

Rare Plants of Louisiana



Agalinis filicaulis - purple false-foxglove Figwort Family (Scrophulariaceae)

Rarity Rank: S2/G3G4

	1	2	3	4	5
State		■			
Global			■	■	
	imperiled		rare		secure

Range: AL, FL, LA, MS



Photo by John Hays

Recognition:

- Short annual, 10 to 50 cm tall, with stems finely wiry, spindly
- Stems simple to few-branched
- Leaves opposite, scale-like, about 1mm long, barely perceptible to the unaided eye
- Flowers few in number, mostly born singly or in pairs from the highest node of a branchlet
- Pedicels filiform, 5 to 10 mm long, subtending bracts minute
- Calyx 2 mm long, lobes short-deltoid, with broad shallow sinuses between lobes
- Corolla lavender-pink, without lines or spots within, 10 to 13 mm long, exterior glabrous
- Capsule globe-like, nearly half exerted from calyx

Flowering Time: September to November

Light Requirement: Full sun to partial shade

Wetland Indicator Status:

FAC – similar likelihood of occurring in both wetlands and non-wetlands

Habitat:

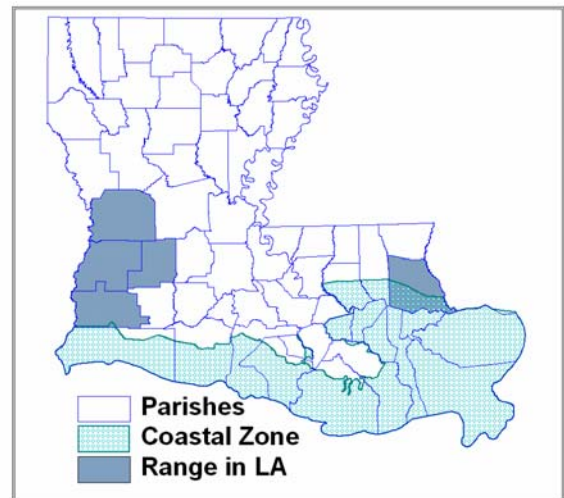
Wet longleaf pine flatwoods savannahs and hillside seepage bogs.

Threats:

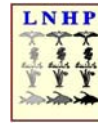
- Conversion of habitat to pine plantations (bedding, dense tree spacing, etc.)
- Residential and commercial development
- Fire exclusion, allowing invasion of habitat by woody species
- Hydrologic alteration directly (e.g. ditching) and indirectly (fire suppression allowing higher tree density and more large-diameter trees)

Beneficial Management Practices:

- Thinning (during very dry periods), targeting off-site species such as loblolly and slash pines for removal
- Prescribed burning, establishing a regime consisting of mostly growing season (May-June) burns



Rare Plants of Louisiana



LA River Basins: Pearl, Pontchartrain, Mermentau, Calcasieu, Sabine



Side view of flower.
Photo by John Hays

References:

Godfrey, R. K. and J. W. Wooten. 1981. Aquatic and wetland plants of southeastern United States: dicotyledons. University of Georgia Press. Athens, GA. 933 pp.

NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available at <http://www.natureserve.org/explorer>.

Small, J. K. 1933. Manual of the southeastern flora. The University of North Carolina Press. Chapel Hill, NC. 1554 pp.

USDA, NRCS. 2008. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

Vincent, K. A. 1982. Scrophulariaceae of Louisiana. M.S. Thesis. University of Southwestern Louisiana. Lafayette, LA.

Rare Plants of Louisiana



Agalinis linifolia - flax-leaf false-foxglove Figwort family (Scrophulariaceae)

Rarity Rank: S2/G4?

	1	2	3	4	5
State		■			
Global				■	
	imperiled		rare		secure



Range: AL, DE, FL, GA, LA, MS, NC, SC

Recognition:

- A hemi-parasitic herb with simple stems or with few erect branches, 0.4 to 1.5 m tall; plants blacken upon drying
- Our only perennial *Agalinis*, having rhizomes that bear remote scale-like leaves
- Leaves are opposite, linear, 2 to 5 cm long by 0.7 to 3 mm wide, gradually reduced in size above
- Flowers in terminal racemes, 8 to 20 flowers per raceme, flowers relatively well-spaced
- Pedicels (flower stalks) at least twice as long as the calyx, appressed to stiffly ascending, 4 to 25 mm long
- Corollas are violet-purple to pink with paler dots within and a soft pubescence on the outside; corollas 20 to 40 mm long

Flowering Time: September to October

Light Requirement: Full sun to light/partial shade

Wetland Indicator Status:

FACW- usually occurs in wetlands

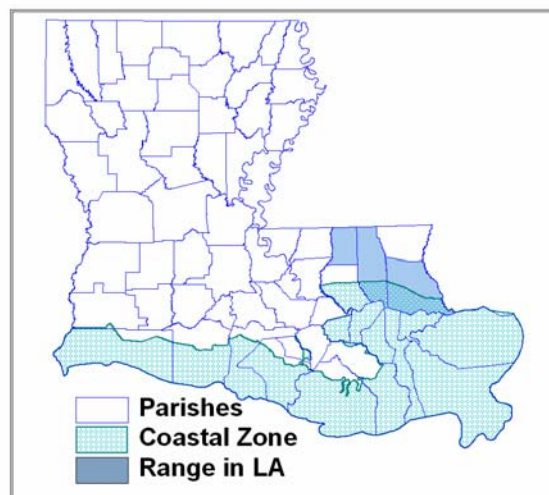
Habitat: Longleaf pine flatwoods savannahs.

Threats:

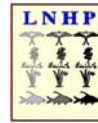
- Conversion of habitat to pine plantations, and concomitant threats such as chemical and mechanical site prep and dense tree spacing
- Residential and commercial development
- Lowering of the water table by ditching and drainage
- Fire exclusion or inappropriate fire timing

Beneficial Management Practices:

- Thinning (during very dry periods), targeting off-site species such as loblolly and slash pines for removal
- Prescribed burning, establishing a regime consisting of mostly growing season (May-June) burns



Rare Plants of Louisiana



LA River Basins: Pearl, Pontchartrain



Above: Front view of *Agalinis linifolia*

Right: Side view of *A. linifolia*.

Photos by John Hays



References:

Godfrey, R. K. and J. W. Wooten. 1981. Aquatic and wetland plants of southeastern United States: dicotyledons. University of Georgia Press. Athens, GA. 933 pp.

NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available at <http://www.natureserve.org/explorer>.

Vincent, K. A. 1982. Scrophulariaceae of Louisiana. M.S. Thesis, University of Southwestern Louisiana. Lafayette, LA.

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Rare Plants of Louisiana



Amaranthus greggii - Gregg's amaranth Amaranth family (Amaranthaceae)

Rarity Rank: S3/G4?

	1	2	3	4	5
State					
Global					
	imperiled		rare		secure

Range: LA, TX, south to Yucatan, Mexico

Recognition:

- Plants from taproots, erect or sprawling, often many stems branching from the base
- Leaves relatively few, thick, fleshy, leathery, prominently veined underneath, to 3.5 cm long
- Male and female flowers are on different plants (= dioecious), born in spikes or compact panicles from 5 to 15 cm long
- Seeds are lustrous brown or black, 1.3 to 1.8 mm in diameter

Flowering Time: Potentially year-round

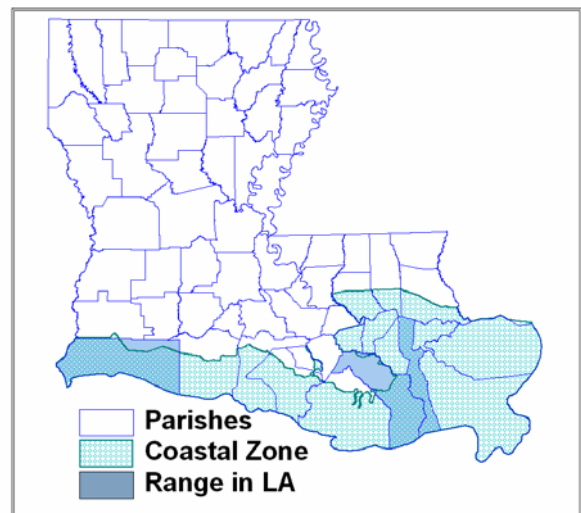
Light Requirement: Full sun

Wetland Indicator Status:

NI - No indicator

Habitat:

High energy beaches of both the Chenier Plain and Deltaic Plain; typical associates include seashore dropseed (*Sporobolus virginicus*), Amberique bean (*Strophostyles helvula*), sea rockets (*Cakile spp.*) and wiregrass (*Spartina patens*).



Threats:

- Shoreline erosion
- Cattle grazing
- Vehicular and excessive foot traffic

Beneficial Management Practices:

- Shoreline protection/nourishment
- Protection of beaches and dunes from vehicular traffic and cattle

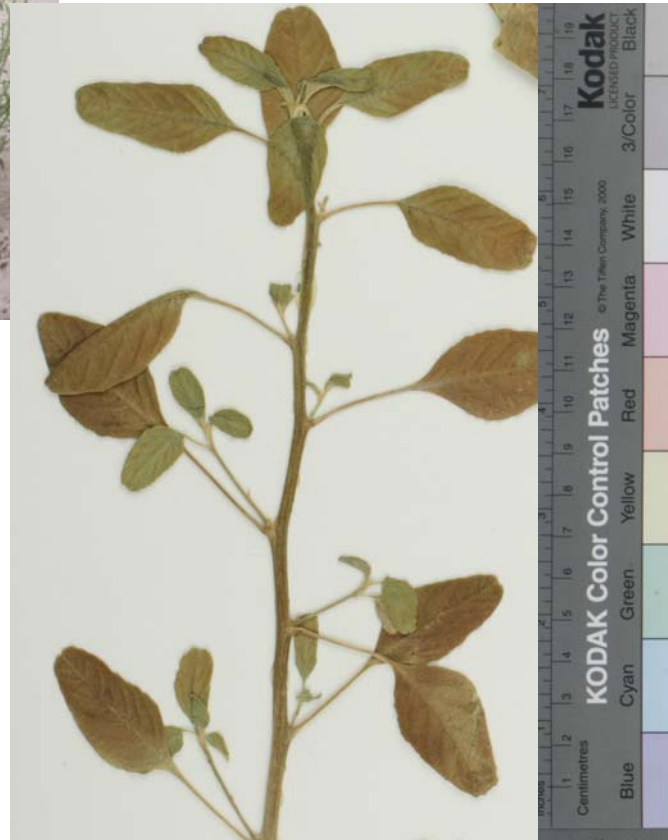
LA River Basins: Pontchartrain, Barataria, Terrebonne, Mermentau, Calcasieu, Sabine

Rare Plants of Louisiana



Above: *Amaranthus greggii* on a Cameron Parish beach.

Right: Herbarium specimen showing leaves (discoloration is from drying). Courtesy of LSU Herbarium.



References:

Correll, D. S. and M. C. Johnston. 1970. Manual of the Vascular Plants of Texas. Texas Research Foundation, Renner. 1881 pp.

NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.

Richardson, A. 2002. Wildflowers and other plants of Texas beaches and islands. University of Texas Press, Austin. 247 pp.

Rare Plants of Louisiana



Asclepias incarnata - swamp milkweed Milkweed Family (Asclepiadaceae)

Rarity Rank: S2/G5

	1	2	3	4	5
State		■			
Global					■
	imperiled	rare			secure

Range: FL west to NM, north to Nova Scotia and Manitoba

Recognition:

- Robust perennial milkweed from a short rootstock, to 2 m tall in our area; has milky sap which is characteristic of most milkweeds
- Leaves are numerous, opposite, linear-lanceolate to ovate-elliptic, 6 to 15 cm long to 4 cm broad with rounded to heart-shaped bases and acute to acuminate tips
- Flower color is bright rose-purple (rarely white)
- Fruit is an erect follicle (“pod”), seeds with a long tuft of hairs at one end which allows wind dispersal



Jennifer Anderson @ USDA-NRCS PLANTS Database

Flowering Time: June to September

Light Requirement: Full sun to partial shade

Wetland Indicator Status:

OBL – Almost always in wetlands

Habitat:

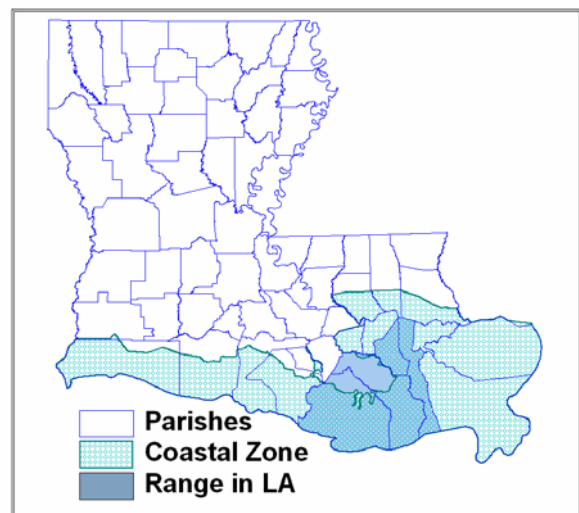
Louisiana occurrences are in freshwater swamps and marshes. May also occur in ditches.

Threats:

- Subsidence of fresh marsh
- Saltwater intrusion

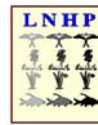
Beneficial Management Practices:

- Protection of freshwater marshes and swamps
- Conduct more field survey work in order to determine current status in Louisiana



LA River Basins: Pontchartrain, Barataria, Terrebonne

Rare Plants of Louisiana



USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. *An illustrated flora of the northern United States, Canada and the British Possessions*. Vol. 3: 26.



USDA-NRCS PLANTS Database / USDA NRCS. *Wetland flora: Field office illustrated guide to plant species*. USDA Natural Resources Conservation Service.

References:

- Duncan, W. H., and M. B. Duncan. 1987. *The Smithsonian guide to seaside plants of the Gulf and Atlantic coasts*. Smithsonian Institution Press, Washington. 409 pp.
- Godfrey, R. K., and J. W. Wooten. 1981. *Aquatic and wetland plants of southeastern United States: dicotyledons*. University of Georgia Press, Athens, GA. 933 pp.
- NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.
- Tiner, R. W. 1993. *Field guide to coastal wetland plants of the southeastern United States*. The University of Massachusetts Press, Amherst. 328 pp.
- Tobe, J. D., K. C. Burks, R. W. Cantrell, M. A. Garland, M. E. Sweeley, D. W. Hall, P. Wallace, G. Anglin, G. Nelson, J. R. Cooper, D. Bickner, K. Gilbert, N. Aymond, K. Greenwood, and N. Raymond. 1998. *Florida wetland plants: an identification manual*. Tallahassee: Florida Department of Environmental Protection. 598 pp.

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Rare Plants of Louisiana



Astragalus nuttallianus - milk-vetch Legume Family (Fabaceae)

Rarity Rank: S2S3/G5

	1	2	3	4	5
State		■	■		
Global					■
	imperiled		rare		secure

Range: LA and AR west to CA and NV

Recognition:

- Annual legume with loosely matted, prostrate to weakly ascending stems
- Leaves are odd-pinnately compound with 7 to 19 leaflets that are 2 to 14 mm long
- Flowers purplish or white, in terminal racemes

Flowering Time: March - April

Light Requirement: Full sun

Wetland Indicator Status: Does not occur in wetlands anywhere in its range

Habitat: Coastal dune grasslands, Gulf beaches, and open areas on cheniers.

Threats:

- Shoreline erosion
- Damage to beaches and sand dunes caused by vehicular traffic

Beneficial Management Practices:

- Shoreline or island stabilization
- Protect beaches and sand dunes from human-caused degradation

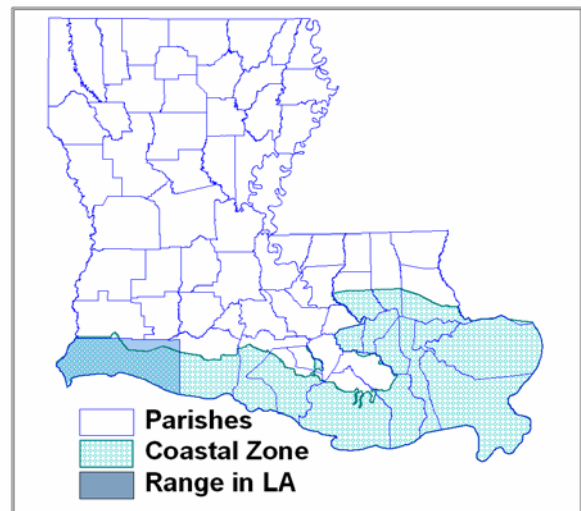
LA River Basins: Mermentau, Calcasieu, Sabine



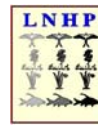
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Photo by James Manhart

<http://www.csd.tamu.edu/FLORA/gallery1.htm>



Rare Plants of Louisiana



Photos by James Manhart

<http://www.csd1.tamu.edu/FLORA/gallery1.htm>



References:

Correll, D. S., and M. C. Johnston. 1970. *Manual of the Vascular Plants of Texas*. Texas Research Foundation, Renner. 1881 pp.

NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.

Richardson, A. 2002. *Wildflowers and other plants of Texas beaches and islands*. University of Texas Press, Austin. 247 pp.

USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA

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Rare Plants of Louisiana



Calopogon barbatus - bearded grass-pink Orchid Family (Orchidaceae)

Rarity Rank: S1/G4?

	1	2	3	4	5
State					
Global					
	imperiled		rare		secure

Range: AL, FL, GA, LA, MS, NC, SC

Recognition:

- A slender orchid that ranges from 10 to 40 cm tall while flowering; lower stems greenish and upper stems often purplish
- Flowers occur in compact racemes, usually 5 or fewer flowers per raceme
- Flowers open nearly simultaneously, as opposed to in slow succession or all at once
- Petals usually rose pink/magenta, ca 1.1 to 1.6 cm long
- Lip (upright topmost petal) bears a beard of yellow club-shaped hairs, hence the specific epithet and common name
- Leaves 1 (rarely 2), narrow, grass-like, about 2-5 mm wide and 5 to 20 cm long (after flowering leaves can elongate to 40 cm long)



Photo by W. S. Justice, courtesy of Smithsonian Institution

Flowering Time: April

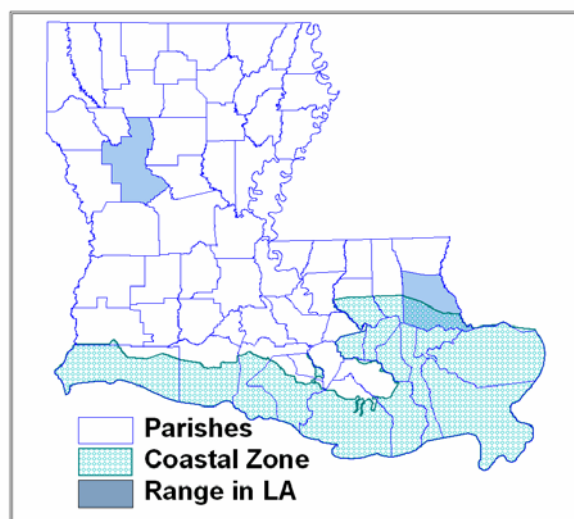
Light Requirement: Full sun to partial shade

Wetland Indicator Status: FACW – Usually occurs in wetlands

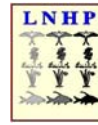
Habitat: Longleaf pine savannahs and hillside seepage bogs.

Threats:

- Conversion of habitat to intensively-managed pine plantations (site prep disturbance and dense tree spacing)
- Fire exclusion or inappropriate timing of fire
- Residential and commercial development
- Lowering of water table or other hydrologic alterations due to ditches, dense tree spacing, etc.
- Rooting by wild hogs



Rare Plants of Louisiana



Beneficial Management Practices:

- Thinning, targeting for removal off-site species such as loblolly and slash pines
- Refrain from creating drainage ditches and plowed fire lines in habitat (prepare fire lines by hand)
- Prescribed burning during April - June
- Minimize soil disturbances that free up growing space for exotics; clean logging equipment prior to entering sites for harvesting to avoid introducing exotics
- Kill more wild hogs

LA River Basins: Pearl, Pontchartrain, Calcasieu, Red River

References:

Chafin, L. G. 2000. Field Guide to the Rare Plants of Florida. Florida Natural Areas Inventory, Tallahassee, Florida.

Godfrey, R. K. and J. W. Wooten. 1981. Aquatic and wetland plants of the southeastern United States: Monocotyledons. University of Georgia Press, Athens, GA. 712 pp.

Goldman D. H., L. K. Magrath, and P. M. Catling 2002. *Calopogon*. In Flora of North America Committee [eds.], Flora of North America north of Mexico, vol. 26, Magnoliophyta: Liliidae: Liliales and Orchidales, 597–602. Oxford University Press, Oxford, UK

NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>

Nelson, G. 2005. East Gulf Coastal Plain wildflowers. The Globe Pequot Press. Guilford, CT. 263 pp.

Rare Plants of Louisiana



Canna flaccida - golden canna Canna Family (Cannaceae)

Rarity Rank: S4? / G4?

	1	2	3	4	5
State					
Global					
	imperiled		rare	secure	

Range: AL, FL, GA, LA, MS, SC, TX (exotic in VA)

Recognition:

- Large perennial to 1.2 m tall, with green herbaceous stems and large flat leaves
- Leaves alternate, to ca 60 cm long and with obvious parallel veins; leaves **not** variegated which is the case in many cultivated exotic cannas
- Flowers **solid yellow**, with **no** red or orange, irregular-shaped and in terminal racemes



Flowering Time: May to August

Light Requirement: Full sun

Wetland Indicator Status: OBL – almost always in wetlands

Habitat:

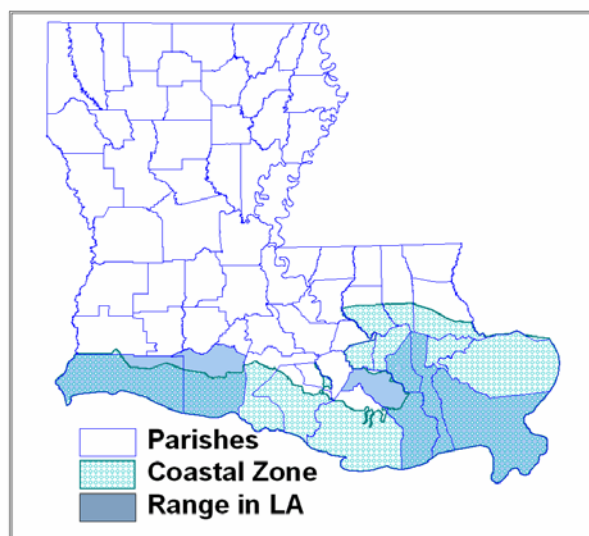
Fresh marsh and open swamps. Since this plant is cultivated and used as an ornamental, some occurrences could be escapes. Records from northern Louisiana are probably escapes and these need to be investigated. Our map shows the distribution of what we currently regard as naturally occurring populations. The current status of this species in Louisiana is not well known and more field work is warranted.

Threats:

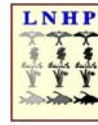
- Salt water intrusion and conversion of marsh to open water
- Lack of knowledge regarding status in LA

Beneficial Management Practices:

- Protection of freshwater marsh and swamps
- Additional field survey work



Rare Plants of Louisiana



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



References:

- Duncan, W. H. and M. B. Duncan. 1987. The Smithsonian guide to seaside plants of the Gulf and Atlantic coasts. Smithsonian Institution Press, Washington. 409 pp.
- Godfrey, R. K. and J. W. Wooten. 1981. Aquatic and wetland plants of the southeastern United States: monocotyledons. University of Georgia Press, Athens, GA. 712 pp.
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- USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA

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Rare Plants of Louisiana



Carex decomposita - cypress-knee sedge Sedge Family (Cyperaceae)

Rarity Rank: S3/G3

	1	2	3	4	5
State					
Global					
	imperiled		rare		secure



Range: Much of the eastern U.S., north to MI and NY.

Recognition:

- A stout, robust, clump-forming sedge to ca 1 m tall, growing almost always on woody substrate such as stumps, floating logs, or living trees
- Inflorescences branched and distinctly drooping
- Perigynia (“sacs” that envelope the female flowers and fruits) dark brown at maturity and widest above the middle (= obovate)
- Plants usually very leafy, leaf blades long and v-shaped in cross-section

Flowering/Fruiting Time: April to June

Light Requirement: Shade to full sun

Wetland Indicator Status:

OBL – almost always occurs in wetlands

Habitat:

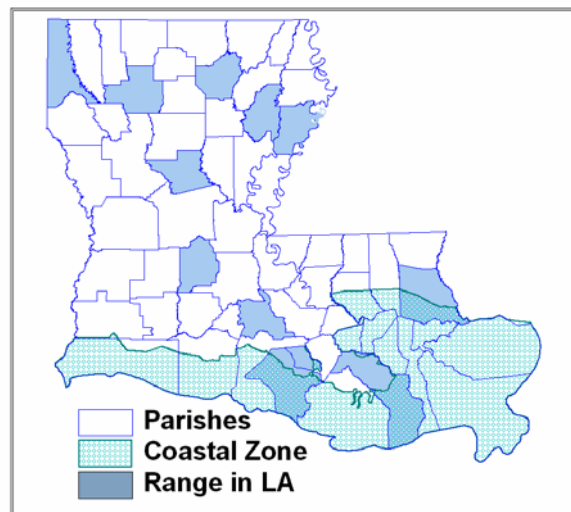
Cypress-tupelo swamps, cypress-studded lakes, isolated natural ponds, beaver ponds, and wet swales in bottomland hardwoods. Almost always grows on woody substrate such as living trees, stumps and logs. Most frequently grows on bald cypress (*Taxodium distichum*) and buttonbush (*Cephalanthus occidentalis*); has also been observed in Louisiana growing on tupelogum (*Nyssa aquatica*), swamp blackgum (*Nyssa biflora*), overcup oak (*Quercus lyrata*), green ash (*Fraxinus pennsylvanica*) and water hickory (*Carya aquatica*).

Threats:

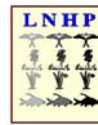
- Alteration of hydrology (drowning or drying)
- Chemical pollution and excess turbidity
- Herbicide drift from adjacent agricultural operations

Beneficial Management Practices:

- Preservation of hydrologic regime
- Protection of lakes and ponds from agricultural run-off



Rare Plants of Louisiana



LA River Basins: Pearl, Pontchartrain, Barataria, Terrebonne, Atchafalaya, Vermilion-Teche, Mermentau, Red, Ouachita



Above: Nodding, drooping inflorescences of *C. decomposita*



Photo by Michael MacRoberts

Top Right: *C. decomposita* growing on a stump in an oxbow lake along the Red River



Bottom Right: *C. decomposita* on baldcypress trees in Cross Lake, Caddo parish, LA; photo taken in October 2006.

References:

Hill, S. R. 2006. Conservation assessment for the cypress knee sedge (*Carex decomposita* Muhl.) (Draft undergoing peer review). USDA Forest Service, Eastern region. Milwaukee, Wisconsin.

NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.

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Rare Plants of Louisiana



Celastrus scandens - climbing bittersweet Bittersweet Family (Celastraceae)

Rarity Rank: S1/G5

	1	2	3	4	5
State	Yellow				
Global					Yellow
	imperiled		rare		secure

Range: Eastern two-thirds of U.S. and Canada

Recognition:

- A high-climbing or tangle-forming woody vine that climbs by twining; rhizomatous and thicket forming
- Leaves are alternate, deciduous, with membranous blades that are oval to lance-shaped, 5 to 10 cm long by 2 to 5 cm wide; leaf margins entire or serrate; leaf tips sharp-pointed
- Flowers greenish-white, small, about 5 mm across, with 5 petals, born in terminal panicles or racemes
- Fruit an orange capsule that splits upon drying, exposing scarlet arils and seeds; persistent and showy, therefore used for ornamental purposes



Thomas G. Barnes @ USDA-NRCS PLANTS Database

Flowering Time: May to June; fruit ripening August to October

Light Requirement: Full sun to shade

Wetland Indicator Status:

FACU – usually occurs in uplands, but occasionally in wetlands

Habitat:

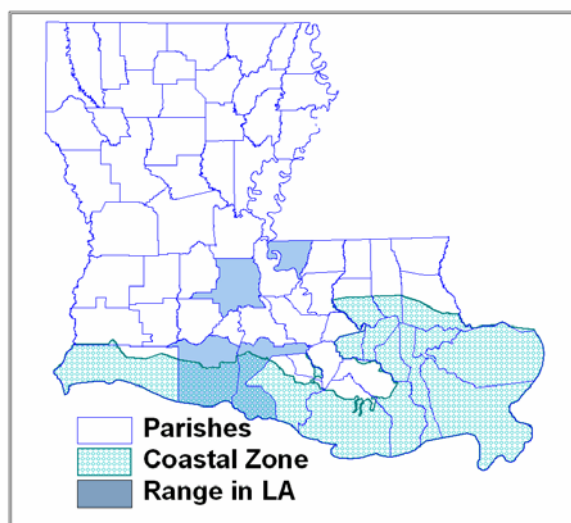
Rich, mesic soils of southern mesophytic forests (loess bluffs), salt dome hardwood forests, and high sites in bottomland hardwoods.

Threats:

- Conversion of native forests to other forest types or agriculture
- Unnatural rates of erosion
- Lack of status information

Beneficial Management Practices:

- Manage remaining rich soil native forests in an ecologically sound manner
- Conduct more field surveys to update data on known occurrences and to detect additional populations



Rare Plants of Louisiana



LA River Basins: Mississippi, Vermilion-Teche



USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. *An illustrated flora of the northern United States, Canada and the British Possessions*. Vol. 2: 493.



Top: *C. scandens* foliage - courtesy University of Wisconsin-Madison and UW-Stevens Point

Bottom: *C. scandens* climbing by twining

References:

Allen, C. M., D. A. Newman, and H. H. Winters. 2002. *Trees, shrubs and woody vines of Louisiana*. Allen's Native Ventures, LLC. Pitkin, LA. 333 pp.

USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

Vines, R.A. 1960. *Trees, shrubs and woody vines of the southwest: a guide for Arkansas, Louisiana, New Mexico, Oklahoma, and Texas*. The Blackburn Press. Caldwell, NJ. 1104 pp.

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Rare Plants of Louisiana



Cenchrus myosuroides - big sandbur Grass Family (Poaceae)

Rarity Rank: S1/G4

	1	2	3	4	5
State	Yellow				
Global				Yellow	
	imperiled		rare		secure

Range: FL, LA, SC, TX, plus Caribbean, Central America and northern South America

Recognition:

- Perennial grass with stems 0.5 to 2 m tall, stout and glaucous
- Inflorescence elongated and bristly in appearance due to “burs” containing spikelets
- Burs consisting of softer flexible spines arranged in a cup, rather than stiff interlocking spines that are characteristic of other sandbur species (and which are more painful when stepped on!)

Flowering Time: May to November

Light Requirement: Full sun

Wetland Indicator Status:

FAC – similar likelihood of occurring in both wetlands and non-wetlands

Habitat:

Shell mounds and low energy shell beaches. Records from Jefferson and Terrebonne are historical. The Jefferson record is based on a specimen collected in the 1930s from Ft. Livingston ruins (fort constructed of shell), while the Terrebonne record is a specimen collected in 1939 from “Little Temple Indian Mound” on Bayou Terrebonne.

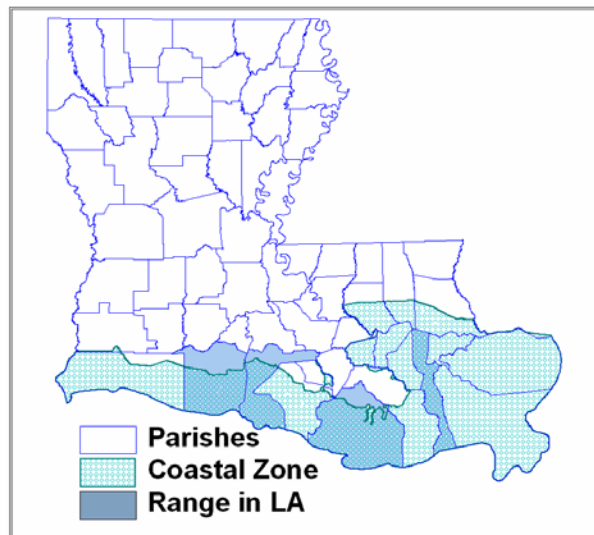
Threats:

- Mining of Native American shell mounds
- Shoreline erosion

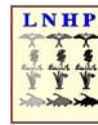
Beneficial Management Practices:

- Survey for and protect remaining shell mounds from disturbance
- Any activities that protect beaches
- Field survey work to detect additional populations of *C. myosuroides*

LA River Basins: Barataria, Terrebonne, Vermilion-Teche, Mermentau



Rare Plants of Louisiana



Cenchrus myosuroides growing on a shell island in a lake on Marsh Island, Iberia Parish.
Photo by Richard Greig

References:

Allen, C. M., D. A. Newman, and H. Winters. 2004. Grasses of Louisiana, 3rd ed. Allen's Native Ventures, LLC., Pitkin, LA. 374 pp.

Diggs, G. M., B. L. Liscomb, M. D. Reed, and R. J. O'Kennon. 2006. Illustrated flora of East Texas. Vol. 1. Botanical Research Institute of Texas & Austin College. 1594 pp.

USDA, NRCS. 2008. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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

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

Rare Plants of Louisiana



Cenchrus tribuloides - dune sandbur Grass Family (Poaceae)

Rarity Rank: S2/G5

	1	2	3	4	5
State		■			
Global					■
	imperiled		rare		secure

Range: Atlantic and Gulf Coasts from NY south to FL and west to LA; exotic in HI

Recognition:

- One of several sandbur grasses that occur on sandy beaches
- Burs larger than those of other sand burs – 9 to 15 mm long by 4 to 7 mm wide, containing 1 spikelet (*C. spinifex*, a more common beach sandbur, has burs narrower than 4 mm wide and that contain more than 1 spikelet)
- Burs densely hairy
- Leaf sheaths noticeably inflated, and leaf blades folded

Flowering Time: June - November

Light Requirement: Full sun

Wetland Indicator Status:

FACU – Usually occurs in uplands but occasionally in wetlands

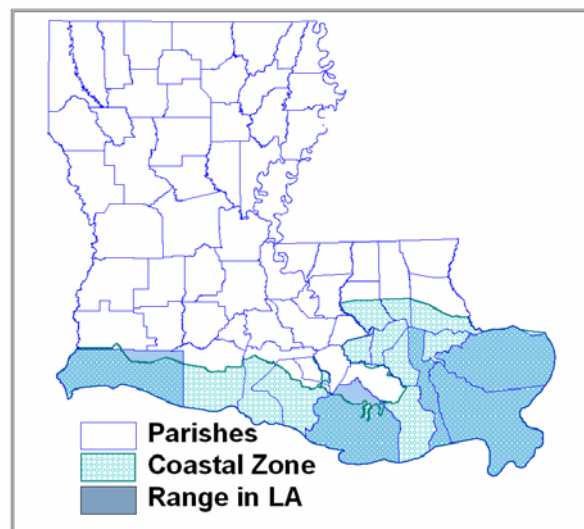
Habitat: High energy Gulf beaches

Threats:

- Damage by human or animal trails and tracks in beach/dune areas
- Off road vehicles
- Beach development

Beneficial Management Practices:

- Shoreline protection
- Protect beach habitat from vehicular traffic, trash dumping, and other degrading human activities

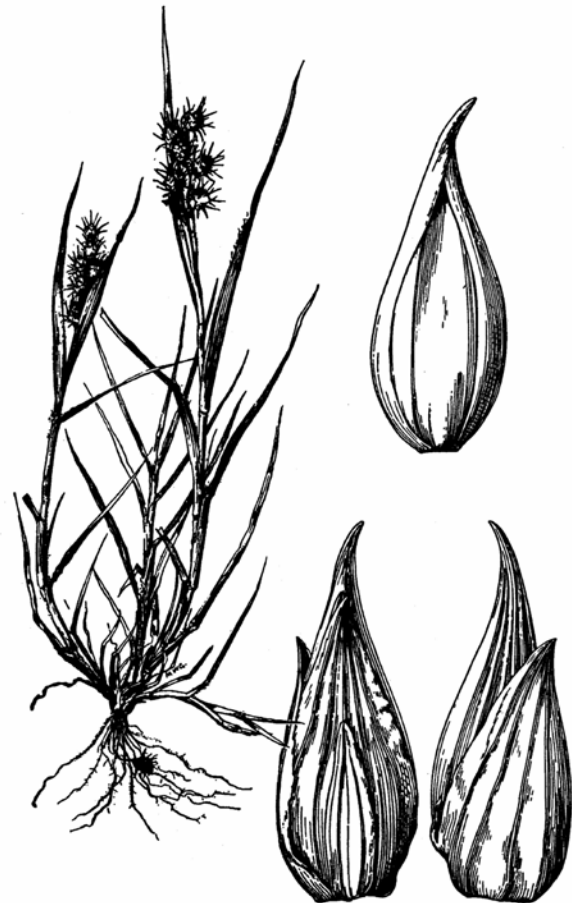


LA River Basins: Pontchartrain, Mississippi, Barataria, Terrebonne, Mermentau, Calcasieu, Sabine

Rare Plants of Louisiana



USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. *An illustrated flora of the northern United States, Canada and the British Possessions*. Vol. 1: 167.



USDA-NRCS PLANTS Database / Hitchcock, A.S. (rev. A. Chase). 1950. *Manual of the grasses of the United States*. USDA Miscellaneous Publication No. 200. Washington, DC.

References:

Allen, C.M., D.A. Newman, and H. Winters. 2004. *Grasses of Louisiana*, 3rd edition. Allen's Native Ventures. Pitkin, LA. 374 pp.

Duncan, W. H. and M. B. Duncan. 1987. *The Smithsonian guide to seaside plants of the Gulf and Atlantic Coasts*. Smithsonian Institution, Washington, D.C. 409 pp.

NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, VA. Available at <http://naturserve.org/explorer>.

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Rare Plants of Louisiana



Ceratopteris pteridoides - floating antler-fern Water Fern Family (Parkeriaceae)

Rarity Rank: S2/G5?

	1	2	3	4	5
State		■			
Global					■
	imperiled		rare		secure



Sterile fronds on a floating plant of *Ceratopteris pteridoides*

Range: FL and LA, south West Indies, Central and South America; also southeastern Asia in Vietnam

Recognition:

- Dimorphic fern with two types of fronds: fertile and sterile
- Sterile fronds form a basal rosette and are broad, thin, glabrous, with net-like venation; simple with pinnate to palmate lobing; ultimate segments round, the basal lobes opposite.
- Petiole bases are inflated to aid in floating
- Fertile fronds are erect, longer than the sterile fronds, and have very narrowly divided segments with in-rolled margins.
- Buds or small vegetative plantlets present on sterile frond margins and eventually separate to form new plants

Light Requirement: Full sun to shade

Wetland Indicator Status:

OBL – almost always in wetlands

Habitat:

Occurs in swamps, sluggish bayous, and ditches and canals; usually floating, occasionally stranded in mud during low water periods.

