

## SPRING 2002

### Bald Cypress in China - by Dr. David Creech

Bald and pond cypress are strong, long-lived native deciduous conifers that call the wetlands of the South home. While logged to the ground in the late 1800s and early 1900s, and then cut again in mid-twentieth century, there are still wonderful stands and big specimens around. Most important, the urban landscaper has learned that bald cypresses are durable landscape trees, quite tolerant of soil compaction and less-than-perfect sites. Given sun and attention during the first few years of establishment, this tree rewards. With a little luck and the right spot, this tree is quite capable of greeting the next millennium at well over 100', anchored to the ground with fluted buttresses and a carpet of knees.

There are three Bald cypresses that grow well in our region: *Taxodium distichum* (bald cypress), *Taxodium ascendens* (pond cypress), and *Taxodium mucronatum* (Montezuma cypress). The most commonly planted is bald cypress. Currently, seedlings are most often planted; but times are changing, and superior clones are quite well recognized and available. As you might expect, *Taxodium distichum* and *T. ascendens* have the most varieties, some easier to find than others: 'Apache Chief', 'Fastigata', 'Monarch of Illinois', 'Pendens', 'Prairie Sentinel', 'Secrest', 'Shawnee Brave', and 'Cascade Falls'. The last in that list, 'Cascade Falls,' is an exciting very-weeping bald cypress found at Cedar Lodge Nursery in New Zealand and released via Monrovia Nursery as a patented plant. We have recently received a weeping bald cypress via Yadkinville Nursery in North Carolina, which is certainly less weeping than 'Cascade Falls,' but more dramatic than the common 'Pendens.'

The Montezuma cypress is one of the big surprises in the South. *Taxodium mucronatum*, the most under-exploited *Taxodium* for the South, has few varieties available and is not often grown. Montezuma cypress is native to Mexico and a sliver at the south tip of Texas, which, of course, qualifies it as a native plant of Texas. While generally considered a Z9-10 plant, the species has done well in Zone 8 in the South. There is a new weeping form found by Paul Cox of the San Antonio Botanical Garden, which he named 'Sentido' (Spanish for crying). Cedar Lodge Nursery in New Zealand has a form they have named 'McClaren Falls,' a mounding weeper of unknown proportions at maturity. At the SFA Mast Arboretum, we have several Montezuma cypress, the biggest along the Wilson Drive sidewalk. This Montezuma cypress, planted in 1988, easily survived the hard December freeze of 1989 (0o F). A specimen exists in the Zone 7 JC Raulston Arboretum at Raleigh, North Carolina. Michael Melendrez has been doing some pioneering work in New Mexico and reports the presence of an old stand that appears to be much hardier than what is normally available. The Montezuma cypress is a faster grower than the bald cypress or the pond cypress, partly due to foliage drop later in the fall and earlier foliage development in the spring. In one planting on the Shelby county courthouse square in Center, Texas, the Montezuma cypress outgrew bald and pond cypress by almost double in ten years. We have tested all three at several

locations and have always found the Montezuma to outgrow the others. This is a landscape tree certainly worthy of planting in Zone 8 and 9 across the South.

Montezuma cypress can withstand droughts of considerable magnitude if well established. The SFA Montezuma cypresses have lost their foliage in drought and quickly pushed a new cloak of green when rains or irrigation arrived. The species tends to retain its foliage later into the fall, resisting the change from green to brown better than bald or pond cypress, and in most winters trees in our region keep good foliage until early January. A key attribute is fewer “knees,” those unique pneumatophores that sprout up from the root system, thought to have something to do with oxygen exchange. Some challenge this and there is considerable debate as to the true function of knees in bald cypress. To the landscape maintenance foreman, knees are rarely appealing.

I was recently contracted by the Nanjing Botanical Garden and the Chinese Academy of Science as a short-term consultant (December 9 - 19, 2001) for an exciting “Taxodium Project.” Professor Yin Yun Long heads up the project, essentially an effort to improve the species, develop the protocol for mass production, and assist in the nursery production and landscape use of the species in the region. Cypress is being planted in the millions in the southeastern portion of China (Zones 8-9) and is a revered tree appreciated by everyone. While less than a hundred years in the country, there are many big specimen trees, and major highways and city streets are often lined with the species. In fact, the tree is so respected that it will be planted at the Three Gorges Lake watershed project in huge numbers. Three Gorges is an immense project to build the world’s largest dam on the Yangtze. It is a monumental effort that will relocate millions of people and will be finished by the end of this decade. The lake will generate 20-25% of the energy needs for China when it comes on line.

