

## 12. Coastal Mangrove-Marsh Shrubland

**Rarity Rank:** S3/G2?

**Synonyms:** Intertidal Saltwater Swamp, Saltwater Swamp, Mangrove Swamp

**Ecological Systems:** CES203.471 Mississippi Delta Salt and Brackish Tidal Marsh

### **General Description:**

Coastal Mangrove/Marsh Shrubland are estuarine communities dominated by *Avicennia germinans* (black mangrove). Although sometimes termed a swamp, the physiognomy of the community in Louisiana more closely resembles a shrub thicket. The coastal region of Louisiana delimits the northern range of this community due to mangrove's inability to tolerate temperatures below freezing. The top-kill caused by winter freezes also limits mangroves to a shrub-like form (10 feet or less in height), unlike Florida where they attain forest stature. Other characteristic vegetation associates include: *Spartina alterniflora* (smooth cordgrass), *Batis maritima* (saltwort), *Salicornia virginica* (creeping glasswort), *Iva frutescens* (marshelder), *Borrichia frutescens* (sea ox-eye), and *Distichlis spicata* (salt grass). Mixed stands of both species are comparatively frequent in Louisiana. Salt



marshes and mangrove habitats are integral parts of the Louisiana barrier island system. The mangrove shrubland has several important ecological functions: the extensive root systems stabilize the shoreline and reduce erosion; the cover and food they provide create an excellent nursery area for fish and shellfish; the community improves surrounding water quality by filtering nutrients and suspended sediments; and many colonial waterbirds use the mangrove swamp for nesting.

### **Current Extent and Status:**

Mangroves in Louisiana are found along the fringes of the Deltaic Plain coastal marshes most commonly flanking large bays and on the leeward side of barrier islands. Montz (1980) estimated that in the late 1970's a total of 3,900 to 5,900 acres of mangroves occurred in Louisiana. Hard freezes in the winters of 1983 and 1984 seriously reduced the extent of this community in coastal Louisiana. The mangrove swamps importance in erosion control was clearly



documented by the extreme erosion of Queen Bess Island following the 1983-84 dieback, and today mangrove is often used for marsh stabilization in coastal restoration projects. Mild winters of the past decade have allowed expansion of this natural community in southeastern Louisiana’s coastal marshes. Large expanses can be viewed near the southern terminus of LA Hwy 1 on the eastside of Timbalier Bay near Port Fourchon, with patchy occurrences continuing along the highway to Grand Isle.

COASTAL MANGROVE – MARSH SHRUBLAND SPECIES OF CONSERVATION CONCERN (8)	
<b>BIRDS</b>	<b>BUTTERFLIES</b>
Brown Pelican	Great Southern White
Reddish Egret	Western Pygmy-Blue
Yellow-crowned Night-Heron	
Clapper Rail	
Seaside Sparrow	
Nelson's Sharp-tailed Sparrow	

***Priority Species Research and Survey Needs:***

Seaside Sparrow and Nelson's Sharp-tailed Sparrow: Surveys are needed to determine the current abundance and distribution in relation to marsh changes. Large populations should be monitored on a scheduled basis to detect long-term population trends and to guide management decisions.

Brown Pelicans: Large populations should be monitored on a scheduled basis to detect long-term population trends and to guide management decisions.

Waterbirds: Continue to conduct rookery surveys to update the LNHP database.

Great Southern White and Western Pygmy-Blue: Conduct surveys to determine their current distribution and abundance for inclusion in the LNHP database.

***Species Conservation Strategies:***

1. Shorebirds, Wading Birds:

- Provide public education regarding the importance of waterbird nesting colonies and shorebird feeding areas. Reduce the negative effects of recreational and other uses on these areas.
- Implement management and conservation recommendations for waterbirds (especially rails) of SWG project T18 upon completion.

***Threats Affecting Habitat:***

The following table illustrates the threats identified for this habitat type and the sources of these threats. This represents all threats and sources of threats identified across all ecoregions of the state where this habitat occurs.

Source of Threat	Threat		
	Altered Composition/ Structure	Habitat Disturbance	Habitat Fragmentation
Invasive/alien species	XXX		
Recreational use/vehicles		XXX	
Shoreline erosion	XXX		XXX

***Habitat Conservation Strategies:***

1. Work with the legislature to develop tax incentives and conservation easements or leases for landowners to encourage conservation of this habitat type.
2. Promote the planting of mangrove as a soil stabilizer in habitat restoration projects.
3. Provide educational information on this habitat type and its importance to species of conservation concern to landowners/land managers through technical pamphlets and the LDWF website.
4. Support NRCS and LDNR efforts for shoreline stabilization and habitat restoration.
5. Work with LCA, CWPPRA to support coastal restoration projects, specifically targeting important nesting habitat for species of conservation concern.
6. Work with local governments to recommend limits on recreational vehicle use of this habitat, particularly where it occurs on barrier islands.
7. Work with appropriate planning commissions to provide LNHP data that illustrates locations of this habitat type.
8. Work with NRCS Plant Materials Center, BTNEP, and OSP to develop restoration program for this habitat.

***References:***

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