

NPSOT News

The Newsletter of the Native Plant Society of Texas

Vol. 20, No. 6 November/December 2002

ZIZANIA TEXANA: A TRUE NATIVE TEXAN

Written by F.M. Oxley and Paula Power

Illustrated by Claudia P. Harris

It's quiet this time of morning, the only sound, the chatter of a kingfisher somewhere out in the distance. A light breeze stirs the mist curling above the water's surface. Along the banks of the river, the rising sun catches the nodding head of a lone plant in the middle of the water. The flowers of Texas wild rice have begun to make their annual appearance in the San Marcos River.

Zizania texana (Texas wild rice) is one of three North American species of *Zizania*. Two other species, *Z. aquatica* and *Z. palustris* are close relatives to Texas wild rice. *Zizania aquatica* (annual wild rice, Indian wild rice) grows from Maine to Michigan and south to Florida and Louisiana. *Zizania palustris* (Northern wild rice) is native to the Great Lakes region and Canada. Both annual wild rice and northern wild rice are commercially grown and harvested. A fourth species, *Z. latifolia*, is native to China and Japan.

Once plentiful in Spring Lake, throughout the upper San Marcos River, and along

irrigation ditches, Texas wild rice was so abundant that many considered it an annoying weed. Today, less than 2,000 individuals now make the upper 2.4 kilometers of the San Marcos River their home.

Originally collected by G.C. Neally in 1892, the specimens were incorrectly identified as *Z. aquatica*. Nearly 30 years later, a collection made by Ena Allen was once again incorrectly identified (A.S. Hitchcock, a well-known agrostologist, later correctly identified and labeled her collection as *Z. texana*). W. A. Silveus, a San Antonio agrostologist, collected specimens of the plant and also identified them as *Z. aquatica*. Upon closer study and examination, he noted several morphological differences and suggested that it might actually be a new species. It wasn't until 1933 that Hitchcock officially described and named the plant *Z. texana* based on the type collection made by Silveus in 1932.

Zizania texana is a perennial, aquatic bunch grass in the family Poaceae. Long, ribbonlike leaves float in the current and can grow up to 3 m in length. Flexible stems, called culms, commonly are 1-1.5 m in length and can grow to 3 m. Culms bend with the current and root at the nodes. Individual culms rise above the water, producing flower heads called inflorescences. Each inflorescence is composed of both staminate and pistillate flowers. Pistillate (female) flowers appear first, followed about a week or so later by staminate (male) flowers. Flowers typically bloom in the spring, summer, and fall, as well as sporadically throughout



the rest of the year. The flowers are wind-pollinated and produce greenish-brown seeds.

For thousands of years, Texas wild rice lived and thrived in the San Marcos River, providing food for native animals and likely Native Americans. With the arrival of the first settlers to the area in the early 1800's, human activities began to have an affect on Texas wild rice and its habitat. The establishment of the city of San Marcos in 1848 and arrival of farming and cattle ranching, combined with the construction of the first of three dams on the San Marcos River in 1849 and alterations to the surrounding watershed, further degraded the habitat of Texas wild rice.

Between the 1940's and late 1960's, Texas wild rice experienced a sharp population decline. This decline was attributed to habitat

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PRESIDENT'S MESSAGE

by Sue Wiseman

I want to start this message by thanking Glenn Olsen and all of the volunteers who help put together our State Symposium this year in Houston. Having helped served on the committee for last year's meeting, I am aware of the time and energy that is needed to carry out a successful Symposium and although I helped in only a small way, I know how much effort this has taken. So ... on behalf of your fellow members thank you so much for this great event.

I look forward to serving you this next year and hope to get an opportunity to meet many more members. I attended my first State meeting several years ago in Harlingen and at the time I was not sure what to expect. First, I gained a great knowledge of the native flora of the Lower Rio Grande Valley where I had visited over the past thirty years, but had not truly appreciated the great diversity of the native vegetation. Second, I began to realize the effort that the community was taking in trying to plant native species and reclaim many areas. However, the thing I really enjoyed was the opportunity to meet so many wonderful folks, both speakers and members.

I have not missed a State Symposium since. It is a great way to be able to visit this state and get to know our vegetative areas. Texas is blessed with such different landscapes, yet we seem to come together to encourage one another in our common goals. Each year I am reminded of our purpose. That is, to promote the conservation, research and utilization of the native plants and plant habitats of Texas through education, outreach and example.

Bill Lindemann, one of our Past Presidents said it best, "Make a Difference". Therefore, I (like Bill, Glenn and all of those who have come before) want to challenge you this year. Read our purpose and look around you. There are many ways that you can reach out in your communities to make a difference. Volunteer to help in your schools, especially elementary schools. Volunteer to help maintain that demonstration garden or help to pick up trash along the highway and plant wildflower seeds. Be willing and able to speak to any and all civic, birding, and garden groups in your area. If you have a Master Naturalists program or Habitat Stewards program in your community, consider joining and help spread the word. Help with plant sales. And when your chapter is looking for officers and committee chairs, step up to the plate. We need every one of you in order to fulfill our purpose.

I will close, with a few brief reminders. First, please mark your calendars for March 1, 2003. The Lady Bird Johnson Wildflower Center and NPSOT will be having our annual Spring Symposium in Austin. We will have more details in the next newsletter and on the website. Second, remember our next State Symposium will be the third weekend of October 2003 in Fredericksburg. I hope to see many of you at both, but most of all I hope that you will think of the needs of our organization in your own community. Each NPSOT Chapter needs your help, from putting together the newsletter, to pulling weeds, to getting speakers, to lobbying your local officials about the benefits of our native species. Because ... only you can make a difference.

Did you know, as a NPSOT chapter or member you can purchase a subscription to this newsletter for a local school or library for only \$5.00 per year?

For more information, contact Dana Tucker at the NPSOT office.
Phone: 512/868-8799; fax 512/931-1166; or email: dtucker@io.com.

Publication Information:

The Native Plant Society of Texas is a nonprofit organization composed of professional and amateur botanists and others with an interest in the flora of Texas.

The newsletter, NPSOT News, published six times per year, is an official publication of The Native Plant Society of Texas and is free to members. Opinions expressed are not necessarily those of the Society or the editor. Material appearing in NPSOT News may not be reprinted without the permission of the author, artist, or editor.

Submissions should pertain to newsworthy events relevant to NPSOT, including: notices of meetings, lectures, workshops, etc.; new publications, book reviews, articles of general interest to society membership. Scientific articles are encouraged. Also appropriate are business matters of NPSOT. Manuscripts, artwork, letters, ideas, suggestions and requests are welcome in any form and should be submitted to the editor as soon as possible to: NPSOT News editor, 326 West Ridgewood Rd., Georgetown, Tx 78628, or by email to: vp_publications@npsot.org.

Please send news about what your chapter is doing or planning.

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Next Deadline:

The submission deadline for the January/February 2003 issue is:
Dec 1, 2002.

Book Review

FERNS AND FERN ALLIES OF THE TRANS-PECOS AND ADJACENT AREAS

By Sharon C. Yarborough and A. Michael Powell

Lubbock: Texas Tech University Press, 2002. xx + 116 pp. \$17.95 paperback edition.

Review by William J. Scheick

To look at a fern is to travel back in time. Ferns date from over 300 million years ago, long before the appearance of the first flowering plant. Although I knew nothing of this remarkable ancestry when at a young age I saw my first ferns in the forests of Breton Woods, their delicate beauty nonetheless captivated my imagination. My childhood fascination with ferns was hardly unique, however. People have been attracted to ferns for some time. During the 19th Century, for instance, nothing less than a fern craze sprouted up in England, where suddenly once wild ferns were abundantly cultivated in gardens, purchased as indoor potted plants, and replicated in ornamental designs on numerous household items.*

When I arrived in Austin in 1969, whatever fern-desire I may have harbored soon withered in the heat. Although my first Austin home was located on a creek site, all the land surrounding it was caliche—hardly ideal for ferns or much else. Ferns, I had always observed, thrive in a shady, moist habitat. It was not until many years later when an acquaintance of my daughter gifted us with ebony spleenwort (*Asplenium platyneuron*) that my fondness for ferns revived. While this Texas native plant may not be as aesthetically appealing as the more delicately textured wood fern (*Thelypteris kunthii*), it is both hardy and drought tolerant. I have become very attached to ebony spleenwort. Planted along the north side of my home's foundation, it has thrived, even remaining green throughout every winter. After a protracted stretch of heat and drought, it signals the need for some water by yellowing slightly.

