

# Natural Communities of Louisiana



## Salt Marsh

**Rarity Rank:** S3S4/G5

	1	2	3	4	5
State					
Global					
	imperiled		rare		secure



**Synonyms:** Smooth Cordgrass Marsh, Saltgrass Marsh, Saline Marsh

### Ecological Systems:

CES203.468 Gulf Coast Chenier Plain

Salt and Brackish Tidal Marsh

CES203.471 Mississippi Delta Salt and Brackish Tidal Marsh

### **General Description:**

- Generally occurring adjacent to or at the interface of coastal lands with the open waters of the Gulf of Mexico
- Varies in size from 1-15 miles in width
- Small pools or ponds are often scattered throughout
- These marshes are regularly tidally flooded, flat, polyhaline areas dominated by salt-tolerant grasses
- Lowest plant species diversity of any of the four marsh types, and is often totally dominated by *Spartina alterniflora* (smooth cordgrass)
- Lowest soil organic matter content of any marsh type
- Microscopic algae on the surface of vascular plants, and benthic algae (usually diatoms) living on or in the marsh sediment are two other major groups of autotrophs found in salt marsh
- Soil and water conditions regulate plant growth, and salinity appears to be the primary factor determining species composition
- Mean salinity of salt marsh is about 16 ppt
- The area of salt marsh is increasing apparently due to salt-water intrusion resulting in shifts in marsh salinity levels and plant species composition
- Acts as nursery areas for myriads of larval forms of shrimp, crabs, redfish, seatrout, menhaden, etc., and also as important waterfowl habitat
- Functions as a nitrogen and phosphorus sink, thereby improving the quality of water that passes through it
- Can alleviate the effects of storms and flooding by acting as a buffer and providing storage for large amounts of water

### **Plant Community Associates**

#### **Common species include:**

*Spartina alterniflora* (smooth cordgrass)

*Distichlis spicata* (salt grass)

*Batis maritima* (salt wort)

*Spartina patens* (wire grass)

*Juncus roemarianus* (black rush)

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## Federally-listed plant & animal species:

*Grus americana* (whooping crane)

Endangered; G1; SH

*Pelecanus occidentalis* (brown pelican)

Endangered (PS:E); G4; S2

## **Range:**

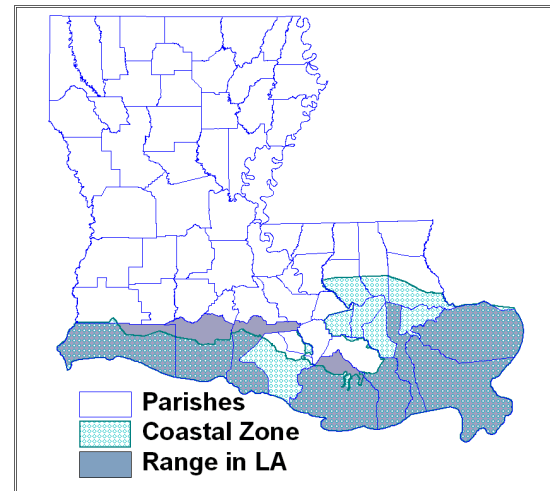
Salt marsh is estimated to have occupied 500,000 to 1,000,000 acres in presettlement times, with an estimated 50 to 75 % remaining. Salt marsh is most common on the deltaic plain of southeast Louisiana.

## **LA River Basins:**

Pearl, Pontchartrain, Mississippi, Barataria, Terrebonne, Vermilion-Teche, Mermentau, Calcasieu, Sabine

## **Threats:**

- Shoreline erosion and subsidence
- Commercial and industrial development
- Construction of roads, pipelines or utilities
- Hydrological alterations (channelization and leveeing of waterways, canal dredging)
- Contamination by chemicals or industrial discharge
- Fire suppression
- Invasive exotic species



## **Beneficial Management Practices:**

- Prevent conversion of existing natural communities to other land uses
- Allow natural fires to burn freely (if feasible) and establish regular burning regime on managed lands to improve habitat and food quality for wildlife
- Remove any invasive exotic plant species with use of spot herbicides or mechanical means
- Create new coastal land masses with dredge or other materials where feasible



Funding provided by the Louisiana Department of Wildlife and Fisheries and the Barataria-Terrebonne National Estuary Program

For more information, please visit our Web pages at

[www.wlf.la.gov/wildlife/louisiana-natural-heritage-program](http://www.wlf.la.gov/wildlife/louisiana-natural-heritage-program) or 225-765-2811

[www.BTNEP.org](http://www.BTNEP.org) or 1-800-259-0869