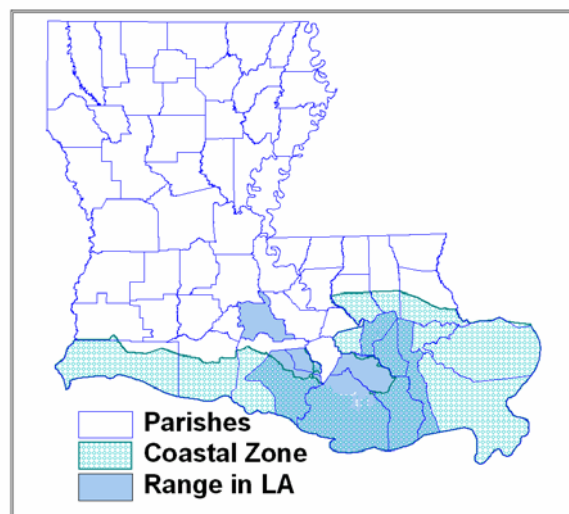
Threats:

Given its aquatic habitat and ability to float freely, there seem to be few threats; salt water intrusion is presumably a threat

Beneficial Management Practices:

Conduct more survey work to detect additional populations and gain more status information

LA River Basins: Pontchartrain, Barataria, Terrebonne, Atchafalaya, Vermilion-Teche



Rare Plants of Louisiana



Below: Typical *Ceratopteris pteridoides* habitat.
Maurepas Swamp WMA

Above: *Ceratopteris pteridoides* at Maurepas Swamp WMA; associated here with abundant *Salvinia minima* which is a problem exotic.



References:

- Lloyd, R. M. 1993. Parkeriaceae. *In* Flora of North America Editorial Committee [eds], Flora of North America north of Mexico, Vol. 2: Pteridophytes and Gymnosperms, 119 – 121. Oxford University Press, Oxford, UK.
- Thieret, J. W. 1980. Louisiana Ferns and Fern Allies. Lafayette Natural History Museum and The University of Southwestern Louisiana, Lafayette, LA. 123 pp.
- USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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

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Rare Plants of Louisiana



Chamaelirium luteum - fairy wand Lily Family (Liliaceae)

Rarity Rank: S2S3/G5

	1	2	3	4	5
State		■	■		
Global					■
	imperiled		rare		secure

Range: Eastern United States

Recognition:

- Flowering stalk is wand-like, with many cream-white flowers at the top of the stalk somewhat resembling a bottlebrush – stems ca 0.6 to 1 m tall
- Basal clump of smooth oblong evergreen leaves, to 20 cm long by 1.5-6 cm wide
- Plants dioecious (male and female flowers born on separate plants)
- Flowers turn yellowish upon drying, hence the specific epithet “*luteum*”



Flowering Time: Late March and April

Light Requirement: Shade

Wetland Indicator Status:

FACU – usually occurs in uplands but occasionally found in wetlands

Habitat:

Mesic acidic sandy loam soils in hardwood slope and mixed hardwood-loblolly pine forests

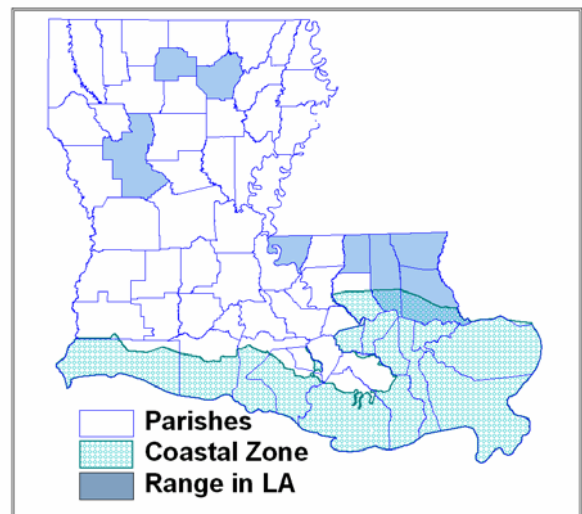
Threats:

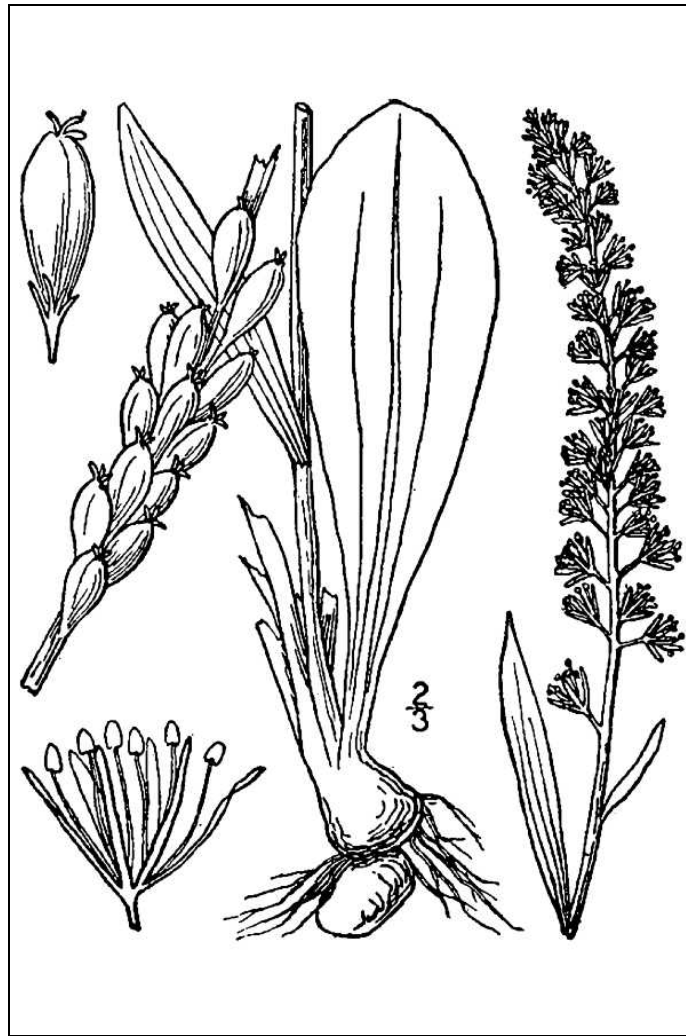
- Conversion of habitat to pine plantations
- Complete overstory removal, which alters understory environment
- Potentially over-collection (?)

Beneficial Management Practices:

- Refrain from harvesting timber on steep slopes; follow Best Management Practices (BMPs) relative to erosion prevention and conservation of streams and stream side habitats
- Selectively harvest timber and minimize ground disturbance in mesic forests

LA River Basins: Pearl, Pontchartrain, Mississippi, Red, Ouachita





USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown.
1913. *An illustrated flora of the northern United States, Canada
and the British Possessions*. Vol. 1: 489.

References:

Larke, J. O., and L. M. Smith. 1994. Rare plants of pine-hardwood forests in Louisiana. Louisiana Department of Wildlife and Fisheries, Baton Rouge.

NatureServe. 2006. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.

Radford, A. E., H. E. Ahles, and C. R. Bell. 1968. Manual of the vascular flora of the Carolinas. University of North Carolina Press, Chapel Hill. 1183 pp.

Rare Plants of Louisiana



Chamaesyce bombensis - sand dune spurge Spurge Family (Euphorbiaceae)

Rarity Rank: S1/G4G5

	1	2	3	4	5
State	Yellow				
Global				Yellow	Yellow
	imperiled		rare		secure

Range: Atlantic and Gulf coast states from VA to TX; elsewhere on Gulf and Caribbean beaches

Recognition:

- Small prostrate herb with opposite leaves; plants exude milky latex when wounded
- Leaves strictly entire (lacking teeth or serration), glabrous, about 3 times as long as wide, to 15 mm long, leaf bases oblique or rounded
- Style branches thicker than the united portion of the style

Flowering Time: June to October

Light Requirement: Full sun

Wetland Indicator Status:

Does not occur in wetlands anywhere in the range.

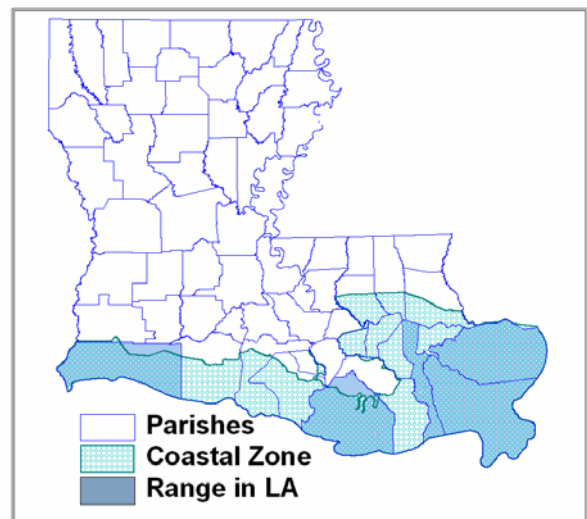
Habitat: Coastal dune grasslands and high energy beaches.

Threats:

- Shoreline erosion
- Human degradation of beaches and sand dunes to include trampling and vehicular traffic

Beneficial Management Practices:

- Beach nourishment and shoreline protection
- Protect beaches and dunes from vehicles and excessive foot traffic
- Conduct field work to relocate this species as all records are rather old



LA River Basins: Pontchartrain, Terrebonne, Mermentau, Calcasieu, Sabine

Rare Plants of Louisiana

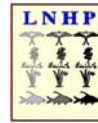


Photo by Diane Ferguson, LSU Herbarium

References:

Correll, D. S. and M. C. Johnston. 1970. Manual of the Vascular Plants of Texas. Texas Research Foundation, Renner. 1881 pp.

USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

Weakley, A. S. 2007. Flora of the Carolina, Virginia, Georgia, and surrounding areas. Working Draft. University of North Carolina Herbarium (NCU), North Carolina Botanical Garden, University of North Carolina, Chapel Hill. <http://www.herbarium.unc.edu/WeakleysFlora.pdf>.

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

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Rare Plants of Louisiana



Chasmanthium ornithorhynchum - bird-bill spikegrass Grass Family (Poaceae)

Rarity Rank: S2/G4

	1	2	3	4	5
State					
Global					
	imperiled		rare		secure

Range: AL, FL, LA, MS

Recognition:

- A rhizomatous grass, 30 to 50 cm tall with erect to reclining stems
- Short contracted panicle with sessile to short-pedicellate, somewhat feathered spikelets.
- Spikelets 7 to 18 mm long by 8 to 17 mm wide, laterally flattened with 5 to 7 florets

Flowering Time: June to October

Light Requirement: Shade – part shade

Wetland Indicator Status:

FACW – usually in wetlands

Habitat:

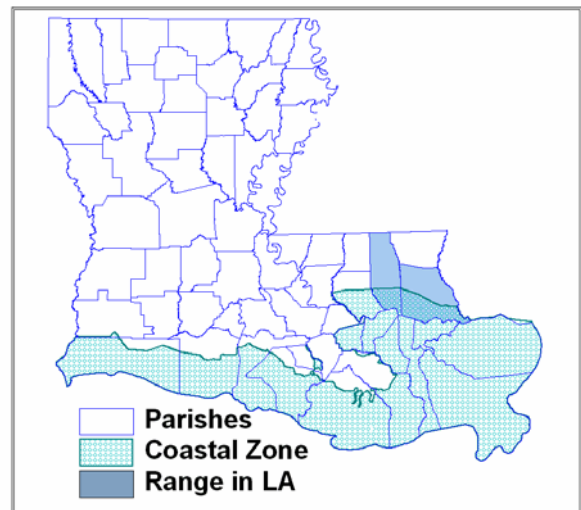
Bayhead swamps and margins of bayheads and wet longleaf pine flatwoods.

Threats:

- Conversion of habitat (pine flatwoods) to other vegetation types
- Hydrological modification by ditching/dredging of streams in bayhead swamps and bedding of pine flatwoods

Beneficial Management Practices:

- Protect flatwoods streams from dredging/ditching
- Incorporate heavier thinning (during very dry periods) and regular burning in management of pine flatwoods
- Allow fires to burn into bayhead swamps rather than placing fire lines at the junction of pine flatwoods and bayhead swamps



LA River Basins: Pearl, Pontchartrain

Rare Plants of Louisiana



Left: Herbarium sheet of *Chasmanthium ornithorhynchum*.

Below: *C. ornithorhynchum* spikelets showing strong lateral compression. From the appearance of the spikelets, one can see the resemblance to bird's bills.

Specimen images courtesy of LSU Herbarium.



References:

Allen, C.M., D.A. Newman, and H. Winters. 2004. Grasses of Louisiana, 3rd edition. Allen's Native Ventures. Pitkin, LA. 374 pp.

NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.

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Rare Plants of Louisiana



Cirsium lecontei – Le Conte’s thistle Sunflower Family (Asteraceae)

Rarity Rank: S2/G2G3

	1	2	3	4	5
State		■			
Global		■	■		
	imperiled		rare		secure

Range: AL, FL, GA, LA, MS, NC, SC

Recognition:

- A perennial thistle, 0.4 to 1.2 m tall
- Plants often unbranched or sparingly branched, with single, terminal flower heads that are well-exserted above the foliage
- Stem and lower leaf surfaces with cob webby hairs (loosing hairs and becoming glabrate with age)
- Mid-stem leaves to 15 cm long, pinnately lobed; leaves gradually reduced in size up the stem
- Corollas are pinkish-purple with feather-like pappus bristles (modified sepals)



Flowering Time: July to October

Light Requirement: Full sun

Wetland Indicator Status:

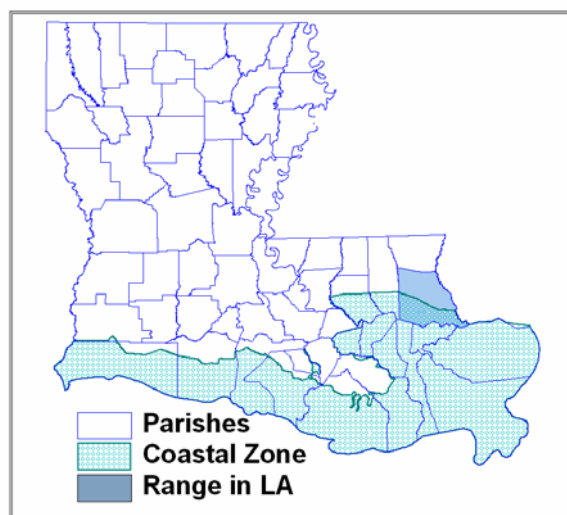
FACW – Usually occurs in wetlands

Habitat:

Longleaf pine flatwoods savannahs.

Threats:

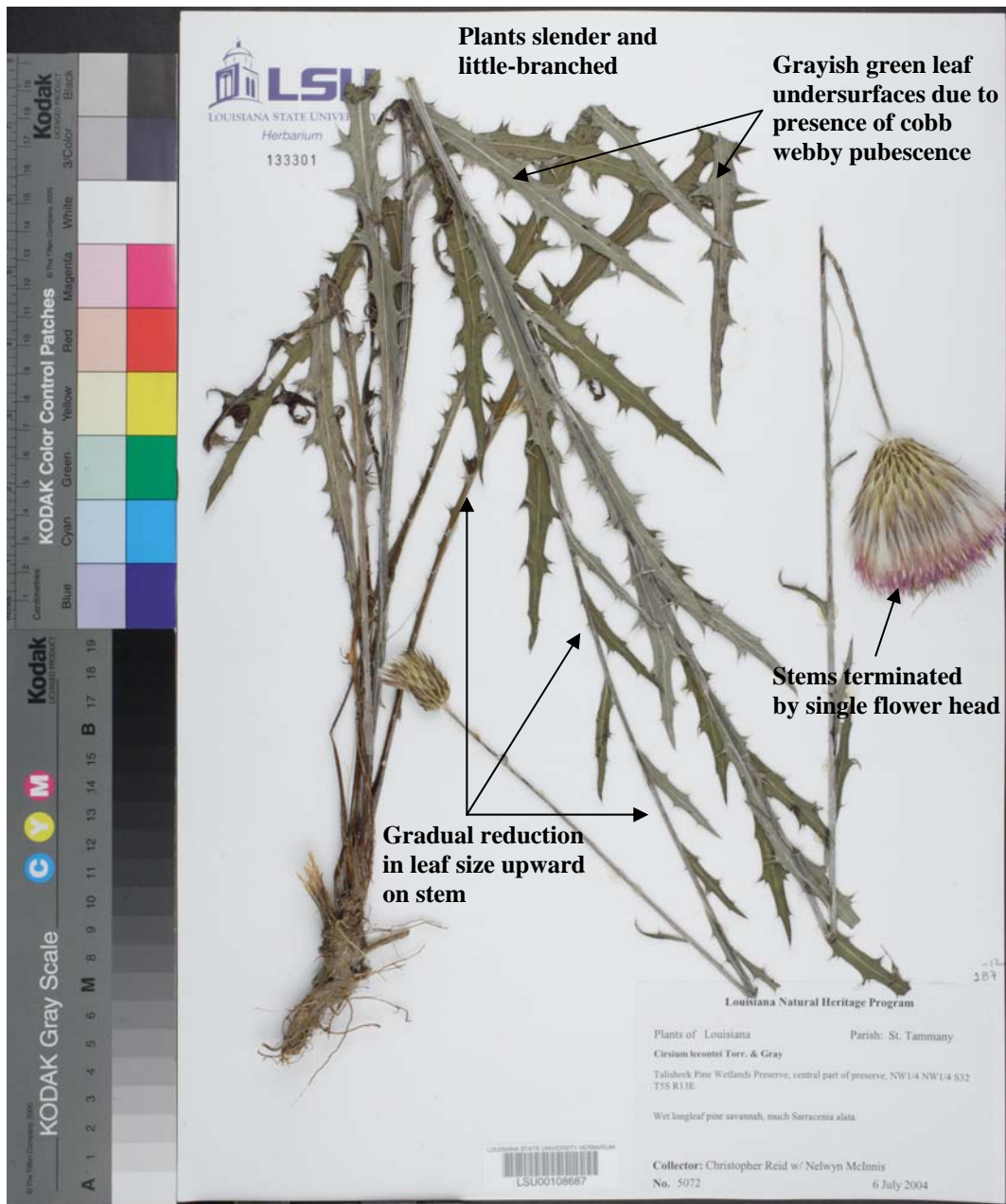
- Conversion of habitat to pine plantation (including site prep activities such as bedding and herbicides)
- Fire exclusion or inappropriate fire timing
- Commercial and residential development



Beneficial Management Practices:

- Prescribed burning, especially during growing season (May to June)
- Thinning of densely-stocked timber (during very dry periods) and maintenance of open stands

LA River Basins: Pearl, Pontchartrain



Herbarium specimen of *Cirsium lecontei*. Courtesy of LSU Herbarium.

References:

Gandhi, K. N. and R. D. Thomas. 1989. Asteraceae of Louisiana. Sida, Botanical Miscellany. 4:1-202.

NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.

Nelson, G. 2005. East Gulf Coastal Plain wildflowers. The Globe Pequot Press. Guilford, CT. 263 pp.

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Rare Plants of Louisiana



Collinsonia canadensis - richweed Mint Family (Lamiaceae)

Rarity Rank: S2?/G5

	1	2	3	4	5
State		■			
Global					■
	imperiled		rare		secure

Range: Ontario and Quebec south to Louisiana and Florida

Recognition:

- Robust herbaceous perennial in the mint family, 0.4 to 1.5 m tall with stems to 8 mm in diameter
- Stems square, thick, erect, and branched above
- Herbage with a citronella-like fragrance
- Leaves opposite, blades large, elliptic to oval, toothed, largest blades 15 to 25 cm long by 7 to 17 cm wide
- Flowers light yellow, 5-parted, with fringed lower lip; flowers in a terminal panicle of racemes
- Flowers have 2 fully developed anthers (the similar *C. serotina* has 2 or 4 anthers)
- Calyx lobes 2.3 to 4.3 mm long, the narrower segments elongated and bristle-like (= subulate)



Thomas G. Barnes @ USDA-NRCS PLANTS Database / Barnes, T.G., and S.W. Francis. 2004. *Wildflowers and ferns of Kentucky*. University Press of Kentucky.

Flowering Time: July to September

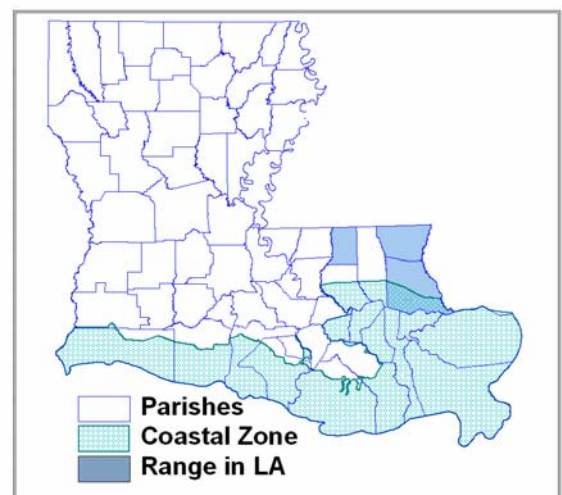
Light Requirement: Shade to Part Shade

Wetland Indicator Status:

FAC – similar likelihood of occurring in both wetlands and non-wetlands

Habitat:

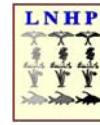
Habitat data is lacking in Louisiana. Records range from hardwood slope forests to upland pine forests. The upland pine reports are within the range of longleaf pine but now support a mix including loblolly and shortleaf pines. Soil moisture status for these sites (mesic, dry etc.) was not recorded. One record on Lee Memorial Forest in Washington Parish is from the base of a slope in a seasonal drainage and is fairly moist, relative to the sandy ridge-top soils, with fire likely burning into the drainage periodically. Field work is needed for *Collinsonia* in Louisiana!



Threats:

- Conversion of native forest types to agriculture/pine plantations
- Lack of knowledge regarding floristics, habitat affinities and rarity status in Louisiana

Rare Plants of Louisiana



Beneficial Management Practices:

- Conduct field and herbarium studies of Louisiana *Collinsonia* in order to better understand the floristics and rarity status in the state

LA River Basins: Pearl, Pontchartrain



Photo by LNHP staff



Photo by Emmet J. Judziewicz:
University of Wisconsin- Stevens Point

References:

- Clewell, A. F. 1985. Guide to the vascular plants of the Florida Panhandle. University Presses of Florida, Florida State University Press, Tallahassee. 605 pp.
- Small, J. K. 1933. Manual of the southeastern flora. University of North Carolina Press, Chapel Hill. 1554 pp.
- USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>, 16 August 2007). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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Rare Plants of Louisiana



Collinsonia serotina – southern horsebalm Mint Family (Lamiaceae)

Rarity Rank: S1/G3G4

	1	2	3	4	5
State					
Global					
	imperiled		rare		secure

Range: AL, FL, GA, LA, MS, NC, SC

Recognition:

- Large erect plant to ca 1 m tall, with opposite, toothed leaves
- Flowers yellowish, small, tubular, born in a terminal inflorescence
- Four fully developed anthers (*C. canadensis* has two)
- Calyx while flowering 3.2 – 7.5 mm long, the lobes acute to tapered rather than long subulate (bristle like)

Flowering Time: July to November

Light Requirement: Shade to part shade

Wetland Indicator Status:

Does not occur in wetlands anywhere in range

Habitat:

Literature reports habitats to include moist hammocks, bluffs and mixed hardwood forests. Louisiana records vary from upland longleaf pine forests to mesic hardwood forests. Scant information exists on the status and habitat preference of this species in Louisiana and further field work and study of herbarium specimens is badly needed.

Threats:

- Lack of basic floristic and status information

Beneficial Management Practices:

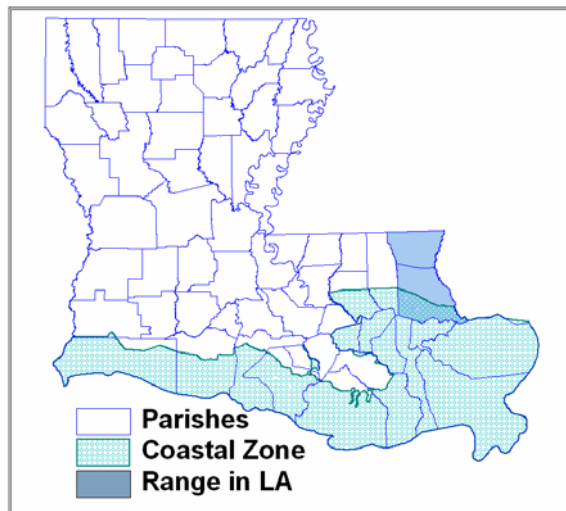
- Conduct field and herbarium studies of Louisiana *Collinsonia* to elucidate our understanding of the distribution, habitat affinity, and rarity status in the state.

LA River Basins: Pearl, Pontchartrain



© James H. Miller

James H. Miller @ USDA-NRCS PLANTS Database / James H. Miller and Karl V. Miller. 2005. *Forest plants of the southeast and their wildlife uses*. University of Georgia Press., Athens.



Rare Plants of Louisiana



References:

Clewell, A. F. 1985. Guide to the vascular plants of the Florida Panhandle. University Presses of Florida, Florida State University Press, Tallahassee. 605 pp.

Nelson, G. 2005. East Gulf Coastal Plain Wildflowers. The Globe Pequot Press. Guilford, CT. 263 pp.

USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

Rare Plants of Louisiana



Coreopsis nudata - Georgia tickseed Sunflower Family (Asteraceae)

Rarity Rank: S2/G3?

	1	2	3	4	5
State		■			
Global			■		
	imperiled		rare		secure



Photo by Lowell Urbatsch

Range: AL, FL, GA, LA, MS

Recognition:

- Plants 0.6-1.2 m tall, stems green, glabrous, and young plants can resemble rushes (*Juncus* spp.)
- Leaves alternate, narrow and tapered, gradually reduced in size from base of stem upward
- Ray flowers a showy lavender to pinkish color, 1.5 to 2.5 cm long, 3-lobed apex measuring 8 to 15 mm broad (this is our only pink *Coreopsis*)

Flowering Time: April

Light Requirement: Part shade to full sun

Wetland Indicator Status: FACW – usually in wetlands

Habitat:

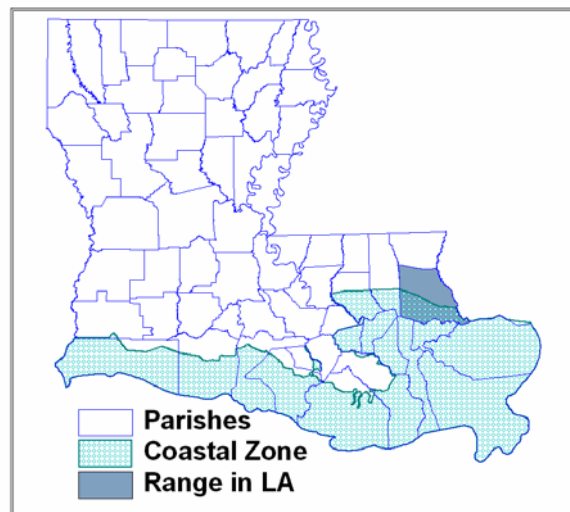
Coreopsis nudata occurs in wet longleaf pine savannahs, particularly where savannahs grade into wetter bayhead swamps which occur along drains and in depressions. Roadside ditches are surrogate habitat for the natural setting which is mostly lacking due to dense trees/shrubs which are present by design (pine plantations) or neglect (fire exclusion).

Threats:

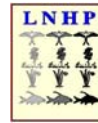
- Conversion of habitat to pine plantations including practices such as bedding, herbicides, dense tree spacing, etc
- Fire exclusion allowing invasion of habitat by woody species
- Alteration of hydrology by bedding, ditching, and indirectly by fire exclusion

Beneficial Management Practices:

- Thinning of timber, which should be done only during very dry periods
- Prescribed burning, establishing a growing season burning regime
- Refrain from bedding and ditching



Rare Plants of Louisiana



LA River Basins: Pearl, Pontchartrain



Coreopsis nudata in a roadside ditch near Abita Springs,

C. nudata from Smith, Sida 6(2), 1975. Courtesy of Botanical Research Institute of Texas, Fort Worth.

References:

- USDA, NRCS. 2002. The PLANTS Database, Version 3.5 (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.
- Thomas, R. D. and C. M. Allen. 1996. Atlas of the vascular flora of Louisiana, Vol. II: dicotyledons, Acanthaceae-Euphorbiaceae. Louisiana Dept. of Wildlife and Fisheries, Baton Rouge.
- Godfrey, R. K. and J. W. Wooten. 1981. Aquatic and wetland plants of southeastern United States: dicotyledons. University of Georgia Press, Athens, GA. 933 pp.
- Gandhi, K. N. and R. D. Thomas. 1989. Asteraceae of Louisiana. Sida, Botanical Miscellany. 4:1-202.
- Smith, E. B. 1976. A biosystematic survey of *Coreopsis* in the eastern United States and Canada. Sida 6(3): 123-215.

Rare Plants of Louisiana



Croomia pauciflora - croomia Stemona Family (Stemonaceae)

Rarity Rank: SH/G3 (Historical in Louisiana)

	1	2	3	4	5
State					
Global					
	imperiled		rare	secure	

Range: AL, FL, GA, LA

Recognition:

- Perennial herb with 4 to 6 leaves clustered at the top of an unbranched stem; stem 10 to 40 cm tall
- Leaf blades elliptic-ovate, 5 to 15 cm long, with heart-shaped (= cordate bases)
- Flowers greenish and sometimes purple tinged, 3 to 5 mm long, on slender, drooping stalks
- Flowers are often hidden by the umbrella-like arrangements of the stem leaves
- Fruit an ovoid capsule 3 to 6 mm
- At first glance *Croomia* may resemble a wild yam (*Dioscorea* spp.), which is a herbaceous vine; *Croomia* may also superficially resemble a herbaceous greenbrier (*Smilax* spp.), also a vine but young plants may not yet have the habit of a vine



Photo by Caroline Dean

Flowering Time: March to April

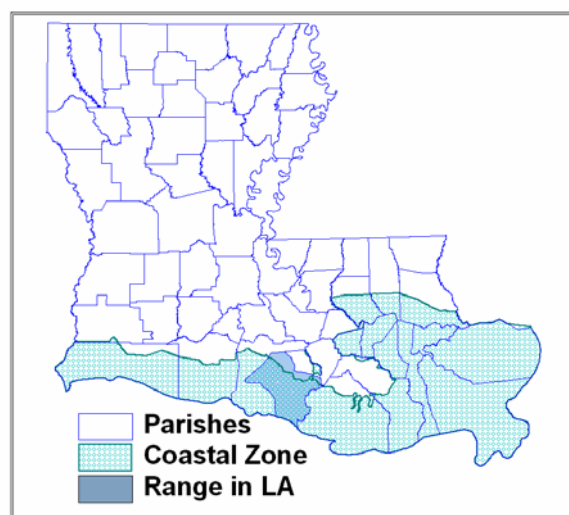
Light Requirement: Shade

Wetland Indicator Status:

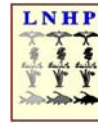
Does not occur in wetlands anywhere in range

Habitat:

In Louisiana we have one historical record based on a specimen collected in April of 1870 with the locality “Brasher City,” which is now Morgan City. Whether the locality is correct or erroneous we do not know. Elsewhere in its range, *Croomia pauciflora* often grows in calcareous soils. Loess-derived soils can be somewhat calcareous, and if the area where Morgan City now sits was at one time an upland forest on high ground, and the soils loess-derived and rich, then the historical record is plausible. Current searches for this species should be carried out in ravines on Weeks and Cote Blanche Islands, which support the least disturbed salt dome hardwood forest habitat, and have rich loess soils.



Rare Plants of Louisiana



Threats:

- Historical and ongoing loss of rich, mesic upland hardwood forests in the coastal zone
- Unnatural rates of erosion
- Exotic species

Beneficial Management Practices:

- Search for this species at Weeks and Cote Blanche Islands!
- Protect remaining salt dome hardwood forest habitat
- Identify and protect “high-sites” in bottomland forests, sites that have the potential to support plants of drier site affinity

LA River Basins: Terrebonne, Atchafalaya, Vermilion-Teche



Photo by C. Johnson, courtesy of Smithsonian Institution

References:

Nelson, G. 2005. East Gulf Coastal Plain wildflowers. The Globe Pequot Press. Guilford, CT. 263 pp.

Small, J. K. 1933. Manual of the southeastern flora. University of North Carolina Press, Chapel Hill. 1554 pp.

USDA, NRCS. 2008. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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

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Rare Plants of Louisiana



Cyperus cephalanthus – cryptic flatsedge Sedge Family (Cyperaceae)

Rarity Rank: S2/G1?Q

	1	2	3	4	5
State		■			
Global	■				
	imperiled		rare		secure

Range: LA and TX

Recognition:

- Large perennial flatsedge, with several to many stems from short, thick rhizomes
- Stems triangular in cross-section, with sharp angles that are scabrous (with a sandpaper-like texture) in the upper portions
- Foliage sparse, with lower leaves reduced and scale-like
- Inflorescence terminal, subtended by several bracts, at least two of which being well-developed and leaf-like
- Inflorescence an umbel with spikelets densely packed into head-like spikes which are supported by short to long stalks (= peduncles or “rays”) that are up to 9 cm long
- Spikes mature from yellowish-green to straw-colored to eventually brown
- Spikelet axis (= rachilla) persistent following shattering of the spikelet



Flowering/Fruiting Time: May to October

Light Requirement: Full sun

Wetland Indicator Status:

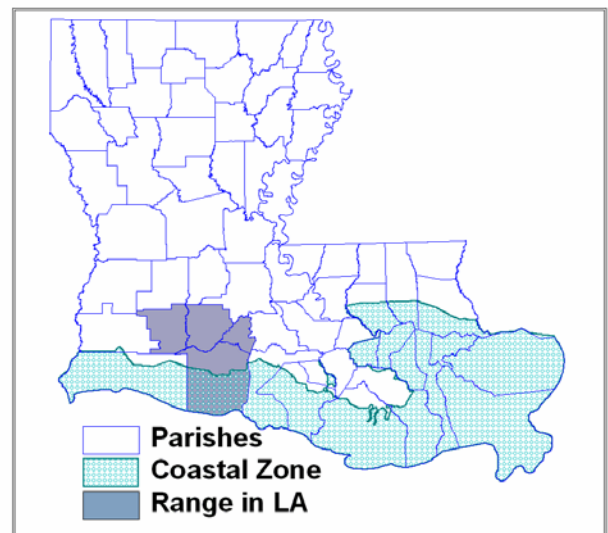
OBL – almost always occurs in wetlands

Habitat:

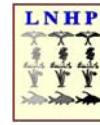
Fringes of depressions in upland coastal prairie and in marsh-fringing coastal prairie at the junction of prairie and marsh.

Threats:

- Historical conversion of nearly all Louisiana coastal prairie to agriculture
- Invasion of prairie remnants by woody species owing to absence of fire or mowing



Rare Plants of Louisiana



Beneficial Management Practices:

- Liberal use of fire in managing functional remnant prairies
- Use of mowing and bailing hay, and, to the extent practical, fire in roadside and railroad prairie remnants
- Conduct surveys to identify previously undetected prairies

LA River Basins: Mermentau, Vermilion-Teche



References:

- Carter, R. and N. McInnis. 1993. Final status report on *Cyperus cephalanthus*. Unpublished report submitted to U.S. Fish and Wildlife Service, Jackson, MS. 140 pp.
- NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.
- Rosen, D. J. and B. J. Christoffersen. 2004. Rediscovery of *Cyperus cephalanthus* (Cyperaceae) in Texas. *Phytologia* 86(2): 107-109.
- USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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

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Rare Plants of Louisiana



Cyperus distinctus - marshland flatsedge Sedge Family (Cyperaceae)

Rarity Rank: S1/G4

	1	2	3	4	5
State					
Global					
	imperiled		rare		secure

Range: FL, GA, LA, SC

Recognition:

- A stout perennial flatsedge with glabrous, round stems, 40 to 60 cm tall
- Inflorescence of hemispheric heads on 5 to 9 stalks (= rays)
- Achenes three angled, the body linear oblong, about 1.5 to 2 mm long by 0.2 to 0.4 mm wide; achenes perched atop a minute stipe (stalk)
- Achenes narrowed toward the base then becoming swollen with spongy bases

Flowering Time: July to October

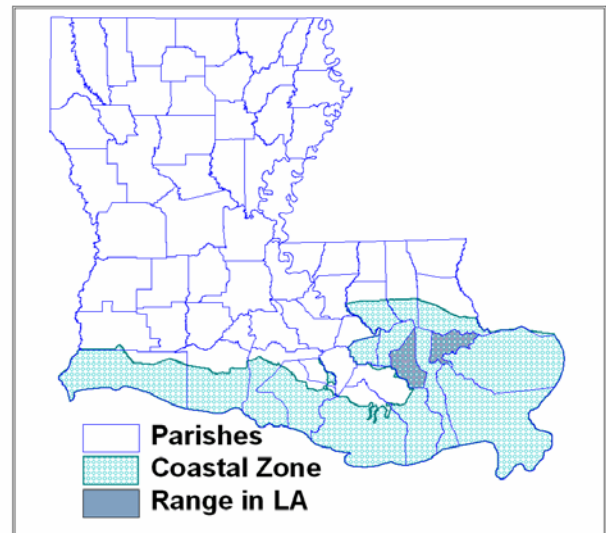
Light Requirement: Full sun

Wetland Indicator Status:

FACW – usually in wetlands

Habitat:

Louisiana has several known occurrences with very little specific habitat data. One occurrence is from the Bonne Carre Spillway in “low wet areas”. Another collection was from a “wet meadow” at Audubon Park in New Orleans. The most recent record is from a wet ditch between US 11 and I-10 in Orleans Parish near Lake Pontchartrain.



Threats:

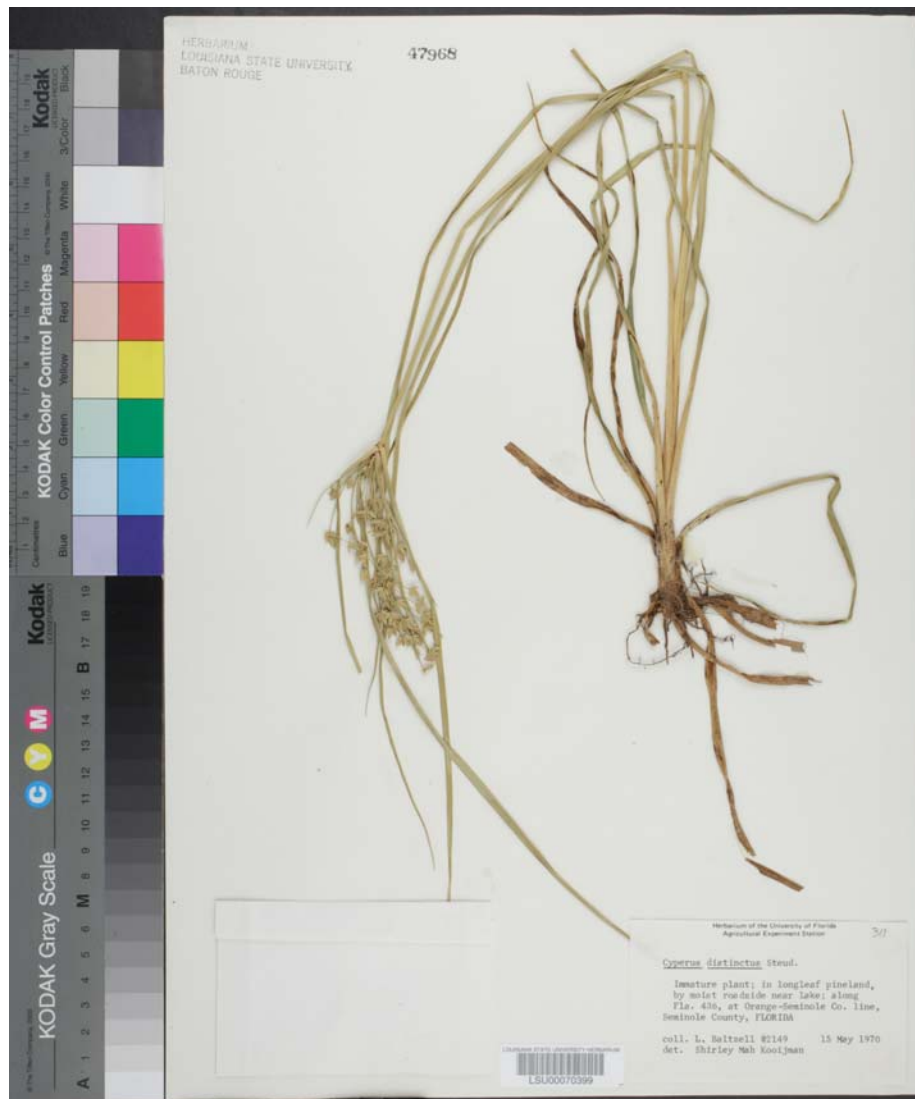
- Very little basic information on status, habitat preference, and associate species in Louisiana

Beneficial Management Practices:

- Needed on-the-ground management actions are unknown
- Review and verify the identification of voucher specimens and conduct field survey work

LA River Basins: Pontchartrain

Rare Plants of Louisiana



Herbarium specimen of *Cyperus distinctus*. Courtesy of LSU Herbarium.

