

OUTDOORS

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NATURE TRAILS

Bladderworts ingest animals as way to survive

I continue my columns on the carnivorous plants of Indiana with the bladderwort family. In past columns, I featured the Venus flytrap, sundew and pitcher plant. Two of these are native plants in Indiana while the Venus flytrap is only native to a few locations in North and South Carolina.

We in Hoosierland have nine species of bladderworts that are native to our state. They are the horned, zigzag, small purple, floating, purple, flat-leaved, lesser, giant, hidden-fruiter and creeping. Two of these are listed as extirpated in Indiana, while two others are on the endangered list, and two others are listed as rare. As you can see, most are not what one can call common in Indiana. Most are found in



Harold Allison
H-T COLUMNIST

the northern section of our state, and only two have ever been found in southern Hoosierland. These two are the creeping and great bladderwort, and the latter has only been located in Posey County. The creeping has been found in a few sites in Clark, Gibson, Lawrence and Sullivan counties. The creeping has been seen in wet murky wetlands and may be in some old sloughs or other wet sites in a few other southern Indiana

counties. The bladderwort family is found all over the world where conditions are just right for its rather restricted habitat to still exist. These plants do best in a wet, pristine habitat in still water or around the shore of a wetland that stays moist most of the year.

While bladderworts are carnivorous, they consume only small prey like minute crustaceans or other tiny animal life.

How are they able to capture such prey? Well, they use the little bladderlike features on their unusually sticky leaves. These minute bladders usually are open, but when a crustacean does happen to come in contact with a leaf of the bladderwort and tries to escape from the sticky substance on the leaves, the bladder

snaps shut and the prey is trapped inside.

Once the prey is trapped, several enzymes found in the plant become active. Now the slow work of digesting this tiny animal, converting those nutrients contained in the animal into a substance the plant can use begins. Those nutrients supplement what is available in the rather hostile environment bladderworts call home. All carnivorous plants use these nutrients to help them survive in the perilous environment where most other plants could not live. The will to live is strong in all forms of life that live on this planet we call home.

Astronomers have now discovered hundreds of planets out there in space that could possibly support some kinds of

lifeforms. What they are and what they could look like is anyone's guess.

They may be so odd that even in our wildest dreams we could not picture their appearance. We have some strange lifeforms right here on Earth. They range from creatures that can live in boiling hot bodies of water to the depths of the ocean where the pressure is so great that we would explode if we descended to that depth without a submersible craft to keep us from exploding.

Take the insect world: All over the world are insects that look like something out of a science fiction movie. There are some of these even in your backyard. I know I will never live to see some of these strong lifeforms out there in a galaxy far, far

away. You probably won't either, but someday, perhaps thousands of years in the future, some humans may have the opportunity. What would they see and how would they react if they found creatures that looked just like us and acted just like we do?

Now the way we have tried to destroy our Earth over the years is terrible. We have been given the chance to try and preserve what God has given us to enjoy, would we really want to meet such people? We may think plants are strange if they have to have meaty nutrients to exist in a barren environment; however, if we keep on as we have in both the past and present, our whole world may be a hostile environment.

OUTDOOR BRIEFS

H-T Report

Guided hike planned Friday at Hemlock Cliffs

The U.S. Forest Service will offer a free, family-friendly guided hike along the Hemlock Cliffs Trail 11:30 a.m.-1 p.m. Friday. Participants will walk the 1.5-mile loop with a guide and learn about some of the natural and cultural history of the area. There is a rock staircase down into the canyon and appropriate footwear should be worn. This scenic trail offers rock outcroppings, a waterfall and geological formations including rock shelters. The trail is located in Crawford County. Directions and more information can be found on the Hoosier National Forest website, www.fs.usda.gov/hoosier, or by calling 812-547-7051.

Board nominations, grant applications sought

The Indiana Department of Natural Resources seeks nominations for five openings on the state's Indiana Trails Advisory Board (TAB). The openings are for representatives of the following trail-user groups: environmental groups, hikers, mountain bikers, trail support groups



Large boulders are seen along the Hemlock Cliffs trail in the Hoosier National Forest. (Courtesy photo)

and users with disabilities. Nominations will be accepted by the state Division of Outdoor Recreation through Dec. 30.

Nominees should be involved with a regional or statewide organization, club or association related to the trail-user group they would represent. Selected board members would serve a three-year term starting March 1, 2020, and attend quarterly meetings. TAB meetings are on the first Thursday of March, June, September and December. All meetings start

at 3 p.m., with locations varying throughout the state.

