

Illustrated Flora of East Texas Newsletter

Volume 1, Number 1

June, 2000



State of the Flora



Welcome to the first newsletter of the *Illustrated Flora of East Texas* project. The East Texas region, as defined for this flora, consists of 87 counties (see map, page 3) rich in botanical diversity. The flora will treat about 3,200 species of plants found in East Texas. This is approximately 66% of the total number of plants in the state. Because of the large number of plants treated, the flora will be divided into two volumes: the first, with an introduction and treatments of ferns, gymnosperms, and monocots (ca. 975 species) and the second, on the dicots. The first volume is targeted for completion in 2002. Both volumes will be fully illustrated with line drawings, many of which will come from BRIT's own botanical library.

We are happy to announce that the *Illustrated Flora of East Texas* will be dedicated to **Dr. Elray S. Nixon**. This recognition is long overdue. Dr. Nixon is professor emeritus of Stephen F. Austin State University where he taught in the Biology Department and developed the herbarium. His name is practically synonymous with East Texas botany, and his contributions are immeasurable. He will be highlighted in the next issue.

George Diggs, the senior author, has already spent considerable time in the field in East Texas, making numerous trips to the area over the past two years. He has also been busy writing individual species descriptions or treatments and various keys. One of the more interesting groups already treated is the orchids. This section involved a rather extensive expansion with 20 new taxa being treated and added to 20 modified treatments from the North Central Texas flora. Considerable progress has also been made on the fern and fern allies, the irises (Iridaceae), and lilies (Liliaceae), among others. The extensive introduction is also well under way. One of the most challenging groups, the grasses (Poaceae), is slated to be worked on this summer.

Bob O'Kennon will once again be contributing from his extensive collection of color photographs. He's been busy

this spring taking additional photos. **Monique Reed**, of Texas A&M University, is actively reviewing, editing, and improving various treatments. **Linny Heagy**, the talented artistic designer/illustrator for the North Central Texas flora, has been at work on the East Texas project. Besides working on the logo for the East Texas books, she recently finished 12 new botanical line drawings. Among others, she drew three different species of wake robin (genus *Trillium*), and two species of blue-eyed-grass (genus *Sisyrinchium*) that will appear in the first volume.

As with any project of this size, many people contribute their special talents. **Stanley Jones**, of the Botanical Research Center Herbarium (BRCH) in Bryan, Texas, deserves huge thanks for contributing the key and treatment for the large sedge genus, *Carex*. This is a notoriously difficult group, and his expertise and generosity are greatly appreciated. We are very excited that **Joe and Ann Liggio**, authors of *Wild Orchids of Texas*, will be contributing some of their beautiful photographs. This will indeed be a real asset to the color photo pages that will grace the beginning of the book. Once again, **Andrew Crosthwaite** has volunteered his photos as he did for the North Central Texas flora and will be taking additional photos for inclusion in the book. **Bonnie Amos**, of Angelo State University, will again provide information on Texas endemics. This is a time consuming and formidable task and is very much appreciated. **Jim Van Kley**, a vegetation expert from Stephen F. Austin State University, will be contributing to the vegetation section in the extensive introduction. He has already been an invaluable source of information. There are also numerous individuals who spend considerable time in the field and volunteer their observations and send in specimens. **Geraldine Watson**, noted artist, botanist, and expert on the Big Thicket, is contributing one of her beautiful paintings for the flora. **Walter Holmes, Jason Singhurst, Eric Keith, Matt White**, and others have shared information and specimens from some of the less explored regions. Their observations are often unseen but important contributions to a project such as this. These are just a few of the individuals already involved with the project.



