

## Caddo Lake United States (1993)



Photo © Courtesy of Caddo Lake Institute

Cypresses, Caddo Lake Ramsar Site

### Location and ecological characteristics

Caddo Lake is a 10,280-hectare shallow lake and wetland system located on the border between the states of Texas and Louisiana. It is approximately 24 kilometers northeast of Marshall, Texas (pop. 23,935), and 40 kilometers west of Shreveport, Louisiana (pop. 198,364). Caddo Lake lies at the bottom of the Cypress Bayou Basin.

The lake is unique as the only naturally-formed lake in Texas, believed to have been created originally by a logjam on the Red River. The site includes the shallow,

heavily-vegetated waters of Caddo Lake, associated backwaters, sloughs, swamps, and bottomland hardwood forests. The majority of the area is either permanently flooded by backwater influences of Caddo Lake or is inundated for extended periods during the growing season by overbank flooding of Cypress Bayou. Located in the Mississippi flyway, Caddo Lake's wetlands provide important habitat for migratory waterfowl and neotropical birds which winter in Central and South America and the Caribbean. One of the best examples in the southern United States of a flooded mature Bald Cypress forest, Caddo Lake contains a rich biodiversity of plants and animals, including species

that are rare, endangered, or of special concern to state and federal governments and the conservation community generally.

## Designation process

A local non-governmental organization, the Caddo Lake Institute (CLI), initiated a collaborative designation process with the Texas Parks and Wildlife Department, the Texas General Land Office, the U.S. Army, the U.S. Fish and Wildlife Service (USFWS), and The Nature Conservancy. The area of the original designation in 1993 consisted of approximately 2,630 hectares in the Caddo Lake State Wildlife Management Area.

In 1998, the designated area was expanded, again through efforts of CLI, by approximately 5,300 additional hectares. The Ramsar Site now includes more than 550 hectares of the former U.S. Longhorn Army Ammunition Plant, which is now the Caddo Lake National Wildlife Refuge, as well as private and state owned lands. CLI approached the U.S. Army, local landowners, and the Texas General Land Office and explained the value of expanding of the site and why they should support the expanded designation. Local USFWS officials again provided the scientific and technical data required to meet the Ramsar designation criteria. Additional wetlands in Texas and Louisiana may also satisfy the designation criteria and could be added to the Caddo Lake Ramsar Site with the owners' permissions, additional scientific analysis, and the approval of the appropriate local, state, and federal agencies.

Although the designation has not been controversial, some members of the local communities raised concern over the international nature of the Ramsar Convention and how that might affect water usage. This issue was resolved by working closely with local elected officials to explain what the Ramsar Convention is and what it does and does not do.

## Benefits of Ramsar designation

The major benefit of Caddo Lake's Ramsar designation has been increased funding from both federal and private sources. This funding has allowed NGOs such as CLI and the Caddo Lake Clearinghouse to work on a number of issues to protect the wetlands, to involve the local community, and to increase scientific research. The research has led to increased public

understanding of and support for the water needed to inundate the wetlands. Caddo Lake offers a model to other sites on how to make progress on challenges such as maintaining environmental flows.



Photo © John Winn

Egret, Caddo Lake Ramsar Site

## Management measures

Ownership, and therefore management, is split among state, federal and private interests – individual landowners, conservation groups, and CLI. CLI acts as a liaison to the Ramsar Convention and the U.S. National Ramsar Committee and provides required documentation, such as updated Ramsar Information Sheets. One example of the ongoing management measures is CLI's work to lead in efforts to protect the quantity and quality of flows into Caddo Lake. This project involves developing the scientific basis for environmental flows and collaborating with the many stakeholders in the area to find consensus on the goals and actual work. The project's objectives are: 1) to assure that adequate water is available (from currently free-flowing streams without major dams or diversions, as well as releases from dams) and 2) to establish a more natural flow pattern to support aquatic habitats. This environmental flows project has been open to the public and has received widespread support.

The efforts regarding environmental flows, which have been active since 2004, are moving into the execution phase. In 2010 CLI will apply for a reservation of water from the state to assure that there is sufficient water available in the future. CLI will also work with the U.S. Army Corps of Engineers and local governments to alter the water release patterns from the major upstream dam to meet flow needs.

A similar process is ongoing to reduce pollutants in the water (mercury, for example) as well as a large project involving aquatic invasive species.

### **Lessons learned and recommendations**

The Ramsar designation is most advantageous for sites with sufficient capabilities and capacity in the local community and government, since seeking and maintaining the designation takes significant work. Taking advantage of the Ramsar designation to raise funds or take steps to protect the site also takes great work. A site with few or no ongoing efforts would likely see little additional benefit from the designation and neither would the larger Ramsar community.

Transboundary Ramsar Sites offer additional opportunities for collaboration and cooperation. At the state level, CLI is working to expand the Ramsar designation to the wetlands on the Louisiana side of Caddo Lake and to some other nearby wetlands. CLI is also focused on possible designation for National Wildlife Refuges along the lower Texas coast to be sister sites to the Laguna Madre Ramsar Site in Mexico. CLI will pursue a similar effort for a sister Ramsar Site designation in Arizona across from Cienaga de Santa Clara, also in Mexico.