

Bluffviews

a quarterly newsletter by Clifftop

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Protecting Our Precious Natural Areas

Excerpted from the Illinois Department of Natural Resources website

A tapestry of nature's treasures is protected in Illinois by a nationally acclaimed program called the Illinois Nature Preserves Commission. From the Cache River basin's cypress swamps in southern Illinois to the Illinois Beach dunes along Lake Michigan, many of our state's most rare, natural areas are protected.

Did you know that less than 1% of the original Illinois landscape exists today? You can help preserve these remaining rare and natural communities by promoting land preservation and stewardship.



The Illinois Nature Preserves Commission promotes the preservation of significant lands and oversees their stewardship, management, and protection by offering various land protection options designed to assist landowners who wish to voluntarily preserve their land. The Nature Preserves Commission field staff consists of nine biologists located throughout the state. These Natural Areas Preservation Specialists are educated in the biology of natural areas and trained to assist landowners in the preservation of these important lands. They work with the owners of natural areas to tailor a conservation agreement that protects the natural features of the land while addressing the landowners' use of the property. Nature Preserves Commission programs are voluntary and are available to private and public landowners.

The three following land protection options are available:

Dedication as an Illinois Nature Preserve. Only high-quality natural areas qualify for this land protection tool. Dedication is the strongest protection that can be given to land and provides permanent protection. The owner retains custody but voluntarily restricts future uses of the land in perpetuity to preserve its natural state and to perpetuate natural conditions. Qualifying lands in private, corporate, or government ownership can be dedicated as an Illinois Nature Preserve. This agreement may result in financial benefits to the landowner, primarily in the form of a charitable contribution deduction on federal income taxes and a local property tax reduction. The biggest benefit to the landowner is the assurance that their cherished land will be permanently and legally preserved while still allowing them to enjoy it now and pass it on to their heirs.

Registration as an Illinois Land and Water Reserve. Lands and waters of Illinois that support significant natural heritage or archaeological resources qualify for this land protection tool. The agreement to register an area as a Land and Water Reserve determines allowable uses and stipulates management

objectives. Registered Reserves may be in public or private ownership. The agreement may be for a term of years or permanent. The property can be sold or passed on to heirs subject to the agreement. Land and waters permanently registered may qualify for reduced tax benefits in the form of a local property tax reduction and possibly a charitable contribution deduction on federal income taxes.

Registration as a Natural Heritage Landmark. This is a recognition program that introduces a landowner to the concept of natural area protection and allows the state to assist with management of the natural area. It is a voluntary program that increases understanding of the value of natural areas and encourages their preservation by private landowners. An agreement document determines provisions and can be terminated by either party on sixty days notice.

These programs are designed to preserve the natural features of the land and do not require public access to private property. Should you be interested in any of these protections options, Clifftop can put you in touch with the Natural Areas Preservation Specialist in your area.

Guestviews...

In Defense of Native Plants

By Trish Boyce

Compass plants are true prairie plants. They are present in all but a few counties in our prairie state, and are important for both insects and birds. Leaves of this plant are deeply lobed, and as they age the leaves orient themselves from north to south, giving the plant its name. This helps the plant minimize contact with the sun's rays, which are more intense than the plant can utilize during the long midsummer days. I first noticed these plants along my rural road many years ago in July, when they were in bloom. The flowers emerge from a stalk the plant sends up, and look much like sunflowers, which are in the same family. I also noticed goldfinches feeding on the seed. The bright yellow birds feeding on the yellow flowers is a striking sight. Goldfinches are true vegetarians, I later learned, and breed later than other birds to assure a good supply of seed for the young. Compass plants can live up to 100 years. Could some of my roadside plants be original prairie plants?



Notice the deeply lobed leaves of the compass plant. The flowers, however, are from a cup plant. Photo courtesy Joann Fricke

These compass plants along my road were my introduction to the world of native plants. They are also a great example of how interdependent species are. The plant is visited by pollinators and other beneficial insects, with surveys finding up to 80 different species living on the plant. Prairie kingbirds use the long flower stalks to look for other insects to feed on. This single species plays an important part in the prairie ecosystem.

