Sunk Lake and Lower Hatchie National Wildlife Refuge Hike
August 2018

To experience some of the best and most interesting plants that West Tennessee offers, you have to be willing to brave the heat and humidity of the dog days of summer. I've heard whispers of the "botanical death marches" I lead, so I wasn't surprised that only 3 hardy folks met me at Woodard's Store west of Henning for a day exploring Sunk Lake State Natural Area and the Lower Hatchie National Wildlife Refuge. My thanks go out to Sue Williams and Fred and Carol Bray for being such troopers and making for a very enjoyable, yet hot, day.

We started the excursion with a visit to Sunk Lake, one of many small lakes along the Mississippi River that was created during the earthquakes responsible for its more famous sibling, Reelfoot Lake. The majority of the lake is difficult to access by foot, but the small boat launch gave a peek at the shoreline plants that ring it. Dominated by towering bald cypress (Taxodium distichum) understory shrubs and trees like water elm (Planera aquatica) and buttonbush (Cephalanthus occidentalis) flourished where the light illuminated areas between the cypress giants. In these sunny areas, numerous wetland forbs were found including halberdleaf rose mallow (Hibiscus laevis), fogfruit (Phyla lanceolata), creeping burhead (Echinodorus cordifolius), and an enormous cardinal flower (Lobelia cardinalis) that was - Cont'd on page 5

New Logo for the Tennessee Native Plant Society

The Tennessee Native Plant Society is very pleased to unveil its brand new logo in this newsletter. TNPS's increasing involvement with projects across various media sparked a desire among board members for a revision. In particular, the board wanted a simpler, colorful, more contemporary design that would update our image and could be identified easily at different scales, from the tiny profile picture for social media accounts to Web sites like the Tennessee/Kentucky Plant Atlas and publications such as the winter woody plant ID book. Our old logo, though well drawn and attractive, is very difficult to distinguish at small scale, and its monochromatic color scheme pales in comparison with the bolder, colorful logos of other societies and organizations.

Working closely with board members, Derek Kimball of Design Buddy developed a bright and distinctive logo based on one of Tennessee’s botanical discoveries, the Southern Red Trillium (Trillium sulcatum). Derek is also incorporating the new image in a revised letterhead design for us. Our new logo will grace TNPS newsletters and promotional brochures as well as banners and table skirts for public events through our Education and Outreach Committee. - Margie Hunter
Hello everyone,

Well summer has gone by and we are all looking towards Fall--cooler temperatures and bright leaf colors. We have 1 more field trip on 9/15 to help us identify those pesky summer flowers. Larry Pounds will be able to answer your questions about Goldenrods, Asters, etc.

Time goes by before you know it. So you have plenty of time to plan, the annual meeting will be at Reelfoot Lake next year in July. We are finalizing details now. This will be an opportunity to see rare wetland plants aboard the Parks pontoon boats. Annual meeting is the weekend of July 12th, 2019.

Also, to insure continued planning, we all need to volunteer to be on the Board or give our time in some way. If Bart Jones or someone from the Nominating Committee has contacted you, please say yes. If you haven’t been contacted and if you are interested in Board participation, contact Bart Jones at 901-485-2475 or bjones7777@hotmail.com. The TNPS Board only meets 3 times a year and 1 of those times is after the Annual Meeting. I have served my 2 terms as outlined in the by-laws. We need a new President starting in January. This is a GREAT Board and lots of folks pitch in. They sure have made it easy for me. It has been a privilege and honor to serve.

Also, the Board has been working hard on creating a new logo for TNPS. Look for further details in this newsletter. I think you all will appreciate this new design.

As always, call me or email me with any questions, suggestions, etc.

Thanks everyone,

Susan
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A Letter from the President

Camphorweed (Heterotheca subaxillaris) by Bart Jones

David Hilgeman, Editor

Please send comments and material for the TNPS newsletter to djhilgem@gmail.com

Tennessee Native Plant Society
EST. 1978

Camphorweed (Heterotheca subaxillaris) by Bart Jones
Distinctions between Thistles

Thistle Varieties:
A Discussion of Cirsium horridulum

In the middle of May, I discovered a bright pink thistle that contrasted sharply from the environment of bland greens in the surrounding sedges and grasses. Since the flower head was surrounded by a cluster of spine-tipped leaves, I keyed the species to *Cirsium horridulum* and attempted to confirm identification with online photos. Additionally, I sent the photos to Bart Jones and other west Tennessee plant enthusiasts for comment. In response to my email, Bart replied with his existing knowledge and additional research he had conducted. Assuming the plant was keyed correctly, the individual plant I photographed looked a little different from other *C. horridulum* individuals observed here in west Tennessee.