When I first arrived at the Nanjing Botanical Garden, I kept hearing about the use of a “hybrid” Taxodium, reported to be a cross of *T. distichum* and *T. mucronatum*. While many horticulturists here in the U.S. have speculated that this would be an interesting and plausible cross, no one has ever attempted it, nor are there any reliable reports of natural hybrids, as there are in the world of *T. distichum* and *T. ascendens*, where populations overlap. I learned that Dr. Chen Yong Hui, now a retired Professor, had made the cross early in the 1980s and made a number of selections by the early 1990s. The best was F1302, a clone now referred to as Taxodium ‘Zhongshansa.’ This clone is the object of all the asexual propagation at government nurseries (millions of trees, by the way). Finally, I managed to get an audience with the retired professor, and through Yin Yun Long’s fine interpretation skills, I learned the following:

Montezuma cypress fails to make viable pollen seed in this climate because the growing season is too short and the winters too hard. In the early 1980s, Dr. Chen Yong Hui grew a Montezuma cypress in a greenhouse to mature the cones. He gathered the male cones, dried them, and then collected and stored the pollen. When a superior bald cypress tree was ready the next year, he hand pollinated the female cones and bagged them. From this early 1980s cross, he obtained about 500 seedlings. The best performers were selected in the late 1980s and early 1990s. He did the science to prove that the

seedlings were indeed hybrids and documented plant performance. A clone F1302 was found to root easily and through cutting propagation, it was moved into the thousands of propagules, and now, into hundreds of thousands. The superior attributes associated with this clone include a faster growth rate than bald cypress (159%), good columnar form, longer foliage retention in the fall and early winter, almost double the alkalinity tolerance, ease of rooting (80%), and absence of knees. Dr. Chen Yong Hui provided me with the research papers that dealt with his work. While they were all in Chinese, each sported an English abstract with enough information to document plant performance and value.

I do not believe that old adage that when ten horticulturists gather together, you are looking at nine thieves. However, I did drop to my knees and beg for cuttings. With a cheerful face, Professor Yin Yun Long arranged for it and later in the week I was handed a string-tied tight bundle of 55 rooted cuttings. The rooted cuttings were washed free of all soil in a Shanghai hotel room and all USA paperwork was in order. Even then, my exit from China was a little exciting, and the entry into California and my audience with the plant inspection professionals of the USDA is another story. In the end, the plants were confiscated at the San Francisco airport, given an inspection the next day in the USDA laboratory (along with other accessions), and then overnight mailed to the Arboretum. This was a tough journey for a tough plant. The plant won. Every rooted cutting survived the journey, and we now have 55 robust little plants in one-gallons pushing healthy new growth in the SFA Mast Arboretum glasshouse.

I have discussed this plant with many plant professionals across the South and all are excited to test it. While we're years away from evaluating its performance, we are optimistic that this will be a great new plant for the South. The SFA Mast Arboretum has every reason to be proud we're nurturing a wonderful "native" of the South, a new and improved version created by an enthusiastic researcher in a far away land.

### **Put on Your Shades, It's Azalea Bloom Time!** By Barbara Stump

This first week of April 2002 is just about peak bloom period for the Ruby M. Mize Azalea Garden. Almost blindingly colorful, every bed has something to recommend a visit. Even with the 17- and 13-degree nights we had in early March, many flower buds survived to put on a wonderful show. For a four-year-old garden, it is amazing. Of course, when you have 511 cultivars of azaleas, from 52 hybrid groups, each of which was hybridized for horticultural traits such as large flowers, or early or long bloom, you can hardly miss. During the official Nacogdoches Azalea Trail tours, March 23 and 30, we counted 150 people visiting the garden. We also gave guided tours to 200 more through tours scheduled by the Nacogdoches County Convention and Visitors Bureau.

