Western Hillside Seepage Bogs

Rarity Rank: Western Hillside Seepage Bog – S2/G2G3
Synonyms: Pitcher Plant Bog, Herbaceous Bog, Hillside Seep, Hillside Bog
Ecological Systems: CES203.194 West Gulf 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
- Commonly 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 or sandstone 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 evapo-transpiration 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.

Plant Community Associates

Common herbaceous species include:

Andropogon spp. (broomsedges),
Panicum spp. (panic grasses),
Muhlenbergia capillaris (hairawn muhly),
Rhynchospora stenophylla (narrow-leaved beakrush) (S1G4),
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:

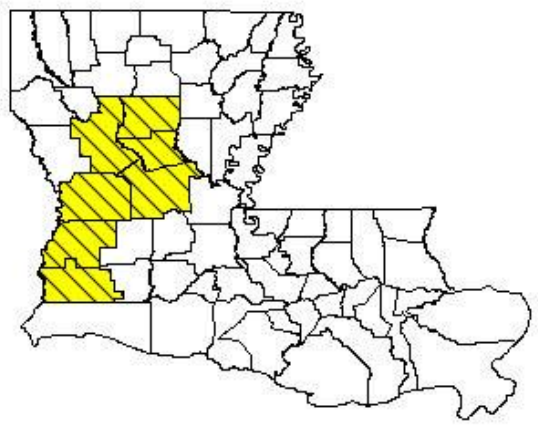
Sarracenia alata (green pitcher plant),
Polygala spp. (milkworts),
Aletris lutea (colic-root),
Rhexia spp. (meadow beauties),
Liatris spp. (blazing stars),
Eupatorium spp.(thorough-worts),

Coreopsis linifolia (narrow-leaved tickseed), *Drosera* spp. (sundews),

Common forb (wildflower) species continued:
orchid family (Orchidaceae), *Platanthera* spp. (fringed orchids),
Osmunda cinnamomea (cinnamon fern), *Osmunda regalis* (royal fern),
Lycopodium spp. (club-mosses)

Federally-listed plant & animal species:
In adjacent upland longleaf:
Picoides borealis (red-cockaded woodpecker) Endangered; G2; S2

Range:
Lower West Gulf Coastal Plain ecoregion in the southwest and west central portions of the state from Calcasieu north to Natchitoches and Winn Parishes.



Threats & Management Considerations:
Western hillside seepage bogs in Louisiana have been reduced by 25 to 50% of the original extent. 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