



Bluffviews

a quarterly newsletter by Clifftop

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Invasives Patrol Strike Team

By Joann Fricke

By now I'm sure you've come to understand that controlling invasive plant species is a pet project of mine. But only recently did I realize that it is not clear to everyone why it is so important not to include foreign invasives in their landscaping.

A few weeks ago, my husband and I discovered three very large mimosa trees deep in a ravine in an upland bluff forest. (One of these trees can be seen in the photo below, right, inside the red circle. You can see how dense the surrounding understory is.) They were the tallest we'd ever seen and were clearly reaching for life-giving sunlight. Had they not been in bloom, we certainly would not have noticed them. This discovery prompted a Facebook post regarding how invasive mimosa trees have become and discouraging the planting of them. The response to this post was encouraging. While one friend indicated she wanted to plant one in her side yard, others wondered the best way to get rid of them—should they treat the stump after cutting them down, and with what? (A 50/50 mix of 41% glyphosate and water should do the trick.)

Bill McClain, Clifftop member, current Illinois Nature Preserves commissioner and former field biologist with IDNR, and I made the point that even though you may live miles away from a protected natural area, wind, water, birds and other animals can carry the fruits and seeds of mimosa trees into these areas where they germinate and can grow undeterred for years before they are noticed. Mr. McClain also offered a recipe for foliar spraying young plants and small sprouts—mix 2 cups Epsom salts, 1 gallon white vinegar and ¼ cup liquid dish soap.

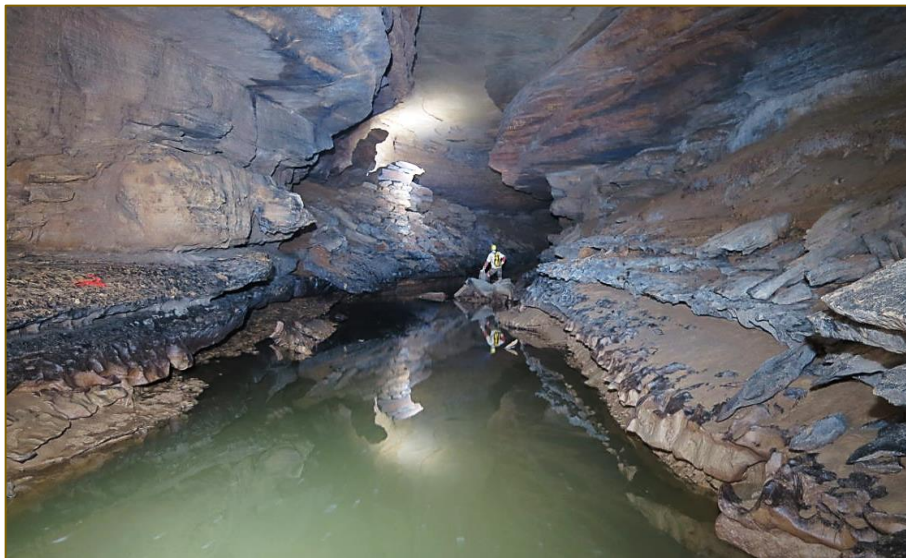
I believe those who were considering planting mimosa trees were convinced not to. Landscaping alternatives mentioned in place of mimosa included serviceberry, redbud, fringe tree and various buckeye trees. My favorite comment was that we need an Invasives Patrol Strike Team, perhaps with cool uniforms, to pinpoint the locations of these foreign invasive species and eradicate them! A drone would be an excellent tool to have for this purpose. We can dream, can't we?



The following was excerpted from an article written by Todd Strole for the June 30, 2018 issue of @ORC, a weekly publication by the Illinois Department of Natural Resources Office of Resource Conservation. The excerpts and photos are reprinted by permission of the IDNR Office of Resource Conservation and Mr. Strole.

