



Tennessee Native Plant Society Newsletter

Volume 29, Number 1

Our 27th Year

March 2005

The Rare Plant Protection and Conservation Act of 1985 Celebrates 20 Years

by David Lincicome, Rare Species Protection Program Administrator
Tennessee Dept. of Environment & Conservation, Division of Natural Heritage

Twenty years ago on April 25, 1985, Governor Lamar Alexander signed into law the Rare Plant Protection and Conservation Act of 1985 (RPPCA). In the introduction to this act the Legislature states, "The Legislature finds and declares that human needs and enjoyment, the interest of science, and the economy of the state require that rare plants throughout the state be protected and conserved; that their numbers be maintained and enhanced; and that propagative techniques be developed for them to insure their perpetuation as viable components of their ecosystems; however, nothing in this part shall be construed to limit the rights of private property owners to take rare plants from their own lands or to manage their lands for agriculture, forestry, development or any other lawful purpose."

The act charges the Department of Environment and Conservation (TDEC), through its Division of Natural Heritage (DNH), with maintaining and enhancing the numbers of rare plants in the state, but without infringing upon private property rights, or interfering with, delaying or impeding any public works project. Most rare plant populations are found on private property within the state. So despite having a good law to protect and conserve rare plants, the task at hand remains a great challenge.

The act charges DNH, through its Natural Heritage Inventory Program, with identifying and listing those species that are endangered, threatened or of special concern within the state. There are currently 536 plants on our

state rare plant list. Nine of these species are endemic to Tennessee (found nowhere else in the world). The Rare Plant Scientific Advisory Committee reviews this list every three years and suggests amendments to the list. This list is formalized through the public rule-making process, including a public review and approval by the commissioners of TDEC and the Department of Agriculture. This list serves as the focal point for rare plant conservation within the state.

DNH also implements this act through its Rare Plant Protection Program, which was established on September 16, 1986, through a formal cooperative agreement between the U.S. Fish and Wildlife Service (USFWS) and TDEC, as authorized under the RPPCA and the U. S. Endangered Species Act of 1973 (ESA). This agreement established the TDEC as the lead state agency in Tennessee for conducting conservation programs for endangered and threatened plant species under the ESA Section 6(c). This program's primary focus is conducting USFWS listing and recovery activities funded through an annual Section 6 grant agreement between the USFWS and TDEC. At this time we have 21 federally listed plant species (13 endangered and 8 threatened), and 3 candidates for federal listing. So far in Tennessee we have had one species, *Scutellaria montana*, down-listed from endangered to threatened; and one species, *Helianthus eggertii*, proposed for removal from federal listing.

(continued on page 2)

President's Comments

by Karl Heinzman

I'm not sure I really have a favorite time of year. For me it's bits and pieces of each season. One of the things I like about early spring is the announcement of the year's field trips (in the center of this newsletter—be sure and save).

Of the issues discussed during the January board meeting, the challenge to increase our membership base was one of the most important. Actually, you can be a major part of this quest... ask a friend to join you on one of our field trips. Your board also approved funds supporting printing of the Tennessee Department of Conservation and Environment's new rare plant poster. The TNPS logo will be on this poster.

With the publication of our book at hand, we have included a very informative flyer on the book, which was produced by Lone Pine Press, our publisher. This is truly going to be a marvelous book. It will be available through local booksellers, national chains and on the Web at popular sites. For \$22.95, it's a real bargain!

See you on the trail!
Karl

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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.

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Tennessee Native Plant Society
P.O. Box 159274
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Comments? Questions? Submissions? Send to

TNPS Newsletter Editor
Ashley Crownover
922 Shauna Drive
Nashville, TN 37214
newsletter@tnps.org



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Outlook Bright for Tennessee Conservation Voters

by Michelle Haynes

I am excited about the upcoming year for environmental conservation and land preservation in Tennessee. The Bredesen administration and the Tennessee Department of Environment and Conservation are working hard to unify those who care about preserving our unique natural heritage. TNPS members helped shape this initiative by participating in the Tennessee Conservation Voters survey of important issues facing the 2005 General Assembly. Until 2000, no state environmental organization, including TCV, had a state political action committee (PAC). Historically, the environmental community was not active at the state legislature and the environment was not viewed as an issue in elections. The purpose of creating the PAC is to change these patterns. TCV's political action committee is known as Conservation Action PAC. You can see what TCV has accomplished this year by visiting the new website, www.tnconservationvoters.org, and registering as a TNPS member. Please express your opinion and sign up for the email newsletter—or better yet, donate to the PAC individually.

Founded 25 years ago, Tennessee Conservation Voters has served as the state's only nonprofit lobbying coalition for the protection of Tennessee's quality of life and natural heritage. It currently works on behalf of 18 not-for-profit organizations, including the Tennessee Native Plant Society. TCV has been successful in carrying out its mandate to advocate for proactive environmental legislation and stop anti-environmental bills from becoming law. Here are some of the issues the organization follows in the Tennessee state legislature:

- Funding for land acquisitions.
- Pro-environment representation on key boards and commissions.
- Mining practices that damage our water and forest resources.
- Forestry practices that are unsafe and cause water pollution.

TCV paved the way in the 103rd General Assembly for future success by supporting the following environmental bills:

- Water quality for surface mining: A bill allowing TDEC commissioner to issue a stop work order when surface mining activities cause violation of water quality regulations.
- Water quality appeal rights: A bill broadening appeal rights in water quality cases.
- Land acquisition: A bill restoring the full land acquisition funds and funding mechanism.
- Environmental representation: A bill to increase representation on key boards and commissions.
- Chip mill permitting: A bill requiring registration and permitting of chip mill operators and related operations.
- Forestry: Bills prohibiting forestry practices incompatible with protecting Tennessee's biological diversity.

TCV is a unifying voice for many of the state's environmental organizations, including the Sierra Club, Tennessee Environmental Council, Tennessee Clean Water Network, the Harpeth River Watershed Association, Tennessee Recreation and Parks Association, Tennessee Trails Association, Tennessee Native Plant Society, Tennessee Scenic Rivers Association, the Tennessee Audubon Society, the Southern Association for Clean Energy, the Tennessee Scenic Preservation Trust, and the Maury Heritage Land Trust. In 2003, TCV introduced the Legislative Scorecard, which compiles the voting records of our state legislators and mirrors the efforts of our parent organization, the League of Conservation Voters (which provides U.S. congressional voting records on our issues). TCV sponsors a voter education program on key conservation issues and produces a weekly email newsletter on legislative developments affecting the environment. You can see what TCV's Conservation Action PAC has accomplished by visiting the website, www.tnconservationvoters.org.

Michelle Haynes is a lobbyist with Tennessee Conservation Voters.

Rare Plant Act (continued from page 1)

There remains ahead a significant challenge to achieve the recovery of our federal listed plants species.

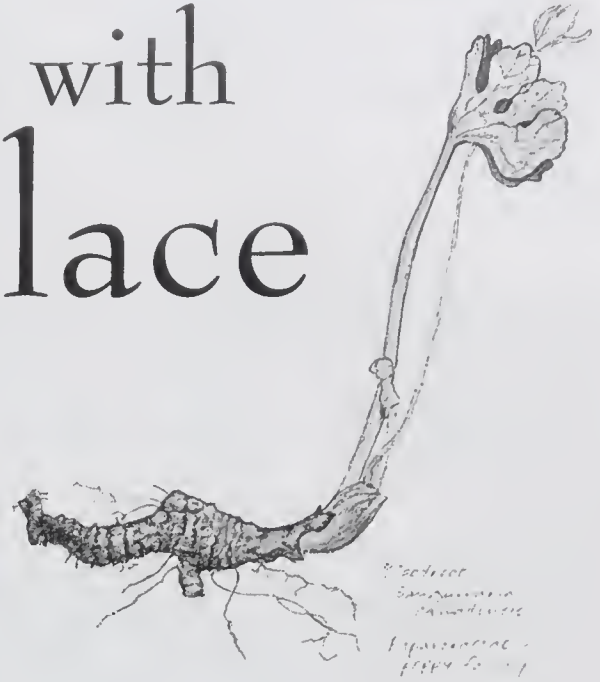
The act also charges TDEC with establishing regulations under which the state can issue a free license for the commercial sale or export of any endangered species by nursery farmers. It was recognized that there existed an interest in the horticultural value of some of the state's rare plants and that such demand could impact

the conservation of the species. This license, available from DNH, ensures that the propagation and trade of these endangered species is done in a responsible way, thereby preventing harm to native populations.

Over the last 20 years much has been accomplished to conserve the state's rare plants. However, there remain significant challenges ahead to continue to identify, maintain, and enhance our state's rare plant species.

Connecting with the Commonplace

This is the first in a series of articles on keeping a nature journal. Here Jill Carpenter sets the stage by sharing her thoughts on gaining a sense of place. If you or someone you know would like to contribute to this column, please let me know. —Mary Priestley (marypriestley@bellsouth.net)



Part 1: A Sense of Place

The phrase “sense of place” is everywhere. It’s associated with nature journals, regional literature, essays, poetry, “wheredunnit” mysteries, art, and spiritual studies. It’s associated with environmental science, community design, sustainable living, and cultivation of native plants.

The concept of “sense of place” is simple. Each “place” on earth has a set of physical features: rainfall, temperature, geology, topography and soils. Each place also has its associated living things: the animals, plants, and microorganisms that live there and

are adapted to local conditions. Each depends on the others, and human inhabitants are not exempt. Place is dynamic, but also has a comforting regularity, orderliness, and predictability that enables us to characterize it and recognize it.

Places are sensual, full of peculiar sights, sounds, smells, tastes, and textures—experienced within an emotional context. We exist in places and we imprint on them, subtly and subliminally. We characterize places and compare them with other places that are different.

Imprinting on place is different now from when most people lived closer to the land. The

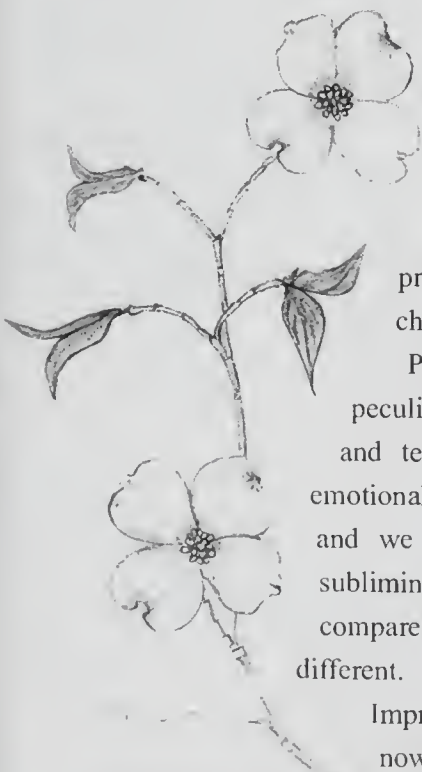
balance between farm and urban populations shifted decades ago toward the latter. Now we depend on factory farms for food, and technology of all kinds has further isolated us from nature. Yet the land remains our ultimate source of sustenance, and provides other less obvious, but no less real, sources of sustenance. Even city dwellers need to take “breathers” or vacations to attend to basic sensations of place.

The current heightened sensitivity to sense of place is correlated with rapid environmental change all around us. Humans began significantly changing their surroundings about 11,000 years ago when they settled down to agriculture and permanent dwellings, so human alteration of the environment is not new. What is new is the size of human populations, and the pace and scope of alteration. No corner of the globe is exempt from human impact, and other species are disappearing as humans take their places or food.

Sense of place contrasts with the homogenizing effect of globalization. It reflects an ecological or holistic way of seeing, a desire to be “placed” in the world rather than displaced or distanced. It represents reconnecting with the world we share with neighbors, human and nonhuman, and finding delight and inspiration, as well as self-knowledge. Thinking about sense of place raises questions about ethics and spirituality, about transcendence of self, and especially about stewardship, the responsibility to preserve, protect and pass on.

Sense of place is about knowing about where we live right now, and how that fits into the world as home. In a time of grave uncertainty about our environmental future, attending to sense of place is a journey toward understanding the natural world and our place in it.

Jill Carpenter has degrees in zoology and journalism and has worked as a teacher, writer and bookseller (though not all at the same time!).



illustrations by
Jill Carpenter

2005 TNPS Field Trips

Field trips are designed to promote informed interest in Tennessee's native plants. They are led by persons familiar with native plants of the area and are open to nonmembers as well as members. Since conservation is a primary objective of our society, plant collecting is not allowed. The physical nature of the trip is described to the extent known at publication time. Attendees are responsible for judging whether the trip

is suitable for their particular abilities. All participants will be asked to sign a liability waiver as a condition of attending. Trips are rarely cancelled, but sometimes changes are unavoidable. Contact the trip leader a day or two before attending to get an updated status and to let them know who is coming. Keep the schedule and attend as many trips as you can. —Todd Crabtree

Meeting time and place	Description	Directions	Leader
April 10 Sunday 10 a.m. Central time Cumberland Homesteads Tower and Museum , Junction of 68 and 127	Hinch Mountain One of the best wildflower areas in the Sequatchie Valley. We should see over 40 different species blooming including least trillium (<i>Trillium pusillum</i>) as we drive and hike our way along the side of the mountain.	From I-40, take the US-127 exit—Exit 317—toward Crossville/Jamestown. Take the ramp toward Crossville/Pikeville. Turn south onto US-127 S/TN-28 S. Travel 7.6 miles to junction of 68/127. Walking: Moderate hiking, some wet areas Lunch: Bring Facilities: None	Margret Rhinehart (931) 946-2381
April 16 Saturday 9 a.m. CDT—Program: State Parks All Taxa Biological Inventory 10:00 a.m.—Hike Standing Stone State Park Office	Standing Stone State Park This is one of our state's premier wildflower sites and we will see a variety of spring woodland flowers. Join us for abundant displays of trilliums, violets, bloodroot, shooting star, phlox, toothwort, foam flower, bluets, etc. Up to 50 species may be seen in flower. This hike coincides with the Standing Stone State Park Spring Naturalist Rally. A variety of activities will be taking place within the park this weekend (April 15-17).	Take exit 288 off I-40, (Livingston/Sparta exit) Hwy. 111 N to Livingston. Hwy 52 West to the entrance of the park. Hwy. 136 is the main park road. Walking: Easy to moderate hiking along narrow trails, steep slopes to the side Lunch: Bring Facilities: At the meeting place	David Lincicome (615) 532-0439
April 23 Saturday 10:00 a.m. CDT McDonald's in Sparta	Camps Gulf—Fall Creek Falls State Park and Natural Area If you missed the previous two hikes or just can't get enough spring ephemerals, this trip is for you. Four species of trillium are found here, along with the usual list for a cove hardwood forest on the Cumberland Plateau. A few early <i>Synandra</i> (<i>Synandra hispidula</i>) and goldenseal (<i>Hydrastis canadensis</i>) should be in bloom. In addition to the numerous species of wildflowers we will see a very impressive cave entrance. Not far away is the largest cave room in the country.	From I-40 Take the TN-hwy 111 exit- EXIT number 288- toward LIVINGSTON/ SPARTA. Turn south onto TN-111 S. Travel 13.8 miles then turn left on Roosevelt St. Walking: Moderate hiking, stream crossing Lunch: Bring Facilities: At the meeting place	Todd Crabtree (615) 223-0279
May 7 Saturday 10:00 a.m. CDT Cogbill's Store intersection of Hwy 57 and LaGrange/ Yager Rd Caution light; 2 miles west of Hwy 18	Ghost River State Natural Area/Wolf River WMA With the Division of Natural Heritage, Natural Areas Program we will be visiting the only recorded location in Tennessee for the sand post oak (<i>Quercus margaretta</i>) and its associated community. The second stop will be a wet field converted from agriculture to warm season grasses and managed with prescribed fire. Lastly, we will visit the boardwalk crossing a cypress-tupelo gum slough and emergent marsh.	From Memphis * follow Poplar (Highway 57) east through Collierville, Rossville, Moscow to LaGrange From Jackson take Highway 18 south through Bolivar and Hickory Valley; turn right on Highway 57; go west 2 miles to LaGrange. Walking: Easy walking, some wet/muddy ground Lunch: Bring Facilities: None	Bart Jones (901) 726-6891
May 14 Saturday 10:00 a.m. CDT Hardee's in Monteagle	Marion/Franklin State Forest The mountain laurel should be at peak bloom and we will be walking through corridors of laurel well above our heads. Catesby's trillium (<i>Trillium catesbaei</i>) and cow wheat (<i>Melampyrum lineare</i>) will be seen along with a few wetland plants around a small lake.	From I-24 take 64 towards Sewanee. Hardee's will be on immediate left. Walking: Moderate hiking, some wet areas Lunch: Bring Facilities: At the meeting place	Todd Crabtree (615) 223-0279

