

# Northwoods Journal - June 2014

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

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## 2013 Land & Water Conservation Division Activities

By Greg Cleereman, County Conservationist

The **Land & Water Conservation Division** (LWCD) is part of the Marinette County Land Information Department. We primarily work with private citizens, especially farmers and waterfront property owners. We also help local schools, units of government, other agencies and service groups. This article will give you a sense of how we served Marinette County's citizens in 2013. It does not cover everything we do, but highlights major program areas.

### Agricultural Runoff Pollution

Most fish kills and contaminated wells around the state in recent years occurred when melting snow delivered winter spread manure to groundwater or lakes and streams. To prevent water contamination, we help farmers voluntarily implement practices that divert clean water away from contamination sources. Other best management practices collect manure, contaminated water, feed leachate and milk house waste and convey them to a manure storage facility.



Manure storage contents accumulate until they can be spread and incorporated into crop field soils. This generally occurs in the spring and fall. Manure is either directly injected into the soil or quickly plowed under where plant roots can reach it but precipitation cannot wash it away. Most Marinette County farmers implement a nutrient management plan limiting the field-applied nutrients to no more than what crops need. Manure contains substantial amounts of plant nutrients. By considering those nutrients, farmers save money on commercial fertilizers and do not over apply them.

In 2013, the LWCD obtained \$728,739.63 in state cost sharing for six cooperating landowners. We also designed practices and supervised construction for those projects that included:

-  6 Manure Storage Facilities
-  2 Barnyard Runoff Control Systems
-  536 acres of nutrient management planning
-  2 Feed Leachate Transfer Systems
-  3 Barnyard Roofs

Installation of Manure 6 storage facilities ended winter manure spreading on 1,540 cropland acres and bring the cropland total area, no longer winter spread with manure, to more than 43,800 acres. Barnyard Runoff Control systems diverted 614 pounds of phosphorus to manure storage facilities instead of reaching surface and ground water. Scientists estimate that each pound of phosphorus can support the growth of 500 pounds of aquatic plants.

### Aquatic Invasive Species

In the last 10 years, invasive species control and prevention have been our biggest areas of program growth. Invasive species Common Reed (*Phragmites australis*) and Eurasian Water

Milfoil have been especially problematic for hundreds of Marinette County landowners. To control of these invasive plants, the LWCD continues to build and expand partnerships with other agencies, counties, local units of government, and service groups.

### Clean Boat Clean Waters Watercraft Inspection Program

This three-year program ended last fall. Over the life of the program, watercraft inspectors spent 1736.5 hours educating boaters about the importance of preventing the spread of Aquatic Invasive Species (AIS). They inspected 2,153 boats and talked to almost 4,800 people. When asked, 84% of boaters reported they inspect their boat and trailer for hitchhiking plants and animals. 96% of boaters were aware of state laws regarding transport and removal of AIS.



### WRISC

Marinette County continues to be an active partner in the Wild Rivers Invasive Species Coalition (WRISC), a cooperative weed management area encompassing Marinette, Florence, and Forest Counties and Menominee and Dickenson Counties in Michigan. WRISC members share resources to prevent, detect, and manage invasive species. In 2013 WRISC obtained funding for several projects that will be implemented this year including:

- **The Menominee River Watershed Inventory Project** will compile and prioritize invasive species infestations of the Menominee River Watershed. Invasive species documented during this project will be submitted to the Midwestern Invasive Species Information Network (MISIN) database. The project is focusing on mapping Purple Loosestrife, Phragmites, European Swamp Thistle, Japanese Barberry, Autumn Olive, Tansy, Japanese Knotweed, Common and Glossy Buckthorn, Eurasian/Hybrid Watermilfoils, and Zebra Mussels.
- **A Rapid Response Crew** will seek out and treat small invasive species populations before they spread. It is no secret controlling established invasive species requires a large input of labor and equipment (including herbicide) over several years. However, when populations are caught early, they are much easier to control. Small populations require less time and money, and, because they usually do not have extensive seed banks, are possible to completely eradicate!
- **The Private Forest Land Invasive Control Project** will help private landowners manage invasive species populations on private non-industrial forested parcels of 500 acres or less. The control project runs through 2015. WRISC staff will create 5-year invasive management plans for selected properties.

## **Pollinator Week is June 16 - 22, 2014!**



*Pollinator Week was initiated and is managed by the Pollinator Partnership.*

Seven years ago, the U.S. Senate's unanimous approval and designation of a week in June as "National Pollinator Week" marked a necessary step toward addressing the urgent issue of declining pollinator populations. Pollinator Week has now grown to be an international celebration of the valuable ecosystem services provided by bees, birds, butterflies, bats and beetles. The growing concern for pollinators is a sign of progress, but it is vital that we continue to maximize our collective effort. The U.S. Secretary of Agriculture signs the proclamation every year.

Pollinating animals, including bees, birds, butterflies, bats, beetles and others, are vital to our delicate ecosystem, supporting terrestrial wildlife, providing healthy watershed, and more. Therefore, Pollinator Week is a week to get the importance of pollinators' message out to as many people as possible. It's not too early to start thinking about an event at your school, garden, church, store, etc. Pollinators positively affect all our lives- let's SAVE them and CELEBRATE them!

*Continued next page*

### 2013 Activities, continued

Some rapid response funding is available to begin control work on high priority infestations, but long term control funding is not guaranteed.

- **The Private Land Terrestrial Forest Invasive Species Inventory** will map terrestrial forest species located within Forest, Florence, and Marinette Counties. Terrestrial forest invasive species include but are not limited to: Garlic Mustard, Japanese Barberry, Oriental Bittersweet, Glossy Buckthorn, Autumn Olive, Japanese Knotweed, European Marsh Thistle, Asian Honeysuckle, and Common Buckthorn.

#### Eurasian Water Milfoil Control

Eurasian Water Milfoil (EWM) is a very aggressive aquatic plant that has spread to 21 county lakes since 1979. EWM spreads easily by fragments caught on trailers and boat motors. These plants form dense beds that restrict navigation and even fish movement.



The Beecher and Upper Lake District continues their efforts to control EWM. LWCD staff applied for a WDNR Aquatic Invasive Species control grant to modify the dam and dredge a channel to facilitate a drawdown. EWM cannot survive being dry and frozen. A drawdown of the lake can expose the EWM to those conditions. However, Beecher Lake dam has a fixed crest with no gates to alter the water level. Sedimentation near the dam has made it impossible to draw the lake down enough to control EWM. In 2011, the lake was drawn down using siphons, but water levels could not be drawn down far enough to kill the EWM.

