



LOUISIANA NATURAL AREAS REGISTRY Quarterly Newsletter



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Working with landowners towards conservation of Louisiana's ecologically sensitive lands

http://www.Louisiana.gov/experience/natural_heritage/naturalareasregistry/

Can you name this purple flowering plant?
See Page 4 for answer.

PLANT COMMUNITY INTERMEDIATE MARSH

Rarity Rank: S3S4/G4

Synonyms: Oligohaline Marsh

	1	2	3	4	5
State					
Global					
	imperiled		rare	secure	

Ecological Systems:

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

CES203.470 Mississippi Delta Fresh and Oligohaline Tidal Marsh

Attributes:

- ♣ Lies between brackish marsh and freshwater marsh, although it infrequently may be adjacent to the Gulf
- ♣ Has an irregular tidal regime and is oligohaline (salinity of 3 to 10 ppt)
- ♣ Dominated by narrow-leaved, persistent species, particularly *Spartina patens* (wire grass)
- ♣ Small pools or ponds may be scattered throughout
- ♣ Soil organic matter content is higher than that of brackish marsh
- ♣ Supports a higher diversity of species than salt or brackish marsh
- ♣ Smallest of the four marsh types in aerial extent
- ♣ Very important to many species of avian wildlife and supports large numbers of wintering waterfowl
- ♣ Serves as a critical nursery habitat to larval marine organisms

Plant Community Associates

Common species include: *Spartina patens* (wire grass), *Phragmites australis* (roseau cane), *Sagittaria lancifolia* (= *S. falcata*; bulltongue), *Bacopa monnieri* (coastal water hyssop), *Eleocharis* spp. (spikesedge), *Schoenoplectus californicus* (giant bulrush), *S. americanus* (common threesquare), *Vigna luteola* (deer pea), *Panicum virgatum* (switch grass), *Paspalum vaginatum* (seashore paspalum), *Pluchea camphorata* (camphor-weed), *Leptochloa fascicularis* (bearded sprangletop), *Echinochloa walteri* (Walter's millet), *Cyperus odoratus* (fragrant flatsedge), *Najas guadalupensis* (southern naiad), *Alternanthera philoxeroides* (alligator weed), *Spartina cynosuroides* (big cordgrass), and *S. spartinae* (gulf cordgrass).

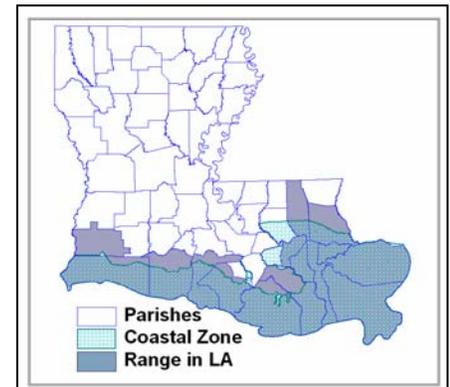


Federally-listed species: *Pelecanus occidentalis* (brown pelican)
Endangered (PS:E); G4; S2

Range: Presettlement acreage was estimated to have been 100,000 to 500,000 acres, and 25 to 50 % is thought to remain. The largest contiguous tracts of intermediate marsh occur in Cameron, Vermilion, Terrebonne, and Lafourche Parishes.

LA River Basins: Pearl, Pontchartrain, Mississippi, Barataria, Terrebonne, Atchafalaya, Vermilion-Teche, Mermentau, Calcasieu, and Sabine

Threats include: Saltwater intrusion and subsidence, canal dredging, commercial, industrial and residential development, construction of roads, pipelines or utilities, contamination by chemicals or industrial discharge, fire suppression, and invasive exotic species.



