

Terrestrial & Palustrine Plant Communities Of Pennsylvania

By Jean Fike

Calcareous opening/cliff

This community type occurs on calcareous cliffs, out-crops, and rocky slopes. There is generally some degree of shading from the surrounding forest or woodland community or from the land form itself. Species composition varies with the amount of moisture, shade and exposure. Herbaceous species include *Aquilegia canadensis* (wild columbine), *Dodecatheon meadia*^S (shooting star), *Aster ericoides*^S (white heath aster), *A. oblongifolius* (aromatic aster), *Cystopteris bulbifera* (bladder fern), *Bouteloua curtipendula*^S (side-oats gramma), *Pellaea atropurpurea* (purple cliff-brake), *Dryopteris marginalis* (evergreen wood fern), *Allium cernuum* (nodding onion), *Heuchera americana* (alum-root), *Carex oligocarpa* (a sedge), *Asplenium trichomanes* (maidenhair spleenwort), *Arabis hirsuta*^S (hairy rock-cress), *A. lyrata* (lyre-leaved rock-cress) and *Saxifraga virginiana* (early saxifrage). Woody species may occur scattered throughout or at the margins, these species include *Juniperus virginiana* (red-cedar), *Rhus aromatica* (fragrant sumac), *Toxicodendron radicans* (poison-ivy), *Hydrangea arborescens* (seven-bark), *Fraxinus americana* (white ash), *Parthenocissus quinquefolia* (Virginia creeper), *Cercis canadensis* (redbud), *Tilia americana* (basswood), *Carya* spp. (hickories), *Quercus muhlenbergii* (yellow oak), *Ostrya virginiana* (hop-hornbeam), and *Cornus florida* (flowering dogwood).

Related types: The "Yellow oak - redbud woodland" may contain openings that resemble this type. Small openings within a matrix of this or other types may be considered to be part of the forest, woodland, or shrubland types in which they occur. The "Side-oats gramma calcareous grassland" is another open calcareous community type. Grasses dominate the grassland type, while forbs and ferns dominate the cliff type. This type tends to occur on small outcrops or on steep slopes or cliffs, often in a forested context, while the grassland type is generally more open, less steep, and often grades into a shrubland or woodland at the edges.

Selected references: PNDI field surveys.

Range: Ridge and Valley, Piedmont, and perhaps Allegheny Mountain and the Pittsburgh Plateau.

[Crosswalk: Smith's "Northern Appalachian Calcareous Cliff Community," TNC's *Pellaea atropurpurea* Sparsely Vegetated Calcareous Cliff Alliance.]