A hydraulic plant harvester, partially funded by a WDNR Aquatic Invasive Species control grant, was completed. The harvester incorporates a large pump mounted on a pontoon boat and a system to collect plants and fragments. The harvester also delivers a supply of air to a diver who vacuums individual plants from the lake bottom. LWCD staff will harvest pioneer aquatic plant infestations too small to justify herbicide treatment and provide follow-up control after chemical treatments.



Thunder Lake was selectively harvested using the hydraulic harvester. LWCD staff monitored Little Newton Lake for EWM to follow up on previous herbicide treatments and hydraulic harvesting. No remaining EWM was found, although monitoring will continue.



#### Environmental Education

The following quote sums up our rationale our environmental education programming. *"In the end we will conserve only what we love. We will love only what we understand. We will understand only what we are taught."*

Exposure to outdoor activities and natural wonders helps people understand and appreciate nature. The Teaching Outdoor Awareness and Discovery (TOAD) program is the heart of our educational efforts. TOAD started in 2001 with a modest 26 programs delivered to 1,461 individuals. In 2013, **5,139 people attended 174 TOAD programs.** TOAD is a collection of nature study and monitoring equipment LWCD staff bring anywhere within Marinette County. One full set of equipment, shared by all eight school districts, is the smartest use of limited funds and resources. Home school groups, scouts, 4H, UW-Marquette events, and adult groups also utilize TOAD programs.



Students learning about WI mammals in "Skins & Skulls"

We also administer Harmony Arboretum, located seven miles west of the City of Marinette on County Highway E. This 460-acre property has a prairie (with a new serenity circle), an interpretive nature trail through old growth hardwoods, and a diverse native plant community. The Northern Lights Master Gardeners Association, Chappee Rapids Chapter of the Audubon Society, Marinette County UW-Extension, WDNR and other agencies help us offer recreation and education.



A scavenger hunt in the Children's Learning Garden

The property centerpiece, the demonstration garden, is being built and improved through the tireless efforts of the Master Gardeners and UW-Extension staff. The demonstration garden is free and open year-round. Among the latest Demonstration Garden projects is the Children's Learning Garden (CLG). The CLG provides an opportunity for children to learn about gardening, experience nature close up, and gain a better appreciation for the natural world. The CLG is nearing completion. Stop out and see the 32-foot mural at Chipmunk's Tunnel, sundial, hedge maze, sensory gardens, and wetland demonstration.

#### 2013 Educational Highlights

- Using LWCD canoes, we helped Peshtigo Elementary teach canoeing and kayaking skills to 180 5<sup>th</sup> and 6<sup>th</sup> graders
- Ran our 8<sup>th</sup> annual Sand Lake Conservation Camp for 93 6<sup>th</sup> to 8<sup>th</sup> graders, who learned about conservation concepts and outdoor skills
- Held four Environmental Field Days for 465 4<sup>th</sup> Graders and adults who learned about 8 different conservation topics
- Provided an extensive display at the Marinette County Fair promoting natural shoreline which featured live reptiles, amphibians, fish and aquatic insects visited by 1,400 people
- 165 students (grades K through 12) from 7 County schools participated in the Wisconsin Land and Water Conservation Association Environmental Poster Contest

- Completed our 9<sup>th</sup> year of offering the *Northwoods Journal* at local businesses. About 5,000 FREE papers were distributed each month, June through September

#### Lake Noquebay Dam

Last fall, Land Information Department staff replaced the aging and deteriorating walkway and railing with treated decking and a new metal railing. In addition to providing maintenance access, the walkway is regularly used by local anglers. Marinette County is responsible for the Lake Noquebay Dam. The Lake Noquebay Rehabilitation District (LNRD) operates the dam to keep water levels in Lake Noquebay within limits set by the Dam Operation Permit.



For more information about the LWCD, our programs, services, or other information please contact the office at 715-732-7780 or visit online at [www.marinettecounty.com](http://www.marinettecounty.com) and go to the Land Information Department webpage. You can also email Greg Cleereman, County Conservationist, at [acleereman@marinettecountv.com](mailto:acleereman@marinettecountv.com).

### Annual Bird Hike at Harmony Arboretum



Join Greg Cleereman, Marinette County Conservationist, on **Saturday, June 14, at the Harmony Arboretum from 6:00-8:00 a.m.** Learn to identify birds by sight and song, and enjoy the scenery of the prairie and upland hardwoods. Over the years, about 80 bird species have been found here, including bobolink and black-billed cuckoo.

Binoculars and bird identification books will be available, but bring your own if you wish. The route is easy walking on internal trails and roads. Insect repellent is recommended. Harmony Arboretum is located seven miles west of the City of Marinette off of Highway 64, then ½ mile south on County E. For more information, call the LWCD office at 715-732-7780.

### Northwoods Journal Online

Would you like to read current issues of the *Northwoods Journal* online? Go to [www.marinettecounty.com](http://www.marinettecounty.com) and click "Northwoods Journal" in the Quick Links menu at the right of the page. We can send an e-mail reminder when each new issue is posted online. Contact Anne Bartels, Information & Education Specialist: [abartels@marinettecounty.com](mailto:abartels@marinettecounty.com) or call 715-732-7784 for more information.



## Kids need to play in the mud now and then

By Meg Lowman, December 2013

When baby boomers think back to their childhoods, they can probably recall a treehouse, a Boy/Girl Scout camping trip, family picnics, or a passion for fishing, hunting or horse riding. Now we need to bring back that halcyon childhood pastime of letting our kids (and grandkids) get muddy once in a while. Studies indicate that they will grow up healthier and happier because of a connection to nature.



**MUD SOUP**  
outdoor sensory pretend play

We are in the midst of a science education revolution. Federal funding for scientific research has been slashed relative to inflation. Our country currently attracts fewer youths from overseas to study science and engineering – talent that gave our technology an edge in the past. The science literacy of our citizens has eroded. This has far-reaching implications, and perhaps represents the most critical global challenge that America cannot afford to lose. A survey reported in 2002 in *Science*, the professional, peer-reviewed journal, found that more children knew the characters in the electronic, hand-held Pokemon game than could identify an otter, beetle or oak tree.

Never in the history of humankind has an understanding of science been more complex yet more important. Knowledge is the best weapon if young people are to make good decisions about personal health, climate change and sustainable use of natural resources. They need to know what affects the chemistry of the ocean, why tropical rain forests are critical to life in the temperate regions, how millions of years are required to create petroleum from dead plants, and why mercury builds up in fish.

In his well-known "Last Child in the Woods," author Richard Louv analyzes the societal problems that have arisen in the current generation of American youths, which has generally lost contact with natural science. Louv quoted a fifth-grader, who claimed, "I like to play indoors better 'cause that's where all the electrical outlets are." Louv defines "nature-deficit disorder" as the human cost of alienation from nature. That cost includes diminished use of the senses, attention difficulties and higher rates of physical and emotional illnesses.

