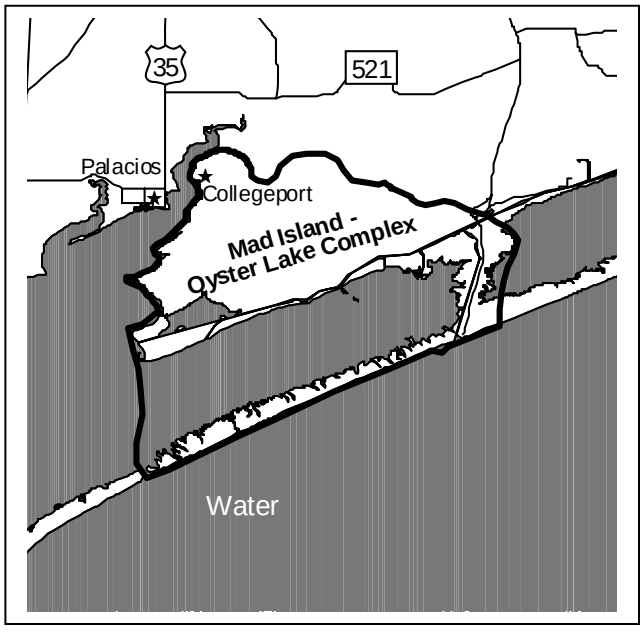
Mad Island Marsh–Oyster Lake Conservation Area Executive Summary

Introduction

The Mad Island Marsh–Oyster Lake conservation area is part of an expansive coastal wetland system which, until perhaps 60 years ago, stretched nearly unbroken along the mid- and upper-coast of Texas. The Mad Island Marsh–Oyster Lake conservation area lies at the terminus of the Central Flyway, one of four principal North American migratory bird routes. The conservation area is comprised of a network of open water estuaries, freshwater, brackish and saline marshes, riparian hardwood communities, and coastal prairies. The intertidal marshes and the estuary of Matagorda Bay provide habitat for a multitude of aquatic organisms, including red drum, southern flounder, blue crab, shrimp, and oysters. Nearby freshwater wetlands are important seasonal habitat for migrating waterfowl and shorebirds. Local terrestrial fauna include bobcats, white-tailed deer, river otters, and Texas horned lizards. Rare species that frequent the area include reddish egret, white-tailed hawk, arctic peregrine falcon, and piping plover.

The Mad Island–Oyster Lake conservation area (Figure 1) contains The Nature Conservancy's Clive Runnells Family Mad Island Marsh Preserve and Texas Parks and Wildlife Department's Mad Island Wildlife Management Area, which provide vital habitat for over 300 species of migratory and resident songbirds, shorebirds, waterfowl, and colonial waterbirds during some part of the year. During the National Audubon Society's Annual Christmas Bird count, this locale led the nation in numbers of identified bird species from 2000 to 2002. The preserve and wildlife management area are stops on the Texas Parks and Wildlife Coastal Birding Trail. The conservation area is also popular with waterfowl hunters and recreational fishermen. Commercial fishing is economically and culturally important to the community of Palacios. The Gulf Intracoastal Waterway, which bisects the shore area from east to west, is a major commercial transportation artery.

Figure 1. Mad Island-Oyster Lake conservation area



Challenges and Opportunities

The Nature Conservancy has more than ten years' experience as a landowner and steward at the Mad Island Marsh Preserve, and some experience collaborating with other landowners nearby. The Conservancy is only one of many organizations working to conserve the natural systems that support local communities and make this area special. Using this wealth of combined experience and success, the Conservancy seeks to add to efforts already underway.

Existing threats to this system include reduction of freshwater inflows into wetlands and estuaries, erosion (especially along the Gulf Intracoastal Waterway), habitat loss, and invasive native and exotic plants. The Colorado River is a major contributor of freshwater into this coastal system. The river's path has been altered in the past, and current and planned water extraction may further alter the pattern and amount of water that flows through the Mad Island-Oyster Lake ecosystem. Similarly, potential changes in agricultural production, specifically decreases in rice

production, could significantly change the hydrological processes critical to the viability of this conservation area. The freshwater inflows driving the Mad Island ecosystem are the most significant biological process at risk in this area; thus, special focus will be given to this issue. To abate this and other major threats to the ecosystem, The Nature Conservancy will partner with public, private and commercial interests to:

- *Maintain freshwater inflows critical for the area's freshwater wetlands, tidal marshes, and Matagorda Bay.*
- *Complete a shoreline stabilization project along the Gulf Intracoastal Waterway that will reduce erosion while maintaining marsh and bay access for estuarine organisms and recreational watercraft.**
- *Develop projects with local rice producers that help them continue managing the seasonally flooded rice fields which provide surrogate wetland habitat for waterbirds and other wetland-dependent species.*
- *Conserve remaining coastal prairie wherever feasible.*
- *Implement economical drainage management practices that help restore or maintain native plant communities along drainages and wetlands, thus providing high quality habitat for native wildlife and migrating birds.*