Illustrated Flora of East Texas
A collaborative project of **BRIT** and the
Austin College Center for Environmental Studies
<http://artemis.austinc.edu/acad/bio/gdiggs/floras.html>



Recent Donations

Joe Hamrick (Temple-Inland Forest Products)
Dr. James E. Laughlin (Fort Worth)
Kelly S. Sennhauser (Houston)

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The First East Texas Forays

When you're in Fort Worth and write the *Illustrated Flora of North Central Texas* it's one thing, but writing a flora for East Texas is another. There's a lot you can do in a good library and herbarium, especially one as rich as at BRIT, but for some things you just have to be there. So, off they go. This past April 1 **John Pipoly** (Head of Research), **Barney Lipscomb** (Assistant Director, Head of Press and Library, etc., etc.), and **Robert George**, East Texas Project Assistant, made their first foray into East Texas. They wanted to spread the word about the project and find out what east Texans might want in their flora. It was a one-day jaunt to Tyler, where the McClendon House was their host. **Bert Powell** and **Blu Monday** are the co-chairs on the board of this historical Victorian house located in the old center of Tyler. Bert and Blu were most gracious and allowed the BRIT visitors to set up a table on the porch and pass out literature on BRIT, the *Illustrated Flora of North Central Texas*, and the *Illustrated Flora of East Texas*. Though the day was rather gray and at times rainy, they still managed to greet several groups of people touring the house. They took time off to eat lunch and meet with **Lynn Sherrod**, Dean of the College of Sciences and Mathematics at UT Tyler. He brought along two of his assistants, **Melia Houston** and **Ruth Loper**. Their lunch meeting proved productive. Lynn was very interested in the East Texas project and responded by initiating some cooperative efforts. He volunteered the use of the UT Tyler herbarium, which represents

the local flora very well, and will provide a list of the monocots therein. The BRIT contingent looks forward to a working visit at the herbarium to see what treasures they can uncover. More "meet and greet" rounded out the afternoon at the McClendon House before they made their way back to Fort Worth.

The next foray began the following Friday, April 7. They were off by midmorning. This time the final destination was Nacogdoches. However, they had plenty of other ground to cover. Their first stop was Longview, where they had arranged to meet with **Denny Wedgeworth**, the president of the Northeast Chapter of the Native Plant Society of Texas (NPSOT). They gathered at a local landmark institution, Johnny Cace's, for lunch. Denny brought along other notable members, **Eleanor** and **Logan Damewood**, and **Belinda McLaughlin**. It was a great gathering and the BRIT crew parted minus quite a few brochures, which the NPSOT folks took to distribute at their meeting, and one *Illustrated Flora of North Central Texas* (purchased by Logan). The BRITs discussed returning to give a presentation at some later date. Not to be left idle, they then rushed to the Longview Agricultural Extension Office, where they had an appointment with ag agent **Rex Youngblood**. Rex took time out to listen to their pitch and let them in on some of the local goings on. They really appreciated his time and candor concerning the operation of his office and how the East Texas flora might help him. Once again they unloaded a few brochures which Rex agreed to distribute through his office. Though the main event that was drawing them to Nacogdoches was not until the next day, they headed



there with a full head of steam to meet with **Jim Van Kley**. Jim is a professor in the Biology Department at Stephen F. Austin State University, and was more than helpful loading them up with reprints, articles, and resources on East Texas vegetation. He has been very productive since coming to S.F.A. and was generous with his time and knowledge of the vegetation. Not to be daunted, they ran out the door to try and salvage their last appointment in Lufkin. They arrived at the Angelina Agricultural Extension Office shortly after 5 o' clock. They were lucky that agent **Cary Sims** had waited for them (his was the only car in the parking lot). They gave a quick pitch, as it was a late Friday afternoon. To their surprise, Cary stayed and talked at some length about how a good source of botanical information on East Texas would benefit his daily operations. They parted promising to return to talk with a group of Master Gardeners that Cary hoped they would be able to address on this trip. After such a packed day they returned to Nacogdoches to regroup for the next day.

