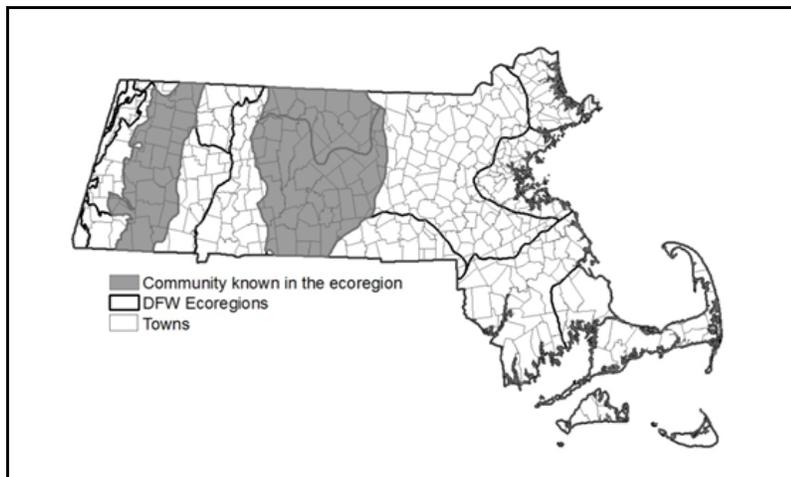


Acidic Rock Cliff Community

Community Code: CT2A2A2000

State Rank: S4



Concept: An open community of extremely sparse scattered vascular plants on ledges and in crevices within a sparsely vegetated vertical substrate of acidic rocks and any open talus at the base of the cliff. Lichens are occasionally dense on the cliff face.

Environmental Setting: Acidic rock cliffs form on resistant bedrock like granite. Little soil and few nutrients are available to support plants on the acidic cliff faces or large talus at the base. Although often cooler and moister than Acidic Rocky Summits because of aspect or shading from surrounding forests, there is a continuum of conditions and Acidic Rock Cliff Communities may be physically below Acidic Rocky Summits. Cliffs less than about 5000 sq. ft. should be considered inclusions in the surrounding communities.

Vegetation Description: Rock cliff communities are sparsely vegetated. Acidic Rock Cliff Communities are the least diverse of the cliff communities: the vascular vegetation is sparse, the plant association not distinctive and has few specialized plant species. Acidic Rock Cliffs support species of dry, low nutrient openings from the surrounding forests, such as Virginia Creeper (*Parthenocissus quinquefolia*), Common Polypody (*Polypodium virginianum*), and Rusty Cliff-fern (*Woodsia ilvensis*). Harebell (*Campanula rotundifolia*), and Fringed Bindweed (*Fallopia cilioidis*) are often in crevices on acidic cliffs, as well as in other sterile acidic conditions. Bearberry (*Arctostaphylos uva-ursi*), bristly sarsaparilla (*Aralia hispida*), and stout goldenrod (*Solidago squarrosa*) may occur on ledges in the cliff face. Purple-flowering raspberry (*Rubus odoratus*) occurs on acidic cliffs in the northern and western parts of the state. Lichens, including rock tripe (*Umbilicaria* spp.), may be abundant on the rock face. 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. Presence of columbine (*Aquilegia canadensis*), pink corydalis (*Capnoides sempervirens*), marginal wood-fern (*Dryopteris marginalis*), ebony spleenwort (*Asplenium platyneuron*), maidenhair spleenwort (*Asplenium trichomanes*), and/or purple cliff brake (*Pellaea atropurpurea*) usually indicates less acidic conditions. Red cedar (*Juniperus virginiana*) is also less likely to be present in the vicinity of Acidic Rock Cliffs than on less acidic cliffs and rock outcrops. Rocky Summit, Rock Outcrop, and Open Talus/Coarse Boulder Communities also have bare rock and could be confused with Acidic Rock Cliff Communities. The differentiation between cliffs and rock outcrops and summits is arbitrary: cliffs are defined as vertical to near vertical (~60% slope). Open Talus communities have broken rock rather than continuous near vertical rock faces.



Acidic Rock Cliff Community

**Habitat Values for
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.

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. A threat to Acidic Rock Cliff communities throughout the state is granite quarrying that removes existing vegetation along with underlying rocks. This causes changes in future vegetation, habitat characteristics, and hydrology. When quarries are abandoned, they are often left bare of all but planted grass and invasive weeds - land that is ripe for residential or commercial development.

Management Needs:

USNVC/NatureServe:

Includes: *Asplenium montanum* sparsely vegetated alliance -- *Asplenium montanum* sparse vegetation [CEGL004391] includes: Lichen vegetation - *Umbilicaria mammulata* nonvascular alliance -- *Umbilicaria mammulata* nonvascular vegetation [CEGL004387].

