

# Natural Communities of Louisiana



## Submergent Vascular Vegetation (Marine & Estuarine)

**Rarity Rank:** S1S2/G3G5

	1	2	3	4	5
State					
Global					
	imperiled		rare		secure

**Synonyms:** Submerged Aquatic Vegetation, SAV, Seagrass Bed, Aquatic Bed

**Ecological Systems:**

CES203.511 Texas-Louisiana Fresh-Oligohaline Subtial Aquatic Vegetation  
 CES203.263 Northern Gulf of Mexico Seagrass Bed



**General Description:**

- *Ruppia maritima* (widgeon grass), and *Vallisneria americana* (wild celery) dominate estuarine seagrass beds in Louisiana and waters of the northern Gulf of Mexico, while *Thalassia testudinum* (turtle grass) dominates marine grass beds
- These brackish and salt water communities of rooted “grasses” grow in shallow, protected waters with low turbidity
- Temperature, salinity levels, substrate, wave action, and light penetration are key factors in determining the floral and faunal composition of these beds
- Substrates are generally sand/mud bottoms to a water depth of not greater than 3 to 4 feet
- Small beds occur in ponds scattered throughout marshes of coastal Louisiana, but the most extensive beds are found in the Lake Pontchartrain and Barataria Basins, and in and around the Chandeleur Islands
- SAV beds support a diverse invertebrate and epiphytic population, serve as nursery grounds and shelter for many species of fish and shellfish, and act as important waterfowl feeding areas
- These are highly productive natural communities, releasing detritus and nutrients to surrounding waters
- Seagrass beds help to stabilize near shore substrates, preventing damage and substrate removal by wave action



Sting ray in *Vallisneria* bed

**Plant Community Associates**

**Common species of estuarine seagrass beds include:**

*Ruppia maritima* (widgeon grass)

*Vallisneria americana* (wild celery)

*Najas quadalupensis* (southern naiad)

*Zannichellia palustris* (horned pondweed)

*Potamogeton perfoliatus* (clasping-leaf pondweed, rare in LA)

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## Common species of marine seagrass beds include:

*Thalassia testudinum* (turtle grass)  
*Halophila engelmannii* (sea grass)  
*Ruppia maritima* (widgeon grass)

*Cymodocea filiformis* (manatee grass)  
*Halodule beaudettei* (shoal grass)

## Federally-listed plant & animal species:

*Trichechus manatus* (manatee)  
*Chelonia mydas* (green sea turtle)  
*Eretmochelys imbricata* (hawksbill sea turtle)  
*Lepidochelys kempii* (Kemp's Ridley sea turtle)  
*Dermochelys coriacea* (leatherback sea turtle)  
*Caretta caretta* (loggerhead sea turtle)

Endangered; G2; SZN  
Threatened/Endangered; G3; SZN  
Endangered; G3; SZN  
Endangered; G1; SZN  
Endangered; G2; SZN  
Threatened; G3; S1

## Range:

Can be found throughout Louisiana's coastal zone marshes and estuaries, however, the last remaining extensive beds are found along the north shore of Lake Pontchartrain and into Lake Maurepas, and in and around the Chandeleur Islands.

## LA River Basins:

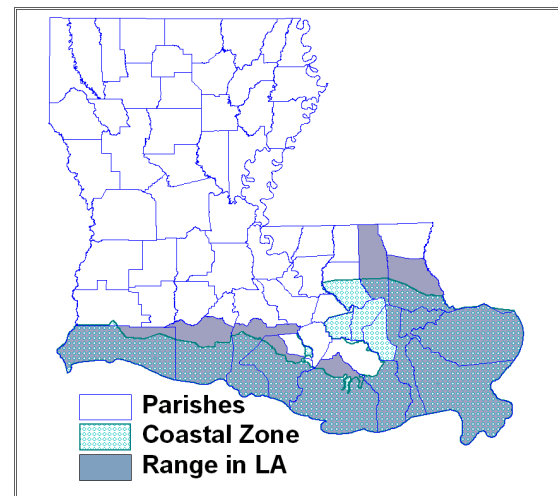
Pearl, Pontchartrain, Mississippi, Barataria, Terrebonne, Atchafalaya, Vermilion-Teche, Mermentau, Calcasieu, Sabine

## Threats:

- Sea level rise
- Industrial development (oil & gas drilling)
- Hydrological alterations (canal dredging)
- Any activities that increase turbidity and sediment load
- Changes in water quality (increase in salinity levels)
- Construction of pipelines or utilities
- Contamination by chemicals
- Invasive exotic species

## Beneficial Management Practices:

- Prevent conversion of existing natural communities to other uses
- Avoid mechanical and water quality impacts in and around seagrass beds
- Avoid activities in shallow waters (less than 4 feet in depth) that might increase disturbance and turbidity
- Small volume increase in freshwater inputs to offset salt water influences



Manatee mother and calf  
photo: USFWS