That there is yet more hope for Texas fern lovers who live in such dry places is evident in Sharon C. Yarborough and A. Michael Powell's new book.

It identifies many native pteridophytes adapted to the arid conditions of the Trans-Pecos region—that Maine-sized western part of our state situated between the Rio Grande and the Pecos rivers where the average annual rainfall is a mere 12 inches. One of the intentions behind this book, in fact, is to promote the ferns of this locale as suitable candidates for xeriscaped home gardens.

The Trans-Pecos ferns conserve water by producing hair-shaded fronds somewhat smaller in size than average. Some of these plants will wither after a long period of dryness, and yet these very same seemingly dead flora will immediately green up again whenever water becomes available. It is likely, moreover, that these plants reproduce more by asexual means—vegetative buds forming on a tiny heart-shaped prothallus that normally produces eggs and sperm

on its underside when moisture is present. Fern reproduction is a curious business, in any event, and the authors of *Fern and Fern Allies* do very well explaining the intricate process so that it can be easily understood by lay readers.

Including spikemosses, horsetails and scouring rushes, this attractive field guide provides detailed keys designed to facilitate plant identification in the wild. Besides useful information concerning the floral morphology and habitat conditions of Trans-Pecos pteridophytes, Yarborough and Powell provide 37 line drawings. In the matter of fern identification such detailed drawings are more helpful than photographs.

A comparison with David L. Jones's *Encyclopedia of Ferns* and Boughton Cobb's *A Field Guide to the Ferns*, in the Peterson series, provides another measure of the value of *Ferns and Fern Allies*. Of the 15 examples in the new book of members of *Cheilanthes*, the largest genus of the maidenhair fern family, only 3 appear in Cox's book and only 2 in Jones's volume.

Similarly, of the 11 members of *Selaginellaceae* (the spikemoss family) described in *Fern and Fern Allies*, 2 are included in Jones's work and none in Cobb's guide. As these statistics and results of a comparative review of the remaining plants both suggest, *Fern and Fern Allies* is as valuable as it is handy.

What an invitation to adventure Yarborough and Powell's book provides. Like several columbines native to the same region, many of the Trans-Pecos ferns are hidden in unusual places. To be seen they must be searched out. And, as the authors note, "there are probably more rare treasures to be found in certain microhabitats" of that area of Texas. Let's hope so, and let's hope, too, that native plant nurseries will make some of these arid-adapted ferns available for our home garden landscapes

*See David E. Allen, *The Victorian Fern Craze: A History of Pteridomania* (London: Hutchinson, 1969).

William J. Scheick, a former vice-president of NPSOT, has published articles in *Texas Gardener*.

Books about native plants make great gifts.

For a list of the many excellent book titles available to NPSOT members at a discount of 20% or more below retail prices through the NPSOT Bookstore, visit NPSOT on-line at www.npsot.org, or contact the office by phone: 512/868-8799 or fax: 512/931-1166

WILDFLOWER WATCH

By Betty Allison Cawfield

Spanish Moss (*Tillandsia usneoides*) Pineapple Family (*Bromeliaceae*)

Other common names: graybeard, *barbe Espagnol* (Spanish beard), tree hair, long moss, pale moon flower, others.

An epiphyte with a slender, wiry, branching stem to several feet long, forming tangled masses with adjacent plants and hanging from tree branches. Leaves narrow, tendril-like, 1-3 inches long, greenish, coated with silvery scales, in clusters or scattered along stem. Flower one per plant, 3-petaled, green, fading yellowish, about ¼ inch across. Fruit a seed-filled cylindrical pod. February-June.

The sight of an aged live oak, its spreading branches festooned with thick strands of silvery-gray Spanish moss, is such a common sight throughout the coastal areas of the southeastern United States that it has become symbolic of the region and is largely taken for granted by the inhabitants. While the plant seems to prefer oaks, it also inhabits other species, but does not do well on trees with thick foliage year-round, such as pines; these screen out too much sun and rain.

Indigenous to the tropical areas of the Western Hemisphere, Spanish moss *Tillandsia usneoides* is neither Spanish, nor a true moss, nor parasitic, since nourishment is derived from water and air absorbed through its stems and leaves. Nothing is taken from the host plant; its function is merely to provide physical support. Highly absorbent, silvery leaf scales enable these epiphytes to take in many times their dry weight in water, at times making them so heavy they break their supporting limbs. Otherwise, they do no harm to the tree, unless the moss grows so thickly that it blocks out too much sunlight.

The flower is very small and inconspicuous and is said to release a pleasing fragrance into the night air. It is followed by a seed-filled cylindrical pod. Each seed is equipped with a feathery attachment, allowing it to sail on wind currents until it reaches a suitable place to lodge and begin a new plant.

Early settlers found that Spanish moss mixed with mud made a long-lasting caulk for their cabins, and dried, it was useful for starting fires. Its water retention quality made it also useful as mulch.

At one time, especially after the Civil War, the moss was commercially important, and factories for ginning it were fairly common throughout its growing region. Various

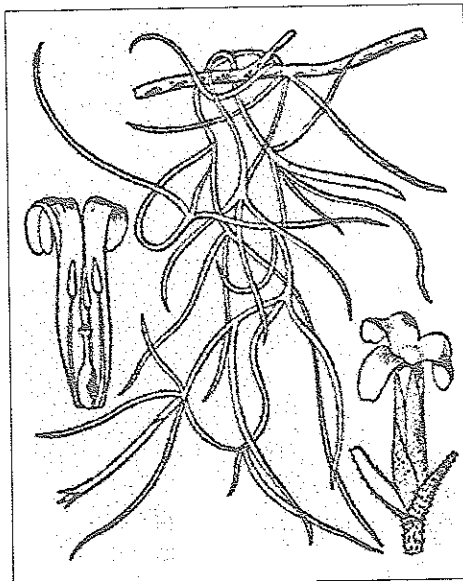
methods were used to strip the scales and remove waste materials. The resulting material, the fine, black, wiry fibers, was then baled and shipped for use in various ways, primarily for packing breakables, and as stuffing material for mattresses; upholstered furniture; horse collars and blankets; and automobile cushions. Henry Ford is said to have used the product in the cushions of his first Model T Fords. Treated moss permits good air circulation, and moss-filled mattresses were prized by people living in hot, humid regions. (As a small child, during a brief late-summer sojourn deep in south Louisiana's Cajun country, I slept on a moss mattress and remember it as being springy and comfortable.) Although the industry died with the advent of synthetic fibers and foam rubber, cleaned but unginninged moss is still used commercially by the floral trade and for a few other uses.

