

# Terrestrial & Palustrine Plant Communities Of Pennsylvania

By Jean Fike

## Red spruce palustrine forest

This community type occurs on shallow organic soils or mineral soils with a substantial accumulation of organic matter. *Picea rubens* (red spruce) is always present, usually dominant or codominant. Other tree species include *Pinus strobus* (eastern white pine), *Tsuga canadensis* (eastern hemlock), *Acer rubrum* (red maple), *Betula populifolia* (gray birch), *B. alleghaniensis* (yellow birch), *Nyssa sylvatica* (black-gum), and occasionally *Abies balsamea* (balsam fir). *Rhododendron maximum* (rosebay) is common and often forms a dense understory. Other shrub species that may be present include *Viburnum cassinoides* (withe-rod), *Ilex verticillata* (winterberry), *Vaccinium corymbosum* (highbush blueberry), and *Nemopanthus mucronatus* (mountain-holly). There is usually a pronounced mound and pool microtopography. Characteristic herbs occurring on mounds include *Osmunda cinnamomea* (cinnamon fern), *Viola* spp. (violets), *Mitchella repens* (partridge-berry), *Maianthemum canadense* (Canada mayflower), *Coptis trifolia* (goldthread), *Cornus canadensis* (bunchberry), *Carex trisperma*, and other sedge species. The bryophyte layer is usually well developed and dominated by sphagnum.

**Related types:** Where canopy closure is less than 60%, this type becomes the "Red spruce palustrine woodland," where dominance is shared with hardwoods (where total conifer cover is less than 75% of the canopy) this becomes the "Red spruce - mixed hardwood palustrine forest."

**Range:** Glaciated NE, Pocono Plateau.

**Selected references:** Sneddon, Anderson, and Metzler 1996.

[**Crosswalk:** Smith's "Boreal Conifer Swamp," TNC's *Picea rubens* Saturated Forest Alliance, SAF's Red spruce (32).]