

Stephen F. Austin State University Gardens: Plants and Plans[®]

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INTRODUCTION

Stephen F. Austin State University (SFA) Gardens comprises 52 ha (128 acres) of on-campus property at SFA, Nacogdoches, Texas, and is the umbrella organization responsible for the activities, growth, and development of four primary gardens: (1) the 17 ha (10 acres) SFA Mast Arboretum was initiated in 1985 and includes the horticulture facility of the Agriculture Department; (2) the Ruby M. Mize Azalea garden is a 3.2-ha (8-acre) garden of primarily azaleas, camellias, and Japanese maples and was dedicated in April 2000; (3) the 17-ha (42-acre) Pineywoods Native Plant Center (PNPC) was dedicated by Lady Bird Johnson in April 2000; and (4) the SFA's Recreational Trail and Gardens comprises 27.5 ha (68 acres) of mostly undisturbed forest and this unit will be dedicated in March 2010. Nacogdoches is a small town of 30,000 citizens in the middle of east Texas, about 96 km (60 mi) from the border with Louisiana, part of the great swath of Pineywoods that runs from here to the east coast. Nacogdoches is Zone 8 with an average annual rainfall of 1219 mm (48 in.). June through August is characteristically hot and dry. In recorded history, 1 Sept. 2000 was the record high, 44.4 °C (112 °F), and 23 Dec. 1989 was the record low -17.8 °C (0 °F). Soils are generally well drained, slightly acidic, and the native flora is dominated by pine, oak, river birch, sweetgum, sycamore, Florida maple, hornbeam, elm, hackberry, pecan, and hickory.

STAFF

The SFA Gardens are managed by six staff. Dawn Stover is the research associate who serves as the SFA Mast Arboretum manager. Barbara Stump is a half-time research associate responsible for the Ruby M. Mize Azalea Garden, proposal preparations, budgets, and development activities. Trey Anderson is a research associate responsible for the maintenance and development of the PNPC. Elyce Rodewald is our research associate Education Programs Coordinator and she directs the educational program for adults and children. Greg Grant is the SFA Gardens half-time research associate SFA Gardens Outreach Coordinator. Duke Pittman is the SFA Gardens Technician responsible for development and maintenance in the Ruby M. Mize Azalea Garden.

EDUCATE, ENTERTAIN, AND ENLIGHTEN

A key feature of the SFA Gardens program is connecting adults and children to a wide range of environmental and horticultural excitement. Educational programming has grown each year since 2000 when participation data was first recorded. During 2008–2009, over 18,000 children and adults were educated via a wide range of horticultural and environmental venues, including numerous gardening seminars, children events, workshops, teacher training activities, and civic projects.

PLANTS WITH PROMISE

The SFA Gardens is a collector's garden, one that adds hundreds of new plants each year to the plantings. Those that survive, perform well, and impress visitors make their way into propagation and distribution. The program has introduced and promoted plants in the past through a wide range of print and electronic media. Some have been documented in past IPPS Proceedings (Creech, 2001; Creech, 2003a; Creech, 2005). The following represent plants we are currently distributing to interested nurseries, landscapers, and gardeners across the Southern U.S.A.

Acer skutchii. This Mexican mountain sugar maple has proven hardy in Nacogdoches for many years. Bright orange-red or yellow foliage in the fall, large samaras, and smooth gray-white bark are key features. The tree is drought resistant, and possibly quite alkaline tolerant. While many seed are infertile (>90%), they are plentiful and those that do have viable embryos germinate readily after a few months of stratification.

***Aquilegia* 'Blazing Star'**. This hybrid is a Greg Grant introduction, which was a cross between *A. chrysantha* var. *hinckleyana* and *A. canadensis* from the late Pam Puryear's Navasota yard. It took 10 years to get it stabilized into a larger flowered form with red and yellow flowers.

***Beschorneria* hybrid**. The false red yucca is an evergreen, clumping desert lily for dry shade. A strange flowering stalk produces odd greenish-yellow bell-shaped flowers that turn into hanging green eggs. We are distributing seedlings of a *B. septentrionalis* × *B. yuccoides* subsp. *dekosteriana* cross we have come to like in our garden.