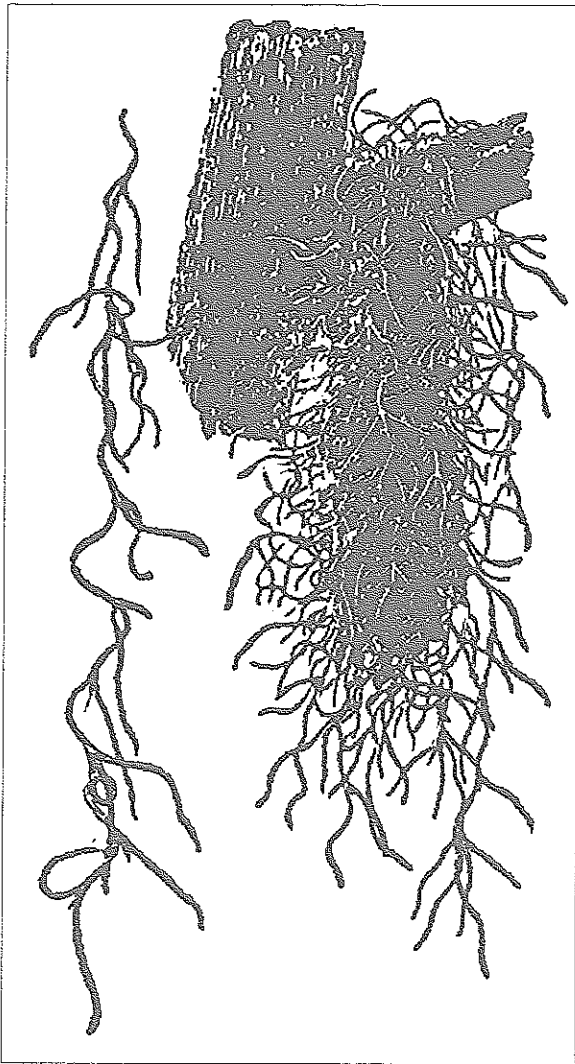
Because Spanish moss's wiry fibers are not digestible, it offers little in the way of food, however it may be utilized for bulk feed. Horses, deer and wild turkeys are reported to eat it. In the past it was used medicinally to make a concoction for treating diabetes, and in recent years has been explored as a possible treatment for controlling blood glucose levels.

The moss serves an important function for many species of wild life. Snakes, bats, spiders and chiggers find shelter in its thick, tangled strands. Many bird species, as well as squirrels, use it in building nests or to conceal nests. The parula warbler makes its nest in the hanging moss itself. Because it is very sensitive to the air around it, it is a good barometer plant for detecting pollution.

Numerous legends have sprung up about this strange plant, most have to do with ill-fated lovers whose beards or hair became entangled in the branches of trees they were climbing to evade unwelcome pursuers. The lovers died in the escape attempts, but their beards and hair lived on, eventually becoming old and gray.

Although Spanish moss is often a graceful adornment on a healthy tree, there are situations in which it may seem spooky. The sight of an old dead tree standing alone in an abandoned field, its lifeless limbs hung with gray moss - like the remnants of a tattered shroud - can conjure up ghostly





thoughts. Or a stand of moss-draped cypress trees reflected in the dark, murky water of some gloomy swamp presents a mysterious and eerie picture.

Tillandsia commemorates a 17th-century Swedish professor; *usneoides* is a reference to the plant's supposed resemblance to a lichen known as old-man's-beard.

Whether you consider Spanish moss beautiful, ugly or ghostly, this oddity is, without question, one of the most distinctive plants of the southeastern coastal regions of the United States.

Betty Allison Cawfield, a member of the Houston Chapter of the Native Plant Society of Texas since 1989, contributes this column. Her writing also appears in other publications, such as the October issue of the *Sabal*, the newsletter of the Native Plant Project.

Illustration Acknowledgments:

Spanish Moss illustration on page 4: *Tillandsia usneoides* (Britton and Brown. An illustrated flora of the northern United States, Canada, and the British possessions. 1896-1898. Courtesy of Botanical Research Institute of Texas, Fort Worth.)

Spanish Moss illustration on page 5: *Tillandsia usneoides* (Bailey, L.H. 1914-1917. The standard cyclopedia of horticulture. The Macmillan Company. New York. Courtesy of Botanical Research Institute of Texas, Fort Worth.)

BUSINESS COLUMN

Diane Owens Demonstration Gardens Grant:

The Diane Owens Foundation Grant to the Native Plant Society of Texas combined with matching funds from NPSOT is to help defray the cost of establishing and/or improving chapter demonstration gardens. More information will be available in the next issue and on our web site. Remember to apply for these matching funds for your demonstration garden project by February 1, 2003.

Membership Drive Update:

Congratulations to (fill in this blank) Chapter for increasing their membership by ___% during the month of August and to (fill in this blank) Chapter for their membership increase of ___% in the month of September. NPSOT 2002 Membership Drive winning chapters for the next months, as well as for the overall year will be announced in this column in the next issue.

Fund-raising Help

Starbucks has a program of giving away their coffee grounds for composting and a program to encourage their employees to be involved in local community projects. If your Chapter gets three employees involved in a project, Starbucks will contribute \$1000. Only \$250 if one employee is involved. It is a great opportunity.

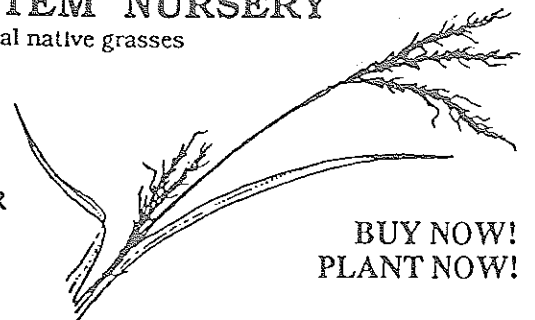
Contact your local Wal-Mart. Find the individual responsible for community involvement. Wal-Mart will contribute up to \$1000 for local projects. Remember it is better if you can get the employees involved.

Use the Kroger Share Card with each of your purchases. NPSOT will receive a percentage rebate each quarter. That can add up to significant revenue. The purchaser does not have to be a member of NPSOT for us to receive the credit. Give share cards to friends, relatives and neighbors. You still receive the discounts on your Kroger Plus card; our card does not take away from that. Contact your Chapter Leader or Dana at the State Office for all of the cards you need, and be generous with them.

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ZIZANIA TEXANA: A TRUE NATIVE TEXAN

continued from cover page.

modification, non-point source pollution, plowing the river bottom to remove unwanted vegetation, plant collecting, and the absence of sexual reproduction. For a number of years, Texas wild rice was considered a nuisance and was regularly removed with heavy equipment. To make matters worse, for a brief period of time, plant collectors removed native plants, including Texas wild rice, to make room for exotic species with economic value to the aquarium trade.

In the 1970's dams were built in the watershed to control flooding. Flood control dams impacted the river's natural hydrologic regimes changing the magnitude and frequency of flood events and sedimentation patterns. Growing urbanization, coupled with urban runoff and poor management of construction site runoff, increases the amount of sedimentation and adds pollutants to the system further impacting the Texas wild rice and its habitat. With each rain event, gravel is deposited at the confluence of the San Marcos River and its tributaries, changing the configuration of the river channel and burying vegetation, including Texas wild rice.

The introduction of nonnative species, both plant and animal, also takes its toll. Nonnative plant species often out-compete Texas

wild rice for available space, light, and resources. Unsightly floating mats of vegetation fragments, composed primarily of exotic species and debris cover plants, block sunlight, and prevent flowers from emerging. Large stands of nonnative plants now occupy areas where Texas wild rice and other native aquatic plant species once occurred. Nonnative animals, such as nutria, swans, and some ducks eat the leaves, culms, and flowers, or break reproductive culms as they forage in and among the stands and along the bottom.

Recreational activity also impacts Texas wild rice. Swimming, tubing, wading, and canoeing all contribute to bottom disturbance and increase streamside erosion. Runoff from streets and parking lots contributes to the influx of pollutants into the river, while litter and debris become part of the floating mats that often cover the plants.

As all Texans know, Texas weather is characterized by drought and flood cycles. In the past decade, central Texas has experienced a series of short droughts followed closely by massive flooding. A drought in 1996 resulted in reduced spring flow which, surprisingly, tended to locally increase current velocity as water level dropped. For some Texas wild rice plants this was fatal, as the sediment around roots was destabilized and eroded and the plants washed away. Ironically, the resource that Texas wild rice needs most, plenty of flowing water, spelled trouble during the past four years. Just as with humans, the 500-year flood of 1998 followed closely by flooding in November 2001 and July 2002 caused problems for Texas wild rice. These flood events washed away nearly all of the plants in the lower third of its range, from the IH 35 Bridge to the City of San Marcos wastewater treatment plant discharge. It is unlikely plants will recolonize this area naturally. Restoring Texas wild rice in this area will require a concerted and cooperative effort on the part of the many agencies that have jurisdiction over Texas wild rice and the San Marcos River. Fortunately, preliminary reintroduction studies have proved promising and a reintroduction plan, which will include this section of the San Marcos River, currently is being drafted.