References:

- Clewell, A. F. 1985. Guide to the vascular plants of the Florida Panhandle. University Presses of Florida, Florida State University Press, Tallahassee. 605 pp.
- Godfrey, R. K. and J. W. Wooten. 1981. Aquatic and wetland plants of the southeastern United States: Monocotyledons. University of Georgia Press, Athens, GA. 712 pp.
- Tucker, G. C., B. G. Marcks, and J. R. Carter 2002. *Cyperus*. In Flora of North America Committee [eds.], Flora of North America North of Mexico, vol. 23, Magnoliophyta: Commelinidae (in part): Cyperaceae, 141–191. Oxford University Press, Oxford, UK
- USDA, NRCS. 2008. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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Rare Plants of Louisiana



Dalea emarginata - wedge-leaf prairie clover

Pea Family (Fabaceae)

Rarity Rank: S2/G5

	1	2	3	4	5
State		■			
Global					■
	imperiled		rare		secure



Photo by Alfred Richardson

Range:

- LA, TX, south to Vera Cruz, Mexico
- Known Louisiana occurrences are on beaches between Holly Beach and Johnsons Bayou in Cameron Parish

Recognition:

- Annual with taproot, branches erect to leaning and falling over
- Leaves alternate, compound with 13 to 17 leaflets, 2 to 5 cm long
- Flowers occur in spikes, oblong or cylindrical in shape, 1 to 3 cm long and 1 cm thick in fruit, long stalked
- Corollas are small and rose-purple in color with four of the petals inserted below the end of the stamen tube, and one at the base of the stamen tube
- Fruit is a small 1- or 2-seeded pod that is shaggy pubescent above

Flowering Time: March to December

Light Requirement: Full sun

Wetland Indicator Status:

Does not occur in wetlands anywhere in range

Habitat:

Species occurs in dry sandy Gulf beaches and coastal dune grasslands.

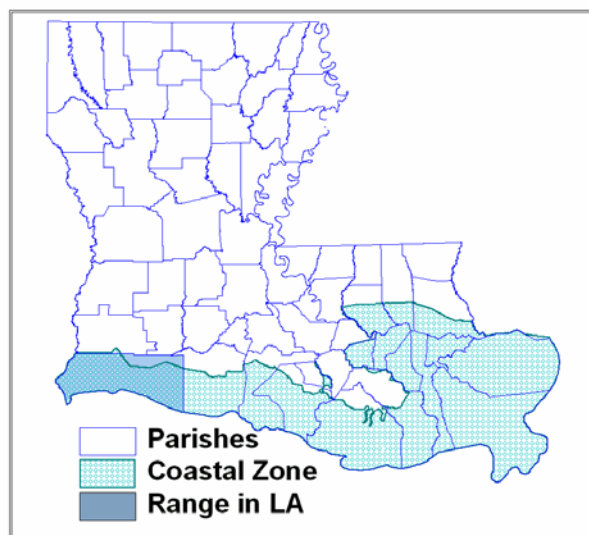
Threats:

- Shoreline erosion
- Vehicular traffic and other mechanical disturbances
- Cattle grazing

Beneficial Management Practices:

- Shoreline protection
- Protection of beaches and sand dunes from cattle and vehicular traffic

LA River Basins: Mermentau, Calcasieu, Sabine



Rare Plants of Louisiana



Two examples of *Dalea emarginata* habitat:

Left: Coastal dune grassland at Johnsons Bayou

Below: Sandy Gulf beach east of Holly Beach



Above: *D. emarginata* inflorescence
Photo by Alfred Richardson



References:

Correll, D. S. and M. C. Johnston. 1970. Manual of the Vascular Plants of Texas. Texas Research Foundation, Renner. 1881 pp.

NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.

Richardson, A. 2002. Wildflowers and other plants of Texas beaches and islands. University of Texas Press, Austin. 247 pp.

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

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Diplazium lonchophyllum - lance-leaved glade fern Wood Fern Family (Dryopteridaceae)

Rarity Rank: S1/G3G5

	1	2	3	4	5
State					
Global					
	imperiled		rare		secure

Range: LA; also Mexico, Central America, and northern South America

Recognition:

- Relatively large attractive fern with glossy fronds
- Sori (clusters of sporangia) are on lateral veins and can be up to 6 mm in length
- Lacks scales on midrib of the fronds and pinnae (frond segments); *Dryopteris ludoviciana*, also a rare fern, has such scales
- Can further be separated from *Dryopteris* by having 1 or 2 vascular bundles in the petiole (seen in cross-section) rather than 3 to 7 bundles
- Teeth on the margins of the pinnae grow closer together towards the tip of each lobe and are more numerous on the upper edges of the lobes



Light Requirement: Shade

Wetland Indicator Status:

Does not occur in wetlands anywhere in range

Habitat:

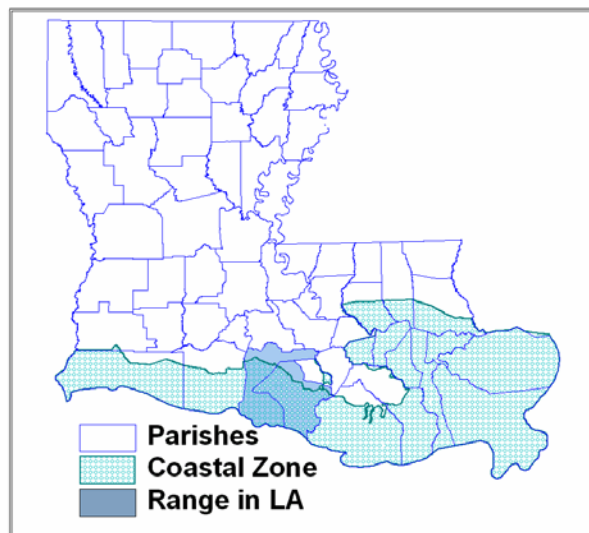
Rich wooded ravines in salt dome hardwood forests on Weeks and Cote Blanche Islands.

Threats:

- Invasive plant species including *Deparia petersenii* (Japanese twin-sorus fern)
- Rooting by feral hogs
- Unnatural rates of erosion

Beneficial Management Practices:

- Kill more wild hogs
- Protect remaining salt dome hardwood forest habitat



Rare Plants of Louisiana



LA River Basins: Vermilion-Teche



Diplazium lonchophyllum growing beside a stream bed in a ravine on Weeks Island, Iberia Parish.

References:

- NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.
- Thieret, J. W. 1980. Louisiana ferns and fern allies. Lafayette Natural History Museum, Lafayette, LA. 123 pp.

Rare Plants of Louisiana



Diplazium pycnocarpon - glade fern Wood Fern Family (Dryopteridaceae)

Rarity Rank: S2/G5

	1	2	3	4	5
State		■			
Global					■
	imperiled		rare		secure



Photo by Emmet J. Judziewicz
University of Wisconsin- Stevens Point

Range: Eastern United States and extending north into Quebec

Recognition:

- Fronds to 1 m tall, once-pinnately compound, the pinnae (divisions of the frond) unlobed
- Sori (clusters of sporangia on the undersides of the pinnae) are elongate, straight or slightly curved.
- Fronds dimorphic, fertile fronds (bearing sori) are a little longer, more erect, and with narrower pinnae than sterile fronds

Light Requirement: Shade

Wetland Indicator Status: FAC – similar likelihood of occurring in both wetlands and non-wetlands

Habitat:

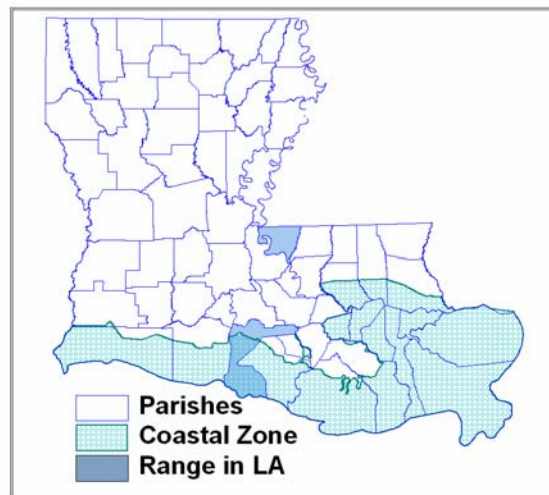
Rich wooded ravines. The coastal zone report is historical from Avery Island. *D. pycnocarpon* may perhaps be present in ravines on other salt domes.

Threats:

- Unnatural rates of erosion
- Invasive exotic species (plants and feral hogs)

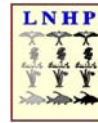
Beneficial Management Practices:

- Protect southern mesophytic and salt dome hardwood forests
- If harvesting timber, adhere to Best Management Practices (BMPs) relative to erosion prevention
- Control of exotic plants and animals
- Conduct additional field surveys on Weeks and Cote Blanche Islands



LA River Basins: Mississippi, Atchafalaya, Vermilion-Teche

Rare Plants of Louisiana



Above: Photo by Elizabeth Parnis
University of Wisconsin- Stevens Point

Right: Photo by Robert W. Freckmann University of
Wisconsin- Stevens Point



References:

- NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.
- Taylor, W. C. 1984. Arkansas ferns and fern allies. Milwaukee Public Museum, Milwaukee, WI. 262 pp.
- Thieret, J. W. 1980. Louisiana ferns and fern allies. Lafayette Natural History Museum, Lafayette, LA. 123 pp.

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Rare Plants of Louisiana



Draba cuneifolia - wedge-leaf whitlow-grass Mustard Family (Brassicaceae)

Rarity Rank: S1/G5

	1	2	3	4	5
State	Yellow				
Global					Yellow
	imperiled		rare		secure



Patrick J. Alexander @ USDA-NRCS PLANTS Database

Range: Generally the southern two-thirds of the United States and extending into northern Mexico

Recognition:

- Plants range in height from 1 to about 10 cm tall
- Plants bearing many star-shaped hairs
- Stems erect, branching out from the base
- Leaves are 8 to 30 mm long and blades are generally spatula-shaped with coarse teeth
- Four petals (white) and four sepals, both 3 to 5 mm long

Flowering Time: March

Light Requirement: Full sun – part shade

Wetland Indicator Status:

Does not occur in wetlands anywhere in range

Habitat:

Interior Louisiana habitats include calcareous prairies and sandhill woodlands. Coastal zone occurrences are in sandy substrate (frequently with fine shell fragments) on cheniers in open conditions, including roadsides and cemeteries.

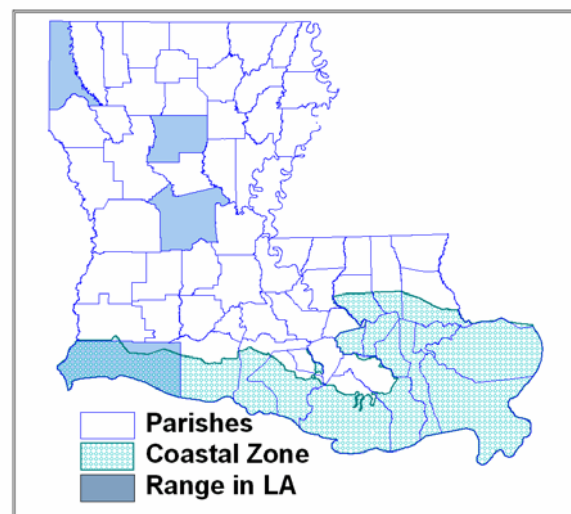
Threats:

- Not much is known about threats – shading is a possible threat

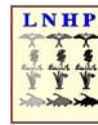
Beneficial Management Practices:

- Maintain open conditions by mowing or burning

LA River Basins: Mermentau, Calcasieu, Sabine, Red, Ouachita



Rare Plants of Louisiana



Herbarium specimen of *Draba cuneifolia*. Note that plants branch from the base. This material is in fruit and fruit is longer than wide (a silique) versus as long as wide (a silicle).

References:

Correll, D. S. and M. C. Johnston. 1970. Manual of the Vascular Plants of Texas. Texas Research Foundation, Renner. 1881 pp.

"*Draba Cuneifolia*." [MissouriPlants.Com](http://www.missouriplants.com). 8 Feb. 2007.

http://www.missouriplants.com/Whitealt/Draba_cuneifolia_page.html.

NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.

Small, J. K. Manual of the southeastern flora. University of North Carolina Press, Chapel Hill. 1554 pp.

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Rare Plants of Louisiana



Dryopteris ludoviciana - southern shield wood-fern Wood Fern Family (Dryopteridaceae)

Rarity Rank: S2/G4

	1	2	3	4	5
State		■			
Global				■	
	imperiled		rare		secure



Range: Southeast U.S. from TX east to FL and north to KY and NC

Recognition:

- Leaves have firm, evergreen or nearly evergreen blades up to 1.2 m long
- Fertile and sterile pinnae are dissimilar in that fertile pinnae are narrower and more widely spaced
- Fertile pinnae are found in the upper 1/2 of the frond with sterile pinnae in the lower 1/2
- Sori (clusters of sporangia on the undersides of the fertile pinnae) are round
- Petiole and costa (= rachis or main axis of frond) have conspicuous cinnamon colored scales

Light Requirement: Shade

Sporulating Time: Spring through fall

Wetland Indicator Status:

FACW – usually in wetlands

Habitat:

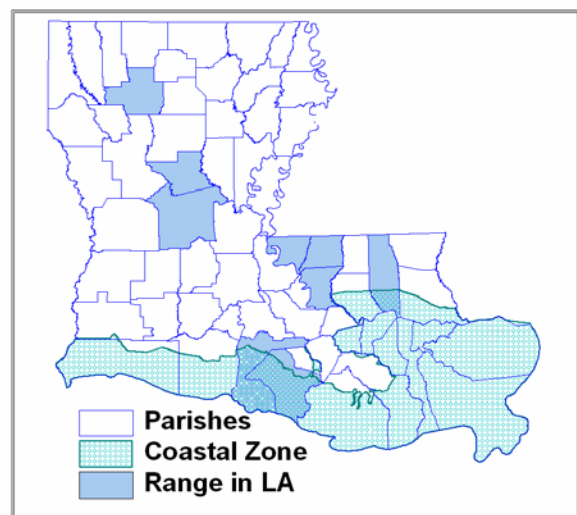
Bottomland hardwood forests, rich ravines in loess hills, prairie terrace loess flatwoods, and forested seeps.

Threats:

- Conversion of habitat to agriculture
- Hydrological alterations

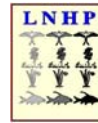
Beneficial Management Practices:

- Prevent conversion of existing natural forests to other land uses
- Maintain natural species composition by following appropriate hardwood management techniques



LA River Basins: Pontchartrain, Mississippi, Terrebonne, Atchafalaya, Vermilion-Teche, Calcasieu, Red, Ouachita

Rare Plants of Louisiana



Fertile pinnae



Dryopteris ludoviciana growing in a forested seep in Bienville Parish.

References:

- Diggs, G. M., B. L. Liscomb, M. D. Reed, and R. J. O'Kennon. 2006. Illustrated Flora of East Texas. Vol. 1. Botanical Research Institute of Texas & Austin College. 1594 pp.
- NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.
- Thieret, J. W. 1980. Louisiana ferns and fern allies. Lafayette Natural History Museum, Lafayette, LA. 123 pp.
- Tobe, J. D., K. C. Burks, R. W. Cantrell, M. A. Garland, M. E. Sweeley, D. W. Hall, P. Wallace, G. Anglin, G. Nelson, J. R. Cooper, D. Bickner, K. Gilbert, N. Aymond, K. Greenwood, and N. Raymond. 1998. Florida wetland plants: an identification manual. Tallahassee: Florida Department of Environmental Protection. 598 pp.

Rare Plants of Louisiana



Echinochloa polystachya - river grass, mudflat millet Grass Family (Poaceae)

Rarity Rank: S2/G5

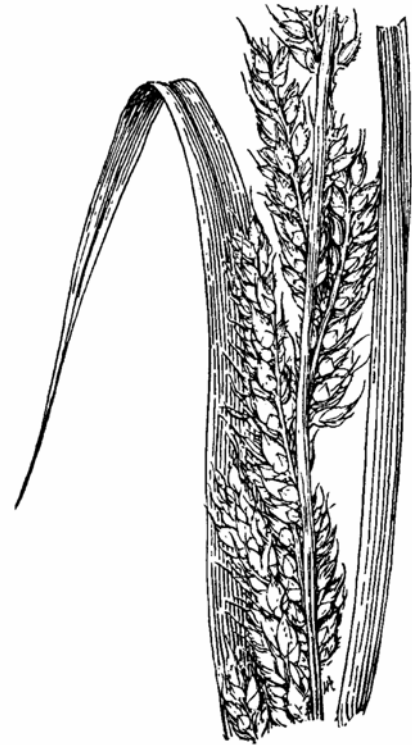
	1	2	3	4	5
State					
Global					
	imperiled		rare		secure

Range:

- FL, LA, TX
- Extends from Cuba into the Tropics

Recognition:

- A perennial millet species with long creeping rhizomes (all of our other millets are annuals) with a tendency to form dense colonies; plants to 1.5 m tall
- Inflorescence a contracted panicle with short branches, appearing spike-like from a distance; panicle can be slightly nodding
- Blades and sheaths are glabrous with ciliate margins
- Ligule (found at junction of blade and sheath on the upper surface) is a dense row of yellow hairs 2 to 4 mm long (ligule absent in our other millet species)
- Lemmas awned with awns to 2 cm long



USDA-NRCS PLANTS Database / Hitchcock, A.S. (rev. A. Chase). 1950. *Manual of the grasses of the United States*. USDA Misc. Publ. No. 200. Washington, DC.

Flowering Time: April to October

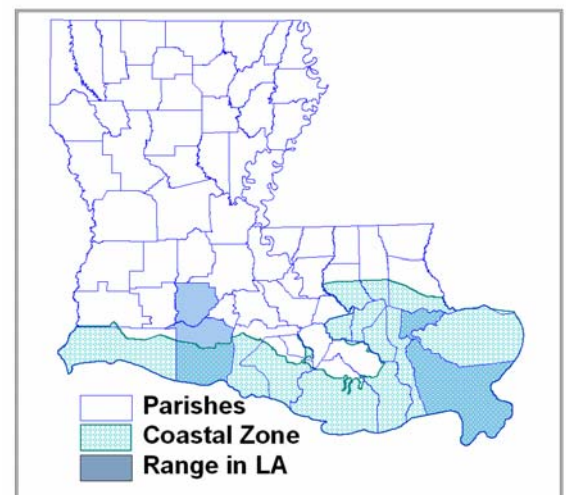
Light Requirement: Full sun

Wetland Indicator Status:

OBL – almost always in wetlands

Habitat:

Freshwater marshes and mudflats; collected in 1930s at Delta National Wildlife Refuge, Plaquemines Parish. Recent records have been from rice fields and crawfish ponds in southwest Louisiana.



Threats:

- Subsidence/changes in hydrology, especially increases in water depth
- Invasive species e.g. non-native strains of *Phragmites australis* which is abundant near the terminus of the Mississippi River

Beneficial Management Practices:

Conduct survey work at Mississippi and Atchafalaya River Deltas

Rare Plants of Louisiana



LA River Basins: Pontchartrain, Mississippi, Barataria, Vermilion-Teche, Mermentau



Specimen images courtesy of LSU Herbarium. Note the narrow contracted panicles and spikelet awns

References:

Allen, C. M., D. A. Newman, and H. Winters. 2004. Grasses of Louisiana, 3rd ed. Allen's Native Ventures, LLC., Pitkin, LA. 374 pp.

NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.

Stutzenbaker, C. D. 1999. Aquatic and wetland plants of the western Gulf Coast. Texas Parks and Wildlife Press. 465 pp.

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Rare Plants of Louisiana



Eleocharis elongata - slim spikerush Sedge Family (Cyperaceae)

Rarity Rank: S3/G5?

	1	2	3	4	5
State					
Global					
	imperiled		rare		secure

Range: NC west to TX; Mexico, Central and South America

Recognition:

- A slender spikerush, with bluntly three-angled to round stems that are 0.5 to 1.5 mm thick; fertile stems to 80 cm tall, erect or reclining and partially floating
- Spikes cylindrical, about as wide as the supporting stem, 1 to 2.5 cm long
- When submersed, stems are very soft and flaccid, not spike-bearing, referred to by some residents in south Louisiana as “angel hair”
- Scales of the spike bearing a brown to black band near their margins



Dense stand of *E. elongata* – stems slender and spikes about as wide as supporting stems

Fruiting Time: Spring – Summer

Light Requirement: Full sun

Wetland Indicator Status:

OBL – almost always in wetlands

Habitat:

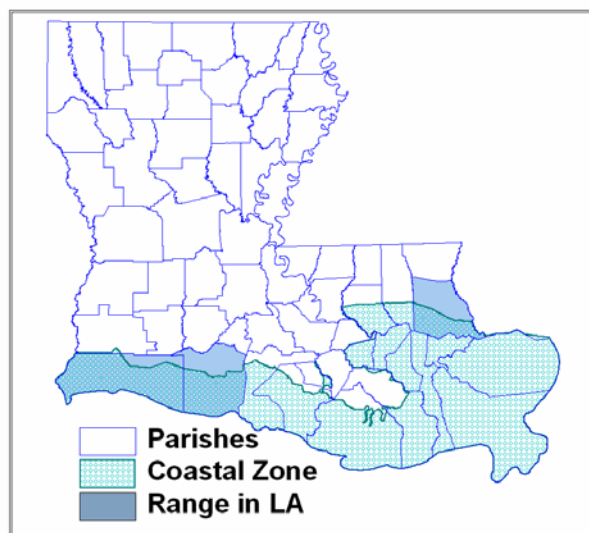
Fresh marsh, especially pools in fresh marsh; lake and bayou shorelines.

Threats:

Conversion of freshwater marsh to other marsh types and to open water

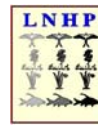
Beneficial Management Practices:

Protection of freshwater marshes



LA River Basins: Pearl, Pontchartrain, Vermilion-Teche, Mermentau, Calcasieu, Sabine

Rare Plants of Louisiana



Left: Dense stand of *Eleocharis elongata* at Lacassine Pool, Cameron Parish.

Right: Submersed form of *E. elongata* referred to locally as “angel hair”. Stems flaccid and sterile. Aerial stems are present in the top part of the image.

Photo taken in a marsh pond in Lacassine Pool, Cameron Parish.



References:

- Diggs, G. M., B. L. Liscomb, M. D. Reed, and R. J. O'Kennon. 2006. Illustrated Flora of East Texas. Vol. 1. Botanical Research Institute of Texas & Austin College. 1594 pp.
- Godfrey, R. K. and J. W. Wooten. 1981. Aquatic and wetland plants of the southeastern United States: Monocotyledons. University of Georgia Press, Athens, GA. 712 pp.
- Gonzales-Elizondo, M. S. 2002. *Eleocharis* subg. *Limnochloa*. In: Flora of North America Editorial Committee [eds]. Flora of North America. Vol. 23: 116-120. Oxford University Press, New York and Oxford.
- NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.

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

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Rare Plants of Louisiana



Eleocharis geniculata - Canada spike-sedge Sedge Family (Cyperaceae)

Rarity Rank: S1?/G5

	1	2	3	4	5
State	Yellow				
Global					Yellow
	imperiled		rare		secure

Range:

- AL, AZ, CA, FL, GA, HI (exotic), IL (rare), IN (rare), KS (rare), LA, MD, MI, MS (rare), NC, NJ, OH (rare), OK, PA, SC, TX
- Also occurs in Ontario (rare), Puerto Rico and the Virgin Islands

Recognition:

- An annual plant growing in tufts and lacking rhizomes
- From 4 to 40 cm tall, usually on the shorter end of the range
- Summit of leaf sheath firm and opaque rather than thin and translucent
- Base of the tubercle (= swollen persistent style base, which sits atop the fruit) is as wide as the summit of the fruit
- Fruits to 1 mm long, black to purplish black, smooth and shiny

Flowering/Fruiting Time: August to October (possibly throughout the growing season)

Light Requirement: Full sun

Wetland Indicator Status: FACW – usually in wetlands

Habitat:

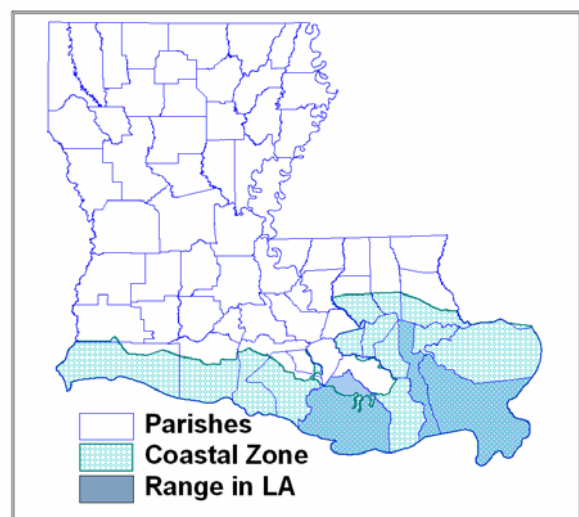
In adjacent states, *E. geniculata* occurs in various fresh to brackish wetlands. Louisiana occurrences are from wet depressions on Grand Isle, South Breton Island, and Timbalier Island.

Threats:

- Coastal land loss
- Succession, causing overgrowth in taller vegetation

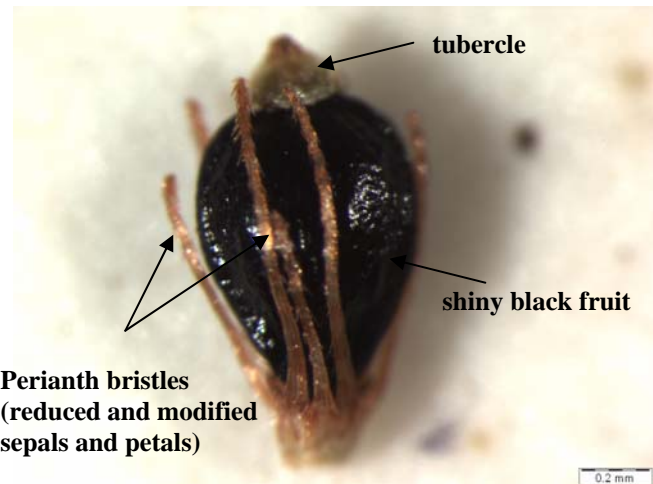
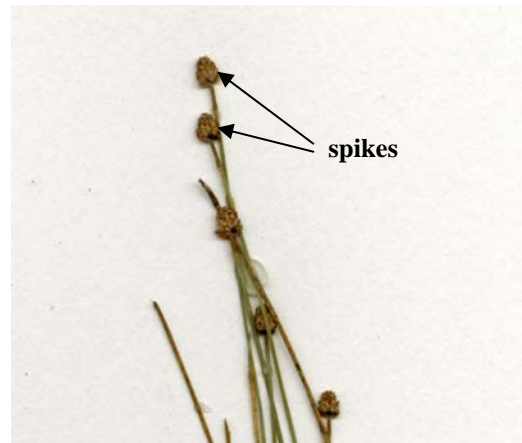
Beneficial Management Practices:

- Barrier island protection
- Additional survey work focusing on depressions behind mainland beaches and dunes is warranted



LA River Basins: Pontchartrain, Mississippi, Barataria, Terrebonne

Rare Plants of Louisiana



References:

Cusick, A. W. "*ELEOCHARIS GENICULATA* (L.) Roem & Schult." Ohio Department of Natural Resources. Feb. 1989. 13 July 2007. <https://www.dnr.state.oh.us/dnap/Abstracts/E-F/eleogeni.htm>.

Diggs, G. M., B. L. Liscomb, M. D. Reed, and R. J. O'Kennon. 2006. *Illustrated Flora of East Texas*. Vol. 1. Botanical Research Institute of Texas & Austin College. 1594 pp.

"*Eleocharis geniculata*." Flora of North America. www.efloras.org. 13 July 2007 http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=242101135.

Godfrey, R. K. and J. W. Wooten. 1981. *Aquatic and wetland plants of the southeastern United States: Monocotyledons*. University of Georgia Press, Athens, GA. 712 pp.

NatureServe. 2007. *NatureServe Explorer: An online encyclopedia of life* [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.

USDA, NRCS. 2007. *The PLANTS Database* (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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Rare Plants of Louisiana



Eleocharis radicans - rooted spike-rush Sedge Family (Cyperaceae)

Rarity Rank: S1?/G5

	1	2	3	4	5
State	Yellow				
Global					Yellow
	imperiled		rare		secure

Range:

- AZ, CA, FL, HI, LA, MI, OK, TX, VA
- Central and South America

Recognition:

- Tiny (3-8 cm tall), mat-forming rhizomatous perennial
- Stems soft and spongy, becoming wrinkled upon drying, 0.2 to 0.5 mm thick
- Achenes with several longitudinal ribs, separating shallow valleys with horizontally elongated cells

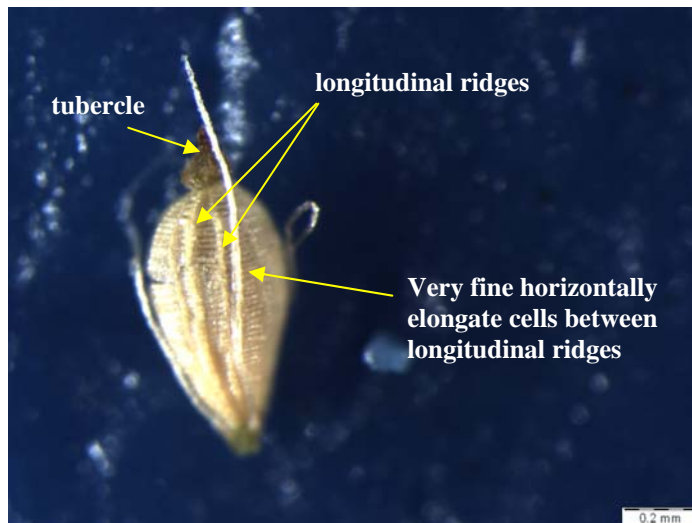


Photo by Diane Feguson, LSU Herbarium

Flowering Time: April to November

Light Requirement: Full sun to part shade

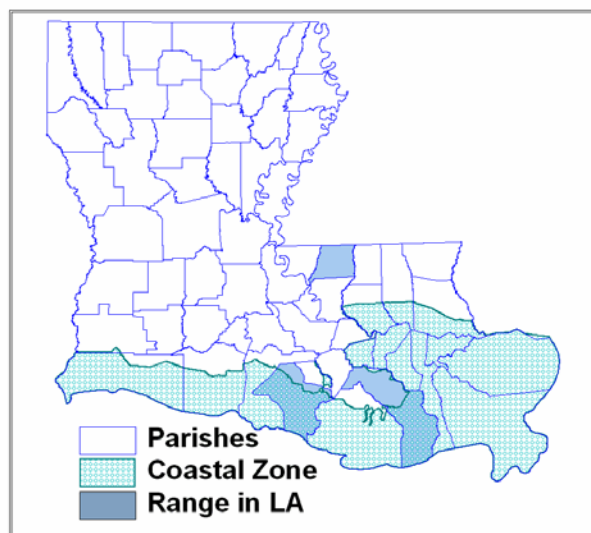
Wetland Indicator Status: OBL – almost always in wetlands

Habitat:

Louisiana records are from forested seeps, floatant marshes, and roadside ditches. It was also recently documented on the Atchafalaya River bank at the Delta on Big Island, where it was growing on decaying woody debris and on black willow root systems that anchor sediment.

Threats:

- Lack of status information. Given the abundance of potential habitat and the paucity of records, we know little about status and threats
- Marsh loss by subsidence and nutria herbivory are potential threats



Beneficial Management Practices:

Conduct more survey work and document additional occurrences with specimens

LA River Basins: Pontchartrain, Mississippi, Barataria, Terrebonne, Atchafalaya, Vermilion-Teche

Rare Plants of Louisiana



Herbarium specimen of *Eleocharis radicans*. Courtesy of LSU Herbarium.

References:

Correll, D. S., and M. C. Johnston. 1970. Manual of the Vascular Plants of Texas. Texas Research Foundation, Renner. 1881 pp.

Diggs, G. M., B. L. Liscomb, M. D. Reed, and R. J. O'kennon. , 2006. Illustrated Flora of East Texas. Vol. 1. Botanical Research Institute of Texas & Austin College. 1594 pp.

"*Eleocharis radicans*." Flora of North America. www.efloras.org. 13 July 2007
http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=242101135.

Godfrey, R. K. and J. W. Wooten. 1981. Aquatic and wetland plants of the southeastern United States: Monocotyledons. University of Georgia Press, Athens, GA. 712 pp.

NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.

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Rare Plants of Louisiana



Eriochloa punctata - punctate cupgrass, Louisiana cupgrass Grass Family (Poaceae)

Rarity Rank: S2/G5

	1	2	3	4	5
State					
Global					
	imperiled		rare		secure

Range: HI (exotic), GA, KS, LA, MD, TX; also tropical America

Recognition:

- Tufted perennial grass, 0.3 to 1 m tall
- Lower stems often bent at nodes, decumbent and freely branching
- Panicle narrow with many overlapping raceme-like branches
- Nodes pubescent, leaf sheaths glabrous, leaf blades sparsely pubescent basally
- Spikelets paired, lanceolate, 4 to 6 mm long, with apices short-acuminate or acute
- Fertile lemma possesses a stiff scabrous awn-like tip which is 0.6 to 1.5 mm long



USDA-NRCS PLANTS Database / Hitchcock, A.S. (rev. A. Chase). 1950. *Manual of the grasses of the United States*. USDA Miscellaneous Publication No. 200. Washington, DC.

Flowering Time: May to September

Light Requirement: Full sun

Wetland Indicator Status:

FACW – usually in wetlands

Habitat:

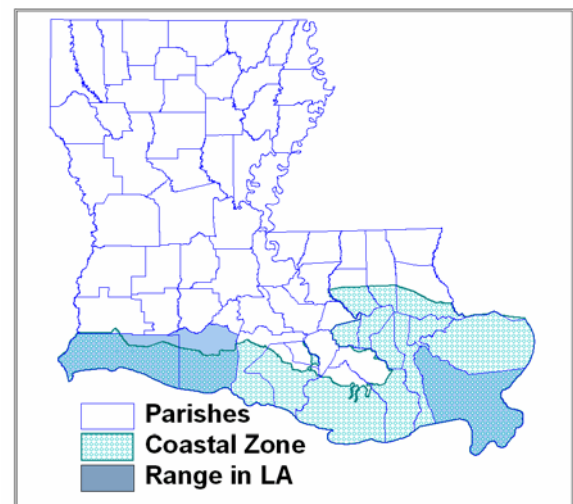
Various wet disturbed areas on the coast with most records being from drainage ditches. There is one record from a coastal prairie in Vermilion Parish.

Threats: Unknown

Beneficial Management Practices: Unknown

LA River Basins:

Pontchartrain, Barataria, Vermilion-Teche, Mermentau, Calcasieu, Sabine



Rare Plants of Louisiana



Specimen images courtesy of LSU Herbarium.

References:

- Allen, C. M., D. A. Newman, and H. Winters. 2004. Grasses of Louisiana, 3rd ed. Allen's Native Ventures, LLC., Pitkin, LA. 374 pp.
- Diggs, G. M., B. L. Liscomb, M. D. Reed, and R. J. O'Kennon. , 2006. Illustrated Flora of East Texas. Vol. 1. Botanical Research Institute of Texas & Austin College. 1594 pp.
- Godfrey, R. K. and J. W. Wooten. 1981. Aquatic and wetland plants of the southeastern United States: Monocotyledons. University of Georgia Press, Athens, GA. 712 pp.
- NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.
- USDA, NRCS. 2008. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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Rare Plants of Louisiana



Fuirena scirpoidea - southern umbrella-sedge Sedge Family (Cyperaceae)

Rarity Rank: S1/G5

	1	2	3	4	5
State	Yellow				
Global					Yellow
	imperiled		rare		secure

Range: AL, FL, GA, IL, LA, MS, NC, TX

Recognition:

- Perennial sedge with long, branched rhizomes from which stems arise at spaced intervals (like pieces of a picket fence)
- Stems to ca 60 cm tall
- Spikes terminal at end of stems, solitary or in clusters (when solitary, superficially resembles *Eleocharis*)
- Awn of spikelet scales not spreading or recurved, thus spikelets do not appear bur-like, as in our other *Fuirena* spp.
- As in all of our *Fuirena* spp., the perianth (reduced petals and sepals collectively) consist of 3 blade-like structures alternating with three bristles (rather than all bristles)
- Leaves mostly consisting of bladeless sheaths



Flowering Time: March to August

Light Requirement: Full sun

Wetland Indicator Status:

OBL – almost always in wetlands

Habitat:

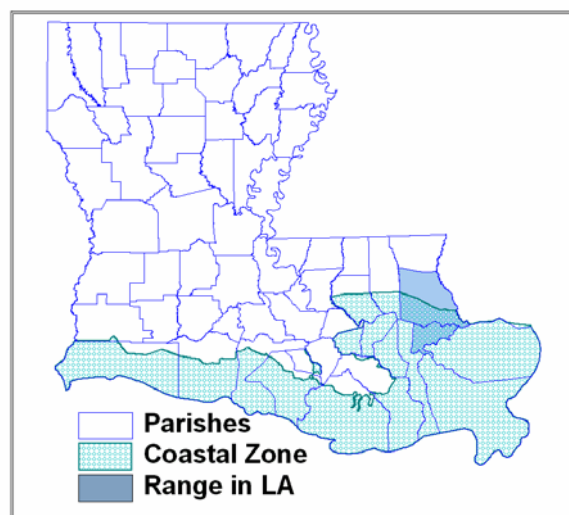
Louisiana's only known extant site is in sandy soil at the edge of a fresh to intermediate marsh near the Pearl River. There is a historical specimen collected in 1902 from "banks of Mississippi River, New Orleans".

Threats:

- Dredging, channeling and leveeing of rivers
- Apparently naturally rare in Louisiana

Beneficial Management Practices:

- Identify and protect the better and larger batture forests and work with Corps of Engineers to conserve sand bars and sandy river banks
- Conduct more field surveys along the Mississippi River and on sandy banks of the Pearl River and tributaries to detect additional populations



Rare Plants of Louisiana



LA River Basins: Pearl, Pontchartrain, Mississippi



creeping rhizome stems well-spaced on rhizome

Specimen images courtesy of LSU Herbarium.

