Conservation Education Center

A Vision for Growth and Excellence in Education

Stephen F. Austin State University
Nacogdoches, Texas

www.sfasu.edu
“Healing the broken bond between our young and nature is in our self-interest, not only because aesthetics or justice demand it, but also because our mental, physical, and spiritual health depend upon it.”

—from Richard Louv, *Last Child in the Woods*

The words of Richard Louv emphasize the importance of the Pineywoods Native Plant Center at Stephen F. Austin State University—a place where children as well as adults experience nature and learn to be good stewards of our natural environment.

The vision of the Pineywoods Native Plant Center is to build a conservation education center that will provide opportunities for students and adults to learn about conservation and the natural world.

The proposed Conservation Education Center (CEC) forms the right combination of education, presentation, exhibition, and outdoor teaching spaces to foster the growth of environmental education in communities throughout East Texas.
1985 to 1997
The Mast Arboretum began as a small landscape project for SFA’s first ornamental horticulture class. Today, the Arboretum’s display and evaluation gardens have grown to more than 19 acres and 20 theme gardens. Since 1990, the Mast Arboretum has been a pioneer in the field of endangered plant research in Texas.

1998
The 40-acre Pineywoods Native Plant Center (PNPC) was approved by the SFA Board of Regents. The goal was to expand the existing Mast Arboretum facilities for endangered plant research and to promote conservation education and the use of native plants from the U.S. southern forest. At this time, basic plant identification tours for adults and occasional elementary school groups were offered.

2000 to 2001
The PNPC established the Lady Bird Johnson Wildflower Demonstration Garden. Lady Bird Johnson dedicated the site as the third satellite wildflower demonstration garden in the United States to be associated with the Lady Bird Johnson Wildflower Center in Austin, Texas.

2002 to Present
With support from the Meadows Foundation, George & Fay Young Foundation, the Texas Forest Service, and many others, educational programs for all ages have been designed and implemented, including K-12 Learning Excursions, summer camps, in-service and pre-service teacher training, professional conferences, and community seminars. Our programs promote increased science awareness, understanding and proficiency for children and adults through experiential lessons and outdoor field investigations. Participation in our programs has increased from 8113 in 2001 to 15,237 in 2007.

The seeds of the environmental education program at the Pineywoods Native Plant Center were planted more than 20 years ago in the facilities and programs of the SFA Mast Arboretum.

Solidago altissima
Goldenrod

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The SFASU Foundation, founded in 1975, is a 501(c)(3) non-profit organization that advances higher education by securing private financial support for the units and activities of Stephen F. Austin State University. The SFASU Foundation has worked with the Mast Arboretum and Pineywoods Native Plant Center since their inception in 1985 and 1998, respectively. The Foundation firmly supports development of the proposed Conservation Education Center.

The SFA Mast Arboretum, the first university arboretum in Texas, is a beautiful 19-acre garden with more than 7,500 different plants and 20 theme gardens, including the Jim and Beth Kingham Children’s Garden and the Ruby M. Mize Azalea Garden. The mission of the Arboretum is to promote the conservation, selection and use of the native plants of Texas; to acquire, evaluate, and promote new and adapted landscape plant materials; to promote plant diversity in the landscape; and to serve as a living laboratory for SFA students, faculty and the nursery and landscape industry.

The Pineywoods Native Plant Center, located in a native forest in the center of Nacogdoches, is a 40-acre living laboratory for students of every age and a wonderful recreational resource for the community. The PNPC is dedicated to promoting conservation education and the use of native plants in East Texas landscapes. It is also a repository and research center for rare and endangered plants of the region. The PNPC is a joint effort of SFA Mast Arboretum and the Forest Resources Institute.

The Forest Resources Institute, located on the grounds of the PNPC, was created to address critical forest resource issues: to develop a computerized database system for storing data to analyze and evaluate the trends, conditions and health of southern forests, and to make trend information available to user groups via the Internet and other outlets. FRI has developed up-to-date forest inventories and vegetation maps of East Texas, contributing substantially to forest health assessments in the region.
The leadership team is well-known throughout Texas for fostering environmental awareness and environmental research. Five project directors contribute more than 100 years of specialized expertise that will guide the planning and construction of an environmentally sensitive Conservation Education Center.

**Dr. David Creech** is SFA Regents Professor Emeritus of Agriculture. He directs the activities of the SFA Mast Arboretum and Pineywoods Native Plant Center. Since 1978, his career has focused on introducing new plants to the region, research into and development of the regional blueberry industry, and international research projects. His work also includes the development of the nationally known 59-acre SFA Mast Arboretum and PNPC.

**Dr. James Kroll** is SFA Regents Professor of Forestry, Denman Distinguished Professor of Forest Wildlife, and Director of the Forest Resources Institute. This Institute, funded through a grant from the T.L.L. Temple Foundation, has developed a remote sensing solution to forest inventory and analysis that is now providing significant support to economic development and homeland security in the East Texas region. He has taught at SFA since 1973.