Today, many of these disturbances continue to threaten Texas wild rice. However, a threat that overshadows all others is over pumping of the source aquifer for agricultural, industrial, and municipal use. Water flowing in the San Marcos River is directly linked to its source aquifer and overpumping contributes to the loss of springflow necessary for the plant's continued good health and survival. A number of agencies are working diligently and cooperatively on water use plans for the region; we must make a commitment to maintain spring flow today, if we are to have wa-



ter flowing in the San Marcos River for Texas wild rice in the future.

Since Texas wild rice was listed as endangered in 1978, a number of programs have been initiated to protect and conserve the species and its habitat. Under guidelines outlined in the San Marcos River & Comal Springs & Associated Aquatic Ecosystems (Revised) Recovery Plan, Texas wild rice plants were collected from the wild and now grow in two refugia: the San Marcos National Fish Hatchery & Technology Center (SMNFH&TC) and the Uvalde Fish Hatchery. Captive Texas wild rice plants set seed and produce new plants for a number of ongoing research projects, including examination of temperature requirements for growth and aspects of reproduction. These research projects are undertaken cooperatively between SMNFH&TC, Edwards Aquifer Authority, US Geological Survey, and the Lady Bird Johnson Wildflower Center. Captive grown stock is provided to the National Center for Genetic Resources Preservation in Fort Collins, CO for their ongoing work developing long-term (20-100 years) seed storage techniques and unraveling the story DNA tells about the genetic diversity of Texas wild rice.

Keeping close watch on the health and vigor of the wild population is essential for identifying population trends and allows managers to act quickly if necessary. This is accomplished by regular monitoring and mapping of individual stands by personnel from Texas Parks & Wildlife Department, Baylor University, and BioWest, Inc.

Recently, an informal public/private partnership, the San Marcos River Coalition, was formed among ten agencies and organizations. Its goal is to eradicate a newly introduced, invasive aquarium plant called *Cryptocoryne beckettii* from a two-mile stretch of the San Marcos River. This species poses a particularly serious threat to Texas wild rice since it occupies a similar niche and has similar flow and depth requirements. Removal of *C. beckettii* will be followed with the establishment of six native aquatic plant species, including Texas wild rice.

Despite all we *think* we know about Texas wild rice, there is still a lot to be learned. Increasing our knowledge about the ecology of Texas wild rice, how humans impact its habitat, and effective ways of reintroducing it back into the San Marcos River are just a few of the challenges ahead of us. Successful conservation of *Z. texana* depends not only on the knowledge we gather through research and observation, but ultimately on our commitment to preserve



and maintain its habitat. Only by changing the way we use and conserve the precious resource we know as the San Marcos River, will we be able to ensure the safety and continued existence of *Zizania texana*, a true Texas native.

Flo Oxley began her career at the Wildflower Center as an intern in the research department. Throughout her tenure with the Center, she has worked as the resource botanist, public programs manager, and acting director of education. She is currently the director of plant conservation and works with several Texas rare and endangered species, including Texas wild rice. For more information you can contact Flo Oxley, Director of Plant Conservation, Lady Bird Johnson Wildflower Center, 4801 La Crosse Avenue, Austin, TX 78739, (512) 292-4200 ext. 160; email: oxley@wildflower.org

Paula Power earned her undergraduate degree from the University of California at Santa Barbara and her graduate degree from Southwest Texas State University. She currently is a research botanist for U.S. Fish and Wildlife Service where she is actively involved in native aquatic plant propagation, research, and restoration. For more information you can contact Paula Power, Botanist, US Fish and Wildlife Service, National Fish Hatchery and Technology Center, 500 E. McCarty Lane, San Marcos, Texas 78666; Telephone 512/353-0011 ext.228; Fax 512/353-0856

Illustration Acknowledgement: Original illustrations of Texas wild rice, *Zizania texana* on pages 1, 6, and 7 are copyright Claudia P. Harris, 2002.

SEEKING GROUND TRUTH

by Susan Sander

For the last six months I've been consumed with developing the curriculum for a new Master Naturalist chapter in the Hill Country. Identifying topics and coordinating presenters was fairly easy. But when given the task of kicking off the first class by discussing, "what is a naturalist," I had to stop and ask a bigger question.

And so my mind has been trying to wrap around a very basic question: what is the role of the naturalist in the 21st Century? It is one that could easily be applied to each NPSOT member.

A few years back Marvin Hatter of San Antonio wrote a 2-part article on the early naturalists/plant collectors, names we now know due to their attachment to a wide variety of native plants: (Thomas) Drummond phlox, (Ferdinand) Roemer's catchaw acacia, (George) Engelmann daisy, (Ferdinand) Lindheimer senna, (Jean Louis Berlandier) ash, to name a few examples.

The mid-1800s was the glory days of plant collectors in Texas; their role was to observe and collect specimens, which they shipped, to the sponsoring institutions where the scientists of the day analyzed and named the New World species. These naturalists provided us with not only a catalogue of the flora, but also our first glimpse of the as yet virgin turf of the Texas landscape. Unfortunately, after a year or two of serious collecting they went back home (except Lindheimer who settled in New Braunfels). The next group to arrive was the settlers who for the most part, lacked neither any formal training nor a critical eye. Plus their focus was on survival on the new frontier.

Today, there are a few serious plant hunters, who still search for the ever-elusive not-yet-named species, but the majority of us are content to grow native plants or make lists of species found in our communities, and spread the word on the value of native Texans in the landscape.

But what really is our role today? Certainly it is more than being good proponents and good stewards of local native species.

What started to cross my mind was the changes that have taken place since the early naturalists wrote of their travels; it's often hard to find pristine land that escaped the hand of man and his land

use. For instance, debates rage about whether the Hill Country was grassland or forested, were deer always so numerous? Certain myths prevail (without historical documentation) that "cedar" (*Ashei juniperus*) was introduced, and that Franciscan monks planted the bald cypress that towered along the banks of many Hill Country rivers when the first settlers arrived.

Add into the mix is the quest to do "restoration," to return the natural world back, to "what?" To answer that we must have evidence of what existed before, and some understanding of why it isn't so today.

Unfortunately, the modern human race seldom stays put long enough to put down roots that would provide a vantage point to watch the changes, to note possible causes and effects. Even today, we collect data through field surveys, but where does the data go, who is the overseer of all the input, who monitors the big picture over time?

I offer this challenge to NPSOT, that we start seriously involving the next generation in our endeavors, teaching them how to make observations, to collect data, for they have the longest window of time. Even my 18 years of observations in the Hill Country has revealed short term changes, for it has taken me as many years to understand and identify all the possible variables (from weather extremes of drought and flood to an increase of exotic animal numbers along with the increased fragmentation due to development).

We are an impatient species, and we can be rather self-centered and self-serving so we miss many of the clues that are the ground truth. We focus on showy species and tend to ignore the pioneers that literally give of themselves to create the soil conditions for the next stage of plant succession. We want the end results without all the in-between stages. We try to put local native species into radically changed man-made environments. And we like to mix and match, easterners with westerners. If it grows, it's a good thing.

We may not be able to grasp the implications of changes, but we can make notes. We can develop ways to keep that information for the future generations. We can link up with others who are making observations, find the old-timers of our areas and seek their knowledge.

For how can we restore an ecosystem if we don't know what was missing? How will we know if planting native plants made a difference if we don't monitor sites that we've surveyed and inventoried? Without such information, native plant gardens will be just gardens of fad, in place until the next homeowner rearranges and learns their own ground truth.