References:

- Duncan, W. H. and M. B. Duncan. 1987. The Smithsonian guide to seaside plants of the Gulf and Atlantic coasts. Smithsonian Institution Press, Washington, D.C. 409 pp.
- Godfrey, R. K. and J. W. Wooten. 1981. Aquatic and wetland plants of the southeastern United States: monocotyledons. University of Georgia Press, Athens, GA. 712 pp.
- NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.
- Tobe, J. D., K. C. Burks, R. W. Cantrell, M. A. Garland, M. E. Sweeley, D. W. Hall, P. Wallace, G. Anglin, G. Nelson, J. R. Cooper, D. Bickner, K. Gilbert, N. Aymond, K. Greenwood, and N. Raymond. 1998. Florida wetland plants: an identification manual. Tallahassee: Florida Department of Environmental Protection. 598 pp.

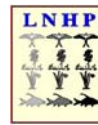
Funding provided by the Louisiana Department of Wildlife and Fisheries and the Barataria-Terrebonne National Estuary Program

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Rare Plants of Louisiana



Halodule beaudettei - shoalweed Manatee-grass Family (Cymodoceaceae)

Rarity Rank: S1S2/G5

	1	2	3	4	5
State	Yellow	Yellow	White	White	White
Global	White	White	White	White	Yellow
	imperiled		rare		secure

Range: AL, CA, FL, LA, MS, TX; elsewhere in Gulf and Caribbean, Pacific coast of Panama and Nicaragua

Recognition:

- Submerged “sea grass” in coastal saline waters
- Plants with creeping stolons that root at the nodes, leaves grass-like
- Leaves very narrow, about 1 mm wide, and flattened, 31 to 46 cm long
- Leaf tips have 3 teeth (if tips not broken off)
- Male and female flowers born on separate plants (= dioecious); flowers inconspicuous and born within leaf sheaths
- Fruits tiny, one-seeded, bulb-like

Flowering Time: Potentially year-round

Wetland Indicator Status:

OBL – almost always in wetlands

Habitat:

This species forms dense marine grass beds in clear, shallow, saline coastal bays with water depths of ca 0.3 to 0.9 m and salinities ranging from 20 to over 35 ppt.

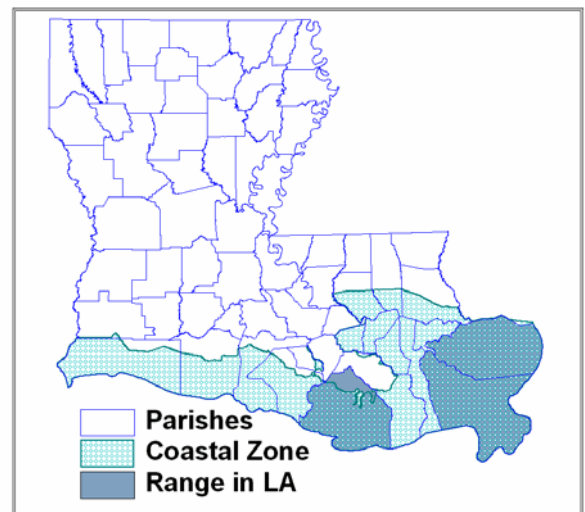
Threats:

- Dredging for channel or pipeline construction
- Any activities that increase turbidity and sediment load
- Spoil deposition on sea grass beds
- Contamination by chemicals

Beneficial Management Practices:

- Protect sea grass beds from mechanical and water quality impacts
- Avoid activities in shallow waters that might increase disturbance and turbidity

LA River Basins: Barataria, Mississippi, Pontchartrain, Terrebonne



Rare Plants of Louisiana



Herbarium specimen images of *Halodule beaudettei* showing very narrow “stringy” leaves arising from stolons (runners).

Images courtesy of LSU Herbarium.

References:

- Godfrey, R. K. and J. W. Wooten. 1981. Aquatic and wetland plants of the southeastern United States: Monocotyledons. University of Georgia Press, Athens, GA. 712 pp.
- Dressler, R.L., D.W. Hall, K.D. Perkins, & N.H. Williams. 1987. Identification manual for wetland plant species of Florida. Institute of Food and Agricultural Sciences, Florida Agricultural Experiment Station, University of Florida, Gainesville. 297 pp.
- Stutzenbaker, C. D. 1999. Aquatic and wetland plants of the western Gulf Coast. Texas Parks and Wildlife Press and University of Texas Press, Austin. 465 pp.
- Tiner, R.W. 1993. Field Guide to coastal wetland plants of the southeastern United States. The University of Massachusetts Press, Amherst. 328 pp.
- USDA, NRCS. 2008. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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Rare Plants of Louisiana



Halophila engelmannii - Gulf halophila Tape-grass Family (Hydrocharitaceae)

Rarity Rank: S1/G3G5

	1	2	3	4	5
State					
Global					
	imperiled		rare		secure

Range:

- FL, LA, MS, TX
- Bahamas; West Indies

Recognition:

- Tiny submersed plant of shallow saline waters, rooted in sea bottom substrate (detached fragments may be seen floating about)
- Leaves opposite, born in two to four pairs at the ends of short erect branches, these branches attached to a horizontal stolon that roots at the nodes
- Leaves are oblong or elliptic, thickened, up to 4 cm long and 8 mm wide, and faintly three-ribbed
- Fruit is a membranous capsule with many seeds

Flowering Time: June to December

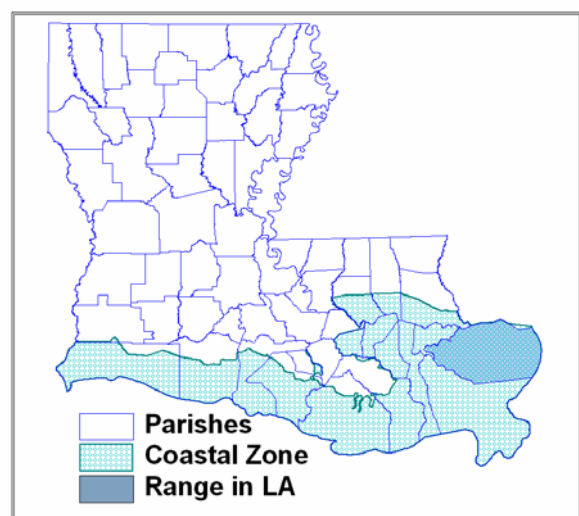
Wetland Indicator Status: OBL – almost always in wetlands

Habitat:

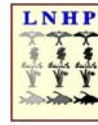
This plant is usually submerged at depths of 2 to 5 feet in marine grass beds. Water salinity may vary, ranging from 20 to over 35 ppt. Occurs in clean waters and most commonly is seen as drifting fragments. In Louisiana, *Halophila engelmannii* occurs in shallow, quiet coastal waters. Often grows with other “sea grasses” such as *Cymodocea filiformis*, *Thalassia testudina* and *Halodule beaudettei*.

Threats:

- Channel dredging and spoil deposition
- Any activities that increase turbidity and sediment load, including excessive boat traffic
- Contamination by chemicals



Rare Plants of Louisiana



Beneficial Management Practices:

- Avoid channel dredging in and around sea grass beds
- Avoid activities in shallow waters that might perturb sediment and increase turbidity

LA River Basins: Pontchartrain

References:

- Godfrey, R. K. and J. W. Wooten. 1981. Aquatic and wetland plants of the southeastern United States: monocotyledons. University of Georgia Press, Athens, GA. 712 pp.
- NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.
- Stutzenbaker, C. D. 1999. Aquatic and wetland plants of the western Gulf Coast. Texas Parks and Wildlife Press. 465 pp.
- Tiner, R. W. 1993. Field guide to coastal wetland plants of the southeastern United States. The University of Massachusetts Press, Amherst. 328 pp.
- USDA, NRCS. 2008. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

Rare Plants of Louisiana



Ilex amelanchier - Sarvis holly Holly Family (Aquifoliaceae)

Rarity Rank: S2/G4

	1	2	3	4	5
State		■			
Global				■	
	imperiled		rare		secure



Range: AL, FL, GA, LA, MS, NC, SC

Recognition:

- Deciduous, multi-stemmed shrub of acidic forested wetlands
- Leaves with entire margins (rarely with a few minute teeth near tips); leaves with strong net-like venation and pubescent with soft hairs on lower surfaces
- Leaves somewhat resemble downy serviceberry (*Amelanchier arborea*), hence the specific epithet
- Fruit is a dull red drupe, 0.5 to 1 cm in diameter

Flowering Time: April and May; fruit in Fall

Light Requirement: Shade to part shade

Wetland Indicator Status: FACW – usually in wetlands

Habitat:

Bayhead swamps, pondcypress-swamp black gum swamps, flatwoods ponds. The only known occurrence of *Ilex amelanchier* west of the Mississippi River is in Vernon Parish in an intermediate-depth flatwoods pond. Soils are poorly drained acidic sands or silts.

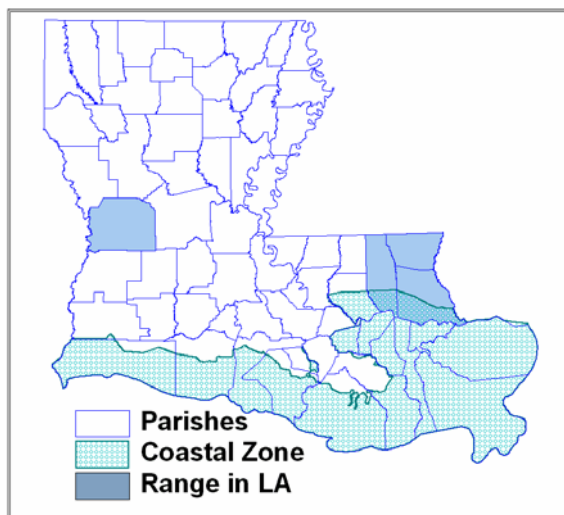
Threats:

Changes in hydrology (e.g. draining or impounding swamps and ponds)

Beneficial Management Practices:

- Do not levee natural flatwoods ponds to enable them to hold more water
- Adhere to Best Management Practices (BMPs) relative to erosion prevention and wetland protection when conducting timber harvesting

LA River Basins: Pearl, Pontchartrain, Calcasieu, Sabine



Rare Plants of Louisiana

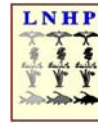


Photo by Lowell Urbatsch

Above: flowers

Left: Dull red fruit

References:

- Allen, C. M., D. A. Newman, and H. H. Winters. 2002. Trees, shrubs and woody vines of Louisiana. Allen's Native Ventures, LLC. Pitkin, LA.
- Larke, J. O., and L. M. Smith. 1994. Rare plants of pine-hardwood forests in Louisiana. Louisiana Department of Wildlife and Fisheries, Baton Rouge. 1994.
- Nelson, G. 1996. The shrubs and woody vines of Florida. Pineapple Press, Sarasota, FL. 391 pp.
- Tobe, J. D., K. C. Burks, R. W. Cantrell, M. A. Garland, M. E. Sweeley, D. W. Hall, P. Wallace, G. Anglin, G. Nelson, J. R. Cooper, D. Bickner, K. Gilbert, N. Aymond, K. Greenwood, and N. Raymond. 1998. Florida wetland plants: an identification manual. Tallahassee: Florida Department of Environmental Protection. 598 pp.
- USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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Rare Plants of Louisiana



Ilex myrtifolia - myrtle holly Holly Family (Aquifoliaceae)

Rarity Rank: S2/G5?

	1	2	3	4	5
State		■			
Global					■
	imperiled		rare		secure

Range: AL, FL, GA, LA, MS, NC, SC, TX



Recognition:

- Evergreen shrub or small tree (not exceeding 5 to 6 m tall), often multi-stemmed from the base
- Leaves narrow, up to 8 mm wide and ranging from 5 to 35 mm in length, stiff and spine-tipped
- Branchlets stiff, borne at angles of 90 degrees or nearly so to the branches from which they arise
- Bark is rough-textured with corky thickenings (especially near the base), pale grey to almost white in color
- Flowers white, small, unisexual, with 4 petals
- Fruit is a bright red (sometimes orange or yellow), round drupe, 5 to 8 mm in diameter, close to the stem, with 4 nutlets

Flowering Time: April to May; **Fruiting:** October to December (to February)

Light Requirement: Part shade to shade

Wetland Indicator Status:

FACW – usually in wetlands

Habitat:

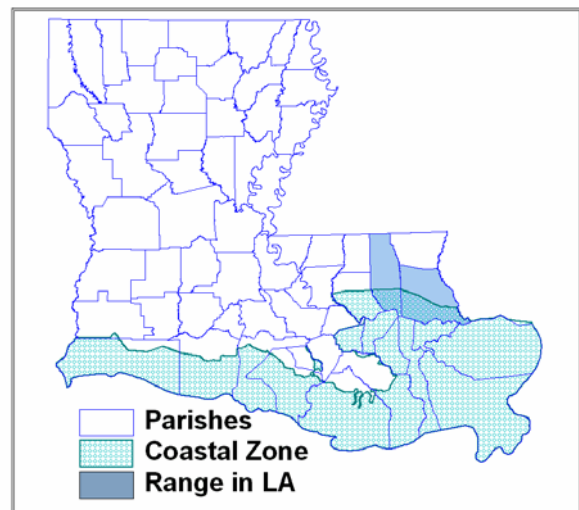
Bayhead swamps imbedded in the longleaf pine flatwoods.

Threats:

Changes in hydrology (drainage/channelizing of streams in bayhead swamps)

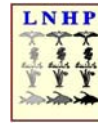
Beneficial Management Practices:

Protection of bayhead swamps and landscape level areas in the longleaf pine flatwoods



LA River Basins: Pearl, Pontchartrain

Rare Plants of Louisiana



References:

- Allen, C. M., D. A. Newman, and H. H. Winters. 2002. Trees, shrubs and woody vines of Louisiana. Allen's Native Ventures, LLC. Pitkin, LA.
- Dressler, R.L., D.W. Hall, K.D. Perkins, & N.H. Williams. 1987. Identification manual for wetland species of Florida. Institute of Food and Agricultural Sciences, Florida Agricultural Experiment Station, University of Florida, Gainesville. 297 pp.
- Tobe, J. D., K. C. Burks, R. W. Cantrell, M. A. Garland, M. E. Sweeley, D. W. Hall, P. Wallace, G. Anglin, G. Nelson, J. R. Cooper, D. Bickner, K. Gilbert, N. Aymond, K. Greenwood, and N. Raymond. 1998. Florida wetland plants: an identification manual. Tallahassee: Florida Department of Environmental Protection. 598 pp.
- USDA, NRCS. 2008. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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Rare Plants of Louisiana



Isoetes louisianensis – Louisiana quillwort

Quillwort family (Isoetaceae)

Rarity Ranks: S2/G2/Fed. listed endangered

	1	2	3	4	5
State		■			
Global		■			
	imperiled		rare		secure



Range: AL, LA, MS

Recognition:

- Plants sedge-like and growing in and along small streams
- Leaves weak and droopy, arranged in whorls radiating from a central point
- Leaves with 4 air chambers visible in cross-section, two above and two below
- Leaves semi-circular in cross-section (true sedges may look similar at a glance but their leaves are often triangular in cross-section and stiffer)

Time When Evident: Winter through Spring – plants go dormant during dry late summer and fall months, but may remain evident during these months if rainfall continues

Light Requirement: Usually found in shade of forest canopy, but can occur where no overstory is present (e.g. beside a bridge).

Wetland Status: OBL - almost always occurs in wetlands

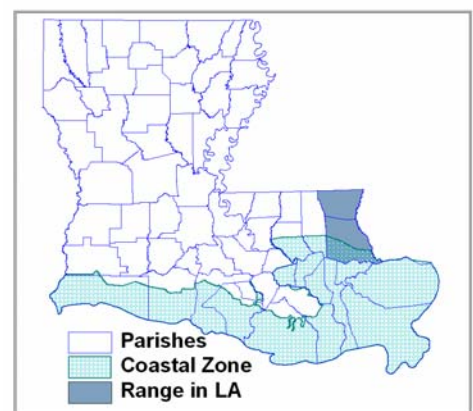
Habitats: Small blackwater streams (water often tea-colored, stained with tannins released from leaf decomposition), often on sand/gravel/mud bars and stream banks. During higher water plants may be partially submersed and leaves may be seen trailing in the current. Adjacent forest type is small stream forest, with laurel oak (*Quercus laurifolia*), water oak (*Q. nigra*), loblolly pine (*Pinus taeda*), sweetbay magnolia (*Magnolia virginiana*), and swamp blackgum (*Nyssa biflora*). Coarser, more stable substrate is apparently preferred and Louisiana quillwort is not usually rooted in soft fine mucky substrate.

Threats:

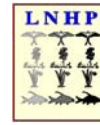
- Dredging and channelizing streams
- Damming of streams to create ponds or reservoirs
- Siltation of streams from upslope activities
- Off-road vehicles and logging equipment impacts

Beneficial management practices:

- Refrain from dredging and channelizing streams and do not create any other modifications to the stream flow hydrology
- Follow Best Management Practices with respect to Streamside Management Zone width (perhaps being more



Rare Plants of Louisiana



- generous) and stream crossings, avoid quillwort colonies when planning stream crossings
- Disallow off-road vehicle access in streams



Louisiana quillwort on gravelly substrate.



Plant submersed with leaves trailing in the current



Louisiana quillwort growing in a semi-aquatic situation.



Robust plant in opening near a bridge.

References:

Kral, R. 1983. A report on some rare, threatened, or endangered forest-related vascular plants of the South. Vol. 1. USDA Forest Service, Tech. Publ. R8-TP2: 1-718.

Leonard, S. W. No year. *Isoetes louisianensis* Thieret. Unpublished Factsheet. The Nature Conservancy, Camp Shelby, Mississippi.

NatureServe. 2006. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.

Thieret, J. W. and G. Landry. *Isoetes louisianensis* (Isoetaceae), a new species from Louisiana. *Sida* 5(2): 129-130. 1973.

Thieret, J. W. 1980. Louisiana ferns and fern allies. Lafayette Natural History Museum, Lafayette. 123 pp.

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

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Rare Plants of Louisiana



Lipocarpha micrantha - small flower hemicarpha Sedge Family (Cyperaceae)

Rarity Rank: SH/G5 (Historical in Louisiana)

	1	2	3	4	5
State					
Global					
	imperiled		rare		secure

Range: Widespread in US and Canada with the exception of the Rocky Mountain area; extends south into tropical America

Recognition:

- Low, tufted, inconspicuous annual sedge
- Stems slender, slightly compressed, 2 to 10 cm tall
- Leaves reduced to sheaths at the bases of the stems, with short blades
- Inflorescences subtended by 3 bracts, one of which appearing as an extension of the stem, thus the inflorescence appearing to be lateral
- Inflorescence of one to several spikelets to about 3 mm long
- Fruit to 1 mm long, with minute bumps arranged in longitudinal lines (the common *Fimbristylis vahlii* has fruits bearing rectangular cells that are arranged in vertical rows)



Photo by John Zaborsky. Courtesy of University of Wisconsin-Stevens Point.

Flowering/Fruiting Time: March to October

Light Requirement: Full sun

Wetland Indicator Status:

OBL – almost always in wetlands

Habitat:

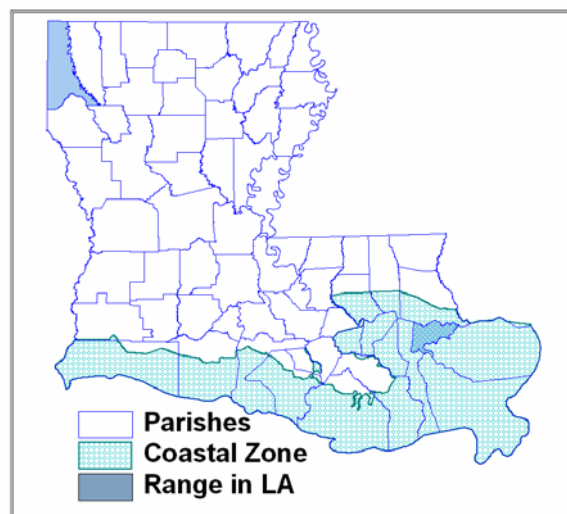
Lipocarpha micrantha is an annual sedge that occurs in drying shorelines. Louisiana records are from the Mississippi River bank in New Orleans (near turn of the 20th century) and the shoreline of Cross Lake in Caddo parish (1950s). This species is possibly overlooked in Louisiana.

Threats: Unknown

Beneficial Management Practices:

Conduct field work to rediscover this species in Louisiana

LA River Basins: Pontchartrain, Red

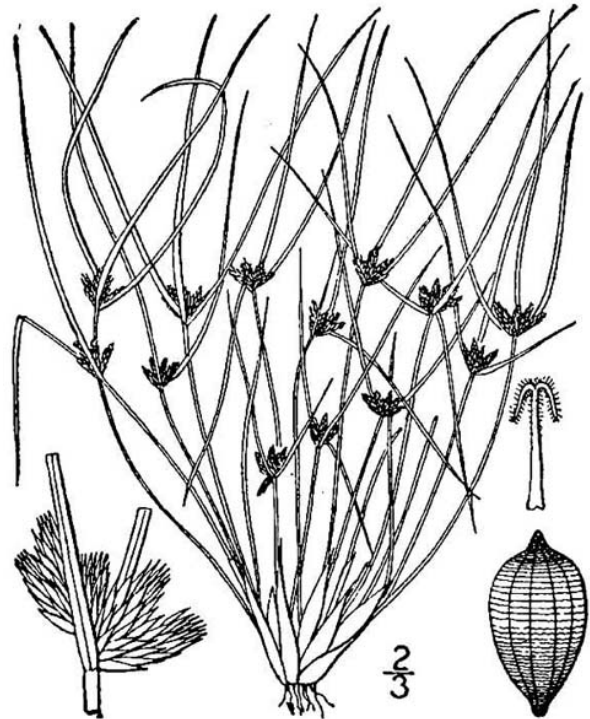


Lipocarpa micrantha



USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. *Illustrated flora of the northern states and Canada*. Vol. 1: 339.

Fimbristylis vahlii, a similar, common species



USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. *Illustrated flora of the northern states and Canada*. Vol. 1: 321.

References:

- Diggs, G. M., B. L. Liscomb, M. D. Reed, and R. J. O'kennon. , 2006. *Illustrated Flora of East Texas*. Vol. 1. Botanical Research Institute of Texas & Austin College. 1594 pp.
- Godfrey, R. K. and J. W. Wooten. 1981. *Aquatic and wetland plants of the southeastern United States: monocotyledons*. University of Georgia Press, Athens, GA. 712 pp.
- NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.
- USDA, NRCS. 2008. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

Rare Plants of Louisiana



Lithospermum incisum - narrow-leaved puccoon Borage Family (Boraginaceae)

Rarity Rank: S1/G5

	1	2	3	4	5
State					
Global					
	imperiled		rare		secure



Range: Western two-thirds of the US

Recognition:

- Perennial with one or more erect stems from a taproot, to 30 - 40 cm tall
- Stem leaves many, linear or narrowly lanceolate, 1 – 4 cm long by 0.4 – 1 cm wide, having sharp stiff appressed (= strigose) hairs; leaves gradually reduced in size upwardly along the stem
- Morphology changes with plant age, with the basal leaves disappearing and the plants becoming more branched and bushy as the spring and summer progress
- Early flowers sterile, yellow, trumpet-shaped, with the edges of the petals crinkled (later flowers fertile, minute, hidden among bracts in the inflorescence)
- Fruit is a small, shiny white, porcelain-like nutlet that is sometimes pitted

Flowering Time: mid March: early, more showy, but sterile flowers; late spring to early summer: minute fertile flowers hidden among leafy bracts in the inflorescence

Light Requirement: Full sun – part shade

Wetland Indicator Status: Does not occur in wetlands

Habitat:

Coastal zone occurrences are on beach ridges in Cameron Parish with shelly-sand substrate. Interior Louisiana occurrences are from calcareous prairies.

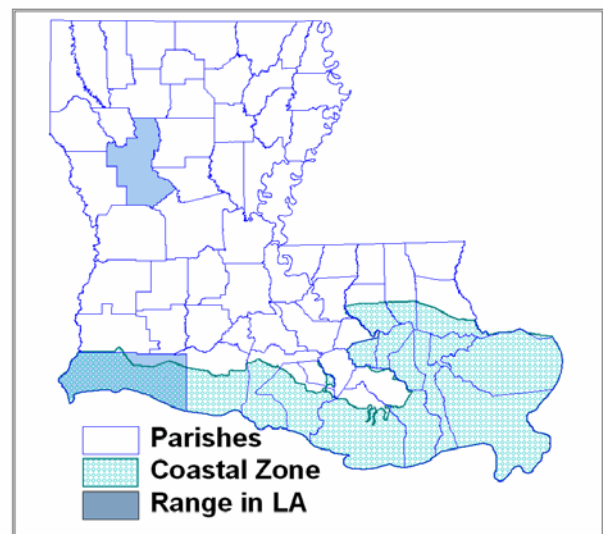
Threats:

- Invasive species, e.g. Japanese honeysuckle (*Lonicera japonica*) which can shade out and smother *Lithospermum incisum*
- Excessive grazing/trampling by cattle

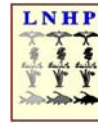
Beneficial Management Practices:

Periodic mowing or burning to maintain open conditions

LA River Basins: Mermentau, Calcasieu, Sabine, Red River



Rare Plants of Louisiana



Lithospermum incisum with “early flowers” in mowed area in trail on sandy substrate with abundant fine shell fragments, Cameron Parish. This is the only recently seen station in the coastal zone, with other Cameron reports being 30-40 years old.

References:

- Allen, C. M. 1997. Identification and distribution of Boraginaceae and Polygalaceae in Louisiana. Proc. Louisiana Acad. Sci. 60: 20-29.
- Brown, C. A. 1972. Wildflowers of Louisiana and adjoining states. Louisiana State University Press, Baton Rouge.
- Correll, D. S., and M. C. Johnston. 1970. Manual of the Vascular Plants of Texas. Texas Research Foundation, Renner. 1881 pp.
- The Great Plains Flora Association. 1986. Flora of the Great Plains. University Press of Kansas. 1402 pp.
- Hunter, C. G. 1992. Wildflowers of Arkansas. The Ozark Society Foundation. 296 pp.
- USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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Rare Plants of Louisiana



Lophiola aurea - golden crest Lily Family (Liliaceae)

Rarity Rank: S2S3/G4

	1	2	3	4	5
State		■	■		
Global				■	
	imperiled		rare		secure



Range: AL, DE, FL, GA, LA, MS, NC, NJ

Recognition:

- Perennial herb, up to 0.7 m tall
- Inflorescence terminal, branching, and covered with white woolly hairs
- Flowers small, bright yellow, and bearded with yellow hairs
- Fruit is egg shaped capsule with yellowish-white seeds
- Roots white or brown rather than red, which characterizes Carolina redroot (*Lachnanthes caroliniana*), a common associate that is somewhat similar

Flowering Time: April to July

Light Requirement: Full sun

Wetland Indicator Status: OBL – almost always in wetlands

Habitat: Longleaf pine flatwoods savannahs

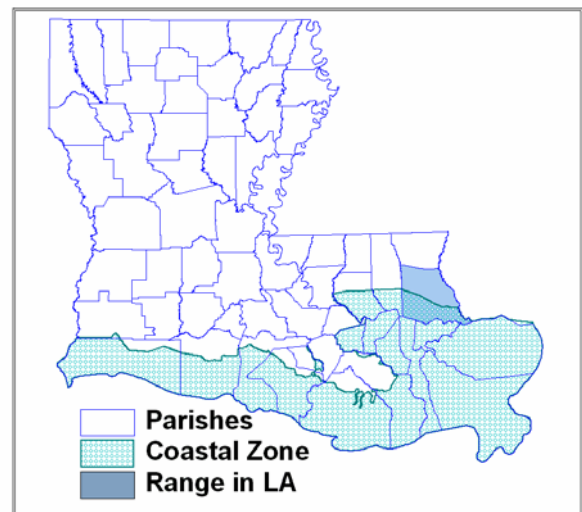
Threats:

- Conversion of savannah habitat to densely stocked pine plantations and concomitant detriments such as bedding and chemical site prep
- Fire exclusion
- Residential and commercial development
- Modification of hydrology

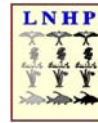
Beneficial Management Practices:

- Thinning of timber (during very dry conditions)
- Prescribed burning, establishing a growing season burning regime

LA River Basins: Pearl, Pontchartrain



Rare Plants of Louisiana



Lophiola aurea

Lophiola aurea, here associated with the horned beaksedge (*Rhynchospora corniculata*)

References:

Nelson, G. 2005. East gulf coastal plain wildflowers. The Globe Pequot Press. Guilford, CT. 263 pp.

Tobe, J. D., K. C. Burks, R. W. Cantrell, M. A. Garland, M. E. Sweeley, D. W. Hall, P. Wallace, G. Anglin, G. Nelson, J. R. Cooper, D. Bickner, K. Gilbert, N. Aymond, K. Greenwood, and N. Raymond. 1998. Florida wetland plants: an identification manual. Tallahassee: Florida Department of Environmental Protection. 598 pp.

USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

Rare Plants of Louisiana



Ludwigia alata - winged primrose willow Evening Primrose Family (Onagraceae)

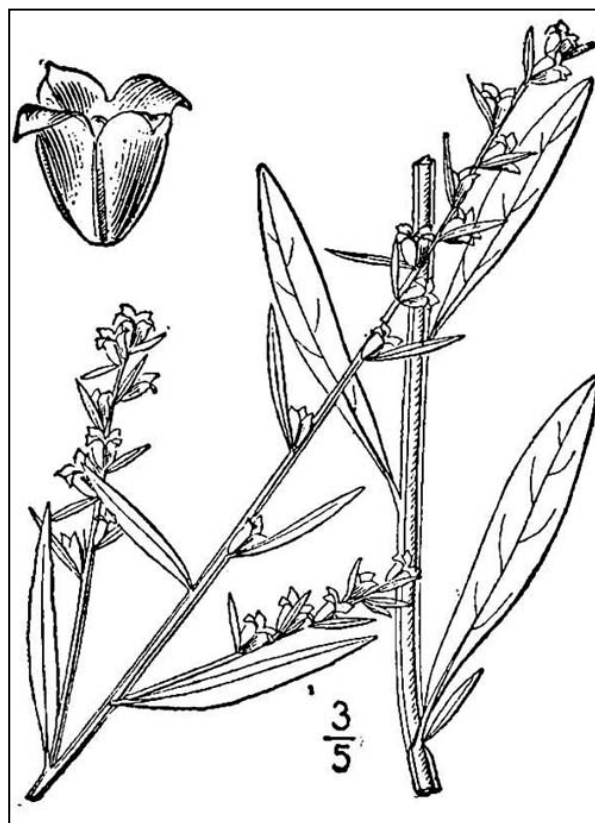
Rarity Rank: S1/G3G5

	1	2	3	4	5
State	Yellow	White	White	White	White
Global	White	White	Yellow	Yellow	Yellow
	imperiled		rare		secure

Range: AL, FL, GA, LA, MS, NC, SC, VA

Recognition:

- A slender, erect, glabrous perennial 0.4 to 0.8 m tall, simple or moderately branching
- Submerged portions of the stem are spongy, as is the case with other *Ludwigia* spp.; has leafy autumnal stolons
- Leaves alternate, narrowly lanceolate or linear, 3 to 6 cm long by 2 to 8 mm wide, acute at tips and bases
- Flowers solitary, sessile in the leaf axils, well-separated rather than congested
- Petals absent, sepals 4
- Fruit is a 4-angled capsule, the angles narrowly winged, 3 to 4 mm long by the same in width



USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. *Illustrated flora of the northern states and Canada*. Vol. 2: 587.

Flowering Time: June to September

Light Requirement: Full sun to part shade

Wetland Indicator Status:

OBL – almost always in wetlands

Habitat:

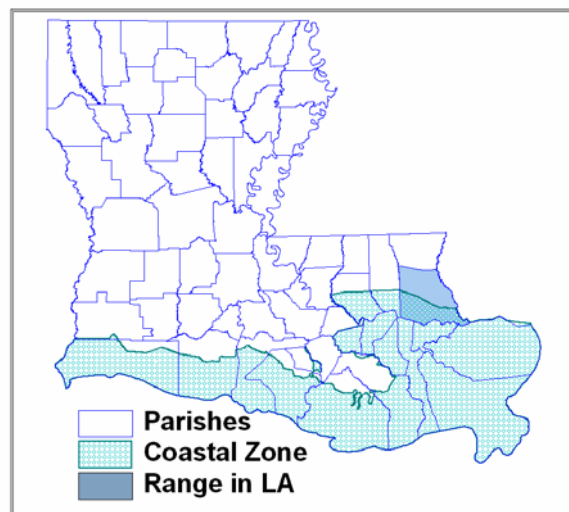
Louisiana stations represent the westernmost in the range of this species. Here it has been found in wet depressions in longleaf/slash pine flatwoods near the north shore of Lake Pontchartrain.

Threats:

Salt water intrusion (?)

Beneficial Management Practices:

Conduct field inventory work to determine current status



LA River Basins: Pearl, Pontchartrain



Specimen of *Ludwigia alata*. Courtesy of LSU Herbarium.

References:

- Clewell, A. F. 1985. Guide to the vascular plants of the Florida Panhandle. University Presses of Florida. Florida State University Press, Tallahassee. 605 pp.
- Duncan, W. H. and M. B. Duncan. 1987. The Smithsonian guide to seaside plants of the Gulf and Atlantic Coasts. Smithsonian Institution, Washington, D.C. 409 pp.
- Godfrey, R. K. and J. W. Wooten. 1981. Aquatic and wetland plants of southeastern United States: dicotyledons. University of Georgia Press. Athens, GA. 933 pp.
- NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.

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Rare Plants of Louisiana



Melanthera nivea - snow melanthera Sunflower Family (Asteraceae)

Rarity Rank: S2/G5

	1	2	3	4	5
State		■			
Global					■
	imperiled		rare		secure

Range: AL, FL, GA, IL, KY, LA, MS, SC, TN

Recognition:

- Coarse perennial with variable morphology, to 2 m tall in rich forest soils in shade while plants in sunny locations may be less than 1 m
- Stems 4-angled, often with purple splotches; stems bearing stiff hairs
- Leaves opposite, elliptic or ovate in shape, up to 12 cm long by 6 cm wide (plants in sunny situations may have narrower leaves with basal lobes)
- Leaves rough in texture, coarsely toothed, often triple-nerved
- Flower heads discoid (lacking ray flowers) – corollas snowy white (sometimes suffused with purple)



Photo by Dennis D. Horn
<http://tenn.bio.utk.edu/vascular/>

Flowering Time: May to October

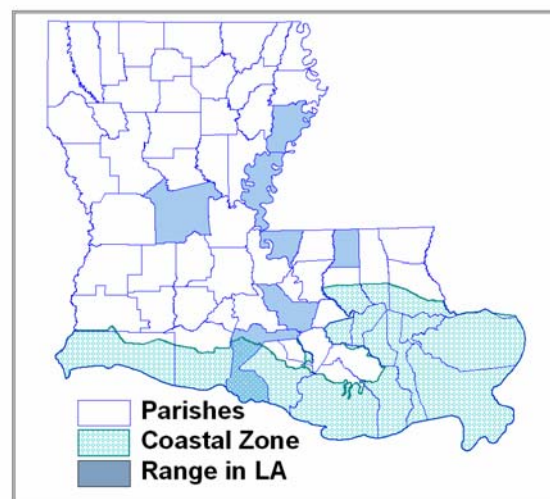
Light Requirement: Shade to part sun

Wetland Indicator Status:

FACU – usually occurs in uplands but occasionally found in wetlands

Habitat:

Coastal Zone occurrences are on rich soils of salt domes, in and on the edges of salt dome hardwood forests. Most interior Louisiana occurrences are in bottomland hardwood forests.



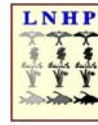
Threats:

- Conversion of rich bottomland and loess upland forest to agriculture or other forest types
- Unnatural rates of erosion

Beneficial Management Practices:

Protect remaining salt dome hardwoods

Rare Plants of Louisiana



LA River Basins: Pontchartrain, Mississippi, Terrebonne, Atchafalaya, Vermilion-Teche, Red River, Ouachita



Photo by Thomas G. Barnes
<http://tenn.bio.utk.edu/vascular/>

References:

- Gandhi, K. N. and R. D. Thomas. 1989. Asteraceae of Louisiana. *Sida, Botanical Miscellany*. 4:1-202.
- NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.
- Nelson, G. 2005. *East Gulf Coastal Plain wildflowers*. The Globe Pequot Press. Guilford, CT. 263 pp.
- Tobe, J. D., K. C. Burks, R. W. Cantrell, M. A. Garland, M. E. Sweeley, D. W. Hall, P. Wallace, G. Anglin, G. Nelson, J. R. Cooper, D. Bickner, K. Gilbert, N. Aymond, K. Greenwood, and N. Raymond. 1998. *Florida wetland plants: an identification manual*. Tallahassee: Florida Department of Environmental Protection. 598 pp.

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Rare Plants of Louisiana



Mimulus ringens - square-stemmed monkey flower Figwort Family (Scrophulariaceae)

Rarity Rank: S2/G5

	1	2	3	4	5
State		■			
Global					■
	imperiled		rare		secure

Range: Eastern half of Canada and US, except FL; several western states.

Recognition:

- Plants ca 0.3 to 1 m tall, perennial
- Leaves opposite, sessile, sometimes clasping the stem
- Angles of the stem rounded and NOT winged (the common *M. alatus* has sharp winged angles on the stem)
- Flowers lavender, with two lips: upper with 2 petals and lower with 3; when fully open, flowers resemble a monkey face (use a little imagination!)
- Pedicels (flower stalks) relatively long, 17 to 40 mm



Flowering Time: April to September (to November) (stage of development depends on water levels)

Light Requirement: Full sun to part shade

Wetland Indicator Status:

OBL – almost always in wetlands

Habitat:

Louisiana occurrences are on sand bars, banks, and in battures of large rivers such as the lower Atchafalaya and Mississippi.

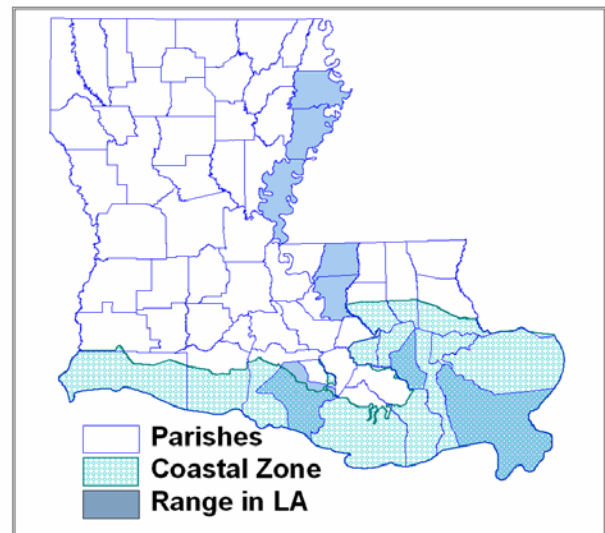
Threats:

- Channel dredging and spoil deposition
- Lock and dam construction and operation
- Shoreline stabilization, e.g. lining river banks with rock (“rip-rap”)

Beneficial Management Practices:

Work with Corps of Engineers regarding conservation management of sand bars and river banks

LA River Basins: Pontchartrain, Mississippi, Barataria, Atchafalaya, Vermilion-Teche, Red, Ouachita



Rare Plants of Louisiana



Top left: *M. ringens* stem showing sessile leaves and long flower stalks

Above: Whole plant of *M. ringens*

Left: *M. ringens* habitat, margin of sandbar on Mississippi River; area recently inundated and then exposed; the larger broad-leaved plants are cottonwood seedlings.

