

Acidic Rock Cliff Community

State Rank: S4 - Secure



Acidic Cliff with lichen and rock polypody.
Photo: Patricia Swain, NHESP.

Description: Acidic rock cliffs form on resistant bedrock such as granite. Little soil and few nutrients are available to support plants on cliff faces. Rock Cliffs are often adjacent to topographically related features: a rock cliff may have a talus slope below it and a rocky ridgetop and open rock outcrops above it. Acidic Rock Cliff Communities often include ledges that support more vegetation than vertical rocks. Cliffs less than approximately 5000 sq. ft. should be considered inclusions in the surrounding communities.

Characteristic Species: Acidic Rock Cliff Communities are the least diverse type of cliff community: the vascular vegetation is sparse, and has few specialized plant species. Acidic Rock

Vascular plants in the extremely sparsely vegetated Acidic Rock Cliff Communities grow on small ledges and in crevices of acidic cliff faces that may have dense patches of lichen. Cliff communities are often between rocky outcrops and talus slopes.

Cliffs support species of dry, low nutrient openings from the surrounding forests, such as Virginia creeper, common polypody, and rusty cliff-fern. Harebell and fringed bindweed are often in crevices on acidic cliffs, as well as in other sterile acidic conditions. Mountain spleenwort is an uncommon indicator of Acidic Rock Cliffs. Lichens, including rock tripe, may be abundant on the rock face. Trees from the surrounding forest may shade the cliff face resulting in less vegetation than sunny occurrences.



Rock Polypody. Photo: Chris Buelow, NHESP.

Differentiating from Related Communities: Three types of very sparsely vegetated plant communities have been identified on rock cliff faces, depending on the chemistry of the rock:

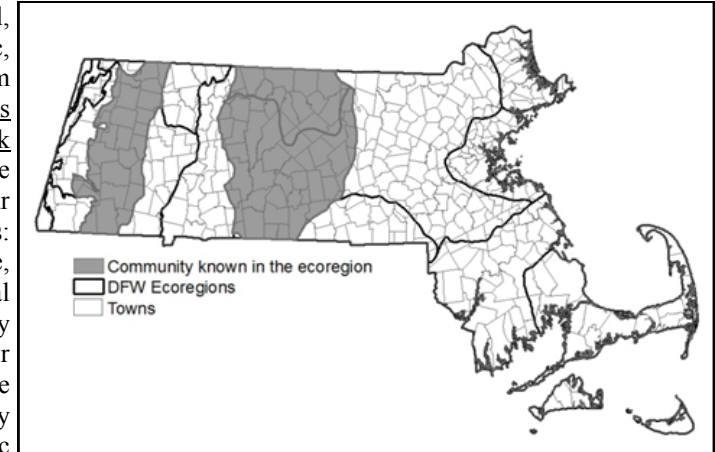
Acidic, Circumneutral, and Calcareous (basic, named for calcium availability). Calcareous and Circumneutral Rock Cliff Communities have species that don't occur on Acidic Rock Cliffs: presence of columbine, pink corydalis, marginal wood-fern, ebony spleenwort, maidenhair spleenwort and/or purple cliff brake usually indicates less acidic conditions. Red cedar is also less likely to be present in the vicinity of Acidic Rock Cliffs than on less acidic cliffs and rock outcrops. The differentiation between cliffs and rocky summits/rock outcrops 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.

Habitat for Associated Fauna:

All types of cliffs provide nesting habitat for Ravens and, increasingly, Peregrine Falcons 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. No mammals, reptiles, or amphibians would be expected on the steep cliff faces.

Examples with Public Access:

Mt. Tekoa WMA, Russell; Mt. Everett State Reservation, Mt. Washington; Wendell SF, Wendell.



Acidic Rock Cliff with lichens on the rock face and vascular vegetation on a rock ledge. Photo: Chris Buelow, NHESP.