2005 TNPS Field Trips

Meeting time and place	Description	Directions	Leader
<p>May 21 Saturday 10:00 a.m. CDT Fort Bragg Headquarters</p>	<p>Stones River Greenway Join us for an informal survey of plants along the Stones River Greenway in Murfreesboro. We plan to visit different areas of the greenway to find and document plants of interest.</p>	<p>From TN-96 E/Old Fort Pkwy via Exit 78B toward Murfreesboro. At 1st traffic light turn left onto N Thompson Ln. Travel 1.8 miles. After church turn right to Old Nashville Hwy. Turn right again on Old Nashville Hwy. Travel .7 miles under railroad to turn left carefully into trail head parking area on left immediately after railroad. Walking: Easy walking on paved trail Lunch: Local restaurant Facilities: None</p>	<p>Todd Crabtree (615) 223-0279</p>
<p>June 4 Saturday 10:00 a.m. CDT Walker Branch State Natural Area Entrance</p>	<p>Walker Branch State Natural Area—Pittsburg Landing This state natural area protects an unusual bluffside seep and cypress swamp that is home to an astounding 37 species of dragonflies and damselflies. It is also home to a rich assortment of plants including the rare Lamance iris (<i>Iris brevicaulis</i>), big-leaf snowbell (<i>Styrax grandifolia</i>), and many rushes, sedges, and ferns.</p>	<p>Take US 64 to Savannah. Turn south on Highway 128, go 2.5 miles. Turn right on Diamond Island Rd. Stay left as the road splits at McGinley Loop. After road turns to gravel, turn left on Pittsburg Landing Rd. Natural Area entrance is approximately 0.4 miles. Walking: Easy hiking, some wet areas Lunch: Bring Facilities: None</p>	<p>Bart Jones (901) 726-6891</p>
<p>June 11 Saturday 10:00 a.m. EST Frozen Head State Natural Area Public Visitor Center on Flat Rock Road</p>	<p>Frozen Head State Natural Area A pair of bonafide botanists will take us on a late spring tour of this floristically diverse area. Joey and Ed have promised to take it easier on us this year though this will be a strenuous hike. We start at the bottom of Old Mac Mountain, and by way of the Panther Branch and North Old Mac trails, climb to the top of the mountain. A loop of approximately 5 miles will bring us back to our cars.</p>	<p>From Harriman take Hwy. 27 North to Wartburg. Turn right (East) on Hwy. 62. Travel 2 miles and turn left on Flat Fork Road. Travel 4 miles to the park entrance. Walking: Moderate to strenuous hiking Lunch: Bring Facilities: At the meeting place</p>	<p>Joey Shaw and Ed Lickey with the UT Botany Dept. Allen and Susan Sweetser (865) 938-7627</p>
<p>June 18 and 19 Saturday and Sunday <i>The details for this trip will depend on the actual bloom dates of the plants. Check with the leader, the TNPS and GABOTSOC websites for updates</i></p>	<p>Rare Orchids Shady Valley, Johnson and Carter County area Joint hike with Georgia Botanical Society to see some of Tennessee's rarest orchids with an avid orchid enthusiast. <i>Platanthera orbiculata</i>, <i>Platanthera grandiflora</i> and <i>Listera smallii</i> will be the feature plants. Other orchids that should be seen are <i>Platanthera lacera</i>, <i>Liparis loeselii</i> and <i>Liparis liliifolia</i>.</p>	<p>Logistics for this trip will be detailed later as determined by the trip leader.</p>	<p>Chuck Wilson (423) 874-9625</p>
<p>July 9 Saturday 9:00 a.m. EST Hampton Creek Cove State Natural Area parking area</p>	<p>Hampton Creek Cove State Natural Area We will hike the new Overmountain Victory Trail in Hampton Creek Cove looking for rare plants, beautiful wildflowers, and high mountain birds. We'll learn about the incredible Revolutionary War history of this trail. We will scale the mountain via the Birchfield Trail. Most recently identified plants from the trail are ramps (<i>Allium tricoccum</i>), American chestnut (<i>Castanea dentata</i>), rough avens (<i>Geum laciniatum</i>), roan sedge (<i>Carex roanensis</i>), roan rattlesnake root (<i>Prenanthes roanensis</i>) and rosy twisted-stalk (<i>Streptopus roseus</i> v. r.). This trail is steep, but only about 1 mile long. This area is known for its incredible biological diversity of plant and animal life. So far, we've documented 225 native plant species in the cove and 78 bird species, including the golden-winged warbler. We will not go if it is raining or is predicted to rain. Consult the weather reports before the trip. Dress warmly in layers and bring plenty of water.</p>	<p>From Elizabethton take US 321/19E through Hampton. Continue on 19E to town of Roan Mountain. Take State Route 143 South; turn left on Stratton Street. Turn right at first stop sign; bear left on West Street. Take first right on Old Hwy 143, then left on the bridge that crosses the creek (across from the old school building), and follow it to Hampton Creek Cove. Parking area is on left just past Gray's Chapel about 3 miles from the Town of Roan Mountain. Walking: Strenuous. Steep trail. Lunch: Bring Facilities: None</p>	<p>Lisa Huff RSVP by July 1 (865) 594-5601 or lisa.huff@state.tn.us. Please leave your name and a telephone number.</p>

2005 TNPS Field Trips

Meeting time and place	Description	Directions	Leader
August 6 Saturday 10:00 a.m. CDT Church parking lot at intersection of US 412 and Brush Creek Road	Dry Branch Once again we'll be joining our friends at the Swan Conservation Trust to visit one of the sites of the federally endangered Tennessee yellow-eyed grass (<i>Xyris tennesseensis</i>). Dry Branch is a small creek which flows through rich woodlands and even a small wet, glade-like area. Other interesting plants expected to be in flower include twisted yellow-eyed grass (<i>Xyris torta</i>), featherbells (<i>Stenanthium gramineum</i>), and southern rosinweed (<i>Silphium asteriscus</i>), as well as some interesting grasses and grass-like species.	US 412, approximately 5 miles west of Hohenwald, or just east of the Perry/Lewis County line. Walking: Easy walking, some wading Lunch: Bring Facilities: None	Bart Jones (901) 726-6891
August 13 Saturday 10:00 a.m. EST Newfound Gap near the Rockefeller Memorial	Kanati Fork Trail via Thomas Divide Trail GSMNP This will be a moderate 4.7 mile total walk, mostly downhill. We will drop 2,200 feet in elevation, starting around 5,000 feet and ending at 2,800 feet. A short easy car shuttle will start and end this trip. Should be a cool spot on an August day! Rhododendron, laurel, hemlock, grasses, and birch trees will surround us at first along the high ridge. Our descent will be among mixed hardwoods with tons of wildflowers such as trilliums, wild oats, wild hydrangea, showy orchis, galax, Turk's cap lilies, Monarda, etc. We'll pass through several plant communities; lush cove forests, second-growth forests, grassy and forested ridge lines, hemlock forests, maple and oak forests, and heath thickets.	From Gatlinburg, travel 21.5 miles south on US-441 to Newfound Gap. Walking: Moderate hiking, Be prepared for changing weather Lunch: Bring Facilities: None	Allen and Susan Sweetser (865) 938-7627
August 20 Saturday 10:00 AM CDT Park Welcome Center	Meeman-Shelby State Park—Memphis Meeman-Shelby is a wonderful example of the wooded bluffs bordering the Mississippi River in many locations in Tennessee. Small streams cut deep ravines in the bluff where we hope to see three birds orchid (<i>Triphora trianthophora</i>), spikenard (<i>Aralia racemosa</i>), bay starvine (<i>Schisandra glabra</i>), and snowy squarestem (<i>Melanthera nivea</i>). We will also visit the headwaters of one of the lakes at the park where we should encounter cup plant (<i>Silphium perfoliatum</i>), mad-dog skullcap (<i>Scutellaria lateriflora</i>), monkeyflower (<i>Mimulus alatus</i>), and creeping water primrose (<i>Ludwigia peploides</i>).	I-40 to Memphis. Follow I-40 W (Little Rock) to exit 2A. Turn right and go 6 stop lights to Watkins Rd. (Highway 388). Turn left and continue until road ends. Turn left, go one mile to a four-way stop (Shelby Forest General Store), turn right. Go one mile, turn left into park. Follow signs to Welcome Center. Walking: Moderate hiking, some wet areas Lunch: Bring Facilities: At meeting place	Bart Jones (901) 726-6891
Details in June	Butterfly Hike		
September 16-17 Friday and Saturday	TNPS Annual Meeting	Methodist Assembly at Beersheba Springs	
Details in June	Fall Hike with Ed Clebsch		

Thank You, Barfield-Crescent!

TNPS board members are very grateful to Murfreesboro's Barfield-Crescent Park, recent host of TNPS board meetings. Barfield-Crescent's Wilderness Station is a full-service facility that hosts nature-themed birthday parties, retreat room rentals, and programs for all ages. The 300-acre park also features walking trails, a wilderness area, picnic shelters, a baseball/softball complex, and a disc golf course. A special thanks to Program Coordinator Deborah Pashall for making TNPS members feel so welcome!

To learn more about Barfield-Crescent Park, visit www.murfreesborotn.gov/government/parks_rec/parks.htm. — Ashley Crownover

The TNPS
website has
been updated!
Check it out at
www.tnps.org.

Filling in the Void

The Surprising Botanical Richness of West Tennessee

by Bart Jones

Many people have this perception that West Tennessee is a “botanical void,” just vast expanses of cotton and soybean fields. Oh yes, there are significant wetlands they will admit, but that’s pretty much it, right? Well no, there is more to West Tennessee’s flora than fields and swamps, as you will discover.

Geologic History

Most of West Tennessee lies in a large geological feature known as the Mississippi Embayment that stretches from Cairo, Illinois to the Gulf of Mexico and is shaped generally like an inverted “V.” Around 140 million years ago, this was a shallow extension of an ancient ocean, and for the next 90 million years deep layers of sediment were deposited over the area. The waters receded and for 50 million years the Mississippi River system has eroded and reworked much of the Embayment, with the land immediately lining the river being younger than 18,000 years old.

West Tennessee has four physiographic regions. They are, from west to east, the Mississippi River Valley, the West Tennessee Coastal Plain, the West Tennessee Uplands (all part of the Mississippi Embayment and composed of various mixtures of sand, clay, and gravel), and the Western Valley, which is in fact a geologic extension of Middle Tennessee limestones and home to the western limit in Tennessee of many species.

Noteworthy Botanical Sites

REELFOOT LAKE/SUNK LAKE—Created during the cataclysmic earthquakes of 1811-12, Reelfoot Lake is the largest natural lake in Tennessee. Located in Lake and Obion counties in the extreme northwest corner of the state in the Mississippi River Valley, it is noted for its incredibly rich wetlands. Along with Sunk Lake in Lauderdale County, the wetlands are home to 12 rare plant species, including copper iris (*Iris fulva*), featherfoil (*Hottonia inflata*), yellow water-crowsfoot (*Ranunculus flabellaris*), creeping spotflower (*Acmella oppositifolia*), lake cress (*Neobackia aquatica*), ovate-leaf arrowhead (*Sagittaria platyphylla*) and cedar elm (*Ulmus crassifolia*).

HATCHIE RIVER SYSTEM—The Hatchie River runs from east to west and generally delineates the southern one-third of West Tennessee. It is the largest unchannelized tributary of the Mississippi River and therefore much of the land bordering the river is protected by various organizations, preserving vast stretches of



western false gromwell
(*Onosmodium molle* ssp. *occidentale*)

bottomland hardwood forests and cypress-tupelo swamps. Many of the rare plants found along the Hatchie are the same as those found at Reelfoot, occurring here in the numerous oxbow lakes. However, horse sugar (*Symplocos tinctoria*) is a rare shrubby tree found in the bottomland forests. Canebrakes (*Arundinaria* sp.), a diminishing floristic feature, are also thriving here.

A geologically interesting site along the Hatchie is Millstone Mountain in Tipton County. Rising 170 feet above the surrounding floodplain, the conical hill is a relic of the loess bluffs deposited after the last ice age. Most of these deposits were eroded away, but at Millstone Mountain, the sand and gravel accreted to form solid rock, which juts out all along the slopes. Although none of its flora is considered rare, it is noted for its populations of plants more typically associated with the Western Highland Rim.

WOLF RIVER SYSTEM—The Wolf River is the southernmost river in West Tennessee, the majority of its course flowing just a few miles north of the Mississippi state line, ending its run through metropolitan Memphis. Because of its proximity to Memphis there has been a large, vigorous conservation movement to protect the Wolf. Even though most of these groups have focused on the hydrology and fauna of the river, their efforts indirectly protected the flora, also. There are three state natural areas along the Wolf: Ghost River, William B. Clark, and Lucious Birch.

Ghost River is especially significant botanically. In addition to rare wetlands, it is also home to a unique habitat in Tennessee—sandhills. Sandhills are found in the panhandle and central parts of Florida and in a narrow band from southeastern Alabama through Georgia and South Carolina. The small sandhills area at Ghost

River harbors the only known site of sand post oak (*Quercus margareta*) in Tennessee as well as other oddly placed species such as prickly pear cactus (*Opuntia humifusa*). As Chad Harden, TDEC’s West Tennessee natural areas coordinator and Florida native, remarked, “It was just like I had been dropped somewhere in Florida.”

PINSON MOUNDS—A remarkable archaeological site with some of the finest mounds in the Southeast, the area is also home to the only Tennessee population of the globally very rare whorled sunflower (*Helianthus verticillatus*). Located in Madison County, Pinson is near the boundary of the West Tennessee Coastal Plain and West Tennessee Uplands.

GLADES AND BARRENS OF THE WESTERN VALLEY—The Western Valley physiographic region runs along either side of the Tennessee River. The land here is not a part of the Mississippi Embayment and is much older, composed of limestones deposited during the Silurian Age 410-440 million years ago. This is a rare geology in Tennessee and is diagnostic of the Western Valley. In a patchwork of small glades and barrens can be found a community of plants different from the glades of the Central Basin and even the barrens of the Highland Rim, having affinities with Ozark and Midwestern prairies. Rare plants located here include cylindrical blazing star (*Liatris cylindracea*), blue sage (*Salvia azurea* var. *grandiflora*), wedge-leaf whitlow-grass (*Draba cuneifolia*), rough rattlesnake root (*Prenanthes aspera*), western false gromwell (*Onosmodium molle* ssp. *occidentale*), and flat-stem spike rush (*Eleocharis compressa*). Many of these plants can be enjoyed in the region’s only natural area, Carroll Cabin Barrens in Decatur County.

MEEMAN-SHELBY STATE PARK—Located in Shelby County north of Memphis along the Mississippi River, the park is a prime example of the wooded bluffs that overlook the river. The diverse assemblage of plants includes the rare bay star vine (*Schisandra glabra*), three birds orchid (*Triphora trianthophora*), and blue scorpionweed (*Phacelia ranunculacea*).

This year is the perfect opportunity to experience the diversity of West Tennessee’s plant life. TNPS will be conducting trips to Ghost River, Walker Branch in the Western Valley’s Hardin County, and Meeman-Shelby State Park. So check out the dates for these hikes in the trip schedule and head on over to fill in your West Tennessee botanical void.

Spring Happenings

April 2: Landscaping with Native Plants (Nashville)

Beginning with morning lectures and slides and concluding with inspiring garden tours, this workshop provides gardeners with resources for native plant gardens. \$35 with an optional box lunch for an additional \$7. *More information:* 615-352-6299 or www.nashville.gov/parks/wpnc_program_schedule.htm.

April 8-10: Cheekwood's 2005 Wildflower Fair (Nashville)

From *Actea pachypoda* to *Zizia aurea*, the Wildflower Fair has an extraordinary variety of treasures to add to your garden. And on April 9 at 9:30 a.m., join Tennessee State Parks Biologist LinnAnn Welch for a slide show and hike focusing on Tennessee's diverse array of native wildflowers. *More information:* www.cheekwood.org or 615-353-9827.