Beneficial Management Practices by

1. Establish regular burning regime on managed lands to improve habitat and food quality for wildlife
2. Control exotic plant and animal species

INTERMEDIATE MARSH SPECIES OF CONSERVATION CONCERN (31)		
BIRDS	Northern Harrier	Common Tern
Brown Pelican	Black Rail	Forster's Tern
American Bittern	Clapper Rail	Short-eared Owl
Reddish Egret	King Rail	Sedge Wren
Yellow-crowned	Sandhill Crane	Loggerhead Shrike
Night-Heron	Whooping Crane	
Mottled Duck	Marbled Godwit	BUTTERFLIES
Northern Pintail	Dunlin	Neamathla Skipper
Canvasback	Short-billed	Dion Skipper
Redhead	Dowitcher	Obscure Skipper
Lesser Scaup	Gull-billed Tern	Great Southern White
Bald Eagle	Caspian Tern	Western Pygmy-Blue

References:

CHABRECK, R. H. 1972. Vegetation, water, and soil characteristics of the Louisiana coastal region. LSU Agriculture Experiment Station Bulletin. 664:1-72.

HARTLEY, S. R., PACE III, J. B. JOHNSTON, M. SWAN, C. O'NEIL, L. HANDLEY, and L. SMITH. 2000. A gap analysis of Louisiana. Final Report. USGS/BRD National Wetlands Research Center, Lafayette, LA.

LNHP. 1986-2004. The natural communities of Louisiana. Louisiana Natural Heritage Program, Louisiana Department of Wildlife and Fisheries, Baton Rouge, LA.

NATURESERVE. 2005. NatureServe Explorer: An online encyclopedia of life {web application}. Version 4.2 NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed: June 24, 2005)

SMITH, L. M. 1993. Estimated presettlement and current acres of natural plant communities in Louisiana. Louisiana Natural Heritage Program, Louisiana Department of Wildlife and Fisheries, Baton Rouge, LA. 🌿

ASSOCIATED PLANT SPECIES

Saltmeadow Cordgrass
(*Spartina patens*)



Sandy Richard

Saltmeadow Cordgrass is a member of the grass family (Poaceae). **Growth Habit and Diagnostic Characteristics:** This fine, wiry grass usually appears collectively as a densely matted meadow in the higher areas of salt and brackish marshes. It also grows on low dunes and sand flats along the coast. However, in this habitat the growth form appears taller and clustered in distinct tufts. The somewhat lax plants of the marshes are from 1 to 2 feet, whereas dune plants

are more erect and average 1.5 to 4.0 feet. The long tapering leaves are often rolled inward and appear cylindrical. The longest leaves are nearly one-half to two-thirds the length of the stem. The lower part of

the stem is rather weak and has a tendency to bend when stressed by winds, spring tides, or storm surges. During these events, individual stems intertwine, producing the overall effect of swirls or cowlicks that often occur in large, open saltmarsh meadows (seen in photo below). Sparingly branched, the inflorescence (flowering head) appears reddish-brown when in flower (shown in picture at bottom left) and dull brown in seed. From late June to October an inflorescence emerges at the end of the stem, which is composed of two to 10 two-inch-long spikelets. The numerous florets are 0.3 to 0.4 inches long and arranged in an overlapping scale-like fashion on each spikelet. The flowers are wind pollinated.

Uses of Saltmeadow Cordgrass: Saltmeadow cordgrass is used for shoreline protection and tidal marsh restorations, and is sometimes utilized for sand dune stabilization plantings. In its natural state on the tidal marshes, dense stands of this grass capture suspended solids from floodwaters resulting in a gradual increase in marsh soil depth and improved water quality. This species is the primary component of salt hay, which is utilized in the landscape and vegetable trade as a weed seed free mulch.

Ecological Values/Benefits: Marshes are an excellent buffer, filtering sediments and other wastes during periods of runoff. Salt and brackish marshes function as staging and feeding areas for mammals such as muskrats and racoons, and as nesting sites for rails and other birds.



Low marsh (LM)
(Mostly short form *Spartina alterniflora*)

High Marsh (HM)
(Mostly *Spartina patens*)

Sandy Richard

Required Growing Conditions: Saltmeadow cordgrass is commonly found growing on open coastal marshes from normal high tide to about 13 feet, from Newfoundland to Quebec, south to Florida and Texas; it can also be found along the shores of the Great Lakes. This grass is adapted to a wide range of soils from coarse sands to silty clay sediments with pHs ranging from 3.7 to 7.9. Saltmeadow cordgrass will tolerate irregular inundations with 0 to 35 parts per thousand salinity.

