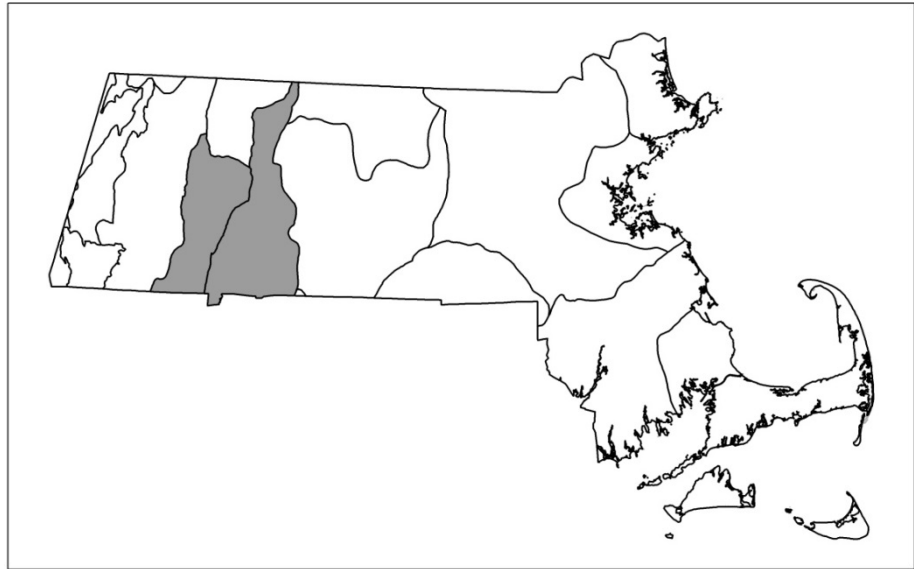




Circumneutral Rock Cliff Community

Community Code: CT2A2B0000

State Rank: S3



Concept:

A community of extremely sparse scattered vascular plants on small ledges and in crevices within a vertical substrate of rocks and any open talus at the base of the cliff. Lichens are occasionally dense. Circumneutral Rock Cliff Communities tend to have a greater diversity of vascular plants than found in Acidic Rock Cliff Communities.

Environmental Setting:

Rock cliff communities all occur on more or less vertical bedrock cliff faces. They have extremely sparse scattered vascular plants on ledges and in crevices. Lichens may be dense on the rock face. Circumneutral Rock Cliff Communities develop on sandstone, traprock, conglomerate or other non-acidic, non-calcareous rock. Included with Circumneutral Rock Cliffs are sandstone cliffs and associated very steep sandstone-derived slopes that support dry, grassy communities with scattered shrubs. Plants in the sparsely vegetated Circumneutral Rock Cliff Communities grow on small ledges and in crevices on a circumneutral cliff face in dry to moist conditions. There is often circumneutral talus below the cliff, and sometimes rocky summits or rock outcrops above. Rock cliffs less than about 5000 sq. ft. should be considered inclusions in the surrounding forest, or combined with larger talus or rock outcrops as appropriate.

Vegetation Description:

The sparse vegetation of Circumneutral Rock Cliff Communities includes species of dry, open areas such as pink corydalis (*Capnoides sempervirens*), bearberry (*Arctostaphylos uva-ursi*), plantain-leaved pussytoes (*Antennaria plantaginifolia*), columbine (*Aquilegia canadensis*), marginal wood-fern (*Dryopteris marginalis*), little bluestem grass (*Schizachyrium scoparium*), ebony spleenwort (*Asplenium platyneuron*), rusty cliff-fern (*Woodsia ilvensis*), and lichens and mosses. Red cedar



(*Juniperus virginiana*) is typically in the area or on adjoining rock outcrops, and red elderberry (*Sambucus racemosa*) may grow in moist cracks in talus below. Trees from the surrounding forest may shade the cliff face; shaded cliffs have less vegetation than sunny occurrences. Cliffs are small areas within surrounding forest, and reflect the vegetation of the surroundings.

Differentiating Occurrences: Three types of very sparsely vegetated plant communities have been identified on rock cliff faces, depending on the chemistry of the rock: Acidic, Circumneutral, and Calcareous (alkaline, named for calcium availability). Circumneutral and Calcareous Rock Cliff Communities have species that don't occur on Acidic Rock Cliffs, which vegetationally are less distinctive. In distribution, Circumneutral Rock Cliffs overlap with and are more widespread than Calcareous Rock Cliff Communities which are restricted to the Marble Valley and Connecticut Valley ecoregions. Circumneutral Rock Cliff communities would be expected to have some of the following characteristic species: columbine, pink corydalis, marginal wood-fern, ebony spleenwort, herb Robert, green rock-cress and/or and rock pellitory. Red cedar is more likely to be present in the vicinity of Circumneutral Rock Cliffs and associated outcrops than on either Acidic or Calcareous Cliffs and their associated rock outcrops. Calcareous Rock Cliff Communities include species requiring high nutrient levels (nutrient richness) or high pH, such as smooth rock-cress, lyre-leaved rock-cress, fragile rock-brake, purple cliff brake, and bulblet fern, that are not usually found in Circumneutral Rock Cliff Communities. Rocky summits, rock outcrops, and Open Talus/Coarse Boulder Communities also have bare rock and could be confused with Circumneutral Rock Cliff Communities. The differentiation between cliffs and rock outcrops/summits is arbitrary: cliffs are defined as vertical to near vertical (~60% slope). Open Talus/Coarse Boulder Communities have broken rock rather than continuous near-vertical rock faces. Ridgetop Pitch Pine - Scrub Oak and Ridgetop Heathland Communities occur on rock ridges, but are more densely vegetated than Circumneutral Cliff Communities, and are not near vertical overall.

Associated Fauna: All types of cliffs provide nesting habitat for Ravens (*Corvus corax*) and, increasingly, Peregrine Falcons (*Falco peregrinus*), as the offspring of Peregrine Falcons released in urban areas since 1984 have begun to return to the natural habitat to breed. Cliffs were probably the native habitat of the Eastern Phoebe (*Sayornis phoebe*). No mammals, reptiles, or amphibians would be expected on the steep cliff faces.

Public Access: Rocky Mountain Park, Greenfield; Mt. Tom State Reservation, Easthampton/Holyoke; Mt. Sugarloaf State Reservation, Deerfield.

Threats: Rock climbing can break plants off of the cliff face, remove small pockets of soil, and wear lichens off of the rocks. Distinct trails appear on heavily used cliffs. Development in the vicinity of cliffs can be a threat, although most cliffs themselves are seldom directly threatened by development.

Management Needs:



USNVC/NatureServe:

Includes some of: *Asplenium ruta-muraria* - *Pellaea atropurpurea* sparsely vegetated alliance -- *Asplenium ruta-muraria* - *Pellaea atropurpurea* sparse vegetation [CEGL004476]; *Juniperus virginiana* - *Corydalis sempervirens* cliff sparse vegetation (CEGL006422).