The Japanese maples leafed out just as the azaleas were beginning to bloom, so the wide range of foliage colors—from deep maroon red (*Acer palmatum* 'Red Spider Web') to pale peach (*Acer palmatum* 'Roseum Marginatum')—has intensified the wealth of color and structure in the garden. As the Japanese maples and other ornamental trees mature, we will see a true understory of both spring and fall foliage color that will add dimension

to the azalea show. And, if you are quick, you can see a few camellias still blooming. The *Camellia williamsii* crosses such as 'Donation' and 'Ballet Queen' are still in bloom. This means we have a full six months of bloom from the 200 camellia specimens in the Camellia Forest Loop. Last but not least, there is yellow in the garden. First, as you come in the main entrance you'll find the yellow magnolias 'Yellow Bird' and 'Woodsman x Goldstar' and then, in the Native Azalea Trail, deciduous azaleas, such as 'Welch's #3' and 'Sunrise'. Thanks go to Dawn Parish and Arboretum volunteers Josie Crowson, Sherrie Randall, Margie and Jimmy Rodriguez, and Arah Rush for making the 750 plant labels that now identify the Japanese maples, camellias, and ornamental trees in the garden. In the next few months we'll identify all those wonderful azaleas and improve the bed signs.

### **Horticulture Club Expanding Horizons** By Heather Hammers

Stephen F. Austin's Horticulture Club members have been engaging in spring time activities. In January, the club went to Orlando, Florida for the ASHS Southern Region J. Benton Storey Undergraduate Judging Contest. The horticulture team brought home second place overall, and second place in woody ornamentals and greenhouse floral and foliage plants. Individually, Jessica Chester, Dallas junior, earned first place in fruit crops and second place overall. Ryan Conklin, Corpus Christi sophomore, received an individual first place award in the woody ornamental contest. Jessica Chester, Ryan Conklin, Gary Frain, Nathan Unclebach, and Heather Hammers attended the competition.

The Horticulture Club has been active in the community. Members assisted in planting oaks and 'Golden Dawn' narcissus bulbs at the new Liberty Garden in Banita Creek Park. They also planted trees at Firehouse #2 and #3 in Nacogdoches. Both projects are in remembrance of the September 11 tragedy. Club members will also participate in the Texas Trash Off in April. While in the midst of their community service work, Hort Club members are preparing for the Garden Gala on April 20th. Plant sales will help to fund members on a two-week seminar on wheels this summer. They will be traveling to gardens and nurseries throughout the southeastern United States. The club is growing a great crop of maroon sweet potato vines, coleus, petunias, nicotiana (flowering tobacco), and more!

Hort Club officers are Nathan Unclebach, President; Justin Scheiner, Vice-President; Jessica Chester, Treasurer; Heather Hammers, Secretary; and Mekiah 'KiKi' Francis, Water Commandant

### **Dawn's Dirt** by Dawn Parish

Greetings friends! We've had a really productive year at the arboretum, so here's an update from my little corner in the garden.

Last year we dove head first into the world of tropicals, and have found some outstanding new garden plants. We have a strong footing in the ginger world with many new varieties added into the shade garden last spring. There are some noteworthy plants to mention.

*Costus curvibracteatus* is a small spiral ginger that provides tasty orange blooms throughout the summer. Yes, I said tasty. *Costus speciosus* 'Variegatus' is a spiral ginger with variegated leaves that are soft and velvety underneath. *Costus spicatus* is a tall spiral ginger with fantastically mottled canes. Out of the *Hedychium* genus, *Hedychium coccineum* 'Disney' was our favorite, growing no taller than three feet with orange, spidery blossoms. That *Hedychium* looks particularly well with the deep blue flowers of *Dichorisandra thyrsoiflora*. *Dichorisandra* is also known as blue ginger, although it is more closely related to *Tradescantia* than ginger. *Musella lasiocarpa* is a plant to look for. This banana relative is also known as Chinese yellow banana. The blooms are extraordinary. Ours did not have a chance to bloom last year, but the foliage in itself is enough merit for this plant. We reached 15 degrees, give or take a few degrees, in early March so we'll have a good indication of hardiness for the tropics.

