

Terrestrial & Palustrine Plant Communities Of Pennsylvania

By Jean Fike

Serpentine gravel forb community

This community type is part of the "Serpentine barren complex." It occurs exclusively on areas of gravel or very thin soil over serpentine bedrock. These areas are not shaded; conditions are intermittently extremely dry and daytime surface temperatures are high. These factors combined with the serpentine chemistry of the substrate support a community with sparse, xeromorphic forb cover. It is in these areas that the majority of serpentine endemic plant species are found. Characteristic species include *Asclepias verticillata* (whorled milkweed), *Arabis lyrata* (lyre-leaved rock-cress), *Minuartia michauxii* (rock sandwort), *Aster depauperatus*^S (serpentine aster), *Cerastium arvense* var. *villosissimum*^S (barrens chick-weed), *Fimbristylis annua*^S (annual fimbry), *Aristida dichotoma* (churchmouse three-awn), *A. longispica* (slimspike three-awn), *Chamaecrista fasciculata* (prairie senna), *Juncus secundus* (one-sided rush), *Panicum sphaerocarpon* (a panic grass), *Polygala verticillata* (whorled milkwort), *Polygonum tenue* (slender knotweed), *Sporobolus vaginiflorus* (poverty grass), *Viola sagittata* (arrow-leaved violet), *Scleria pauciflora*^S (few-flowered nut-rush), *Talinum teretifolium*^S (round-leaved fame-flower), *Phlox subulata* ssp. *subulata* (moss-pink), and stunted *Schizachyrium scoparium* (little bluestem).

Related types: This community type generally grades into the "Serpentine grassland" type. They may be delineated where sod formation and graminoid dominance begins.

Range: Piedmont.

Selected references: Latham 1992, PNDI field surveys.

[Crosswalk: Smith's "Eastern Serpentine Barren," TNC's *Cerastium arvense* Sparsely Vegetated Alliance.]