The 15-member voluntary TAB advises Department of Natural Resources director Cameron F. Clark on trails-related issues. Members are also encouraged to report any news from their respective user groups to the board as well as share pertinent trail information with their constituents. Having the TAB is required for Indiana to receive funding from the Recreational Trails Program through

the U.S. Department of Transportation's Federal Highway Administration. The state annually distributes \$1.2 million in RTP grant funding to acquire and develop trails for both motorized and nonmotorized trail use.

To learn more about the Indiana Trails Advisory Board and nomination information, see dnr.IN.gov/outdoor/4094.htm. For more information about the Recreational Trails Program, see: dnr.IN.gov/outdoor/4101.htm.



Lake Monroe will host a self-guided driving tour on Jan. 26 for visitors to see bald eagles in the wild around the reservoir. (Courtesy photo)

Bald Eagle Driving Tour scheduled at Lake Monroe

A Bald Eagle Driving Tour will be 2-4 p.m. Jan. 26 at Lake Monroe. The self-guided tour will have six outdoor shoreline stops, each staffed by experienced bird watchers.

Birders will assist attendees in viewing eagles and other birds through spotting scopes. Tour attendees can get an up-close look at a bald eagle and several other raptors at a bonus indoor tour stop featuring live education birds from Hardy Lake.

Advance registration is \$5 for adults (\$3 for children) and is available through Jan. 23 by calling

812-837-9546, or in person at the Monroe lake office. Registrants will need to check-in in front of the Paynetown Activity Center 1-3 p.m. Jan. 26 to pick up the event buttons and tour maps. Walk-up registration is \$7 for adults (\$4 for children) and will be available 1-3 p.m. Jan. 26 in front of the Paynetown Activity Center, cash or check only. There is no entrance fee for Paynetown State Recreation Area during the winter months.

A warming center will be available for tour attendees from 1 to 4 p.m. with complimentary hot cocoa and tea, cookies and crafts for kids. Attendees are encouraged to bring their own reusable travel mug to help reduce waste.

Please note that access to indoor restrooms will be extremely limited during the tour, as most of these facilities are currently winterized. However, outdoor vault toilets are located throughout property and at almost all of the stops. For more information, contact Jill Vance at 812-837-9967 or jvance@dnr.in.gov.

Submit news for the Outdoors briefs by noon Wednesday by emailing outdoor@heraldt.com. For more information, call 812-331-4359.

SYCAMORE LAND TRUST ENDANGERED SPECIES HIGHLIGHT: TIMBER RATTLESNAKE

By Abby Henkel



- Elizabeth Nicodemus

Imagine an earthquake hitting your home every day. Would you move away, or wait it out? What if you couldn't find anywhere else to go?

This might be what it feels like to be a timber rattlesnake (*Crotalis horridus*), a state endangered species found at Sycamore's Yellowwood Farm in Brown County. Snakes are highly sensitive to vibrations in the ground, which they use to navigate. A major disturbance like construction as far as a mile away can disorient them and cause them to seek a new home, be it temporary or permanent.

But timber rattlers, as they're often called, are also deeply tied to their homes. Most will never travel more than half a square mile beyond where they were born. So when Jim Eagleman, a Sycamore board member and retired

Park Naturalist at Brown County State Park, heard that construction of a new campground at the park could impact timber rattler dwellings, he and his colleagues took notice.

This was in the 1970s, and the new campground is the now-beloved Taylor Ridge Campground. Naturalists at the park had anecdotal evidence of timber rattler dens along the ridge, which they later confirmed through studies conducted by Dr. Bruce Kingsbury

of Purdue University Fort Wayne and his students in the 1990s. Remarkably, construction did not push away all the rattlesnakes, and they remain there to this day. But don't worry — it's highly unlikely that a hiker or camper would ever come across one of these extremely shy reptiles.

Another surprising finding of the research was that the snakes were living in former chipmunk dens. Jim had expected to find them in the crevices of rocky outcroppings, which would make it easy for the snakes to sunbathe. But through studies in which researchers implanted tiny beepers into snakes' bellies, they found snakes dwelling in the dens of one of their main sources of prey!

Ridges like the one at Yellowwood Farm, a private property

in Brown County protected by a Sycamore conservation easement, offer ideal timber rattlesnake habitat. There they get plenty of sunlight, and on conserved land they're safe from human disturbance. As Jim points out, leaving their current habitat intact and keeping it safe is the best way to protect the small but mighty population. In a clutch of six to ten eggs, only about 20% will survive. Over the decades, they will slowly grow in numbers if we protect their home.

You can help Sycamore protect and restore habitat for rare and endangered species by making a year-end donation today at sycamorelandtrust.org. Thank you!

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