

# Bull Creek - Bull's Brook e-News



October 2016

## Upcoming Watershed Council Meeting

Please join us for the next Bull Creek -Bull's Brook Watershed Council meeting on Thursday, October 13, 2016 · 12:35-1:45 PM at Mundelein High School.

Mark Your Calendar

## 2016 Watershed Council meeting Schedule

**Thursday, March 16, 2017** · time TBD · Lake County Forest Preserve District.  
**June 2017** · date & location TBD.  
**October 2017** · date TBD · St. Mary's of the Lake.

## MHS students present STEM Research & Inquiry Information



Please join the Bull Creek-Bull's Brook Watershed Council on Thursday, October 13th from 12:35PM-1:45PM at Mundelein High School. Come listen to MHS students from the STEM Research & Inquiry Class present their findings. Lunch will be served. Mundelein High School is located at 1350 W. Hawley Street, Mundelein, IL 60060. Please enter through the main entrance on the east side of the building. Once inside, head to the District Meeting Room. A photo ID is required for entry into the high school. Visitor Parking is available on the main lot located off of Hawley Street. Overflow parking is available at the Kirk of the Lakes Presbyterian Church parking lot. If parking at the church, please enter through door #5 which has an overhang. Security will be notified. The meeting is open to anyone who would like to attend. Please RSVP by Friday, October 7<sup>th</sup> to Darcy McNeill at [DMcNeill@lakecountyiil.gov](mailto:DMcNeill@lakecountyiil.gov) or phone 847-377-7700 if you would like to join us.

## The State of Our Lakes

By Kathleen O'Connor, *Libertyville Township Supervisor*

Since the late 1960's, the Lake County Health Departments Lake's Management Unit has been collecting water quality data on the lakes in our County. In 2015, Butler Lake, Loch Lomond, Lake Minear and St. Mary's of the Lake were studied; data was collected on temperature, dissolved oxygen, phosphorus, nitrogen, solids, pH, alkalinity, chloride, conductivity, water clarity, the plant community, and shoreline characteristics. To view the complete reports, please go to <https://www.lakecountyiil.gov/2400/Lake-Reports>.

## Swimming Pools & the Environment

By Ken Klick, *Restoration Ecologist for Lake County Forest Preserves*

Owning a home swimming pool and hot tub can provide recreational fun, exercise, and increased personal enjoyment. As all pool owners know, maintaining safe swimming conditions requires constant attention to the water's chemistry. A sanitizing chemical containing chlorine, bromine, or peroxide is usually added to the water to kill harmful microbes, while algacides containing copper or quaternary ammonium cationic polymers and pH balancers like sodium carbonate are added to control algae growth and pH, respectively. Despite their chemical benefits to pool maintenance, these chemicals are toxic to aquatic life when released into our watershed's wetlands, stream, and lakes.

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In order to protect the environment, the Illinois Environmental Protection Agency (IEPA) recommends pool owners follow a few guidelines before draining their pools. First, contact your local municipality to determine if direct discharge into a sanitary sewer is required. For instance, in Lake County, the City of Highland Park has a pool water sanitary sewer discharge requirement. This requirement enables the city's water treatment facility to detoxify highly chlorinated waters so that fish kills in the community's waterway don't occur.

No matter whether a sanitary sewer discharge requirement exists, at a minimum, the IEPA recommends de-chlorinating your pool water by allowing the water to "neutralize" before draining. Do not "shock" your pool water before draining, but instead allow the water to sit at least 3 days while receiving a reasonable amount of sunlight to allow the chlorine to breakdown. It is recommended that the chlorine level be tested after 3 days to ensure that safe chlorine levels are met. Chlorine levels below 0.1 mg/l must be achieved before discharge.

Once de-chlorinated, pool water can be released across your lawn or into the sanitary sewer for municipalities with a discharge requirement. To reduce the chance of flooding your or a neighbor's property, move the discharge hose around to allow for deep soil saturation without ponding. Do not empty the discharge hose on your driveway or into a storm sewer that leads to our watershed's watercourses.