Just in Time

By Todd Strole, IDNR Division of Natural Heritage



Fogelpole Cave, the longest cave system in Illinois. Photo courtesy Aaron Addison

The largest and least disturbed cave system in Illinois is Fogelpole Cave near the southern edge of the sinkhole plain, in Monroe County. The cave and the area surrounding the main entrance has an interesting history, much of it, succinctly captured in a Washington University article published a few years ago. The cave supports a large and diverse animal population, including the Indiana bat, a federally endangered species. Several other bat species use the cave and a few hundred use the cave as an overwintering site. Another Federally endangered species, the Illinois cave amphipod, a small cave dwelling amphipod found nowhere in the world outside of a few caves in the sinkhole plain, also calls Fogelpole Cave home. The quality and rarity of these features led to a 27-acre site surrounding the cave entrance being dedicated as an Illinois Nature Preserve in 1989. The sensitive nature of the cave and its inhabitants necessitated some control over access to the cave and a bat friendly gate was installed in June of 1990. More recently, the recharge area (the watershed) for the cave system was designated a Class III, Special Resource Groundwater by Illinois EPA and the Illinois Pollution Control Board. This designation is reserved for ground water that is "demonstrably unique...or...vital for a particularly sensitive ecological system...or...groundwater that contributes to a dedicated nature preserve..."



Gate construction at the main entrance to Fogelpole Cave, 1990. Photo courtesy IDNR



Entrance to Fogelpole Cave, May 2018, just prior to silt removal project. Photo courtesy Christina Feng

The primary cave entrance is located at the bottom of a large sinkhole. The cave gate is approximately 12 feet tall at its highest point and 26 feet wide. A small stream entering the sinkhole carries silt and debris which began to collect at the gate. Nearly 30 years later, the silt and debris had accumulated in front of the cave gate to the point that Natural Heritage field staff determined air flow for the cave was being significantly reduced, only about one foot at the top of the cave gate remained open. A decision was made, we were not going to allow the main entrance to one of the most significant cave systems in Illinois to close.



Using the power washer to create a slurry that can be vacuumed to the truck. Photo courtesy Todd Strole

IDNR estimated that over 2000 cubic feet of silt had accumulated at the cave entrance. Fogelpole sinkhole is large, steep, with forested slopes - factors making it impossible to access to the bottom of the sinkhole where the silt was located with traditional heavy equipment such as track hoes. IDNR wanted to minimize impacts to the natural community surrounding the sinkhole, so other methods had to be explored. As staff began searching for solution to this challenge, a casual conversation with someone in the concrete business led to the consideration of hydro-excavating the silt from the sinkhole. Hydro-excavating uses a truck mounted vacuum system to vacuum material into the truck through flexible tubes or pipes for off-site

disposal. A high-power pressure washer is used to break up the material and then it is sucked up the hose/pipe to the vacuum truck as slurry – in simple terms, a monstrous shop-vac.

Badger Daylighting, a hydro-excavating company in Granite City, IL, was contacted to determine if the removal of the silt and debris using hydro-excavating was even an option. After examining the project site, Badger Daylighting indicated that they would be able to do the project and in June 2018, the silt removal project began. The first day was consumed with equipment set up including 240 feet of six-inch PVC pipe that ran from the bottom of the sinkhole uphill to the top of the hill where the vacuum trucks were parked, nearly 100 feet of vertical lift. The Badger crew began removing silt and debris on the second day and completed the removal of nearly 2500 cubic feet of silt and debris on the fifth day.

The silt and debris that was removed was transported and deposited on adjacent property owned by Clifftop. Benjamin Koonce, Area Manager for Badger Daylighting indicated that this is the first time that his crew had been involved in a natural area restoration project. He said, "The crew really enjoyed this type of work. It is neat to know that the cave is not going to close up and the animals living in the cave can continue to use it."

It could be argued that Fogelpole Cave, in the top 100 longest caves in US (currently #51), with a main passage averaging 40 ft. wide and 20 ft. high and having nearly 15 miles of mapped passages may provide the most remote wilderness in Illinois. The darkness, silence, the physical and technical difficulty in reaching many areas, the time to reach them and the relatively undisturbed nature of the cave – all combine to create a unique and special place.

Many thanks are due those staff in the Department to see the need, find the solution, and fund the project to give new life to this special place – just in time.