But compass plants are just one of the plants native to our area. These natives are important to preserving the biodiversity of the region, and that biodiversity is important to maintaining the health of the ecosystem. Why is a healthy ecosystem important? It promotes a healthy life for all its inhabitants, including people. Many things threaten that biodiversity, including non-native plants, particularly ones that are invasive. Habitat loss is another big threat to biodiversity. We can all help maintain the health of the ecosystem by planting natives, restoring habitat and removing the invasive species.

I've always loved nature. My parents were Audubon members, and my dad backpacked on the Bruce Trail in Canada every year. The trail runs along the Niagara Escarpment, which was under threat from mining in the 70s, and my dad became part of the effort to 'Save the Escarpment'. I was aware at an early age of the threats to the environment and its inhabitants. My first term paper, written in 8th grade, advocated for a worldwide moratorium on whaling. Bluebirds were an infrequent sight when I was growing up, and my parents saw very few bald eagles during their lifetimes. The desire to 'do something' to preserve the environment was strong in me. As I learned more about the compass plants growing along my road, I realized that there was something I could do. I could plant them on my property, and hopefully, create habitat for native insects and birds.



The vegetarian goldfinch breeds later than other birds to ensure a good supply of seed for its young. Photo courtesy Paul Feldker.

The threat to an ecosystem from invasive species has been studied extensively. They compete with native species for resources, and may change the native landscape in other ways as well. They can and will cause the extinction of native species, and their potential to alter a landscape could result in a negative economic impact as well. In our area bush honeysuckle, noticeable for its green leaves in late fall when everything else is brown, has a significant presence in wooded areas. Wintercreeper (*Euonymus fortunei*) has found its way into my yard. It can very easily take over everything in its path. And Callery pear (*Pyrus calleryana*), widely known for its cultivar 'Bradford', another non-native plant widely used in landscaping, is also invasive. Native insects typically feed selectively on native plants, becoming food for birds. Non-native plants disrupt this supply chain. Invasive plants can alter soil fertility and disrupt microbial communities as well.



Notice the similarity the flowers of the Compass plant have to sunflowers. Photo courtesy Joann Fricke.

The richer the diversity of life in an ecosystem, the greater the opportunity for sustaining life in all forms, and for medical discoveries. One such notable discovery came not far from our southwestern Illinois counties, in central Missouri. Sanborn Field, on the campus of the University of Missouri, Columbia, has been home to research plots since 1888. In 1948, an antibiotic was developed from *Streptomyces aureofaciens*, a fungus growing in one of the plots. The antibiotic, Aureomycin, is in the tetracycline family, and was used well into the 1980s, before several strains of bacteria developed resistance to it. In its time it was considered to be the most effective antibiotic next to penicillin, treating, among other illnesses, Rocky Mountain spotted fever, which is caused by a tick borne microorganism.

We can all do something to increase biodiversity, and increase habitat for native species. How does hosting a butterfly sound? Butterfly species lay their eggs on specific plants, referred to as host plants. Monarch butterflies, whose numbers have fallen drastically over the past 30 years, lay their eggs on milkweed plants, of which there are several species. A planting of any milkweed, whether it's swamp, whorled, common, purple or butterfly weed, is a great addition for your yard. Monarchs are one of the few insects that migrate, a journey that takes them, in generations, from Mexico to Canada and back each year. Many native plants which also make attractive landscape plants are hosts to butterfly species. Also important are nectar sources, particularly for monarchs as they journey on their migration route. Attractive flowering plants such as New England aster, and *Liatris* species provide food for the monarchs as they make their

way back to Mexico. A friend told me about driving through Texas in the 1970s, in October, and having to stop to clear the windshield because of all the monarchs they encountered. I don't want these beautiful creatures to become an infrequent sight.

We can all participate in increasing the biodiversity of our region, by removing non-native invasive species, and planting natives. There are no drawbacks to doing so, only benefits. Every species has a role in the ecosystem, the importance of which we will only understand when they are gone. For a glimpse of what our region looked like as prairie blooming with native species, head over to the Paul Wightman Subterranean Nature Preserve at 3325 G Road Fults, IL.



A monarch butterfly nectaring on butterfly weed. Photo courtesy Paul Feldker.

References:

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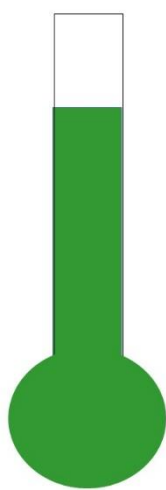
Remembering Charlie...



