flea market downtown all day, after parade at Community Veterans Park food by VFW, beverages by American Legion, bouncy houses and Littleland Park is open. Crivitz's Biggest Fireworks display ever at 9:45 pm and shot from Spur Street. For more information, visit www.villageofcrivitz.com.
- Thursdays in July** **Movie in the park** ~ A different movie each week starting at 8:45 pm. Playscape Park Area. Community Ed will have free popcorn and water. Movie is cancelled in cases of rain. Bring bug spray & lawn chairs and/or blankets to sit on. Visit the Event Calendar at Crivitz.com to find out the Feature movie of the night. Contact Jolene Huc for more information 715-927-3184.
- July 6** **Wausaukee 4th of July Celebration** 9am. Wausaukee 4th of July Celebration, parade, kids games, food, beverages, live music, and fireworks at dusk. Parade on Main Street with celebration held at Steve Stumbris Memorial Park.
- July 10** **Bands at Badger Park. Badger Park in Peshtigo.** Wednesday nights, 6-8 pm. *Rocker, Rocker, Rocker.* Free musical entertainment with concessions available at 5:00 pm. Call Peshtigo Chamber of Commerce at 715-582-0327 for more information
- July 12, 13 & 14** **9TH Annual Logging & Heritage Festival – Marinette – Stephenson Island** ~ There are plenty of activities for children and adults, free inflatable jumpers, on-site concessions, crafters, and plenty of music to entertain festival participants. For more information contact Chairperson, Judy Alwin, at the Marinette Welcome Center 715-732-4333 or committee member Sarah Monahan at Marinette City Hall 715-732-5139.
- July 16** **Concert in the Park** ~ The *BearWalkers* band will perform at the Stephenson Island bandshell from 6 to 8 pm.
- July 19** **Kayak Tour** ~ Wild River Invasive Species Coalition will host a kayak paddle event at 9 am at Memorial Park Launch in Menominee. Lindsay Peterson will lead a paddling tour to inform the public of invasive species and what they can do to help prevent their movement around the Great Lakes. For more information, people may call, 906-774-1550 – ext. 102.
- July 24** **Bands at Badger** ~ Music by *Music Jar*, free to the public from 6 to 8 pm. Concessions will be available.
- July 25** **Concerts in the Park – Menominee Bandshell.** At 6:30 to 8:30 pm. *Dirty Deuces.*
- July 27** **Menekaunee Old Timers Picnic** Held at noon at Red Arrow Park for anyone age 50 and older, with ties to Menekaunee. Bring own lawn chairs and beverage. Cost is \$10 if paid by July 22 or \$15 if paid later. Checks should be made payable and sent to Menekaunee Old Timers, 160 W Bay Shore St., Marinette, WI 54143. People may call Sharon, 715-735-5577, for more information.
- July 27-28** **Annual Brown Trout Derby** Held at the Menominee Memorial Marina. Fishing contest is for cash and prizes, along with raffles for other prizes. Food and refreshments provided by American Legion Post 146. For more information, people may call Tom at 715-923-5615 or Jerry at 715-923-4254.
- July 27** **Wagner Fire Department Fundraiser Picnic.** Held from 11 am to 8 pm at the Menominee River Park Highway 180 at County Trunk X. Music by *RoseBrook* from 12:30 pm. Attendance prizes, special raffles, food and refreshments available. Main prize drawing at 8 pm. The public is welcome.



Harmony Arboretum Schedule of Events



Located seven miles west of the City of Marinette off of Highway 64, then ½ mile south on County E. All programs are free and at Harmony Arboretum unless otherwise stated. For more information, call UW-Extension at 715-732-7510 or Land & Water Conservation at 715-732-7780.



July 2 - Landscape Plant Disease ID & Management, 2:00 - 4:00 pm

Join Dr. Brian Hudelson, UW Plant Disease Diagnostician, for a hands-on opportunity to learn about both common and unusual diseases that affect our landscape plants. His insight will help you be able to better identify and manage these disease. Attendees are welcome to bring samples from their own landscapes.

July 9 - Ancient Gardening Techniques for Northern WI, 6:30 - 8 pm

People have adapted their food cultivation practices to overcome soil, climatic, and pest challenges for centuries. Common traditional soil amendments, landscape adaptations, and companion plantings will be discussed, as well as contemporary applications of these techniques.

July 20 - 9th Annual Garden Walk, 9:00 am - 4:00 pm

Northern Lights Master Gardeners sponsor this self-guided tour of local private and public gardens. For more details visit the website. Same day tickets available at Harmony Arboretum. Adult Tickets - \$10 advance, \$12 at event; Children under 12 free. See page 7 sidebar.



August 5 - Astronomy at the Arboretum, 7:45 - 9:00 pm

Introduction to stars, constellations, star lore, and other space-related topics - includes a stargazing tour. Dress for the weather, beverages will be provided; if rain or mostly overcast, event will be cancelled.

August 7 - Prairie Walk, 6:00 - 8:00 pm

Stroll the 17-acre prairie at Harmony Arboretum with local native plant enthusiasts. Spend an evening learning what constitutes a prairie and why people are creating or restoring them. The trail is approximately one-half mile and does cover uneven terrain.

