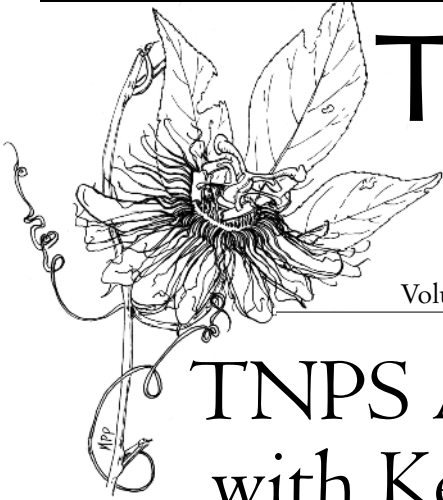


TENNESSEE NATIVE PLANT SOCIETY

Volume 37, Number 2

June 2013



TNPS Annual Meeting with Kentucky Society

This year's TNPS annual meeting, September 20-22, will provide a rare chance to share interests with members of the Kentucky Native Plant Society, as our two organizations meet jointly at Lake Barkley State Park on Kentucky Lake.

Members can enjoy another excellent lineup of speakers, programs, and field trips. A reception will be held 4 to 6 p.m. Friday. After supper (on your own), TNPS will hold a business meeting, with a program to follow.

Friday's speaker will be Edward Chester, professor emeritus of biology at Austin Peay State University and a past recipient of the TNPS Conservation Award. Dr. Chester will discuss the barrens of Tennessee and Kentucky.

On Saturday evening, Professor Ron Jones will be the speaker. He is co-author with Eugene Wofford of *A Winter Guide to Woody Plants of Kentucky and Tennessee*. His topic will be woody plants: "Current Status and Future Prospects in the Age of Climate Change."

Lake Barkley lodge requires all registrations to be complete by August 23; so please complete and return the form on page 3 by August 20.

Costs and fees are listed on the form. The form should be mailed, along with a check, to Lorie Emens at her address in Lakeland, which is listed on the form.

The recently renovated Lake Barkley Lodge fits into the wooded shoreline of Kentucky Lake that surrounds it. Directions to Lake Barkley State Park and lodge may be found on the park website. The official address is 3500 State Park Road, Cadiz, Kentucky, 42211.

Seeking the Large Colonies of Pink Lady's Slippers

Todd Crabtree

I just got news of the recent discovery of a very large population of pink lady's slippers (*Cypripedium acaule*). This species is wide-

spread in the eastern part of the state, particularly on the Cumberland Plateau and the dry ridges of the Blue Ridge Mountains. Although there are numerous populations, I have seen only a few that were large—large enough to have hundreds of plants. All of the large sites I've encountered have been in areas where it would be difficult for someone to dig up plants without being seen or in

sites that are well protected and have limited access. I have decided, after

Continued on page 3



Phacelia fimbriata

Photo by Bart Jones



Don't Miss the
Annual Meeting
Sept. 20-22

TNPS Newsletter

June 2013

Vol. 37, No. 2

This newsletter is a publication of the Tennessee Native Plant Society and is published four times a year, generally in February, June, August, and November.

The Tennessee Native Plant Society (TNPS) was founded in 1978. Its purposes are to assist in the exchange of information and encourage fellowship among Tennessee's botanists, both amateur and professional; to promote public education about Tennessee flora and wild plants in general; to provide, through publication of a newsletter or journal, a formal means of documenting information on Tennessee flora and of informing the public about wild plants; and to promote the protection and enhancement of Tennessee's wild plant communities.

Dues for each calendar year are:

Regular: \$20

Student: Complimentary

Institution: \$50

Life: \$250

Dues may be sent to:

Tennessee Native Plant Society

P.O. Box 159274

Nashville, TN 37215

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Please send comments or material for the newsletter to TNPS Newsletter, P.O. Box 856, Sewanee, TN 37375 or

lathamdavis@bellsouth.net

TNPS Website:
www.tnps.org/



A Letter from the President

What a strange spring it's been! I don't know if I've ever seen such a cool one. I mean it is May 13 as I write this and there were frost advisories posted for over half the state last night! But the plants seemed to have responded nicely to this "northerly" spring. Other than being a little behind schedule blooming, everything is lush and flower color seems a bit more intense. At the Wildflower Pilgrimage, most everyone agreed the floral display was the best in many years.

Speaking of the Pilgrimage, I had the great pleasure of presenting the TNPS Conservation Award to the sponsors of the Pilgrimage. Representatives from quite a few of them were present, and it was nice to have a few minutes in the spotlight to showcase some of what we do as a society.

