

## LOW MOUNTAIN SEEPAGE BOG

**Concept:** This community covers non-forested, shrub- or herb-dominated acidic wetlands of low elevation, gentle, seepage-fed slopes, containing a distinct suite of plants that includes numerous Coastal Plain disjuncts but is floristically different from the French Broad Valley Bog type.

**Distinguishing Features:** Low Mountain Seepage Bog is distinguished from French Broad Valley Bogs and Southern Appalachian Bogs by substantial floristic differences. Low Mountain Seepage Bogs contain a suite of primarily Coastal Plain disjunct species not found in other mountain wetlands. These include *Sarracenia oreophila*, *Cinna arundinacea*, *Eryngium integrifolium*, *Andropogon glomeratus*, *Fuirena squarrosa*, *Helianthus angustifolius*, *Rhynchospora gracilentata*, *Rhynchospora rariflora*, *Scleria ciliata*, *Scleria muehlenbergii*, *Gratiola pilosa*, *Xyris jupicai*, *Polygala cruciata*, *Drosera capillaris*, *Saccharum giganteum* (= *Erianthus giganteus*), *Eupatorium pilosum*, *Juncus canadensis*, and *Panicum virgatum*.

**Synonyms:** *Alnus serrulata* - *Rhododendron arborescens* / *Sarracenia oreophila* - *Rhynchospora rariflora* Shrubland (CEGL003914).

Ecological Systems: Southern and Central Appalachian Bog and Fen (CES202.300).

**Sites:** Gentle slopes with seepage at low elevation – about 1900 feet. A shallow rock ledge may be important in producing the seepage.

**Soils:** Soils are mapped as Dillard (Aquic Hapludult) and Nikwasi (Cumulic Humaquept).

**Hydrology:** Semipermanently or permanently saturated by acidic groundwater seepage.

**Vegetation:** All examples are substantially altered, so that it is difficult to know the natural vegetation structure. The most intact remaining example is a mix of shrub and herb zones, blending into a cleared pasture. Shrubs include *Alnus serrulata*, *Lyonia ligustrina*, *Aronia arbutifolia*, *Aronia melanocarpa*, *Rhododendron arborescens*, *Rosa palustris*, and *Sambucus canadensis*. Abundant herb species include *Osmundastrum cinnamomeum*, *Rhynchospora rariflora*, *Sarracenia oreophila*, *Eriocaulon decangulare*, *Parathelypteris noveboracensis*, *Sagittaria latifolia*, *Eupatorium perfoliatum*, *Eupatorium pilosum*, *Eupatorium fistulosum*, *Rhexia virginica*, *Rhexia mariana*, *Eryngium integrifolium*, *Helianthus angustifolia*, *Eriophorum virginicum*, *Sanguisorba canadensis*, and *Juncus caesariensis*.

**Range and Abundance:** Ranked G1, This is one of the rarest of natural communities in North Carolina, with only one remaining example, which is significantly altered. Another more altered example is present in nearby Georgia, and historical examples are present nearby. The equivalent association is also attributed to Tennessee and Georgia.

**Associations and Patterns:** Natural patterns are uncertain. The occurrence in a low elevation valley makes it likely that it was naturally surrounded by a dry oak forest or perhaps Low Mountain Pine Forest.

**Variation:** Natural variation among examples is uncertain.

**Dynamics:** This community shares with many Mountain Bogs and Fens communities the tendency of shrubs to invade and to threaten the distinctive herbaceous flora. The dynamics of this community appear different from most communities in the theme however. Fire appears to be an important ecological process.

**Comments:** This community was not treated by Wichmann (2009) because of a lack of sufficient plot data.

**Rare species:**

**References:**

Weakley, A.S., and M.P. Schafale 1994, Non-alluvial wetlands of the southern Blue Ridge – Diversity in a threatened ecosystem. *Water, Air, and Soil Pollution* 77: 359-383.