References:

Lester, G. D., S. G. Sorensen, P. L. Faulkner, C. S. Reid, and I. E. Maxit. 2005. Louisiana comprehensive wildlife conservation strategy. Louisiana Department of Wildlife and Fisheries. Baton Rouge, LA.

NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.

Vincent, K. A. 1982. Scrophulariaceae of Louisiana. MS Thesis, University of Southwestern Louisiana, Lafayette.

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Rare Plants of Louisiana



Monanthochloe littoralis - saltflat-grass Grass Family (Poaceae)

Rarity Rank: S1/G4G5

	1	2	3	4	5
State	Yellow				
Global				Yellow	Yellow
	imperiled		rare		secure

Range: CA, FL, LA, TX (also Mexico and Cuba)

Recognition:

- A grayish-green, perennial, low-growing grass forming extensive colonies
- Leaves short, less than 1 cm long, born in remotely spaced fascicles (clusters) on the stem

Flowering Time: March to July

Light Requirement: Full sun

Wetland Indicator Status:

OBL – almost always occurs in wetlands

Habitat:

Coastal saline mud flats and salt marshes on bay shores and behind beaches.

Threats:

- Shoreline erosion and subsidence
- Hydrological alterations (e.g. canal dredging)
- Contamination by chemicals or industrial discharge

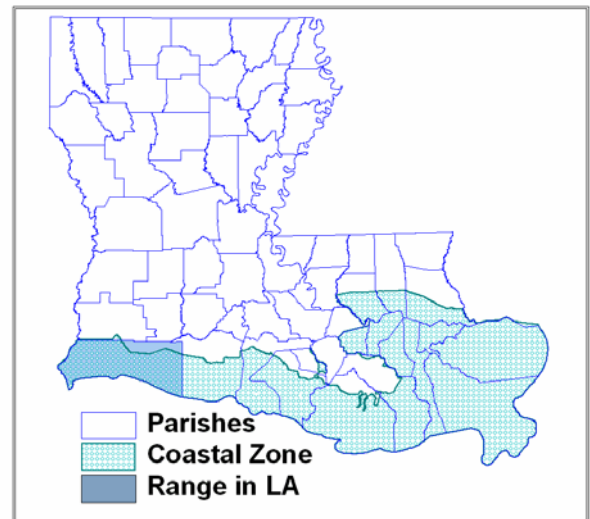
Beneficial Management Practices:

Protect bay shores and Gulf Beaches against erosion

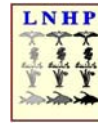
LA River Basins: Mermentau, Calcasieu, Sabine



© Larry Allain
Larry Allain @ USDA-NRCS PLANTS Database



Rare Plants of Louisiana



Left: Thick mat of *Monanthochloe littoralis* at East Cameron Jetty, Cameron Parish.

Right: *Monanthochloe littoralis* habitat. Saline mud flat behind beach at East Cameron Jetty, Cameron Parish. Associates include glassworts (*Salicornia* spp.), salt wort (*Batis maritima*), sea blite (*Suaeda linearis*), and sea lavneder (*Limonium carolinianum*)



References:

- Allen, C. M., D.A. Newman, and H. Winters. 2004. Grasses of Louisiana. 3rd ed. Allen's Native Ventures, LLC. Pitkin, LA. 374 pp.
- Stutzenbaker, C. D. 1999. Aquatic and wetland plants of the Western Gulf Coast. Texas Parks and Wildlife Department. 465 pp.
- Tiner, R. W. 1993. Field guide to coastal wetland plants of the southeastern United States. The University of Massachusetts Press, Amherst. 328 pp.
- USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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Rare Plants of Louisiana



Nymphaea elegans - blue water lily Water-Lily Family (Nymphaeaceae)

Rarity Rank: S2S4/G4?

	1	2	3	4	5
State		■	■	■	
Global				■	
	imperiled		rare		secure



Photo by T. F. Niehaus, courtesy of Smithsonian Institution

Range: FL, LA, TX

Recognition:

- A classic water lily with floating leaves and aerial flowers
- Flowers tinged with blue, 6 to 12 cm across, flowers mostly raised above surface of water, rather than sitting on the surface.
- Leaves ovate, cleft at base, dark green above, reddish purple underneath, and about 30 cm wide
- Arises from a singular rootstock (vertically oriented underground stem), rather than an elongate horizontal rhizome which characterizes fragrant water lily (*Nymphaea odorata*).

Flowering Time: April to July, though may flower year-round

Light Requirement: Full sun

Wetland Indicator Status: OBL - almost always in wetlands

Habitat:

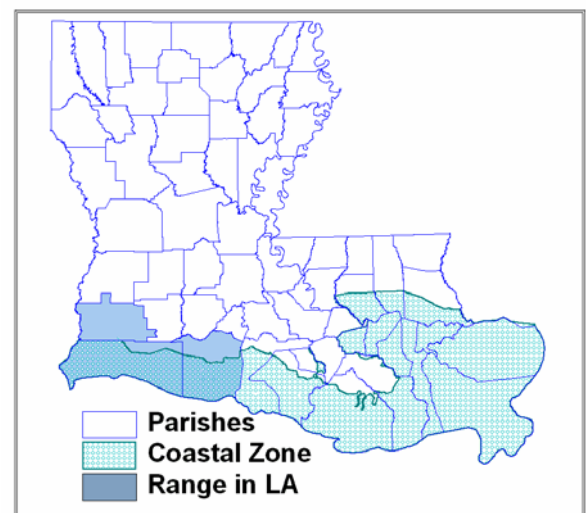
Louisiana occurrences are in pools in freshwater marshes; can grow in water depths up to 1.2 m. Fragrant water lily (*N. odorata*) and yellow water lily (*N. mexicana*) are common associates.

Threats:

Salt water intrusion; intolerant of salinities over 3 ppt

Beneficial Management Practices:

- Protect freshwater marsh habitat from salt water intrusion
- Conduct concentrated survey efforts to accurately determine rarity status in Louisiana



LA River Basins: Vermilion-Teche, Mermentau, Calcasieu, Sabine

Rare Plants of Louisiana

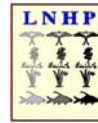


Photo by Alfred Richardson

References:

Stutzenbaker, C. D. 1999. Aquatic and wetland plants of the western Gulf Coast. Port Arthur: Texas Parks and Wildlife Press. 465 pp.

Tobe, J. D., K. C. Burks, R. W. Cantrell, M. A. Garland, M. E. Sweeley, D. W. Hall, P. Wallace, G. Anglin, G. Nelson, J. R. Cooper, D. Bickner, K. Gilbert, N. Aymond, K. Greenwood, and N. Raymond. 1998. Florida wetland plants: an identification manual. Tallahassee: Florida Department of Environmental Protection. 598 pp.

USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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Rare Plants of Louisiana



Nymphoides cordata - little floating-hearts Water-Lily Family (Nymphaeaceae)

Rarity Rank: SH/G5 (Historical in Louisiana)

	1	2	3	4	5
State					
Global					
	imperiled		rare		secure

Range: Ontario and Quebec, south to FL and west to LA

Recognition:

- Generic Description: an aquatic plant with floating leaves and aerial flowers; rhizomes are present in the mucky substrate from which slender petiole-like stems arise, producing petioled (stalked) leaves, and umbel inflorescences in the leaf axils; tuberous roots often present below inflorescences
- *Nymphoides cordata* is in general similar to *N. aquatica*, which is a common species of freshwater habitats in the Coastal Zone – the two species are here differentiated
- Leaf blades heart shaped, 3 to 7 cm long, green and often variegated with purplish above, smooth below (*N. aquatica* leaves are larger, to 15 cm long, green above, and appear rough below)
- Stems slender, less than 1 mm wide just below inflorescence
- Fruit a capsule, only slightly exceeding the calyx, versus considerably exceeding the length of the calyx in *N. aquatica*
- Seeds smooth and subglobose, rarely papillate (*N. aquatica* seeds are conspicuously papillate)



Jim Stasz @ USDA-NRCS PLANTS Database

Flowering Time: July to September

Light Requirement: Full sun to part shade

Wetland Indicator Status:

OBL – almost always in wetlands

Habitat:

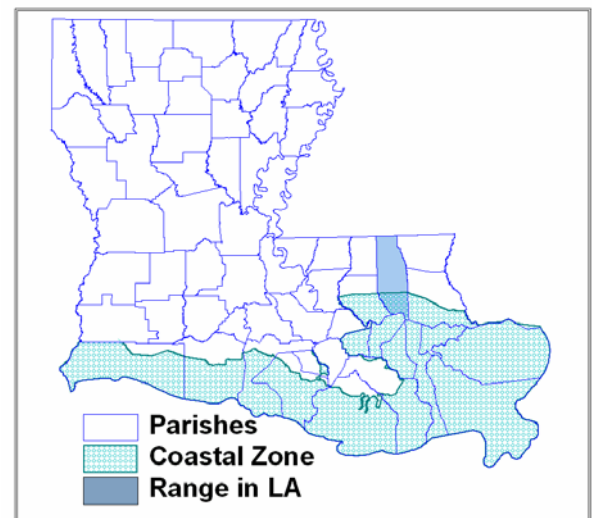
We have one historical record of *N. cordata*, collected from a pond within a cypress-swamp blackgum swamp near Ponchatoula. Louisiana is at the western edge of the range of *N. cordata*.

Threats:

Subsidence and potentially salt water intrusion

Beneficial Management Practices:

- Maintain open aquatic environments and habitats

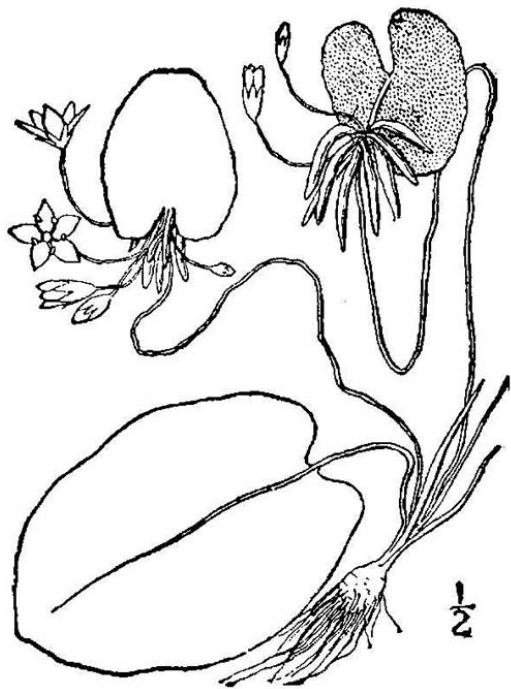


Rare Plants of Louisiana



- Keep an eye out for this species when traveling the swamps on and around Joyce WMA

LA River Basins: Pontchartrain



Above: Line drawing of *N. cordata*. USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. *Illustrated flora of the northern states and Canada*. Vol. 3: 18.

Right: Herbarium specimen of *N. cordata* – this specimen was collected in 1938 and represents the only Louisiana record. Specimen image courtesy of LSU Herbarium.



References:

- Clewell, A. F. 1985. Guide to the vascular plants of the Florida Panhandle. University Presses of Florida, Florida State University Press, Tallahassee. 605 pp.
- Godfrey, R. K. and J. W. Wooten. 1981. Aquatic and wetland plants of southeastern United States: dicotyledons. University of Georgia Press. Athens, GA. 933 pp.
- Tobe, J. D., K. C. Burks, R. W. Cantrell, M. A. Garland, M. E. Sweeley, D. W. Hall, P. Wallace, G. Anglin, G. Nelson, J. R. Cooper, D. Bickner, K. Gilbert, N. Aymond, K. Greenwood, and N. Raymond. 1998. Florida wetland plants: an identification manual. Tallahassee: Florida Department of Environmental Protection. 598 pp.
- USDA, NRCS. 2008. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA

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

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Rare Plants of Louisiana



Paronychia erecta var. *corymbosa* - square flower Pink Family (Caryophyllaceae)

Rarity Rank: S1/G3G4T2T4

	1	2	3	4	5
State	Yellow				
Global			Yellow	Yellow	
	imperiled		rare		secure

Range: AL, FL, LA, MS

Recognition:

- A small perennial herb with multiple stems radiating from a central point, stems to 30 cm tall and often leaning
- Leaves opposite, linear, with conspicuous membranous stipules
- Flowers small, in compact clusters, lacking petals, with red-brown, translucent margined sepals
- Stems finely hairy

Flowering Time: April to August

Light Requirement: Full sun

Wetland Indicator Status:

Does not occur in wetlands anywhere in range

Habitat:

There is one record from Louisiana in sandy soil along US 190 near the Pearl River. There is a possibility that, if this sandy material was brought in as fill material from Mississippi, this occurrence is introduced. It is, in fact, regarded as introduced by Thomas and Allen (1996). Field studies are warranted to determine if this species is present at all on naturally occurring sand deposits along the Pearl River branches or if it is strictly a roadside plant in that area.



Threats:

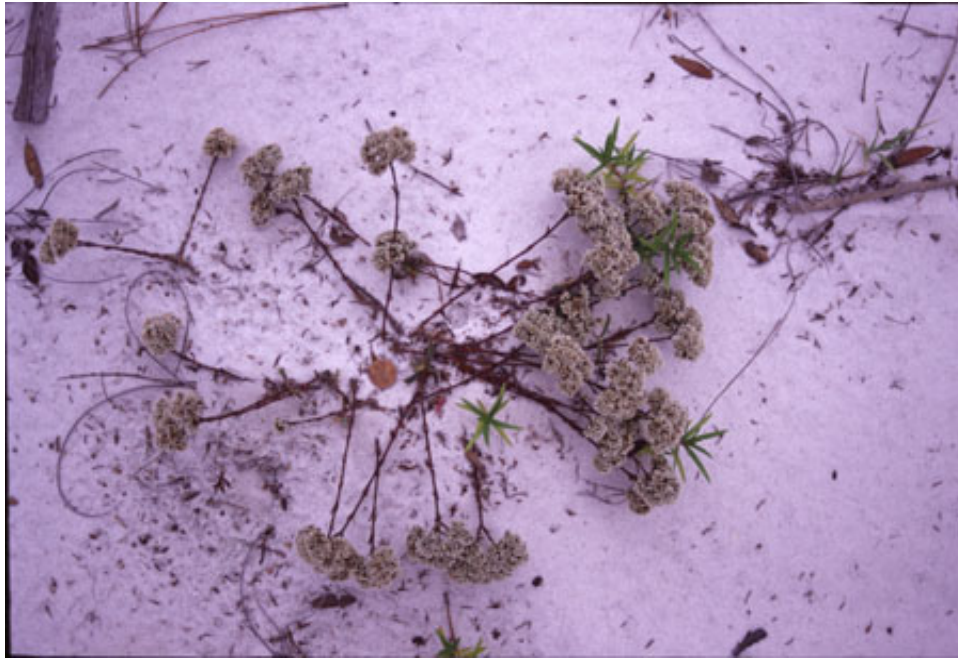
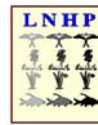
- Invasion of habitat by woody species in the absence of fire and resulting shading
- Nativity status questionable and rarity status, if native, unknown

Beneficial Management Practices:

- Maintain open conditions in sandy woodlands with fire or mowing
- Conduct field work to determine status in Louisiana

LA River Basins: Pearl

Rare Plants of Louisiana



Paronychia erecta var. *corymbosa* growing on sand dunes near Ft. Morgan, AL.

References:

Duncan, W. H. and M. B. Duncan. 1987. The Smithsonian guide to seaside plants of the Gulf and Atlantic coasts. Smithsonian Institution Press, Washington, D.C. 409 pp.

NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>

Thomas, R. D. and C. M. Allen. 1996. Atlas of the vascular flora of Louisiana. Vol. 2. Louisiana Department of Wildlife and Fisheries, Baton Rouge.

Rare Plants of Louisiana



Pedimelum rhombifolium - roundleaf scurf-pea Legume Family (Fabaceae)

Rarity Rank: S2S3/G5

	1	2	3	4	5
State		■	■		
Global					■
	imperiled		rare		secure



Photo by Alfred Richardson

Range: AR, LA, OK, TX; also Mexico

Recognition:

- Vine-like herb from a deep rootstock with prostrate to ascending stems up to 1 m long
- Leaves consisting of 3 leaflets that are ovate or rhombic, 1 to 3 cm long
- Inflorescences axillary, basically in heads with 2 to 8 flowers
- Flowers small with brick red or orange-brown corollas
- Fruit a legume about 8 to 10 mm long with a slender often curved beak

Flowering Time: Spring to summer

Light Requirement: Full sun

Wetland Indicator Status:

Does not occur in wetlands anywhere in range

Habitat:

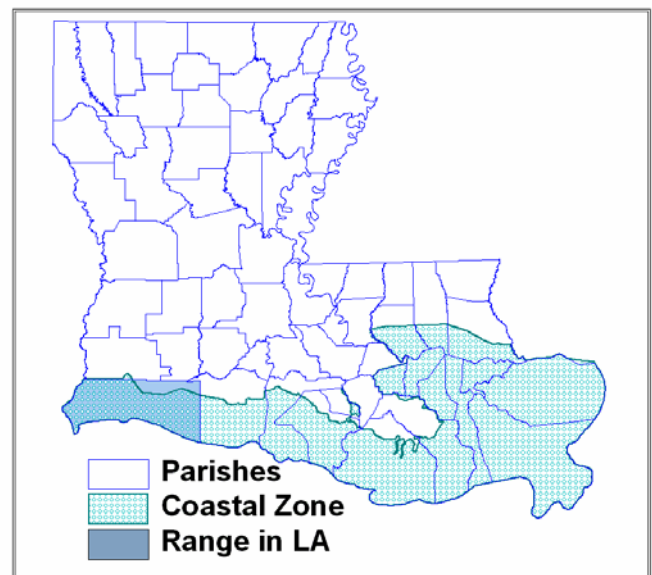
High energy Gulf beaches and coastal dune grasslands.

Threats:

- Shoreline erosion
- Vehicular traffic, excessive foot traffic and livestock grazing

Beneficial Management Practices:

- Shoreline stabilization
- Protect beaches and dunes from degradation by humans and livestock



LA River Basins: Mermentau, Calcasieu, Sabine

Rare Plants of Louisiana

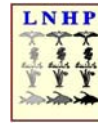


Photo by Alfred Richardson

References:

Correll, D. S. and M. C. Johnston. 1970. *Manual of the Vascular Plants of Texas*. Texas Research Foundation, Renner. 1881 pp.

Isely, D. 1990. *Vascular flora of the southeastern United States*. Vol. 3, Part 2: Leguminosae (Fabaceae). The University of North Carolina Press, Chapel Hill and London. 258 pp.

NatureServe. 2007. *NatureServe Explorer: An online encyclopedia of life* [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.

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

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

Rare Plants of Louisiana



Physalis angustifolia - coastal ground cherry Nightshade Family (Solanaceae)

Rarity Rank: S1?/G3G4

	1	2	3	4	5
State	Yellow				
Global			Yellow	Yellow	
	imperiled		rare		secure

Range: AL, FL, LA, MS

Recognition:

- A rhizomatous perennial with light green to gray-brown stems and alternate narrow leaves
- Leaves linear, 5 times or more longer than broad, which sets this species apart from other ground cherries
- Flowers are solitary and axillary
- Corolla yellow and bell-shaped, about 2 cm wide, and purple in the center
- Fruiting calyx (looks like a Chinese lantern) small, 1.5 to 2 cm long



Photo by G. A. Cooper, courtesy of Smithsonian Institution

Flowering Time: April through September

Light Requirement: Full sun

Wetland Indicator Status:

Does not occur in wetlands anywhere in range

Habitat:

Coastal dune grasslands and dry sandy high energy beaches.

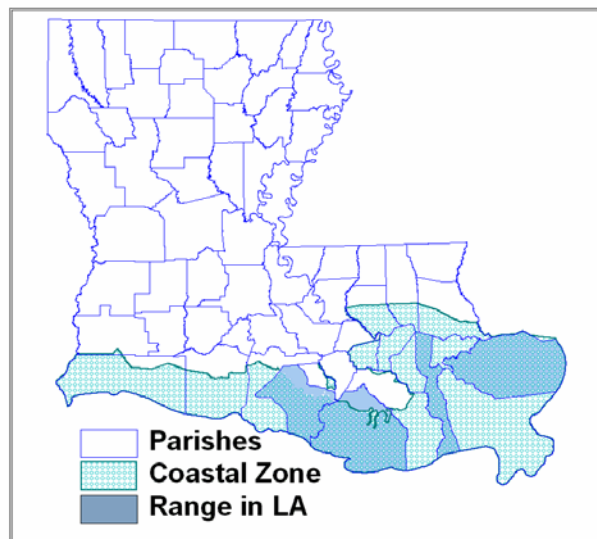
Threats:

- Shoreline erosion
- Trampling of sand dunes by humans and livestock
- Lack of status information in Louisiana and apparently range-wide

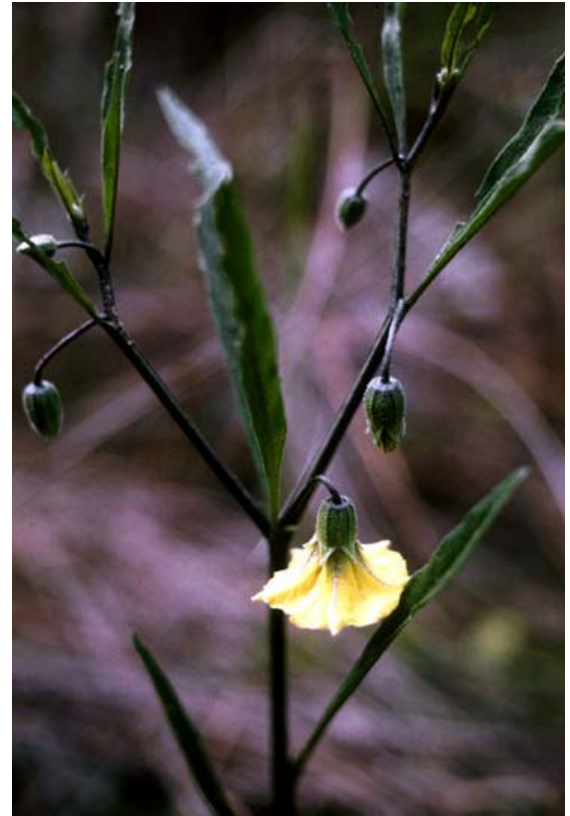
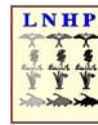
Beneficial Management Practices:

- Protect and stabilize high energy beaches and islands
- Protect beaches and dunes from degradation by humans and livestock
- Conduct field surveys to get a better understanding of status in Louisiana

LA River Basins: Pontchartrain, Barataria, Terrebonne, Atchafalaya, Vermilion-Teche



Rare Plants of Louisiana



Above photo by G. A. Cooper, courtesy of Smithsonian Institution

References:

Cascio, D. K. 1994. Solanaceae of Louisiana. M.S. Thesis. Northeast Louisiana University, Monroe, LA.

NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.

Small, J. K. 1933. Manual of the southeastern flora. University of North Carolina Press, Chapel Hill. 1554 pp.

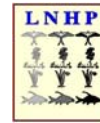
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Rare Plants of Louisiana



Physalis carpenteri - Carpenter's groundcherry Nightshade Family (Solanaceae)

Rarity Rank: S1/G3

	1	2	3	4	5
State					
Global					
	imperiled		rare		secure

Range: AL, FL, LA, MS

Recognition:

- Tall (to 1 m) perennials from rhizomes, scarcely branched
- Leaf-blades very thin, oval or ovate, abruptly contracted into a long acumination, glabrous on both surfaces with hairs restricted to the mid vein on upper surface and mid and main lateral veins on lower surface; margin entire or slightly wavy
- Inflorescences axillary with 2- to 4-flowered clusters, rather than solitary as in other *Physalis* spp.
- Corolla pale yellow, to 1 cm broad, open-campanulate (bell-shaped)
- Anthers short, 0.5 – 2.5 mm long
- Fruiting calyx (looks like a Chinese lantern) only about 1.5 cm broad, weakly inflated
- Berries globose, green then ripening yellowish

Flowering Time: May to September

Light Requirement: Shade to sun

Wetland Indicator Status:

Does not occur in wetlands anywhere in range

Habitat:

We have several records from the loess bluffs of the Tunica Hills and from Fluker's Bluff in St. Helena Parish. There are several other records from cutover and variously disturbed upland sites elsewhere in the Florida Parishes. Most of our records are over 30 years old. This species is ripe for a range-wide status survey.

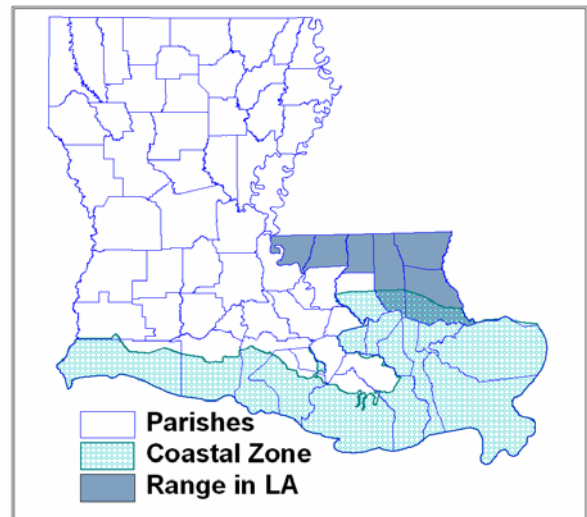
Threats:

Lack of status knowledge; specific threats unknown

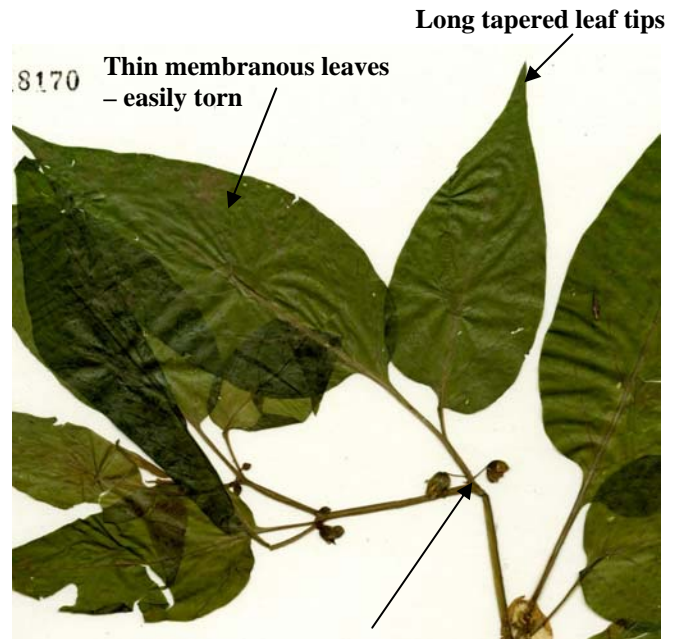
Beneficial Management Practices:

Conduct range-wide status survey

LA River Basins: Pearl, Pontchartrain, Mississippi



Rare Plants of Louisiana



flowers two or more per node
– other groundcherries have
only one flower per node

Specimen images courtesy of LSU Herbarium

References:

Cascio, D. K. 1994. Solanaceae of Louisiana. M.S. Thesis, Northeast Louisiana University, Monroe.

Clewell, A. F. Guide to the vascular flora of the Florida panhandle. University Presses of Florida/Florida State University Press, Tallahassee. 605 pp.

NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. Arlington, VA, USA: NatureServe. Available: <http://www.natureserve.org/explorer>.

Thomas, R. D. and C. M. Allen. 1998. Atlas of the vascular flora of Louisiana. Vol. III. Louisiana Dept. of Wildlife and Fisheries, Baton Rouge.

USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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Rare Plants of Louisiana



Physostegia correllii - Correll's false dragon-head Mint Family (Lamiaceae)

Rarity Rank: S1/G2

	1	2	3	4	5
State	Yellow				
Global		Yellow			
	imperiled		rare		secure

Range: LA, TX, Mexico

Recognition:

- Plants robust, somewhat succulent, up to 1 m tall; stems often unbranched
- Hardy perennial with elongate rhizomes
- Mid-stem leaves opposite, sessile (not stalked), usually widest in the middle with large sharp teeth
- Leaves decrease in size from mid- to upper-stem
- Flowers pink and tubular with two lips

Flowering Time: May to September

Light Requirement: Full sun

Wetland Indicator Status: OBL - almost always in wetlands

Habitat: Louisiana occurrences are all in roadside ditches. Elsewhere it occurs along river banks, often growing in flowing water. Vigorous growth of rhizomes allows Correll's false dragon-head to be competitive in disturbed areas. Non-natural habitats such as drainage and irrigation ditches and wet utility ROWs represent potential habitat.

Threats:

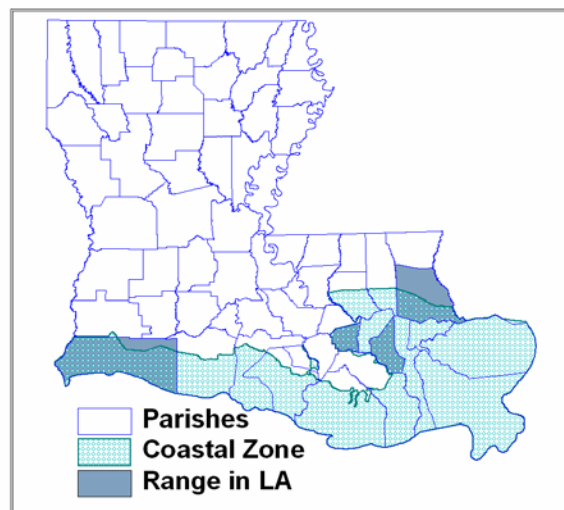
- Dredging/scraping of ditches for maintenance and installation of water lines and other utilities
- Herbicides used in roadside management
- Exotic invasive species may be a threat, though Correll's false dragon-head can apparently hold its own against many; one LA population is competing with the exotic torpedo grass (*Panicum repens*) and close monitoring is being carried out
- Apparently naturally rare (?)

Beneficial Management Practices:

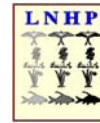
- Bore underneath populations when installing new water lines or other utilities
- Identify and avoid Correll's false dragon-head in broad-spectrum herbicide applications
- Control competing non-native plants by hand removal or grass-selective herbicides



Photo © Alfred R. Schotz



Rare Plants of Louisiana



- Increase field survey efforts to detect additional populations

LA River Basins: Pearl, Pontchartrain, Barataria, Mermentau, Calcasieu, Sabine



Vegetative material of Correll's false dragon-head showing unbranched stems, strongly ascending opposite leaves with obvious teeth. St. James Parish, Louisiana.



Flowering and fruiting material of Correll's false dragon-head, here competing with the exotic vasey grass (*Paspalum urvillei*).

References:

- Cantino, P. D. 1982. A monograph of the genus *Physostegia* (Labiatae). Contributions from the Gray Herbarium of Harvard University 211: 1-105.
- Correll, D. S., and M. C. Johnston. 1970. *Manual of the Vascular Plants of Texas*. Texas Research Foundation, Renner. 1881 pp.
- Godfrey, R. K. and J. W. Wooten. 1981. *Aquatic and wetland plants of southeastern United States: dicotyledons*. University of Georgia Press, Athens. 933 pp.
- NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.

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Rare Plants of Louisiana



Poa sylvestris - woodland bluegrass Grass Family (Poaceae)

Rarity Rank: S1/G5

	1	2	3	4	5
State	Yellow				
Global					Yellow
	imperiled		rare		secure



Photo by R. J. Soreng, courtesy of Smithsonian Institution

Range: Eastern U.S. plus Ontario

Recognition:

- A small to medium tufted perennial shade-loving forest grass, 30 to 80 cm tall
- Leaves occur basally, blades elongate, up to 30 cm long and 1 to 5 mm wide
- Panicles open, from 10 to 15 cm long, 3 to 8 cm broad; lower panicle branches reflexed
- Lowest node in panicle has 5 to 7 whorled, spreading branches
- Spikelets laterally compressed, 2 to 4 flowered, 3 to 4.5 mm long
- Lemmas (which sit opposite paleas, a lemma and palea together subtend a flower) 2.2 to 3 mm long, nerves pubescent
- Lemma has a tuft of long, kinked, silky hairs at its base

Flowering Time: April to May

Light Requirement: Shade

Wetland Indicator Status:

FAC – similar likelihood of occurring in both wetlands and non-wetlands

Habitat: Rich ravines of salt dome hardwood forests.

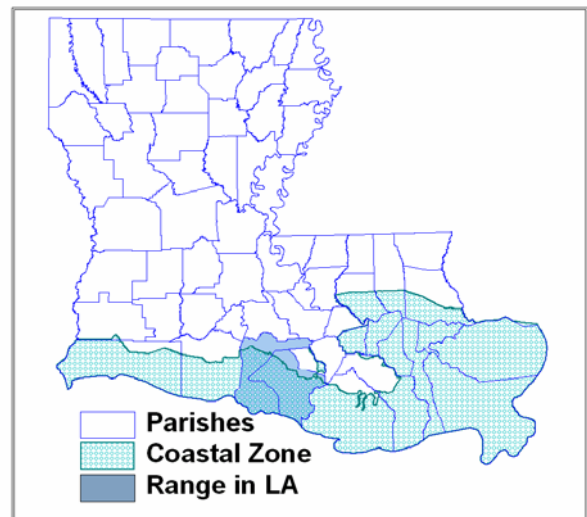
Threats:

- Exotic plants and animals
- Unnatural rates of erosion

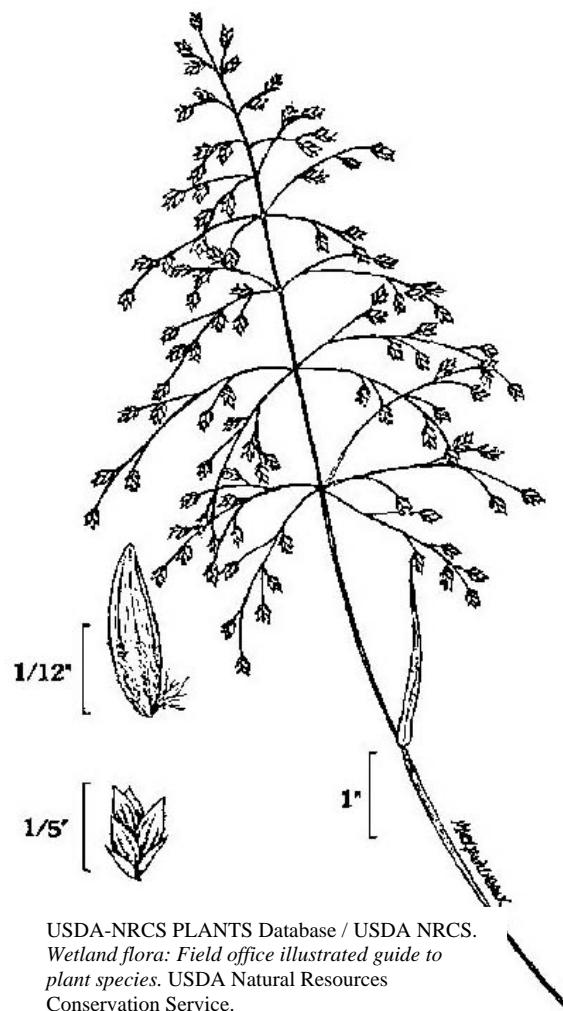
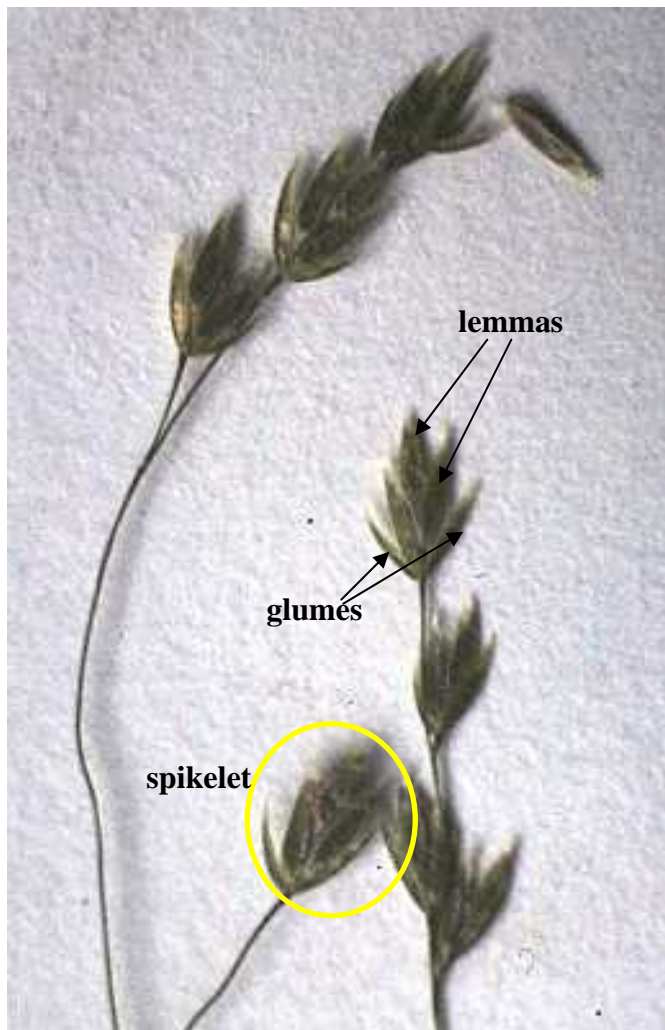
Beneficial Management Practices:

- Protect remaining salt dome hardwood forest from conversion
- Refrain from planting exotics such as *Ardisia crenata* and other exotic plants
- Kill more wild hogs

LA River Basins: Atchafalaya, Vermilion-Teche



Rare Plants of Louisiana



USDA-NRCS PLANTS Database / USDA NRCS.
Wetland flora: Field office illustrated guide to plant species. USDA Natural Resources Conservation Service.

Photo by Emmet J. Judziewicz:
University of Wisconsin- Stevens Point

References:

Allen, C.M., D.A. Newman, and H. Winters. 2004. *Grasses of Louisiana*, 3rd edition. Allen's Native Ventures. Pitkin, LA. 374 pp.

Diggs, G. M., B. L. Liscomb, M. D. Reed, and R. J. O'Kennon. , 2006. *Illustrated Flora of East Texas*. Vol. 1. Botanical Research Institute of Texas & Austin College. 1594 pp.

USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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Rare Plants of Louisiana



Polygala crenata - scalloped milkwort Milkwort Family (Polygalaceae)

Rarity Rank: S2/G4?

	1	2	3	4	5
State		■			
Global				■	
	imperiled		rare		secure

Range: AL, FL, LA, MS, TX

Recognition:

- Perennial with several to many stems from a caudex (thickened base that is the perenniating structure)
- Stems to ca 30 cm tall, lax and often reclining (may be held erect by surrounding vegetation)
- Leaves variable, from definitely spatula-shaped to narrowly linear or elliptic – varying in length from 3 to 15 mm
- Fresh flowers bright purple, born in terminal racemes
- Seed coat black and covered with whitish hairs



Photo by Gil Nelson

Flowering Time: March to April

Light Requirement: Full sun

Wetland Indicator Status:

FACW – usually in wetlands

Habitat: Longleaf pine flatwoods savannahs.