Why not pledge to share the natural world with your children or grandchildren this year? Climbing trees, watching a spider build a web, watching snowflakes, or putting a few flowers on the kitchen table create connections to engage children in natural science, and inspire lifelong learning.



Meg Lowman, Ph.D., a forest canopy expert, is senior scientist at the N.C. Museum of Natural Sciences and research professor at N.C. State University.

## Reconnecting Children and Nature - Top Ten reasons to be concerned

From: [http://www.michigan.gov/documents/dnr/DNR-childrn-n-ntr-top10\\_347638\\_7.pdf](http://www.michigan.gov/documents/dnr/DNR-childrn-n-ntr-top10_347638_7.pdf)



### 1. Children between the ages of 8 and 18 years spend an average of nearly 6.5 hours a day with electronic media.

Rideout, V. and Hamel, E. (2006). *The Media Family: Electronic Media in the Lives of Infants, Toddlers, Preschoolers, and Their Parent*. Kaiser Family Foundation. (Note: this study was published in 2006 - think of how much bigger Facebook, iPhones and iPads have become since then)



### 2. Children under 13 spend only 30 minutes per week in unstructured play time outdoors.

Sandra Hofferth and J. Sandberg (1999), *Changes in American Children's Time, 1981-1997*, University of Michigan Institute for Social Research.

### 3. In one generation, the percentage of people who reported that the outdoors was the most influential environment of their childhood dropped from 96% to 46%.

Rachel Sebba (1991). *The Landscapes of Childhood – The Reflection of Childhood's Environment in Adult Memories and in Children's Attitudes, Environment and Behavior*, Vol 23:4.

### 4. Children who play outside in natural settings are less likely to suffer obesity and less likely to contract diabetes.

Center for Disease Control and Prevention (CDC) 2007. *CDC funds registries for childhood diabetes*. Press Release from CDC/ National Center for Chronic Disease Prevention & Health Promotion.



### 5. Studies have shown that stress levels fall within minutes of seeing green spaces. Even a view of nature helps reduce stress in highly stressed children. Children with these views also demonstrate increased attentional capacity.

Wells, N.M. & Evens, G.W. (2003). *Nearby nature: A buffer of life stress among rural children*. *Environment and Behavior* (32) 6, pp775-795.



### 6. Children who have regular opportunities for free/unstructured play in the out-of-doors demonstrate greater levels of creativity, cooperation, conflict resolution and leadership.

American Institutes for Research, (2005). *Effects of Outdoor Education Programs for Children in California*. Submitted to the California Department of Education, Sacramento, CA.

### 7. Students who play and learn in outdoor settings perform better on tests, have higher grade point averages (GPAs) and cause fewer classroom disruptions.

Chawla, L & Escalante, M. Student (2007). *Gains from Place-Based Education*. University of Colorado at Denver and Health Sciences.



### 8. Ninety percent of active adult outdoor participants were introduced to outdoor activities between ages of 5 -18.

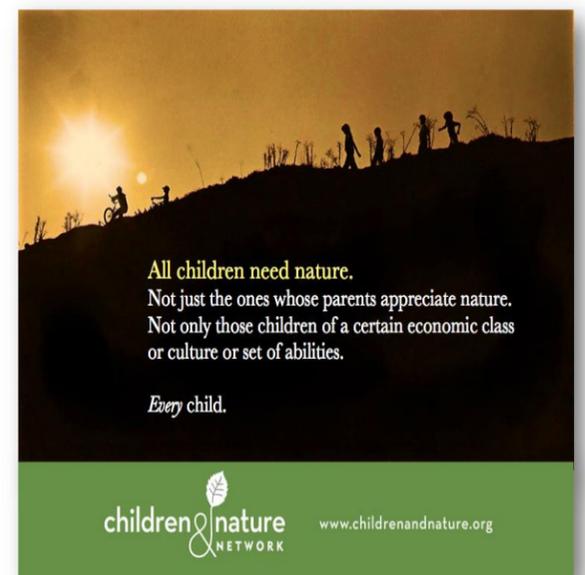
Outdoor Industry Foundation (2004), *Exploring the Active Lifestyle report*.

### 9. A positive experience in nature was a significant factor for those who choose to be active conservation stewards.

Louise Chawla (2006) *Learning to love the Natural World Enough to Protect It*.

### 10. People who are active in outdoor recreation tend to be happier than those who are not.

USDHHS (2002), *Physical Activity and Fitness: Improving Health, Fitness, and Quality of Life through daily physical activity*. Prevention Report, U.S. Department of Health and Human Services, 16(4).



#### Suggested readings and web sites

- *Last Child in the Woods: Saving our children from Nature-Deficit Disorder*, Richard Louv (2005).
- *The Thunder Tree: Lessons from an Urban Wildland*, Robert Michael Pyle (2011).
- The Children & Nature Network: [www.childrenandnature.org](http://www.childrenandnature.org)
- Environmental Education in Wisconsin <http://eeinwisconsin.org>
- National Wildlife Federation – Be Out There! Initiative: [www.nwf.org/be-out-there.aspx](http://www.nwf.org/be-out-there.aspx)
- U.S. Department of Agriculture, Forest Service: Discover the Forest at: [www.discovertheforest.org](http://www.discovertheforest.org)
- North American Association for Environmental Education: [www.naaee.net](http://www.naaee.net)



## Shoreland Zoning in Marinette County

By Ryan Parchim, Zoning & Sanitary Technician

Careful use of land surrounding our lakes, rivers, and streams is essential to protect Marinette County's water resources. Numerous fish and wildlife species require good water quality to survive and prosper. Our waters also provide us with the recreational opportunities that help us relax such as fishing, boating, swimming, and watching wildlife. Protecting our water is essential to our economy since many vacationers, homeowners, and businesses are drawn to our waterways. **Shoreland/Wetland Zoning** serves to help protect the quality and the natural beauty of our waters by supporting appropriate land use around our lakes, streams and rivers.



The Wisconsin Legislature delegated responsibility to counties to further the maintenance of safe and healthful conditions; prevent and control water pollution; protect spawning grounds, fish and aquatic life; control building sites, placement of structures and land uses; and to preserve shore cover and natural beauty. To meet this responsibility, the County requires a **Shoreland Zoning Permit** before placing or building a structure within 1000 feet of a lake, pond, or flowage or 300 feet of a river or stream.

Improper development in shoreline areas often causes erosion, disturbs fish and wildlife habitat and detracts from the natural shoreline appearance. To minimize these effects, shoreland ordinances require structures be set back from the **Ordinary High Water Mark (OHWM)** and have a set minimum distance for the side yards.