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DEFENDING YOUR LANDSCAPE AGAINST BAD WEED LAWS

By Jason and Lisa Spangler

It was a typical hot Texas summer day. Lisa and I returned home from a hard day at work, then took a quick tour of the front garden to see what was blooming (not much at the beginning of August since we do little to no supplemental watering). Little did we suspect, but lurking in our mailbox was a letter that would turn the next two months into a stress filled period of time, during which we would fear for the future of our garden.

I quickly flipped through the day's mail. What, a letter from the MUD? "State law authorizes Springwoods Municipal Utility District to enforce restrictive covenants within its boundaries." Uh oh, that didn't sound good. "Upon inspections of the District, we photographed the following violation: Maintenance - Mowing Needed." The letter stated that we must "correct this situation within thirty (30) days", and failing to do so "renders the violator subject to referral to the District's attorney for legal action."

We guessed that the inspector did not notice the front of our property was healthy, water conserving native plant garden rather than a water guzzling St. Augustine lawn as most properties in the district. Our first thought was to email the NPSOT-NPAT mailing list asking for advice (edited):

Help, they want to mow down our native plant garden in 30 days!

Lisa and I live in Springwoods Municipal Utility District less than a mile outside the City of Austin. On December 31, 2002, we will be annexed into the City of Austin. Here is a web page with some pictures and a plant list of our garden: garden.wumple.com.

Does anyone have any advice? Has anyone dealt with a similar situation before? We recently received the following letter from the MUD: "Upon inspection of the District, we photographed the following violation: Maintenance - Mowing needed."

The first sentence of the following item was highlighted. "3.08 Maintenance: Each Owner shall keep all shrubs, trees, grass, and plantings of every kind on such Owner's Lot cultivated, pruned, free of trash, and other unsightly material. All improvements upon any Lot shall at all times be kept in good condition and repair and adequately painted or otherwise maintained by the Owner of such Lot. Declarant and the Architectural Committee shall have the right at any reasonable time to enter upon any Lot to replace, maintain, and cultivate shrubs, trees, grass, or other plantings as deemed necessary; to paint, repair, or otherwise maintain any improvements in need thereof."

They inspected on 7/30, when little was blooming but everything was green and healthy. Perhaps they did not recognize the

garden as a garden? I must admit it looks nothing like the half dead, over watered, pesticide and fertilizer laden St. Augustine lawns down the street. I am not a lawyer, but I think I see several problems with the notice. First, mowing is not mentioned in the rule. Second, the garden meets the definition of the rule:

Cultivated: We planted the plants. We care for the plants. We cultivated the plants. The garden meets the definition of cultivated at www.dictionary.com/search=cultivated

Pruned: We prune the plants regularly. We can supply a list of plants pruned in the last month to prove it. The garden meets the definition of pruned at www.dictionary.com/search=pruned

Free of trash: We pick up our neighbor's trash that blows into the garden every week. We keep no trash in the garden.

Other unsightly material: This is completely subjective. The front "yard" is all gardens with no trash heaps or any such thing. We personally think the half dead, over watered St. Augustine and invasive Nandina down the street are unsightly. Unsightly is defined at www.dictionary.com/search=unsightly

Our plan is to add some more rocks and hardscape to make the garden more apparent. The additional hardscape may add enough structure to eliminate confusion. We also plan on adding signage to the plants near the sidewalk, and moving our Texas Parks and Wildlife and National Wildlife Federation backyard wildlife habitat signs to the front of the garden.

Next, we will prepare a folder of information for the MUD about gardens, native plants, legal precedents, environmental advantages of gardens and native plants over lawns, pictures of the garden in bloom, and any other information supporting our position. After doing the above, we are planning on inviting the MUD inspector to the garden, giving them a tour, presenting the folder, and explaining why we do not violate the above rule.

If the inspector does not rescind the notice, then we will ask for an extension in writing and present our case to the MUD Board of Directors during the next meeting (which is after the 30 days). If they do not rescind the notice then we'll have to find a lawyer.

Lisa and I could not bear to lose our native plants and the associated wildlife. We are determined to fight this and prevent them from mowing our garden. Please email me any advice or similar experiences you may have. Thanks!

Many people responded to our message with words of encouragement and advice. Monique Reed, botanist and horticulturist, posted the following message full of suggestions:

Story continues on next page...

Defending Your Landscape Against Bad Weed Laws Continued from page 9...

Advice From: Monique Reed

I looked at your photos. I don't have much experience fighting the legal authorities, but I do know from anecdotal evidence that the following may be helpful in getting the authorities to see things your way:

1. Be able to show/prove that you are scrupulously diligent in eradicating "noxious weeds" such as western ragweed, giant ragweed, poison ivy, and *Cenchrus* grass burs. Keep a gardening journal. This demonstrates that you are not just letting it all go, you are actively maintaining. There is a probably a weed list that they will judge you against, mostly things with stinging hairs, burrs, or highly allergenic pollen, like marsh elder. Even if it is good bird food or butterfly fodder, you will probably have to get rid of it; this is rarely flexible. There is also probably a maximum height for "lawn" areas.
2. If you have any area of strictly grass at all, anything that could be seen as a lawn, mow it if you can or make it look like an intentional planting. If it's recognizably Bermuda or St. Augustine, mow it or get rid of it.
3. Find a competent botanist to come out, make a good list of what you have, and write a "To Whom It May Concern" letter stating that you have valuable native plants, not unkempt weeds.
4. Respect any city right-of-way ordinances or ordinances about how high vegetation can be at driveway/street junctions. You will not win against these rules.
5. Keep a cool head. Try not to put the city in the position of having to make an all-or-nothing decision, because it will be all for them and nothing for you. Give them room to give you lots of leeway by meeting them halfway on a few things.

I think you have gone a long way toward showing that you're making a habitat, not a manicured landscape. The authorities may be more amenable to granting you an exemption for some or all of your property if:

1. You can show that many of your plants are perennials, which

should be afforded the same consideration as traditional perennials. Have photographic evidence of what the "green stuff" will look like next year when it's in flower. How interesting is an azalea when it's not in flower?

2. Proceed with your plant-labeling scheme. This makes it educational. Ditto for your habitat signs and bird feeders and such. They speak of attention and not neglect.
3. Consider having non-lawn grasses in neatish arcs or clumps and not scattered one here and one there among the showy-flowered things. I know that's not how it is in nature, but to a non-botanist's eye, grass amongst flowers can look weedy. (And what is prettier than a big sweep of pink Muhly in the fall?)
4. Consider a few well-maintained, edged paths so that what is left is a collection of big, well-laid-out, well-defined beds of native plants. They can't very well tell you the flowers in your beds are too tall! A bench here or there also says, "garden", as does an arbor, birdbath, etc. The critters and butterflies won't care.
5. Get letters from your neighbors stating that they support your right to grow native plants and that they do not object to your yard. (Sharing cuttings and seeds is help here.) Ditto any native plant societies you belong to, a school, and the local children's museum, whatever. If you were a source of science materials to the community, they'd be foolish to shut you down.
6. Consider screening some of the more wild places from street view with a lattice or fence. You can always grow natives over the fence.
7. As much as possible while letting the plants set seed for you, keep things neat. Tidy away finished annuals, cut down dead, spent perennials you propagate vegetatively, deadhead the things that you aren't letting seed, etc. Even tying together seed-setting stems into neat bundles says "a gardener has been here" Heck, if there's a label tag with the plant's name and a note "harvest seed in August" hanging from something, it looks like gardening and science, not weeds. If your community is under a burn ban, try not to have anything that looks more like fuel than a garden.
8. Read up on garden design and then if you have to make the jump from "wild habitat" to "landscaped exclusively with lots and lots of natives," you will be ready.
9. If you know they will be checking your house, bite the bullet and water so that the natives look their best. WE know they're valuable even in a not-so-leafy drought state, but they're sure more impressive green and flowery.

Hope some of this helps.

