



Cooperative Effort Improves Marsh Habitat for Wildlife



Photo: Greg Linscombe, Louisiana Department of Wildlife and Fisheries. Aerial photo of duck-wing terraces in Cameron Parish, southwest Louisiana.

From the air they look like duck wings. Mottled ducks and American alligators are just two of the species which these 1,000-foot-long, V-shaped marsh terraces are designed to protect.

Over the past seven decades, Louisiana has lost more than 1,500 square miles of coastal marsh, representing the highest coastal wetlands loss of any state in the

nation. Man-made navigation channels have altered the natural water flow patterns on the landscape, allowing saltwater to intrude into areas that support freshwater vegetation. The natural vegetation dies, creating large, open areas of shallow water and broken marsh. These turbid, open-water areas are devoid of any submerged aquatic vegetation, and the remaining marshes next to these areas are subjected to severe erosion driven by wind-generated waves. Currently, 25 to 35 square miles of the Louisiana Coast's emergent wetlands are being replaced every year by seasonally stagnant, open-water habitats.

The Cameron Prairie National Wildlife Refuge in Bell City, Louisiana supports over

45,000 ducks and 10,000 geese during the winter. However, the marshes on the East Cove Unit of the refuge were deteriorating from wind and wave driven erosion.

Concurrently, the Louisiana Department of Transportation and Development (LADOTD) needed to make improvements to Louisiana Highway 27, adjacent to the Cameron Prairie refuge, to provide a better hurricane evacuation route. To accomplish this task, new shoulders were needed for the highway, and existing ditches containing wetlands would have to be displaced.

In March 2002, LADOTD, the U.S. Fish and Wildlife Service, Ducks Unlimited and thirteen other federal, state, and local agencies banded together in a cooperative effort to form the Cameron Creole Watershed – Brackish Marsh Terracing Project. The project began on refuge lands and before its completion in July 2002, consisted of 27 linear miles of earthen terraces on both public and private land.

The terraces were planted with plugs of smooth cordgrass and were constructed in a V-shape and placed strategically to lessen the impact of wind-driven waves on the coastal marshes. Their presence also helps to replenish aquatic vegetation.

The terraces involved the creation of low,



Photo: William Sussmann, Federal Highway Administration. American Alligator



Photo: Michele Deshotels, Louisiana Department of Transportation and Development. Planted Terrace. Note calming action on waves.

row shaped mounds dredged by a bucket on a marsh buggy to a nominal height just above the mean water elevation and then planted with salt grass along the water line. Once established, plantings quickly fill in the remaining space.

The Cameron Creole Watershed – Brackish Marsh Terracing Project is successful through the work of many hands. Thanks to the work of many partners working together to maximize resources and save wetland marshes at a shared cost, submerged, aquatic vegetation is being restored and a healthier ecosystem habitat will effectively support alligators, mottled ducks, geese and other wetland-dependent migratory birds.

The following agencies and organizations were involved in the Cameron Creole Watershed – Brackish Marsh Terracing Project:

- Federal Highway Administration
- U.S. Army Corps of Engineers
- USDA Natural Resources Conservation Service
- U.S. Fish and Wildlife Service
- U.S. Geological Survey
- Gulf Coast Soil and Water Conservation District
- Louisiana Department of Agriculture and Forestry
- Louisiana Department of Natural Resources

- Louisiana Department of Transportation and Development
- Louisiana Department of Wildlife and Fisheries
- The Cameron Police Jury
- Ducks Unlimited
- Miami Corporation
- North American Land Company
- North American Wetlands Conservation Council
- Shell Oil Company Foundation

The Coastal America Partnership was established in 1992 to protect, preserve and restore our coastal watersheds by integrating federal actions with state and local government and non-governmental efforts. The federal partners include the Departments of Agriculture, Air Force, Army, Commerce, Defense, Energy, Housing and Urban Development, Interior, Navy, State, Transportation, the Environmental Protection Agency and the Executive Office of the President. Through multi-agency teams, the partnership process enables national policy issues to be identified and resolved, regional plans and strategies to be developed, and local projects to be implemented.



Photo: Ducks Unlimited. Planting contractors install smooth cordgrass plugs on the terraces.



Photo: Ducks Unlimited. Terrace construction

Coastal America presents Partnership Awards each year to outstanding projects that utilize the partnership model to more effectively protect, preserve and restore America's coasts. This year, the Undersecretaries and Assistant Secretaries of Coastal America's member agencies selected the Cameron Creole Watershed-Brackish Marsh Terracing Project Team as an excellent example of an innovative partnership that is resulting in the protection of Louisiana's coastal marshes.