

West & Upper West Gulf Coastal Plains Ecoregions

Conservation Profile

The Conservancy established its 1,000-acre Fred and Loucille Dahmer Caddo Lake Preserve to support the state's most diverse native fish population and provide habitat for more than 40 rare animals and plants; as the only natural freshwater lake in Texas, Caddo Lake covers 50 square miles of Texas and Louisiana and lies within the Upper West Gulf Coastal Plain ecoregion.

In the spring of 2007, abundant rain allowed for the release of surplus water from Lake O' Pines Reservoir into Caddo Lake and its tributary, Big Cypress Bayou. That proved to be a major step in a multi-year environmental flows study the Conservancy undertook, in partnership with the Caddo Lake Institute and with assistance from the U.S. Army Corps of Engineers, Northeast Texas Municipal Water District, and several universities and federal, state and local government agencies. This effort is also part of the Conservancy's Global Freshwater Program, which protects river ecosystems downstream of multiple dams in 13 states.

The Conservancy has been working to protect Caddo Lake since the early 1990s and was instrumental in the creation of Caddo Lake State Park and Wildlife Management Area.



Fred and Loucille Dahmer Caddo Lake Preserve © Lynn McBride.

The West and Upper West Gulf Coastal Plains ecoregions span more than 37 million acres across portions of Texas, Arkansas, Louisiana and Oklahoma, encompassing nearly 17 million acres of varying East Texas terrain commonly referred to as the Piney Woods. The West Gulf Coastal Plain is home to the last three percent of a primeval longleaf pine forest that once extended across 92 million acres of the southeastern United States from Texas to Virginia. The remainder of this forest can contain more than 30 plant species per square meter—a density on par with tropical forests—which makes it among the most biologically rich natural systems on Earth.

The terrain shifts gradually from the bottomland forests to upland prairies and the remnant marshlands surrounding Caddo Lake, which support critical habitat for terrestrial and aquatic species. But that habitat is at risk from a variety of threat: land conversion for agriculture, incompatible timber harvesting, and residential and commercial development.

The Conservancy works at several preserves and projects throughout these two ecoregions to protect and conserve these lands and waters; five are within the West Gulf Coastal Plain ecoregion.

Roy E. Larsen Sandyland Sanctuary in Hardin County is part of a comprehensive effort to restore the longleaf pine ecosystem. The 5,654-acre preserve is a rare mix of cypress tupelo swamp, hardwood bottomland forest, wet savannas and dry pine uplands, which combine to create a remarkable level of biological diversity—the preserve sustains 727 plant species and 234 animal species. Sandyland Sanctuary is site number 17 of the upper loop of the Great Texas Coastal Birding Trail and is open to the public for hiking,



Above: Barred owl © Paul Keith; Below (top to bottom): Longleaf pinecones © Deanna Boensch, Texas trailing phlox © Harold E. Malde.

wildlife watching, canoeing, kayaking and paddling. It is also listed in the Top 500 Birding Spots by the American Bird Conservancy.

Situated on 132 acres in Jasper County, the Little Rocky Nature Preserve surrounds the spring-fed waters of Little Rocky Creek, which cuts through the rolling pine-covered sandhills and rocky outcrops of the ancient Catahoula geologic formation. This rugged topography supports several interesting natural communities, including hillside seepage bogs and Catahoula glades. Several of the major forest types of the Piney Woods can be found on the property, including longleaf pine, bluejack oakpine, blackjack oak and post oak.

In the heart of the Big Thicket is the 240-acre Timber Lake Preserve, which, like Sandyland Sanctuary, represents one of the best remaining examples of the longleaf pine ecosystem. The goal of the Timber Lake Preserve is to protect and restore critical habitat and important

plant and animal species while working with private landowners and the timber industry to develop ecologically compatible forestry practices.

Big Thicket Bogs and Pinelands Preserve is located in Tyler County and contains two distinct forest communities. The dry upland pine community is dominated by longleaf and loblolly pine, several shrub species and a ground cover of grasses rich with wildflowers. The pitcher plant bogs are characterized by shrubs, grasses, sedges, ferns and pitcher plants. The Conservancy's work throughout the Big Thicket is coordinated with many public and private conservation partners dedicated to connecting conservation sites in and near the Big Thicket National Preserve.

The 106-acre Wier Woods Preserve in Hardin County contains some of the best examples of an American beech magnolia hardwood forest community west of the Mississippi. For 25 years, the property was the

site of extensive ecological research related to species diversity and forest dynamics. The Conservancy is working at Wier Woods to combat the spread of invasive plant species, the single greatest threat to the health of the beech magnolia hardwood community on the preserve.

Meanwhile, the Upper West Gulf Coastal Plain is home to the Conservancy's 75-acre Sheff's Woods Preserve. Located in Smith County, Sheff's Woods is a topographically diverse preserve supporting a variety of vegetation types, including upland pine-hardwood forest, rocky forested ravines, bottomland hardwoods and a relict sphagnum bog that harbors several rare species of ferns, mosses and liverworts.

By working with industry, government and community partners, The Nature Conservancy is helping to conserve and restore Texas' remaining hardwood forests and the vast diversity of life found within them.