The *Flora of North America* (http://www.efloras.org) lists three different varieties of *C. horridulum*. These include:

1. Stems densely tomentose; involucres ± densely tomentose.............................................................var. *horridulum*
2. Stems glabrous or sparsely tomentose; involucres glabrous........................................................................2
   2. Leaves shallowly to deeply pinnatifid, main spines 10–30mm.....................................var. *megacanthum*
   2. Leaves spinose-dentate to shallowly pinnatifid, main spines mostly 5–10 mm.............. var. *vittatum*

According to the *Guide to the Flora of Tennessee*, the only documented variety in Tennessee is var. *horridulum*. This is the most widespread of the varieties with a documented range from Maine to Florida to Texas. The *Flora of North America* restricts the ranges of var. *vittatum* to the coastal plain in states Mississippi, Alabama, Georgia, Florida, Louisiana, North Carolina, and South Carolina, while var. *megacanthum* is restricted to Alabama, Arkansas, Florida, Louisiana, Mississippi, Oklahoma, and Texas.

Supplied with my new knowledge of the varieties, I revisited the site to further key the species to the correct variety. To much dismay, I couldn’t locate it! Unfortunately, the species is short-lived as described in Henry Gleason’s *Illustrated Flora of the Northeastern United States and Adjacent Canada*. Moving forward, I only had two photos to use to determine the variety I had observed. Fingers crossed, I emailed the *Cirsium* expert from the *Flora of North America* website to see if he would provide input. Thankfully, he responded within a week and identified the photos as *Cirsium horridulum* var. *vittatum*. If the plant could be collected and verified in future years, this will be a Tennessee record.

Color and hybridization of the species are also worth discussing. Color is not an indicator for this species, as it varies between the varieties and even within populations or on a regional basis. - Continued on Page 6
Mark your calendars for October 25-28, 2018 for an amazing event to be held in Memphis presented by the Memphis Horticultural Society and sponsored by TNPS. A varied and interesting array of talks and tours awaits meeting attendees, highlighted by keynote addresses from Thomas Rainer and Larry Mellichamp. There are four tracks of two breakout sessions each afternoon featuring two of our own members, Allan Trently and Bart Jones. Evening sessions will be presented by Chris Cosby and Mike Larrivee after dinner and drinks. There will also be pre and post-conference tours on Thursday and Sunday, two of which are led by TNPS members Bart Jones and Allan Trently. The entire event is chaired by TNPS member Suzy Askew.

Sunk Lake and Lower Hatchie Hike Summary

*Sunk Lake continued from Page 1* - that was easily three feet tall and swarmed by Cloudless Sulphur butterflies. This spot also hosted two of the rarer plants we would see for the day, the formerly state-listed creeping spotflower (*Acmella repens*) and the state threatened plantain-leaf arrowhead (*Sagittaria platyphylla*). A short walk along the gravel road that leads into the natural area revealed numerous partridge peas (*Chamaecrista fasciculata*) and prairie mimosa (*Desmanthus illinoensis*) along with a few plants of smooth hedge nettle (*Stachys tenuifolia*) and late-flowering thoroughwort (*Eupatorium serotinum*).

At Lower Hatchie NWR, we made our first stop at an area around a small pond that has been managed for warm season grasses for quail and songbirds. Big bluestem (*Andropogon gerardii*) and Indian grass (*Sorghastrum nutans*) were two of the more recognizable grasses. The pond shoreline was punctuated with clumps of swamp smartweed (*Persicaria hydropiperoides*) and swamp cotton (*Hibiscus moscheutos*), our second hibiscus of the day. Growing among the grasses were some interesting vines including our state wildflower, passionflower (*Passiflora incarnata*), trumpet creeper (*Campsis radicans*), and wild cucumber (*Melothria pendula*).

Next on the agenda was an area of three small lakes that are tiered along a slope. At the muddy edge of the middle lake was a small plant with tiny white flowers and round, fleshy leaves. I had seen it the week before while doing the butterfly count at Lower Hatchie and had to do some digging to figure out what it was. I was finally able to come up with an ID, disk water-hyssop (*Bacopa rotundifolia*). Usually thought of as a plant of the Great Plains, it can be found in areas along the major waterways of the western half of Tennessee. The slope between this middle lake and the lower one is a rich moist area of grasses and sedges with stands of wetland wildflowers mixed among them. We saw sharp-angle monkeyflower (*Mimulus alatus*) and more fogfruit and spotflower. I pointed out what I believed was toothcup (*Ammannia coccinea*) even though I noticed the flowers were white or very pale pink and not the usual dark reddish pink. But only after I downloaded the pictures did I realize that this plant was somehow different. On closer inspection I noticed the leaves did not have the side lobes that toothcup has and the flower was solitary in the leaf axils, not clustered. Some searching online led me to lowland rotala (*Rotala ramosior*), a cousin to the Ammannias. But the best species at this location was the one clump of Virginia mountain mint (*Pycnanthemum virginianum*). I had found it last year and was excited to see it again and that it had increased in size. This species is only recorded from Carroll County in West Tennessee according to the UT Herbarium, so this is a significant find. Hopefully, it will begin spreading to other locations, as it is a beautiful flower upon close inspection.