These recommendations are based on guidance from the Illinois Environmental Protection Agency.

**INTERESTING FACT:** County records show that there are 172 in-ground pools located in the Bull Creek-Bull's Brook watershed. This does not include the hundreds of self-installed above ground pools. That is over 6 million gallons of pool water!

## Birdscaping Project to Progress with Fall Workdays

By Paul Geiselhart, *Lake County Audubon*

The recent dedication of the new trail extension in Libertyville Township Open Space has created the opportunity for planting hundreds of shrubs and several dozen trees that will line the trail. Approximately 700 plugs have been planted already; a mix of native grasses, sedges, and forbs. In addition, Township crew members have already sowed approximately 5 acres of seeds.

The trail extends north from the trailhead on Castleton Road in the Timber Creek neighborhood. Another trailhead is at the east end of Bull Creek Drive, called the Bull Creek Spur, extending east then north under the ComEd power lines. The Spur gives access to a variety of trails in all directions, for example, the Millennium Trail, the Des Plaines River Trail, and access to Oak Openings north of Casey Road to the northwest. Part of an ongoing project to provide food and shelter for birds and other small animals, "Birdscaping Libertyville Open Space"\* is the result of public-private cooperation. It included input from Lake County Audubon Society and nearby residents.



### Volunteers Birdscaping

Volunteers will be needed to help install the approximately 49 native trees and 200 shrubs on Saturday, October 22nd, 9AM-1PM. In addition to local residents from Bull Creek and Timber Creek, Lake County Audubon and

Conserve Lake County members, we encourage other groups such as Scouts and high school students to participate.

Enter the trail at the east end of Bull Creek Drive; car pool, walk, or take your bike if possible. Volunteer day #2 will be Saturday, November 5, 2016; rain date is November 19, 2016. Volunteers should dress for the weather and bring work gloves and a favorite shovel. Snacks, water, and portable restrooms will be available.

This is a wonderful opportunity to participate locally in an activity that will make a life-long difference. Contact [audbirds@aol.com](mailto:audbirds@aol.com) to volunteer.

\*Footnote: Please refer to the May 2016 *Bull Creek-Bull's Brook eNewsletter*.

## No Milkweeds, No Monarchs!



Monarch Butterfly

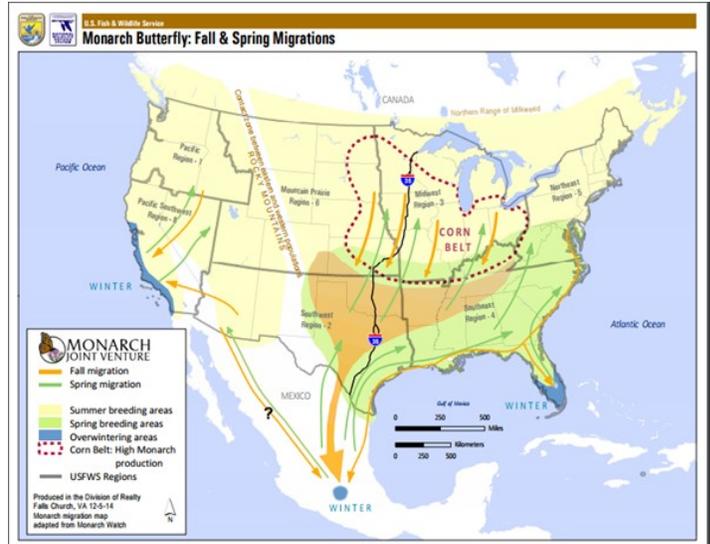
Food, glorious food, all living things need it to survive. Monarch butterflies as well as other species of insects and small mammals provide us with one out of every three bites of food through pollination. In addition to feeding the hungry, pollinators aid in

plant reproduction to create natural resources that sustain the ecosystem.

