



LOUISIANA



Louisiana bottomland hardwood swamp habitat.

Introduction and General Description

Louisiana is a biologically diverse State with a subtropical climate moderated by the Gulf of Mexico. Topographically, the State consists of uplands and upland terraces in the southeastern, northwestern, and north-central regions dissected by the Mississippi and Red River alluvial valleys; a prairie terrace in the southwestern portion and extensive coastal marshes bordering the Gulf of Mexico.

In Louisiana there are 23 national wildlife refuges totaling over 480,000 acres. Plant communities found within these refuges are representative of the five major plant communities in Louisiana: pine, upland hardwoods, bottomland hardwoods, prairie, and coastal marsh and total over 480,000 acres.

Habitats of Special Concern

Louisiana has four major habitat types of special concern due to historical and/or current habitat losses: coastal marsh, bottomland hardwoods, prairie, and longleaf pine and associated savannahs. Louisiana has lost approximately 20 percent of its coastal marshes over the last century, and continues to lose between 25 to 35 square miles each year. The State has lost approximately 70 percent of its original bottomland hardwood forests, almost 90 percent of its longleaf pine communities, and 99.9 percent of its native prairies.

Threats

Louisiana's coastal marshes continue to be threatened by sediment deprivation (due to levees and upstream dams), erosion, subsidence, canal

dredging, saltwater intrusion and other causes. Bottomland hardwood habitats in the State are threatened by urban development and conversion to agriculture, while longleaf pine communities are at risk from development and conversion to other forest types.

The few remnant prairies left in Louisiana continue to be degraded by exotic Chinese tallow-tree invasion and fire suppression, which is essential to maintain the ecotype.

Conservation Strategies

Wetlands

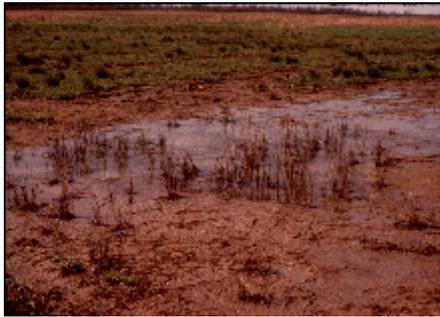
Bottomland hardwood forests in Louisiana are being restored through the Service's Partners for Fish and Wildlife Program. Bottomland hardwood restoration consists of replanting overstory trees and a few understory species on primarily marginal cropland or pasture.

A few Partners projects restored live oak and sugarberry cheniers, which are essentially bottomland hardwood islands in the coastal marshes. The typical Partners project involves the reestablishment of between 15 and 21 species of trees and shrubs at a cost of \$100 to \$110/acre.



Recent conversion of bottomland hardwood swale to agricultural fields.

Partners projects normally involve efforts to restore the original wetland hydrology on most sites, which typically includes filling drains, ditch plugging, installation of small levees and water control structures, and occasionally reconstructing wetland swales. Restoration costs can vary widely, but most efforts (in addition to filling drains) will cost between \$100 to \$300/acre.



Stunted soybeans planted on marginal cropland in north central Louisiana.



Typical bottomland hardwood tree planting with hand crew.



Shallow water hydrology restoration on Louisiana Partners project.

Longleaf Pine and Prairies

A few longleaf pine and prairie sites are also being restored in Louisiana with Partners and USDA programs funds. Longleaf pine restoration consists of planting seedlings for \$110 to \$140/acre and maintaining a burning regimen to encourage reestablishment of native grasses.

In Louisiana, the most diverse habitat type is prairie. The remnant prairies have the richest assemblage of insects, grasses and wildflowers, thereby supporting a wide diversity of wildlife species. Because nearly all of the Louisiana prairies are gone, the Partners Program is focusing on restoring them. Prairie restoration involves broadcast seeding of native prairie grass and flower seeds combined with transplanting plugs of prairie sod from remnant prairie sites. Efforts are underway in the State to establish enough prairie

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Louisiana remnant prairie habitat.

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Partners

The Services' Partners Program has working partnerships with numerous Federal and State agencies, non-governmental organizations, local conservation groups, corporations, families, farmers, ranchers and individuals. Former and current cooperators within the Partners Program include:

Louisiana Department of Wildlife and Fisheries
The Nature Conservancy
Baton Rouge Audubon Society
Cajun Prairie Historic Preservation Society
Cajun Electric Power Cooperative
Mercury Electric Company
Deltic Farm and Timber Company
Flat River Farms
River Road Plantation
Inglewood Plantation
Brown Land Corporation
Reed Properties
Bel-Kraus Properties
Dixie Plantation
Ophelia Land Company
Red Delta Land Company

Accomplishments

Since 1993, the Partners Program has assisted 111 cooperators in completing 11,700 acres of habitat restoration in Louisiana. This work includes:

- < 9,961 acres of bottomland hardwood reforestation (with 27 acres of chenier planting)
- < 66 acres of prairie restoration
- < 165 acres of longleaf pine restoration
- < 40 miles of riparian habitat restoration
- < 1,661 acres of shallow water habitat restoration using ditch plugs, low levee construction, water control structure installation, and excavation of swales.