***Callicarpa americana* 'Welch's Pink'**. This beautyberry was found in the Davy Crockett National Forest by Matt Welch. It has pink berries with the best pink coloration occurring in shady locations. The berries tend to bleach in full sun.

***Dalea greggii* — Greg's Dalea**. This small groundcover is very durable, perhaps the ultimate green roof plant or premier drought-resistant container plant. The clone was rescued from the Benny Simpson planting at Texas A&M University.

***Distylium racemosum* 'Ishi's Variegated'**. This is a very interesting Isu tree, which was a gift from Mr. Ishi to the SFA Mast Arboretum years ago. New growth is often pure white with pinkish overtones, fades to a veiny green/white splotchy appearance, and finally fades to dark green in the summer. The cultivar makes a great addition to a partly shaded garden.

Gaillardia aestivalis* var. *winkleri. This Texas white firewheel was trialed for over 20 years at SFA and tested in Georgia, Florida, Arizona, and North Carolina. The endangered species is known from one small area in southeast Texas. The SFA has introduced 'Grape Sensation' with purple petals and dark purple center which comes true from seed. The species offers breeding opportunities for flower colors with petal hues of white, pink, rose, lavender, or purple and flower centers varying from yellow to dark purple.

***Hibiscus* 'Peppermint Flare'**. This Greg Grant introduction has white flowers to 22.9 cm (9 in.) which are wide-flecked with pink spots. It is a sport of McFadden's nearly sterile hybrid 'Flare'.

***Lagerstroemia fauriei* ‘Akins Nursery’.** This is a very large crape myrtle collected from the Akins Nursery in Shreveport, Louisiana. It was a seedling from one of the first distributions of *L. fauriei* seed by Dr. Egolf of the National Arboretum in the early 1950s. Over 15.2 m (50 ft) tall and oval, the tree features a single trunk to 2.4 m (8 ft) before branching and at breast height can boast a circumference of 2.5 m (8.3 ft). The fissured trunk features contrasting cinnamon and dark brown bark. With the avalanche of new and improved crape myrtle varieties making their way into the trade, it’s reassuring to see an old timer doing so well along the city street so appropriately named Kings Highway.

***Malvaviscus* ‘Big Momma’.** This Greg Grant introduction is an intermediate cross between the fall blooming *M. arboreus* and the cold hardy *M. drummondii*.

***Malvaviscus* ‘Pam’s Pink’.** This pink-flowered selection is a Greg Grant introduction, which was found in a batch of seedlings from a cross between ‘Big Momma’ and a white-flowered *M. drummondii*. Best pink occurs when grown in shade to part shade.

***Prunus angustifolia* ‘Guthrie’.** This chickasaw plum was found in central Florida. It has developed into an attractive single trunk open-center specimen at the SFA Mast Arboretum. The tree never failed to produce a bright white spring bloom show and a heavy crop of large juicy plums. In 2007, after sowing seed from the tree, we noticed five burgundy-foliaged seedlings and planted them in 2008 in the Mast Arboretum. Cuttings of the five clones were stuck in June 2009 and rooted easily under mist, and trialing agreements are currently in place across the south. A burgundy-foliaged, white-flowered and heavy fruiting native plum would be a great addition to the small flowering tree market, particularly if it resisted borers, cankers, and other maladies associated with the common purple-leaf plum.

***Quercus rhysophylla*.** The loquat-leaved oak from the San Madre Oriental Mountains was introduced in the 1960s by Lynn Lowrey. The species is fully evergreen in our region, grows reasonably fast, and features coarse leather-like leaves that do not shed until new growth has emerged. Drought resistant and alkaline tolerant, this is an underutilized oak.

***Scutellaria suffrutescens* ‘Texas Rose’.** This pink flowering skullcap was found in 1986 near Horsetail Falls, west of Monterrey, Mexico, by Lynn Lowrey and me. It is dry loving, performs well in full sun, blooms on rainfall events, and is already quite popular in the trade.