Minimum building setbacks from the OHWM were developed to provide space for a stretch of undeveloped shoreline to be used as a buffer. Shoreline buffers protect many facets of lakes and streams including water quality, fish and wildlife habitat, and natural scenic beauty. Setbacks from other lots and roads enhance privacy, prevent conflicts with neighbors, and are safer.



Maintaining a naturally vegetated buffer is one of the best things a shoreline property owner can do. It's a critical component to a healthy lake or stream. Here, fallen leaves and wood are broken down and digested by insects and microorganisms that in turn provide food for fish and other predators further up the food chain. Larger woody debris is colonized by aquatic insects and used as hiding places. Standing dead trees provide homes for cavity nesting birds like wood ducks and woodpeckers. Other species also use these snags for resting or feeding perches.

Vegetation hanging into the water, fallen trees, littoral zone vegetation, the shallows, all reduce wave energy. Trees and shrubs growing on the shore hold soil in place. The result is little shoreline erosion. A turf lawn provides none of these benefits (below).



Natural shoreland vegetation traps polluted runoff and prevents silt from choking spawning beds and other productive areas that are typically rich with aquatic life. Leaf litter on the ground soaks up rain and slowly releases it to plant roots or ground seepage. A natural buffer also provides privacy - a rare commodity these days. Light from yards and headlights cannot shine from across the lake if trees and shrubs are in place. We can better enjoy a full moon, a starlit sky, or an evening bonfire without the intrusion of unnatural light.

We all know how sound travels across water on a calm night. An intact buffer blocks and absorbs noise that would otherwise limit our enjoyment of natural sounds. Peace and quiet was the second most important reason for owning property according to a survey of Wisconsin lakefront property owners. What was the most important reason to settle on lakeshores according to that same survey? Natural scenic beauty!

So, rather than clearing your property of vegetation before construction even begins, leave the buffer intact until you move in. You might need to remove a lot less vegetation than you thought. Take time to understand and appreciate the pleasures and benefits of being surrounded by nature before you fire up the chain saw. Wildlife, and your neighbors, will thank you.



An example of a shoreline buffer

The **Marinette County Shoreland/Wetland Zoning Code** requires a 50-foot vegetation zone from the OHWM in which only a 30-foot wide view and access corridor may be cut. However, sufficient trees, shrubs, and groundcover plants must be left to screen structures as seen from the lake. Outside the view and access corridor, vegetation cutting should be limited to preventing erosion, slowing the flow of pollutants, protecting wildlife habitat, and preserving natural beauty.

A Shoreland Zoning Permit and more information can be found on the Marinette County Website under Departments - Land Information Department - Zoning. You can also pick up a copy at the Land Information Department located on the first floor of the Marinette County Courthouse at 1926 Hall Ave in Marinette.

If you have any additional questions please call 715-732-7535 or email [rparchim@marinettecounty.com](mailto:rparchim@marinettecounty.com).

## Free fishing and admission days at state parks in June!

### State Parks Open House Day, June 7-8

Enjoying Wisconsin state parks, forests, trails and recreation areas is a bargain any time of year but on the first full weekend in June they are an exceptional value, as entrance to any state properties is free. No admission stickers are required on vehicles and trail passes are not required for activities ranging from bicycling to horseback riding on state trails. In addition, Saturday, June 7 is *National Trails Day* (see below) and fees are waived to use all DNR-managed state trails as well.

### National Trails Day, June 7

National Trails Day is held the first Saturday of every June. All trail fees on all department owned properties are waived on National Trails Day. The weekend of statewide open house day coincides with "Free Fishing Weekend," the first consecutive Saturday and Sunday in June.



### Free Fishing Weekend is June 7-8.

Fish anywhere in Wisconsin without a license or trout stamp on Free Fishing Weekend. This includes all inland waters and Wisconsin's side of the Great Lakes and Mississippi River. Other fishing rules apply, such as limits on the number and size of fish you can keep and any seasons when you must release certain fish species. So, pack up the family or call your friends and head to the water for fishing fun. (Pssst! Winter Free Fishing Weekend will be January 18-19, 2015.)



### Local State Parks & State Forests

- ✓ **Menominee River State Recreation Area** is located in northeast Marinette County along several miles of the Menominee River. No single road traverses the entire property. The lower property has five maintained access roads with parking areas that connect to town roads (may be difficult to travel during wet periods). The southern portion of the property has primitive hiking trails and canoe/walk-in campsites.
- ✓ **Governor Thompson State Park.** With more than 2,800 acres of woods, a family campground, picnic area on Woods Lake, skiing and hiking trails, and six miles of shoreline on the Caldron Falls Flowage, visitors will find an atmosphere that is perfect for solitude, reflection, and recreation. It's located near the village of Crivitz off of Parkway Road.
- ✓ The **Peshtigo River State Forest** has 25 miles of river, 3,200 acres of water and 9,200 acres of forest on the Peshtigo River State Forest. Established in 2001, the property is Wisconsin's newest state forest, purchased from the Wisconsin Public Service Corporation and includes the Potato Rapids Flowage, located 20 miles southeast of the main forest. This long, linear state forest borders some of the most beautiful and exciting sections of the Peshtigo River.
- ✓ **Copper Culture State Park** is an independently-operated museum that details the life of the Copper Culture People, who lived in this area over 5,000 years ago. It's open Memorial Day through Labor Day, Sunday through Saturday, 11:30 a.m. to 4:30 p.m. Admission is free but donations are appreciated; a State Park sticker is not required. It is located off of Highway 41 in Oconto - take the highway 22 exit to Copper Culture Way (look for the signs).

For directions & more information, please visit <http://dnr.wi.gov> or call the Peshtigo DNR office at 715-582-5000 (M-F 11am-2pm). You can also visit [www.travelwisconsin.com](http://www.travelwisconsin.com).



## Every Lake is a Mirror

By Chuck Druckrey, Water Resource Specialist

In the US there are 122 lakes named Mirror or Little Mirror, in Wisconsin there are 15, in Marinette County we have two. But in reality every lake is a mirror since every lake reflects the land around it. This is true when you can see the reflection of the shoreline in the lake, but more importantly, in the fact that the water quality of a lake “reflects” the land around it.



In lake management there is a saying that “a lake is a product of its watershed”. That is to say, what happens in a lake’s watershed determines the lake’s water quality. The **watershed of a lake is the land area that drains to the lake**. In seepage lakes, otherwise known as “pothole” lakes, the land area that drains to the lake may extend no more than a stone’s throw from the water’s edge. On the other end of the spectrum, drainage lakes with one or more inlet streams can have huge watersheds. Lake Noquebay is 2,162 acres in size, but drains an area covering more than 86,000 acres.