April 16: Trails & Trilliums at St. Andrew's Sewanee School (Sewanee)

The second "perennial" Trails & Trilliums, a celebration and sale of native plants, features events for gardeners, hikers, and families, including a native plant sale, workshops and speakers, guided hikes, a wildflower art exhibit, and more. TNPS member Dennis Horn (co-author of the upcoming TNPS book *Wildflowers of Tennessee, the Ohio Valley, and the Southern Appalachians*) will be the keynote speaker. The staff of the Sewanee Herbarium, all of whom belong to TNPS, will lead hikes for wildflower enthusiasts into the Shakerag area. *More information:* 931-598-5651, mmatens@sasweb.org, or <http://trails.sasweb.org>.

April 15-17 Standing Stone State Park Spring Naturalist Rally (Hilham)

Enjoy three days of fun and learning about the natural beauties of Standing Stone State Park. Activities include wildflower walks and programs on a variety of topics, including the Tennessee State Parks' All Taxa Biodiversity Inventory (ATBI) program. *More information:* 931-823-6347, 800-713-5157, or www.state.tn.us/environment/parks/parks/StandingStone.

April 15-17 International Dogwood Festival (Winchester)

Three days of entertainment for the entire family, featuring a parade, standard flower show, clogging competition, KidZone area, and entertainment on three

stages with music and storytelling (including TNPS member Mary Priestley's band, Bazzania, on April 17). Local experts and specialists from UT and TSU will discuss insect control in ornamentals, dogwood selections and cultivars, dogwood production techniques, and more. Arts and crafts for sale include pottery, jewelry, tatting, weaving, woodcarvings, paintings, prints, and folk art. *More information:* 866-967-2532, 931-967-2532, or www.winchesterdogwoodfestival.com.

April 25-May 1: 55th Annual Wildflower Pilgrimage (Great Smoky Mountains)

The Pilgrimage offers the public an opportunity to experience the national park to its fullest, guided by professional biologists, historians and naturalists in different areas in the park or listening to noted speakers on various topics related to the Smokies. A variety of new and time-honored indoor and outdoor programs provides a full week of exciting springtime activities. Nature walks, art classes, wildflower and fauna identification walks, birding trips, photography workshops, indoor lectures, welcoming luncheon and closing night buffet are scheduled throughout the week. *More information:* www.springwildflowerpilgrimage.org or 865-436-7318, ext. 22.

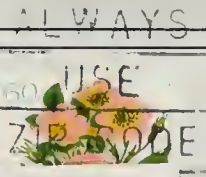
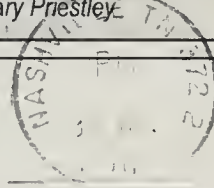
Information, Please!

Our wildflower book will soon be out! We expect it to be available and in stores by this summer, although it could be as early as mid-April. Our publisher, Lone Pine, has asked for our help in identifying public events that would be good for book signings by the principal authors, events for which there is a large enough crowd expected to make it worth their time and expense to set up a signing.

We have formed a committee to compile that information, including both larger events for Lone Pine and smaller ones that TNPS might organize. Committee members are Jane Norris (raymond.c.norris@vanderbilt.edu), Jean Heinzman (heinzman@bellsouth.net), Bart Jones (bjones7777@hotmail.com), and me (marypriestley@bellsouth.net).

If you know of potential book signing or selling events, large or small, between this spring and the summer of 2006 (lawn and garden shows, book fairs, etc.), please get in touch with one of us. We will need name, date, and contact information for each venue. We would very much like to keep our authors on the road all year long, selling our beautiful and informative field guide. —Mary Priestley

TENNESSEE NATIVE
PLANT SOCIETY
PO Box 159274
Nashville, TN 37215





Tennessee Native Plant Society Newsletter

Volume 29, Number 2

Our 27th Year

June 2005

President's Remarks

TNPS Field Guide a Reality at Last!

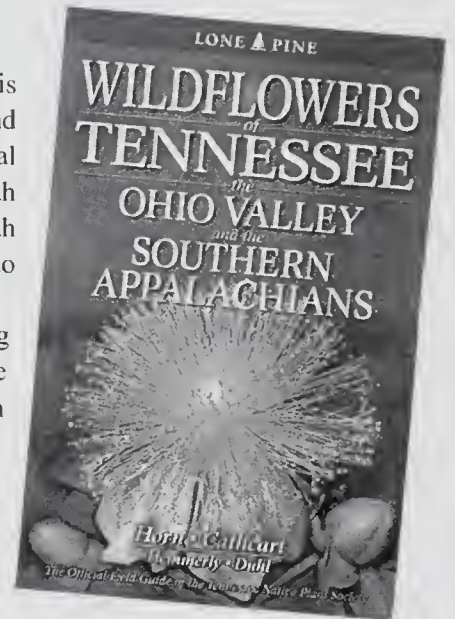
by Karl Heinzman

This May saw the release of our marvelous book, *Wildflowers of Tennessee, the Ohio Valley, and the Southern Appalachians: The official field guide of the Tennessee Native Plant Society*. For over twenty-five years, TNPS has engaged in a love affair with the beautiful flora of Tennessee and this botanically diverse region, strongly supporting its protection. With the publication of this book, we celebrate one of our most significant accomplishments. This field guide is probably the most complete ever published for this area. By offering a broad range of plant identification tools, it will allow more people to know our wildflowers and, we hope, will encourage them to join us in protecting their habitat.

We give well-deserved thank yous to Dennis Horn and Tavia Cathcart, who compiled and edited the book; to Thomas Hemmerly, technical editor; and to David Duhl, co-photo editor with Dennis. Each of these individuals, along with many other contributors, gave countless hours to complete this work.

It has literally taken fourteen years to bring this book from conception to publication and we are so very proud to finally be able to use it in the field.

See you on the trail,
Karl



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2005 TNPS Annual Meeting – Let's Celebrate!

by Jean Heinzman

This has been a wonderful year for TNPS, so let's gather together and bask in the success of our beautiful new book!

Our Annual Meeting will be September 16-18 at Beersheba Springs Assembly. Beersheba Springs is in Grundy County, approximately 25 miles south of McMinnville near the Great Stone Door and the Savage Gulf State Natural Area. There is a beautiful scenic overlook from the Assembly and the weather

is usually excellent during our stay. Saturday walks, planned by Todd Crabtree and the Field Trip Committee, will showcase the best of the season and the area.

This will be our third consecutive meeting at the Assembly and each year it gets bigger and better. We will again have one side of the lodge with a common room and well equipped kitchen. Last year we also had rooms in the new Eastside building and this year we will have

(continued on page 2)

Tennessee Native Plant Society Newsletter

June 2005
VOLUME 29, Number 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/Senior: \$15
Institution: \$50
Life: \$250

Dues may be sent to
Tennessee Native Plant Society
P.O. Box 159274
Nashville, TN 37215

TNPS OFFICERS

Karl Heinzman, President
Dennis Horn, Vice-President
Bart Jones, Secretary
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DIRECTORS

Bertha Chrietzburg
Todd Crabtree
Nita Heilman
Mary Priestley
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Comments? Questions? Submissions? Send to

TNPS Newsletter Editor
Ashley Crownover
922 Shauna Drive
Nashville, TN 37214
newsletter@tnps.org



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TNPS Annual Meeting

(continued from page 1)

more, including some which are handicapped accessible on the level with the meeting room and dining hall. All rooms are air-conditioned, include linens, and have private baths. Available this year are a few sites for tent camping with adjacent facilities.

Meals will be available by reservation in the community dining hall whether or not you stay at the Assembly.

We will begin with dinner on Friday, September 16, promptly at 6 p.m. Afterward we will meet in the Eastside building for a program by Dwayne Estes, graduate teaching assistant and doctoral candidate in botany at the University of Tennessee at Knoxville, who will tell us about future plans for the Flora of Tennessee project. After his talk, we will have an open forum discussion on our new field guide.

Breakfast will be at 7:30 a.m. Saturday, followed by walks. We may not be near the Assembly at midday, so please bring your own lunch and plenty of water. Dinner will be at 6 p.m., after which we have a brief business meeting and a program by Dr. Edward W. Chester, professor of biology at Austin Peay State University, who has studied and published on the flora of Tennessee for many years. He will discuss Tennessee's shrubs, trees, and woody vines.

Sunday breakfast will be at 7:30 a.m., followed by a board meeting which is open to any interested members.

We are now accepting reservations for rooms or campsites and meals. Reservations are for both nights. All rooms have two beds and will comfortably accommodate two adults. If you wish, you may bring food and store and prepare it in the lodge kitchen. Meals can also be reserved by those not staying at the Assembly. There is a \$10 registration fee for each person attending to cover incidental expenses. Also, a \$10 use fee for the weekend will be required for those not staying at the Assembly.

To register, please complete the form inside this newsletter and return it as shown. Contact Jean Heinzman at (865) 494-8100 or heinzman@bellsouth.net for any additional information.

Please make your reservations as soon as possible. While we have more space than before, it is still limited and late reservations may be difficult or impossible to accommodate. All reservations can be made only through TNPS and should be accompanied by a check payable to TNPS. Checks will be held and not deposited before August 12. We can take meal reservations until September 7. We must have exact counts for each meal.

Now for the legalese:

- While we hope that there are no cancellations or need for them, but if you must, any cancellations must be made to Jean Heinzman and acknowledged by her by August 12 in order to receive a full refund. After then, we can refund your payment only if we are able to re-rent your room. The meeting is held regardless of weather or other conditions as long as the Assembly is in operation. Meal cancellations can be made until September 7.
- Please respect the rules of the Assembly and do not bring pets, alcohol, or firearms.
- Registrants will receive confirmation with a packet of hopefully relevant information. If your reservation is received after all space is booked, your check will be returned and you will be notified if there are any cancellations.

Please come, meet old, and make new friends. We have two terrific speakers, the walks are bound to show us something special, and the food is good. We always have fun and this year we have a lot about which to be happy! Let's celebrate!

**Can't find the *Wildflowers of Tennessee,*
the Ohio Valley, and the Southern
Appalachians in your local bookstore?
Ask them to order it for you!**

Dear Dennis,

Your book arrived a few days ago and I am greatly impressed. It is the most thorough and the most thoroughly useable book of its category I've ever seen. I look forward to making the most of the opportunity to learn something...

I admit to being a bit surprised that the photographic consistency held up so well; I had thought that using so many different photographers would result in a hodge-podge of different approaches to the problems. Instead, there is remarkably good balance among all the different photos, which may be because of all the many aggregate photo expeditions through the years. And also, of course, because of your editing process.

From my standpoint as someone interested in wildflowers but not especially knowledgeable, it is especially helpful to have the keys to the genera in the larger families. I have not seen this before in a popular book, and most of the strictly botanical

volumes are usually so technical that they lose me somewhere along the lines. I also like the Notes that follow so many of the descriptions with additional related information. Much of this is the kind of thing I always use in my slide shows because I've found that people like to know alternative names, plus when you tell them why *Lobelia siphilitica* is so named they get a real kick out of it—and they remember it. Technical information is needed in a limited way, but when you try to arouse interest in a casual bunch of viewers who just want to know the name of "that pretty pink flower" you need something to grab them. So alternative information is usually very welcome.

All in all, I think you and your colleagues can sit back and be very proud of what you've accomplished. It's a landmark volume and one that the rest of us will enjoy for many years to come. Now—what are you planning for an encore?

Jerry Drown

From Dennis Horn: Jerry has about 120 excellent photos in the TNPS book which he was kind enough to provide. Thanks, Jerry, for your kind words about the book and for allowing TNPS to use your wonderful photos.

Fern Collection Donated to Sewanee Herbarium

by Mary Priestley

This writer took home more than memories from the Gatlinburg Wildflower Pilgrimage this spring: charter TNPS member Grace Foster gave me her fern collection for the Sewanee Herbarium. Grace's late husband Al was also among TNPS founders and was active in the organization for many years.

I asked Grace about her interest in ferns and wildflowers. "I just was a little country girl who enjoyed plants," she explained. "We lived on a farm and walked back in the woods. I can remember the tiny wildflower books that dated back 75 years." Over the years, she gradually got to know the wildflowers, and then when she and Al started working with the Pilgrimage they concentrated on learning more about them, including their Latin names. But she allows, "A lot of people don't care [about the scientific names] as long as you're consistent. They're going to forget anyway, whether it's 'doll's eye' or some fancy name."

Al got a PhD. in plant pathology at Cornell, where Grace earned her bachelor's degree in sociology. He went to work for the U.S. Forest Service and then TVA. They raised three children, and Grace was an active volunteer, particularly with the Girl Scouts. In 1968, upon Al's retirement, the Fosters joined the Peace Corps and worked in

Honduras for two years. In 1972 they returned to Honduras for a year during which Al taught boys to grow coffee, and Grace instructed girls in health and sanitation.



When they came home to Norris, Grace was asked to help organize the Community Craft Center there. It is a nonprofit enterprise to help impoverished women by teaching them to make and market traditional crafts. Starting with eight local ladies, they now have regular classes in weaving, pottery, quilting, braided rugs, and basketry.

The collection represents a wide range of fern and fern allies. Collected between 1953 and 1984 by Grace, Al, and their daughter Ruth, it reflects the Fosters' travels. It includes, for instance, filmy fern, cliffbrake, and spikemoss from rocks in New Hampshire and North Carolina; quillworts from rivers of East Tennessee; lace fern from the Pacific Coast Range; golden polypody from Florida; and field horsetail from New York.

This summer we will be accessioning the plants: entering their information in the database, mounting the specimens, and incorporating them in the general collection. If you get a chance, drop by the Sewanee Herbarium for a glimpse.

Field Trip Reports

Ghost River State Natural Area by Bart Jones

As you enter LaGrange you are greeted by a sign welcoming you to "La Belle Village," which accurately describes this quaint, old town tucked into the southeast corner of Fayette County. Although most people come to LaGrange to visit the numerous antebellum homes, we were here to visit the Ghost River State Natural Area and its population of sand post oak (*Quercus margaretta*), the only site for this tree in Tennessee.

A good mix of TNPS members and visitors met at Cogbill's Store where leader Chad Harden from the Division of Natural Heritage and state botanist Claude Bailey gave a brief history of the natural area and wildlife management area, as well as the story of the discovery of the sand post oak there. The natural area name refers to the area of the Wolf River that remains unchannelized and spreads out over a large swampy area. The "ghost" part alludes to the river apparently "dying" in the swamp, where a definable flow is lost. The natural area encompasses the swamp and the surrounding ridges.

A short ride to the natural area entrance brought us to a nice display of downy phlox (*Phlox pilosa*), lyreleaf sage (*Salvia lyrata*), fire pink (*Silene virginica*), and potato dandelion (*Krigia dandelion*) surrounding the parking area. As we made our way down an old abandoned road, cascades of trumpet honeysuckle (*Lonicera sempervirens*) descended from tree branches and blue toadflax (*Linaria canadensis*), stout blue-eyed grass (*Sisyrinchium angustifolium*), and wideleaf spiderwort (*Tradescantia subaspera*) in bud lined the path. In short time we came across the first specimens of sand post oak. Rarely growing taller than 20 feet, these scrubby trees could easily be mistaken for regular post oak (*Quercus stellata*). Claude pointed out the key differences between the two. Other than the smaller size, sand post oak has new stem growth that is smooth versus downy, hairy in regular post oak and the leaves have middle lobes that slightly point forward, not perpendicular.

Most of our hikes focus on wildflowers, so it was a bit odd for our highlighted plant to be a tree. But as we traversed the bottomland forest toward the sandhill ridges, the trees truly were the stars. Massive hickory trees (*Carya spp.*), yellow poplar (*Liriodendron tulipifera*), sweet gum (*Liquidambar styraciflua*), and red maple (*Acer rubrum*) shared the forest with numerous oaks; white oak (*Quercus alba*), scarlet oak (*Q. coccinea*), southern red oak (*Q. falcata*), water oak (*Q. nigra*), and willow oak (*Q. phellos*). What grabbed

everyone's attention were the enormous shortleaf pines (*Pinus echinata*), their trunks with bark deeply fissured into large thick plates. We measured one trunk at 27 inches in diameter, and that was after we had passed the largest one!