Monique Reed, monique@mail.bio.tamu.edu

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Encouragement From: Felder Rushing:

Felder Rushing, a well-known lecturer, author, and past president of the Mississippi Native Plant Society, replied with the following message (excerpted):

My garden, which the neighbors have a FIT over, has been featured in Southern Living, Landscape Architecture, Fine Gardening, House and Garden, New York Times, Better Homes and Gardens, and even the National Wildflower Research Center's handbook (I don't think it's published any longer).

What I did to calm them down was what you have ALREADY done: keep public passages and walks neat, use hard features (bird bath, bird houses, sections of fence, garden art, arbors, bench), signs, labels, and BADGES - yours being the National Wildlife Federation certificates and etc. Anyone who doesn't recognize all that as valid, has a control problem, and you don't need a lawyer to help out - just friends.

Oh yes, and if you want to see some REAL trash, check out my garden at www.felderrushing.com

Felder Rushing, felder@teclink.net

Past president, Mississippi Native Plant Society

Experience From: Bill Seaman

Bill Seaman, a professional horticulturist and past speaker at NPSOT events, faced a similar situation in the past. The following is an excerpt from an email message he sent us:

I hope you are a teacher, because teaching is what you are going to be doing for the next few months. And your students, while they are going to be adults, they aren't going to act like it.

I have hoed this row with my own garden and it took four trips to municipal court and nine months dissecting the ordinance before the judge went off on a tangent to save face, his and the code enforcement officers. They finally gave up. They don't bother me any more. I managed to do this without an attorney, but I did have a tremendous amount of help from my enlightened friends.

My recommendation is to have a meeting on site with the person responsible for issuing the notice. Have them tell you verbally what their expectations are for you to be in compliance. Once you think you understand, then ask the official to provide the information to you in writing.

When you meet with this person have two knowledgeable native plant/wildscapers, etc., people present. Their job is to witness, and clarify any issues that come up in the conversation. They are not there to argue the point.

If the official tells you to do anything that is unreasonable, respectfully disagree. Don't agree to any action you oppose. Depending

on how the ordinance is set up, the code compliance officer will not be in a position to have the final say. Take notes, make a record of conversations and phone calls, keep track of everything.

Now, the hard part: Be nice, stand your ground, but be nice. Bureaucrats hate it when you're nice to them. They have this twinge of guilt when they have to enforce stupid ordinances that really don't make since and make them look foolish.

Bill Seaman, bseaman@arborillogical.com

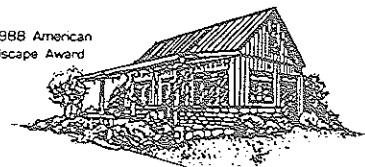
We also received several other suggestions:

- ~ Ask for advice from other native plant gardeners. Others have fought similar battles in the past and can provide useful information. Resources like the NPSOT-NPAT mailing list are invaluable resources for information and help.
- ~ Read the "Weed Laws" article by Bret Rappaport in the *John Marshall Law Review*, Volume 26, Summer 1993, No. 4, available online at www.epa.gov/grtlakes/greenacres/weedlaws/index
- ~ Refer officials to the U.S. EPA's "A Sourcebook on Natural Landscaping for Public Officials", available online at www.epa.gov/glnpo/greenacres/toolkit
- ~ Break down the rule part by part and show how your landscape does not violate the rule.
- ~ Ask knowledgeable professionals in the fields of botany, landscaping, and native plants to examine your property and send letters to the governmental entity citing your landscape. This may appear to some local officials as outside interference.

Story continues on next page...

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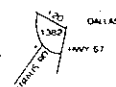
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Defending Your Landscape Against Bad Weed Laws Continued from page 11...

~ Be aware of the laws regarding your property. The Texas Statutes regarding property can be found on the internet at the address: www.capitol.state.tx.us/statutes/pptoc. (I am not a lawyer and this is not legal advice.)

1) § 207.003 seems to say that if your property is in a subdivision where a property owners' association (POA) levies assessments, that within 10 days of a written request that the POA must supply a current copy of the restrictions applying to the subdivision and the bylaws and rules of the POA.

2) § 209.006 seems to say that the POA must inform the owner that, upon being notified of a violation, the owner may request a hearing by the board or a committee of the board on or before the 30th day the owner receives the notice.

~ Contact a lawyer if the governmental entity initiates legal action concerning your landscape.

Conclusion to the story:

Greg Krumme, lawyer for Springwoods MUD, said that the best thing to do is open a dialog and respond both in writing and by phone. He said they are willing to work with the property owners who believe they are not in violation.

After several weeks of waiting for a decision, the inspector said that our landscape had passed the second inspection but now it was a "larger issue" due to the letters sent by various professionals to the MUD in support of our landscape. The MUD's agent, ECO Resources Inc., put us in touch with the MUD's attorney, Greg Krumme, who said the MUD Board would decide upon the issue soon.

Mr. Krumme said the MUD is asking their landscaper, Richard Fadal of Texascape (a landscaping firm that seems to have some experience with native plants), to evaluate our landscape and give the Board his opinion. Greg said the MUD should decide the issue at the board meeting on October 8th, so we planned on attending and stating the case for native plants, natural landscaping, habitat gardening, and water-wise landscaping.

If you must present your case in front of a POA or MUD board, we also have the following advice:

1. Present a pleasing bouquet of flowers and/or grasses from your garden to the officials.
2. Hand out copies of the best pictures of your landscape in bloom. Explain that many native plants do not bloom year round.
3. Bring a written response that argues that your landscape is not in violation of the rules. When the discussion veers toward ascetics or conformity, remind the officials that your garden does

not violate any of the rules.

4. Present a brief statement to the officials that summarizes your position about your landscape and that it does not violate the rules. Describe the benefits of water-wise landscaping, habitat gardening, and native plants.
5. Read out loud the definition of a native plant and then read the definition of a noxious weed. Clarify that native plants used in landscaping are not noxious weeds. Correct the officials if they claim Johnson Grass or any other invasive weed is a native plant, or they claim a native plant in the picture is a weed.
6. Bring copies of the professionally prepared plant list. Emphasize that no noxious weeds were found in the landscape.
7. Argue your case logically, reasonably, and calmly, even in the face of overwhelming criticism.
8. State your goal. Ask the officials to find that your landscape is not in violation of the rules.
9. Obtain official minutes of the meeting when they are available.

With some luck, you may be successful convincing your local government that your landscape does not violate the rules and is actually beautiful and beneficial. We suggest you then reverse the tide and begin educating your local officials about the benefits of native plants and environmentally sound landscaping methods. You could even suggest improvements to the landscaping rules and places in your city or area that could benefit from such changes. Perhaps you would also offer to help out with the making such improvements as a volunteer.

Our garden's situation was resolved positively on October 8, 2002, after two months of phone calls, letters, inspections, and a MUD board meeting. We have posted a summary of the situation at <http://jasons.wumple.com/Interests/Nature/WeedLaws/Welcome>.

As soon as we received the violation notice, we called ECO Resources Inc., the company that administers Springwoods MUD. We explained our property was a garden (rather than a lawn), and that there were no weeds and nothing to mow in the garden. Robin Sussman of ECO Resources Inc., the Restrictive Covenants Assistant, said she had inspected the neighborhood and thought the garden looked "too tall". She said she would reinspect the property in the near future and contact us.

In the middle of August we sent a packet of information via certified mail to the MUD and ECO Resources Inc. The package included a letter explaining our garden and why we were not in violation of the covenant, recent additions we made to the garden, and what we would like to see done (receive a letter saying we are not in violation). The package also included copies of letters of

support from organizations and individuals concerning this matter, a list of benefits of our garden, a list of references cited and used when creating the garden, copies of Wildlife Habitat letters and certificates, and an extensive plant list (organized by family, genus, and species). Over the next few weeks several professionals (involved in landscaping, native plants, and wildlife) and a NPSOT official wrote letters of support to the MUD and ECO Resources Inc.