The first day of silt removal. A small "dam" of material was left along the gate as the project progressed to minimize the amount of silt and debris re-entering the cave. Photo courtesy Terry Esker



The silt removal completed, the cave opening appears as it did nearly 30 years ago. Photo courtesy Badger Daylighting

About the author: Todd Strole is the Natural Areas Stewardship Program Manager for IDNR's Division of Natural Heritage. Todd has B.S. and M.S. degrees in biology from Eastern Illinois University and Illinois State University respectively and nearly 30 years of experience in natural resource management with The Nature Conservancy and IDNR.

Editor's note: Many thanks to Todd and IDNR ORC for allowing us to excerpt his article in this publication.



Illinois Clean Energy
community foundation

Yes, I want to help Clifftop with the
Community Stewardship Challenge Grant Project!

Enclosed, please find my donation in the amount of \$ _____. * I understand that, for every one dollar that Clifftop raises for stewardship at Paul Wrightman Subterranean Nature Preserve, the Illinois Clean Energy Community Foundation will contribute three dollars in matching funds, up to \$25,000. In addition, for a minimum of 400 hours of stewardship documented at PWSNP, ICECF will donate \$4,000.

NAME: _____
 ADDRESS: _____
 CITY: _____ STATE: _____ ZIP: _____
 PHONE: _____ EMAIL: _____

Sorry, I can't help financially, but I am willing to volunteer for stewardship work. Please contact me.

Send your check payable to Clifftop to:
 P.O. Box 131
 Marengo, IL 62256

Please note in the memo line of your check that this is a donation for the stewardship challenge grant. THANK YOU!!!



* Clifftop is a 501(c)(3) non profit organization, incorporated in Illinois. Donations in support of Clifftop's activities are tax deductible to the extent allowed by law.

Photo courtesy Mark Campbell

ICECF Community Challenge Grant update:

You may recall seeing the form pictured at left in the April 2018 newsletter. The money donated through this program will be used for the following purposes at PWSNP:

1. Erosion control on the eastern block. (This will help keep the silt away from the Fogelpole Cave opening.)
2. Honeysuckle removal on the eastern block.
3. Construction of an insulated room in the shed so that we can work year round.
4. Purchase additional Nomex suits for prescribed burn volunteers.
5. Purchase a video camera to record workshops and seminars to add to our YouTube library.

If you have already donated, we thank you. If you would like to make a donation, please print, complete and follow the directions on the form from the last newsletter. Or, contact Joann at cliffmbr@htc.net.



Discover Wild Places, Open Spaces

The great state of Illinois is celebrating its 200th anniversary in 2018! One of the many things about Illinois we can all celebrate is its rich and unique natural heritage that began on these lands some 20 million years ago.

The wild places and open spaces of Illinois help to define who we are today and where we live.

The independent, non-profit land trusts of Illinois such as **Clifftop** have helped protect and preserve – permanently – more than 63,000 acres of wetlands, forests, and grasslands, throughout Illinois's 58,000 square miles. These protected landscapes include state parks, wildlife areas, nature preserves, land and water reserves, state forests, family farms, urban parklands and conservation easements on individual lands.

Collectively, the land trusts of Illinois work hard every day to help preserve Illinois's past as well as the future. In the past three years, local land trusts have protected more land in Illinois than any public organization in our state!

While Illinois is commonly known as the "Prairie State", most of the 22 million acres of pre-settlement prairie that swept the state in 1820 are gone, except for protected areas. And statewide, our natural landscape boasts a diverse array of ecosystems – prairie, wetland, woodland, lakeshore and riverine -- each supporting a highly diverse population of birds, insects, plants and mammals that at one time included mastodons and Tyrannosaurus!

In fact, Illinois once was known as "the duck capital of the world". Today there are more than 54,000 species of flora and fauna that share Illinois as their home with many so rare they are on the threatened and endangered species list.

Some of these areas are right in your backyard, like White Rock Nature Preserve, open for hiking and other passive recreation from dawn until dusk each day at 6438 Bluff Road, Valmeyer, IL, and coming soon Paul Wightman Subterranean Nature Preserve, which will have nearly 5 miles of trails (one mile of which is ADA compliant) among 300 acres of wildflowers and sinkhole ponds, overlaying the Fogelpole Cave system which is the largest in Illinois.