As we approached the ridge, the soil became significantly more sandy and drier. Going uphill, conditions became drier and the plant community became different. The sand post oaks became more numerous until at the top of the ridge, they were the dominant tree and farkleberry (*Vaccinium arboreum*) was the main understory shrub. Other dry site species here were prickly pear cactus (*Opuntia humifusa*), yucca (*Yucca filamentosa*), common anglepod (*Matelea gonocarpus*), and hairy hawkweed (*Hieracium gronovii*).

Leaving the woods, a small shrub caught our eye, Appalachian mock orange (*Philadelphus inodorus*), in full bloom. The white, four-petaled flowers were about 2 inches wide and covered the bush in an impressive display.

For lunch we went to the boardwalk that runs through the beautiful, healthy swamp. Large bald cypress (*Taxodium distichum*) and tupelo (*Nyssa aquatica*) dominated, with spatterdock (*Nuphar lutea*) occupying more open areas and sporting their bright yellow, goblet-shaped flowers. Along with the spatterdock, American bur reed (*Sparganium americanum*), cattail (*Typha latifolia*), and Virginia sweet spire (*Itea virginica*) created a real sense of lushness, and for highlights, the shoreline was sprinkled with the reds of red buckeye (*Aesculus pavia*). Plants weren't the only sights to enjoy here. A curious yellow-bellied water snake checked to see what was for lunch, the brilliant scarlet of a summer tanager caught our attention, however briefly, and in the distance we spotted a beaver lodge.

Our final stop was an old agricultural field that has been undergoing prescribed burning for several years in its transformation to a meadow. Little was in bloom now, but Claude said it was quite nice in the fall. Other than knee-high fire ant mounds, the outstanding feature of the field was along the edge of the woods where the fragrant purple clusters of native wisteria (*Wisteria frutescens*) were hanging like ornaments from the vines.

The good turnout left me encouraged and I hope others eager to return to West Tennessee for more hikes in the future.

Standing Stone State Park by David Lincicome

On a beautiful, warm, sunny spring day, three lucky TNPS members joined David Lincicome and hiked the trails of Standing Stone State Park to enjoy the prolific wildflower display. At least 50 of the spring ephemerals could be identified, and most of these were in flower! The diversity of this Eastern Highland Rim stream valley is quite impressive and rivals many of the top spring wildflower locations in the state. The trail we explored takes one up the south side of Mill Creek primarily on slopes with east and north aspects. Some of our interesting finds included both the nodding mandarin (*Disporum maculatum*) and yellow mandarin (*Disporum lanuginosum*); a

prolific display of shooting stars (*Dodecatheon meadia*), great white trilliums (*Trillium grandiflorum*) [there are five *Trillium* species in the park], wild blue phlox (*Phlox divaricata*), celandine poppies (*Stylophorum diphyllum*), fire pinks (*Silene rotundifolia*), dwarf larkspur (*Delphinium tricorne*), Robin's plantains (*Erigeron pulchellus*), purple phacelia (*Phacelia bipinnatifida*) and Virginia bluebells (*Mertensia virginica*); and a record for the park, ramps (*Allium tricoccum*). We were able to add several species to the park's spring wildflower checklist. To end the day, just before stepping off the trail, we found our first orchid, the spring coralroot (*Corallorrhiza wisteriana*). It was a fitting end to a wonderful spring day.

2005 TNPS Field Trips

Meeting time and place	Description	Directions	Leader
<p>July 9 Saturday 9:00 a.m. EST Hampton Creek Cove State Natural Area parking area</p>	<p>Hampton Creek Cove State Natural Area We will hike the new Overmountain Victory Trail in Hampton Creek Cove looking for rare plants, beautiful wildflowers, and high mountain birds. We'll learn about the incredible Revolutionary War history of this trail. We will scale the mountain via the Birchfield Trail. Most recently identified plants from the trail are ramps (<i>Allium tricoccum</i>), American chestnut (<i>Castanea dentata</i>), rough avens (<i>Geum laciniatum</i>), roan sedge (<i>Carex roanensis</i>), roan rattlesnake root (<i>Prenanthes roanensis</i>) and rosy twisted-stalk (<i>Streptopus roseus</i> v. r.). This trail is steep, but only about 1 mile long. This area is known for its incredible biological diversity of plant and animal life. So far, we've documented 225 native plant species in the cove and 78 bird species, including the golden-winged warbler. We will not go if it is raining or is predicted to rain. Consult the weather reports before the trip. Dress warmly in layers and bring plenty of water.</p>	<p>From Elizabethton take US 321/19E through Hampton. Continue on 19E to town of Roan Mountain. Take State Route 143 South; turn left on Stratton Street. Turn right at first stop sign; bear left on West Street. Take first right on Old Hwy 143, then left on the bridge that crosses the creek (across from the old school building), and follow it to Hampton Creek Cove. Parking area is on left just past Gray's Chapel about 3 miles from the Town of Roan Mountain. Walking: Strenuous. Steep trail. Lunch: Bring Facilities: None</p>	<p>Lisa Huff RSVP by July 1 (865) 594-5601 or lisa.huff@state.tn.us. Please leave your name and a telephone number.</p>
<p>August 6 Saturday 10:00 a.m. CDT Church parking lot at intersection of US 412 and Brush Creek Road</p>	<p>Dry Branch Once again we'll be joining our friends at the Swan Conservation Trust to visit one of the sites of the federally endangered Tennessee yellow-eyed grass (<i>Xyris tennesseensis</i>). Dry Branch is a small creek which flows through rich woodlands and even a small wet, glade-like area. Other interesting plants expected to be in flower include twisted yellow-eyed grass (<i>Xyris torta</i>), featherbells (<i>Stenanthium gramineum</i>), and southern rosinweed (<i>Silphium asteriscus</i>), as well as some interesting grasses and grass-like species.</p>	<p>US 412, approximately 5 miles west of Hohenwald, or just east of the Perry/Lewis County line. Walking: Easy walking, some wading Lunch: Bring Facilities: None</p>	<p>Bart Jones (901) 726-6891</p>
<p>August 13 Saturday 10:00 a.m. EST Newfound Gap near the Rockefeller Memorial</p>	<p>Kanati Fork Trail via Thomas Divide Trail GSMNP This will be a moderate 4.7 mile total walk, mostly downhill. We will drop 2,200 feet in elevation, starting around 5,000 feet and ending at 2,800 feet. A short easy car shuttle will start and end this trip. Should be a cool spot on an August day! Rhododendron, laurel, hemlock, grasses, and birch trees will surround us at first along the high ridge. Our descent will be among mixed hardwoods with tons of wildflowers such as trilliums, wild oats, wild hydrangea, showy orchis, galax, Turk's cap lilies, Monardas, etc. We'll pass through several plant communities; lush cove forests, second-growth forests, grassy and forested ridge lines, hemlock forests, maple and oak forests, and heath thickets.</p>	<p>From Gatlinburg, travel 21.5 miles south on US-441 to Newfound Gap. Walking: Moderate hiking, Be prepared for changing weather Lunch: Bring Facilities: None</p>	<p>Allen and Susan Sweetser (865) 938-7627</p>
<p>August 20 Saturday 10:00 AM CDT Park Welcome Center</p>	<p>Meeman-Shelby State Park—Memphis Meeman-Shelby is a wonderful example of the wooded bluffs bordering the Mississippi River in many locations in Tennessee. Small streams cut deep ravines in the bluff where we hope to see three birds orchid (<i>Triphora trianthophora</i>), spikenard (<i>Aralia racemosa</i>), bay starvine (<i>Schisandra glabra</i>), and snowy squarestem (<i>Melanthera nivea</i>). We will also visit the headwaters of one of the lakes at the park where we should encounter cup plant (<i>Silphium perfoliatum</i>), mad-dog skullcap (<i>Scutellaria lateriflora</i>), monkeyflower (<i>Mimulus alatus</i>), and creeping water primrose (<i>Ludwigia peploides</i>).</p>	<p>I-40 to Memphis. Follow I-40 W (Little Rock) to exit 2A. Turn right and go 6 stop lights to Watkins Rd. (Highway 388). Turn left and continue until road ends. Turn left, go one mile to a four-way stop (Shelby Forest General Store), turn right. Go one mile, turn left into park. Follow signs to Welcome Center. Walking: Moderate hiking, some wet areas Lunch: Bring Facilities: At meeting place</p>	<p>Bart Jones (901) 726-6891</p>

(continued on page 6)

2005 TNPS Field Trips

Meeting time and place	Description	Directions	Leader
September 16-17 Friday and Saturday	TNPS Annual Meeting (see article on page 1)	Methodist Assembly at Beersheba Springs	
September 24 10 a.m. CDT Garrison Creek Parking Lot near the Franklin end of the Natchez Trace (at N.T. mile marker 427.6).	Butterfly Hike This will be a joint field trip with the Middle Tennessee Chapter of the North American Butterfly Association. We will be in parts of the Central Basin and the Western Highland Rim characterized by rolling terrain and numerous streams. We will make several stops along the Trace observing fall wildflowers and butterflies in open mowed fields, along woodland streams and in early successional fields with cedar, grasses, sumac and young sassafras. There are restrooms and picnic areas along the way, but no drink machines, fast food or eateries.	From Franklin (just south of Nashville), take Hwy. 96 West for 9 miles. Follow the signs to the Natchez Trace Parkway and turn left onto the parkway toward Tupelo, MS. Travel south on the parkway until you reach mile marker 427.6, which is Garrison Creek. Walking: Light to moderate hiking. Some driving to various stops along the parkway. Lunch: Bring lunch and drinks Facilities: At the meeting place and along the Trace at various stops.	Rita Venable (615) 503-9631 or (615) 516-3602 (Please make reservations by calling Rita by September 21. Leave your name, number in your party and your phone number. Thanks!)
November TBA 10 a.m. CST	Fall Hike with Ed Clebsch We'll do a loop trail of about 3 1/2 miles, upstream, then up to the top of the gorge to an overlook for lunch—then through old cutover lands and down the old, old road to Leatherwood. Well also take a side trip to see <i>Conradina verticillata</i> , and we'll see plenty of <i>Stewartia</i> and <i>Dirca palustris</i> and <i>Gaylussacia brachycera</i> (box huckleberry).	Meet at the Leatherwood Ford parking area in the Big South Fork National River and Recreation Area.	Ed Clebsch (865) 856-3350

Tennessee Conservation Voters Update

by May Bartlett, TCV
(submitted by Michelle Haynes, TNPS representative to TCV)

The 2005 legislation session is nearing a close with several important victories for Tennessee's environment. Scientists and organizations like E.O. Wilson and the Nature Conservancy have called national attention to Tennessee's rich aquatic and terrestrial biodiversity. Governor Bredesen has announced environmental protection as one of three over-arching priorities for state policy, setting the tone for a new era in the state's environmental policies. The public and private sectors are abuzz with environmental awareness, and we are starting to witness individuals, companies, and lawmakers alike turn their attention towards protecting our precious natural resources.

Such gains are important, carrying with them a momentum that thrills all those who appreciate Tennessee's green space, plants, and wildlife. However, they are not won without constant vigilance, conscientious advocacy, and hard work on the front lines of environmental policy formulation.

Tennessee Conservation Voters has been there from day one, carefully watching, reporting, and critiquing legislative developments

that affect the way the state handles our air, water and land. While there may be an increase in talk about the environment, TCV holds lawmakers to their promises and works to ensure that such talk is translated into legislative action.

In this year's legislative session, TCV has shepherded several important initiatives from mere talk to "on the books" legislation:

- TCV, in partnership with Knoxville's Tennessee Clean Water Network, proposed and pushed the passage of landmark water quality legislation for the state of Tennessee. SB 1278, HB 0925 gives concerned citizens the right to appeal any water pollution permit TDEC issues to companies and industries. Before this year, only the industries themselves had the right to appeal decisions by TDEC's Water Quality Control Board. Now, there is a concrete third party appeals system in place for others who might be adversely affected by water pollution to have a say.

(continued on page 8)

The Modern Nature Journal

This is the second in a series of articles on keeping a nature journal. If you or someone you know would like to contribute to this column, please let me know. —Mary Priestley (marypriestley@bellsouth.net)

The modern nature journal, one way of connecting with sense of place, is related to the “commonplace” books that were kept by literate ladies and gentlemen in 18th-century England. Commonplace books documented the ordinary—domestic activities as well as the “fullness” of nature. They contained aphorisms, poems, recipes and drawings, along with notes on weather, crops, medicinal and other plants, domestic and wild animals. They noted migrations, nesting and reproduction of animals, flowering of plants, frequency of rainfall, anything about the natural world that came into the journalkeeper’s notice.

Some commonplace books have become valuable as historical documents, with predictive and comparative value. The information about weather, plants, and behavior of animals can be compared with observations today and added to a body of knowledge.

But such records also reflect a quiet settledness and respect for life. Readers today still find grace and more in the prose of the parson of old Selbourne, Gilbert White (1720-1793). White took intense interest in the nearby, such as the raven so faithful to her nest in the ancient oak tree that she was crushed when it was cut down, or the routines of old Timothy the land-tortoise, who regularly dug into his winter hibernaculum in the garden and just as regularly emerged.

A charm of the nature journal is that it communicates not only facts, but also their sensory impacts upon the observer. From the observations, the observer is also known.

The Romantic period in which White lived yielded to a more scientific and specialized approach to nature in the 19th and 20th centuries. Natural history and natural philosophy became fragmented and compartmentalized into various disciplines, and writing about the wholeness of nature took a back seat to scientific “progress.”

Nature writing often became a memorial of places that used to be, instead of a celebration of ongoing places. Nature writing slipped into a niche where it was considered a bit quaint, certainly not interesting or important or profound—maybe something for children, little ladies, or weak-kneed men. With a few exceptions, writing about nature was ignored or disparaged for its dullness in several important works about

American literature. Until about ten years ago, it was considered an academically risky pursuit.

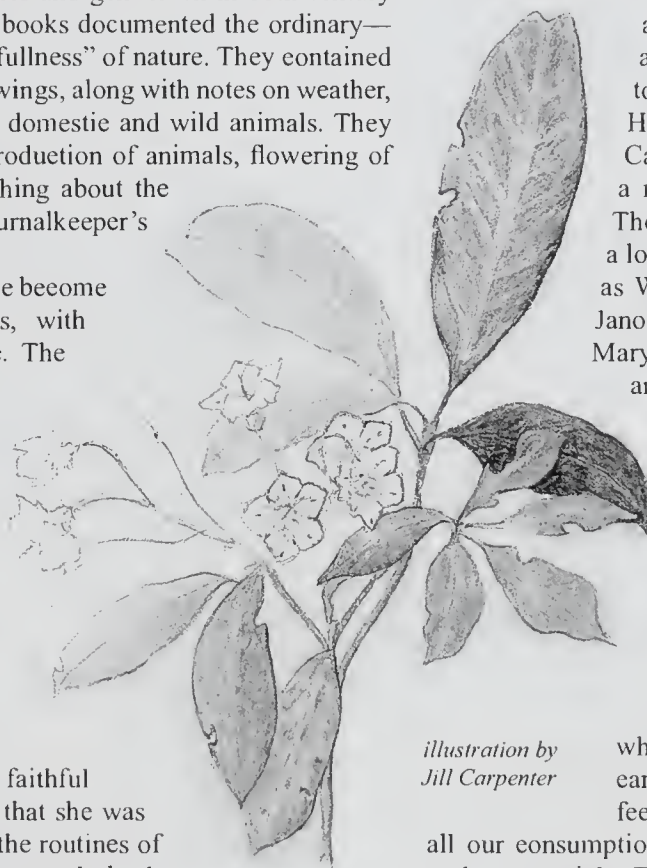
That has changed. Classes everywhere now address the nature journal and nature writers as a subject, not a footnote or an aside. People want to re-combine the fragments. The passion is back. Henry David Thoreau, Aldo Leopold and Rachel Carson are in vogue, Robert Frost has become a nature poet, and Edward Abbey is read as “the Thoreau of the American West.” They are joined by a long and growing line of contemporary writers such as Wendell Berry, Annie Dillard, Barry Lopez, John Janovy, Sharman Apt Russell, Terry Tempest Williams, Mary Oliver, Susan Tweit, Gretel Ehrlich, Rick Bass, and David Quammen. Their voices come from all directions, examining the commonplace, scientifically and emotionally. The timbres are different—passionate, awed, strident, poetic, incantatory, sweet, ethereal, spiritual, ironic. But they are hammering at the same structure. The genre demands attention.