Some outstanding annuals for consideration are *Manihot esculenta*, and *Ricinus communis*. *Manihot* is also known as tapioca. This is the same tapioca we eat in tapioca pudding. Our variegated form has yellow stems, red petioles, and green and yellow variegated leaves. *Manihot* is very heat- and drought- tolerant, and is relatively pest free, although spider mites can be a problem in the greenhouse. *Ricinus communis*, also known as castor bean, is the source of castor oil that luckily went out of fashion before my generation. There are several ornamental varieties available including 'Carmencita Pink' and 'Carmencita Red'. Both have dark purple foliage with pink or red flowers and seedpods respectively. The most notable attribute of this plant is its virtual independence of water. Two specimens planted at the arboretum reached heights of at least ten feet with no water other than rainfall. The one in my backyard reached my second story window, and (trust me) it didn't receive any supplemental water or even fertilizer.

We'll expand our tropical collection this year with the addition of more gingers and a new area we are calling the "canna – banana" forest. This is appropriately located on a fork of the Lanana Creek, and we'll include a *Firmiana* as well. (Put it all together and you get canna, banana, Lanana, and *Firmiana*. Ok, so maybe I'm reaching a little.)

The other project we are involved with is a cut flower project. Through a grant from Texas Department of Agriculture, we are trying to set up protocols for regular people interested in supplementing their income with a cut flower farm. You would be amazed at the number of people around here who are interested in becoming farmers of flowers. We are setting up the methods to follow starting with soil and bed preparation all the way to expected harvest yields. There will be a Cut Flower Field Day at the arboretum tentatively set for May 11 from 9 a.m. until 4 p.m.. If you are interested in attending please let me know by phone 936-468-4404, or email [dparish@sfasu.edu](mailto:dparish@sfasu.edu).

Our volunteer organization is growing by leaps and bounds, and we have a regular crew showing up on Tuesdays. They are proving very helpful in getting ready for the sale. They often have to act as my consultation team when I ask, "Would you actually spend money to buy this plant?" I got a funny look when the castor bean was a contestant. As always we have the best crew helping at our sales. We really couldn't pull off these ever-expanding events without them.

That brings us to the next topic. Garden Gala day will be held Saturday, April 20th from 9 am until 3 pm. We are lucky enough to have the intramural fields reserved again, which makes crowd control almost a non-issue. We seem to have fewer fistfights when we provide enough room. Imagine that. This year we'll have some of our regular favorites as well as some unusual selections. There are more old garden roses for everyone to select from as well as a fabulous collection of ornamental grasses. There will also be some selections we've made from our extensive *Hydrangea macrophylla* collection. For a complete list of items to be sold, check out our website in late March or early April ([www.sfasu.edu/ag/arboretum](http://www.sfasu.edu/ag/arboretum)).

Thanks to all for your continued support of the arboretum. There are always more wonderful things to come!

Pineywoods Native Plant Center by Lance Craig

The year-long construction of the PNPC greenhouse is coming to a close just in time for shade cloth to be pulled over for the hot summer months. The nursery pad is now full, with hundreds of native trees and shrubs that will be transplanted this fall. Graduate Assistant Seth Rodewald-Bates and Heather Hammers have finished the first planting stages of the URC Native Texas Cutflower and Germplasm study, and the plots will hopefully be blooming in the next few months. The first stage of the Darrell Morrison entrance road design is completed. On March 27, a semi truck hauling pine bark actually made it to the back of the property and back out. Everyone was amazed, especially the truck driver!

On April 2, a school bus from Chireno ISD also navigated the road easily to deliver 38 eighth graders for the very first "Go Wild!" program. Students sharpened their observation skills on an "unnatural" scavenger hunt, explored the plant life in four different ecosystems, and made cordage from almost-native grasses.

Spring has definitely arrived at the PNPC! At a glance, the dogwoods and buckeyes are spectacular. Take a closer look as you stroll the grounds to see: *Trillium recurvatum*, *Trillium gracile*, *Trillium pusillum*, *Lillium michauxii*, *Polygonatum biflorum*, *Sanguinaria canadensis*, *Tipularia discolor*, *Podophyllum peltatum*, *Arisaema triphyllum/dracontium*, *Cacalia plataginea*.

Also, be sure to take note of the new sign at the Lady Bird Johnson Wildflower Demonstration Gardens.

Rockin' with the Natives... By Mark Norman

As part of the efforts to reintroduce rare and endangered plants, the PNPC has acquired over one hundred thousand pounds of massive native rock to use in re-creating unique plant communities associated with outcrops of the Weches rock formation.

