

Rich Conifer Swamp

State Rank: S3 - Vulnerable



Rich Conifer Swamp with patchy moss on hummock likely created by a fallen tree, now rotted away. Photo: Glenn Motzkin.

Description: The generally closed canopies of Rich Conifer Swamps are dominated by mixed conifers with a high proportion of deciduous trees. Mineral-enriched water flows or seeps into the community and supports a high diversity of species in all strata. The surface is hummocky with areas of moss on the hummocks where most woody plants grow. The hollows may have water, bare ground, or herbaceous plant cover. Although the surface of the substrate may be dry by late summer, many hollows remain wet and mucky.

Characteristic Species: The vegetation of Rich Conifer Swamps is variable. The canopy is dominated by conifers (eastern hemlock, balsam fir, or red spruce, alone or together) mixed with red maple, yellow birch, American elm, and black ash. Species indicative of mineral enriched conditions are typical in the understory. Dense patches in the shrub

Rich Conifer Swamps are species- and nutrient-rich swamps dominated by hemlock, balsam fir, or red spruce mixed with hardwoods including black ash. They usually have pockets of moss rather than sphagnum lawns.

layer may include spicebush, witch hazel, or hornbeam with saplings of the canopy trees. The variable and diverse herbaceous layer may include jack-in-the-pulpit, foamflower, lesser mitrewort, wild oats, oak-fern, delicate sedge, swamp-saxifrage, northern horse-balm, golden ragwort, golden saxifrage, rough-leaved goldenrod, and purple avens.

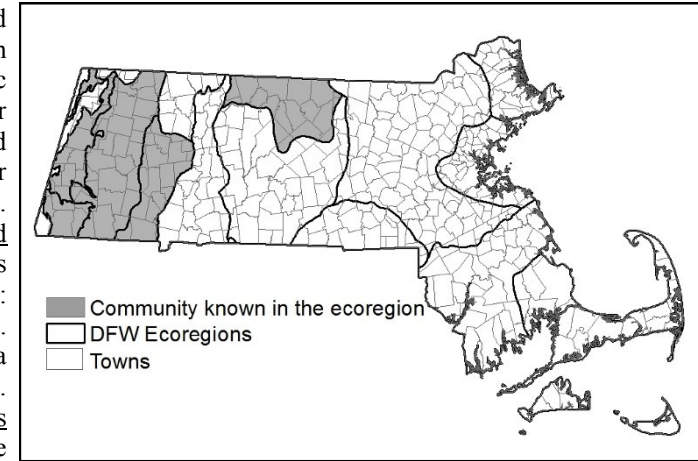


Spicebush leaves and ripe fruit, often found in Rich Conifer Swamps. Photo: Chris Evans, University of Illinois, Bugwood.org.

Differentiating from Related Communities: All the following may have scattered patches of eastern hemlock. Rich Conifer Swamps are characterized by a canopy of mixed red spruce, hemlock, balsam fir and deciduous trees

including black ash, and species such as spicebush that indicate less acidic conditions with greater nutrient availability, and pockets of moss rather than sphagnum lawns. The canopy in Red Spruce Swamps is dominated by red spruce: lower strata are sparse. Sphagnum often forms a continuous ground cover. In Hemlock Swamps eastern hemlock is the dominant canopy species throughout the community. Lower strata are sparse. Sphagnum often forms a continuous ground cover. Red Maple Swamps and named variants such as Red Maple - Black Gum Swamps are dominated by deciduous trees, particularly red maple. Atlantic White Cedar Swamps are dominated by Atlantic white cedar.

Habitat for Associated Fauna: Rich Conifer Swamps are part of the habitat of large mobile animals. Ground level browsers, including white tail deer, snow shoe hare, and New England cottontail, use shrubby areas in the community. Conifer swamps tend to have dense shade and are relatively cool in the summer, making them preferred areas for animals that get hot, such as moose. Areas of Rich Conifer Swamps where water stands through the spring can function as amphibian breeding habitat.



Examples with Public Access: Appalachian Trail Corridor, Sheffield; Agawam Lake WMA, Great Barrington; Hinsdale Flats WMA, Hinsdale; Savoy WMA and Notchview Reservation (TTOR), Windsor; Hiram H. Fox WMA, Chester; Otis SF, Sandisfield; Orange WCE (MGLT), Orange.



Rich Conifer Swamp with mixed species and a denser shrub layer than in other types of conifer swamps. Photo: Glenn Motzkin.