The nature journal has found new chroniclers, promoters, anthologizers, and “how-to” instructors. It’s an enterprise that appeals to the naturalist, artist, and philosopher who lies just beneath the surface in all of us. Everyone can participate in some way. It appeals to those who feel that something, just something, is a bit awry in all our consumption, our getting and, as the environment shudders under our weight. The nature journal is an egocentric pursuit that puts the ego in its proper place.

Today the nature journal may still document nature’s eyes, but it is not as effective as a predictive tool, because all too often the frogs or flowers that appeared one year are missing the following year, fallen victim to roadbuilding or herbicides or development.

The current value of the nature journal may lie in its documenting a certain time and place, and one person’s emotional response. It’s a way of opening our own eyes and hearts. It can be a lament and a hello, as well as a way of delighting in the moment, the constant wonder and miracle of the world, of which we are part. But value lies also in just attending. The value is in the process, as life is in the journey rather than the destination. The pleasure is in the day-to-day. We can heed the advice of the poets: seek humility, listen, see, connect, marvel, wonder, smell the roses, fear not the natural world but fear for it.

Jill Carpenter has degrees in zoology and journalism and has worked as a teacher, writer and bookseller (though not all at the same time!).



*illustration by
Jill Carpenter*

Tennessee Conservation Voters (continued from page 6)

• TCV worked with the Land Trust for Tennessee, the Nature Conservancy and other groups to help pass SB 1869* HB 2029*, which specifically states who does and does not have the right to enforce conservation easements. This bill makes it easier and more appealing for a landowner to place permanent development restrictions on their property.

TCV is also continuing to push legislators and elected officials on other state environmental issues not yet resolved.

• SB 1088* HB 1868: Last year, the State Legislature passed a bill that requires non-profit organizations to pay property tax on any undeveloped land holdings over 100 acres per county. This misguided legislation affected churches, summer camps, youth organizations, and schools, and hit conservation groups like the Nature Conservancy especially hard. TCV is working with the Nature Conservancy and others to undo this legislation and reach a compromise with local tax boards.

• SB 0168 HB 0170: TN Commercial Aerial and Ground Spraying Protection Act: TCV endorsed this bill requiring commercial agricultural spraying applicators to notify organic farms, beekeepers, and those with known allergies to pesticides before spraying chemicals by plane. Though the bill was defeated this year, TCV will continue to muster support for this much needed

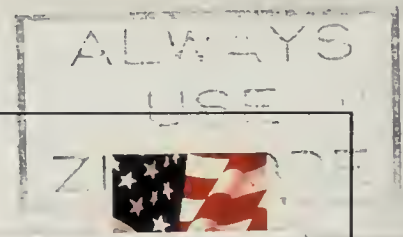
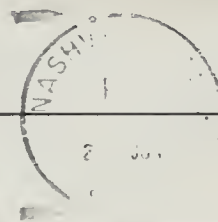
legislation.

Next, TCV will rev up to publish the environmental scorecard, ranking our elected officials by their environmental voting record. Look for this year's scorecard in late summer to see how your legislator scored

TCV plays a vital role in Tennessee's conservation movement. By establishing a presence at the state legislature, TCV's allows member organizations and concerned individuals to be proactive with their initiatives and programs without applying already limited resources toward lobbying efforts.

Member News

TNPS member Michelle Haynes has been asked by the governor to serve on the Tennessee Conservation Commission as well as elected to the board of the Tennessee Land Trust. Congratulations, Michelle!



TENNESSEE NATIVE
PLANT SOCIETY
PO Box 159274
Nashville, TN 37215



Tennessee Native Plant Society Newsletter

Volume 29, Number 3

Our 27th Year

August 2005

DON'T MISS THE BIG EVENT!

by Jean Heinzman

Our annual meeting on September 16-18 at Beersheba Springs is coming together as a very special event. Not only are we celebrating the publication of *Wildflowers of Tennessee, the Ohio Valley, and the Southern Appalachians*, we also have arranged for two terrific guest speakers in addition to expert-led walks, an open forum discussion of the above book with the editors, and the annual business meeting.

Our speakers this year are Dwayne Estes on Friday evening and Dr. Edward W. Chester on Saturday evening.

Dwayne Estes is a graduate teaching assistant and doctoral candidate at the University of Tennessee in Knoxville. At the Spring 2005 Annual Meeting of the Southern Appalachian Botanical Society, Dwayne received a Core Student Award.

Dwayne grew up on a farm in Giles County, Tennessee, and as an adolescent developed an interest in plants which evolved into a fascination with tree identification. He has been working on plants for 15 years, seriously for the past 10.

He is interested in floristics of the southeastern United States, and especially of cedar glade and rock outcrop species. For his Ph. D., he is studying the genus *Gratiola* (*Scrophulariaceae* s.l. or *Plantaginaceae*). Our book says that the genus name *Gratiola* is Latin for "agreeableness" or "pleasantness," which also describes Dwayne.



Dwayne Estes

He comes to us, highly recommended by several of our members, as having both a keen understanding of botany and the ability to impart his knowledge as a speaker passionate about his subject. He will be speaking to us of the future of the Flora of Tennessee Project, which will examine the state of floristic work in Tennessee. He will discuss why we need this manual, what's been done in the past, and who will be involved in the future. He will also tell about recent highlights from his field work. Dwayne has agreed to lead one of the Saturday walks.

Dr. Edward Wayne Chester was born in Blooming Grove, Tennessee, and grew up on the family farm. He attributes his interest in botany to his Scottish immigrant grandmother, who loved plants. He studied at Austin Peay State University, Peabody College, and the University of Tennessee, where he received his Ph.D. He has completed 41 years of instruction-research at Austin Peay State University, including being a professor of biology, the curator of the herbarium, and the director of the Environmental Sciences Education Program.



Dr. Edward Wayne Chester

His special interests are the flora of Land Between the Lakes, the Barrens of the Pennyroyal Plain in Kentucky and Tennessee, and the woody plants of Tennessee. He was co-author, with William H. Ellis, of *Wildflowers of the Land Between the Lakes Region, Kentucky and Tennessee* and, with James S. Fralish, of *Land Between the Lakes, Kentucky and Tennessee: Four Decades of Tennessee Valley Authority Stewardship*. He conducted a study for the National Park Service at Fort Donelson National Battlefield to document the vascular flora of the park.

Dr. Chester is well known as the co-author, with B. Eugene Wofford, of *Guide to the Trees, Shrubs, and Woody Vines of Tennessee*, and he will be speaking to us on this topic. He is a foremost botanist in his field and an excellent speaker. We are very fortunate to have him speak at our meeting.

ANNUAL MEETING SCHEDULE OF EVENTS

Friday 09/16	4-6 p.m.	Check-in
	6 p.m.	Dinner
	7 p.m.	Program by Dwayne Estes
	8:15 p.m.	Open forum discussion of The Book
Saturday 09/17	7:30 a.m.	Breakfast
	8:30 a.m.	Walks—various morning and afternoon; lunch on your own
	6 p.m.	Dinner
	7 p.m.	Program by Dr. Chester
8:15 p.m.	Annual Business Meeting	
Sunday 09/18	7:30 p.m.	Breakfast
	9 p.m.	Board Meeting

The accommodations at Beersheba Springs Assembly this year are more varied than previous years, with more rooms and tent campsites. Please refer to your June newsletter for more details or contact Jean Heinzman at (865) 494-8100 or heinzman@bellsouth.net for additional information.

We can accept room or campsite reservations through August 12, so please act quickly. Reservations for meals may be made through September 7. The enclosed reservation form has all rates and payment information.

New logo T-shirts will debut at the meeting. Come early for the best selection!

Please plan to come and join in on this celebratory event. We look forward to seeing you there!

Tennessee Native Plant Society Newsletter

August 2005
VOLUME 29, Number 3

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/Senior: \$15
Institution: \$50
Life: \$250

Dues may be sent to
Tennessee Native Plant Society
P.O. Box 159274
Nashville, TN 37215

TNPS OFFICERS

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Dennis Horn, Vice-President
Bart Jones, Secretary
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Bertha Chritzburg
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Mary Priestley
Susan Sweetser
Rita Venable

Comments? Questions? Submissions? Send to

TNPS Newsletter Editor
Ashley Crownover
922 Shauna Drive
Nashville, TN 37214
newsletter@tnps.org



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recycled paper

Tennessee Conservation Voters Update

by Michelle Haynes

Tennessee Conservation Voters is preparing to publish the 2005 environmental scorecard, ranking our Tennessee elected officials by their environmental voting record. **Look for this year's scorecard in late August to see how your legislator scored.** While there may be an increase in talk about the environment, TCV works to ensure that such talk is translated into legislative action, holding them accountable for safeguarding the natural heritage of Tennessee.

TCV allows members to be proactive with their initiatives and programs without having to concentrate on environmental lobbying efforts themselves. **TNPS supports TCV by joining forces with 18 other member organizations...** We express our priorities through the legislative survey available at TNPS's annual meeting, and our TCV member **Michelle Haynes** at haynesm@realtracs.com. Our volunteers

play a vital role in Tennessee's conservation movement, by establishing a much-needed presence at the state legislature.

If you are interested in the conservation and preservation of our unique natural heritage, please get involved now. You can individually support pro-environmental efforts through personal donations and participating in the 2006 Nature Votes Celebration and Auction February 4 at Travelers Rest. Consider being a Nature Votes sponsor, donate a silent auction item, or just purchase several tickets to have fun, food, and fellowship. Stay informed with current information at the TCV website, www.tnconservationvoters.org, and register for the weekly email on legislative developments.

To keep Tennessee beautiful, we need TCV to defend us against bad environmental bills and advocate for pro-environmental legislation.

Email List Under Construction

We are currently putting together an email list to get alerts to members about field trips, unannounced events, plant rescues, and other information that needs to be dispensed quickly. The list will not be distributed or sold to any other group. Send your email address to bjones7777@hotmail.com.

Got Web Skills? TNPS NEEDS YOU!

Webmaster needed to maintain the TNPS website for an average of 2 hours per month. If interested, email admin@tnps.org.

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GETTING STARTED ON A NATURE JOURNAL

This is the third in a series on keeping a nature journal. Yolande Gottfried, associate curator of the Sewanee herbarium, shares her thoughts here. If you have an idea for an article in this series, please let me know!

—Mary Priestley <marypriestley@bellsouth.net>

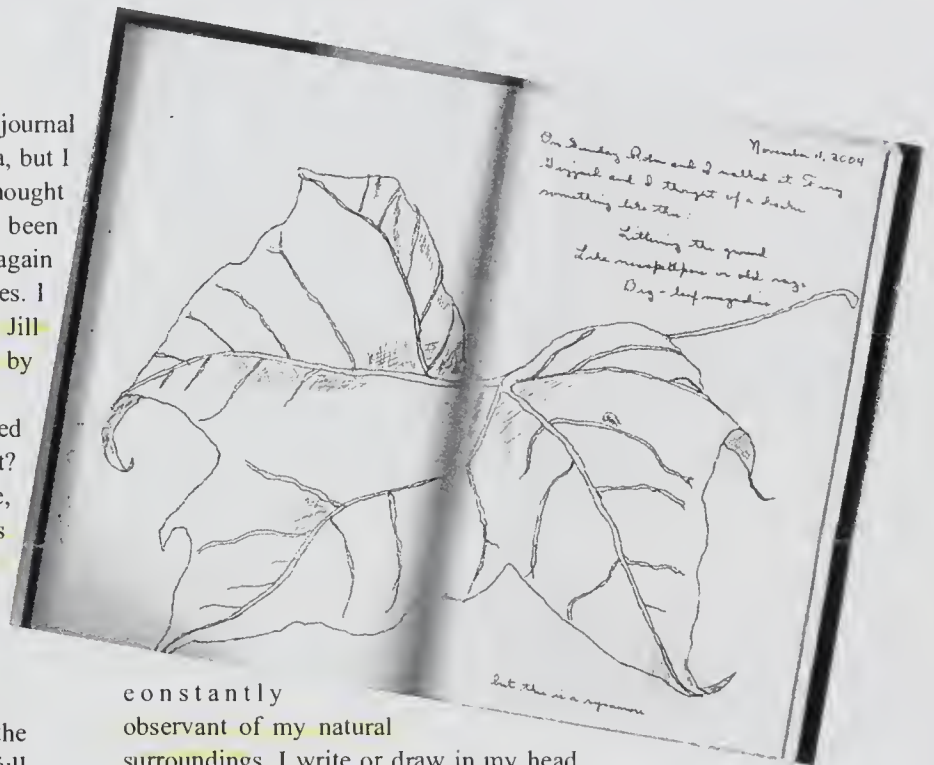
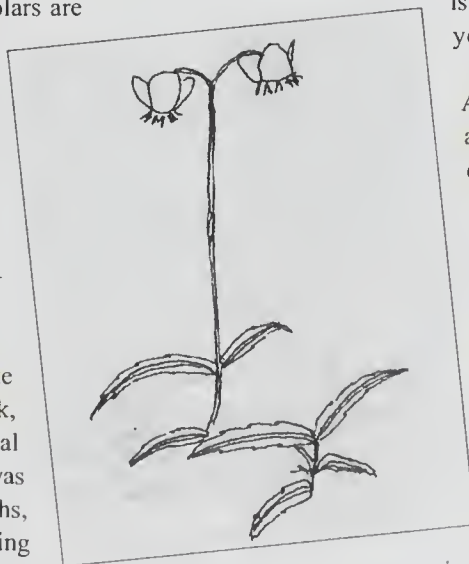
by Yolande Gottfried

I am writing from my experience in keeping a nature journal for those readers who are thinking, “What a great idea, but I could never do it,” or “That’s something I’ve often thought about but just never get around to doing it.” That had been my situation for many years until introduced to the idea again by Jill Carpenter, the author of previous articles in this series. I decided to make an effort once more, aided by the gift from Jill of a journal to begin writing and drawing in and encouraged by meetings of a group of folks doing the same thing.

Even the journal, however, attractive and blank, proved intimidating. What could I write or draw that was worthy of it? What helped me finally take the plunge was a focus, a theme, if you will. I decided to use the journal to record observations on our property, some twenty acres of fields and woodlands and a pond. This would get me out and about on those acres and would provide material for my journal. So I confidently made my first entry on August 15, 2002:

There is a sense of shifting in the seasons, even though the weather is still hot and one would think that summer is full upon us. This year, it has been so particularly dry that it has felt almost painful. The tulip poplars are turning yellow, like glowing towers on the plateau slopes, and their leaves are falling—I saw one sailing in slow, side-to-side swings, eup-shaped, resting on the air. Other trees are changing color, too—black gum and sassafras and dogwood—even drooping and drying up.

My intention was to write something, however little, every week, but even with that modest aim my total number of entries for the first year was about twenty. Weeks, sometimes months, pass between entries, but I keep coming back to it. Others in the group have filled that first book and gone on to new ones, but I’m still working on mine. The unexpected benefit that I discovered is that even if I don’t write or draw as often as I had intended, keeping the journal makes me more



constantly observant of my natural surroundings. I write or draw in my head, even if I don’t always get it on paper. And that, after all, is the aim of the exercise. My most recent entry, nearly three years after the first, on the summer solstice, June 21, 2005:

After the flurry and excitement of the spring ephemerals and the trilliums, the forest floor seems surprisingly dull now that summer has arrived, at least in the mixed oak-hickory woods we walked in on our property last Sunday. The ferns are up, the wild azalea has bloomed and gone, and the deer have eaten anything else that might be in flower. But here and there, the brown leaf litter is brightened by the waxy glow of the spotted wintergreen, *Chimaphila maculata*. The variegated, evergreen leaves of this little plant are attractive even in winter, hence the genus name from the Greek *echeima* (winter) and *philein* (to love). The white flowers nodding from their long peduncles rising above the leaves often occur in pairs, sometimes three or four, and I find myself hoping to see a plant with five. Some are still unopened, little white globes, practically perfectly round, hanging upside-down. I haven’t yet tried getting down on my hands and knees to smell their fragrance or to see the purple anthers.