After many phone calls, Robin Sussman of ECO Resources Inc. told us that our property passed the second inspection but the situation was now a "larger issue" due to the letters of support for our garden the MUD had received. She put us in touch with the MUD's attorney, Greg Krumme, who told us the MUD board would take the issue up at the next board meeting. Greg also said the board asked their landscape consultant, Richard Fadal of Texasclapes, to visit our property and give his opinion to the board. We said we would attend the board meeting and present our case, and that we would like to be present for Richard's visit to answer any questions.

Richard Fadal of Texasclapes visited our property and complemented us on the garden. At the Municipal Utility District board meeting, he told the directors our landscape was a valid Xeriscape and native plant garden.

At the October MUD board meeting, we presented the garden information and pictures to the directors. They complained about and criticized our garden for a while at first. We reminded them repeatedly that the restrictive covenants only require that vegetation on the property be cultivated, pruned, and free of trash and unsightly material and that our property met those requirements. At the end the board ruled that the property was not in violation of the restrictive covenants.

Jason and Lisa Spangler are members of the Austin chapter of NPSOT. Jason is Director of Technology and Lisa is an Advisory Software Engineer at Austin area software companies. They believe that if computer programmers like themselves can garden with native plants for wildlife, then anyone can!

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LETTERS TO NPSOT NEWS

Subject: Hunting and NPSOT

I would like to congratulate Landon Lockett for raising the issue of deer overpopulation and the role of deer hunting in controlling the deer population. I read a similar article in Audubon Magazine as well as yours, and I would like to make a few comments.

Please be careful whom you alienate and whom you call your friends. Many environmentalists may be mistaken in their opposition to killing deer, but that is their only "mistake". Many hunters may agree that deer need to be killed, but that is their only agreement with an enlightened conservationist. I was disturbed by the tone of criticism of those who do not agree with killing deer, and by the unbridled support of deer hunters.

Before hunters are championed as protectors of the environment, they must prove themselves conservationists.

For example, hunters want to kill the largest, healthiest buck while skipping the "deer with their ribs sticking out". A natural predator kills the weak, the sick, and the unfit. Human hunters kill the strong, the healthy, the most fit. Will hunters support changes in hunting practice to favor hunting smaller weaker does and bucks while hindering hunting large does and bucks?

Hunters have supported the elimination of other predators in mistaken attempts to increase the hunters' success. An enlightened conservationist recognizes positive role of natural predators and appreciates their place in biodiversity. In Texas, mountain lions are still, legally, considered noxious pests that may be shot on sight without season, permit, or limit. Will hunters champion the role of other predators in the environment and see to ceasing the needless killing of predators that do not pose an imminent threat to the safety of people? Can you imagine the howl and cry from hunters if

wolves were reintroduced to Texas?

Deer are an edge species. Will hunters stand by the conservationist and champion the preservation of road less wilderness? Will hunters support the restoration of *uninterrupted* prairies? Or, will hunters promote the creation of more edge and more areas for deer to invade by building more roads and more off road vehicle trails?


Chronic Wasting Disease (CWD) appears to be spreading as a natural result of deer overpopulation. If we do not intervene, this disease may naturally reduce the number of deer. CWD may even help control deer populations in urban and suburban areas where hunting is too dangerous due to the proximity of people. Will you lead the **fight** against any attempts to fund research into controlling or eliminating CWD? We know where our new hunting friends are going to stand on eliminating this natural competition for deer.

In 1981, I visited Sequoia National Park the year after their first prescribed fire (a 1000 square foot test plot). The first giant sequoia seedlings in over fifty years had just sprouted. This was one of the National Parks Service's first tests showing the role of fire in the sequoia forest ecosystem. In 1986, I visited the Land Pavilion at Walt Disney's EPCOT center where a lumber company showed a movie about the role of fire in the forest ecology. In their movie, fire was used to burn off the debris following a clear cut before a monoculture of pine seedlings was planted. In five short years, the role of fire in a pine forest ecosystem had been corrupted into propaganda for clear-cutting our national forests. This tiny vignette can be retold time after time. Environmental truths will be stolen, twisted and corrupted beyond recognition by those whose goals are antithetical to conservationists.

Again I agree, that because of human behavior, the deer population in many parts of North America is exploding, constituting a major environmental threat. I also agree that the old environmental motto "take nothing but photographs, leave nothing but footprints" is outdated. Aldo Leopold was right. Humans are a part of the environment. We are not separate from it. We can and must take an active role in managing our world. Reducing the current overpopulation of deer will require hunting, but in our efforts to protect biodiversity, we must not alienate our allies and give ammunition to our foes. Some environmentalists may need to be convinced of the role of hunting in deer population control, but they are understandably wary of championing hunters as protectors of the environment.

John M. Barr

John M. Barr is a member of the Austin NPSOT chapter, the Audubon Society, the Sierra Club, and an amateur naturalist.



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Thank you from a Texas Master Naturalist:

"We have not inherited the Earth from our Fathers, we are borrowing it from our children" an old American Indian saying.

I have been asked by Trudy A. Belz, a Texas Master Naturalist, to extend her sincerest thank you to all those who participated in making the Texas City Hummer /Butterfly Homecoming festival a success on April 21, 2002. Many individuals, organizations, and educational groups helped make this first time event a real learning experience. A few of the participants who gave of their knowledge were Texas Parks and Wildlife (Diana Foss), the Butterfly Museum (Nancy Greig), and NPSOT (Glenn Olsen). According to Trudy she could not have overcome all the hurdles getting this to become a reality without the strong encouragement and professional advice from Glenn Olsen and the support that was given when the NPSOT came on board as a participant. Trudy stated in her usual upbeat manner that the native plants I brought to sale were well received and much talked about after it was all over.

It's that old black magic called flower power. The lure of plants is strong... to admire the shape of a leaf, the color or fragrance of a flower, the texture of the plant and the insects and birds they can attract and, of yes, the diverse needs of the plants.

This "thank you all" is also to remind others, feeling timid about getting a worthwhile project such as Trudy's off the ground and are told that it cannot be done, do not believe it! Envision your native plant project or event, focus on your goal and others will rally around when they hear your battle cry, enabling you to achieve your goal.

We must not forget that human induced changes to the environment threaten vast numbers of the flora and fauna of this world and the important ecosystem services they provide. Does it matter if a few more plants and animals go extinct? Yes! We must not be discouraged or afraid to act now on their behalf. "If the land mechanism as a whole is good, then every part is good, whether we understand it or not. If the biota, in the course of eons, has built something we like but do not understand, then who but a fool would discard seemingly useless parts? To keep every cog and wheel is the first precaution of intelligent tinkering", Aldo Leopold, A Sand County Almanac.

May I add that folks like Trudy A. Belz and organizations like NPSOT keep the fire alive within my being, I would like to include my depth of gratitude to you unsung heroes out there who are fighting for native plants with such energy and enthusiasm. On this Holiday as I write this with tears in my eyes, "I am proud to be an American."

"There are some who can live without wild things, and some who cannot", Aldo Leopold, March 4, 1948, A Sand County Almanac. Which one are you?

Diane C. Cabiness

email: dianecabinessplants@earthlink.net or www.gardenstops.com

We would gratefully like to acknowledge ...