Whenever there is runoff, be it snow melt or rain, water flowing across the land dissolves, floats, or otherwise carries substances as it makes its way downslope to the nearest lake or stream. This is an entirely natural process that delivers organic material and nutrients that feed our lakes and sustains aquatic life. Without this transport of materials our lakes would be very unproductive and unable to support healthy fish populations. Of course, like people, too much nutrients in the lake is a bad thing.



The amount of nutrients delivered to a lake from its watershed is determined by land use, and as land use has changed over time nutrient delivery has increased. Before Europeans arrived, mature forest of varying types was the dominant land cover in Marinette County. It turns out that mature forests are very good at capturing water and recycling nutrients. As a result, the volume of water and the amount of nutrients and organic material in the runoff from mature forests is very low.



Mature white pine forest, Menominee Reservation



During the mid-1800’s most of the forest in Marinette County was clear cut with no thought given to the impacts on our lakes and streams. As a result, streams were choked with sediment and nutrient transport to lakes increased dramatically. As bad as this was, the impact was relatively short-lived; where forests were allowed to regenerate, the nutrient delivery slowed as well. Today loggers employ management practices designed to minimize runoff and erosion.

After the logging boom, much of the land in Marinette County was cleared for agriculture. As you might imagine, regular tillage and the use of fertilizers greatly increases both the amount of runoff and the nutrient concentration. While most of the northern part of the county was eventually reforested, much of the southern half of the county remains in agricultural land use to this day, and while modern farming practices are aimed at reducing soil erosion and nutrient runoff, agricultural land will always export more nutrients than when it was forested. In fact studies have shown that, on average, **even well-managed agricultural land exports ten times more nutrients than forested land**. Lakes receiving runoff from agricultural lands reflect this increased nutrient loading by producing lots of weeds and algae.



An overhead view of an algae bloom in a lake

In the 1920’s and 30’s, our lakes saw an increase in shoreline development as people from Chicago, Milwaukee, and the Fox Valley traveled north for vacations. At first, most of the development was camps and resorts. Soon, however, people started buying up property to put up their own little cabin. Today, most of those little cabins have been replaced with second homes. This urban development has also lead to increased nutrient delivery to lakes. This is primarily a function of increased area dedicated to roads and rooftops, and maintained lawns. Roads and rooftops are **impervious surfaces** - they do not absorb water. Although not impervious, the soil under lawns is so compacted that its ability to absorb water is drastically reduced. Studies have shown that land use with 30% impervious surface, such as a typical subdivision, will equal or exceed the nutrient loadings from agricultural land. We see this in the poor water quality found in most urban lakes.



An example of shoreline development

It’s not just urban lakes that have suffered. Even low density development, with as little as 15% impervious surface and 40 to 50% forest cover will increase nutrient loading by a factor of 5. This is the type of development we see around most lakes in Marinette County.

**Continued next page**

## Wisconsin Parks Explorer program – Get kids outdoors!

**Share nature with your children!** Today, many children are growing up in structured environments that don't allow much time or freedom to play outdoors. By helping them connect to things they discover in nature, you nurture values of good stewardship and build strong bonds that will last for a lifetime.



Make tracks to the nearest state park, forest, trail, or recreation area and ask for a free **Wisconsin Explorer** booklet. Inside you'll find nature activities, scavenger hunts, games, hikes, and crafts to help you explore Wisconsin's great outdoors together.



Kids who complete the requirements will earn collectable state symbol patches. Don't just sit there - get out and start *Exploring the Extremes* together!

### Wisconsin Explorer program grows with kids

There are three age levels in the *Wisconsin Explorer* program (3-5 years, 6-8 years, and 9 years and up). Three themes help kids explore different parts of the great outdoors. With nine booklets, a three-year-old can begin the program this year and participate until age eleven without repeating a booklet.



### Educators and youth leaders

The *Wisconsin Explorer* program is designed for individual children visiting state properties with family members or adult friends. As an educator, you are invited to use *Wisconsin Explorer* booklets and activities with children in your class or group. However, children in these groups **cannot** earn patches.

Educators and youth leaders can download the booklet PDF files or request one hard copy of each booklet. Permission is granted to copy individual activities, journal pages, or entire booklets as long as copyright information remains on each page.

For more information about the **Get Outdoors!** program contact Sherry Wise, 715-365-8966 or [Sherry.Wise@wisconsin.gov](mailto:Sherry.Wise@wisconsin.gov). Or go online at: <http://dnr.wi.gov/topic/parks/getoutdoors/we.html>



## Invasive Species Alert! New Zealand Mud Snail

By Ryan Parchim

Trout anglers around the state this year are packing a scrub brush and water jug to give a new invasive snail the brush-off.

Last October, the Department of Natural Resources confirmed the existence of a potentially prolific invasive species, the **New Zealand Mud Snail**, in Dane County's Black Earth Creek. The snails, so tiny they look like grains of sand, were found in one of the hundreds of samples DNR biologists collect every year to track the health of Wisconsin waters.



New Zealand Mud Snails are a potentially harmful aquatic invasive species (AIS) that first arrived in the United States in the late 1980s. They quickly spread through western streams – often on the waders and gear of recreational stream users. It's hard to predict how the snails will impact our streams, as in some western locations they have had minimal impact, or the snail populations have crashed after an initial boom. But in the worst case scenarios, mud snails have reached densities up to 500,000 per square meter, changing native food webs and potentially decreasing trout size and abundance.

The good news is you don't have to avoid fishing Black Earth Creek or any stream. However, after leaving any lake or river statewide, you are required to clean and drain water from equipment before entering another lake or stream. You disinfect your gear to reduce the risk of spreading New Zealand Mud Snail and other aquatic organisms.



### **Before leaving a waterway:**

#### **Required:**

- INSPECT equipment and REMOVE attached plants and animals
- DRAIN all water from equipment
- NEVER move live fish away from a water body.

#### **Better:**

- SCRUB equipment with a stiff brush, including crevices, to remove adults
- RINSE equipment with tap water to remove juveniles

#### **Best:**

- CHANGE gear before entering another stream.
- DO NOT USE felt soled boots

Taking steps to prevent the spread of the New Zealand Mud Snail and other aquatic organisms just takes a few extra minutes but can help keep our trout populations and fishing strong.

For more information about Wisconsin exotic species, visit <http://dnr.wi.gov/topic/invasives/> or contact Ryan Parchim, Marinette County Aquatic Invasive Species Coordinator: 715-732-7543 or email [rparchim@marinettecounty.com](mailto:rparchim@marinettecounty.com).