Nature works because of pollinators. A plant's flowers are evolutionary tools used to attract pollinators with the prospect of a meal. Many plants reproduce through pollination. Pollination is the process of transferring a plant's flower pollen or male sex cells from one plant to another plant's stigma or female reproductive organ to create seeds. These seeds contain the genetic information needed to produce a new plant, the primary goal in nature.

Monarch butterflies, *Danaus plexippus*, are prolific pollinators and Illinois' state insect. Its habitat includes weedy areas, prairies, roadsides, pastures, and marshes. Most monarchs found in Illinois migrate 2,500 miles annually, pollinating plants throughout the corridor that extends from Canada to Mexico. Monarchs overwinter in the Sierra Madre Mountains of Mexico. During the warmer months, these pollinators head north to spend spring, summer, and early fall mating in corridor states that possess an abundant supply of milkweed.

Monarch Identification	
	4 bright orange wings with black veins & white markings
	Wing underside is drab orange-brown in color
	3 1/2 - 4 inch wing span
	Hair-like scales cover the wings
	Black body segmented into head, thorax, & abdomen
	Black head has eyes, a pair of antenna, & mouth
	Caterpillars have numerous white, yellow, & black bands



Monarchs' Migration Range by Season  
spring range in green, summer in yellow and fall in orange  
Diagram courtesy of U.S. Fish & Wildlife Services

Milkweed of the genus *Asclepiasis* is the lifeblood of the monarch caterpillar or larvae. It is the only thing they eat! Why are the caterpillars such picky eaters? First, the caterpillars grow rapidly consuming the highly nutritious milkweed leaves increasing their weight almost 3,000 times in a two-week period. More importantly, the milkweed leaves contain toxins that accumulate in the monarch caterpillars and future butterflies bodies. This accumulation of toxins, an evolutionary survival mechanism, makes them taste unpleasant to many predators. Monarch larvae and adults need milkweed plants to survive, therefore preserving and growing these native plants is crucial in protecting this pollinator.



Common Milkweed

Photo by David Taylor

Although this magnificent insect is not endangered, their populations have been steadily declining over the last 25 years. On November 12, 2015, the U.S. Department of Ag-

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riculture announced a new conservation effort to help Midwest and southern Great Plains agricultural producers provide food and habitat for monarch caterpillars and butterflies in an effort to help combat the iconic species' decline given that their health is essential to our food supply. Environmental conditions such as climate change, drought, and human activities have influenced the decline in the Monarch population. Deforestation, pesticide use and the resultant diseases are some of the human factors that have placed the monarch population under tremendous stress. Now is the time to change the culture; people need to care about their impact on the environment. It is up to everyone to provide a habitat where monarchs can reproduce, grow, and pollinate. There many ways the average homeowner can support these pollinators:

- Construct a butterfly garden or waystation in a sunny location by removing grass and replacing it with nectar producing plants, basking zones, a water source, and shelter. Feed a monarch caterpillar or butterfly. North America has over 100 native milkweed species, many of which are used by monarchs. Learn which species of milkweed or other nectar producing species to plant in general and more specifically, by ecoregion. Seeds kits are available for purchase by visiting the Bring Back the Monarchs Campaign.
- eliminate the use of pesticides and herbicides, especially *Roundup*, in your garden since these have a detrimental effect on pollinators themselves and their food source;
- use outdoor lighting sparingly since it can be disruptive to pollinators;
- avoid creating overly manicured lawns and gardens. Leave areas of bare ground, dead wood, and leaf litter for ground nesting bees and other pollinators;
- plant native trees to shelter butterflies and moths including: oak, cherry, willow and hackberry;
- spread the word to your friends, family, and neighbors about the role of pollinators in food production and ecosystem health;
- contact your local government and encourage officials to establish monarch waysides on public or

corporate lands;

- work with your township to reduce roadside mowing of native species, suggest that they follow Roadsides for Wildlife guidelines; *and*
- join local efforts to protect and restore natural areas and monitor pollinators. Encourage land stewards of parks, preserves, and wildlife areas to include more milkweed species in their restorations.