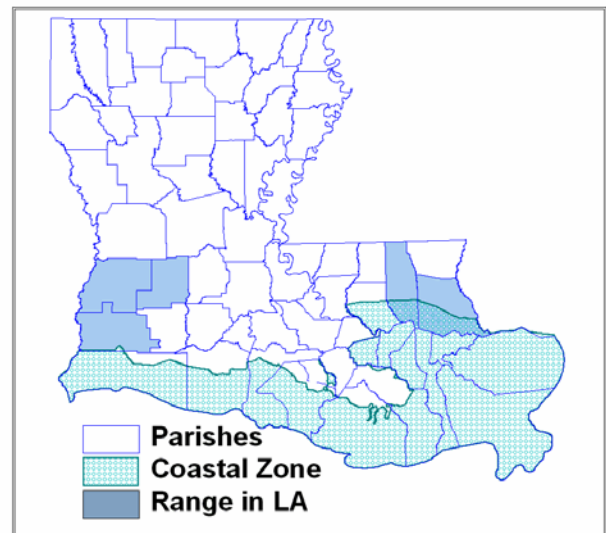
Threats:

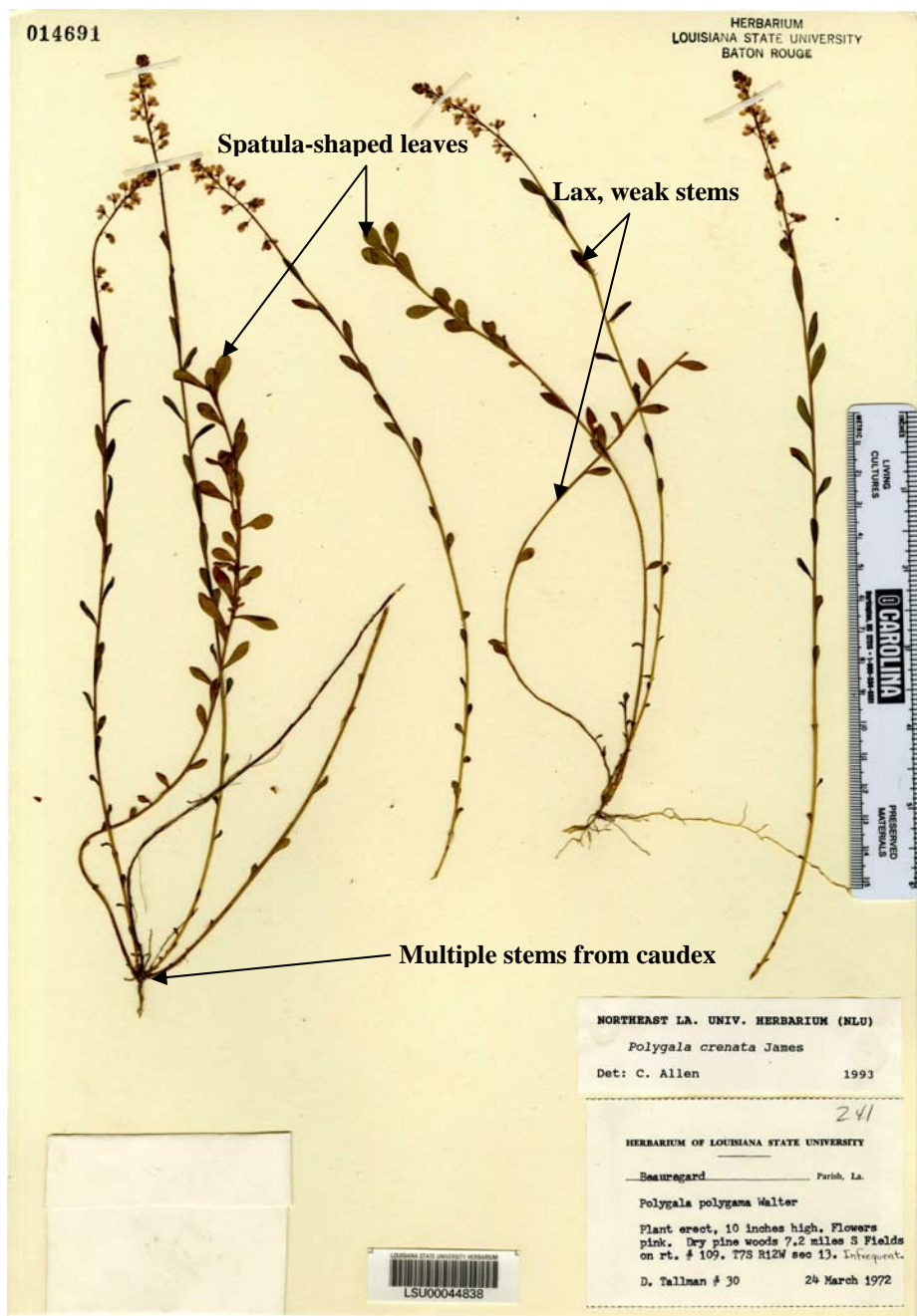
- Residential and commercial development
- Conversion to slash or loblolly pine plantations
- Hydrological alterations (e.g. ditching)
- Soil damage from timber harvesting and planting activities (eg. bedding)
- Fire exclusion or inappropriate fire timing

Beneficial Management Practices:

- Use of growing season prescribed fire (April-June) at a frequency of every 1 to 3 years
- Maintain open stands by regular thinning (harvest timber only during very dry periods)
- Avoid logging during wet periods when the soil is saturated

LA River Basins: Pearl, Pontchartrain, Mermentau, Calcasieu, Sabine





Herbarium specimen of *Polygala crenata*. Specimen shows multiple stems from a caudex and variable leaf size and shape.

Courtesy of LSU Herbarium.

References:

- Godfrey, R. K. and J. W. Wooten. 1981. Aquatic and wetland plants of southeastern United States: dicotyledons. University of Georgia Press. Athens, GA. 933 pp.
- NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.
- Nelson, G. 2005. East Gulf Coastal Plain wildflowers. The Globe Pequot Press. Guilford, CT. 263 pp.

Rare Plants of Louisiana



Potamogeton perfoliatus - clasping leaf pondweed Pondweed Family (Potamogetonaceae)

Rarity Rank: SH/G5 (Historical in LA)

	1	2	3	4	5
State					
Global					
	imperiled		rare		secure

Range: Quebec and Ontario south to the Gulf Coast states; also British Columbia and Alaska

Recognition:

- Submerged aquatic plant, rooted in the substrate and having whitish to pinkish rhizomes
- Stems erect, submerged, slender, short, much branched
- Leaves egg shaped or rounded, up to 6 cm long by 1.5 cm wide, bases heart-shaped and clasping stem
- Flowers in dense spikes on the end of stalk

Flowering Time: June to October

Light Requirement: Submerged aquatic in open, clear water bodies

Wetland Indicator Status:

OBL – almost always in wetlands

Habitat:

Brackish or calcareous lakes, in Louisiana recorded only from Lake Pontchartrain. However, high salinities associated with drought during 1998 to 2001 have apparently extirpated this species in Lake Pontchartrain.

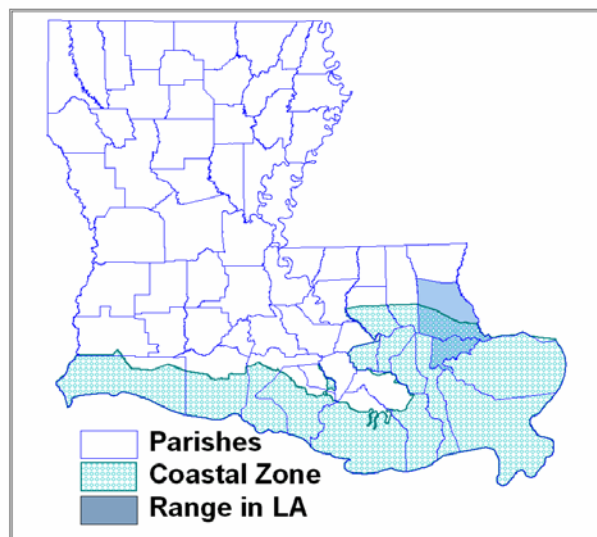
Threats:

Unnatural levels salt water intrusion

Beneficial Management Practices:

Maintain natural seasonal salinity variation in estuaries

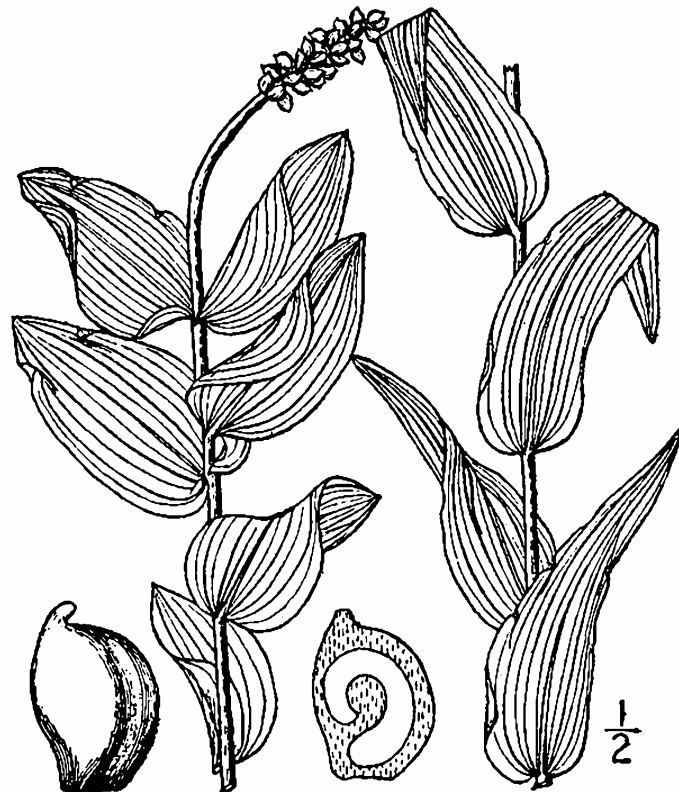
LA River Basins: Pearl, Pontchartrain



Rare Plants of Louisiana



Illustration by Kurt Stuber; courtesy of University of Wisconsin - Stevens Point.



USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. *An illustrated flora of the northern United States, Canada and the British Possessions*. Vol. 1: 80.

References:

Godfrey, R. K. and J. W. Wooten. 1981. *Aquatic and wetland plants of the southeastern United States: monocotyledons*. University of Georgia Press, Athens, GA. 712 pp.

Tiner, R.W. 1993. *Field Guide to coastal wetland plants of the southeastern United States*. The University of Massachusetts Press, Amherst. 328 pp.

NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>.

USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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Rare Plants of Louisiana



Pterocaulon virgatum - wand blackroot Sunflower Family (Asteraceae)

Rarity Rank: S2/G5

	1	2	3	4	5
State		■			
Global					■
	imperiled		rare		secure

Range: LA and TX, also eastern Mexico and West Indies

Recognition:

- Perennial herb, usually robust with one to many stems, 0.8 to 1.5 m tall
- Leaves from 5 to 15 cm long (more than 7 times as long as wide) and usually less than 1 cm wide
- Leaf bases decurrent, forming narrow wings on the stem
- Leaves green above with white-wooly hairs underneath
- Flower heads occur terminally in a compact, interrupted, spike-like aggregation



Pterocaulon virgatum in fruit – the whitish fluffy material is pappus which is the calyx modified to aid in wind dispersal

Flowering Time: August to October

Light Requirement: Full sun

Wetland Indicator Status: FAC – similar likelihood of occurring in both wetlands and non-wetlands

Habitat:

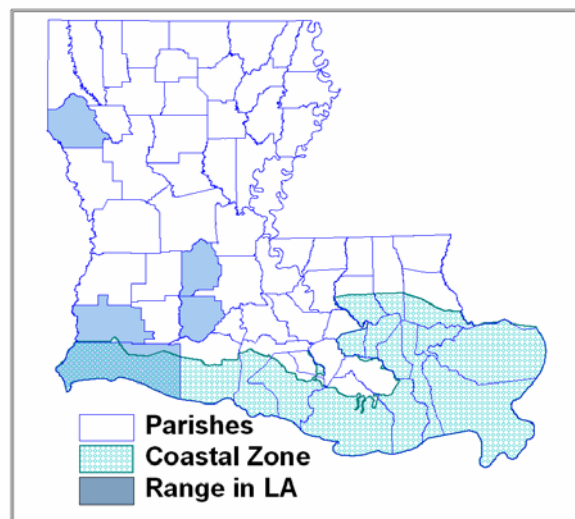
Most Louisiana occurrences are in coastal prairie remnants; there are a few occurrences on pimple mounds in saline prairies and in pine flatwoods further inland. There is a report from Grant Parish which needs to be confirmed in the field.

Threats:

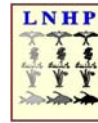
- Habitat conversion - mainly historical as virtually all coastal prairie has been converted to agriculture
- Intensive pine plantation forestry with concomitant threats such as chemical and mechanical site prep and fire exclusion

Beneficial Management Practices:

- Manage pine flatwoods with aggressive thinning (during dry periods) and prescribed burning
- This species is self-fertile and easily propagated by seed, with high germination rates, so re-introduction is relatively practical



Rare Plants of Louisiana



LA River Basins: Calcasieu, Mermentau, Sabine, Red



Above: Stem of *Pterocaulon virgatum* – note how leaf bases are decurrent forming leafy wings on the stem; also the lower surfaces of the leaves are clearly white and closer examination would reveal the presence of many woolly hairs.

Right: Large robust plant of *P. virgatum* in June as height growth is being made and prior to flowering; photo taken in De Soto Parish in a saline prairie.



References:

- Allain, L. 2007. Coastal prairie restoration information system: version 1 (Louisiana). Data Series 256. CD-ROM. U.S. Geological Service, Lafayette, LA.
- Correll, D. S., and M. C. Johnston. 1970. Manual of the Vascular Plants of Texas. Texas Research Foundation, Renner. 1881 pp.
- Ghandi, K.N. & R.D. Thomas. 1989. Asteraceae of Louisiana. Sida, Bot. Misc. 4:1-202.
- USDA, NRCS. 2008. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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

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Rare Plants of Louisiana



Ratibida peduncularis - Mexican hat Sunflower Family (Asteraceae)

Rarity Rank: S2S3/G4G5

	1	2	3	4	5
State		■	■		
Global				■	■
	imperiled		rare		secure

Range: LA, TX

Recognition:

- Member of the sunflower family with rays drooping and bright yellow, with reddish brown markings at the base
- Center disc is dark brown, elongated and column-shaped
- Flower heads born on long naked stalks, well exerted above the foliage
- Leaves deeply dissected, to 15 cm long, crowded at the base of the plant

Flowering Time: April to December

Light Requirement: Full sun

Wetland Indicator Status:

Does not occur in wetlands anywhere in range

Habitat:

Coastal dune grassland, Gulf beach, and disturbed areas with loose sand; we have one record from a marsh-fringing coastal prairie in Vermilion Parish.

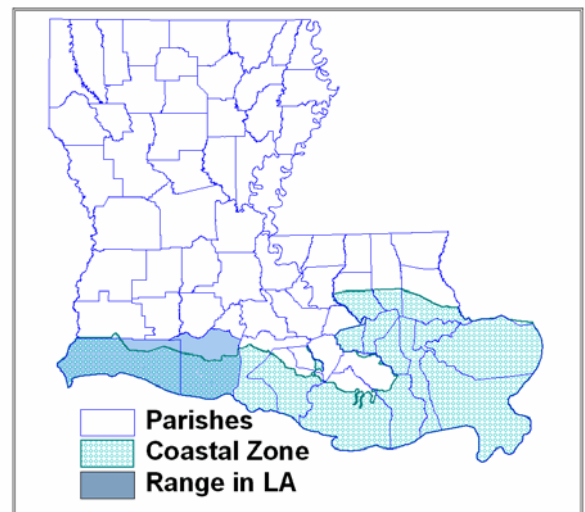
Threats:

- Shoreline erosion
- Off-road vehicle use
- Invasive exotic species
- Overgrazing

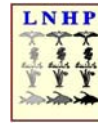
Beneficial Management Practices:

- Shoreline or island stabilization
- Prohibit off-road vehicle use on beaches and dunes
- Remove any invasive exotic plant species with use of spot herbicides or mechanical means
- Prohibit livestock grazing

LA River Basins: Vermilion-Teche, Mermentau, Calcasieu, Sabine



Rare Plants of Louisiana



Ratibida peduncularis in Cameron Parish. Note how the leaves are crowded near the base and that the flower heads are exerted above the foliage on long stalks. Also note how the disk flowers form an elongated column in the center of the flower heads.

References:

Ghandi, K.N. & R.D. Thomas. 1989. Asteraceae of Louisiana. *Sida, Bot. Misc.* 4:1-202.

Richardson, A. 2002. *Wildflowers and other plants of Texas beaches and islands*. University of Texas Press, Austin. 247 pp.

USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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Rare Plants of Louisiana



Rhynchospora ciliaris - ciliate beakrush Sedge Family (Cyperaceae)

Rarity Rank: S2/G4

	1	2	3	4	5
State					
Global					

imperiled rare secure

Range: AL, FL, GA, LA, MS, NC, SC

Recognition:

- Perennial sedge up to 70 cm tall, spikelets chestnut brown and terminating the stem in a single cluster to 1.5 cm across
- Leaves basally disposed, having broad blades with a noticeably short taper at the tip.
- Leafy bracts among the inflorescence distinctly ciliate, hence the specific epithet “*ciliaris*”
- Achenes chestnut brown with a pale hump in the center, biconvex, lightly pitted, 1.5 to 2.0 mm long, and 1.3 to 2.0 mm broad
- Perianth bristles usually 6, the longest not exceeding half the length of the achene body; bristles with upwardly pointing barbs

Flowering Time: Fruiting late spring to fall

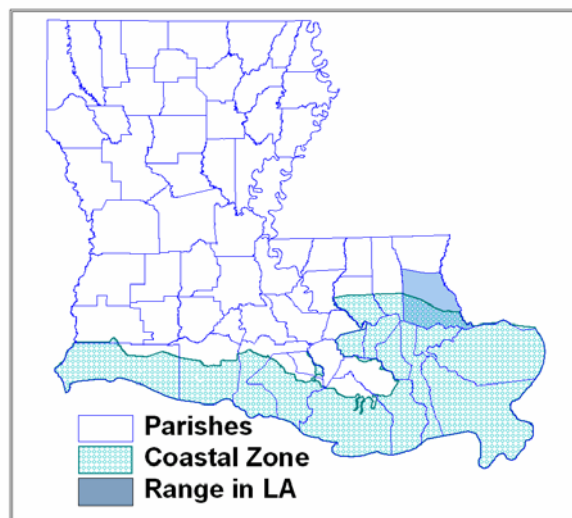
Light Requirement: Full sun

Wetland Indicator Status:

OBL – almost always in wetlands

Habitat:

Longleaf pine flatwoods savannahs; can occur in roadside ditches, and also utility corridors which somewhat preserve pine savannah ground cover species which are absent in adjacent areas due to densely stocked trees (pine plantations).



Threats:

- Residential or commercial development
- Conversion to slash or loblolly pine plantations (excess shade, soil disturbances such as bedding, herbicides used in site prep, etc)
- Hydrological alterations such as ditching and bedding
- Soil damage from timber harvesting and planting activities (eg. bedding)
- Fire exclusion or inappropriate fire regime

Beneficial Management Practices:

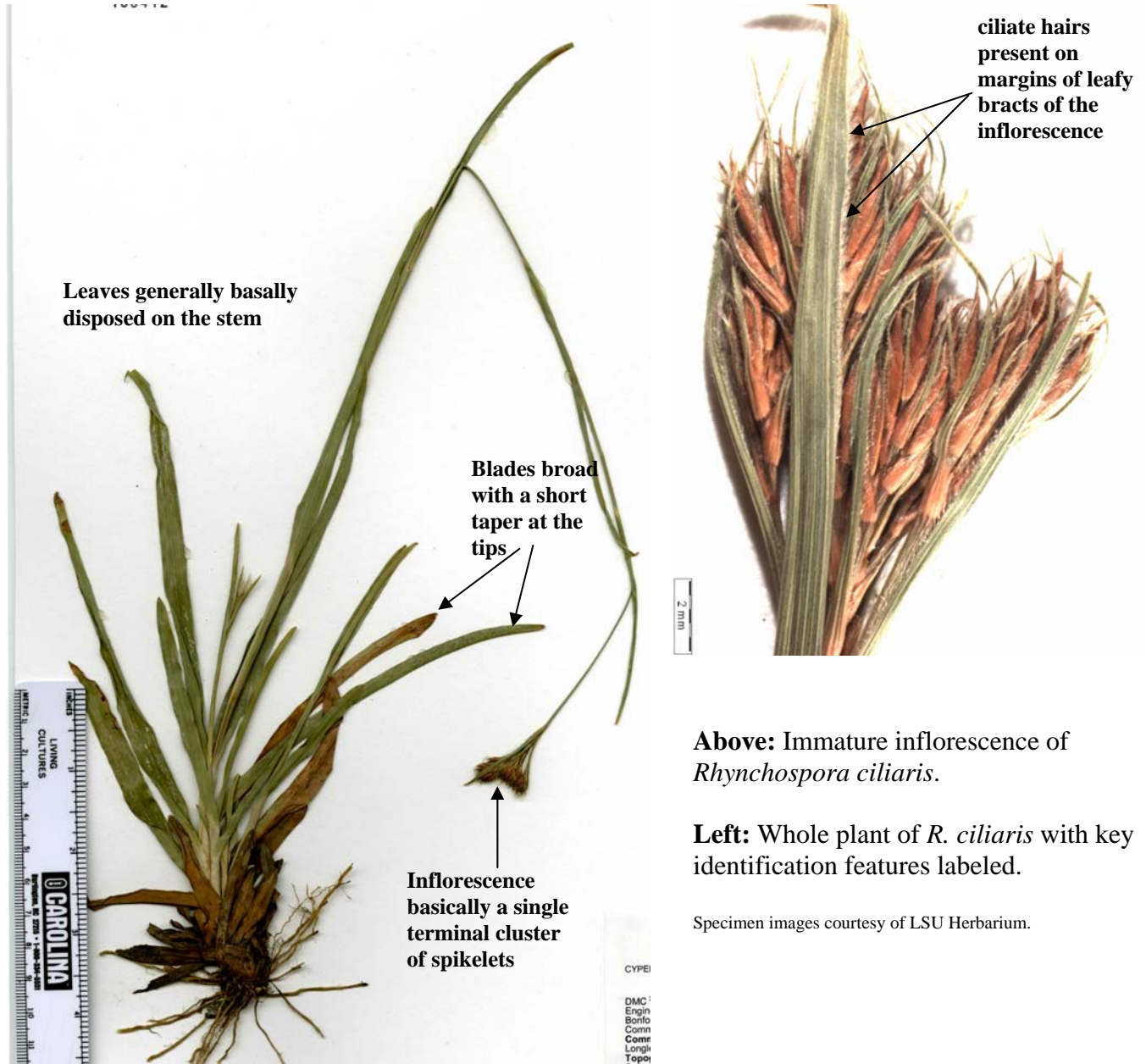
- Use of growing season prescribed fire (April-June) at a frequency of every 1 to 3 years
- Conduct logging only during very dry periods

Rare Plants of Louisiana



- Refrain from bedding, using plowed fire lines and other soil disturbances that may alter natural water flow patterns and free up growing space to exotic or weedy native plants

LA River Basins: Pearl, Pontchartrain



Above: Immature inflorescence of *Rhynchospora ciliaris*.

Left: Whole plant of *R. ciliaris* with key identification features labeled.

Specimen images courtesy of LSU Herbarium.

References:

Godfrey, R. K. and J. W. Wooten. 1981. Aquatic and wetland plants of the southeastern United States: monocotyledons. University of Georgia Press, Athens, GA. 712 pp.

USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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Rhynchospora compressa - flat-fruit beakrush Sedge Family (Cyperaceae)

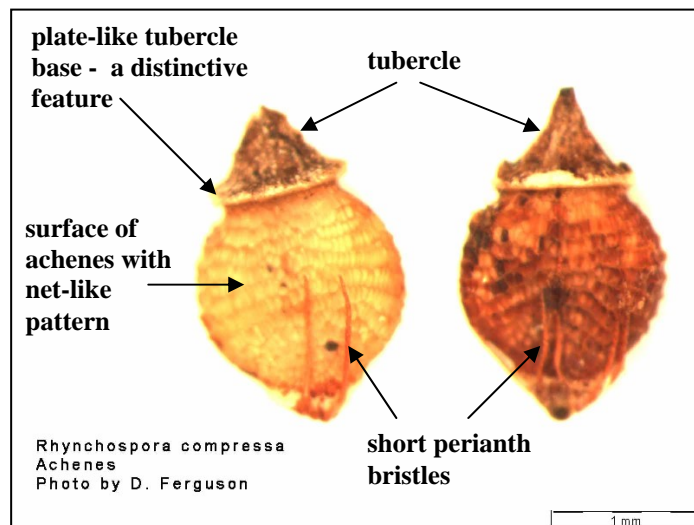
Rarity Rank: S2/G4

	1	2	3	4	5
State					
Global					
	imperiled		rare	secure	

Range: AL, FL, GA, LA, MS, SC

Recognition:

- Cespitose perennial from a caudex, stems erect and stiff, to 1 m tall
- Lower stems leafy, fertile stems with sparse foliage
- Inflorescence of erect terminal and long-stalked axillary cymes
- Fruit an achene about 1.5 mm long, with the faces flat or sunken centrally (versus trigonous or bulging); achene with transverse ridges or reticulation
- Tubercle of fruit bearing a circular, flat, plate-like base, extending outward over the narrowed achene summit



Fruits of *Rhynchospora compressa*.
Photo by Diane Ferguson, LSU Herbarium.

Flowering/Fruiting Time: May to June

Light Requirement: Full sun

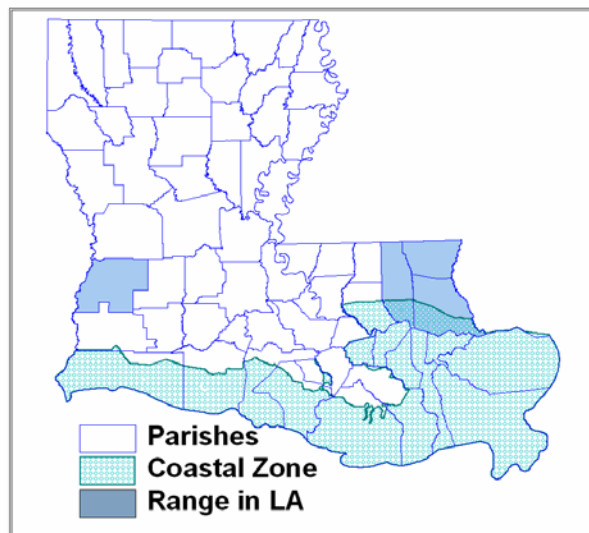
Wetland Indicator Status:

OBL – almost always in wetlands

Habitat: Longleaf pine flatwoods savannas.

Threats:

- Residential or commercial development
- Conversion to slash or loblolly pine plantations
- Hydrological alterations
- Soil damage from timber harvesting and planting activities (eg. bedding)
- Fire exclusion or inappropriate fire regime



Beneficial Management Practices:

- Use of growing season prescribed fire (April-June) at a frequency of every 1 to 3 years
- Thinning over densely-stocked stands (only during very dry conditions)
- No bedding, plowed fire lines or other soil disturbance that may alter natural water flow patterns

LA River Basins: Pearl, Pontchartrain, Calcasieu, Sabine

Rare Plants of Louisiana



Specimen of *Rhynchospora compressa*. Courtesy of LSU Herbarium.

References:

- Clewell, A. F. 1985. Guide to the vascular plants of the Florida Panhandle. University Presses of Florida, Florida State University Press, Tallahassee. 605 pp.
- Godfrey, R. K. and J. W. Wooten. 1981. Aquatic and wetland plants of the southeastern United States: monocotyledons. University of Georgia Press, Athens, GA. 712 pp.
- USDA, NRCS. 2008. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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Rare Plants of Louisiana



Rhynchospora miliacea - millet beakrush Sedge Family (Cyperaceae)

Rarity Rank: S2/G5

	1	2	3	4	5
State					
Global					
	imperiled		rare		secure

Range: Atlantic and Gulf coastal plains from VA to TX

Recognition:

- Rhizomatous perennial sedge, up to 1 m tall, and usually occurring in large colonies
- Inflorescences distinctive, consisting of several open spikelet clusters widely spaced on the fertile stem; **branches radiating at right angles from the axis**

Flowering Time: September to October

Light Requirement: Shade

Wetland Indicator Status:

OBL – almost always in wetlands

Habitat:

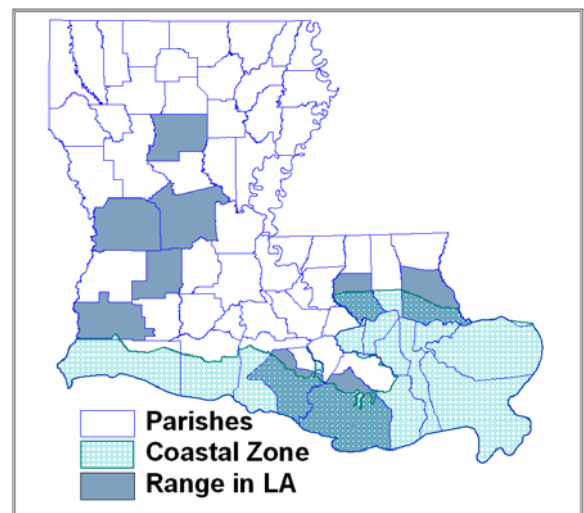
Interior occurrences are in forested seeps; Coastal Zone occurrences are on edges of hammocks and spoil banks in cypress-tupelo swamps.

Threats:

- Subsidence and conversion of forested wetland to open wetland or water
- Sedimentation of seepage wetlands

Beneficial Management Practices:

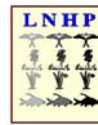
- In general, protect remaining coastal forested wetlands and restore hydrological connectivity and sediment supply to abate subsidence
- Avoid impacting soil of forested seeps and follow Best Management Practices with respect to water quality and erosion prevention when harvesting timber near forested seeps
- Thinning of overstocked stands up slope from seepage wetlands



LA River Basins:

Calcasieu, Mermentau, Sabine, Terrebonne, Ouachita, Pontchartrain, Vermilion-Teche

Rare Plants of Louisiana



References:

- Diggs, G. M., B. L. Liscomb, M. D. Reed, and R. J. O'Kennon. 2006. Illustrated flora of east Texas. Vol. 1. Botanical Research Institute of Texas & Austin College. 1594 pp.
- Godfrey, R. K. and J. W. Wooten. 1981. Aquatic and wetland plants of the southeastern United States: monocotyledons. University of Georgia Press, Athens, GA. 712 pp.
- USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

Rare Plants of Louisiana



Rhynchospora nitens – short-beaked bald sedge Sedge Family (Cyperaceae)

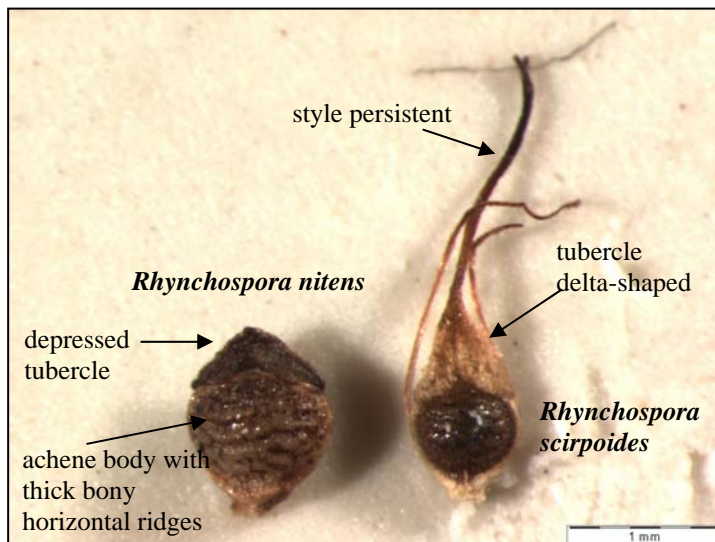
Rarity Rank: S3/G4?

	1	2	3	4	5
State					
Global					
	imperiled		rare		secure

Range: NY and MA, south to FL, west to TX; also IN

Recognition:

- Annual sedge from 15 to 80 cm tall, with diffusely branching inflorescences
- Spikelets 4 to 6 mm long with many flowers
- Achenes (fruits) 0.7 to 1 mm long, having irregular horizontal bone-colored and textured ridges
- Tubercles depressed, much wider than long
- Style is not persistent, as it is in *R. scirpoides*



Fruits of *Rhynchospora nitens* (left) and *R. scirpoides* (right) showing major differences between the two species; photo by Diane Ferguson, LSU Herbarium

Flowering/Fruiting Time: July to September

Light Requirement: Full sun

Wetland Indicator Status:

OBL – almost always occurs in wetlands

Habitat:

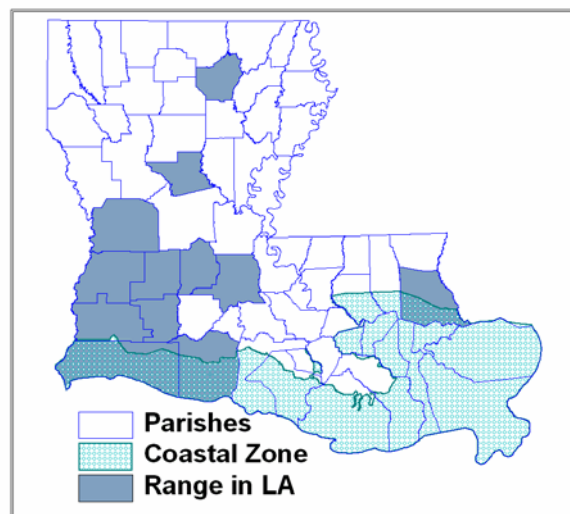
Various wet open areas such as wet coastal prairies, ditches, bogs, etc. Usually rooted in mineral soil and not growing in mucky soils and floatant marshes, which characterizes the habitat of the related *R. scirpoides*. Usually found in areas with light vegetative cover with exposed mud or wet sandy or silty soil.

Threats:

- Historical conversion of the vast majority of coastal prairie to agriculture
- Fire exclusion which allows thickening of woody vegetation in open communities such as pine flatwoods, thus denying growing space

Beneficial Management Practices:

Prescribed burning and thinning of densely stocked timber



Rare Plants of Louisiana



LA River Basins: Calcasieu, Mermentau, Ouachita, Pontchartrain, Red



Specimen of *Rhynchospora nitens* showing growth habitat. It very much resembles *R. scirpoides* in general appearance. It is necessary to examine fruits to determine identification. Additionally, *R. nitens* grows on open wet sites in mineral soils while *R. scirpoides* is happier on mucky substrate and in floatant marshes. The two species can, however, grow in close proximity.

References:

- Diggs, G. M., B. L. Liscomb, M. D. Reed, and R. J. O'kennon. , 2006. Illustrated Flora of East Texas. Vol. 1. Botanical Research Institute of Texas & Austin College. 1594 pp.
- Godfrey, R. K. and J. W. Wooten. 1981. Aquatic and wetland plants of the southeastern United States: Monocotyledons. University of Georgia Press, Athens, GA. 712 pp.
- USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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Rare Plants of Louisiana



Rhynchospora scirpoides – long-beaked bald sedge Sedge Family (Cyperaceae)

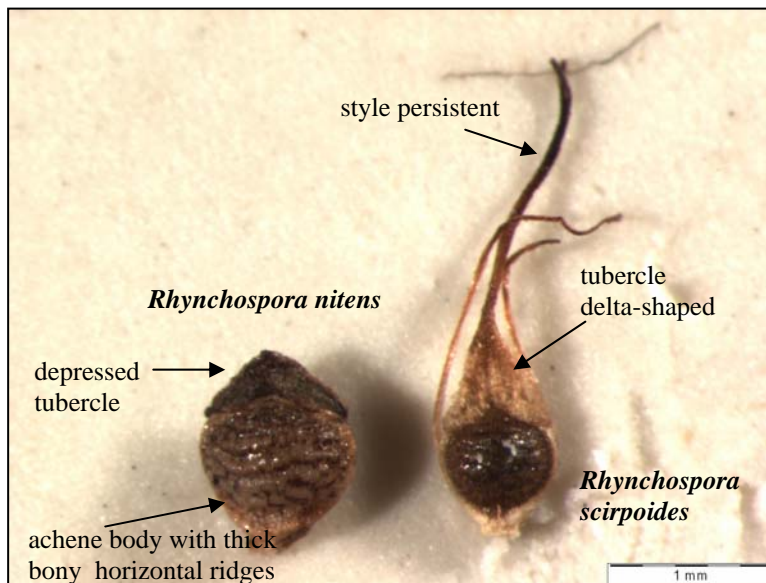
Rarity Rank: S3/G4

	1	2	3	4	5
State					
Global					
	imperiled		rare	secure	

Range: Atlantic and Gulf Coastal Plains from MA to TX and OK; also IN, MI, WI

Recognition:

- Annual sedge to ca 70 cm tall, with diffusely branching inflorescences
- Spikelets 3 to 6 mm long, with many flowers
- Achenes (fruits) 0.6 to 1 mm long
- Tubercles delta-shaped
- Style persistent rather than withering



Fruits of *Rhynchospora nitens* (left) and *R. scirpoides* (right) showing major differences between the two species; photo by Diane Ferguson, LSU Herbarium

Flowering/Fruiting Time: August to October

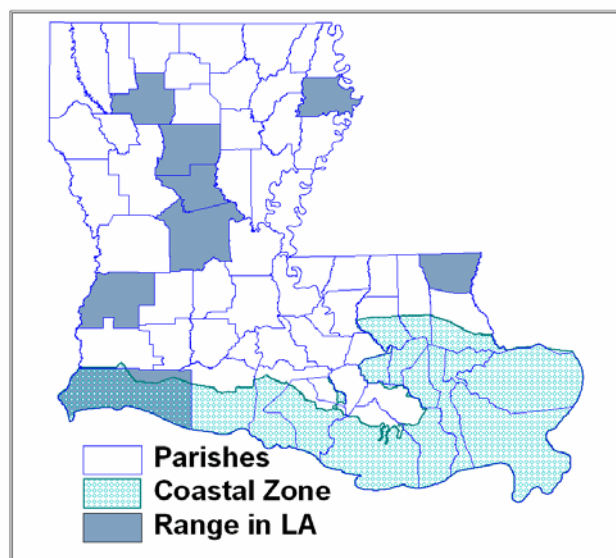
Light Requirement: Full sun

Wetland Indicator Status:

OBL – almost always occurs in wetlands

Habitat:

Hillside seepage bogs, fresh marshes (mainly foatant), beaver marshes/ponds. Usually rooted in deep organic muck or in quaking mats of floating vegetation. The Madison Parish report is suspect and should be investigated.



Threats:

Hydrological alterations of marshes and beaver wetlands (draining)

Beneficial Management Practices:

Protection of fresh marshes and wetlands

LA River Basins: Calcasieu, Mermentau, Ouachita, Pearl, Red, Vermilion-Teche

Rare Plants of Louisiana



Specimen of *Rhynchospora scirpoides* showing general habit. Specimen was collected from Lacassine Pool in Cameron Parish, which supports a robust population of *R. scirpoides*.