The value of these open places goes beyond their beauty and recreational value. Simply put, nature is good for the soul!

Studies from across the globe confirm that connecting to nature is just plain good for you. Taking a walk outside – and simply looking at trees, plants, and the open sky through a window has been shown to help lower blood pressure and improves our health, wellness, and mental well-being. So, the natural areas in the state of Illinois are also good for our state of mind!

But it doesn't just stop there. As our recognition of interdependence continues to grow, we realize that ecosystems in balance have been, and hopefully can continue, to benefit us humans in all our everyday activities that we probably take for granted: clean water to drink, clean air to breathe, healthy soils on which to grow our food, proper water management including storage and replenishment, combating increased risks due to climate change, reducing heat-island effects in our urban areas, and the list goes on and on.

Clifftop and our close partners of the Prairie State Conservation Coalition are joining in the celebration to help everyone discover our wild places and open spaces. We hope you'll join us too, by discovering your local open spaces!



Upcoming events...



The Buzz on Bees in the Prairie Seminar, Saturday, September 15, 1:00 until 3:00 pm, Monroe County Annex, 901 Illinois Avenue, Waterloo, IL. Mickey Schutzenhofer, McKendree University, will discuss the success of the prairie restoration at PWSNP from the perspective of bees after sampling its diverse bee community last year. To make a reservation call 618-935-2542 or email cliffmbr@htc.net.

Monroe County YMCA-HTC Center Illinois Ozarks 10K Bluff Trail Run, Saturday, October 27, start time 9:30 am, Borsch Memorial Park, MAR Graphics Drive, Valmeyer, IL. It's not a fun run, but you'll have fun running the colorful bluff trails at the Salt Lick Point Land and Water Reserve. Register online at: <https://register.chronotrack.com/r/38682> or call 281-9622 for more information.





Photo courtesy Susan Rick



Illinois Clean Energy
community foundation

A component of the Illinois Clean Energy Community Foundation's Community Stewardship Challenge Grant states that ICECF will contribute 80% (up to \$5,000) of the cost of equipment purchased for use at PWSNP. Utilizing that component, Clifftop purchased a used, zero-turn lawnmower to facilitate mowing around the shed and public engagement areas. At left, board member Ralph Buettner takes the new mower out for a spin.

We are currently a little more than 1/7th of the way toward meeting our goal of raising \$7,000 in order to receive a 3 to 1 match from the Illinois Clean Energy Foundation through their Community Stewardship Challenge Grant program. If you'd like to help us reach our goal, please contact Joann at 618-935-2542 or cliffmbr@htc.net for instructions.

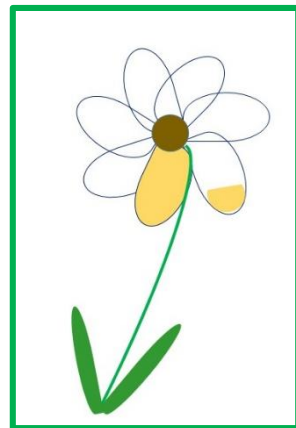


Photo gallery...

Infrastructure at PWSNP



Photos courtesy Jim Hill

The ADA compliant trail was completed in July. It begins at the parking lot and makes a loop through the prairie, follows a short path through a treeline and circles back on itself. The first two users of the trail were a black rat snake and a painted turtle.



Also completed in July was the pavilion at the public engagement area near the parking lot. We look forward to hosting many outdoor seminars here in the future. Next on the to-do list is pouring the pavilion's concrete floor, sidewalks and handicapped parking area. Landscaping and interpretive signage will be installed soon after. If you have any antique farm equipment that might make interesting displays, please contact a Clifftop board member.

A Day in the Prairie: Members' Day 2018



We moved members' day to June this year so more wildflowers would be in bloom at Paul Wightman Subterranean Nature Preserve. While that was true, the heat was oppressive, which made the shade of the huge maple tree the place to be. We gathered to shoot the breeze and then headed out for a tour of the new ADA compliant trail and the magnificent wildflowers. Upon returning, those in attendance enjoyed purchased sandwiches and delicious dishes prepared by our board members.