2005 TNPS Field Trips

Meeting time and place	Description	Directions	Leader
<p>August 13 Saturday 10:00 a.m. EST Newfound Gap near the Rockefeller Memorial</p>	<p>Kanati Fork Trail via Thomas Divide Trail GSMNP This will be a moderate 4.7 mile total walk, mostly downhill. We will drop 2,200 feet in elevation, starting around 5,000 feet and ending at 2,800 feet. A short easy car shuttle will start and end this trip. Should be a cool spot on an August day! Rhododendron, laurel, hemlock, grasses, and birch trees will surround us at first along the high ridge. Our descent will be among mixed hardwoods with tons of wildflowers such as trilliums, wild oats, wild hydrangea, showy orchis, galax, Turk's cap lilies, Monardas, etc. We'll pass through several plant communities; lush cove forests, second-growth forests, grassy and forested ridge lines, hemlock forests, maple and oak forests, and heath thickets.</p>	<p>From Gatlinburg, travel 21.5 miles south on US-441 to Newfound Gap. Walking: Moderate hiking, Be prepared for changing weather Lunch: Bring Facilities: None</p>	<p>Allen and Susan Sweetser (865) 938-7627</p>
<p>August 20 Saturday 10:00 AM CDT Park Welcome Center</p>	<p>Meeman-Shelby State Park—Memphis Meeman-Shelby is a wonderful example of the wooded bluffs bordering the Mississippi River in many locations in Tennessee. Small streams cut deep ravines in the bluff where we hope to see three birds orchid (<i>Triphora trianthophora</i>), spikenard (<i>Aralia racemosa</i>), bay starvine (<i>Schisandra glabra</i>), and snowy squarestem (<i>Melanthera nivea</i>). We will also visit the headwaters of one of the lakes at the park where we should encounter cup plant (<i>Silphium perfoliatum</i>), mad-dog skullcap (<i>Scutellaria lateriflora</i>), monkeyflower (<i>Mimulus alatus</i>), and creeping water primrose (<i>Ludwigia peploides</i>).</p>	<p>I-40 to Memphis. Follow I-40 W (Little Rock) to exit 2A. Turn right and go 6 stop lights to Watkins Rd. (Highway 388). Turn left and continue until road ends. Turn left, go one mile to a four-way stop (Shelby Forest General Store), turn right. Go one mile, turn left into park. Follow signs to Welcome Center. Walking: Moderate hiking, some wet areas Lunch: Bring Facilities: At meeting place</p>	<p>Bart Jones (901) 726-6891</p>
<p>September 16-17 Friday and Saturday</p>	<p>TNPS Annual Meeting (see article on page 1)</p>	<p>Methodist Assembly at Beersheba Springs</p>	
<p>September 24 10 a.m. CDT Garrison Creek Parking Lot near the Franklin end of the Natchez Trace (at N.T. mile marker 427.6).</p>	<p>Butterfly Hike This will be a joint field trip with the Middle Tennessee Chapter of the North American Butterfly Association. We will be in parts of the Central Basin and the Western Highland Rim characterized by rolling terrain and numerous streams. We will make several stops along the Trace observing fall wildflowers and butterflies in open mowed fields, along woodland streams and in early successional fields with cedar, grasses, sumac and young sassafras. There are restrooms and picnic areas along the way, but no drink machines, fast food or eateries.</p>	<p>From Franklin (just south of Nashville), take Hwy. 96 West for 9 miles. Follow the signs to the Natchez Trace Parkway and turn left onto the parkway toward Tupelo, MS. Travel south on the parkway until you reach mile marker 427.6, which is Garrison Creek. Walking: Light to moderate hiking. Some driving to various stops along the parkway. Lunch: Bring lunch and drinks Facilities: At the meeting place and along the Trace at various stops.</p>	<p>Rita Venable (615) 503-9631 or (615) 516-3602 (Please make reservations by calling Rita by September 21. Leave your name, number in your party and your phone number. Thanks!)</p>
<p>November 6 10 a.m. CST</p>	<p>Fall Hike with Ed Clebsch We'll do a loop trail of about 3 1/2 miles, upstream, then up to the top of the gorge to an overlook for lunch—then through old cutover lands and down the old, old road to Leatherwood. Well also take a side trip to see <i>Conradina verticillata</i>, and we'll see plenty of <i>Stewartia</i> and <i>Dirca palustris</i> and <i>Gaylussacia brachycera</i> (box huckleberry).</p>	<p>Meet at the Leatherwood Ford parking area in the Big South Fork National River and Recreation Area.</p>	<p>Ed Clebsch (865) 856-3350</p>

GRASSES

by Mary Priestley

AND OTHERS OF THAT ILK

"I would like to know grasses and sedges—and care. Then my least journey into the world would be a field trip, a series of happy recognitions." —Annie Dillard

"Practice every time you get a chance." —Bill Monroe of the Bluegrass Boys

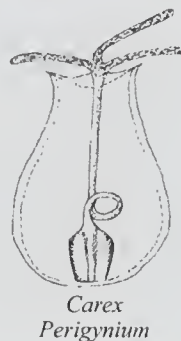
We lump them together as "graminoids"—all the grass-like plants, which usually include grasses, sedges, and rushes. Only a few of the showiest ever appear in wildflower books, a more-or-less token nod toward these exquisite members of our flora.

Identifying grasses and their relatives is no laughing matter: Often you must use a microscope in dissecting the inflorescences (flower arrangements on a plant). The tiny flowers may be nestled among bracts and tufts of hair of various textures and configurations, each one tagged with some esoteric terminology. Time and again, the minuscule focus of your attention will skitter out of view, and you have to start all over with a fresh one. We joke that grass identification is a gloomy business, a play on the word "glume," the name for part of a grass inflorescence. No wonder Annie Dillard steered clear!

Actually, discriminating between the major groups of graminoids is fun—arguably as enjoyable as teasing the harmonies out of good bluegrass music. Botany students learn that "rushes are round, sedges have edges, and grasses have joints," and that is a pretty good generalization. Run your fingers up the stem of a graminoid—rush stems are usually round, often solid; most sedges have triangular stems; and grasses have round, hollow stems with swollen solid nodes (think bamboo).

It is a good idea to invest in an inexpensive hand lens if you want to explore the world of graminoid inflorescences. With a lens, you can see the

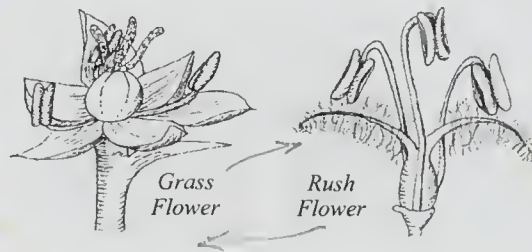
array of appendages and surface patterns on the seeds of rushes. You can study grasses' dangly stamens and feathery pistils, both adapted for wind dispersal of their pollen. And you can see perigynia, the diminutive bags that enclose the nutlets of Carex, a common type of sedge. Perigynia can float, facilitating seed dispersal in their watery world.



Carex Perigynium

Rush flowers resemble miniature lilies; the fruit is a capsule that contains numerous small seeds. The flowers of sedges are grouped in scaly "spikelets," and each flower produces only one relatively large seed, called a nutlet. When you crush the mature seed heads between your fingers, the difference between rushes and sedges is evident—you expose lots of tiny rush seeds or a smaller number of individual sedge nutlets that are large enough for you to feel their shape.

Grass inflorescences are called spikelets, too, and they are loaded with specialized bracts: glumes, lemmas, and paleas. Each flower produces a single-seeded fruit, usually a grain. Some grass grains are quite familiar, including corn, oats, wheat, barley, rye, and rice.



Grass Flower

Rush Flower

Rushes and sedges are usually limited to moist habitats (think Moses in the bulrushes), whereas grasses can be found in almost all water regimes. Altogether, graminoids are the mainstays of plant communities that are among our richest and most interesting.

(Reprinted with permission from The Sewanee Plant Press.)

A NAME FOR YOUR GRASS—AND OTHERS OF THAT ILK

Our president (the one in Norris) had asked me to write a grass article for the newsletter. I procrastinated long enough to be saved by the appearance of Mary Priestley's elegant essay reprinted above. You have likely enjoyed Mary's writing in these pages, *The Sewanee Plant Press*, or the *Tennessee Conservationist*. However, you might have missed the significance of "Karl's Kajoling" in upgrading this newsletter and getting the BOOK published.

It has been clear that the line, texture, and relative durability of grasses would not compensate for their minimalist wind-pollinated flowers in getting most folks' attention and interest. Colorful and elaborate flower structures that attract insect pollinators attract people too. Recently I have pushed the proposition that native grasslands have more of the sexy flowers than other places and that this is true even in the Eastern United States. Here in Tennessee where the Coffee County prairies are well known, many people seem to have missed the connection to this proposition. Maybe knowing the right name for more graminoids will help.

Toward this end I am offering free identification, or at least a sincere attempt, of a graminoid(s) that you are curious about. To improve your chance of my getting the right name, send a flowering stem taken between the time of anthesis (anthers hanging in the breeze) and grain maturity. Some attached root is frequently helpful. If it is a multistem clump, divide off a rooted stem without digging the whole plant. Skip the root if the plant is not plentiful. Put it in a plastic bag and mail to:

Al Good
3009 Laurel Cove Lane
Signal Mountain, Tennessee 37377

Just picking the right time to take the sample might require more observation than usual. The window for this preferred sample is only a few weeks. In the woodland bluegrass (*Poa*) species it can come as early as late March.—Al Good

TNPS FIELD TRIP



Hinch Mountain • April 10, 2005 by Todd Crabtree

We had a big group for our first trip this year. We carpoled from the Cumberland Homestead to Hinch Mountain. When we arrived there were quite a few cars already parked at the turn-off. These were people who had brought their 4-wheelers for a ride up, down and all around the mountain. The number of species we saw blooming exceeded our expectations as we drove up the mountain, making periodic stops to hunt for flowers in the woods.

The bluebells (*Mertensia virginica*) we saw in a little hollow on the side of the mountain were scattered all over the floor of the hollow and up the sides. It was a little odd to see this many bluebells so far from flowing water. Many other species were blooming that day but 2 of them really stand out in my memory. I had seen least trillium (*Trillium pusillum*) before in very small numbers and something less than robust health so when we started walking up the hill I was surprised to see so many plants in such good health. It was necessary to carefully choose each step to avoid stepping on one. The hillside was dotted with least trillium in white and shades of pink. Some were a very dark shade of

pink. It was good to see a rare plant doing so well. On one of our stops, as I got out of Margret's SUV, I realized before I could see it that I was about to see a lot of yellow trillium (*Trillium luteum*). When the door opened the lemony scent was immediately evident. This other memorable species was so abundant on both sides of the road that we didn't have to get anywhere near the plants to smell them. The irregular clumps were all around us and far back into the woods.

Our lunch spot was also very memorable. It was near an FAA navigation aid that looked like a rocket launching site. A large elongated cone in the center was surrounded by several widely spaced smaller cones. The whole arrangement was situated on a flat circular plain of elevated terrain about 100 feet in diameter. From this high vantage point we could look north to see Grassy Cove and look south to see the Sequatchie Valley. Back at the base of the mountain we saw a roadside limestone bluff. On top of the small bluff was a drift of false garlic (*Nothoscordum bivalve*). We didn't stop for this one. We were ready to start heading back home at this point so we just did a little botany on the fly.

Camps Gulf • April 23, 2005 by Todd Crabtree



Our trip to Camps Gulf started out very sunny and as we entered the woods on an old logging road we immediately found a Wyandotte beauty (*Synandra hispidula*) blooming. These were much more numerous further along but we stopped to examine this one just in case we didn't get the chance later. The gulf has a stream, a few trails and a dirt road that all meander up the cove more or less together. Each time the road meandered across the stream we had to find a way across. I tried to convince everyone that it was best not to count the crossings and just cross them when you get to them. We had to move a few rocks but we all made all of the crossings safely. One of the highlights of this trip was a showy orchis (*Galearis spectabilis*) which I had never seen before at this site. The diversity of the flora in Camps Gulf is impressive but a feature that catches my attention are the large drifts of individual species. We saw one of these when we came upon a field of low boulders and in the midst of these boulders were white and pink large flowered trillium (*Trillium grandiflorum*). The color varied from pure white to pale pink and there were a few marbled white and pink. The Canada violet (*Viola canadensis*) also made a large drift beside the road. The usual white flowers were joined by a few that were a pale violet on the front of the petal where they would normally be white. The numerous Wyandotte beauties were not in drifts but were scattered throughout one section of the woods. They even popped up in the middle of a small cane (*Arundinaria gigantea*) brake. There were 2 species that seemed a little abnormal. The first was the prairie trillium (*Trillium recurvatum*). It seemed to have a very tall robust stem.

We wondered if this might be a characteristic of the local population or a result of some annual variation in the climate. The other oddity was a group of sugar maple (*Acer saccharum*) seedlings that had very thin membranous leaves. It was so different from a normal leaf that I took the trouble to search in my manuals for a variety that might be mentioned with this characteristic. No luck there but I haven't forgotten about it. We stopped for lunch near a paw paw (*Asimina triloba*) patch as it began to rain very lightly. Nearby were a few bladdernut (*Staphylea trifoliata*) and a cave. The gulf has a few caves and as we were leaving we visited one with a very large entrance. The entrance forms a large bowl on the side of the cove and the microclimate in this bowl nurtures a different community of plants than those of the main cove. On the limestone shelves around edges were columbine (*Aquilegia canadensis*). On the floor of the bowl were some bishops cap (*Mitella diphylla*), sweet white violet (*Viola blanda*). On the boulders were some young goats beard (*Aruncus dioicus*) that I have seen in previous years grow above head high. There were also a few southern red trillium (*Trillium sulcatum*) but most of the other surfaces at the bottom of the cave entrance were covered with ferns, mosses and few liverworts. It's a nice place to take advantage of the cool cave temperatures and still be in the sunlight. For a while we had a carpeted air-conditioned outdoor room free of charge. A couple of us took a little side trip to scout other areas nearby and found the Canada barberry (*Berberis canadensis*) blooming. The whole day was a slightly adventurous trip into an Appalachian Cove Forest and all its diverse flora.



Stones River Greenway—Flatrock Cedar Glade and Barrens May 21, 2005 by Terri Hogan, Ecologist, Stones River National Battlefield

At the 2004 annual meeting, the Tennessee Native Plant Society graciously agreed to help with a comprehensive invasive exotic species management project in Murfreesboro. The project's goal is supported by a variety of agencies and nonprofit entities and aims to eradicate Chinese yam from a designated section of the Stones River, remove other invasive exotic species, and plant native plants in areas where invasives are removed. The Tennessee Native Plant Society's role in this effort is to help develop a list of native plant species and make recommendations of species to plant in areas where invasives have been removed.

A stalwart group met Todd Crabtree and me at the Bragg Headquarters Trailhead on the Stones River Greenway on a toasty May morning. We developed a lengthy list of plants during the course of our journey. Notable

among them were blooming mock orange (*Philadelphus pubescens* var. *pubescens*), Indian pink (*Spigelia marilandica*), anglepod (*Matelea gonocarpus*), common hop-tree (*Ptelea trifoliata*), and the native privet (*Forestiera ligustrina*). Also notable was the proliferation of invasive exotic species along this important recreational corridor for the community of Murfreesboro. We observed the prolific Chinese privet (*Ligustrum sinense*) and bush honeysuckle (*Lonicera maackii* and *L. fragrantissima*) which directly compete with our beautiful native privet and mock orange as well as shading out native forbs like trillium, trout lily, Dutchman's breeches, and Solomon's seal.

We had ample opportunity to educate the public on the threat posed by invasives and remove some of the more obvious offending plants as we walked. Bertha sent two local citizens our way armed with a wealth of information on a

REPORTS

variety of invasives they were likely to encounter as they walked. Glenda and Margaret patiently explained to one gentleman that, although the flowers are aromatic and attractive, privet crowds out our natives, reducing diversity of native plants. Everyone helped me find and bag garlic mustard (*Alliaria petiolata*), which was in fruit. This species is threatening to take over the understory of mesic forests in the northeast.

After fulfilling our civic duty on the greenway and a filling lunch, we decided to treat ourselves to a mini-fieldtrip to Flatrock Cedar Glades and Barrens State Natural Area. We couldn't have picked a better time to visit. The glades were in their glory. We were met at the parking area by trio of very friendly beagles that Bertha knows quite well, as they escort her on all of her visits to the site. In the parking lot alone we saw Missouri primrose (*Oenothera missouriensis*),

glade larkspur (*Delphinium virescens*), and downy phlox (*Phlox pilosa*). Todd showed us the newly discovered prairie dropseed (*Sporobolus heterolepis*), which represents a new county record for this species. We also found the rarest plant any of us could think of, Pynes groundplum (*Astragalus bibullatus*), which was in fruit. These plants were growing in a glade with Tennessee milkvetch (*Astragalus tennesseensis*), wavy-leaf purple coneflower (*Echinacea simulata*), false gromwell (*Onosmodium molle*), Missouri primrose, and Gattinger's prairie clover (*Dalea gattingeri*).