As you will notice in this issue, it is time to register for the Annual Meeting to be held at Lake Barkley State Park in Kentucky, September 20–22. This meeting promises to be special, with our neighbors from the Kentucky Native Plant Society joining us for an eventful weekend. We are lining up a slate of exciting talks and the always fabulous field trips. We have reserved 50 rooms that will be first come, first serve, so don't delay in sending in your reservation.

There are still a few field trips coming up this summer, so mark your calendars. We have had great attendance on our trips so far this season, so thank you to all you've gone on a hike. I can't stress enough how important the field trips are to the unity of the society. It is a great time to meet new members and catch up with old friends, a wonderful opportunity to learn about Tennessee's diverse flora and visit rare plant communities, and just enjoy communing with nature. And thanks to all the leaders who write great trip reports and submit beautiful photographs for the newsletter.

If you haven't visited our website lately, please take a few minutes to explore it. Karen Ripple has done a tremendous job updating it, so many thanks to her. And if you haven't renewed your dues, the website offers the convenience of on-line payment through PayPal. Also, Joanna Bricchetto and Lorie Emens continue to improve our Facebook page. This is our portal to provide the most up-to-date information and announcements, so visit it often to keep up with the latest goings-on with TNPS. You don't have to be a member of Facebook to view most pages, but if you are, you can "like" and comment on the walls and interactively immerse yourself on the site. This is the beauty of Facebook and makes it an increasingly popular stop for our fans.

We will be relaying information about the Annual Meeting schedule as it develops, so check your email, the website, and the Facebook page to keep up with the latest. I'm getting very excited about the meeting and I hope you are, too. I think this will be one that we will reference as a benchmark for future meetings. Help make it memorable!

See you on the trail!

Bart



2013 TNPS Annual Meeting

September 20–22, 2012

Please complete and return by August 20

Registration fee per person \$15.00	# _____	@ \$15.00	_____
Room: Single per night		\$101.16	_____
Double per person, per night		\$50.58	_____

Those sharing a room should register together. Two checks may be sent.

Box Lunch for Saturday Field Trip	_____	@ \$ 10.91	_____
Saturday Buffet Lunch	_____	@ \$ 12.17	_____

TOTAL _____

Other meals may be purchased individually at the park restaurant:
Supper Buffet — \$19.48, Breakfast Buffet — \$12.53

Registrant #1 Information:

Name _____
 Address _____
 Telephone _____
 Email _____
 Special Needs _____

Registrant #2 Information (if sharing a room):

Name _____
 Address _____
 Telephone _____
 Email _____
 Special Needs _____

Mail check(s) payable to TNPS to:
Lorie Emens
9705 Kingsbridge Cove
Lakeland, TN 38002



Sharpening Our Botanical Ethics

— Continued

many miles hiked in the Tennessee back country, that some species are just too attractive for their own good. Small populations are the norm. Many of the pink lady's slipper sites consist of only a few small vegetative plants. Some people can't resist digging up the pretty flower to take home with them. We all know this from hearing and reading about it.

There are some indications that some native orchids will be available from tissue cultured material and maybe this will relieve some of the pressure from wild populations. Without some sort of proof that plants were not harvested from the wild, any native orchid available for sale is suspect. Even with less pressure, wild populations will require many years to recover.

Lecturing about ethical behavior isn't enough to change the attitude of some people. Maybe it requires a different perspective. Pink lady's slippers aren't under an imminent threat of extinction in Tennessee, but they are not frequently seen by most people. Most people are on a trail when they see them and some of these people are taking them home. Less and less are left for others to see along the trail. So, would you rather see a few orchids in your garden, that may or may not survive, or hundreds along your favorite trail? Imagine how much abundance is possible if we just refrain from destroying it. If I take one, you take one, and then everyone else takes one, then soon there will be none. As our population grows it becomes more imperative to save something for the next person to come down the trail and the next generation. □

Consider the Lichen

Alice Jensen

When you think you could exhaust the study of herbal species of vegetation, then take up the lichen.

Open eyes and a strong magnifying glass—even a field microscope—will serve you well. In addition, you will treasure two or three good reference books.

The latest is offered by The New York Botanical Garden Press: *The Lichens and Allied Fungi of the Great Smoky Mountains National Park* (2013).

The outside of this nicely bound book pictures on the front a complete lichen thallus, and with the cm-measuring scale on the back cover, you can visualize most sires mentioned inside the book. The three authors, James C. Lendemer, Richard C. Harris, and Erin A. Tripp, have accomplished an extremely thorough body of research on the lichen.