Nature without monarchs would be a very different place. Without the actions of these and other pollinators our food supply, agricultural economies, and surrounding ecosystems would collapse. Pollinators and monarchs in particular make an arduous journey to help ensure we have the food needed to survive. Anyone can join the movement to save the monarch; all one needs to do is create a pollinator habitat in six large pots or on 8'x10' plot of land filled with milkweed and other nectar producing plants. With a

## Spotlight on Invasive Species: Cattail

By Jonathan Happ, *Libertyville Township Open Space Coordinator*



**Cattail stand**

Photo by Missouri Department of Conservation staff

**S**een throughout the Midwest residing in detention basins, wetlands and roadside ditches, Cattails are an integral component of the natural ecosystem, a valuable resource to native fauna and at one time a staple of the Native American

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diet. They haven't always been as common as they are now however. Disturbances to their natural habitat and the introduction of a non-native cattail species has increased their range and population to levels that in some cases have become detrimental to the systems in which they occur.

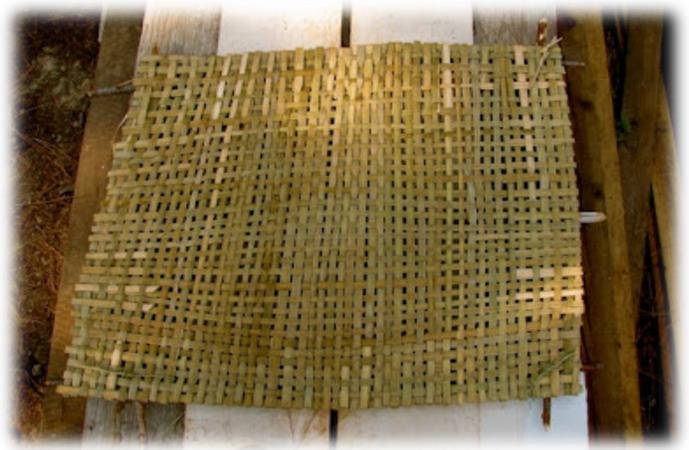


### Cattail Root System

Photo by Missouri Department of Conservation staff

Midwest populations are comprised of three species, the native Common cattail, *Typha latifolia*, the non-native Narrow-leaved cattail, *Typha angustifolia*, and the commonly sterile Hybrid cattail, *Typha x glauca*. Cattails are only found in wet areas and are particularly abundant in areas with a history of disturbance such as nutrient loading, water level fluctuations, high salinity levels, and siltation. Cattails can be found in roadside ditches, water retention areas, disturbed natural wetlands, and damp areas of suburban and rural yards. Reproduction by both the sterile hybrid and non-sterile species takes place via splintering of rhizomes by muskrats or human activities and the subsequent transportation by water or animals to a new habitat where the splinters grow to form new clones. Both species are prolific seed producers; however, the seeds of the hybrid are commonly sterile. The miniscule seeds of the sausage shaped flower head are spread by wind and remain viable in the seedbank for long periods of time. Midwest wetland ecosystems have experienced a large increase in cattail abundance due to the anthropogenic disturbances listed.

Cattails are an important component of ecosystems along the water's edge where they reduce the erosive impact of wave action and boat wake on the shoreline. Cattails are an effective filtration system for water flowing into wetlands, lakes, and riparian areas removing excess nutrients and sediment. They are being used on a limited basis in phytoremediation efforts around the world to remove and sequester pollutants such as arsenic from water. The highly nutritious young shoots and rhizomes are used by a variety of marsh dwelling animals as food and the mature leaves are used as shelter building materials most notably by muskrats, *Ondatra zibethicus*. Submerged portions of the plant are also used as spawning habitat and shelter by fish.



### Cattail Mat

Photo by The Sustainable Living Project

Cattails have been used for millennia by humans for food. Every part of the plant is edible when harvested at the right time from the rhizomes to the pollen. Mature leaves were used by Native Americans to create baskets, mats, rope, and boats. The seed heads were used as torches, the seeds as insulation and stuffing, and the pollen as flour.

