The dwarf Loblolly is most often created by grafting a witches' broom on a Loblolly Pine rootstock. A witches' broom is a part of a tree that displays unusually high branching and short stems. There's a seductive witches' broom on a pine just to the north of the SFA library. If one could "harvest" that part of the tree (with a shotgun, climb the tree and cut it out, or cut down the tree) and then graft scions onto a Loblolly rootstock, well, you would have a dwarf Loblolly—with an SFA name you could stamp on it. However, there are a couple of roadblocks in the way. At SFA, shooting a witches broom out of that tree with a shotgun would be illegal—I would be arrested and face potential jail time. Second, I don't know anyone who wants to climb the tree to get the wood for us. Finally, cutting down the tree is out of the question. The root cause of a witches broom is complicated and rests with genetic changes that are often the result of some unique stress (aphids, bacteria, disease, etc.). The JCR Arboretum and others report that witches' brooms rarely produce seed; but when they do, the seedlings are dwarf.

Isn't it odd that there are so many cultivars associated with "exotic" pines—an amazing number, really—and so few with our very own natives? *P. sylvestris*, the Scotch pine, has perhaps 100 varieties in the trade at any one time, but the species is impossible to grow here. There are several dozen varieties of Japanese black pine, *P. thunbergii* (a species that seems to perform well here for about 10 years before succumbing to one thing or the other!). So, how do exotic pines fare here in the Pineywoods? Well, not so well. At one point, the SFA Mast Arboretum had 26 species of pine that whittled down rather quickly to two exotics that survived. One was the Himalayan pine, *P. wallichiana*, and the other was the Italian stone pine, *P. pinea*, which is quite long-lived across the South.

When it comes to native pines of the South, we've got a long way to go before we have superior cultivars available to the public. The Longleaf Pine (*P. palustris*) has none. The spruce pine (*P. glabra*) is native to South Carolina, Louisiana, and Florida and performs well here, but there are no known cultivars in the trade. What about Shortleaf Pine (*P. echinata*)? Well, it's pretty much the same picture, but we do have a "weeping" form out of North Carolina that will soon grace the PNPC in a special spot in front of the Tucker House. There may be a fastigiated form of *P. echinata*, but it is not yet in our collection. The general conclusion here is that pines are a foundation for Southern landscapes—and when there's diversity available, it should be evaluated and capitalized on.

Culturally, dwarf Loblolly can be treated as any other Loblolly. In general, the plant responds well to full sun, a well-drained site, mulch, a medium rate of fertilizer, and irrigation during dry spells, particularly in the establishment years. Because of its nature, a dwarf Loblolly Pine can be recommended for planting quite close to a home or structure. The down side of dwarf Loblolly Pines right now is obviously their scarcity in any large sizes—and their economic sense in the nursery trade. Part of the solution is that the PNPC can help educate the public and landscapers that there are solutions to many landscape projects where dwarf Loblollies are just the right choice.

Contact Information

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PNPC News

~Promoting Education about Conservation and Use of Native Plants of the Southern Forest~

Editor—Barbara Stump Volume 3, No. 2—December 2004

Volunteers in Action at the PNPC!

Boy Scout Pack #107 under the direction of **Jim Lemon** recently visited the PNPC to complete a service project for their conservation badge. Fifteen boys, assisted by parents and siblings, re-potted 100 native deciduous azaleas and 50 bald cypress trees. The plants were put into larger pots and will eventually be planted on-site at the PNPC.

Ten volunteers from Access MHMR in Rusk, Texas, assisted Lance Craig by stringing Christmas lights at the Tucker House for the second year in a row. During 2004, these volunteers have also picked up fallen limbs, moved plants out of the shade area into the nursery pad, and attended an education program about water insects in the PNPC Bog Garden.

Education Volunteers **Kerry Lemon, Dylan Baggett, Vicki Baggett, Ben Sultenfuss, Kay Jeffrey, Amanda Connally,** and **Sue Ripley** enjoyed introducing students to wetlands during a new program called "Wild About Wetlands." Volunteers were still able to "Go Wild" and teach area elementary students about native Texas ecosystems, endangered species, and native plants.