And thank all those who give extra effort and support to help further the research, rescue and restoration of Texas native plants, whether through education, outreach, example or through your kind generosity,

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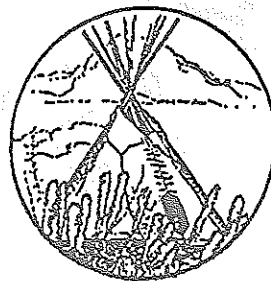
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830/997-6017; email address: mikemc@ktc.com



NATIVE PLANT RESOURCES

Nurseries

Anderson Landscape and Nursery,
2222 Pech, Houston 77055; 713/984-1342

Barton Springs Nursery, 3601 Bee Cave Road,
Austin 78746; 512/328-6655

Bluestem Nursery,
4101 Curry Road, Arlington 76017;
817/478-6202; Contact: John Snowden;
Native Ornamental Grasses, catalog

Brazos Rim Farm, Inc.,
433 Ridgewood, Ft. Worth 76107;
817/740-1184; Fax 817/625-1327; Wholesale;
Contact: Pat Needham

Buchanan's Native Plants,
611 E. 11th Street, Houston 77008;
713/861-5702; Retail

Discount Trees of Brenham,
2800 N. Park Street, Brenham 77833;
979/836-7225; Retail

Dodd Family Tree Nursery,
515 West Main, Fredericksburg 78624;
830/997-9571; Retail;
Native plants, organics, special order

Ecovirons,
10920 Hummingbird Place, Conroe 77385;
281/362-1107; Fax 253/981-0901;
Email: cyrilla@flex.net; Contact: Peter Loos;
Propagation, consultations, landscaping,
Wholesale/Retail Nursery

The Natural Gardener,
8648 Old Bee Caves Road, Austin 78735;
Retail 512/288-6113; Fax 512/288-6114;

Good Luck General Store & Gardens,
1030 W. Hwy 29, Georgetown 78628;
512/869-2342; Fax 512/868-0139; Retail

Gottlieb Gardens,
8263 Huber Road, Seguin 78115;
830/629-9876; Wholesale

Kings Creek Gardens, 813 Straus Road, Cedar
Hill 75104; 972/291-7650;
Fax 972/293-0920

Madrone Nursery,
2318 Hilliard, San Marcos 78666;
512/353-3944; Wholesale/retail

Native American Seed,
127 North 16th Street, Junction 76849;
800/728-4043; Order Online:
www.seedsources.com;
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Natives of Texas, Spring Canyon Ranch,
6520 Medina Hwy, Kerrville 78028; 830/896-
2169; Fax 830/257-3322;
www.nativesoftexas.com; Contact: Betty
Winningham

Native Texas Nursery,
1004 MoPac Circle #101, Austin 78746;
512/280-2824

North Haven Gardens,
7700 Northaven Road, Dallas 75230-3297;
214/363-5316; Wholesale/retail

The Rustic Wheelbarrow,
416 W. Avenue D, San Angelo 76903;
915/659-2130

Southwest Landscape and Nursery Company,
2220 Sandy Lake Road, Carrollton 75006;
214/245-4557; Wholesale/retail

Stan's Organic Lawn & Garden,
798 W. Hwy 190, Nolanville 76559;
254/698-8622; Fax 254/698-8623;
Open Tues-Sat; Retail

Texzen Gardens,
4806 Burnet Road, Austin 78756;
512/454-6471

Weston Gardens in Bloom, Inc.,
8101 Anglin Drive, Ft. Worth 76140;
817/572-0549

Wichita Valley Landscape,
5314 SW Parkway, Wichita Falls 76310;
940/696-3082; Contact: Paul or Nila Dowlearn;
10% discount to NPSOT members

Landscape Professionals

Anderson Landscape & Nursery,
2222 Pech, Houston 77055;
713/984-1342

Don Gardner, Consulting Arborist,
13903 Murfin Road, Ausitn 78734;
512/263-2586

Carol Feldman Landscape Design,
P.O. Box 224077, Dallas 75222;
214/331/2337-; carolfeld@aol.com;
www.feldmanlandscapedesign.com

Home & Habitat,
P.O. Box 2201, Bellaire 77402;
Contact: Janet Roberts;
713/667-6938; Fax 713/667-6946

Landscape Details,
324 Cardinal, New Braunfels 78130;
830/629-9876; Contact: David Will

Place Collaborative, Inc.,
8207 Callaghan Road #130, San Antonio 78205;
210/349-3434; Contact: Larry A. Hicks, ASIA

Dave Shows Associates,
17320 Classen Road, San Antonio 78247;
210/497-3222

Wright Landscape for Texas,
2922 High Plains Drive, Katy 77449;
281/578-7304; Contact: Lisa Wright

G. Owen Yost, Landscape Architect,
4516 Coyote Point, Denton 76208;
Phone/Fax 940/382-2099

NPSOT Chapter Contacts and Regular Meeting Times

All chapter meetings are open to the public. Please call and check about meeting times before attending. They are subject to change at any time.

Amarillo	3rd Tuesday Feb-Oct; Neal Hinders, 806/499-3795
Austin	3rd Tuesday except Dec, 7 pm, Wild Basin, 805 N. Capital of Tx Hwy; David Heberling, 512/376-5785
Bandera	1st Thursday, 7 pm, Silver Sage Corral; George Tinsley, 830/796-4770
Beaumont	1st Saturday, 10am, Beaumont Botanical Gardens, Garden Center Tyrrell Park; Sharon Odegar 409/886-1877
Belton	last weekend of month, varying by speaker schedules; Jamie Ortiz, 254/780-3116
Big Bend	Dallas Baxter, 915/837-7313
Boerne	1st Tuesday, 6:30 pm, Cibolo Nature Center; Rebecca Rogers, 830/249-9343
Brenham	3rd Tuesday, 7 pm, Blinn Student Center; Mack Farr, 979/289-4762
Collin County	1st Tuesday, Jan-Oct, 7:30 pm, Heard Museum in McKinney; Lynda Strain, 972/423-6574
Columbus	1st Thursday, 7 pm; David Kraemer, 979/725-8392
Conroe	2nd Sunday, 2 pm; Times and locations vary; Peter Loos, 281/362-1107
Corpus Christi	1st Thursday, 7 pm, Garden Sr Center, 5325 Greely Dr, Corpus Christi; Carolyn Chancellor, 361/749-4461
Dallas	3rd Thursday, 7 pm, Walnut Hill Rec Center, 10011 Midway Rd in Dallas; Shirley Dyess, 214/790-4996
Denton	4th Thursday, 6:30 pm, Univ. of No. Texas in EESAT Bldg; Mike Mizell, ph/fax 940/382-8551
Fort Worth	1st Thursday of every month, 7 pm at Ft Worth Botanic Garden; Helena van Heiningen, 817/244-5338
Fredericksburg	Last Tuesday, 7 pm, Gillespie County Ag Bldg; Jennifer McBride, 830/997-6017
Garland	3rd Sunday, 3 pm, Rohde's Nursery; Margaret Bays, 972/240-6375
Georgetown	2nd Thursday, 7 pm, W.C. Ag.Cntr; Brian Hetherington; 512/352-9334; jhetherington@austin.rr.com
Highland Lakes	3rd Saturday, 1:30 pm, Marble Falls Library, 101 Main Street; Ray Hufford, 830/693-0200
Houston	3rd Thursday, 7 pm, Houston Arboretum, 4501 Woodway Drive; Margaret Gnewuch, 281/489-3127
Kerrville	1st Tuesday, 2 pm; Barbara Quinby, 830/367-4612
Lubbock	1st Thursday, Lubbock Memorial Auditorium; Bill Bennett, 806/675-2493
Midland	2nd Tuesday, 6 pm, Sibley Learning Center, 1300 E. Wadley; Andra Chamberlain, 915/687-2961
Navasota Valley	Last Sunday of Feb, May, Aug & Nov at 3 pm; Dale McDaniel, 254/729-5104
New Braunfels	2nd Tuesday, 7 pm, Comal County Extension Office; Larry Maroney, 830/249-1977 x 23
Longview	3rd Thursday, 7 pm, St. Mary's Catholic Church Parish Hall, 2108 Ridgewood, Longview; Lee Ann Warren, 903/983-2778
San Angelo	Last Tuesday, 7 pm, Massie-Meyers Garden Center, 815 Abe Street; Lou St. Germain, 915/223-8347
San Antonio	4th Tuesday, 7 pm, Lions Club Field House; Fred Loxsom, 210/826-3542
Tyler	1st Monday, 7 pm, Walter Fair Memorial Methodist Church, 1712 Old Omen Rd; Lynn Sherrod, 903/566-2228
Waco	Last Monday, 7 pm, Organic Plus Nursery; Debe Snipes, 254/754-6239
Wichita Falls	1st Tuesday, Times and locations vary; Nina Dowlearn, 940/696-3082 or 940/528-2385

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