I would like to extend my sincerest thanks to the Tennessee Native Plant Society for surveying the Stones River Greenway. Your contribution to the invasive plant management project was a significant help to us in our efforts to manage the Stones River Greenway.



Walker Branch Cove State Natural Area • June 4, 2005 by Bart Jones

Walker Branch State Natural Area, just south of Savannah, is noteworthy for being home to 38 species of dragonflies and damselflies, and even to our untrained eyes, we could distinguish about 10. But we weren't here to see the dragonflies, we were looking for the Lamance iris (*Iris brevicaulis*), a state listed rare plant.

The road to the natural area "entrance" was lined with blue flag (*Iris virginica*) in the water-filled ditches, most past blooming. However, one plant had a flower just opening its light blue standards and falls that are intricately lined with dark blue veins. As we walked along the road, we saw mock bishop's weed (*Ptilimnium capillaceum*), jewelweed (*Impatiens capensis*), green dragon (*Arisaema dracontium*), lizard's tail (*Saururus cernuus*), and climbing dogbane (*Trachelospermum difforme*).

There are 3 distinct types of swamp found at Walker Branch. The first we came upon at the edge of the natural area was a flowing swamp of nearly a 100% stand of tupelo (*Nyssa aquatica*). The water originates from numerous seeps that emerge from the accreted loess-capped ridges over 200 feet above the gently sloping swamp. The waters are cool and clear and shaded by the canopy of the tupelos. Several trees had climbing hydrangea (*Decumaria barbara*) clinging to the trunks and displaying beautiful clusters of white flowers. At the bases of trees and along the edges of the swamp, an understory of Virginia sweet spire (*Itea virginica*) was almost past flowering. Scattered throughout in more shallow areas were large plants of Tuckahoe (*Peltandra virginica*). One of them near the road gave us a nice view of its unusual flower. The green spathe is like a four-inch spike atop a bulbous base with a narrow opening whose edges are undulating and yellow-lined.

Lunch was next, and usually it isn't a highlight of our trips, but thanks to Richard Rogers who invited us to his cabin next to the natural area, it truly was one. His western lodge-style cabin contained lots of interesting Native American memorabilia and some fine examples of his carving, not to mention a cool escape from the heat.

Back on the trail, we came to our second swamp, a stagnant pool that was created by a beaver dam which had flooded a bottomland hardwood forest. Many of the trees had died and opened up the canopy for good sun exposure.

Right off the road a few feet were two clumps of our sought-after Lamance iris. One of our group donned a pair of hip waders and retrieved a flower so the rest of us could see its beauty up close. It certainly is one of the most beautiful irises found in Tennessee, each blossom nearly 4 inches in diameter and deep violet-blue with white markings on the falls. Looking further into the woods, other clumps with blue dots could be seen. Covering the surface of the water here were 3 floating species: mosquito fern (*Azolla caroliniana*), duckweed (*Lemna minor*), and watermeal (*Wolffia* sp.). The mosquito fern stood out among the confetti of the green duckweed and watermeal with its quarter-sized rosettes of reddish, scale-like leaves. Buttercup water pennywort (*Hydrocotyle ranunculoides*), a rare plant and new county record (identified by Margret Rhinehart on a subsequent trip), sent runners through the water along with parrot's feather (*Myriophyllum aquaticum*) and a stand of cattails (*Typha latifolia*) exhibited perfect examples of plume-like pollen-producing male flowers atop the still green rod of female flowers.

In between swampy areas were patches of woods punctuated by occasional waves of pink prairie rose (*Rosa setigera*) and the blue flowers of smooth wild petunia (*Ruellia strepens*).

The last swamp we visited was more typical of West Tennessee wetlands with areas of bald cypress (*Taxodium distichum*) and tupelo in shallower waters and spatterdock (*Nuphar lutea*) in deeper, open areas. Along the edges were thickets of swamp rose mallow (*Hibiscus moscheutos*) and buttonbush (*Cephalanthus occidentalis*), both not yet in flower. Several species of vines were growing over them: cupseed (*Calycoctarpum lyonii*), common anglepod (*Matelea gonocarpus*), and climbing dogbane, all in flower, as well as plants of climbing buckwheat (*Brunnichia ovata*) and climbing hemp vine (*Mikania scandens*).

Walker Branch offers a rare opportunity to see a diversity of wetland types not usually encountered within many miles of each other, yet here they are within a few acres. For those who made the trip it was quite educational and enjoyable, and if you didn't get a chance to make it this time, I encourage you to reserve a day in the future for a visit.

Hampton Creek Cove State Natural Area

July 9, 2005 by Lisa Huff, Stewardship Ecologist, Upper East Tennessee
Tennessee Division of Natural Heritage, Dept. of Environment and Conservation

For those of you who attended the hike on July 9 at Hampton Creek Cove State Natural Area, thanks for coming. I think we had a fairly good turn out and lots of interest in the area.

Thanks especially to the intrepid few who remained through the end of the day for the hike up into the high country and ESPECIALLY to those who were brave enough to hike back to the parking area with me as we "bushwacked" down

the ridge. I thought it was fun.

Very good to have you all come up to Hampton Creek Cove. Let's try a trip at a different time of year next year. We were up there this year during a time of year when not many things are blooming. The spring wildflowers are very good up there...like carpets of flowers...as are the fall flora.



NOW AVAILABLE: PLANT LIFE OF KENTUCKY

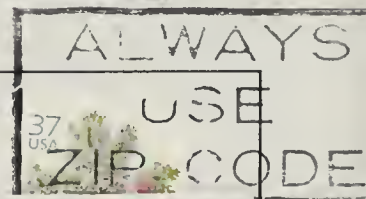
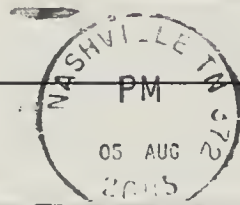
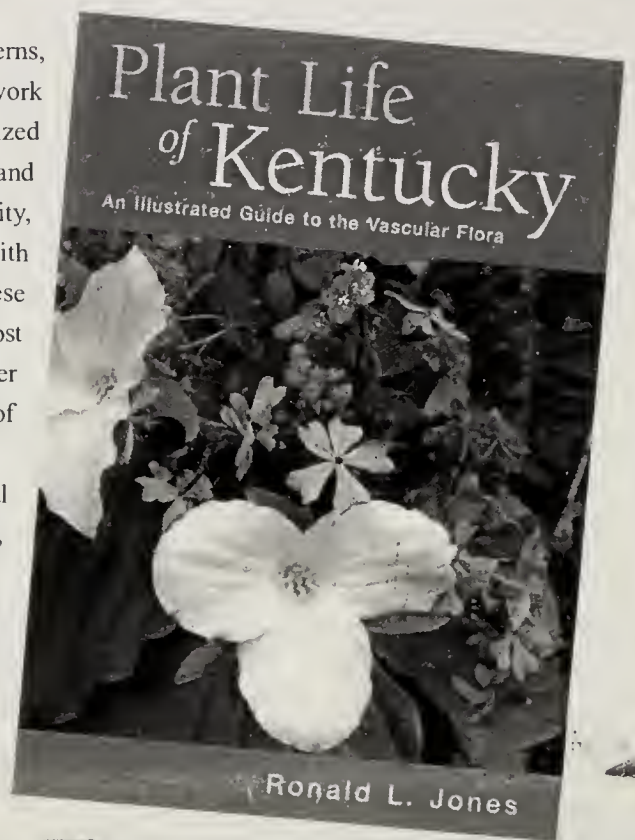
From the Publisher:

Plant Life of Kentucky is the first comprehensive guide to all the ferns, flowering herbs, and woody plants of the state. This long-awaited work provides identification keys for Kentucky's 2,600 native and naturalized vascular plants, with notes on wildlife/human uses, poisonous plants, and medicinal herbs. The common name, flowering period, habitat, distribution, rarity, and wetland status are given for each species, and about 80% are illustrated with line drawings. The inclusion of 250 additional species from outside the state (these species "to be expected" in Kentucky) broadens the regional coverage, and most plants occurring from northern Alabama to southern Ohio to the Mississippi River (an area of wide similarity in flora) are treated, including nearly all the plants of western and central Tennessee.

The author also describes prehistoric and historical changes in the flora, natural regions and plant communities, significant botanists, current threats to plant life, and a plan for future studies.

Plant Life of Kentucky is intended as a research tool for professionals in biology and related fields, and as a resource for students, amateur naturalists, and others interested in understanding and preserving our rich botanical heritage.

Ronald L. Jones is a professor of biological sciences and the herbarium curator at Eastern Kentucky University.



TENNESSEE NATIVE
PLANT SOCIETY
PO Box 159274
Nashville, TN 37215



Tennessee Native Plant Society Newsletter

Volume 29, Number 4

Our 27th Year

November 2005

Connections

by Mary Priestley

Many TNPS members know that I am heavily involved in the organization that supports the South Cumberland State Recreation Area, the Friends of SCSRA. South Cumberland is the state's largest wilderness park.

It encompasses Savage Gulf, Fiery Gizzard, the Sewanee Natural Bridge, and several other sites of natural and historical significance. (Fall Creek Falls is larger, but with its inn, conference center, and golf course it does not qualify strictly as a wilderness park.)

South Cumberland's boundaries are vulnerable: many bluffs and gorges through which hiking trails run are privately owned and threatened by residential development. A couple of years ago, I reluctantly agreed to co-chair a campaign, Saving Great Spaces, to raise the money to purchase land and conservation easements to secure the boundaries of the park. We surpassed our fundraising goal, with the support of TNPS and several individual TNPS members, for which I am so grateful.

A few months ago, a developer purchased bluff property

overlooking part of Savage Gulf, across from famous and well-loved overlooks. Because negotiations are ongoing, I cannot mention the particulars, but I want to relate a story.

You may recall that the State of Tennessee allocated \$30,000



In this photo, taken at Savage Gulf one week after 9/11/2001, TNPS member Mary Davis shows friend Lyne Vogel the view from her favorite overlook. The land in the background is in danger of being developed for upscale second and retirement homes.

to help TNPS publish our field guide to wildflowers. As a token of our appreciation, TNPS board member Michelle Haynes recently presented Governor Bredesen with a copy of the book. She told me later that he was very much interested in it and pleased with the gift. (Don't despair—there's a connection here!)

(continued on page 4)

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/Senior: \$15
Institution: \$50
Life: \$250

Dues may be sent to
Tennessee Native Plant Society
P.O. Box 159274
Nashville, TN 37215

TNPS OFFICERS

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**Comments? Questions?
Submissions? Send to**

TNPS Newsletter Editor
Ashley Crownover
922 Shauna Drive
Nashville, TN 37214
newsletter@tnps.org



President's Comments

by Karl Heinzman

We have just completed our winter field trip, led by Ed Clebsch. This year's field trips were, as always, well planned and covered a broad spectrum of the state. Thanks to Todd Crabtree and the field trip committee.

Our book continues to be well received. We were at the Southern Festival of Books in Nashville and most recently made a presentation at the Tennessee Aquarium in Chattanooga. We will be making a presentation to the Master Gardeners in Memphis in the middle of November.

This year's annual meeting at Beersheba Springs this past September was one of our most successful meetings. Dr. Edward Chester and Dwane Estes were, as expected, most informative and entertaining. Overall this has been an excellent year for TNPS.

At this writing, the 2006 annual meeting will be May 5-7 at Montgomery Bell State Park. So mark your calendars! Complete details in the next newsletter.

Thanks to Jean Heinzman and Bart Jones, we have wonderful new T-shirts and sweatshirts. They sold extremely well at the annual meeting and at the Southern Festival of Books. We will have them at the spring annual meeting and then they will be available on our field trips.

Thanks to each of you for your support in helping us continue to grow TNPS.

See you on the trail!
Karl

2005 Election Report

by Bart Jones

Three director positions, currently occupied by Todd Crabtree, Mary Priestley, and Nita Heilman, were up for election in 2005. Nita notified the nominating committee that she would not seek re-election to her position and the committee selected Michelle Haynes to fill the spot. Todd and Mary agreed to continue for additional two-year terms. These three nominees were placed before the membership at the annual meeting and were accepted. If anyone has an objection or another nominee for a director's position, please contact Bart Jones at 901-726-6891 before Jan. 1, 2006. If there are no objections voiced, the nominees will be considered elected as of that date.

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TNPS/NABA Field Trip to Burns Branch (September 24, 2005)

by Rita Venable

Hello everyone,
I hope you are enjoying the fall weather and the fall butterflies and wildflowers!

The Tennessee Native Plant Society/North American Butterfly Association field trip on Saturday, September 24 was full of surprises and good things.

We had ample attendance with 22 people coming from all over Tennessee—Hohenwald, Memphis, Powell, Signal Mountain, Shelbyville, Columbia, Nashville, Franklin, Kingston Springs and Bell Buckle. Everyone brought different areas of expertise and observation skills to the group. Several newcomers attended and were encouraged to join both organizations.

Probably the biggest blessing of the day was that we did not have to go to jail because of our run-in with a local park ranger! We were at Burns Branch and parking was limited, so I had pulled onto the grass a few feet. A park ranger came by and told us in no uncertain terms that we were NOT allowed to

park on the grass. Fortunately, we were able to settle (somewhat) peacefully and had no more encounters of that sort for the day.

We saw good butterflies (see list below) but not in the numbers we have seen them in the past in the same area. The weather was good, although a bit cloudy for butterflies. Part of the reason for low numbers may be that the Park Service seems to have a more aggressive mowing agenda this year. This is unfortunate for the fall butterflies, especially Monarchs, which count on ironweed, goldenrods, etc. for nectaring. Although we were not counting, just listing, butterflies, the most abundant species was probably the Common Buckeye which we found at each stop along the Trace.

(continued on page 4)

Photos, from the top:
Common buckeye; pink ironweed; dung beetle



Plant Species List

Goldenrods (*Solidago* spp.)
Erect goldenrod (*Solidago erecta*)
Sticktight (*Desmodium* spp.)
Heal All (*Prunella vulgaris*)
Wild petunia (*Ruellia* spp.)
Great Lobelia (*Lobelia siphilitica*)
Downy lobelia (*Lobelia puberula*)
Snakeroot (*Ageratina altissima*)
White wingstem (*Verbesina virginica*)
Yellow wingstem (*Verbesina alternifolia*)
Jerusalem artichoke (*Helianthus tuberosus*)
Ironweed - unusual pink morph on some (*Vernonia gigantea*)
Virgin's Bower (*Clematis virginiana*)
Cardinal flower (*Lobelia cardinalis*)
Swamp rose mallow (*Hibiscus moscheutos*)
Meadow beauty (*Rhexia mariana*)
Wild sensitive plant (*Chamaecrista nictitans*)
Southern Wild Senna (*Senna marilandica*) (not blooming)
Lespedeza spp.
Smartweed (*Polygonum pensylvanicum*)
Common Evening Primrose (*Oenothera biennis*)

Gerardia (*Agalinis tenuifolia*)
Spotted Jewelweed (*Impatiens capensis*)
Rabbit tobacco, sweet everlasting (*Gnaphalium obtusifolium*)
Short's aster (*Aster shortii*)
Bidens spp.
Thistle (*Cirsium discolor*)
Mistflower (*Conoclinium coelestinum*)
Leafy elephant's foot (*Elephantopus carolinianus*)
Queen Anne's lace (*Daucus carota*)
Fleabane (*Erigeron* spp.)
Silphium, Cup Plant (*Silphium perfoliatum*)
Sugar-Cane Plumegrass (*Erianthus giganteus*)
Common cattail (*Typha latifolia*)
Coral Beads (*Cocculus carolina*)
Bur Cucumber (*Sicyos angulatus*)

Butterfly Species List

Pipevine Swallowtail
Giant Swallowtail
Eastern Tiger Swallowtail
Spicebush Swallowtail
Cloudless Sulphur

Sleepy Orange
Gray Hairstreak
Red-banded Hairstreak
Eastern Tailed-Blue
'Summer' Spring Azure
Gulf Fritillary
Variegated Fritillary
Great Spangled Fritillary
Silvery Checkerspot
Pearl Crescent
Common Buckeye
Red-spotted Admiral
Viceroy
Hackberry Emperor
Monarch
Gemmed Satyr
Carolina Satyr
Clouded Skipper
Least Skipper
Sachem Skipper
Total = 25 species

Connections (continued from page 1)

A week or so later, I went to Nashville to try to help sell the field guide at the Southern Festival of Books. For some reason, I carried a map of Savage Gulf, with the proposed development marked on it. Amazingly, the governor walked by and paused right in front of our booth, probably because he recognized our book!