The conservation community lost a great friend and warrior in July 2020. Charles Frederick served on Clifftop's board for 8+ years and was always ready to lend a hand on whatever project was in progress. In the photo at left, Charlie (foreground) and Ralph Buettner work on securing the poles outlining the parking area at White Rock. Charlie owned bluff land and river bottom property in the area and worked to protect them in perpetuity. His granddaughter, Angela Mayer, said recently, "Clifftop and conservation meant a great deal to him, along with the relationships that were a result of being involved." He will be missed.



Please be sure to notify us of your new address. Send updates to cliffmbr@htc.net or call 618-935-2542.



\$7,000
\$6,000
\$5,000
\$4,000
\$3,000
\$2,000
\$1,000

Clifftop's
Illinois Clean Energy
Community Foundation

Community Stewardship
Challenge Grant
White Rock NP and L&WR

As of 07/21/2020
\$5,405

In March 2020, Clifftop was awarded a Community Stewardship Challenge Grant from the Illinois Clean Energy Community Foundation (ICECF). The foundation will match 3:1 for every dollar donated to Clifftop, up to \$21,000. This means if Clifftop receives donations of \$7,000, ICECF will donate \$21,000 to be used for invasive species control and hill prairie expansion at White Rock Nature Preserve and Land & Water Reserve. We are only \$1,595 away from our \$7,000 goal, but we don't have to stop there. Every dollar collected will go toward stewardship at our White Rock properties. Find out how you can help by contacting us at cliffmbr@htc.net or 618-935-2542.

Warnings...



Photo courtesy Susan Ellis, USDA APHIS PPQ, Bugwood.org

Researchers have confirmed that **Heartland virus**, an emerging pathogen with potentially dire consequences for those infected, is present in **Lone Star ticks**, as seen at left, in two Illinois counties hundreds of miles apart. Lone Star ticks were first detected in Illinois in 1999 but had not been found to be infected with Heartland virus in the state. If you suspect you have been infected with this virus, don't hesitate to bring it to the attention of your physician as they may be unaware. Unfortunately, Heartland virus won't show up on a standard diagnostic panel for tick-borne bacterial diseases. For more information, please visit: <https://www.sciencedaily.com/releases/2020/07/200723115835.htm>

The **Gulf Coast tick** is usually found in the Southeast along the Gulf and Atlantic coasts, but researchers at the Illinois Natural History Survey (INHS) and Southern Illinois University (SIU) have new evidence of the Gulf Coast tick becoming established in Illinois. Experts say that the Gulf Coast tick likely originally made its way to Illinois thanks to migratory birds that picked up the ticks during their travels south during the winter months. The INHS Medical Entomology Lab found that 57% of SIU-collected ticks tested positive for *Rickettsia parkeri* a human pathogen that causes **Tidewater spotted fever**. For more information please visit: <https://blogs.illinois.edu/view/7447/807086>



Gulf coast tick, female (left) and male (right)
Photo credit: Emily Struckhoff, INHS Medical Entomology Lab



Wineberry photo courtesy Chris Evans

Wineberry, also called wine raspberry or Japanese wineberry, is an **invasive shrub** in the Rubus genus (blackberries and raspberries) that can form dense thickets and has the potential to impact native ecosystems. As of 2020, wineberry is not regulated in Illinois, but recent discoveries of new populations in Jackson, Madison and Randolph counties has prompted an increased concern about this plant's invasive potential in Illinois. For more information and how to report suspect populations, go to: https://extension.illinois.edu/sites/default/files/wineberry_factsheet.pdf

Upcoming events...

Due to the resurgence of occurrences of COVID-19 and for the safety of our members, supporters and friends, Clifftop has made the tough decision to cancel all remaining events for 2020, including:

- August 8 and September 5 prairie hikes at PWSNP
- September 12 *Seminar*: Cicadas of Illinois: New Discoveries and Our Local Soundscapes
- October 24 *Field Trip*: Orionids Meteor Shower
- November 14 *Field Trip*: Autumn Art for Kids

Providing that presenters are available and willing, all 2020 events will be re-scheduled for 2021.

Photo gallery from PWSNP...



Prairie blazing star along the accessible trail



Prairie blazing star and compass plant



Hoary vervain



The rare white form of Rose gentian, left, has a sweet fragrance.

Western ironweed, right.

