



Natural Communities of Louisiana

Eastern Hillside Seepage Bog

Rarity Rank: S2/G2

Synonyms: Pitcher Plant Bog, Herbaceous Bog, Bog, Hillside Seep, Hillside Bog

Ecological Systems: CES203.078 Southern Coastal Plain Herbaceous Seepage Bog

General Description:

- Open, mostly treeless, herb-dominated wetlands of hilly, sandy uplands historically associated with *Pinus palustris* (longleaf pine) ecosystems
- Occur on the Pleistocene high terraces in Washington and St. Tammany Parishes
- Found on mid- to low slopes, on persistently saturated, strongly acidic (pH ca. 4.5 - 5.5) and nutrient-poor substrates of fine sandy loams or loamy fine sands with relatively high organic matter content
- Underlain by an impervious clay layer that causes ground water to constantly seep to the soil surface.
- Variable in size, most often less than 1 acre but rarely exceeding 10 acres
- Fire dependent systems; frequent fire deters invasion by shrubs and trees and stimulates growth, flowering and seed production by indigenous bog herbs
- Degree to which a bog remains wet throughout the year depends on the size of the watershed, the soil infiltration rate upslope, the rate of saturated flow in the soil, the topographic position of the bog, the bog's water storage capacity, and the rate of water leaving the bog from evapotranspiration and through surface and sub-surface flow. Bogs are extremely sensitive to surrounding land management activities, and are easily degraded or destroyed by activities that alter natural hydrologic regimes.



Sarracenia alata

Plant Community Associates

Common herbaceous species include:

Andropogon spp. (broomsedges),

Panicum spp. (panic grasses),

Muhlenbergia capillaris (hairawn muhly),

Rhynchospora stenophylla (narrow-leaved beakrush),

Lachnocaulon spp. (bog buttons),

Scleria spp. (nut-rushes),

Fimbristylis spp. (fimbry-sedge)

Aristida spp. (three-awn grasses),

Ctenium aromaticum (toothache grass),

Rhynchospora spp. (beak-rushes),

Xyris spp. (yellow-eyed grasses)

Eriocaulon spp. (pipeworts),

Dichromena latifolia (white top sedge),

Fuirena spp. (umbrella grasses),

Common forb (wildflower) species include:

Sarracenia alata (yellow trumpets),

Polygala spp. (milkworts),

Rhexia spp. (meadow beauties),

Liatis spp. (blazing stars),



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Common forb (wildflower) species continued:

Aletris lutea (colic-root),
Coreopsis linifolia (narrow-leaved tickseed),
Sarracenia psittacina (parrot pitcherplant),
Pinguicula lutea (yellow butterwort),
Tofieldia racemosa (coastal false-asphodel),
Macranthera flammea (flame flower),
Osmunda cinnamomea (cinnamon fern),
Lycopodium spp. (club-mosses)

Eupatorium spp. (thorough-worts),
Drosera spp. (sundews),
orchid family (Orchidaceae),
Lilium catesbaei (southern red lily),
Lophiola aurea (golden crest),
Platanthera spp. (fringed orchids),
Osmunda regalis (royal fern),

Federally-listed plant & animal species:

In adjacent upland longleaf:

Picoides borealis (red-cockaded woodpecker)
Gopherus polyphemus (gopher tortoise)

Endangered; G2; S2
Threatened; G3; S1

Range:

East Gulf Coastal Plain in St. Tammany and Washington Parishes

Threats & Management Considerations:

Presettlement extent of eastern seepage bogs in Louisiana is estimated at less than 2,000 acres, with only 10 to 25% currently remaining. These present day bogs are most often found surrounded by commercial timberlands, being too wet and other soil conditions unfavorable for commercial tree production, or along powerline and pipeline right-of-ways where management practices such as mowing to keep shrubs and other woody vegetation under control have allowed the bog plants to persist. The primary threat to bogs includes any activities that alter the natural hydrology of the bog or surrounding landscape. Changes to the natural water flow patterns and water storage capacity of a bog will degrade the natural community composition and structure and ultimately cause destruction and loss of this habitat type. Other factors that threaten bogs include fire suppression, introduction of invasive plant or animal species, damage to soils from off-road vehicles or harvesting activities, planting tree species, contamination by chemicals (herbicides, fertilizers), and residential or commercial development.



Use of appropriate management activities and developing a compatible management plan prevents destruction or degradation of this habitat type and promotes long-term maintenance of healthy seepage bogs. Management strategies should include:

- Use of growing season prescribed fire (spring/summer) every 1 to 3 years
- No tree planting within bogs when reforesting adjacent areas
- No ditching, bedding, plowed fire lines or other soil disturbance within bogs or adjacent areas that may alter natural water flow patterns
- Walk-in only access – no off-road vehicles
- Surveying for and removal of any invasive plant species (exotics or woody) with use of spot herbicides or mechanical means