References:

Silberhorn, Gene. Saltmeadow Hay *Spartina Hay* Technical Report. Gloucester Point, Virginia: School of Marine Science, Virginia Institute of Marine Science, College of William and Mary (US); 1990 Sept. Report No. 90-4. 2 pages.

Saltmeadow Cordgrass at <http://www.gardenguides.com>

Lady Bird Johnson Wildflower Center. The University of Texas at Austin. http://www.wildflower.org/plants/result.php?id_plant=SPPA

GULF COAST JOINT VENTURE

http://www.gcjv.org/about_us.php

The Gulf Coast Joint Venture (GCJV) is a partnership among Federal and State Agencies, non-profit organizations, and private landowners dedicated to the conservation of priority bird habitat along the United States Gulf of Mexico coast. Habitat projects are developed and implemented by 5 regional Initiative Teams of biologist and managers of public and private lands. GCJV partners include numerous other organizations and hundreds of individuals that are involved in specific collaborative habitat, planning or evaluation projects.



The GCJV region includes the coastal portions of Alabama, Mississippi, Louisiana, and Texas, as shown in the map below.

The GCJV works in concert with Gulf Coast universities, the United States Geological Survey, and GCJV partner organizations to design and undertake research and monitoring to address the critical assumptions on which population and habitat objectives are based, and to evaluate management outcomes.

HISTORY OF THE GULF COAST JOINT VENTURE: The GCJV has its roots in the North American Waterfowl Management Plan (NAWMP), an international agreement signed by the United States and Canada in 1986, with Mexico signing in 1994. The NAWMP focused on the conservation of waterfowl and wetlands, in response to declining continental populations. The NAWMP established population objectives for waterfowl and a conservation framework of regional “joint ventures” to guide the restoration, enhancement, and protection of waterfowl habitat.

Continental and United States plans have been developed for other bird groups. These include the Partners in Flight North American Landbird Conservation Plan, U.S. Shorebird Conservation Plan, and the North American Waterbird Conservation Plan.

HABITAT PROJECTS: The GCJV is divided geographically into five Initiative Areas, each with relevant planning documents to guide bird habitat conservation:

Laguna Madre, Texas Mid-Coast, Chenier Plain, Mississippi River Coastal Wetlands, and Coastal Mississippi-Alabama.

Habitat delivery in each of these regions is coordinated through their respective Initiative Team, whose responsibility is to identify and develop potential habitat projects that contribute to GCJV bird habitat objectives and priorities. Initiative Teams are open to participation by agencies and organizations that maintain a land-management

presence, or are active sponsors or participants in habitat conservation programs or projects, in their respective Initiative Area.

PROJECTS INCLUDE:

- ◆ Mottled Duck Habitat-Restoration in Calcasieu, Cameron, and Vermilion Parishes.
- ◆ Katy Prairie Acquisition west of Houston, Texas
- ◆ Cameron Prairie NWR Improvements
- ◆ Louisiana Waterfowl Project-South
- ◆ Pointe-aux-Chenes WMA
- ◆ Texas Prairie Wetlands