Our final stop was at our highlight destination, what I am calling the “river dunes” community atop the banks of the Mississippi River here at the refuge. This habitat seems to be the result of sand and river gravel deposited during major floods, but these areas are just high enough not to flood as frequently and thus have given some pioneer plants a chance to establish themselves and to some extent stabilize the dunes. There are no true trees in the dunes, but there are a couple of woody plants that are dominant, leadplant (*Amorpha fruticosa*) and stunted plants of peppervine (*Ampelopsis arborea*). Herbaceous diversity is quite low here, with almost all plants consisting of weedy species like common ragweed (*Ambrosia artemisiifolia*), poorjoe (*Diodia teres*), and narrow-leaf sneezeweed (*Helenium amarum*). However, there were two plants not commonly seen, camphorweed (*Heterotheca subaxillaris*) and plains snakecotton (*Froelichia floridana*). The snakecotton is only known to occur at this location in Tennessee.

- Continued on Page 6
Cirsium continued from Page 4 - As Bart points out, the typical *C. horridulum* of west Tennessee has deep maroon or buff yellow flowers, not pink like the one I observed. To make identification more difficult, natural hybridization can occur.

The plant was located in the Wolf River bottoms of Shelby County on the fringe of a former agricultural field and an undisturbed floodplain. The site had damp soils with seasonal surface water inundation and partial sun. Only one individual was observed. I remain hopeful that it returns in the future! I’ll be looking…. - David Hilgeman

Virginia Mountain Mint

*(Pycnanthemum virginianum)* by Bart Jones

Sunk Lake continued from Page 5 - but I think it may be in other river dunes areas in other counties. This habitat occupies a very narrow strip between the bottomland forests that line the river and the river itself. In most areas it is only 10-15 yards wide, so this plant could easily avoid detection. It is, however, a relatively showy plant. The individual flowers are minute, but occur in several clusters along the flower stem with the calyces surrounding them being white and fluffy. In the swales where more moisture is retained, grasses have taken hold. I believe many of them are non-natives, but one interesting species did stand out, the pinkish inflorescences of hairawn muhly (*Muhlenbergia capillaris*), a population that seems to be disjunct by close to 100 miles from the nearest population. Usually thought of as a prairie species, this sandy habitat seems to be amenable. It will be interesting to see how stable this community is and what if any changes occur over time.

As we reconvened back at Woodard’s Store, we said our goodbyes and a couple of us said hello to some delicious ice cream. It was a hot day after all. - Bart Jones

Survey Participants Needed for Citizen Science

Dr. Nash Turley is a researcher at the University of Central Florida and the coordinator of the Lawn to Wildflowers Project (lawntowildflowers.org). This is a citizen-science project to turn grass lawns into pollinator-friendly wildflower habitats. Dr. Turley has contacted TNPS asking for help to promote a scientific survey they are conducting to understand people's thoughts and opinions about lawns, wildflowers, and pollinators. This is a first step in a project that will build our basic understanding of what factors prevent regular people from planting wildflowers.

TNPS encourages members to take the survey located below:

https://ucf.qualtrics.com/jfe/form/SV_cMUN5uMXUuggbKl

Come Join a Hike! Stay Tuned for the 2019 Schedule
Education Outreach Activity

Lookout Mountain’s Pollinator Festival
May 20, 2018
Chattanooga, Tennessee

Cooper Young Garden Walk
May 20, 2018
Memphis, Tennessee

Hummingbird Festival
August 25, 2018
Knoxville, Tennessee

Wildflower books are back in stock. The Lone Pine sales office has received their new order. Reach out to one of our board members or purchase directly from www.lonepinepublishing.com.
Call for Nominations

TNPS is asking for nominations for Board Members and Officers. If you know someone who might be a good fit, reach out to one of the current board members or info@tnps.org.

Check www.tnps.org and Facebook for details on 2019 events.

When Dues Are Due?

Unless you are an email subscriber, check your mailing label for your membership date. You are paid through the year listed just above your name. You can pay TNPS dues at any time, and now you can pay online at the TNPS Website. Just go to www.tnps.org, click “Membership,” and follow directions there. If your address has changed, you can email the new address to info@tnps.org. We cannot print the newsletter in full color, but you may be pleased to find all the color in email copies and at the website. www.tnps.org