### *Mirror Lakes, continued*



Examples of runoff sources

Lakes mirror their watersheds in more ways than one. In addition to the increased nutrient loading, the changes we make to the shoreline area effects habitat and aquatic life in the lake. Many studies have shown that lakes developed according to current standards (minimum 100 foot wide lots) are experiencing significant changes in fish and wildlife populations. The native forests and adjacent shoreline provide complex habitat that supports an abundance of insects, amphibians, and other wildlife. **When a shoreline is developed this complexity is lost and the number and types of wildlife is rapidly diminished.** The lakes reflect this change as well. Many insects and amphibians that form the base of the food web disappear and once productive shallow-water habitat is lost.

**So how do we fix this problem?** We need to do what we can to reduce our impact on lakes and their watersheds. *This means following best management practices to reduce agricultural runoff. In urban areas and developed shorelines it means reducing impervious surfaces and increasing infiltration using practices like rain gardens. Using phosphorus-free fertilizer will help as well. On the lakeshore it means giving up the nice neat lawn and restoring some slightly messy forest habitat.* The fish and frogs will thank you!

**Above all, remember that a lake is a reflection of its watershed. What we do the land around our lakes we also do to the lakes themselves.**



## ***JUNE 2014 is Wisconsin's 10th Annual Invasive Species Awareness Month***

**Protect the Places Where You Play:  
Keep Invasives Out!**



**Why?** Invasive plants and animals threaten Wisconsin's waters and wildlands by outcompeting and destroying native plants and animals and by disrupting the complex habitat systems. They also threaten the productivity and economic viability of Wisconsin's agricultural lands by creating overwhelming competition with crops. Millions of dollars, both public and private, are spent each year for the control of invasive plant and animal species in Wisconsin's waters, wildlands and agriculture lands.

**What?** Learn about the issues surrounding invasive species (both plant and animal, aquatic and terrestrial) in Wisconsin by attending workshops, field trips and lectures. Also participate in invasive species control work parties.

**Who?** Hundreds of citizens of all ages across the State of Wisconsin.

**Where?** Nature centers, botanical gardens, natural areas, lakes, rivers, agricultural fields, parks, schools, institutions of higher learning, natural history museums...

**When?** Throughout the month of June.

**How?** Watch this website for further updates on the many activities that will take place.

### **Education Summit – Registration Open Now!**

**Wisconsin's Third Annual Invasive Species Education Summit** hosted by the Wisconsin Invasive Species Council and the Wisconsin Department of Natural Resources will be **Tuesday, June 10th, 2014 from 8:30am – 4:00pm at Beaver Creek Reserve in Fall Creek, WI.** Register online at <http://invasivespecies.wi.gov/awareness/section.asp?linkid=808&locid=63> or call Jennifer Feyerherm at (608) 266-6437; email [Jennifer.Feyerherm@Wisconsin.gov](mailto:Jennifer.Feyerherm@Wisconsin.gov).

*Would you like to lead an activity in your area or help with Awareness Month planning?*

Contact:  
Coordinator  
Invasive Species Awareness Month  
[ISAMcoordinator@gmail.com](mailto:ISAMcoordinator@gmail.com)

### **Northwoods Journal** Volume 12, Issue 1

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.

#### **Published in cooperation by:**

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

*UW-Extension provides equal opportunities in employment and programming, including Title IX and ADA. To ensure equal access, please make requests for reasonable accommodations as soon as possible prior to the scheduled program. If you need this material in another format, please contact the UW-Extension office at 715-732-7510.*

Please send comments to:  
Marinette County LWCD  
1926 Hall Ave, Marinette, WI 54143  
[abartels@marinettecounty.com](mailto:abartels@marinettecounty.com)



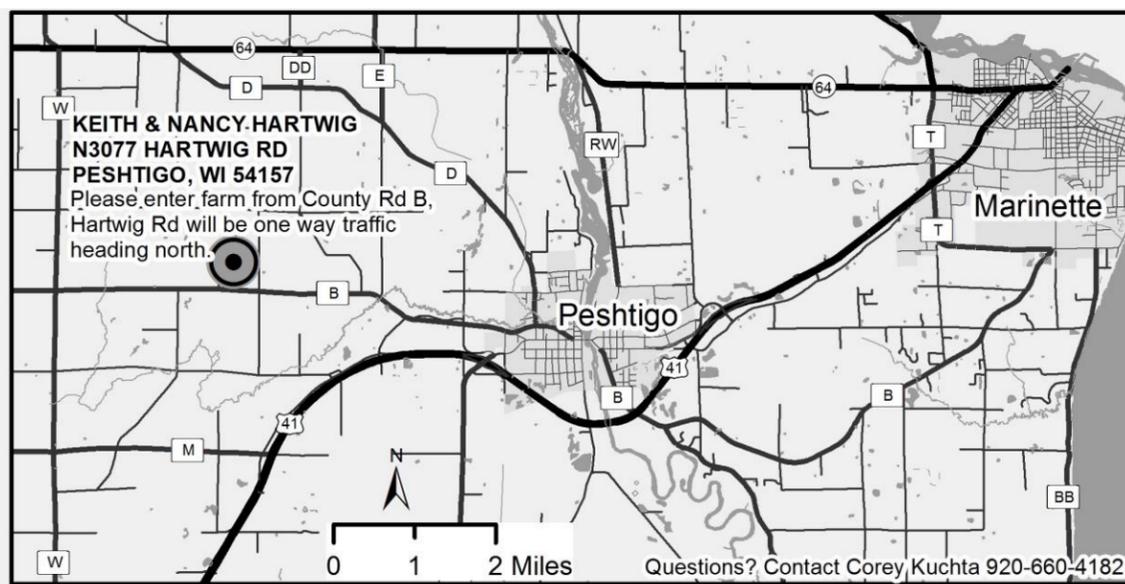
## Marinette County Breakfast on the Farm

Sunday, June 29, 2014, 7:30 a.m. to 12:00 p.m.

Hosted by the Hartwig Family of Peshtigo

The Hartwigs invite you to join them on Sunday, June 29, 2014 for the Marinette County Breakfast on the Farm! The Hartwig Family Farm is owned and operated by Keith and Nancy Hartwig; their son, Kyle, his wife, Kelly and their family. The farm is run smoothly with the assistance of daughters, Stephanie and Katie, along with the hired help, who are like family. In 1940, Keith's parents, Lester and Viola, bought the 80-acre farm from Nick Butzohl and purchased additional parcels of land, doubling the size of the farm to 160 acres with forty milking cows.

