

Terrestrial & Palustrine Plant Communities Of Pennsylvania

By Jean Fike

Serpentine Virginia pine - oak forest

This community type is part of the "Serpentine barrens complex." It occurs in areas underlain by serpentine bedrock, where soil development has proceeded far enough to support forest vegetation, but not so far as to override the influence of serpentine chemistry on species composition. Characteristic overstory species include *Quercus stellata* (post oak), *Q. marilandica* (blackjack oak), *Pinus virginiana* (Virginia pine), *Sassafras albidum* (sassafras), *Prunus serotina* (wild black cherry), *Juniperus virginiana* (red-cedar), *Nyssa sylvatica* (black-gum), *Robinia pseudoacacia* (black locust), and *Acer rubrum* (red maple). The shrub layer may be quite sparse under the dense shade and heavy litter of *Pinus virginiana* (Virginia pine). Where the canopy is more open there may be an impenetrable tangle of *Smilax rotundifolia* (greenbrier) and *S. glauca* (catbrier). Other shrub species include *Vaccinium pallidum* (lowbush blueberry), *V. stamineum* (deerberry), and *Gaylussacia baccata* (black huckle-berry). *Q. prinoides* (chinquapin oak) may be present in the understory or in openings. *Q. ilicifolia* (scrub oak) may also occur in openings. Herbaceous cover is also low; species include *Pteridium aquilinum* (bracken fern) and *Aralia nudicaulis* (wild sarsaparilla). **Related types:** The "Serpentine pitch pine - oak forest" type also occurs on serpentinite-derived soils and shares many species with this community. The pitch pine community is dominated by a mixture of *Pinus rigida* and various oaks. *P. virginiana* produces denser shade and thicker litter than does *P. rigida*. Herbaceous and shrub growth under *P. virginiana* is generally sparse. The fire ecology of the two species is also vastly different. For a more detailed explanation of the ecology of serpentine barrens, see the description of the "Serpentine barrens complex."

Range: Piedmont.

Selected references: Latham 1992, Roger Latham-personal communication, PNDI field surveys.

[Crosswalk: Smith's "Eastern Serpentine Barren" (in part), TNC *Pinus virginiana* - *Quercus* (*alba*, *stellata*, *falcata*, *velutina*) Forest Alliance, *Pinus* (*echinata*, *taeda*, *virginiana*) Forest Alliance, *Pinus virginiana* / *Quercus marilandica* Community, SAF's Virginia pine (79).