References:

- Diggs, G. M., B. L. Liscomb, M. D. Reed, and R. J. O'kennon. 2006. Illustrated flora of East Texas. Vol. 1. Botanical Research Institute of Texas & Austin College. 1594 pp.
- Godfrey, R. K. and J. W. Wooten. 1981. Aquatic and wetland plants of the southeastern United States: monocotyledons. University of Georgia Press, Athens, GA. 712 pp.
- USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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Rare Plants of Louisiana



Rudbeckia triloba - three-lobed coneflower Sunflower Family (Asteraceae)

Rarity Rank: S3/G5

	1	2	3	4	5
State					
Global					
	imperiled		rare		secure



Range: Eastern half of US and northeastern Canada

Recognition:

- Coarse perennials (or biennials), 0.5 to 1 m tall
- Leaves to 16 cm long and 10 cm wide, variable – often mostly unlobed and usually with a few three-lobed leaves on a single plant
- Flower heads terminate the branches
- Disc flowers dark purple, rays ca 8 and yellow, sometimes with orange bases, 1.5 to 3 cm long

Flowering Time: Peaks in May but flowers may be found well into the summer

Light Requirement: Shade to part shade

Wetland Indicator Status:

FACU – usually occurs in uplands but occasionally found in wetlands

Habitat:

Rich soils of calcareous forests, salt dome hardwood forests, and high sites in bottomland hardwood forests such as natural levees.

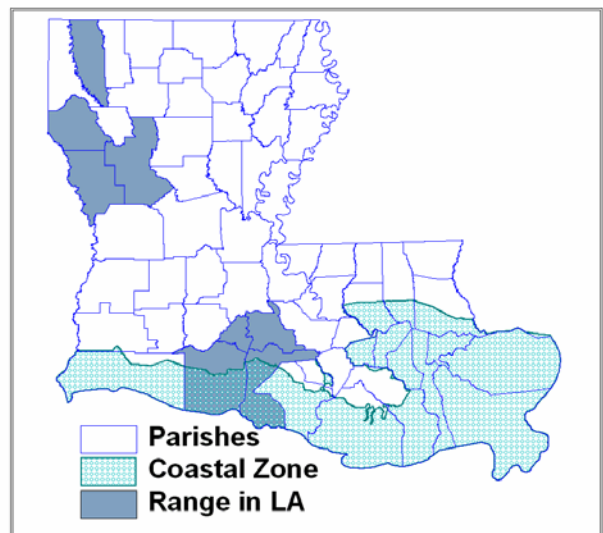
Threats:

- Conversion of natural forests to agriculture (mostly historical)
- Exotic species such as tallow tree and Chinese privet, plus wild hogs

Beneficial Management Practices:

- In general, maintain forest types supporting populations of *R. triloba*
- Permanently protect remaining salt dome hardwood forest
- Control of exotic plants and animals

LA River Basins: Atchafalaya, Vermilion-Teche, Mermentau, Sabine, Red



Rare Plants of Louisiana



Left: Profusely flowering colony of *R. triloba*, May 2007, De Soto Parish, LA.

Bottom Left: Close-up of flower head

Below: Several flower heads of *R. triloba* terminating stems.



References:

Cronquist, A. 1980. Vascular flora of the southeastern United States. I: Asteraceae. University of North Carolina Press, Chapel Hill. 261 pp.

Gandhi, K. N. and R. D. Thomas. 1989. Asteraceae of Louisiana. Sida, Bot. Misc. 4:1-202.

Nelson, G. 2005. East Gulf Coastal Plain wildflowers. The Globe Pequot Press. Guilford, CT. 263 pp.

USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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Rare Plants of Louisiana



Sabatia arenicola - sand rose-gentian Gentian Family (Gentianaceae)

Rarity Rank: S1/G3G5

	1	2	3	4	5
State	Yellow				
Global			Yellow	Yellow	Yellow
	imperiled		rare		secure

Range: LA, TX, northeast Mexico

Recognition:

- Stems to 30 cm tall, often branched from the base to form a rounded, bushy appearance
- Succulent leaves are broadest above the base and non-clasping, and up to 2.5 cm long
- Petals 5, pink or sometimes white, corolla lobes to 15 mm long
- Calyx tube strongly 5-angled, the angles with strong ribs



Flowering Time: Late spring and early summer

Light Requirement: Full sun

Wetland Indicator Status: FACW – usually in wetlands

Habitat:

Most known occurrences are on high energy Gulf beaches of the Deltaic Plain. There is one old record from beach and dunes at Johnsons Bayou in Cameron Parish. There is a record from a marsh in Orleans Parish which is suspicious. The one St. Tammany record is from a remnant barrier island on the north shore of Lake Pontchartrain.

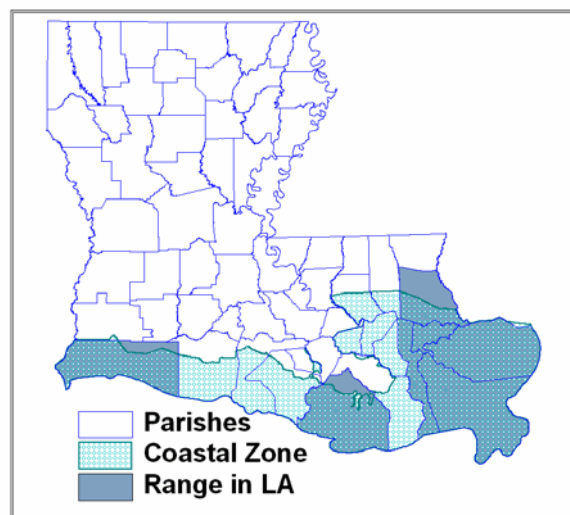
Threats:

- Shoreline erosion
- Off-road vehicle use
- Overgrazing

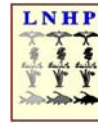
Beneficial Management Practices:

- Shoreline or island stabilization
- Prohibit off-road vehicle use
- Prohibit livestock grazing

LA River Basins: Pearl, Pontchartrain, Mississippi, Barataria, Terrebonne, Mermentau, Calcasieu, Sabine



Rare Plants of Louisiana



Sabatia arenicola on Gulf beach on Grand Terre Island. *S. arenicola* is present and can be viewed at Grand Isle State Park.

References:

Godfrey, R. K. and J. W. Wooten. 1981. Aquatic and wetland plants of the southeastern United States: dicotyledons. University of Georgia Press, Athens, GA. 933 pp.

Richardson, A. 2002. Wildflowers and other plants of Texas beaches and islands. University of Texas Press, Austin. 247 pp.

USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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Rare Plants of Louisiana



Salix caroliniana - coastal plain willow Willow Family (Salicaceae)

Rarity Rank: S1/G5

	1	2	3	4	5
State	Yellow				
Global					Yellow
	imperiled		rare		secure

Range: TX north to KS then eastward to PA and FL

Recognition:

- Small tree, up to 20 m tall
- Mature leaves whitish underneath, sparsely pubescent (particularly along the midribs) and up to 2.5 cm wide (leaves of other Louisiana willows are green to yellow-green below)
- Leaf margins finely toothed, the teeth with yellowish glandular tips
- Stipules broadly kidney-shaped, often persistent during the growing season

Flowering Time: February to April

Light Requirement: Full sun to part shade

Wetland Indicator Status:

OBL – almost always in wetlands

Habitat:

In the southeast US occurs along river banks, sand and gravel bars, ditches, swamps and marshes. The lone documented Louisiana record is in a depression in pine flatwoods near Slidell. Reports from parishes other than St. Tammany warrant investigation as these are apparently based on old specimens housed at US National Herbarium, US National Arboretum, and New York Botanical Garden that need to be examined.

Threats:

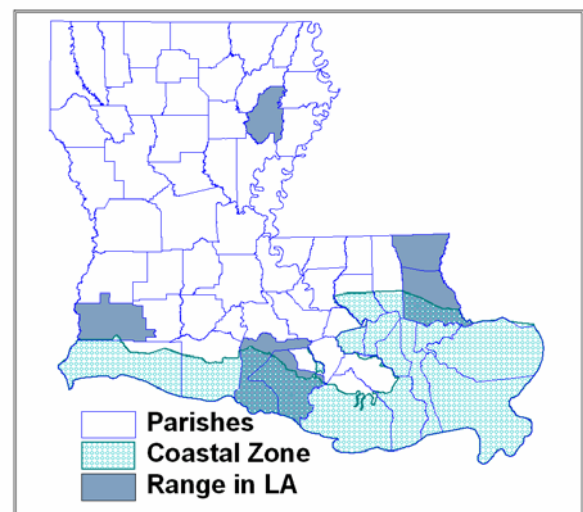
- Residential and commercial development
- Lack of status information

Beneficial Management Practices:

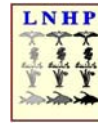
Investigate historical reports; verify identification of voucher specimens



Robert H. Mohlenbrock @ USDA-NRCS PLANTS Database / USDA SCS. 1991. *Southern wetland flora: Field office guide to plant species*. South National Technical Center, Fort Worth, TX



Rare Plants of Louisiana



LA River Basins: Pearl, Pontchartrain, Atchafalaya, Vermilion-Teche, Calcasieu, Sabine, Ouachita.



USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. *Illustrated flora of the northern states and Canada*. Vol. 1: 593.

References:

- Duncan, W. H. and M. B. Duncan. 1987. *The Smithsonian guide to seaside plants of the Gulf and Atlantic coasts*. Smithsonian Institution Press, Washington DC. 409 pp.
- Thomas, R. D. and C. M. Allen. 1998. *Atlas of the vascular flora of Louisiana*. Vol. 3. Louisiana Department of Wildlife and Fisheries, Baton Rouge.
- Tobe, J. D., K. C. Burks, R. W. Cantrell, M. A. Garland, M. E. Sweeley, D. W. Hall, P. Wallace, G. Anglin, G. Nelson, J. R. Cooper, D. Bickner, K. Gilbert, N. Aymond, K. Greenwood, and N. Raymond. 1998. *Florida wetland plants: an identification manual*. Tallahassee: Florida Department of Environmental Protection. 598 pp.
- USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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

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

Rare Plants of Louisiana



Samolus ebracteatus - brookweed Primrose Family (Primulaceae)

Rarity Rank: S1/G4G5

	1	2	3	4	5
State					
Global					
	imperiled		rare		secure

Range: FL, KS, LA, NM, NC, OK, TX

Recognition:

- A short perennial herb with erect leafy stems
- Inflorescences unbranched and without leaf-like bracts
- Leaves grayish green, broadly to narrowly oblong spatulate to obovate
- Corolla pinkish to white, with the lobes being shorter than the tube

Flowering Time: April to November

Light Requirement: Full sun to part shade

Wetland Indicator Status:

OBL – almost always in wetlands

Habitat:

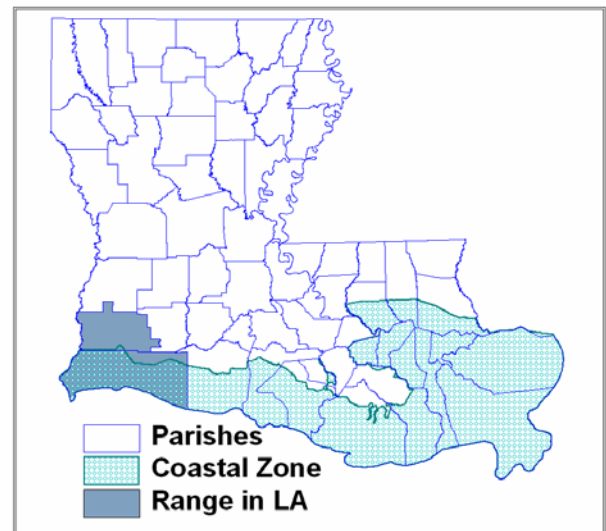
Known Louisiana occurrences are in various wet open disturbed areas. Range-wide this species is often associated with brackish or calcareous marshes. It could be overlooked in coastal Louisiana.

Threats: Unknown

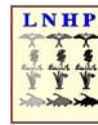
Beneficial Management Practices:

Increase field survey effort to gain more knowledge on this species in Louisiana

LA River Basins: Calcasieu, Mermentau, Sabine



Rare Plants of Louisiana



References:

- Clewell, A. F. 1985. Guide to the vascular plants of the Florida Panhandle. University Presses of Florida, Florida State University Press, Tallahassee. 605 pp.
- Godfrey, R. K. and J. W. Wooten. 1981. Aquatic and wetland plants of southeastern United States: dicotyledons. University of Georgia Press. Athens, GA. 933 pp.
- Tiner, R.W. 1993. Field Guide to coastal wetland plants of the southeastern United States. The University of Massachusetts Press, Amherst. 328 pp.
- USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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Rare Plants of Louisiana



Sarracenia psittacina - parrot pitcher plant Pitcher Plant Family (Sarraceniaceae)

Rarity Rank: S3/G4

	1	2	3	4	5
State					
Global					
	imperiled		rare		secure

Range: AL, FL, GA, LA, MS

Recognition:

- A “carnivorous” plant with “pitchers” for trapping invertebrates
- Leaves (“pitchers”) reclining or sprawling, to ca 30 cm tall, with a helmet-like apex
- Flower stalks 15 to 35 cm tall each with a single nodding flower
- Petals maroon, sepals maroon on the outside and green on inside



Flowering Time: April (later in year following fire)

Light Requirement: Full sun to part shade

Wetland Indicator Status:

FACW – usually in wetlands

Habitat:

Wet longleaf pine savannahs and hillside seepage bogs.

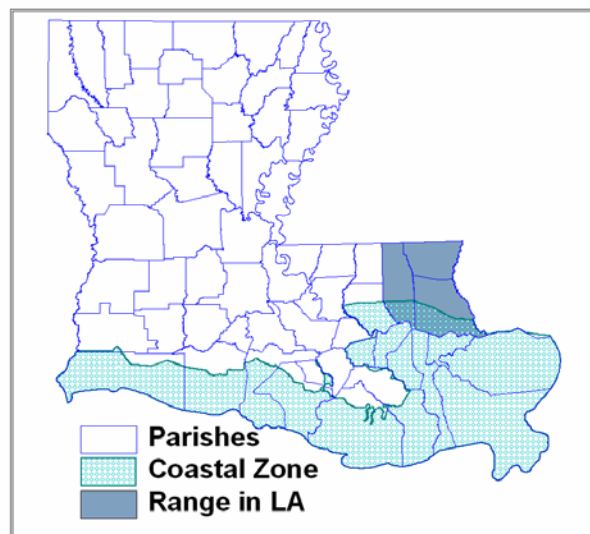
Threats:

- Residential and commercial development
- Conversion to slash or loblolly pine plantations
- Hydrological alterations (e.g. ditching, dense tree spacing)
- Soil damage from timber harvesting and planting activities (e.g. bedding)
- Fire exclusion or inappropriate fire timing
- Off-road vehicle use

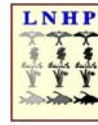
Beneficial Management Practices:

- Use of growing season prescribed fire (April-June) at a frequency of every 1 to 3 years
- No logging during wet periods when the soil is saturated
- No bedding, plowed fire lines or other soil disturbance that may alter natural water flow patterns
- Prohibit off-road vehicle use, or restrict use to pre-existing trails

LA River Basins: Pearl, Pontchartrain



Rare Plants of Louisiana



Sarracenia psittacina leaves, which are usually reclining and possess helmet-like apices, resembling parrots.

References:

Godfrey, R. K. and J. W. Wooten. 1981. Aquatic and wetland plants of southeastern United States: dicotyledons. University of Georgia Press. Athens, GA. 933 pp.

Nelson, G. 2005. East Gulf Coastal Plain wildflowers. The Globe Pequot Press. Guilford, CT. 263 pp.

USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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Rare Plants of Louisiana



Scaevola plumieri – ink-berry Goodenia Family (Goodeniaceae)

Rarity Rank: SH/G5 (Historical for LA)

	1	2	3	4	5
State					
Global					
	imperiled		rare		secure



© Mark W. Skinner

Mark W. Skinner @ USDA-NRCS PLANTS Database

Range: FL, LA, TX; widespread in tropical America, Africa, and southern India

Recognition:

- A succulent, evergreen shrub with many branches, up to 1.2 m tall (but usually smaller)
- Stems spreading under the sand, forming colonies
- Leaves large (up to 7 cm), fleshy, glossy green, clustered near the tips of stems, widest above the middle
- Flowers white or pinkish, fan-shaped, few and occurring in the leaf axils
- Fruit is a black, juicy drupe, 1 to 2.5 cm long

Flowering Time:

Potentially year-round – this is tropical plant and its persistence in LA is not known – it may be an occasional member of our flora

Light Requirement: Full sun to part shade

Wetland Indicator Status:

FAC – similar likelihood of occurring in both wetlands and non-wetlands

Habitat:

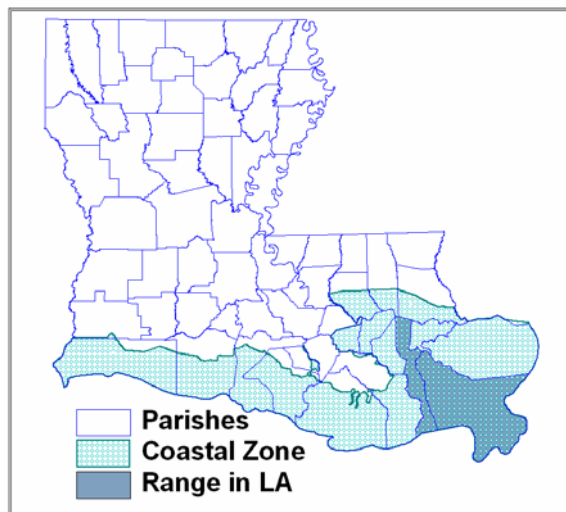
High energy dry sand beaches. *Scaevola plumieri* has not been recorded in LA since the 1930s where it was collected on Grande Isle (or Timbalier? – label ambiguous) and along Southwest Pass of the Mississippi River.

Threats:

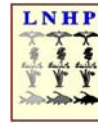
- Shoreline erosion
- Contamination by chemicals or industrial discharge
- Trampling by humans and livestock, to include vehicular traffic

Beneficial Management Practices:

- Shoreline or island stabilization
- Protect beaches from degradation by humans and livestock



Rare Plants of Louisiana



LA River Basins: Pontchartrain, Mississippi, Barataria



Pedro Acevedo-Rodriguez @ USDA-NRCS PLANTS Database

References:

Howarth, D.G., M.H.G. Gustafsson, D.A. Baum and T.J. Motley. 2003. Phylogenetics of the genus *Scaevola* (Goodeniaceae): implication for dispersal patterns across the Pacific Basin and colonization of the Hawaiian Islands. *American J. Botany*. 90: 915-923.

Nellis, D. W. 1994. *Seashore plants of South Florida and the Caribbean: a guide to knowing and growing drought- and salt tolerant plants*. Pineapple Press. Sarasoto, FL. 164 pp.

Nelson, G. 1996. *The Shrubs and Woody Vines of Florida*. Pineapple Press. Sarasota, FL. 391 pp.

USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

Wunderlin, R. P. 1998. *Guide to the vascular plants of Florida*. University Press of Florida, Gainesville. 806 pp.

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Rare Plants of Louisiana



Schisandra glabra - bay starvine Schisandra Family (Schisandraceae)

Rarity Rank: S3/G3

	1	2	3	4	5
State					
Global					
	imperiled		rare		secure

Range: AL, AR, FL, GA, KY, LA, MS, NC, SC, TN

Recognition:

- Woody vine that climbs by twining, and can also scramble across the forest floor and over low-growing vegetation
- Leaves deciduous, alternate, well spaced on long shoots and closely spaced on short shoots
- Leaf blades 4 to 12 cm long by 2 to 6 cm broad, margins entire or with very faint dentations
- Flowers solitary and born in the leaf axels on relatively long flexuous stalks
- Perianth (petals and sepals collectively) of 9 to 12 separate parts, inner parts red to strawberry-pink, outer parts greenish white
- Fruit is an aggregate of red berries that are 6 to 10 mm long



Flowering Time: June

Light Requirement: Shade

Wetland Indicator Status:

Does not occur in wetlands anywhere in range

Habitat:

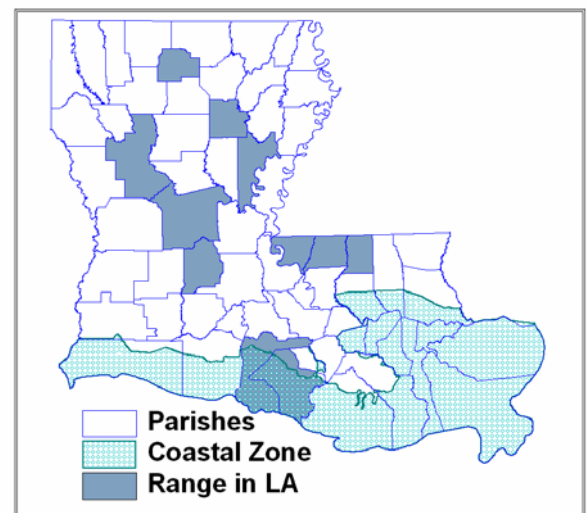
Coastal zone occurrences are in rich ravines of Weeks and Cote Blanche Islands; elsewhere in the state it occurs in southern mesophytic forests, hardwood slope forests, and mixed hardwood-loblolly pine forests. *Schisandra glabra* can be reliably found on Tunica Hills WMA, should one want to view it.

Threats:

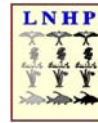
- Conversion of habitat to forest types
- Unnatural rates of erosion

Beneficial Management Practices:

Maintain forest cover and minimize disturbance



Rare Plants of Louisiana



LA River Basins: Mississippi, Ouachita, Pontchartrain, Red, Vermilion-Teche



Schisandra glabra at Tunica Hills WMA

References:

- Allen, C. M., D. A. Newman, and H. H. Winters. 2002. Trees, shrubs and woody vines of Louisiana. Allen's Native Ventures, LLC. Pitkin, LA. 333 pp.
- Clewell, A.F. 1985. Guide to the vascular plants of the Florida Panhandle. Florida State University Press, Tallahassee. 605 pp.
- Godfrey, R.K. 1988. Trees, shrubs, and woody vines of northern Florida and adjacent Georgia and Alabama. The University of Georgia Press, Athens and London. 734 pp.
- Nelson, G. 1996. The shrubs and woody vines of Florida. Pineapple Press, Inc. Sarasota, FL. 391 pp.
- USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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Rare Plants of Louisiana



Schizachyrium maritimum - Gulf bluestem Grass Family (Poaceae)

Rarity Rank: S1/G3G4Q

	1	2	3	4	5
State	Yellow				
Global			Yellow	Yellow	
	imperiled		rare		secure

Range: AL, FL, LA, MS

Recognition:

- Good sized perennial grass of coastal beaches and sand dunes, to 1 m or so tall with inflorescences bearing abundant whitish hairs, appearing beard-like
- Definite long rhizomes (the common and similar *S. scoparium* is tufted or has short rhizomes)
- Sessile spikelet (spikelets born in pairs, one sessile and one stalked (= pedicillate)) 10 mm long
- Pedicellate spikelet reportedly staminate, 4-8.5 mm long, while that of *S. scoparium* is ca 2.5 mm long and sterile



Photo by Larry Allain

Flowering Time: August to November

Light Requirement: Full sun

Wetland Indicator Status:

FAC – similar likelihood of occurring in both wetlands and non-wetlands

Habitat:

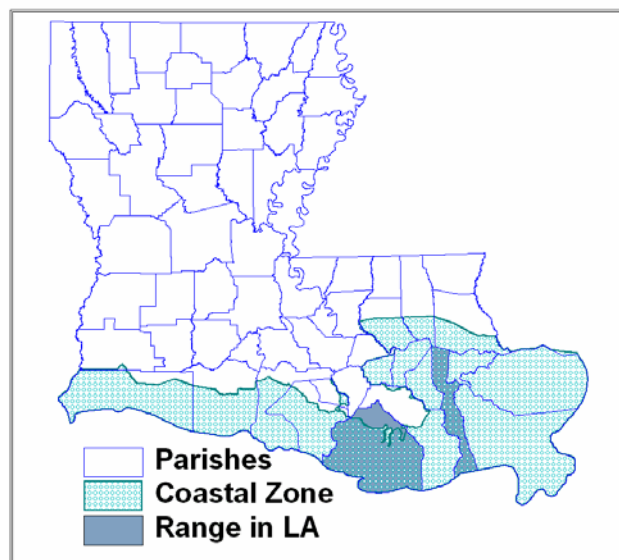
Coastal dune grasslands and high energy Gulf beaches.

Threats:

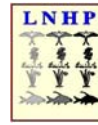
- Shoreline erosion
- Construction of roads, pipelines or utilities
- Contamination by chemicals or industrial discharge
- Off-road vehicle use
- Overgrazing

Beneficial Management Practices:

- Shoreline or island stabilization
- Prohibit off-road vehicle use on beaches and sand dunes
- Prohibit livestock grazing



Rare Plants of Louisiana



LA River Basins: Pontchartrain, Barataria, Terrebonne

References:

- Allen, C. M., D. A. Newman, and H. Winters. 2004. Grasses of Louisiana, 3rd edition. Allen's Native Ventures, LLC. Pitkin, LA. 374 pp.
- Clewell, A. F. Guide to the vascular flora of the Florida panhandle. University Presses of Florida/Florida State University Press, Tallahassee. 605 pp.
- Godfrey, R. K. and J. W. Wooten. 1981. Aquatic and wetland plants of the southeastern United States: Monocotyledons. University of Georgia Press, Athens, GA. 712 pp.
- Tobe, J. D., K. C. Burks, R. W. Cantrell, M. A. Garland, M. E. Sweeley, D. W. Hall, P. Wallace, G. Anglin, G. Nelson, J. R. Cooper, D. Bickner, K. Gilbert, N. Aymond, K. Greenwood, and N. Raymond. 1998. Florida wetland plants: an identification manual. Tallahassee: Florida Department of Environmental Protection. 598 pp.
- USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

Rare Plants of Louisiana



Selaginella ludoviciana - Louisiana spikemoss Spikemoss Family (Selaginellaceae)

Rarity Rank: S1/G3G4

	1	2	3	4	5
State					
Global					
	imperiled		rare		secure

Range: AL, FL, GA, LA, MS

Recognition:

- A fern ally, fern allies being vascular plants that reproduce by spores, have leaves with only one vein or no vein and lack leaf stalks
- Low growing terrestrial plant that forms diffuse mats – moss-like
- Stems long-creeping, usually ascending, sparsely branched; stems of the more common *S. apoda* are prostrate
- Leaf margins whitish, while the leaf margins of the more common *S. apoda* are not differentiated from the rest of the leaf
- Leaves subtending sporangia (= sporophylls, which collectively comprise the strobilus or “cone”) very strongly keeled, with keel dentate, sparsely serrate margins and with acuminate apices

Light Requirement: Shade

Wetland Indicator Status: FACW – usually in wetlands

Habitat:

Mesic mixed hardwood-loblolly pine forests and creek banks within this forest type.

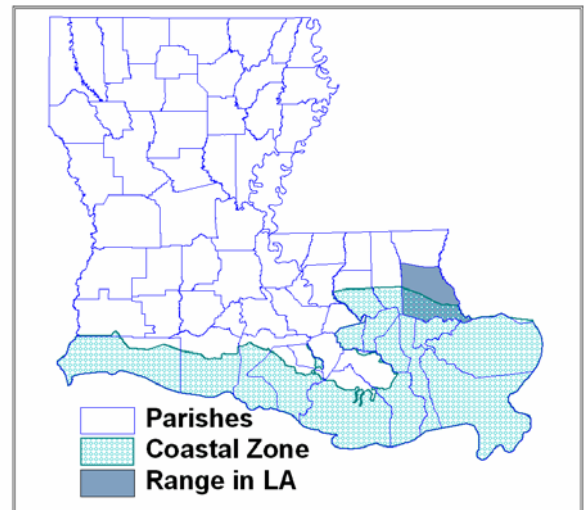
Threats:

- Habitat conversion to other forest types
- Residential and commercial development

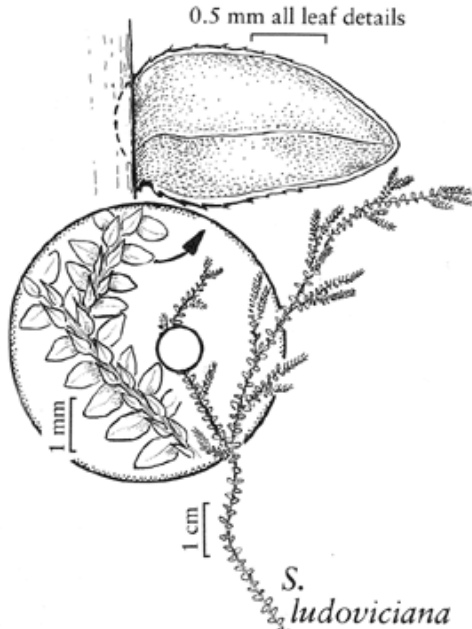
Beneficial Management Practices:

Protect natural mesic forests in the North Shore area

LA River Basins: Pearl, Pontchartrain



Rare Plants of Louisiana



S. ludoviciana from The Flora of North America, Volume 2.
Copyright © 2000 Flora of North America Association

References:

- Buck, W. R., and T. W. Lucansky. 1976. An anatomical and morphological comparison of *Selaginella apoda* and *Selaginella ludoviciana*. Bulletin of the Torrey Botanical Club. 103(1): 9-16.
- Somers, P. and W. R. Buck. 1975. *Selaginella ludoviciana*, *S. apoda* and their hybrids in the southeastern United States. American Fern Journal. 65(3):76-82.
- Thomas, R. D. and C. M. Allen. 1993. Atlas of the vascular flora of Louisiana, vol. I: ferns & fern Allies, conifers, & monocotyledons. Louisiana Dept. of Wildlife and Fisheries, Baton Rouge.
- Valdespino, I. 1993. Flora of North America, Vol. 2, pteridophytes and gymnosperms. Oxford University Press, New York.
- USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.
- NatureServe. 2007. NatureServe Explorer: An online encyclopedia of life [web application]. Version 6.2. NatureServe, Arlington, Virginia. Available at <http://www.natureserve.org/explorer>.
- Thieret, J. W. 1980. Louisiana Ferns and Fern Allies. The University of Southwest Louisiana, Lafayette. 123 pp.

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Rare Plants of Louisiana



Serenoa repens - saw palmetto Palm Family (Arecaceae)

Rarity Rank: S1/G4G5

	1	2	3	4	5
State					
Global					
	imperiled		rare		secure



Range: AL, FL, GA, LA, MS, SC, TX

Recognition:

- Low prostrate shrub with palm-like, fan-shaped leaves
- Petioles bear recurved spines on both edges, resembling a saw blade
- Stems aerial (if not buried by sand) and horizontal
- Leaf blades are fan-like with larger leaves being up to 60 cm long by 90 cm wide, nearly round in outline with segments radiating from one point; yellow-green to green in color
- 3-parted flowers are white, numerous, arranged in a panicle
- Fruit is an oblong black drupe from 15 to 25 mm long

Flowering Time: Spring; flowering can occur during other seasons following fire

Light Requirement: Full sun to part shade

Wetland Indicator Status:

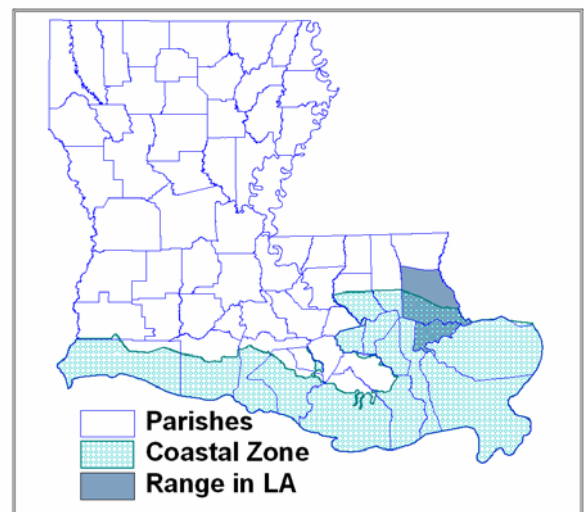
FACU – usually occurs in uplands but occasionally found in wetlands

Habitat:

Louisiana occurrences are on remnant barrier islands and hammocks on the North Shore of Lake Pontchartrain and to the east of New Orleans. Field work is necessary to relocate North Shore populations and update records for these.

Threats:

- Subsidence is a potential threat
- Shading or suppression by other woody vegetation in the absence of fire (?)



Beneficial Management Practices:

Conduct a status survey and conservation assessment for this species in Louisiana, involving field work to relocate North shore populations

LA River Basins: Pearl, Pontchartrain

Rare Plants of Louisiana



Left: Base of a small plant of *Serenoa repens* showing evident prickles on both sides of the petioles.



Serenoa repens on Pine Island, Bayou Sauvage NWR, Orleans Parish, Louisiana. Here *S. repens* occurs in sandy soil with much red bay (*Persea palustris*) in the overstory)

References:

- Clewell, A.F. 1985. Guide to the vascular plants of the Florida Panhandle. Florida State University Press, Tallahassee. 605 pp.
- Godfrey, R.K. 1988. Trees, shrubs, and woody vines of northern Florida and adjacent Georgia and Alabama. The University of Georgia Press, Athens and London. 734 pp.
- Nelson, G. 1996. The shrubs and woody vines of Florida. Pineapple Press, Sarasota, FL. 391 pp.
- USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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Rare Plants of Louisiana



Sida elliottii - Elliott's sida Mallow Family (Malvaceae)

Rarity Rank: SH/G4G5 (Historical in Louisiana)

	1	2	3	4	5
State					
Global					
	imperiled		rare		secure

Range: IL and MO, south to TX and east to FL and VA



Photo by Alvin Diamond, Troy State University

Recognition:

- A branching perennial 0.3 to 0.5 (to 1) m in height but often leaning and sometime prostrate
- Leaf blades narrowly elliptic or linear, considerable longer than broad, 2 to 7 cm long, with serrated margins
- Petals yellow
- Calyx-lobes triangular in shape

Flowering Time: July to October

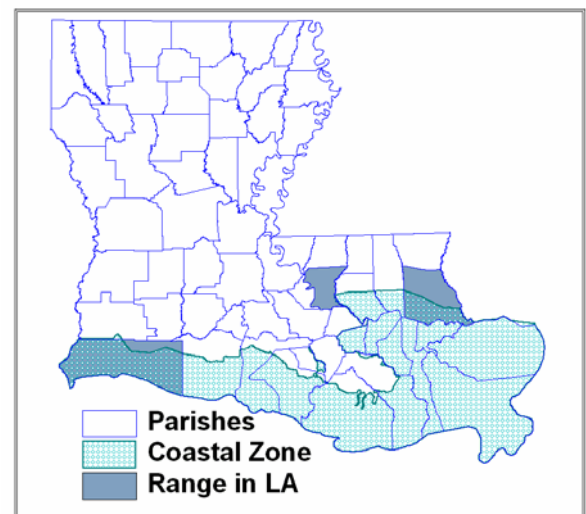
Light Requirement: Full sun to part shade

Wetland Indicator Status:

Does not occur in wetlands anywhere in range

Habitat:

Historical collections from Louisiana are from saline prairie and Gulf beach habitats. The most recent specimen was collected in August 1938 near Plains, East Baton Rouge Parish, in an area that historically supported saline prairies. Also collected near the turn of the 20th century in Cameron Parish from “sands along beach” and in St. Tammany Parish near Mandeville. In other southern states it occurs on sandy prairies and on limestone soils, to include disturbed areas such as roadsides and ruderal ground.

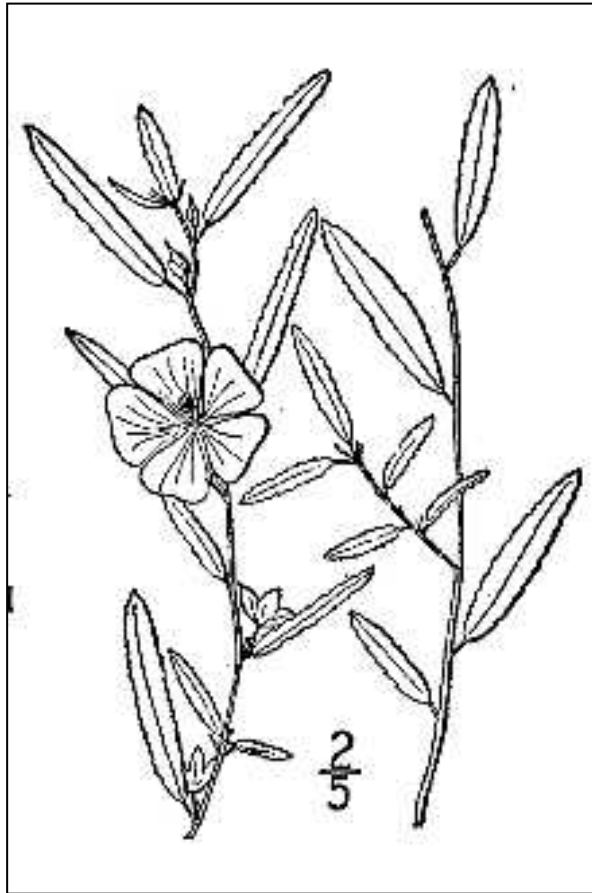


Threats: Unknown

Beneficial Management Practices:

Field survey work to rediscover this species in Louisiana – it may perhaps be overlooked or collected and misidentified – survey work should include reviewing herbarium specimens of other *Sida* spp. to detect possible misidentified *S. elliottii*

LA River Basins: Mississippi, Pontchartrain



USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. *Illustrated flora of the northern states and Canada*. Vol. 2: 520.

References:

- Clewell, A. F. 1985. Guide to the vascular plants of the Florida Panhandle. University Presses of Florida. Florida State University Press, Tallahassee. 605 pp.
- Small, J. K. 1933. Manual of the southeastern flora. Univ. of North Carolina Press, Chapel Hill. 1554 pp.
- Steyermark, J. A. 1963. Flora of Missouri. Iowa State University Press, Ames, Iowa. 1728 pp.
- USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.
- Weakley, A. S. 2007. Flora of the Carolina, Virginia, Georgia, and surrounding areas. Working Draft. University of North Carolina Herbarium (NCU), North Carolina Botanical Garden, University of North Carolina, Chapel Hill. <http://www.herbarium.unc.edu/WeakleysFlora.pdf>.

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

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Rare Plants of Louisiana



Sideroxylon reclinatum - Florida bully Sapotilla Family (Sapotaceae)

Rarity Rank: S1/G4G5

	1	2	3	4	5
State					
Global					
	imperiled		rare		secure

Range: AL, FL, GA, LA, MS, SC

Recognition:

- Shrub, sometimes tree-like, up to 5 m tall (if protected from fire)
- Branches thin, often having thorns at leaf axils and leafy shoot tips
- Leaves deciduous and alternate (though may be densely spaced)
- Leaf blade oblanceolate, spatulate or obovate as well as from 1 to 6 cm long, 0.4 to 2 cm wide, tips rounded, surfaces glabrous, upper surface dark green
- Flowers small and white, in few or many-flowered clusters
- Fruit is an ovoid, oblong black berry from 5 to 8 mm long
- Can be separated from the common *Sideroxylon lanuginosum* in that the stems of the current season are glabrous in *S. reclinatum* while in *S. lanuginosum*, current-season stems have dark hairs

Flowering Time: Late spring to early summer

Light Requirement: Sun to shade

Wetland Indicator Status:

FAC – similar likelihood of occurring in both wetlands and non-wetlands

Habitat:

This species is represented in Louisiana by one known record from northwest Cameron Parish where it was collected “around camp buildings and in adjoining marsh”.