***Taxodium distichum*.** Baldcypress is well represented at SFA Gardens. The SFA Mast Arboretum has been collecting and evaluating bald cypress genotypes since the mid-1980s (Creech, 2003a; Creech, 2007a; Creech, 2007b). Over the years, the gardens have grown to include over 100 different genotypes, varieties, or selections. The T302, later named ‘Nanjing Beauty’, was provided by Professor Yin Yunlong of the Nanjing Botanical Garden, Nanjing, China, and was introduced into the SFA Mast Arboretum as 50 small rooted cuttings in Dec. 2001. Because this plant was registered at both the provincial and federal level in China, and it was popular in commerce, a decision was made not to initiate a patent, but instead to introduce the concept of own-rooted clonal bald cypress to the marketplace. With the approval of Nanjing Botanical Garden, T302 was given the varietal name of ‘Nanjing Beauty’.

That clone has been cutting propagated and distributed to many locations. It has been proven to have good adaptation in a wide range of sites. We are currently working with six Nanjing Botanical Garden clones that are now in trialing agreements across the south. Readers interested in SFA's *Taxodium* research can access the plants page of our website: <<http://pnpc.sfasu.edu>>.

***Vaccinium darrowii* 'Native Blue'**. This native blueberry was selected by Stephen Stringer, USDA, Poplarville, Mississippi. The plant develops into a dense, many-branched green ball that produces a copious crop of small fruit in summer followed by fall bronze foliage.

***Vaccinium* MS108**. This Southern U.S. high-bush blueberry selection from the USDA Poplarville, Mississippi, will be named and released in 2010 as a joint SFA/USDA release. With a shorter stature than most rabbiteye blueberries [only reaches a height of 1.2 m (4 ft)], the fruit is very early ripening and the clone has been a consistent producer over many years in our trials.

***Wisteria frutescens* 'Dam B'**. This selection features lavender inflorescences of 25 cm (10 in.). 'Amethyst Falls' is most common in the trade with small "popcorn" blooms. The cultivars "Memphis Blue" and "Peter's Pink" have long inflorescences. While the latter, a Peter Loos selection, is pink with lavender overtones, there is opportunity for improvement. To date, we have yet to create an improved pink from seedlings of the clone.

***Yucca cernua*, nodding yucca**. This is an E.L. Keith discovery — and a new species found in Jasper and Newton counties in southeast Texas that was first described in 2003! It is apparently quite hardy in Zone 8.

OLD TREES

After 5 years of an ever-accelerating pace of new plants, plant patents, trademarks, and unprecedented branding, I have decided that it is probably prudent to return to the shade of some of our patriarch forest friends and think things through. After 35 centuries, I suspect the giant 'Senator' bald cypress at Lockwood, Florida, remains unimpressed by the parade of new trees, shrubs, vines, herbaceous perennials, and grasses. After seeing the devastation at Shangrila Botanical Gardens after Hurricanes Rita and Ike — it is reassuring that the giant pond cypress weathered those horrific wind and flood events as if they were just another gentle rain. Both the giant [58 m (190 ft)] in circumference Montezuma cypress and the famous 'Arbole de Tule' of Oaxaca, Mexico — still take my breath away in wonder and amazement. There's a giant pagoda tree (*Sophora japonica* 'Pendula') at the Imperial Gardens in Beijing, China, that has seen a never-ending line of humans go by over the last few centuries, an endless sea of hands rubbing the trunks and branches to a smooth shine. The centuries old giant sweet olive (*Osmanthus fragrans*) in the open valley below Lingguu temple in Nanjing China still fills the valley with fragrance on a still fall morning. The giant trident maple (*Acer buergerianum*) can be found in the same garden on Purple Mountain and in many public gardens across southern China. The old Chinese hackberry (*Celtis sinensis*) at the Nanjing Botanical Garden exudes amazing character with buttressing, fluting, and an inscribed rock to mark its home with the respect and homage the tree demands. The massive Oriental arborvitae (*Platycladus orientalis*) in Beijing's Imperial Garden are testimony to

the durability of trees, having aged into contorted, warty, highly fissured trunks. In the same garden, there's a gnarly neighbor, a clinging-to-life giant *Catalpa bungei* that has seen history unfold for centuries. But of all the old forest giants that I've seen in the last few years, there's one that stands out: the Camellia of Ten Thousand Flowers.