This book offers a fascinating study for any lichenologist or would-be lichenologist. Each genera appears to be represented with all or most known species.

Anyone not familiar with the developmental vocabulary of lichens may need to refer to the larger book *Lichens of North America* by Irwin M. Brodo and Sylvia Stephen Shavnoff (2001), Yale University Press.

Our newer guide from the New York Botanical Garden Press is striking for its multiple pictures in each of 23 figures, all taken through the microscope, showing cell structure and scale. The excellent keys lead you to specific species. Notes are provided for many species, indicating where they have been found and when. Geographic distribution is often provided with maps and descriptions.

Though technical, the book is fun to explore as an aid in your own observations.

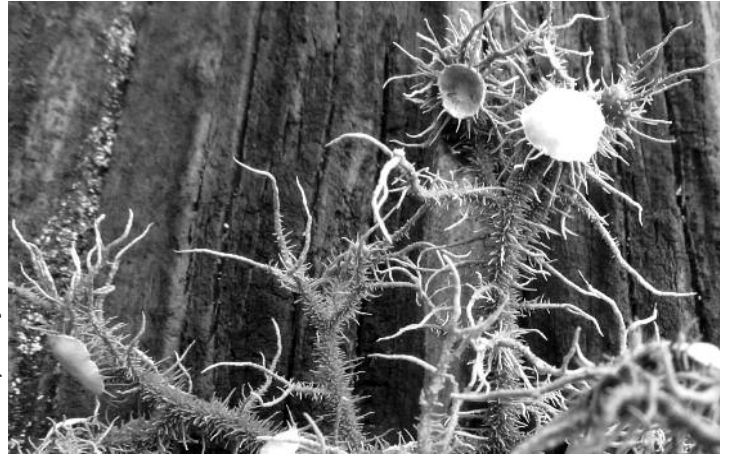
Where to find lichens: Start in your own backyard on house walls, branches high and low—any type of wood, dead or alive—small rock, large stones, concrete. Oxygen, sufficient moisture, and time let lichens flourish. Even a light rain will bring forth many colors—shades of green, blues, yellows, browns, reds, and occasionally sparkles. Shapes bounce up like sponges.

The vascular plants like to catch a breeze when you are about to take a photograph. The lichens usually hold still, although the long usnea types sway like beards in the wind. You might take along a water bottle to encourage the *Peltigera* thalli to look like fresh lettuce leaves.

Bright sunshine on 3000-year-old Viking gravestones shows the lichens as a color palette.

Easiest to see are the most often found growth forms of foliose, fruticose, crustose, squamulose. □

Photo by Alice Jensen



Usnea strigosa, a fruticose lichen, lying on old cedar log, at Horse Mountain, Shelbyville, Tennessee.

Making a Place for Lichens

Let's be clear. Lichens are not plants. Hence, an article about lichens may seem out of place in a newsletter for botanists. But who among us, admirers of ecosystems that harbor our trilliums and silphiums, can ignore the rippling green carpets and red caps of lichens. We have to acknowledge the place lichens have among the "higher" plants, contributing to rock decomposition and soil chemistry, slow though this may be.

Lichens are made of fungi, which have their own kingdom—not plants—and of (most often) algae, which are in the kingdom Protista, separate from fungi and plants. This odd combination presents some interesting problems and mysteries. Evolutionally, when and how did they begin? Lichenologists cannot determine any single biological source. Nor can the 20,000 known kinds of lichens be called species in the same sense as plants, because of their combinations.

Fungi provide lichens with their main structure and the algae contribute (generally) the food through photosynthesis. This symbiotic relationship touches only the surface of their complexity. Though taxonomically one is algae and the other is fungi, they cannot (in most cases) live separately. Yet together they can survive some of the harshest conditions on our planet and in places where higher plants cannot survive.

Lichens may dry completely when moisture is unavailable. At the extreme, this is not dehydration that we observe in plants and animals but a complete loss of body water such that the lichen becomes brittle. When moisture is again available, they quickly absorb water, becoming soft and fleshy again. Their secrets of success are not well understood, but are attributed to complex chemistry.

Dissimilar as they are to plants, lichens give a new dimension to our woodland and meadow explorations. If you get to know a few of them, you will be rewarded. □

TNPS FIELD TRIPS

Ghost River State Natural Area,
March 30, 2013

“I don’t see any,” said the voice on the phone. That voice belonged to my co-leader Allan Trently who was scouting the Mineral Slough area of Ghost River State Natural Area for our target species, the southern twayblade (*Listera australis*). Then I hear some yelling in the background, and Allan says, “I think we found one.” Sure enough, Allan’s daughter and some folks visiting from England had indeed spotted some, four to be precise. That little touch of panic subsided.