Herbicides can be used effectively to control cattails but must be approved for aquatic use. Submergence of cut living and dead leaves will suffocate and kill the rhizome. Grazing of new shoots will reduce stand vigor and will increase the areas available to native vegetation. An integrated approach using more than one control method will be the most effective. Contact your local land management agency for helpful tips before conducting cattail control.

For more information about identification and control visit the Wisconsin Department of Natural Resources Invasive Species webpage at <http://dnr.wi.gov/topic/Invasives/>.

## Liberty Prairie Foundation

The Bull Creek-Bull's Brook Watershed Council would like to extend our thanks to the Liberty Prairie Foundation (LPF) for financially supporting stakeholder coordination and outreach in the Watershed. The Foundation generously awarded the Watershed Council a grant to support coordinating watershed meetings and events, and in recent years that support has been used to help produce the Watershed E-News. The Liberty Prairie Foundation's mission is to promote the integration of healthy ecosystems and the vibrant human communities they support. Thank you LPF for your commitment to clean and healthy waters in our watershed communities!

## Upcoming Events . . .

**Des Plaines River Watershed Planning meeting; Wednesday, October 12 • 1 pm,** Lake County Forest Preserves at Ryerson Welcome Center , 21950 N. Riverwoods Road, Riverwoods, IL.

**HawkFest Lake County 2016; Friday-Saturday, October 14-15 • times vary,** activities are located at [Lake Forest College](#), [Middlefork Savanna Forest Preserve](#) and [Fort Sheridan Forest Preserve](#). Many activities are free; admission for fee based events is \$7 per event, or \$25 for an all-access pass. Registration is required for all events. Families will have the opportunity to learn about fall hawk migration, their habitat, and see live raptors at HawkFest. Other hawk-related educational activities being offered as part of HawkFest include free bird walks, photography workshops, birding presentations and more. For more detailed information see the [Lake County Forest Preserve HawkFest announcement](#).

In conjunction with HawkFest, the Lake County Audubon Society will be hosting free bird walks on Sunday, October 16, beginning at 7:00 am at Illinois Beach State Park (North Unit, meeting at the picnic pavilion) and Waukegan Beach (south end of the parking lot near the swimming beach). There will be all day hawk watches at Fort Sheridan and at Illinois Beach State Park (North Unit). A complete schedule of events with details about registration and locations will be available on the [Lake County Audubon Society website](#).

**Annual SB Watershed Management Board Meeting; Thursday, December 8 • 7 PM,** Central Permit Facility, 2nd Floor Conference Room, 500 W. Winchester Rd. Libertyville, IL.

## BULL CREEK-BULL'S BROOK WATERSHED COUNCIL



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### Council Leadership Team

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## Ongoing Events . . .

**Liberty Prairie Workdays; Saturday, Oct. 8 • 9 am to noon,** 18267 Casey Road, Grayslake, IL • parking is located on the south side of Casey Road, one mile west of Milwaukee Avenue (Rt 21). Turn into the private driveway and park/meet where the driveway crosses the trail. For more information, contact Conserve Lake County at 847.548.5989 ext. 33.

**Libertyville Township - Rt. 137 Birdscaping Work Days; Saturday, Oct. 22, Nov. 5, & Nov. 19 (rain date) • 9:00 am to 1pm.** Volunteers will meet at the trail entrance east of Countryside Dr. on Bull Creek Drive. Street Parking is available.

**Libertyville Township - Oak Openings Volunteer Restoration Work Days; Saturday, Nov. 12 & Dec. 10 • 9:00 am to noon,** Volunteers will meet in the parking lot of Oak Openings Nature Preserve located on Rte. 45, 3/4 mile south of Rt. 120 and 1/2 mile north of Casey Rd., Grayslake, IL.

**To learn more about Libertyville Township volunteer opportunities,** call 847.816.6800 or 847.548.5989 ext. 33 or <http://www.libertyvilletownship.us/open-space-district/volunteer-opportunities>