The Weches has played an important role in vegetative and human settlement patterns in the region. It is the parent material for several types of soil in the "Redland" belt, which includes Nacogdoches County. Native American and European settlement was centered on these soils due to their relatively high level of natural fertility. The Weches frequently produces seeps and springs and is often the sub-surface impermeable layer responsible for the occurrence of bogs. At one time, the area between Raguet and North Streets was probably littered with Weches "ironstone." A number of homes in the area were built with ironstone, and a retaining wall directly across Raguet Street from the Tucker House attests to its beauty and durability.

Many thanks go to Pinto Construction Co. for preserving these boulders during a highway expansion project, the Texas Forest Service for providing loading and transportation, and SFA Grounds for handling them upon their arrival.

Mast Arboretum Garden Guides Ready for Fun... By Elyce Rodewald

The SFA Mast Arboretum Garden Guides recently completed twelve hours of training for hands-on, environmental education activities. These volunteers are now eager to lead area students through the Mast Arboretum and help them make soil soup, conduct wetland surveys, have fun with flowers, attend an herb garden "smell-o-rama," investigate nectar collectors and more! SFA Mast Arboretum Garden Guides are Homer Burkett, Forest Lemon, Dylan Baggett, Kerry Lemon, Judy Callaway, Arah Rush, Bonnie Hammett, Maya Lemon, BJ Mahoney, Margie Rodriguez, and Vicki Baggett.

Three programs are available for area school groups. "Arboretum Adventures" is an action-packed exploration that encourages students to use their curiosity, ingenuity, and creativity to learn about water, soil, insects, and of course plants. "Go Wild!" is a guided hike through the Pineywoods Native Plant Center where students can discover rare and endangered plants, investigate adaptations, and explore native East Texas ecosystems. "GardenQuest" is a self-guided, multi-disciplinary tour of the Arboretum where teachers and students can discover the secrets of blossoms, bees, and bottle trees.

Programs may be scheduled by calling 936-468-1832 or via email at [erodewald@sfasu.edu](mailto:erodewald@sfasu.edu)

Upcoming Events  
at the  
SFA Mast Arboretum

April 18: Les Reeves Lecture Series--Don Wilkerson, TAMU, Extension Horticulturist, "In the trenches . . . Building the TAMU Horticultural Gardens from the Ground Up."  
7:00 p.m.-Ag Building Room 110.

April 20: Garden Gala Day 9 AM Till 3 PM. Plant Sale, Walk and Talk Lectures, Children's Activities, Entertainment, Booths, and Refreshments.

April 29 and 30: Bugs, Butterflies, and Blossoms 8:00 a.m.-2:00 p.m. Local second graders will enjoy a day filled with excitement and wonder as they visit numerous activity stations to learn about musical plants, bees, herbs, natural dyes, trees and more! For information, contact Dr. Alan Sowards at 936-468-2904.

May 4: Saturday Seminar--Creating a Container Garden for Mother's Day 9 a.m.-12:00 p.m. in Room 110 of the Agriculture Building. Avoid last-minute shopping! Get the scoop on container gardening while you make your own beautiful gift for Mom under the knowledgeable direction of Dawn Parish, SFA Research Associate. Cost: \$30.00. Register by calling the SFA Division of Continuing Education at 936-468-4605.

May 11: Cutflower Conference and Field Day 8:30 a.m.-4 p.m. Ag Building Room 110. Cost \$15.00.

May 16: Les Reeves Lecture Series--Mike Schnelle, Professor of Horticulture, Oklahoma State University, Stillwater, Oklahoma, "The Oklahoma State Botanical Gardens . . . New Plants, New Plans." 7:00 p.m.-Ag Building Room 110.

June 6, 7, and 8: Creating and Designing a Perennial Border. Join us in gardeners' paradise—three days of intense, personal instruction from garden guru Scott Ogden as he shares his vast knowledge of perennial gardening in the beautiful surroundings of the Mast Arboretum. Register through the SFA Division of Continuing Education at 936-0468-4605. Cost \$200.

June 11: Teacher Training—Adopt-A-Wetland Program 9:00 a.m.-4:00 p.m. AAWP is a non-profit wetland conservation program. AAWP offers hands-on wetland function and economic value; provides wetland curriculum and activities for use in schools, teaches wetland sampling techniques, water quality monitoring, and how to identify wetland plants and animals; helps organize and implement wetland monitoring projects; provides continuing education and technical support for program participants. Participants receive resource information and SBEC and TEEAC credit. Cost: \$25.00 To register call 936-468-1832.