Saturday morning came early enough. This was the day they had primarily come for. It was the grand opening of the Stephen F. Austin Pineywoods Native Plant Center. Co-directors **James Kroll** and **David Creech** were most kind in allowing them to set up a table at this event, right next to the Native Plant Center table. On hand were many local and not-so-local dignitaries. **Lady Bird Johnson** was on hand and was oft quoted throughout the ceremony, most effectively by **Ellen Temple**. This event gave the BRIT contingent a chance to meet a wide variety of people, all interested in plants from one aspect or another. In particular **Peter Loos**, East Texas native plant expert, and past state president of the Native Plant Society of Texas, was very cooperative and took several bundles of the East Texas flora brochure to distribute at the many organizations and meetings in which he participates. To top off their foray they attended the luncheon at the historic Fredonia Hotel in honor of Lady Bird Johnson.

Limelight

George Diggs is the senior author of the *Illustrated Flora of North Central Texas* and is now at work on the *Illustrated Flora of East Texas*. He hails from Virginia and attended the College of William and Mary where he earned his B.S. and M.A. degrees. He attended the University of Wisconsin-Madison where he earned his Ph.D. in 1981. But, he obviously got here as fast as he could and took up a post in the Biology Department of Austin College in Sherman, Texas, that same year. He has served as an inspirational instructor and, until recently, as the Biology Department head. As testament to his dedication, the Carnegie Foundation for the Advancement of Teaching, and the Council for Advancement and Support of Education selected him, in 1999, as “**Texas Professor of the Year**”! He came to BRIT, as a research associate, in 1994. He worked untiringly on the flora of North Central Texas making the trek from Sherman to BRIT, in Fort Worth, on weekends and devoting summers until publication in 1999. That's two really big accomplishments in the same year!



George's interests include the flora of Texas (obviously), neotropical floristics, and the taxonomy, numerical systematics, and molecular systematics of the Blueberry Family (Ericaceae). He has spent time in the field in Africa, Australia, Central and South America, Mexico, Canada, and the U.S. Not only that, but he has led college students on field trips to Latin America and Africa. After all this, George still has enough energy to lend an always positive, upbeat atmosphere to any and every situation.

Austin College and BRIT are both lucky to have him as part of their teams.





Species Spotlight

Orchidaceae (Orchid Family)

Cypripedium kentuckiense (Southern Lady's-slipper, Yellow Lady's-slipper)

Genus name from: *Cypris*, goddess of love and beauty, and *podium*, little foot

It's no wonder that *Cypripedium kentuckiense* was selected as the subject of the logo (being designed by Linny Heagy) for the *Illustrated Flora of East Texas*. The region, with 40 of the state's 52 orchid species, is noted for its great diversity of orchids, and our featured orchid is the largest *Cypripedium* in North America. The slipper can be an egg- sized 2 1/2 or more inches long!



Just a few facts about the family...

It is the largest family of monocots (17,500-30,000 species) and may even be larger than the largest dicot family, the sunflowers (Asteraceae). The darling of numerous horticultural societies, nearly 100,000 hybrids have been reported. Most typically haunting the tropics, orchids are most often found as epiphytes, and comprise about 40% of the monocots. Interestingly, despite its huge number of species, the Orchidaceae is one of the least understood families of flowering plants because of a poor fossil record and a mostly tropical distribution.

Cypripedium has 47 species found mainly in north temperate regions. The characteristic slipper is actually an inflated modification of the lower lip (a special petal) seen in most orchids. It has three openings: a larger central one, where pollinators enter, and two back exits, where they are channeled in an elaborate scheme to facilitate pollination. Lady's-slippers are quite hard to cultivate, and most horticultural varieties are actually in the related genus *Paphiopedilum*.

Cypripedium kentuckiense is extremely rare in East Texas, and is known only from about 13 populations. It has a light- or crème-yellow slipper, an upper maroon sepal, and two lower maroon sepals fused into a single unit underneath the slipper. The upper petals are also maroon and twirl laterally like untied laces. The petals and sepals may vary from maroon to yellow-green with maroon mottling. It is typically found in deciduous forests on wooded seepage areas, floodplains of streams, and moist ravines. Unfortunately, gardening enthusiasts seeking to transplant wild individuals to their gardens have diminished populations. The plant stands about 2 1/2 feet tall and flowers in April and possibly May.



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Herbaria of SMU, BRIT and VDB

Lloyd Shinnery's Collection in Systemic Botany