At least 26 of those projects totaling over 2,300 acres provided direct habitat benefits to the threatened Louisiana black bear, and two other projects involving fencing helped protect threatened gopher tortoises and the threatened Louisiana pearlshell mussel. Thirteen of those Partners projects complemented USDA conservation programs (e.g., WRP, CRP, WHIP).



Bottomland hardwood saplings planted on edge of a restored wetland slough 4 years after restoration.



"Budding out" bottomland hardwood saplings on Louisiana Partners project site, 6 years after restoration.

Future Needs

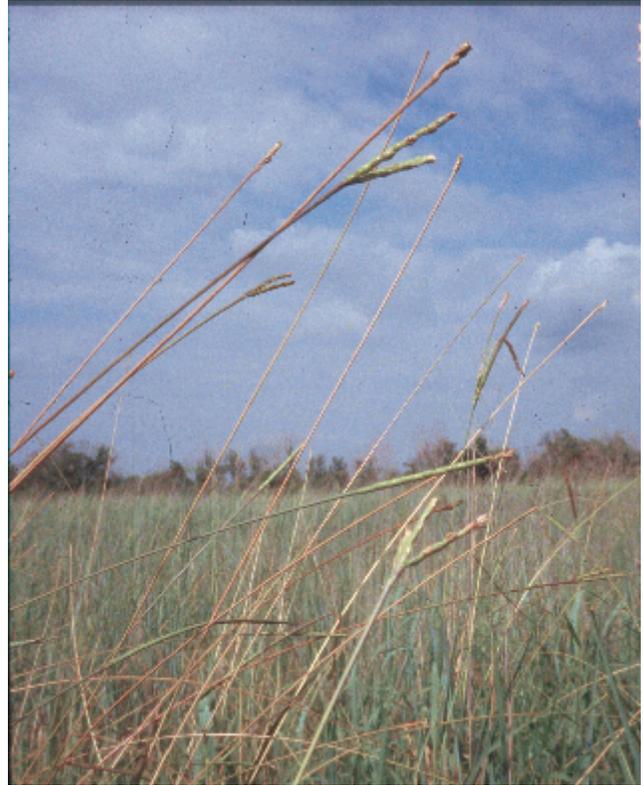
- < In Louisiana there are 138,000 acres of marginal agricultural lands on a waiting list for restoration. These lands are restorable to productive forested wetlands.
- < 3,000 acres of native prairies could be restored.
- < 5,000 acres of longleaf pine habitat could be restored

CONTACT

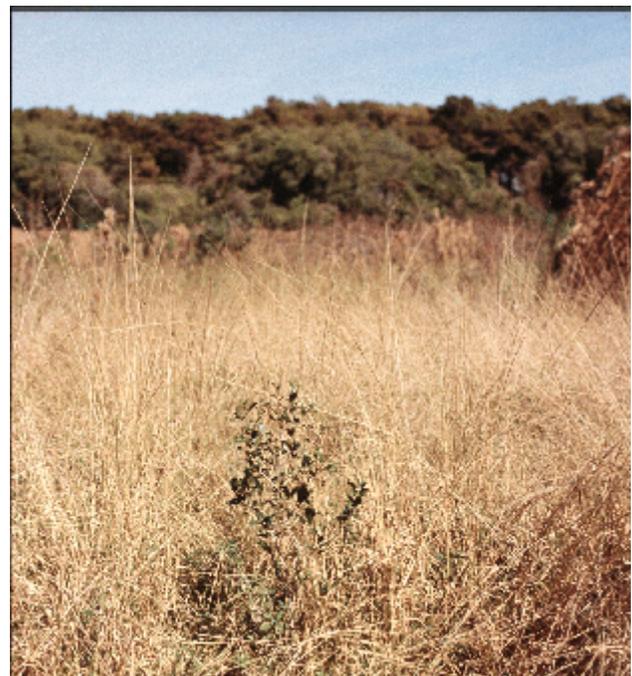


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Eastern gammagrass seeded into prairie restoration project in Calcasieu Parish.



Live oak seedling planted on Louisiana chenier site with the help of the Partners Program.