

Nature News July 2019

from the campus of Indiana University Northwest

Carnivorous Plants of NW Indiana

Carnivorous plants in NW Indiana? Sounds like a bad B movie from the 1950s, but it is true! There are at least 12 carnivorous plant species in our region! But most of them require very specific and very high quality conditions, so they are not easily seen in a standard nature walk!

Some folks know two of the carnivorous plants in our region – pitcher plants and sundew. These are only found in quality bogs, which are very rare in Indiana (but more common in Michigan and Wisconsin). Fortunately, Pinhook Bog in LaPorte County (Indiana Dunes National Park) features tours on select days and it is very easy to see pitcher plants and sundew during the summer months on one of those tours. One can learn a lot about these plants here: <http://www.naturemuseum.org/the-museum/blog/carnivorous-plants-of-the-chicago-region>

But less known are the 10 species of bladderworts! Again, most require high quality sites, many of which are nutrient poor (that's why they evolved carnivory!). But a couple of species require decent, but not perfect habitat. One is *Utricularia macrorhiza* and it is found in wet areas of our campus nature preserve! Here are a couple of pictures of it:



The non-flower parts of the plants form a mat in the water and are not rooted in the wetland soil. They have small “bladders” with a trap door. If a small (1-2mm) arthropod swims by the bladder, it can be sucked and trapped in a flash, wherein it will die and be digested by the plant! Here is a video showing this amazing feat:

<https://www.youtube.com/watch?v=wZcKoTxp5mc>



So if you are taking a nature walk that goes through quality wetlands (especially if on a boardwalk), then at this time of year keep an eye open for bladderworts. From a distance they look like this:



How do these carnivorous bladderworts reproduce? They have typical sexual reproduction with pollinators spreading pollen from flower to flower, but they also have a curious asexual (=cloning) means of reproduction. They produce small, but dense masses of photosynthetic cells called turions. These fall off the plant and sink to the bottom, where they overwinter. When conditions are right, presumably the next year, these turions will “germinate” and produce a clone! Could you imagine, if we could just chip off a dense packet of our cells and have it form a whole new one of us! You can see two turions in the picture and a bunch of smaller bladders!



In closing, in our last *Nature News*, I mentioned about some plants that were able to survive the extended and very deep spring waters. Swamp rose, a nice native rose, appears to have survived just fine. This picture of flowering swamp rose below is from an area where the water has gone down and now is just mud. Last summer we had dozens of small, not yet blooming, swamp roses. If they continue to survive, in future years we should have lots and lots of swamp rose adorning the wet areas of our nature preserve!

