



CLIVE RUNNELLS FAMILY MAD ISLAND MARSH PRESERVE

Saving the last remaining high-quality coastal prairies and marshes in Texas

conservation profile

Ecoregion: Gulf Coast Prairies and Marshes.

Conservation Elements: Paleo beach ridge, open bay, coastal prairie, intertidal marsh, riparian hardwood community, freshwater wetland.

Stresses: Existing threats to this system include reduction of freshwater inflows into wetlands and estuaries; erosion, especially along the Gulf Intracoastal Waterway; habitat loss/changes in land use; invasive native and exotic plants; changes in the Colorado River, including its pathway, water extraction and flow; potential changes in agriculture, such as decreases in rice production.

Strategies: To abate these and other major threats to the ecosystem, the Conservancy will join with public, private and commercial interests to maintain freshwater inflows; stabilize the shoreline to reduce erosion; develop projects to help manage seasonally flooded rice fields; and conserve remaining coastal prairie.

Partners: Texas Parks and Wildlife Department, U.S. Fish and Wildlife Service, Natural Resources Conservation Service, Matagorda County, U.S. Army Corps of Engineers, Lower Colorado River Authority, Ducks Unlimited and local private landowners.



Mad Island Marsh Preserve (© Mary Candee)

A sea of native grasses ripples in the wind, as hawks circle overhead, searching for prey. Lily pads carpet the water's surface, sheltering fish below and providing a stage for the symphony of frogs at night. Horned lizards feast on fat harvester ants on land, while oceans of salt-tolerant plants in estuaries create a nursery for juvenile fish, shrimp and crab, and a vast buffet for hundreds of species of migratory birds. Alligators, like mossy logs, float by as they have since the time of dinosaurs.

This amazing diversity of life thrives

just southeast of Collegeport, among sparsely populated rural communities along West Matagorda Bay on the mid-Texas coast. Amid these lands, known as Mad Island Marsh, one can glimpse Texas' extraordinary coastal legacy – expansive ecosystems that once stretched along most of the mid- and upper-Texas' coast. Today, Mad Island Marsh is one of the few places where high-quality, functional coastal wetland and prairie systems remain.

Mad Island Marsh is a magnet for a diverse and abundant wintering waterfowl population and is a popular



Sandhill cranes winter at Mad Island Marsh Preserve (© Lynn McBride)

area for observing neotropical migrant songbirds in the spring. From 1997 through 2004, this location ranked first in the nation in the number of species counted during the annual Audubon-sponsored Christmas Bird Count. The estuaries of Mad Island Marsh provide critical habitat for a variety of marine life from adjacent Matagorda Bay and the Gulf of Mexico, including red drum, blue crabs, brown shrimp, oysters, southern flounder and speckled trout.

Since the late 1980s, The Nature Conservancy has been instrumental in protecting this unique coastal landscape, beginning with the acquisition of 5,700 acres of wetlands and coastal prairies in and around the Freshwater Lake and Crab Lake areas. This land became the Mad Island Wildlife Management Area, now owned and managed by the Texas Parks and Wildlife Department.

A few years later, Clive Runnells donated 3,148 acres of coastal wetlands and upland prairies to the Conservancy. Nearly 4,000 acres were added to the preserve in 1993, thanks to a grant from the North American Wetlands Conservation Council and funds raised collectively by the Conservancy, National Fish

and Wildlife Foundation, Dow Chemical, U.S. Environmental Protection Agency, Trull Foundation and Communities Foundation of Texas.

Today, more than 7,000 acres comprise the Clive Runnells Family Mad Island Marsh Preserve, named in honor of the family who first encouraged the Conservancy to protect and restore these coastal habitats.

From Marsh Enhancement to Outreach: Making an Impact

These special lands and waters, however, face challenges that threaten the diversity of life that finds refuge there. Erosion along the Gulf intracoastal waterway, for example, threatens to allow saltwater intrusion into the preserve's intertidal and freshwater wetlands, while harmful, invasive and non-native species threaten to alter the landscape's plant communities. These threats could cause declines in the native animals and plants found in these marshes.

To combat threats, the Conservancy is using a variety of techniques, such as:

- marsh restoration, which uses

structures that control water to maintain natural conditions, such as the proper level of salinity.

- rice field enhancement, which uses rice fields as surrogate wetlands for wintering and migrating waterfowl, demonstrating how agriculture and wildlife management are compatible.

- freshwater marsh enhancement, which has restored more than 600 acres of freshwater wetlands by controlling the spread of harmful, non-native species and using levees and structures that control water flow.

- coastal prairie enhancement, which restores coastal prairies using management practices such as rotational grazing and prescribed fire to combat the spread of harmful, non-native species. This combination of practices creates high-quality habitat for many grassland-dependent bird species.

- conservation education and outreach – a significant aspect of conservation at Mad Island Marsh, as vital ecological information is shared with surrounding communities and individuals of all ages.

Through the implementation of these innovative conservation actions, the Conservancy hopes lessons learned here can be shared in the region, thereby making an even larger impact in the effort to conserve Mad Island Marsh surrounding communities and individuals of all ages.

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