When Saturday arrived, there was another reason to panic, rain and thunderstorms were in the forecast and a quick check of the radar showed they were on the way. As our group assembled near the post office in LaGrange it looked like we might have an hour before the rain hit. The 23 of us headed to Mineral Slough hoping to get to the orchids before the rain.

As we made our way along the trail to the boardwalk, a few species did command a few minutes attention; smooth yellow violet (*Viola pubescens*), prairie trillium (*Trillium recurvatum*), spring beauty (*Claytonia virginica*), rue



Trillium vaseyi

Photos by Bart Jones

anemone (*Thalictrum thalictroides*), and several wild plum trees in bloom (*Prunus* sp.). As we entered the low woodland past the boardwalk, it wasn’t long before someone yelled, “I think I’ve found one!” Sure enough, just off the trail was a robust individual twayblade. As people congregated and started looking around the area, more and more plants became apparent. There was one curious thing we noticed, it seemed like the plants tended to occur quite frequently alongside downed, rotting logs. I’ve read articles that talked about fallen trees being “incubators” for seedlings. Is this what’s happening with the twayblades? As everyone was getting their fill of photos and good look-



Trillium catesbaei

sees of the twayblades, the rain started falling. We made our way out of the woods, but not until we had seen a few dozen orchids.

Many people left right after lunch, but Virginia Reynolds went up the road a piece to a shed where barn owls are known to roost/nest. After a few minutes she came back to tell us that indeed one was there, so we all went for a look. The owl was kind of hidden by a rafter, but we did see her.

The remainder of the group decided to go on with the plans to see the sandhills community where the sand post-oak (*Quercus margarettae*) grows. The sandy bluffs along the Wolf River are where the sands of the Memphis aquifer reach the surface. The plant community here has a much more xeric feel to it because the sand drains so quickly. Plants typical of this community that we saw were prickly pear cactus (*Opuntia humifusa*) and yucca (*Yucca filamentosa*). There was a question if the yuccas were naturally occurring or escapes from plantings around old homesteads. It’s hard to know the answer, but they cover a fairly large area and seem evenly distributed throughout.

While walking back along the road we looked for post-oak leaves which might tip us off to the trees. Eventually we found a few leaves on the road and nearby were three saplings regenerating from a cut stump. Amazingly, one of the saplings was still holding its dead leaves, so we could get a good look at both leaves and bark from the stump. With the bark ID, we were able to spot a couple more adult trees. It was a good way to end a soggy day.

Bart Jones

TNPS FIELD TRIPS

Wells Hill Park, Lincoln County
April 6, 2013

Wells Hill Park was sold at auction by the City of Fayetteville to a conservation buyer in June of 2012. The intent of the new owner is to work toward preserving the 114 acre property either as a state natural area or county park. To facilitate the process TNPS scheduled this field trip to help inventory the plants there, hoping that some rare plants would be discovered. Between 25–30 participants joined in the search to observe and record as many plants as could be identified.

Two visits to the park in the summer of 2012 resulted in a preliminary list of 61 plant species. For our current hike the group stayed together in the morning and worked our way up the main creek flowing through the area. One highlight was the discovery of a huge population of twinleaf (*Jeffersonia diphylla*) on the hillside to the right. We also found fumewort (*Corydalis flavula*), purple phacelia (*Phacelia bipinnatifida*), and wild blue phlox (*Phlox divaricata*).

After lunch together on the trail the participants divided into smaller groups to explore each of the three ravines found at the upper end of the property. Springs and small waterfalls are found in the head of each ravine. The



Mitella diphylla



Trillium simile

area, now Well Hill Park, provided the source of Fayetteville's water from 1904 to 1954. It was the first gravity flow water system in the United States. Wister's coralroot (*Corallorhiza wisteriana*) was found in one of the ravines, but the large populations of bent trillium (*Trillium flexipes*) and twisted trillium (*T. stamineum*) known for this area were not yet in flower.

At the end of the day 53 plant species were added to the list, bringing the total to 114 species. Bob and Pandy English searched for amphibians in the wet seeps and springs.

Among those found, the Spring Salamander (*Gyrinophilus porphyriticus*) was a county record.