THE CAMELLIA OF TEN THOUSAND FLOWERS

Nestled on a pine and mixed forest alpine hillside near Lijiang in Yunnan province is Yufeng lamasery. What a magically quiet and lonely place this is! The lamasery was built at the end of the Qing dynasty in the traditional Chinese courtyard design. Essentially a combination of the architectural styles of Tibetan and Han Buddhism, Taoism, and the local Naxi Dongba ethnic group, the Yufeng temple, surrounding grounds, and local citizens make this a very ethereal spot on earth. The "camellia of ten thousand flowers" was planted in the years of the Chenghua Ming Dynasty, and is thought to have been planted between 1465 to 1487, well before the construction of Yufeng temple. The lamasery is one of the Scarlet Sect lamaseries of Lijiang and lies about 10 miles Northwest of the city at the southern foot of Jade Dragon Snow Mountain. This is one of many lonely lamaseries in the alpine highlands of the eastern Himalayas. When we arrived at the base of the lamasery, we were greeted by a short line of stalls with ladies hawking tradition Chinese arts and crafts. We were the sole visitors that morning and we soon learned that the Naxi are an independent sort. According to my Chinese colleagues, they have refused to pay the bribes to Lijiang tourist bus companies and the small row of stalls was now paying a price — no visitors, no customers. The Naxi are a matriarchal society, and traditionally the women run the show, owning property, running the business, managing the financial resources, and taking the lead on all matters family and work. Sounds like America? The men, I was told, spend most of their time "reading, cooking, taking care of children, and hoping not to be turned out by his woman for another man." Only that last part sounds like America. As for the camellia, it is an amazing courtyard tree, trunks and branches twisted together to cover an arbor creating about 60 m² (645 ft²) of shade. Off in the corner, I noticed a quiet and demure llama of 93 years sitting quietly on the porch and keeping a watchful eye on our activity. We learned that he has taken care of the tree for over 40 years, and sure enough, under the eaves of the temple were old faded photographs of him as a younger man sitting in front of the tree in full bloom. While we did not find a single bloom on our day to visit, the form and character of the tree left me more or less speechless. There really was not much to say. The tree is spiritual. It reportedly blooms two colors for over 100 days, and is thought to be comprised of two grafts, a combination of the trunks and branches of the lion's head camellia and *Camellia reticulata*, both indigenous to the mixed mountain forest in western and central Yunnan (Jinhu, 1996). Lion's head is the most popular cultivated selection among the Yunnan camellias and is often listed as *C. hiemalis* 'Shishigashira' — while others list the plant as *C. sasanqua* 'Shishigashira'. I am not totally sure of this plant's exact ancient heritage but it's known to grow fast, grow tall, and be tough as nails. Most of the 100-year-old camellias in the Yunnan are lion's head. Lion's head flowers are colorful and grow in circles, four or five petals to a circle with about 30 petals total, while *C. reticulata* blooms are smaller and white to pink to rose. One Chinese source referred to the tree with this award-winning prose, "with the irradiation of the brilliant sunglow

and the contrast of the green grassland, the flowering tree looks like burning flames from beyondit is the real 'King of the Camellia Trees'." Well said. The grounds of Yufeng lamasery are home to several ancient trees, including a 150 year-old *Mitchelia yunnanensis* and an ancient *Magnolia delavayi*, both fine specimens in their own right. As we drove away, I kept thinking, "I need to get back there when it is in bloom." For some reason, I knew that old llama will still be tending to the tree and ready to greet us with his quiet charm. So the next time you are rummaging around in the garden or in the nursery and you run across a 'Shishigashira' or a Yunnan camellia or two, think of the far away high mountains and forests of western China that make up the original home of camellias.

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