After working all his life on the farm, Keith and his wife Nancy purchased the farm from his parents in 1985. Over the years, additional land was purchased and the farm currently owns or rents 510 acres. Along with the increase in size came improvements over the years, including heifer facilities, free stall barn, manure pit, bunkers, double 8 parallel milking parlor and additional machinery. The land supplies the feed for 160 milk cows, 145 replacement heifers and 140 steers. All the animals are raised on the farm from calf on.



**Ticket information:** Adults - \$6 Kids (6-10) - \$4 Kids aged 5 & Under = Free!  
(No Advanced Ticket Sales)

Join us for our all-you-can-eat selections, including pancakes, eggs, sausages, cheese curds, locally tapped real maple syrup, milk, coffee, and finish your day off with an ice cream sundae! After eating, plan on taking part in all the activities the Breakfast on the Farm Committee has set up for this year. Of course, the star of the show will be touring the Hartwig Farm and learning more about modern dairy operations. In addition, there will be a petting zoo, face painting, kids' comedy act, music, a kids' activity/games area, and the display & exhibits tent.



### **Emissions: Not just a lot of hot air**



The Environmental Protection Agency recently released the 19<sup>th</sup> edition of the *U.S. Greenhouse Gas Inventory Report*. This report is a compilation of data related to the release of compounds known as "greenhouse gases" via industry, agriculture, and other means. If interested, the entire report can be seen at <http://epa.gov/climatechange/ghgemissions/usinventoryreport.html>.

The major points of the report are that total emissions were down from 2011 to 2012 by 3.4%, and down about 10% since 2005. **Whatever your take on global warming, it cannot be seen as a negative that our society is decreasing the release of chemicals into our atmosphere.** There are four compounds or types of compounds tracked in this report. By far, the largest component of overall emissions came from carbon dioxide at 82% of total releases. Methane, at 9%, was the second largest source of emissions. Nitrous oxide was third at 6%, and fluorinated compounds comprised about 3% of total emissions.

*Agriculture is one of the five sources of emissions that are reported in this document.* Agriculture's contribution to these emissions is primarily via nitrous oxide and methane. Nitrous oxide is released as part of soil & nutrient management activities - from both nitrogen fertilizers and manure, while methane is primarily released via methane production in animals and then during manure management. *The other four major sources of emissions and their contribution to total emissions are: Electricity production (32%); Transportation (28%); Industry (20%); Commercial & Residential (10%).*

Overall, agricultural activities contributed just under 10% of total U.S. emissions in 2012, which represented essentially the same overall amount (think cubic feet) of emissions as 2011. However, since other sectors actually declined, the percentage of emissions attributed to agricultural causes was up just slightly from 2011. The EPA did note that this occurred even though overall production units increased, indicating that emissions per unit of production is continuing to decrease.

We all play a role in helping maintain a healthy environment and farms play a huge role in protecting our natural resources, as they manage such a large percent of our overall landscape. As this report indicates, farmers are continually improving their efficiency, allowing for greater food production but without sacrificing the resources they depend on for that production.

### **Meet the New UW-Extension Horticulture Program Assistant!**



Greetings! I am writing to you as the newest addition to the UW Extension Office. My name is Gina Thompson and I recently began my UW-Extension career as the Horticulture Program Assistant.

After receiving an Associate's Degree in Horticulture, I went on to perform landscape maintenance, installations & renovations for several years which was a great "hands on" learning experience. Looking for a new challenge within the green industry, I jumped at the opportunity to work at a native plant nursery in Door County. My future husband Sean and I made the move from our hometown of Oconto to pursue a new life. We got married, had a son, Odin, and priorities changed - which is what brought us back closer to "home" and our relatives.

My time in Door County was very beneficial - managing the nursery exposed me to many different aspects of landscaping from professional to the homeowner level. I learned so much from our customers, whether it was helping them resolve an issue or simply giving advice on plant selection, they always had me thinking! There is a lot to learn about gardening, which can be a bit daunting, but since I have taken the perspective of wanting to know a little about everything, each topic is not as overwhelming. I have yet to find a passion to focus on, and being an optimist I know that something will trigger my attention and I will never let go!

On a personal note, beyond spending as much time with my husband and son as I possibly can, my hobbies include extended camping trips off the beaten path, hours of fishing, even mindless weeding in the garden. I have not done much vegetable gardening and by default I know that I will be gaining priceless knowledge while at Harmony. This is a good place to include eating... I will try just about anything! I like to dabble in projects like freehand wood burning and photography, mostly nature, which is showing to be less of a challenge than our son is!

Most gardeners would ask what my favorite plant is, which is a tough question. My favorites change with the seasons, but my all-time classic is a Daisy with all its simplicity. Bur Oak because of its grand stature, Hepatica with its anxious flowers, the unique Maidenhair fern... Oh I could go on! My newest favorite is Twinleaf (*Jeffersonia diphylla*). It is somewhat uncommon which makes it even more intriguing to me. I tend to gravitate towards the woodland setting with its subtle but yet outstanding beauty.

I am excited for the future in this position, so many great people to meet and work with. I look forward to indulging my senses at Harmony Arboretum and surrounding myself with like-minded people. The best part is that when I have a question about anything I know that someone will have an answer or know someone who knows someone who does. The wealth of information available here is amazing!

You can reach me at 715-732-7510 or email me at [gthompson@marinettecounty.com](mailto:gthompson@marinettecounty.com).



