

Terrestrial & Palustrine Plant Communities Of Pennsylvania

By Jean Fike

Red spruce - mixed hardwood palustrine forest

This describes a group of wetland forests that are dominated by a mixture of conifers and hardwood species. This community type is most typical of the Unglaciated Allegheny Plateau, although isolated occurrences may be found elsewhere. The substrate is usually shallow organic matter over mineral soil. There is generally some groundwater enrichment in these systems. *Picea rubens* (red spruce), sometimes in combination with other conifers, contributes between 25% and 75% of the canopy. Other conifer species that may occur include *Tsuga canadensis* (eastern hemlock) *Pinus strobus* (eastern white pine), and *Larix laricina* (tamarack). The most common hardwood species are *Betula alleghaniensis* (yellow birch), *Acer rubrum* (red maple), *Fraxinus nigra* (black ash), *Nyssa sylvatica* (black-gum), and *Betula populifolia* (gray birch). Shrubs include *Nemopanthus mucronatus* (mountain-holly), *Vaccinium corymbosum* (highbush blueberry), *Ilex verticillata* (winterberry), *Rhododendron viscosum* (swamp azalea) and *Viburnum cassinoides* (withe-rod). Herbaceous and creeping shrub species include *Coptis trifolia* (goldthread), *Osmunda cinnamomea* (cinnamon fern), *Onoclea sensibilis* (sensitive fern), *Carex folliculata* (a sedge), *C. trisperma* (a sedge), *Viola* spp. (violets), *Gaultheria hispidula*^S (creeping snowberry), and *C. disperma*^S (soft-leaved sedge). The bryophyte layer is usually well developed and dominated by sphagnum.

Related types: Where the conifer component is less than 25% of the canopy, see the "Broadleaf palustrine forests" section, and where the conifer component is greater than 75%, see the "Red spruce palustrine forest" type under "Coniferous palustrine forests."

Range: Glaciated NE, Pocono Plateau, Ridge and Valley, Unglaciated Allegheny Plateau.

Selected references: Smith 1991, Sneddon, Anderson, and Metzler 1996.

[**Crosswalk:** Smith's "Broadleaf - Conifer Swamp" - sub-type "a", TNC's *Picea rubens* - *Acer rubrum* Saturated Forest Alliance, SAF's Red spruce (32).]