

Natural Communities of Louisiana



Freshwater Marsh

Rarity Rank: S1S2/G3G4

	1	2	3	4	5
State					
Global					
	imperiled		rare	secure	



Synonyms: Fresh Marsh,
Paille Fine (pronounced "pie feen") Marsh

Ecological Systems:

CES203.467 Gulf Coast Chenier Plain Fresh and Oligohaline Tidal Marsh

CES203.470 Mississippi Delta Fresh and Oligohaline Tidal Marsh

General Description:

- Generally located adjacent to intermediate marsh along the northern most extent of the coastal marshes, although it may occur beside coastal bays where freshwater input is entering the bay (e.g., Atchafalaya Bay)
- Small pools or ponds may be scattered throughout
- Floristic composition of these sites is quite heterogeneous and is variable from site to site
- Salinities are usually less than 2 ppt and normally average about 0.5-1 ppt
- Frequency and duration of flooding, which are intimately related to microtopography, seem to be the primary factors governing species distributions
- Substrate, current flow, salinity, competition, and allelopathy are also important in determining species distribution patterns
- Has the greatest plant diversity of any of the marsh types. One report claims 92 plant species in fresh marsh versus only 17 different species in salt marsh
- Has the highest soil organic matter content of any marsh type
- It is frequently dominated by *Panicum hemitomon* (maidencane)
- Epiphytic and benthic algae are two other major autotroph groups in freshwater marsh
- A significant portion of freshwater marsh is floating marsh (flotant), which occurs in the Deltaic Plain of southeast Louisiana
- Wildlife populations are generally highest in this marsh type and it supports high numbers of wintering waterfowl
- Freshwater marsh acts as important nursery areas for the young of many marine species, such as croaker, seatrout, blackdrum, flounder, and juvenile brown and white shrimp
- Saltwater intrusion may cause a change to a more saline marsh type or even open water, if the increase in salinity levels is rapid and persistent

Plant Community Associates

Common species include:

Panicum hemitomon (maidencane)

Sagittaria lancifolia (= *S. falcata*)

Alternanthera philoxeroides (alligator weed)

Eleocharis spp. (spikesedge)

Spartina patens (wire grass)

Phragmites communis (roseau cane)

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Common species continued:

Bacopa monnieri (coastal water hyssop)
Cyperus odoratus (fragrant flatsedge)
Pontederia cordata (pickerelweed)
Hydrocotyle spp. (pennyworts)
Myriophyllum spp. (water milfoils)
Typha spp. (cattail)
Vigna luteola (deer pea)

Ceratophyllum demersum (coontail)
Eichhornia crassipes (water hyacinth)
Peltandra virginica (arrow arum)
Lemna minor (common duckweed)
Nymphaea odorata (white waterlily)
Utricularia spp. (bladderworts)
Zizaniopsis miliacea (southern wildrice)

Federally-listed plant & animal species:

Grus americana (whooping crane)
Haliaeetus leucocephalus (bald eagle)

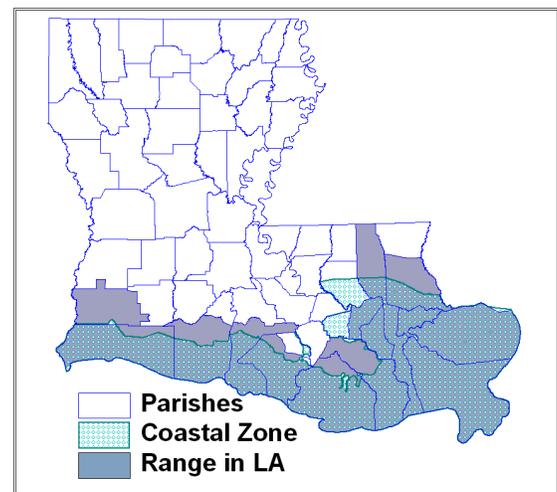
Endangered; G1; SH
Bald & Golden Eagle Protection Act;
G4; S2N, S3B

Range:

Freshwater marsh has undergone the largest reduction in acreage of any of the marsh types over the past 20 years. Presettlement acreage was estimated at 1 to 2 million acres, but has been reduced by 25 to 50 % of this original extent. The largest contiguous tracts of fresh marsh occur in Terrebonne, St. Mary, Vermillion, Cameron, LaFourche and St. Charles Parishes.

LA River Basins:

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

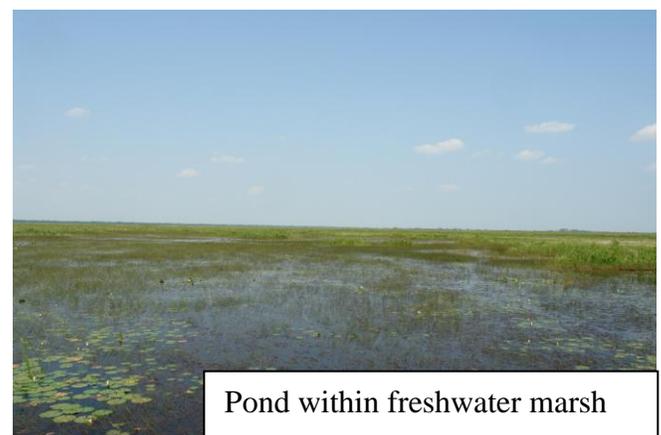


Threats:

- 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. Burning should be used only when marshes are flooded to avoid intense heat damage, and never burn in floatant marshes
- Remove any invasive exotic plant species with use of approved herbicides or mechanical means



Pond within freshwater marsh

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 or 225-765-2811

www.BTNEP.org or 1-800-259-0869