

Circumneutral Rocky Summit/Rock Outcrop Community

State Rank: S2S3 - Imperiled



Circumneutral Rocky Summit with Juniper on edges in cracks. Photo: P. Swain, NHESP.

Description: Sparsely vegetated, Circumneutral Rocky Summit/Rock Outcrop Communities (Circumneutral Rock Outcrop Communities) occur on exposed bedrock that is neither acidic nor alkaline. This community occurs on open ridge tops or steep slopes on exposed bedrock of traprock or other circumneutral rocks such as conglomerate. The community is often on SE through SW facing slopes as relatively small open areas within an oak forest matrix. The Circumneutral Rock Outcrop Community grades into the Circumneutral Rock Cliff Community near cliffs. Both types of sites are dry with soil confined to cracks in the rock.

Characteristic Species: Grasses, sedges and forbs dominate Circumneutral Rock Outcrop Communities. Some examples have an open, savanna like appearance with scattered eastern red cedar, shagbark hickory, sweet pignut hickory, and white ash trees. Exposed rock is often covered with lichen and mosses. Except for the Carolina rose and

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bearberry, both found at a number of sites, shrubs are usually restricted to edges of openings. The herbaceous layer can be patchy between bare rock or almost continuous where rocks are broken. Dominant species include Pennsylvania sedge, parasol-sedge, poverty grass, and little blue stem. Other typical species include rusty cliff fern, early saxifrage, arrow leaved violet, small-flowered bittercress, skunk meadow-rue, dwarf dandelion, pink corydalis, Venus's looking glass, blue curls, goldenrods, and additional grasses. Although rocky summits/rock outcrop communities in Massachusetts do not have species that are unique to them, the Circumneutral Outcrop Community has uncommon species associated with it: linear-leaved milkweed, green rock cress, Michaux's sandwort, arrow-leaved vervain, and rock-spikemoss.

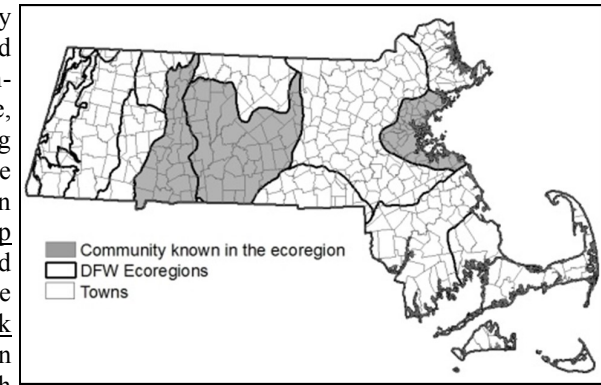


Wild columbine (L) and pink corydalis (R) on rock outcrops. Photos: P. Swain, NHESP.

Differentiating Among types of Rocky Summit/Rock Outcrop Communities: Wild columbine, climbing fumitory, red cedar, pink corydalis, broad-

leaved woodland-sedge, ebony spleenwort, bulblet fern, and fragile fern typically occur on non-acidic rocks. Plantain-leaf sedge, maidenhair spleenwort, or walking fern more firmly indicate calcareous (alkaline) conditions. In the Circumneutral Rock Outcrop Community, grasses, sedges and herbaceous species dominate the vegetation. The Acidic Rock Outcrop Community is often dominated by low shrubs with clumps of grasses, sedges, and a few herbaceous species. The Calcareous Rock Outcrop Community is usually more densely vegetated by both shrubs and herbaceous plants on moister ledges that also support abundant ferns. The Circumneutral Rock Outcrop Community is often associated with hop-hornbeam woodlands, or forests with a mix of oaks, hickories and sugar maples. The Acidic Community is often within dry oak - pine forests; Calcareous Communities may be near or above patches of Rich, Mesic or enriched northern hardwoods forests.

Differentiating from Other Ridgetop Communities: When mapping communities on a rock outcrop or summit, the size of the various patches should be considered. If one community type is predominant and another is small patches (less than 5000 sq. ft.) within it, the dominant community type would be named with notes on the variations. Rock Cliffs are arbitrarily defined as vertical to near vertical (more than about 60% slope); Rock Outcrops are not. Open Talus Communities are sparsely vegetated on broken rocks on a slope.



Habitat for Associated Fauna:

Most animals of rock outcrop communities respond to the elevation and dryness of the habitat rather than the chemistry of the rock. Outcrops tend to be fairly small, and only a part of the habitat of most vertebrate animals. Small mammals of rock outcrop communities include those of dry habitat. The open south facing slopes provide good habitat for snakes of dry areas. No turtles, frogs or toads would be expected.

Examples with Public Access:

Palmer WMA, Palmer; Mt. Holyoke Range SP, Amherst; South Hadley, Granby; Mt. Tom SR, Holyoke; Middlesex Fells, Stoneham.



Circumneutral Rocky Summit/Rock Outcrop Community. Photo: Patricia Swain, NHESP.