## Area Events Calendar



- May 26-Oct.** **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/museums.htm> or call the Marinette/Menominee Area Chamber of Commerce at (715) 735-6681.
- June-October** **Stephenson Island Market** (new name and location). Marinette Farmer's Market will be at Stephenson Island, located North on Hwy 41, off the Interstate Bridge between the WI and MI borders. 3-7pm on Tuesday evenings and 7am-noon on Friday mornings. No Saturdays.
- June-August** **Crivitz Flea & Farmers' Market**, every Thursday from 8am-4pm 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 to rent space by day or season up to first market date.
- June-August** **Bands at Badger Park.** Badger Park in Peshtigo. Wednesday nights, 6:30-8:30pm. Free musical entertainment with concessions available at 5:30pm. Call Peshtigo Chamber of Commerce at 715-582-0327 for more information.
- June-August** **Concerts in the Park.** Evergreen Park in Wausaukee. Sundays at 2pm. Refreshments are available, bring your own seating. June 1, 8, 15, 22, 29; July 13, 20, 27; August 3, 10, 17.
- June-August** **Forgotten Fire Winery Summer Concert Series.** Join the fun every Saturday in June, July and August for the outdoor concerts. Music starts at 1 pm and ends at 4 pm. No carry-ins please. Visit [www.forgottenfirewinery.com](http://www.forgottenfirewinery.com) for a full listing of artists performing during the 2014 season.
- June 6-8** **Copperfest in Oconto.** Kickoff breakfast will be 6:00-8:30am - fabulous weekend of family fun with live music, entertainment, children's activities, street market, & plenty of refreshments. Friday 5-11p.m., Saturday 11a.m.-midnight, Sunday 11a.m.-5p.m. Small admission fee. For more information call Oconto Chamber of Commerce at (920) 834-6254.
- June 8** **M&M Community Flea Markets.** 7am-2pm. No charge for set up but vendors will sign a waiver & set up along pre-marked spaces at left entrance to Mall parking lot. This is a new location, set up next to old car dealership building, just south of Mikolas Jewelry. Tents available to rent from ACE Hardware. Questions email [hbayerl@hotmail.com](mailto:hbayerl@hotmail.com).
- June 7-8** **Michigan's Free Fishing Weekend.** Two days twice a year, families & friends can enjoy Michigan Fishing, for FREE! All fishing license fees will be waived for two days. Residents & visitors can fish on both inland and Great Lakes' waters for all species of fish. All other fishing regulations still apply. Call 906-228-6561 for more information.
- June 14** **Annual Interstate Stock & Custom Car Show.** 7am-3:30pm on Stephenson Island in Marinette. Anyone wishing to show a car, truck or motorcycle is welcome - entry fee of \$5 required. Free to the public. Food, music, games and prizes awarded. Awards at 2:30pm. New this year for the kids is a scale model car contest and sponsored by Stephenson Cycle Werx. For more information call Jim Armstrong at 906-863-3036.
- June 14-22** **32nd Porterfield Country Music Festival.** Green's Green Acres, 6 miles west of Marinette just off Hwy 64. Gates open at 9am June 8th. Original artists, camping, live music, concessions and Nashville stars. Check [www.countrymusicfestival.com](http://www.countrymusicfestival.com) or call 866-456-4333 for info & tickets, 715-789-2130 for camping and 920-834-2465 for concessions.
- June 15** **Free Admission for Dads & Families.** Free pool admission for families who are accompanied by their Dad from 1-4:30pm and free tennis for dads and their families from 12-5pm at the Civic Center indoor tennis courts. Call 715-732-5222 to reserve your court time.
- June 18** **Concerts in the Park – Marinette.** 7pm, Stephenson Island Chamber of Commerce Performance Center, Highway 41-Interstate Bridge, Marinette, WI. The Tinker Boys - a wonderful blend of vocals, guitar, fiddle and banjo. Concerts are presented by Marinette Menominee Area Chamber of Commerce.
- June 20** **Family Water Bash.** At the Civic Center Pool from 6:15-8:15pm. (Regular admission rates apply). Theme is Country Music Night, for more information call the Recreation Department at 715-732-5222.
- June 21** **3rd Annual Jim Hodge Memorial Run.** All proceeds will be directed to the BAMC Foundation to support patients with lung issues and to promote organ donation in the Marinette/Menominee community. All donations are tax deductible. Run will be held at the YMCA in Menominee. Run starts at 9:30am, registration starts at 8am day of race or online at Jim Hodge Run/Active. Cost is \$20 for 5k and \$30 for 10k.
- June 21** **Meet the Fleet** at M&M Yacht Club, Menominee MI. 10am-4pm, take free boat rides on both power and sail boats. Call 906-863-7140 or email [info@mmyc.org](mailto:info@mmyc.org) for more information.
- June 21** **Family Water Bash.** Marinette Recreation Department is sponsoring water bash at the Civic Center Pool from 6:15-8:15pm (regular admission rates apply). This week's theme is "Something's Fishy". Call 715-732-5222 for more information.
- June 27** **Kids Fishing Derby.** 8am - noon at Stephenson Island. Marinette Recreation Department and Marinette County Trout Unlimited are sponsoring the event with awards and prizes in many categories. Participants should provide their own tackle and bait. No charge, but pre-registration is required at the Civic Center. Open to children ages five and up. Younger children may participate with a parent. Call 715-732-5222 for more information.
- June 27** **Concerts in the Park – Menominee.** 7pm, Great Lakes Memorial Marina Band Shell, First Street in Menominee, MI. Jazz Spectrum - plays ballads to big band sound. Concerts are presented by Marinette Menominee Area Chamber of Commerce.
- June 29** **Annual Art for All.** Art show and sale will take place at the Great Lakes Memorial Park from 10am-4pm with over 50 artists from all over the Midwest participating. This is a free event with live music, performances by First Street Academy of Dance, food vendors and a children's art area with "Make and Take" art projects. Visit Art For All on Facebook or visit [www.artforallinc.com](http://www.artforallinc.com). Rain or Shine.
- June 29** **BAMC Menominee River Century Bike Ride.** Begins at Marinette High School & includes 5 routes through scenic & historical sites in both Marinette & Menominee Counties with 10 fully stocked rest stops along the way. The 15K Family Fun Route features a rest stop with games, prizes and kid-friendly snacks. Registration discounts are offered for early registrants, groups and families. For more information and to register, visit [www.mrcride.com](http://www.mrcride.com) or find us on Facebook!
- July 4-8** **Area 4<sup>th</sup> of July celebrations/parades.** Call village/town/city halls for more information on times or call the Marinette/Menominee Area Chamber of Commerce at (715) 735-6681.

### **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 unless otherwise stated. For more information, call UW-Extension at 715-732-7510 or Land & Water Conservation at 715-732-7780.



#### **June 11: Summer Lawn Care, 6:30-8:00pm.**

Summer can be the most difficult time to manage lawns in our area, as weeds, lack of water, and hot soils combine to cause stress. We'll review all the different management activities we can do to help our lawn stay healthy, and do hands-on ID of lawn pests in our area.

#### **June 14: Bird Hike, 6-8 a.m. See page 5 sidebar for more details**

#### **June 17: Potato Pest Management, 6:30-8:00 p.m.**

Beetles, leafhoppers, fungi, bacteria, and viruses all can dramatically impact potato plants and tuber production. Learn how to identify different potato pests and different styles of management strategies.

#### **July 10: Enabling the Gardener, 6:30-8:00 p.m.**

If you or a family member are no longer able to garden because of an inability to get down to ground level, come to Harmony and see the Enabling Garden and learn how to stay involved in growing your own food and flowers with raised beds and wheelchair-accessible gardens.

### **What's Happening at the Children's Learning Garden?**

Welcome to 2014! This year we will be finishing up the front interior section of the Chipmunk's tunnel, adding some neat new displays, planning a beaver pond replica, an getting a new cabin for the Pioneer garden area. Come out and spend a few hours exploring and see what you find! The CLG/Harmony Arboretum is open year-round and free to the public.



*Insect hotel in the hedge maze*



*Ant & beetle display in the Chipmunk's tunnel*