June 17 & 18: Teacher Training--Hands On Horticulture 9:00 a.m.-4:00 p.m. Dr. David Creech will acquaint teachers with the basics of horticulture facility development at a high school. Participants will gain a working knowledge of crop choices, income generation potential, fertilization strategies propagation techniques, developing a landscape plan, student projects that work and more! Teachers will receive a resource packet and SBEC credits. Cost: \$25.00 To register call 936-468-1832.

June 19 & 20: Teacher Training--Food, Land and People 9:00 a.m.-4:00 p.m. FLP is a high-quality, "hands-on-minds-on" integrated curriculum program that deals with the complexity and interdependence of agriculture, the environment, and human connections. FLP is the only nationwide PreK-12 agricultural-environmental education project in existence. FLP offers a historical, cultural, and global perspective of how humans relate to their environment and agriculture. Participants receive "Resources for Learning"--



over 800 pages of PreK-12 lesson plans designed to easily integrate into the educator's curriculum. Participants will become facilitators for the FLP program and receive SBEC and TEEAC credit for participation. Cost: \$50.00 To register call 936-468-1832.

June 20: Les Reeves Lecture Series--Bill Welch, Horticulturist, TAMU, College Station - "Gardening tips that would normally cost you a fortune." 7:00 p.m.-Ag Building Room 110.

July 18 Les Reeves Lecture Series Bill Adams, Horticulturist, TAMU, Houston, Texas - "Photography for the gardener." 7:00 p.m.-Ag Building Room 110.

July 27: Saturday Seminar with Dawn Parish--Designing Your Moonlit Garden 9 a.m.-12:00 p.m. in Room 110 of the Agriculture Building. When it's too darn hot to do anything else, retreat to the air conditioning to plan a night-blooming garden. Let Dawn lead you through the multitude of plants that make a cool evening stroll in the garden delightful. Cost: \$15.00 Register by calling the SFA Division of Continuing Education at 936-468-4605.

August 15: Les Reeves Lecture Series-- Aubrey King, King's Nursery, Tenaha, Texas - "What's Hot at the Nursery." 7:00 p.m.-Ag Building Room 110.

September 14: Saturday Seminar with Dawn Parish-Using Unusual Annuals 9 a.m.-12:00 p.m. in Room 110 of the Agriculture Building. Join Dawn Parish as she explores cool-season annuals in her search for a world beyond pansies. Can you really have it all—color, cold-hardiness, and variety? Cost: \$15.00 Register by calling the SFA Division of Continuing Education at 936-468-4605.

September 19: Les Reeves Lecture Series--Greg Grant, Horticulturist, Arcadia, Texas - "The Arcadia Connection." 7:00 p.m.-Ag Building Room 110

Oct. 5: Fabulous Fall Fest 9:00 a.m.-3:00 p.m. Plant Sale, Walk and Talk Lectures, Children's Activities, Entertainment, Booths, and Refreshments.

October 17: Les Reeves Lecture Series--Scott Ogden, garden writer, landscaper, Austin, Texas - "The Garden as an Expression of Power and Control" or "Bondage and Discipline in the Garden" 7:00 p.m.-Ag Building Room 110.

November 2: Saturday Seminar with Dawn Parish--Go Bonkers with Bulbs! 9 a.m.-12:00 p.m. in Room 110 of the Agriculture Building. Plan and plant now for an outrageous spring display in your garden. Dawn will help you avoid costly mistakes and disappointing performance by choosing varieties proven in East Texas. Take home a bulb sampler pack and get busy planting bulbs! Cost: \$25.00

November 21: Les Reeves Lecture Series--Jim Robbins, Extension Horticulturist, University of Arkansas, Fayetteville, Arkansas, "Arkansas, We're Hog Wild on Gardening." 7:00 p.m.-Ag Building Room 110.

December 12: - Les Reeves Lecture Series--Dave Creech, SFA Mast Arboretum, Nacogdoches, Texas - "Making Peace with the Natives," and "The Year in Review." 7:00 p.m.-Ag Building Room 110.