Finally, thanks to **Ben Sultenfuss** and his computer skills, we have a revised PNPC brochure that we can distribute to help tell the story of the PNPC. One copy is included in this mailing. If you would like more, please contact Barbara Stump at 936-468-4129 or bstump@sfasu.edu.

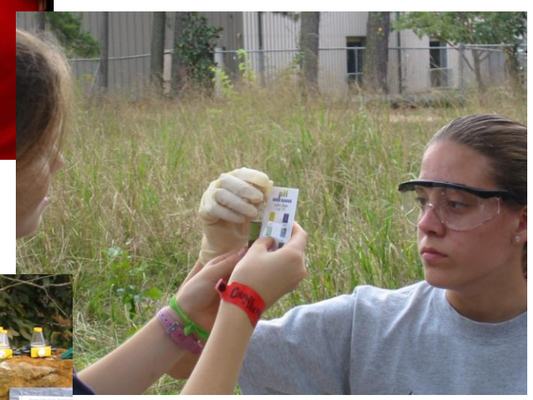
We're Wild About Wetlands!

This fall, a new educational program was made available to area schools. "Wild About Wetlands" introduces students to the importance of wetlands, hydric soils, the water cycle, and food webs of wetland areas. Students also conduct a bioassay of the marsh area at the

PNPC. Macro-invertebrates are collected from the water and used as indicators of water quality.

Students from Christ Episcopal collected soil samples and observed its color to determine if the area was a true wetland.

Soil pH was determined at several sites in and around the bog.



Macro-invertebrates collected from the marsh were identified and classified as very tolerant, somewhat tolerant, or intolerant of pollution.

To receive your copy of our "Learning Excursions" brochure listing the 2004-2005 offerings, contact our **Education Coordinator Elyce Rodewald, at 936-468-1832 (erodewald@sfasu.edu).**
There is a $3 fee per child to help to offset costs associated with the program.

Do Dwarf Loblollies Deserve a Fan Club?—Dave Creech

There's a rarely seen form of Loblolly Pine—a dwarf—that needs more attention in the nursery and landscape world of the South. ***Pinus taeda* 'Nana'** is a class act replacement for a number of pines used in the South. With a little time and the right spot, a dwarf Loblolly makes a statement like few other trees.

Pines dominate and define the South. There are three main pines in East Texas (longleaf, shortleaf, and Loblolly). Loblolly Pines run as far north as New Jersey, down to Florida, and then all the way over to East Texas and Oklahoma. They're everywhere, since they're survivors, grow fast, and form the foundation of the Southern timber industry. In a good spot, they're trouble free and low maintenance. However, there's a down side. When houses pop up in their shade it isn't long until home owners are staring sadly at 100' towering giants with a well known reputation to fall right over into your house. Let's face it, young pines like to lean toward sunlight, and they grow fast. Often, building a house means creating a sunlight hole that trees want to fill. In severe ice storms pines easily shed thigh-sized branches—making fine work out of anything they land on, or they simply fall over and say goodbye. Years ago, my Mom and Dad had one go through the back bedroom while a bridge party was underway in the living room. They should have had a camera. The PNPC's general recommendation is to park pines about 100 to 150 feet away from the house.

So, what's the solution? Well, there are several interesting dwarf forms of Loblolly that make fine specimens in time. I've seen dwarf forms on the east coast. There are some beautiful trees at the JC Raulston Arboretum in Raleigh, NCSU. Raulston long touted the merits of dwarf adapted pines for sensible landscaping. We have a young 6' specimen sitting quietly in a special bed right in front of the PNPC headquarters on the east side of the Tucker house: 'Nana' is a gift from Ted Doremus and Mark Bronstad of Doremus Nursery, Warren, Texas, and has been with us a couple of years. Give it 10 years and it'll be special. With a growth rate of about 20' in 20 years, this is a specimen pine that will never threaten to smash your home, yet it will provide all the positives of a pine. 'Nana' features a strong horizontal branching habit with a tendency to keep lower limbs and can be used as a woodland evergreen screen. The tree form can best be described as dense and round to oval.

(Above, Adult *Pinus taeda* 'Nana' at Doremus Nursery, Warren, Texas.)