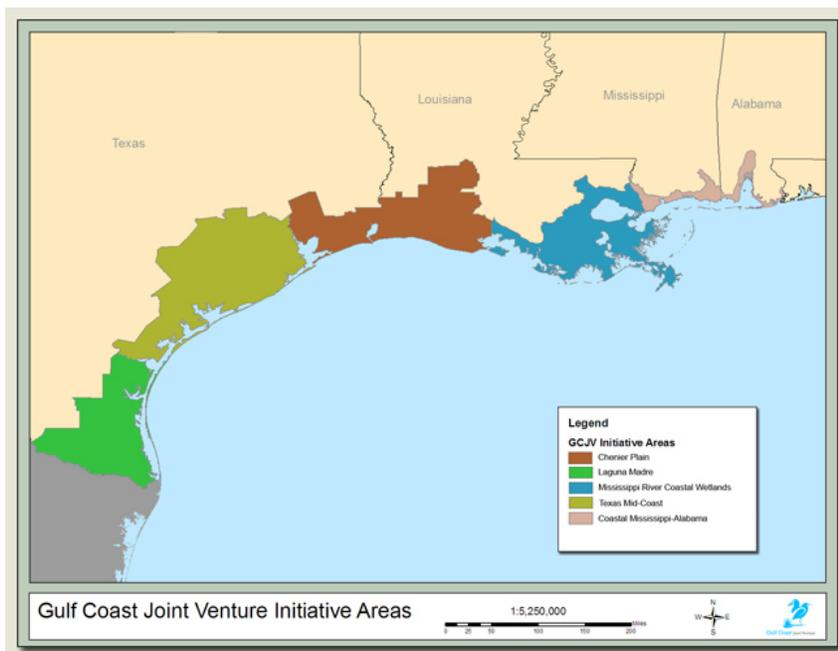


Mottled Duck by John Schwarz

PLANNING AND EVALUATION: The GCJV framework for bird conservation employs the elements of Strategic Habitat Conservation that operate together in a feedback loop, each element informing and influencing the others. These elements include:

- ◆ **Biological Planning:** Monitoring, Evaluation, and Research Team (MERT) maintains the integrity of the biological foundations of regional bird conservation plans endorsed by the GCJV Management Board, reviews habitat conservation proposals for consistency with regional bird conservation plans, and provides technical guidance regarding habitat and population

monitoring. MERT comprises four working groups: Waterfowl, Landbird, Shorebird, and Waterbird. Biological planning employs the following steps for bird habitat conservation along the Gulf Coast that includes: 1) Identify target species or species-groups 2) Determine limiting factors 3) Develop strategies to mitigate limiting factors 4) Quantify objectives with biological models and 5) Identify testable assumptions.



- ◆ **Conservation Design:** Includes the creation of decision support tools to assist land managers in selecting appropriate conservation actions on the lands they manage, designation of priority areas for conservation actions, and determination of the quantity and spatial orientation of habitat needed to achieve bird population objectives.
- ◆ **Conservation Delivery:** Coordinated through their respective Initiative Teams.
- ◆ **Monitoring and Research:** GCJV population and habitat objectives are frequently detrimined in the face of substantial uncertainty, and models are frequently used to explicitly depict assumed population-habitat relationships. Focused research and monitoring efforts are required to test the validity of those assumptions, and to determine impacts on bird species populations resulting from conservation actions on the ground. Results from research and monitoring feed directly back into the GCJV conservation planning and evaluation loop, enabling population and habitat objectives to be continually adjusted as needed.

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References:

Liatris at <http://www.hort.wisc.edu/mastergardener/features/flowers/liatris/liatris.htm>

Liatris pycnostachya by Carl Amason at <http://www.lnps.org/articles/Liatrispycnostachya.html>

Previous Newsletter, September 2009, Vol. 7, No 1 of 4.

We introduced our new community ecologist, Amity Bass. We covered information about Cypress-tupelo swamp plant community, an associated plant species – cypress-knee sedge (*Carex decomposita*), and an associated animal species – wood stork (*Mycteria Americana*). We covered guidelines for practicing forest environmental enhancement to maintain and enhance natural communities and associated species on private lands. We presented information on streamside management zone (SMZ) objectives and best management practices for SMZ's. The mystery photo from the front page was Cardinal Flower (*Lobelia cardinalis*).

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By Judy Jones: Photo from the front page was taken of a field of Prairie **Blazing Star** (*Liatris pycnostachya*) in an upland longleaf pine forest in Vernon Parish. Blazing Star or Gay Feather, is a native perennial that produces tall spikes of bright purple flowers above the tufts of green, grass-like leaves in mid to late summer. Blazing star plants often form small multi-stemmed clumps. The small flower heads open from the top to bottom on the spikes. Blazing star generally stays very upright and needs no staking, unless grown in very rich, moist soil. The finely textured foliage stays attractive all summer and turns a rich bronze in fall. *Liatris* flowers are attractive to bees and butterflies. *Liatris* was used by Native Americans, and early pioneers to treat snakebites, and as an antispasmodic for the intestines.