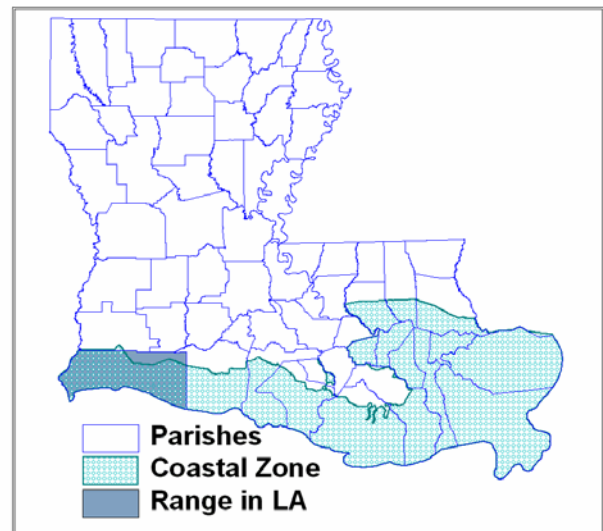
Threats:

Subsidence of marsh and erosion/subsidence of hammocks and shell middens

Beneficial Management Practices:

Protection of fresh marshes and imbedded ridges and shell middens

LA River Basins: Calcasieu, Sabine



Rare Plants of Louisiana

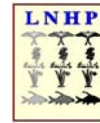


Photo by Gil Nelson

References:

- Allen, C. M., D. A. Newman, and H. H. Winters. 2002. *Trees, shrubs and woody vines of Louisiana*. Allen's Native Ventures, LLC., Pitkin, LA. 333 pp.
- Nelson, G. 1996. *The Shrubs and Woody Vines of Florida*. Pineapple Press. Sarasota, FL. 391 pp.
- Tobe, J. D., K. C. Burks, R. W. Cantrell, M. A. Garland, M. E. Sweeley, D. W. Hall, P. Wallace, G. Anglin, G. Nelson, J. R. Cooper, D. Bickner, K. Gilbert, N. Aymond, K. Greenwood, and N. Raymond. 1998. *Florida wetland plants: an identification manual*. Tallahassee: Florida Department of Environmental Protection. 598 pp.
- USDA, NRCS. 2007. *The PLANTS Database* (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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

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

Rare Plants of Louisiana



Sium suave - hemlock water-parsnip Carrot Family (Apiaceae)

Rarity Rank: S1S2/G5

	1	2	3	4	5
State	Yellow	Yellow	White	White	White
Global	White	White	White	White	Yellow
	imperiled		rare		secure

Range: Newfoundland to British Columbia, and southward throughout the U.S.; also East Asia.

Recognition:

- Tall herb in the parsley/carrot family, 1.2 to 1.5 m tall
- Lower portions of stems round and hollow, upper portions corrugated-angled with branches arising from middle to upper stem
- Stem nodes bear long fibrous adventitious roots when submersed
- Aerial leaves long and mostly once-pinnately compound; submerged leaves highly dissected, 2-3 times compound with linear segments
- The leaflets lance-shaped, sharply and abundantly toothed, which differs from the superficially similar stiff cowbane (*Oxypolis rigidior*) which has only a few dentate teeth per each side of a leaflet
- Mexican cowbane (*Cicuta mexicana*), a similar species which is common in coastal freshwater wetlands, will have many leaves that are twice to three times compound
- Inflorescence a compound umbel to 5-8 cm broad, long stalked; flowers small with white petals
- Fruit with several corky-thickened ribs, NOT possessing 2 prominent wings; fruits 2 to 3 mm long



University of Wisconsin- Stevens Point : Steve C. Garske

Flowering Time: June to August

Light Requirement: Full sun to part shade

Wetland Indicator Status:

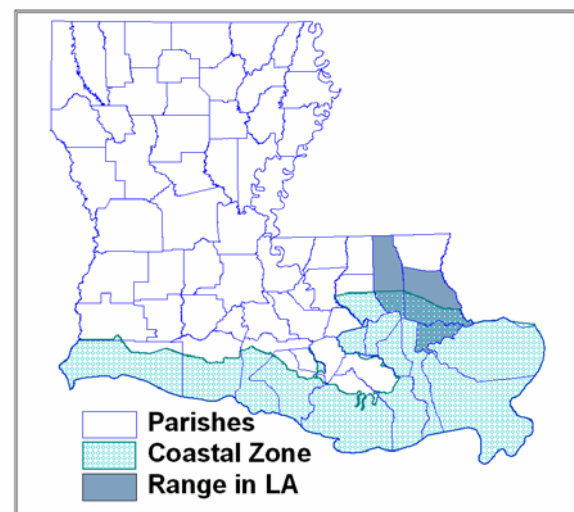
OBL – almost always in wetlands

Habitat:

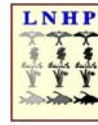
Louisiana occurrences are in fresh marshes and cypress-tupelo swamps around Lake Pontchartrain. This species has not been recorded in about 25 years, thus field work is warranted.

Threats:

Salt water intrusion and conversion of fresh marsh into open water



Rare Plants of Louisiana



Beneficial Management Practices:

- Any practices that maintain existing high quality fresh marsh
- Additional field inventory work

LA River Basins: Pearl, Pontchartrain



University of Wisconsin- Stevens Point : Robert Berman



University of Wisconsin- Stevens Point : Steve C. Garske

References:

Godfrey, R. K., and J. W. Wooten. 1981. Aquatic and wetland plants of southeastern United States: dicotyledons. University of Georgia Press, Athens, GA. 933 pp.

Tiner, R. W. 1993. Field guide to coastal wetland plants of the southeastern United States. The University of Massachusetts Press, Amherst. 328 pp.

Tobe, J. D., K. C. Burks, R. W. Cantrell, M. A. Garland, M. E. Sweeley, D. W. Hall, P. Wallace, G. Anglin, G. Nelson, J. R. Cooper, D. Bickner, K. Gilbert, N. Aymond, K. Greenwood, and N. Raymond. 1998. Florida wetland plants: an identification manual. Tallahassee: Florida Department of Environmental Protection. 598 pp.

USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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Rare Plants of Louisiana



Smilax auriculata - eared greenbrier Greenbrier Family (Smilacaceae)

Rarity Rank: S2/G4?

	1	2	3	4	5
State		■			
Global				■	
	imperiled		rare		secure



Photo by Gil Nelson

Range: AL, AR, FL, GA, LA, MS, NC, SC

Recognition:

- Low-growing evergreen vine with scattered prickles; climbing over and intertwined in low shrubs or on its own
- Leaves 5 to 12 cm long, blades narrowly ovate to ovate-elliptic, prominently reticulate veined
- Leaf apices usually rounded and with an abrupt point
- Leaf veins on lower surface slightly raised above leaf surface
- Berries ripening reddish to purple and finally to black, usually glaucous

Flowering Time: April to July

Light Requirement: Full sun

Wetland Indicator Status:

FACU – usually occurs in uplands but occasionally found in wetlands

Habitat:

Smilax auriculata is generally a species of deep sands. Louisiana occurrences are on barrier islands (recorded for Chandeleur Islands) and inland on stream terrace sandy woodlands.

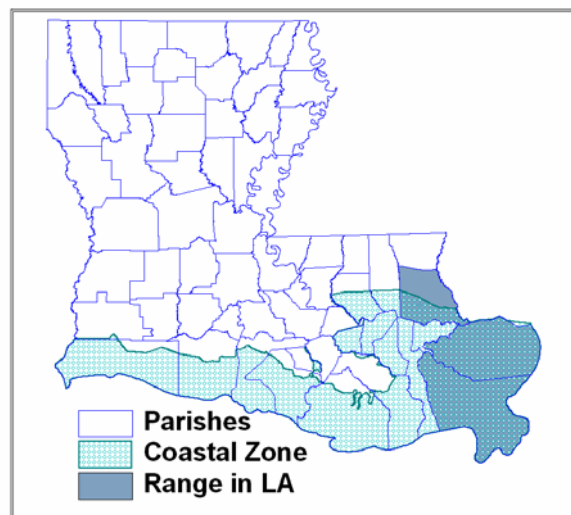
Threats:

- Erosion of barrier islands
- Inland occurrences are threatened by conversion of habitat to pine plantations and concomitant dense tree spacing and fire exclusion

Beneficial Management Practices:

- Any activities that prolong the lives of barrier islands, particularly conserving interior sandy/scrub habitat
- Thinning and burning sandy woodland habitat inland

LA River Basins: Pearl, Pontchartrain, Mississippi, Barataria



Rare Plants of Louisiana

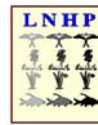


Photo by Gil Nelson

References:

- Allen, Charles M., Dawn A. Newman, and Harry H. Winters. 2002. Trees, shrubs and woody vines of Louisiana. Allen's Native Ventures, LLC. Pitkin, LA. 333 pp.
- Duncan, W. H., and M. B. Duncan. 1987. The Smithsonian guide to seaside plants of the Gulf and Atlantic coasts. Smithsonian Institution, Washington, DC. 409 pp.
- Godfrey, R. K. 1988. Trees, shrubs, and woody vines of northern Florida and adjacent Georgia and Alabama. The University of Georgia Press. Athens, GA. 734 pp.
- Nelson, G. 1996. The shrubs and woody vines of Florida. Pineapple Press, Inc. Sarasota, FL. 391 pp.
- USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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Rare Plants of Louisiana



Stipulicida setacea - pineland scalypink Pink Family (Caryophyllaceae)

Rarity Rank: S1/G4G5

	1	2	3	4	5
State	Yellow				
Global				Yellow	Yellow
	imperiled		rare		secure

Range: AL, FL, GA, LA, MS, NC, SC, VA

Recognition:

- Small herbaceous annual or short-lived perennial
- Wiry, dichotomously branching stems
- Basal leaves spatulate, to 15 mm long and 4 mm wide
- Stem leaves reduced, tiny and scale-like, the stems appearing leafless
- Flowers white with 5 petals, NOT notched at the tips, unlike many members of this family
- Fruit is a small capsule with a yellowish lustrous seed



Flowering Time: May to August

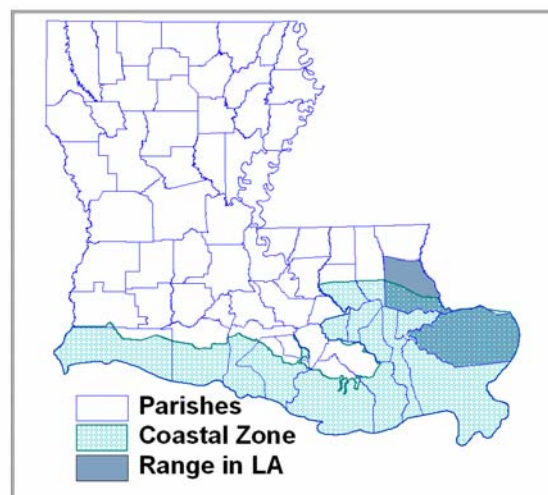
Light Requirement: Full sun

Wetland Indicator Status:

Does not occur in wetlands anywhere in range

Habitat:

We know of one extant occurrence on the sandy roadside of US 90 near Pearl River. If fill material for the road was brought in from Mississippi then this population is likely an introduction. In fact, Thomas and Allen (1996) regard *S. setacea* as introduced. However, there is a historical report from Breton Island (Lloyd and Tracey 1901), so the appropriate rank for this species may be SH rather than S1.



Threats:

- Shoreline and barrier island erosion
- Fire exclusion

Beneficial Management Practices:

- Shoreline and island stabilization
- Prescribed burning or mowing
- Field inventory work

LA River Basins: Pearl, Pontchartrain



Herbarium specimen of *Stipulicida setacea*.
Courtesy of LSU Herbarium.

References:

- Lloyd, F. E. and S. M. Tracey. 1901. The insular flora of Mississippi and Louisiana. *Bulletin of the Torrey Botanical Club*. Vol. 28 (2): 61-101.
- Radford, A. E., H. E. Ahles, and C. R. Bell. 1968. *Manual of the vascular flora of the Carolinas*. University of North Carolina Press, Chapel Hill. 1183 pp.
- Thomas, R. D. and C. M. Allen. 1996. *Atlas of the vascular flora of Louisiana*. Vol. 2. Louisiana Department of Wildlife and Fisheries, Baton Rouge.
- USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.
- Weakley, A. S. 2007. *Flora of the Carolina, Virginia, Georgia, and surrounding areas*. Working Draft. University of North Carolina Herbarium (NCU), North Carolina Botanical Garden, University of North Carolina, Chapel Hill. <http://www.herbarium.unc.edu/WeakleysFlora.pdf>.

Rare Plants of Louisiana



Tephrosia hispidula - hoary pea Pea Family (Fabaceae)

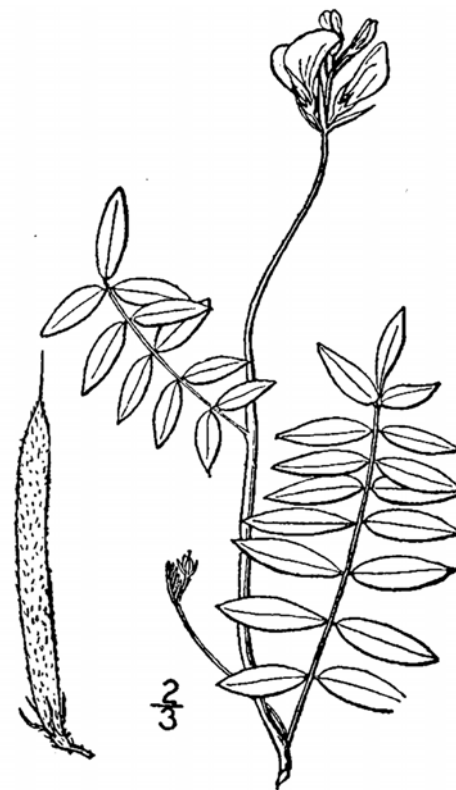
Rarity Rank: (S2?/G4G5)

	1	2	3	4	5
State		■			
Global				■	■
	imperiled		rare		secure

Range: AL, FL, GA, LA, MS, NC, SC, VA

Recognition:

- Decumbent to erect, perennial herb, 10 to 50 cm tall, with once-pinnately compound leaves
- Stems wiry with short (< 0.5 mm) ascending or appressed hairs
- Leaves compound, on short stalks, with 9 to 13 curved, elliptic leaflets
- Flowering stalks are up to 15 cm long, producing 2 to 4 flowers which are yellowish to white when new, turning red with age; corolla 10 to 15 mm long
- Fruit is a flat, oblong, hairy legume about 5 cm long



USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. *An illustrated flora of the northern United States, Canada and the British Possessions*. Vol. 2: 373.

Flowering Time: May to October

Light Requirement: Full sun to part shade

Wetland Indicator Status:

Does not occur in wetlands anywhere in range

Habitat:

Longleaf pine flatwoods savannahs.

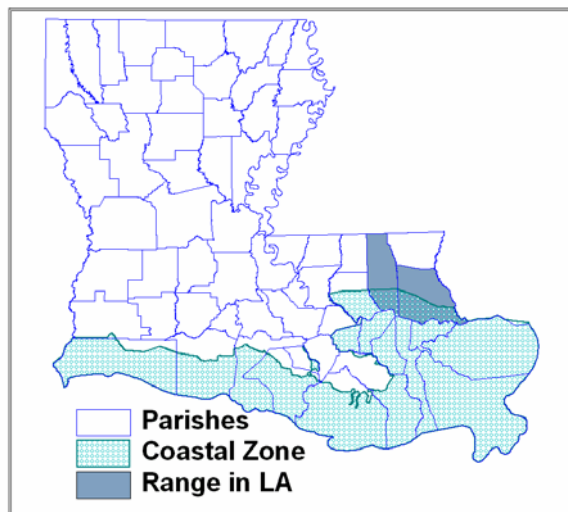
Threats:

- Conversion of habitat to pine plantations, including site prep (herbicides, bedding) and dense tree spacing (shading)
- Residential and commercial development
- Fire exclusion

Beneficial Management Practices:

- Thinning of overstocked forests (during very dry periods)
- Prescribed burning using growing season (May - June) burns

LA River Basins: Pearl, Pontchartrain



Rare Plants of Louisiana

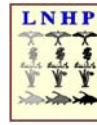


Photo by Gil Nelson

References:

- Isely, D. 1990. Vascular flora of the southeastern United States. Vol. 3, Part 2: Leguminosae (Fabaceae). The University of North Carolina Press, Chapel Hill and London. 258 pp.
- Lasseigne, A. 1973. Louisiana legumes. Southwestern Studies: Science Series No. 1. University of Southwestern Louisiana, Lafayette.
- Nelson, G. 2005. East Gulf Coastal Plain wildflowers. The Globe Pequot Press. Guilford, CT. 263 pp.
- USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

Rare Plants of Louisiana



Thalassia testudinum - turtle-grass Tape-grass Family (Hydrocharitaceae)

Rarity Rank: S2?/G4G5

	1	2	3	4	5
State		■			
Global				■	■
	imperiled		rare		secure

Range: FL, LA, MS, TX; Bermuda and West Indies, south to northern South America

Recognition:

- Submerged, meadow-forming marine aquatic plant with linear ribbon-like leaves
- Thick, horizontal, scaly rhizomes bearing spaced clusters of leafy vertical shoots (fibrous remains of old leaves usually present)
- Leaves broadly linear, to 35 cm long by 1 cm wide, minutely toothed at the rounded apices
- Flowers born in sheaths near the base of the shoots; male and female flowers born on separate plants (= dioecious)
- Fruit is rounded, densely warty, about 2 cm long, opening by valves and appearing like an earth-star

Flowering Time: June, fruiting July-October

Wetland Indicator Status:

OBL – almost always in wetlands

Habitat:

Clear shallow saline waters with depths of 0.6 to 1.5 m; salinities range from 20 to over 35 ppt.

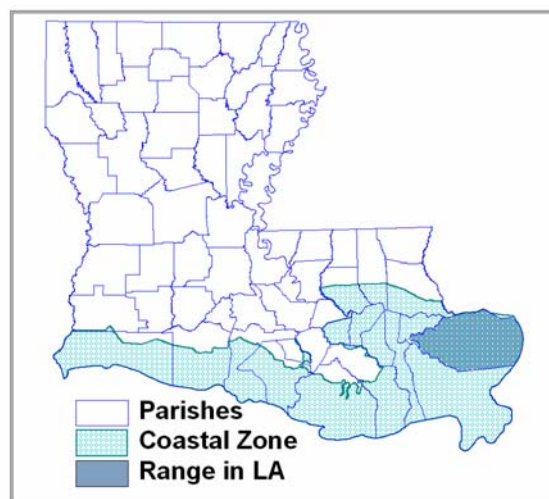
Threats:

- Dredging for channel or pipeline construction
- Any activities that increase turbidity and sediment load
- Spoil deposition on sea grass beds
- Contamination by chemicals

Beneficial Management Practices:

- Protect sea grass beds from mechanical and water quality impacts
- Avoid activities in shallow waters that might increase disturbance and turbidity

LA River Basins: Pontchartrain





Fruiting material of *Thalassia testudinum*.

R.A. Howard @ USDA-NRCS PLANTS Database, courtesy of Smithsonian Institution.

References:

- Correll, D. S. and M. C. Johnston. 1970. Manual of the Vascular Plants of Texas. Texas Research Foundation, Renner. 1881 pp.
- Dressler, R.L., D.W. Hall, K.D. Perkins, & N.H. Williams. 1987. Identification manual for wetland species of Florida. Institute of Food and Agricultural Sciences, Florida Agricultural Experiment Station, University of Florida, Gainesville. 297 pp.
- Stutzenbaker, C. D. 1999. Aquatic and wetland plants of the western Gulf Coast. Texas Parks and Wildlife Press and University of Texas Press, Austin. 465 pp.
- Tiner, R.W. 1993. Field Guide to coastal wetland plants of the southeastern United States. The University of Massachusetts Press, Amherst. 328 pp.
- USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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Rare Plants of Louisiana



Thalia dealbata - powdery thalia Prayer Plant Family (Marantaceae)

Rarity Rank: S2S3/G4

	1	2	3	4	5
State		■	■		
Global				■	
	imperiled		rare		secure

Range: AR, GA, IL, KY, LA, MO, MS, SC, TX

Recognition:

- Large, tropical-looking, erect perennial herb, up to ca 2 m tall
- Often grows in large colonies from thick rhizomes
- Leaves long-stalked, stalks to 80 cm long, blades banana-like, to ca 50 cm long
- Inflorescence a panicle at the terminus of an elongate stalk, covered with a powdery substance (hence the common name), flowers purplish
- Panicle narrow with stiff, short, zigzagging branches



Flowering Time: May to September

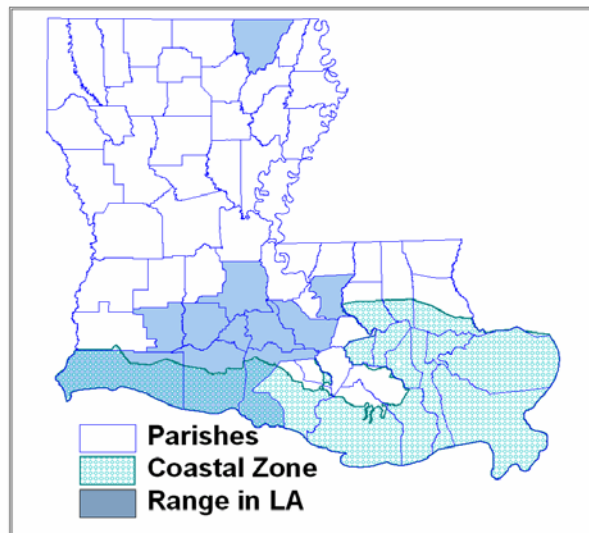
Light Requirement: Full sun

Wetland Indicator Status:

OBL – almost always in wetlands

Habitat:

Most of our occurrences are in roadside and irrigation ditches, also moist soil management units and shorelines. Frequent inundation, open muddy substrate, and recurring disturbance characterize these areas.



Threats:

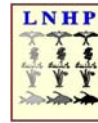
- Occurs where salinities are around 0 ppt, so presumably negatively affected by salinity increases
- Dredging and scarping out of ditches can reduce the aerial extent of colonies
- Application of herbicides on roadside ditches

Beneficial Management Practices:

- Protect known colonies when managing roadside and drainage ditches
- Fire or mowing to prevent establishment of invading woody species

LA River Basins: Pontchartrain, Terrebonne, Atchafalaya, Vermilion-Teche, Mermentau, Calcasieu, Sabine, Ouachita

Rare Plants of Louisiana



Above: *Thalia dealbata* in drainage ditch in cotton field, Morehouse Parish

Left: Close up of a *Thalia dealbata* inflorescence; note whitish powdery surfaces and zigzag appearance of naked branches

References:

Diggs, G. M., B. L. Liscomb, M. D. Reed, and R. J. O'kennon. 2006. Illustrated Flora of East Texas. Vol. 1. Botanical Research Institute of Texas & Austin College. 1594 pp.

Stutzenbaker, C. D. 1999. Aquatic and wetland plants of the western Gulf Coast. Texas Parks and Wildlife Press, Austin. 465 pp.

USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

Rare Plants of Louisiana



Thelypteris interrupta - Willdenow fern Marsh Fern Family (Thelypteridaceae)

Rarity Rank: S1/G5?

	1	2	3	4	5
State					
Global					
	imperiled		rare		secure

Range:

FL, LA, as well as West Indies, Central and tropical South America

Recognition:

- Fronds once-compound (pinnate), 50 to 150 cm long (including petiole); blades 30 to 125 cm long
- Blades lacking hairs on undersurface
- Long, creeping, black rhizome
- Light brown scales on the underside of the midrib of the frond



Clump of *Thelypteris interrupta* at Bayou Teche National Wildlife Refuge in St. Mary Parish.

Light Requirement: Shade to part shade

Wetland Indicator Status:

FAC – similar likelihood of occurring in both wetlands and nonwetlands

Habitat:

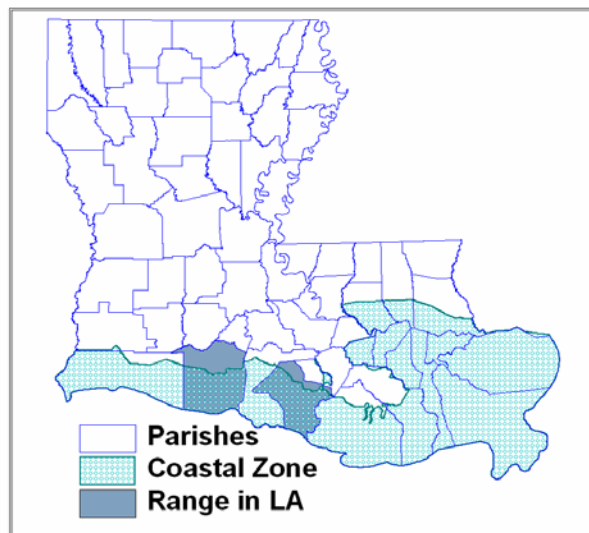
Louisiana occurrences are on hammocks (including spoil banks) in cypress-tupelo swamps

Threats:

- Subsidence of forested wetlands
- Hydrological alterations (drowning)

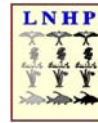
Beneficial Management Practices:

- Restoration of natural flooding and sediment supply to forested wetlands
- Field survey work to detect additional populations



LA River Basins: Atchafalaya, Vermilion-Teche, Mermentau

Rare Plants of Louisiana



Long-creeping black rhizome

References:

- Smith, A.R. 1993. Thelypteridaceae. *In* Flora of North America Editorial Committee (eds). Flora of North America. Vol. 2. 206-222. Oxford University Press, New York and Oxford.
- Thieret, J. W. 1980. Louisiana ferns and fern allies. Lafayette Natural History Museum. Lafayette, LA. 123 pp.
- USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

Rare Plants of Louisiana



Tidestromia lanuginosa - woolly honeysweet Amaranth Family (Amaranthaceae)

Rarity Rank: S1/G5

	1	2	3	4	5
State					
Global					
	imperiled		rare		secure

Range:

AZ, CA, CO, IL, KS, LA, MO, NM, NV, OK, PA, SD, TX, VT

Recognition:

- A low-growing, profusely branching herb that can grow to 1 m across and only about 15 cm tall
- Foliage is gray green to silvery and is covered with minute star-shaped hairs, thus it is quite conspicuous



USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. *Illustrated flora of the northern states and Canada*. Vol. 2: 7.

Flowering Time: Throughout the growing season

Light Requirement: Full sun

Wetland Indicator Status:

Does not occur in wetlands anywhere in range

Habitat:

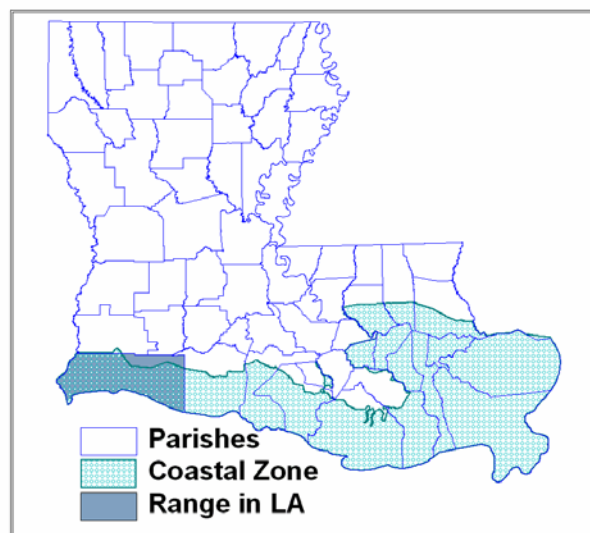
Louisiana occurrences are on high energy Gulf beaches between Holly Beach and Johnsons Bayou. This species has not been recorded in the state in approximately 25 years.

Threats:

- Shoreline erosion
- Vehicular traffic and other mechanical disturbances
- Overgrazing by cattle

Beneficial Management Practices:

- Shoreline protection
- Protection of beaches and sand dunes from cattle and vehicular traffic
- Conduct more searches to relocate this species in LA



LA River Basins: Mermentau, Calcasieu, Sabine

Rare Plants of Louisiana

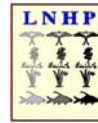


Photo by Dr. Alfred Richardson

References:

Correll, D. S., and M. C. Johnston. *Manual of the Vascular Plants of Texas*. Renner: Texas Research Foundation, 1970.

Richardson, A. 2002. *Wildflowers and Other Plants of Texas Beaches and Islands*. University of Texas Press, Austin. 247 pp.

USDA, NRCS. 2007. The PLANTS Database (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

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Rare Plants of Louisiana



Tofieldia racemosa - coastal false asphodel Lily Family (Liliaceae)

Rarity Rank: S2S3/G5

	1	2	3	4	5
State		■	■		
Global					■
	imperiled		rare		secure

Range: TX east to FL, north to TN and NJ

Recognition:

- Herbaceous perennial from short rhizome, 30 to 70 cm tall with a few basally-disposed linear leaves and showy white flowers in a terminal inflorescence
- Leaves to 40 cm long (length variable) by 3 to 5 mm wide
- Inflorescence a terminal raceme to 15 cm long; flowering scape and inflorescence axis glandular-scabrous
- Flowers with white segments that brown and persist in fruit and borne in clusters of 2 to 7 (usually 3)
- Fruit is a tiny, obovoid capsule that is about 3 mm long
- Seeds are 2 mm long, reddish brown, with membranous tails at the ends that are ½ or less as long as the seed body



Flowering Time: June through September

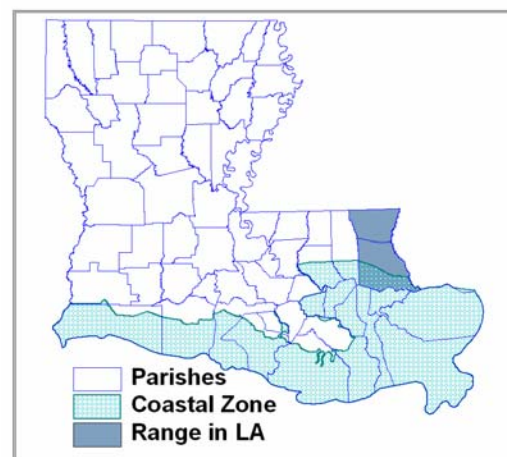
Light Requirement: Full sun to part shade

Wetland Indicator Status:

OBL – almost always in wetlands

Habitat:

Eastern hillside seepage bogs and eastern longleaf pine flatwoods savannahs. Possible for bogs and wet pine savannahs in southwest Louisiana as there are disjunct stations for this species in southeast Texas.



Threats:

- Conversion of habitat to pine plantations, including chemical and mechanical site prep and dense tree spacing
- Residential or commercial development
- Fire exclusion
- Hydrological alteration by ditching, bedding for tree planting, and lowering of water table due to excessive tree densities

Rare Plants of Louisiana



Beneficial Management Practices:

- Prescribed burning graduating to growing predominantly growing season (May to June) burns
- Thinning of dense timber stands (harvesting being done only during very dry periods)

LA River Basins: Pearl, Pontchartrain



USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. *An illustrated flora of the northern United States, Canada and the British Possessions*. Vol. 1: 487.



References:

- Clewell, A.F. 1985. *Guide to the vascular plants of the Florida Panhandle*. Florida State University Press, Tallahassee. 605 pp.
- Godfrey, R. K. and J. W. Wooten. 1981. *Aquatic and wetland plants of the southeastern United States: monocotyledons*. University of Georgia Press, Athens, GA. 712 pp.
- Nelson, G. 2005. *East Gulf Coastal Plain wildflowers*. The Globe Pequot Press. Guilford, CT. 263 pp.
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Funding provided by the Louisiana Department of Wildlife and Fisheries and the Barataria-Terrebonne National Estuary Program

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Rare Plants of Louisiana



Tradescantia subaspera - broad-leaved spiderwort Spiderwort Family (Commelinaceae)

Rarity Rank: S2/G5

	1	2	3	4	5
State					
Global					
	imperiled		rare		secure



J.S. Peterson @ USDA-NRCS
PLANTS Database

Range: Eastern United States, with the exception of the New England States and IA, MI, MN, and WI

Recognition:

- Sturdy plant 0.5 to 1 m tall, stem with a somewhat zigzag pattern
- Grass-like leaves (though more succulent than a grass) to 20 cm long
- Flowers with three petals, pale to deep blue, rarely white, about 1 to 1.5 cm long
- Sepals pubescent with glandular or non-glandular hairs, or both intermixed
- Leaf blades wider than the sheath, constricted to form a stalk-like (= subpetiolar) base

Flowering Time: May to September

Light Requirement: Full to part shade

Wetland Indicator Status:

Does not occur in wetlands anywhere in range

Habitat:

Extant Louisiana occurrences are all in rich soils of salt dome hardwood forests. There is a historical specimen from St. Landry Parish apparently from a prairie terrace loess hardwood forest.

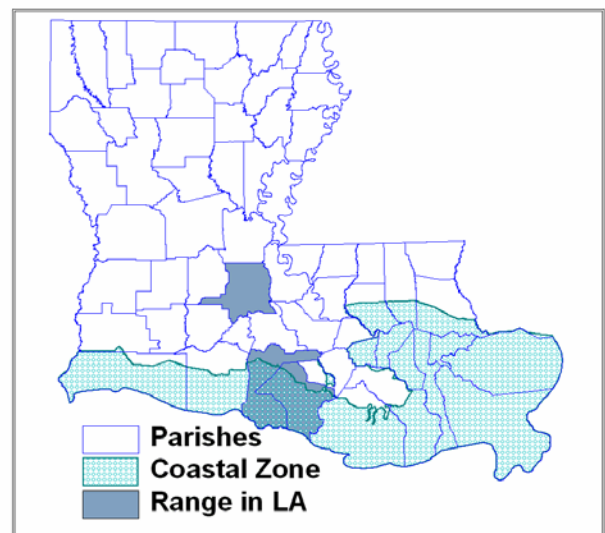
Threats:

- Unnatural rates of erosion
- Exotic plants and animals (e.g. wild hogs)

Beneficial Management Practices:

- Protect remaining salt dome hardwood forests
- Control exotic plants in higher quality salt dome forests, prior to them exhibiting “exotic meltdown”
- Kill more wild hogs

LA River Basins: Atchafalaya, Mermentau, Vermilion-Teche,



Rare Plants of Louisiana



J.S. Peterson @ USDA-NRCS PLANTS Database

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Rare Plants of Louisiana



Triglochin striata - arrow-grass Arrow-grass Family (Juncaginaceae)

Rarity Rank: S1/G5

	1	2	3	4	5
State	■				
Global					■
	imperiled		rare		secure

Range: Atlantic and Gulf coasts from DE to LA; also CA and OR

Recognition:

- Fleshy-leaved grass-like herb to about 30 cm tall
- Leaves fleshy, basal, narrowly linear and round in cross-section, 4 to 20 cm long by 0.5 to 1.5 mm wide; bases sheathing the stem
- Inflorescence a long narrow terminal raceme, 4 to 19 cm long, with many greenish flowers on pedicels 1 to 1.5 mm long

Flowering Time: May to September

Light Requirement: Full sun

Wetland Indicator Status:

OBL – almost always in wetlands

Habitat:

Saline to brackish marshes. There are only three records of this species from Louisiana. Two are from Pointe au Chein WMA and are 40 years old. The third is based on a specimen collected from the north end of Barataria Bay and is not much more recent, collected in 1975.

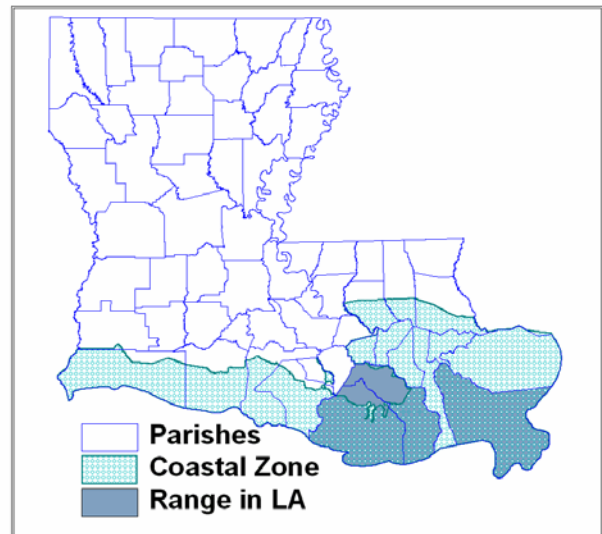
Threats:

- Subsidence, conversion of marsh to open water
- Lack of status data

Beneficial Management Practices:

- Any practices that protect and nourish saline and brackish marshes
- Survey work to rediscover this species in Louisiana

LA River Basins: Pontchartrain, Mississippi, Barataria, Terrebonne





USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913.
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Rare Plants of Louisiana



Uniola paniculata - sea oats Grass Family (Poaceae)

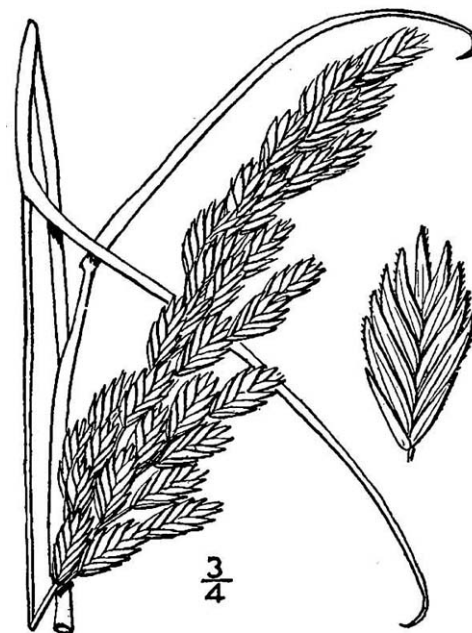
Rarity Rank: S2/G5

	1	2	3	4	5
State					
Global					
	imperiled		rare		secure

Range: Atlantic and Gulf coasts from MD to TX; also Mexico, Cuba, West Indies

Recognition:

- Tall, stout, rhizomatous grass of beaches and sand dunes
- Inflorescence is a large showy panicle with nodding branches
- Spikelets many flowered, strongly flattened laterally, and greenish to eventually tan



USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. *Illustrated flora of the northern states and Canada*. Vol. 1: 249.

Flowering Time: June to November

Light Requirement: Full sun

Wetland Indicator Status:

FACU – usually occurs in uplands but occasionally found in wetlands

Habitat:

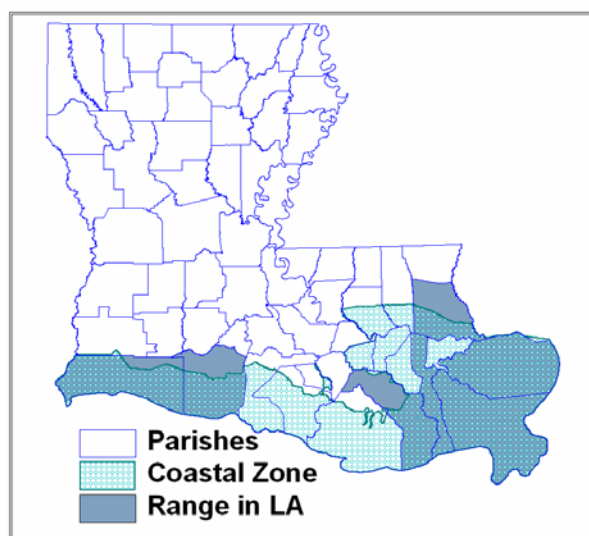
High energy beaches and sand dunes. This plant is extremely beneficial in stabilizing dune habitats where other species cannot initially survive.

Threats:

- Shoreline erosion
- Seaside development
- Vehicular traffic on beaches

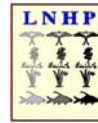
Beneficial Management Practices:

- Shoreline stabilization
- Protect beaches and sand dunes from human degradation
- Continue to propagate and re-establish colonies on Louisiana beaches



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

Rare Plants of Louisiana



Larry Allain @ USDA-NRCS PLANTS Database/
USGS National Research Center

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