

Terrestrial & Palustrine Plant Communities Of Pennsylvania

By Jean Fike

Hemlock - mixed hardwood palustrine forest

This describes a group of wetland forests that are dominated by a mixture of conifers and hardwood species. The substrate is usually mineral soil or muck over mineral soil. There is generally some groundwater enrichment in these systems. *Tsuga canadensis* (eastern hemlock) contributes between 25% and 75% of the canopy. Other conifer species that may occur with hemlock include *Pinus strobus* (eastern white pine), *Picea rubens* (red spruce), 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). *Rhododendron maximum* (rosebay) often forms a dense understory; other shrubs include *Vaccinium corymbosum* (highbush blueberry), *Ilex verticillata* (winterberry), *Rhododendron viscosum* (swamp azalea) and *Viburnum cassinoides* (withe-rod). Herbaceous species include *Osmunda cinnamomea* (cinnamon fern), *Carex folliculata* (a sedge), *Viola* spp. (violets), *C. trisperma* (a sedge), *Symplocarpus foetidus* (skunk-cabbage), *Veratrum viride* (false hellebore), *Onoclea sensibilis* (sensitive fern), and *Aster puniceus* (purple-stemmed aster). 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 "Hemlock palustrine forest" type under "Coniferous palustrine forests."

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

Selected references: Smith 1991, Sneddon, Anderson, and Metzler 1996, Reschke 1990.

[Crosswalk: Smith's "Broadleaf - Conifer Swamp" subtype "a", TNC's *Tsuga canadensis* - *Acer rubrum* Saturated Forest Alliance, SAF's Hemlock - yellow birch (24) and parts of Eastern hemlock (23).]