

Terrestrial & Palustrine Plant Communities Of Pennsylvania

By Jean Fike

Buckthorn - sedge (*Carex interior*) - golden ragwort fen

In Pennsylvania, this community type is most characteristic of the northwestern glaciated section, although it may occur elsewhere. These are wetlands that have developed under the influence of base-rich water, and usually have a substantial organic layer. The pH of surface water during the growing season ranges from 6.9 to 7.9. Structurally, they are dominated by a mixture of shrubs and herbaceous plants (predominantly sedges). Most sites have an area in the wettest portion that is without woody growth. Also, within the wetland complex, there are frequently areas of visible surface flow (seeps). Characteristic shrubs include *Rhamnus alnifolia* (alder-leaved buckthorn), *Salix* spp. (willows), *Vaccinium myrtilloides* (velvet-leaf berry), *Rubus pubescens* (dwarf blackberry), *V. corymbosum* (highbush blueberry), *Alnus incana* spp. *rugosa* (speckled alder), *Viburnum recognitum* (arrow-wood), and *Cornus sericea* (red-osier dogwood). The herbaceous species vary; some typical representatives are *Senecio aureus* (golden ragwort), *Geum rivale* (water avens), *Solidago patula* (spreading goldenrod), *Eupatorium perfoliatum* (boneset), *Equisetum arvense* (common horsetail), *Glyceria striata* (fowl mannagrass), *Carex interior* (a sedge), *C. lasiocarpa*^S (many-fruited sedge), *C. hystericina* (a sedge), *Chelone glabra* (turtlehead), *Thelypteris palustris* (marsh fern), *Symplocarpus foetidus* (skunk cabbage), *C. lacustris* (a sedge), and *Typha latifolia* (common cat-tail). Some sites may contain calciphilic species such as *Carex aurea*' (golden-fruited sedge), *C. flava*^S (yellow sedge), *C. prairea*^S (prairie sedge), *C. sterilis*^S (Atlantic sedge), *C. tetanica*^S (Wood's sedge), *Eriophorum viridicarinaratum*^S (thin-leaved cotton-grass), *Muhlenbergia glomerata* (spike muhly), and *Parnassia glauca*^S (grass-of-Parnassus). Characteristic bryophytes include *Campylium stellatum*, *Plagiomnium ellipticum*, *Sphagnum palustre*, *Bryum pseudotriquetrum*, and *Climacium americanum*. On many of these sites, microtopography and vegetation response creates a tight mosaic of locally different chemical conditions. Mounds of mosses, especially *Sphagnum* spp., form at the base of shrubs and stumps and lower the pH in their immediate surroundings. This provides a suitable habitat for acid-loving species like *Vaccinium* spp. (blueberries), *Clintonia* spp. (bluebead and speckled wood lilies), *Gaultheria procumbens* (teaberry), and *Tsuga canadensis* (eastern hemlock).

Related types: The presence of heaths in these systems may at first be confusing, but a closer look should reveal a number of calciphilic species. Calciphiles that may occur include *C. flava*^S (yellow sedge), *C. aurea*^S (golden-fruited sedge), *C. sterilis*' (a sedge), *C. prairea*' (prairie sedge), *C. tetanica*^S, (a sedge), *Parnassia glauca*^S (grass-of-Parnassus), *Muhlenbergia glomerata* (spike muhly), and *Eriophorum viridicarinaratum*^S (thin-leaved cotton-grass). This type is ecologically similar to and shares many species with the "Poison sumac - red-cedar - bayberry fen" type. The two differ in their distribution and species composition.

Range: Glaciated Northwest.

Selected references: PNFI field surveys, WPC and TNC 1995.

[Crosswalk: Smith's "Shrub Fen," "Basin Graminoid Forb Fen," TNC's *Carex flava*, *hystericina*, *interior*, *sterilis*) - *Camylium stellatum* Herbaceous Alliance.]

Vascular plant nomenclature follows Rhoads and Klein (1993). Bryophyte nomenclature follows Crum and Anderson (1981). Species not native to Pennsylvania are indicated by a superscript "I." The aggressive species *Phalaris arundinacea* (reed canary-grass) and *Phragmites australis* (common reed) are marked with a superscript "(I)", as their native status is unclear. Pennsylvania species of special concern are indicated by a superscript "S."