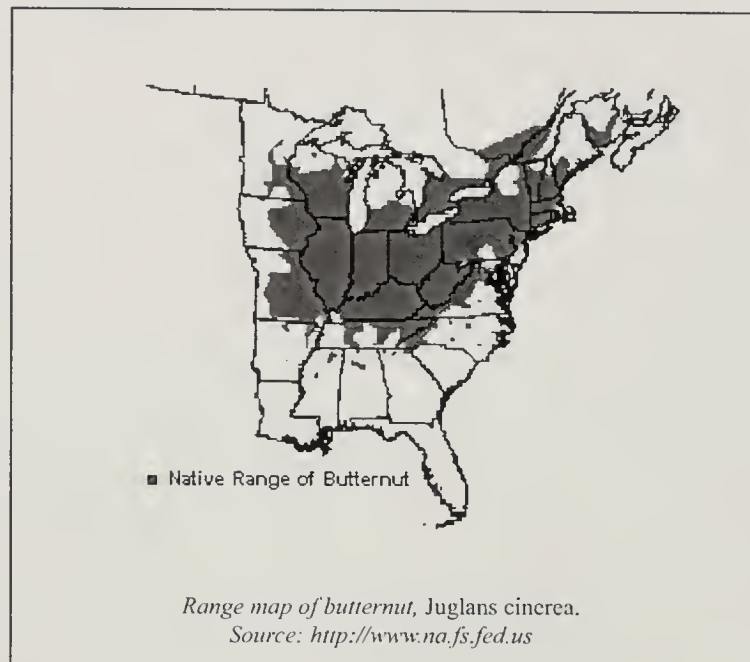
As hard as it is to believe, standing there was the one person whom the Friends of SCSRA most wanted to reach with our message about imminent encroachment of development on our park, delivered to us—thanks to TNPS! I had my map; I had my target audience; and thank goodness I had the nerve to introduce myself, show the governor the map, and explain my concern to him.

After I related the incident to other TNPS members in the booth, our president Karl Heinzman sought out the governor, still ambling among the booths (but now with my map tucked into his pocket), to reinforce the importance of my message. How about that for connections?

And here is another one: TNPS member Allen Sweetser has a neighbor whose butternut tree (*Juglans cinerea*) produced a good crop of nuts this year. That's a bit unusual, because butternut is being killed throughout its range by a fungus that was probably introduced from outside of North America.

Also known as white walnut, this tree grows on rich loamy soils in mixed hardwood forests. It produces nuts for wildlife and contributes significantly to forest biodiversity.

Given the plight of the species, Allen decided to try to help this apparently disease-resistant tree to disperse its nuts. He brought a bucketful to the TNPS annual meeting, gave them to all who would take, and described procedures for storing and planting them, including how to protect the planted nuts from hoarding mammals.



A U.S. Forest Service website describes butternut and the blight to which so many of the plants have succumbed. (Go to <http://www.na.fs.fed.us> and type "butternut" in the search field.) The site further explains, "Butternut is shade intolerant. Reproduction can only be sustained in stand openings or fields where shade cannot impede its development. Young trees may withstand competition from the side, but will not survive shade from above."

I have two of Allen's butternuts in my refrigerator now, and I think I know where I will plant them. Wouldn't it be something if his plan took root—literally—and TNPS members helped stave off the demise of this important tree from our forests? What a wonderful movement to be connected to!

TNPS/NABA Field Trip Report (continued from page 3)

We did, however, have some interesting sightings of natural history and human history too. We found out that one of our attendees, Nancy Scott, is a direct descendant of the Gordon family of the Gordon House on the Trace. The family used to run a ferry across the Duck River. Nancy said the family had recently had a reunion and visited the Gordon House.

We saw a dung beetle doing its thing and two species of praying mantis—one of them dining on a wheel bug for lunch! We released a Monarch which we put on Margaret's hat before it (the Monarch, not Margaret's hat) flew away. We found a Clouded Skipper caterpillar, occupied chrysalis and abandoned chrysalis

on some Johnson grass at field on the way to the "Fatty Bread Branch" of the Duck River at the Gordon House.

We walked in the woods and fields at Garrison Creek, Burn's Branch, Tennessee Valley Divide and lunched at the Gordon House and stayed until about 3:30. On the way home, some of us went to a wet meadow we had passed at mile marker 414, where we found an unusual color of ironweed—pink.

See page 3 for some photos from the trip and a list of butterflies and plants that we saw.

“Out on a Limb” Exhibit in Sewanee

This, the fourth in a series of articles about nature journaling, has to do with a current project of the nature journaling group to which I belong. If you or someone you know would like to contribute an article for this series, please let me know.—Mary Priestley (marypriestley@bellsouth.net)

by Mary Priestley

“**O**ut on a Limb,” an exhibit by Sewanee’s Dead Plants Society, is on display at Stirling’s Coffee House in Sewanee until mid-December.

The Dead Plants Society was founded in 2002. Members meet weekly to work on nature art and discuss nature writings and observations.

“Out on a Limb” is the Society’s second exhibit at Stirling’s and is a sampling of various directions the individual members’ experiences with nature have taken them. Their exhibit offers a window into ways that nature can beckon to individuals—stimulating scientific study; inspiring art, poetry and essays; providing a source of humor and delight, as well as reflection on spiritual issues and humanity’s place in the world.

“The human-built world is expanding and altering the planet at a breathless rate, and at the expense of the other living things with which we share our home,” says Jill Carpenter. “But more and more we’re discovering that it’s the small marvels that really nurture our souls—the wind in the trees, wildflowers,



TNPS members who are also in the Dead Plants Society. Jill Carpenter, Mary Davis, Yolande Gottfried, Jean Yeatman, and Susan Charkes (left to right), work on persuading fellow Dead Plants Society member Mary McCleaf (second from left) to join TNPS.



birdsong, the cycles of the seasons. These are simple things, but they are also profound and wonderful mysteries.

“When people look out the window into nature the hope is that they will want to open that window and breathe the fresh air.”

Dead Plants Society members who are also members of TNPS are Carpenter, Susan Charkes, Mary Davis, Yolande Gottfried, Mary Priestley, and Jean Yeatman.

Stirling’s Coffee House is located on Georgia Avenue in Sewanee.

TNPS Field Trip Reports

Meeman-Shelby State Park

August 20, 2005

by Bart Jones

When the forecast is for temperatures in the upper 90s, you know you're going to sweat, not only from the heat, but from worrying about whether anyone would be crazy enough to show up for your field trip. Thankfully, 15 crazy people did show up at Meeman-Shelby State Park in quest of the elusive three birds orchid (*Triphora trianthophora*).

Three birds orchid is the oddball of our native orchids. In normal years the plants emerge in late July and quickly grow to blooming in 3 to 4 weeks. However, if conditions are less than optimal, the plant will remain dormant or persist as a saprophyte, sometimes for several years. This has led to little scientific study on this orchid and the basis of many myths. To our good fortune, Chris Dudding, a graduate student from the University of Florida, was present and shared her knowledge and cleared up many questions concerning this orchid. She explained how *Triphora* are semi-saprophytic and can produce new tuberoids even when no leaves emerge above the ground or go completely dormant if conditions become too inhospitable. This all makes it difficult to gauge exactly how many plants are in a particular population and determine how rare or common it really is. Three birds orchid is widespread, ranging from southern Canada through the entire eastern U.S. except the immediate coastal areas. It is thought to be relatively common, but as alluded to above, this is very difficult to establish. Chris' work looks at the population genetics and mycorrhizal fungus associations of *Triphora trianthophora*, and led her to Wisconsin, Indiana, and Maine before making her way to Tennessee, to examine and collect specimens for her work. I had scouted the area the weekend before and found one colony of 14 plants, so I knew we could at least see plants. But flowers—well that's another story.

It is widely believed there must be an environmental trigger to cause mature buds to open, such as a couple of cool nights or rain after a dry period. The response to this trigger is for all the plants in the area to bloom at the same time. The problem is the individual flowers only last a day. So you can see how challenging it can be to actually find plants in flower. As we entered the woods and came to the location of the orchids, the suspense grew. Would there be any flowers open? To my relief, as we topped the ridge and looked

down into the small depression where the plants were located, lo and behold, flowers!

I was worried that after all the buildup, everyone would be really disappointed, because this orchid is quite small. Most plants are 6 to 8 inches tall and the flowers are less than an inch wide. But after getting up close and personal, most were struck with how exquisite the blossoms are: white with some pink flushing, the sepals flaring outward and the petals held together almost tube-like over the lip.

After everyone had their fill and photographs of the three birds orchid, we made our way back to the road. Lining both sides was snowy squarestem (*Melanthera nivea*), an aster family member, with white flower heads composed entirely of disk flowers and closely resembling Barbara's buttons, but on plants 4-5 feet tall. Although not particularly showy, its potential as a good addition to a butterfly garden was quite evident as dozens of eastern tiger and spicebush swallowtails along with several species of skippers swarmed the plants. I pointed out bay starvine (*Schisandra glabra*), a state endangered plant, growing up into lower branches of trees and shrubs. It is a beautiful vine with large dark green leaves giving it some horticultural prospect. The flower of this magnolia relative is a small red blossom appearing in late spring, but replaced at this time of the year by a surprisingly large cluster of small round fruits.

Our last destination was to the headwaters of a small lake. As we entered the area we were greeted by a large stand of cup plant (*Silphium perfoliatum*). At 6 to 8 feet tall, these plants are quite impressive, each plant topped by many 3-inch golden yellow sunflower-like blossoms. The large leaves are opposite and fused at the bases to form a cup that can hold enough water for birds and insects to use for drinking. Along the damp margin of the woods several plants were in bloom, including monkeyflower (*Mimulus alatus*), mad-dog skullcap (*Scutellaria lateriflorus*), ditch stoncrop (*Penthorum sedoides*), and jewelweed (*Impatiens capensis*). Along a drainage ditch 3 different *Ludwigia* species grew side by side, giving a perfect opportunity to point out the different characteristics of each one. Creeping water primrose

(continued on next page)

TNPS Field Trip Reports

Dry Branch – Lewis County August 6, 2005

by Bart Jones

Our second joint hike with the Swan Conservation Trust attracted individuals to the western edge of Lewis County to visit one of the seven sites in Tennessee (all in Lewis County) of the federally endangered Tennessee yellow-eyed grass (*Xyris tennesseensis*). The Dry Branch population of the *Xyris* is unique in being the only one of the seven not in the Duck River watershed, instead being part of the Buffalo River watershed.

We hurriedly made our way to the first location, a seep found in a rocky barren area. Yellow-eyed grasses have small flowers with three petals that emerge from a cone-like inflorescence atop a slender stem. Individual blossoms are very short-lived, usually withering by early afternoon. So we were racing a very hot sun to get a good look at the plants in flower. After descending the ridge we came upon the seep emanating from the base of the hill and flowing across a low area of the barren into Dry Branch. Throughout the damp areas were hundreds of plants in flower, the tiny blossoms still very fresh. In more open areas of the seep, twisted yellow-eyed grass (*Xyris torta*) joined its relative. David Lincicome demonstrated the only way to definitely identify the two species. By removing the scales of the cone the sepals can be visualized, appearing as a claw-like structure at the base of the flower. Examination of the sepals with a hand lens shows the edges of the sepals to be entire with fine hairs regularly spaced along it in *X. torta*, while the edges are raggedly lacerated in *X. tennesseensis*. Other species in bloom at this location were southern rosinweed (*Silphium asteriscus*), rose pink (*Sabatia angularis*), glade wild petunia (*Ruellia humilis*), and orange

coneflower (*Rudbeckia fulgida*).

As we made our way down the creek, we encountered our first orchid of the day, little clubspur orchid (*Platanthera clavellata*), growing in clumps of grass along the banks of the creek. The small clusters of tiny greenish-white flowers are nearly camouflaged in the vegetation. Also along the sides of the creek were more plants of Tennessee yellow-eyed grass, monkeyflower (*Mimulus ringens*), and smooth phlox (*Phlox glaberrima*). At our turnaround point was a small waterfall surrounded up its length by featherbells (*Stenanthium gramineum*). Several were blooming, the tall stalks bursting with loose panicles of small white flowers. The leaves are reminiscent of a grass (hence the species name 'gramineum'), but the plant is in fact a member of the lily family.

After lunch we moved to another *Xyris* location, Airplane Seep, named for the wreckage of a small aircraft that is still visible on the hillside. The numbers of *Xyris* were lower here and the seep was more marshy, but it was the second orchid of the day that commanded our attention, yellow fringed orchid (*Platanthera ciliaris*). Throughout this lightly wooded seep, dozens of bright orange "torches" beamed against the ubiquitous green and brown. This is one of our showiest orchids with loose cylindrical clusters of bright yellow-orange flowers, each bloom sporting a lip with long hair-like appendages.

With a clap of thunder to signal the end of the hike, we climbed back up the ridge to the cars just as it started raining.

Meeman-Shelby State Park (continued from page 6)

(*Ludwigia peploides*) grew in the shallow water at the bottom of the ditch with its relatively large 5-petaled yellow flowers, while on the banks winged water primrose (*Ludwigia decurrens*) and hairy willow primrose (*Ludwigia leptocarpus*) grew. *L. decurrens* is a smooth plant with membranous wings along the angles of the stem and 4-petaled flowers, while *L. leptocarpus* is hairy and the flowers have 5-8 petals, which detach easily when touched. We

also saw a small grove of extremely tall Hercules' club (*Aralia spinosa*), a few approaching 25 feet tall.

Having visited the two sites of botanical interest, we enjoyed lunch under a large black walnut tree (*Aralia spinosa*), whose shade along with some perfectly timed breezes took the edge off the heat. All of this and I still kept my promise of "no more than three hours," making for some happy, not so overheated, hikers.

Review of John Tullock's *Growing Hardy Orchids*

by Bart Jones

Orchids have a reputation for being difficult to grow, with hardy garden orchids being particularly notorious. In *Growing Hardy Orchids*, John Tullock dismantles this myth by showing these plants to be vigorous and tenacious when given cultural conditions which approximate their natural habitats. His detailed descriptions on how to construct beds designed for particular groups of orchids gives the reader a step-by-step model for successfully cultivating this neglected family of garden-worthy plants, from the easy *Bletilla striata* for beginners to the more challenging winter-active genera like *Ophrys* or *Pterostylis*.

Starting with a global overview of the importance of conservation, the author ends the discussion with a personal account of a rescue of over a thousand pink lady's slippers (*Cypripedium acaule*) from a farm near his home in Knoxville, TN. This example points out the precarious existence of most of our native orchids. Drawing upon his background in several areas of conservation, Mr. Tullock lists 12 actions that, if implemented, would help ensure the survival of the plants and their habitats.

Although the book gives easily followed instructions for creating hardy orchid beds, the reader will also note that many pitfalls are mentioned, but always accompanied by sage advice



on how to avoid them. The avid gardener will appreciate the thoughtful addition of appropriate companion plants to impart lushness and balance to the beds, allowing them to blend seamlessly into the garden as a whole.

The bulk of the book is a section highlighting a large number of species and hybrids that show horticultural promise. Each description presents concise information regarding cultural requirements, hardiness, bloom time, and commercial availability. Many are accompanied by spectacular photographs that artistically capture the intricate beauty of the blossoms. Information about sources with hardy orchids for sale is given at the end of the book.

Even though the author is quite thorough and cohesive in his discussions about the preservation and growing of these plants, an epilogue concerning fish and their place in conservation efforts, while interesting to naturalists and conservationists, might be seen as out of place to many gardeners. This is a small distraction, however, to what is an exquisite treatment of hardy orchid cultivation and an indispensable addition to every gardener's library.

TENNESSEE NATIVE
PLANT SOCIETY
PO Box 159274
Nashville, TN 37215