Dennis Horn



Polygala pauciflora



TNPS members lunch on a log in Wells Hill

TNPS FIELD TRIPS



Photo by Bart Jones

Dicentra eximia

Short Springs State Natural Area, Coffee County April 7, 2013

As a part of Natural Areas Week there were four hikes scheduled that Sunday at Short Springs SNA. The turnout was good, the spring flowers were near their peak, weather was nice, and all of the waterfalls had excellent flow. Since spring was late this year, the upper level (Highland Rim) still exhibited a winter setting. This allowed good views from the overlook of both the upper and lower Busby Falls on Bobo Creek.

Once we started our descent to the lower level (Central Basin) the arrival of spring was evident. The barren strawberry (*Waldsteinia fragarioides*) was in prime condition. It is similar to wild strawberry, but with yellow flowers. Large flowered trillium (*T. grandiflorum*), sweet Betsy (*T. cuneatum*), star chickweed (*Stellaria pubera*), and large-flowered bellwort (*Uvularia grandiflora*) all provided fine displays. We found a few Dutchman's breeches (*Dicentra cucullaria*), blue cohosh (*Caulophyllum thalictroides*), and bloodroot (*Sanguinaria canadensis*) still in bloom.

Three weeks after these hikes took place the rains came. Lots of rain! Normandy Lake rose to a level four feet above the summer pool and covered a portion of the lower wildflower loop trail. If the Normandy Dam is raised five feet, as the Duck River Development Agency has proposed, the entire wildflower flat and trail would be flooded during periods of heavy rain. The best wildflower area in the Short Springs SNA would be destroyed and become a mud flat. Machine Falls, the primary scenic attraction for most visitors, could not be reached without wading through three feet of water! Raising the dam is not yet a certainty, but we must remain vigilant to make sure it never happens.

Dennis Horn

Narrows of the Harpeth April 20, 2013

Five members met Ranger Lisa Householder at the canoe takeout parking lot on the Harpeth river at the Harris Bridge. From there she led the group to the exit of the tunnel which connects the Harpeth about five miles upstream. Because of the loop in the river, the tunnel is only about 200–290 feet long and provided sufficient water flow to power an iron forge in the 1800s. The weather was perfect and the spring flowers put on a fine show. One of the somewhat unusual flowers seen was the twisted trillium (*Trillium stamineum*).

From the tunnel exit, the group took a short trail over a low hill to the entrance of the tunnel and the back to the parking area.

Darel Hess

Devil's Breakfast Table May 18, 2013

I was amazed that there were 13 of us at the meet up site since it had been raining and the forecast was for more. We caravanned to Daddy's Creek and started exploring the rare cobble bar habitat. The shrub community was quite diverse. This assemblage included leatherwood, maple leaf viburnum (flowering), arrow-wood, withe-rod, fringe tree (flowering), sweet shrub (flowering), pinxterflower azalea (a few flowers left) and nine-bark. We found the very rare Cumberland rosemary, a low shrub, in flower. It occurs only in the cobble bar habitat. After lunch we hiked a bit of the Cumberland Trail. Here it is a very rocky path at the base of a sandstone cliff. Mountain spleenwort and small-flowered alumroot are characteristic plants of these cliffs. Almost everyone skipped the finale event a bushwack to Devil's Breakfast Table. On the way as we climbed over rocks we encountered a copperhead. At the Table I was astounded anew by the sandstone rock on the shale pedestal which seems to defy physics. Surely this huge rock will topple soon as it looks to be very badly balanced.

Larry Pounds





Photo by Mary Priestley

TNPS President Bart Jones, right, presents the annual Conservation Award certificate to Ken McFarland of the Smoky Mountains Spring Wildflower Pilgrimage.

Remaining 2013 TNPS Field Trips

- August 3, 10 a.m. Central Time: Cane Creek Canyon, Alabama. Guide: Bart Jones (901-726-6891).
- August 24, 10 a.m., Eastern Kanati Fork, Smoky Mountains. Guides: Allen and Susan Sweetser.
- September 7, 10 a.m. Central: Lost Cove near Seawanee. Guide: Mary Priestley (931-598-0157).
- September 20-22: Annual Meeting.
- October 26, 10 a.m. Central: Walls of Jericho in Franklin County. Guide: Todd Crabtree (615-532-1378).

Please Note: The date for the Kanati Fork hike in the Smokies is a correction of the listing in the March issue of the newsletter. This promises to be an excellent outing in a beautiful area. The Sweetsters may be contacted at 865-938-7627.

Check Your Dues Date?

Check your mailing label—the year through which you have paid dues is printed at the top. If the date's 2012 or 2011, please send a check promptly to Darel Hess, our treasurer. TNPS, P.O. Box 159274, Nashville, TN 37215.

TNPS Newsletter
P.O. Box 856
Seawanee, TN 37375