

Roy E. Larsen Sandyland Sanctuary

SAVING THE BIG THICKET OF EAST TEXAS

The Nature Conservancy 

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Conservation Profile

Ecoregion: West Gulf Coastal Plain.

Conservation Elements: Red-cockaded woodpecker, Bachman's sparrow, Southeastern myotis, Rafinesque's big-eared bat, freshwater mussels, Texas trailing phlox, white firewheel, scarlet catchfly, dry and wet longleaf pine woodlands, American beech-southern magnolia forests, hardwood bottomlands, bald cypress-water tupelo swamps, freshwater ponds and river/creek drainages.

Stresses: Fire suppression and altered fire regime, incompatible forestry practices, incompatible development, nonnative and invasive flora and fauna.

Strategies: Big Thicket Conservation Initiative with regional conservation partners, conservation agreements, restoration and management of longleaf pine and associated ecosystems, compatible forestry operations, fire management program, and education and outreach programs.

Partners: National Park Service (Big Thicket National Preserve), U.S. Fish & Wildlife Service, Texas Parks & Wildlife Department, Texas/Louisiana Longleaf Taskforce, Big Thicket Association, National Forest & Grasslands of Texas, Big Thicket Natural Heritage Trust, The Conservation Fund, and industrial and non-industrial private landowners.



Roy E. Larsen Sandyland Sanctuary © Lynn McBride.

North of Beaumont, Texas, is a region that early travelers named the “Big Thicket” because of its dense, lush vegetation. From its vast, open meadows to its mysterious, swampy waterways shaded by bald cypress trees, the thicket teems with rare plants and unique botanical assemblages. Here, Midwestern prairies intermingle with Eastern hardwood forests and coastal plains.

Formed by ancient seas and retreating glaciers, the Big Thicket once spanned 3.5 million acres; now, **less than 300,000 acres remain**. Amid the impenetrably dense forests is one of Texas' last remaining longleaf pine communities, which forms the heart of The Nature Conservancy's Roy E. Larsen Sandyland Sanctuary, named in honor of the late vice chairman of Time, Inc., a lifelong conservationist. The more than **5,600-acre preserve represents a comprehensive effort to protect and restore the longleaf pine ecosystem within the West Gulf Coastal Plain**. It also includes interpretive programs and trails and is used by several academic institutions for field labs and research.

Sandyland Sanctuary is home to **four globally endangered species**, including the Texas trailing phlox; there are also **a dozen species on the preserve that are uncommon to southeast Texas**, such as the extremely rare white firewheel, which is only found in Hardin County, and the tiny, carnivorous purple bladderwort, which floats on some of the preserve's ponds. Several distinct plant communities are also intermingled throughout the preserve: arid sandylands, wet pine savannas, beechmagnolia forests, ponds and lowlying baygalls, bottomland hardwood forests and bald cypress-water tupelo forests. Both Mill and Cypress creeks flow into Village Creek as it winds its way through the preserve's high sand bluffs and lowlands.



Research along the Neches River © The Beaumont Enterprise. Reprinted with permission.

Creating a Landscape-Scale Project

During the early 1900s, the Big Thicket, including Sandyland Sanctuary, was heavily logged. By 1930, virtually all the area's virgin timber had been cut. Second- and third-growth forests that emerged in the wake of such heaving logging were then displaced by human development or converted into commercial pine plantations. Over time, **longleaf pines, which once extended from southeastern Virginia to central Florida and west to East Texas, were removed and fire was suppressed—and fire is crucial to maintaining longleaf pine ecosystems**, which were historically exposed to lightning fires. Moreover, the non-native slash pine was introduced. Taken together, these changes altered the forest's composition by allowing shrubs to pervade the landscape.

The quality of native species and surrounding habitat was also compromised by the spread of harmful, nonnative species, such as Chinese tallow, Japanese climbing fern, deep-

rooted sedge, Asian clams, fire ants and feral hogs.

Since Sandyland Sanctuary was established in 1977, the Conservancy has worked to protect and sustain native species, communities and natural processes; **the preserve provides a valuable place to demonstrate the restoration of a longleaf pine ecosystem** by way of prescribed burns, selective timber harvesting, reforestation, right-of-way management and controlling the spread of harmful, nonnative species. Our restoration efforts also include a working forest conservation easement on land that surrounds the preserve.

In addition to helping restore the longleaf pine forest, **the expertise gained at Sandyland Sanctuary has also allowed Conservancy staff to assist the National Park Service restore portions of the Big Thicket National Preserve**, which spans more than 104,000 acres across six different East Texas counties. Through a unique agreement, the Conservancy is helping to convert undesirable pine species into native longleaf pine forest, along

with diverse grasses, forbs and wildflowers. This project advances a national effort to increase the acreage of longleaf forests, which once dominated the southeastern United States. Of the 90 million acres of longleaf pines that once existed, less than three percent remains.

Sandyland Sanctuary is **one of many sites being studied for the Thicket of Diversity project managed by the Big Thicket Association in cooperation with the Big Thicket National Preserve**. Researchers are conducting an All-Taxa Biological Inventory to identify all forms of life within the Big Thicket. The Conservancy conducts freshwater mussel surveys within the reaches of Village Creek, which is a major tributary to the Neches River. Mussels are often an indicator species of water quality; such surveys have produced species that are new to Village Creek, new to the state and new to science.

In the 1990s, the Conservancy partnered with a variety of public and private conservation partners to form the Big Thicket Initiative and identify several priority sites in need of protection. The group supported the 1993 Big Thicket Addition Act, which added 10,000 acres to the region's Big Thicket National Preserve, strengthened the land connection between the Conservancy and the National Park Service, and advanced the goal of whole-system protection of the longleaf pine ecosystem. The group has also supported projects sponsored by the Forest Legacy and the Land and Water Conservation Fund that protect rich natural heritage of the region.