**Ms. Elyce Rodewald**, education coordinator for the PNPC and Mast Arboretum, is responsible for the environmental education components of the project. With her academic background in biology, forestry, and both elementary and secondary education, she is skilled in adapting fun outdoor learning lessons to meet Texas State Board of Education requirements.

**Mr. Greg Grant**, research associate at the PNPC, handles daily operations of the PNPC as well as the nursery and horticulture facility. He has a Master’s degree in landscape horticulture and is co-author of *Home Landscaping—Texas*. He has worked in both teaching and extension and is well known for his successful new plant introductions into the Texas nursery trade.

This project team is supported by a dedicated group of regional community leaders who serve on the PNPC and Mast Arboretum Board of Advisors.
Today the PNPC offers a high-quality, cost-effective environmental education teaching resource for the East Texas region, but is limited in its ability to expand the programs by the lack of appropriate facilities.

Our primary need is an all-weather teaching facility to develop and conduct new environmental education programs, curricula, and methodologies. Since school groups cannot be scheduled in the coldest and warmest months of the year, requests for programs for more than 2,000 students could not be filled in 2007. Our audience is ethnically diverse with 68 percent of the youth coming from economically disadvantaged backgrounds, many with limited access to the outdoors. For these youth, there is a pressing need to increase the amount of time spent in classroom laboratories and experimental field investigations. This especially is true for many local school districts that do not have their own on-site laboratories or environmental education facilities.

The PNPC also needs to have a centralized display area for the public. This will allow research by SFA professors and students to be exhibited in an appropriate manner and allow the PNPC to showcase traveling science and ecology exhibits to the community.

In addition, the Conservation Education Center will enable the PNPC to:
• Expand the meeting space and technological capabilities of Mast Arboretum/PNPC for conferences and monthly lecture series.
• Provide programming and space to put educational theory into practice for SFA students.
• Accommodate in-service training for K-12 teachers.

Finally, there is a need to demonstrate that environmentally sound building practices are an achievable goal for all new construction. By creating a LEED (Leadership in Energy and Environmental Design) certified conservation education center, the PNPC will be a real-world example of environmental education principles put into action.

Our Needs

_Liatris aspera_
Rough Blazing Star
Our plan is to build a world-class platinum LEED-certified Conservation Education Center to meet the demand for high-quality cost-effective environmental education programs in East Texas. Construction of the CEC will enable the PNPC to provide a fully developed science and environmental education resource.

The Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ provides a model for environmentally sound construction and operation. LEED is essential to show environmental practices and choices taught at the PNPC can be used in any project. LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality.

The Conservation Education Center will be comprised of four buildings surrounding a central plaza:

- **Education Laboratory and Classroom** – 2,520 sq. ft.
  Three flexible classrooms; outdoor porch and easy access to adjacent wetland study area; office space for the full-time education coordinator.

- **Exhibits Space** – 4,420 sq. ft.
  Reception and gift shop area; office space; exhibit hall; and workspace for interpretive exhibit development.

- **Auditorium** – 4,380 sq. ft.
  250-seat auditorium with state-of-the-art equipment.

- **Outdoor Teaching Pavilion** – 1,320 sq. ft.
  Covered area for outdoor learning, linked to the CEC buildings by a central open plaza.

- **Covered Porches, Walkways & Plaza** – 2,700 sq. ft

The plan is to build the facility in three phases, beginning with the structures that will benefit the greatest number of participants.

**Phase I:** Outdoor Teaching Pavilion and Education Laboratory and Classroom

**Phase II:** Exhibit Hall

**Phase III:** Auditorium, Central Plaza, and Covered Walkways

The final design for the CEC will be based on the architectural concept drawings we received from the architecture firm Morgan Hill Sutton & Mitchell LLC of Lufkin, Texas. (See Appendix)
Our future is bright because the PNPC is founded on outstanding, dedicated support from all facets of our service area. Plans for the growth and expansion of the PNPC are based upon:

- SFA’s commitment to the operation and maintenance of the new facilities.

Our past performance has shown our educational programs to be both strong in content and economical. The PNPC invites you to join us in expanding this vital work that will improve the future for all of us.
These projects enhance the experiences of our elementary students. Research indicates that the No. 1 strategy for improvement in student achievement in science is to relate learning to students’ previous experiences, knowledge or interests, such as taking field trips or using real-world examples. The Learning Excursions at the SFA Mast Arboretum and Pineywoods Native Plant Center provide such opportunities. Through participation in these programs, our students have opportunities to inquire and explore, to practice process skills and to increase their knowledge of scientific concepts. Students remember these experiences and, at the same time, have fun learning.”

—Marla Pickard, Nacogdoches ISD Director of Science and Health and Physical Education, K-12
CONCEPT PLANT FOR THE CONSERVATION EDUCATION CENTER