

County: Cumbria

Site Name: Honister Crag

District: Allerdale

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act, 1981.

Local Planning Authority: Lake District Special Planning Board

National Grid Reference: NY 206142 **Area:** 283.2 (ha) 699.7 (ac)

Ordnance Survey Sheet 1:50,000: 89 **1:10,000:** NY 11 SE, NY 21 SW

Date Notified (Under 1949 Act): 1965 **Date of Last Revision:** 1975

Date Notified (Under 1981 Act): 1987 **Date of Last Revision:** 1987

Other Information:

1. This site lies within the Lake District National Park.
2. The boundary has been modified by extensions and a small deletion at this revision.
3. The site lies adjacent to Buttermere Fells SSSI.

Description and Reasons for Notification:

Honister Crag forms an extensive block of cliffs and screes on the north facing slopes of Fleetwith Pike 3 km south-east of Buttermere village, and 10 km south-west of Keswick. The site provides one of the best examples of species-rich upland ledge communities in West Cumbria, and supports a mixture of montane and lowland species. Additional interest is provided by areas of heath, grassland, old quarry workings and important geological exposures in the vicinity of Warnscale Bottom.

The main face of Honister Crag extends for over 2 km, with the crags reaching 300 m in height, beneath which are extensive screes running down to Gatesgarthdale Beck. The site lies predominantly on rocks of the Borrowdale Volcanic Series, which although mainly acidic in nature, have strongly calcareous bands of fine volcanic ash present.

The biological importance of the crags is derived from the calcareous nature of these slately bands which have given rise to rich relict tall herb ledge communities where thin soils have accumulated. Montane species are found in great profusion and grow in association with a range of lowland species. Montane species include rose-root *Sedum rosea*, mountain sorrel *Oxyria digyna* and alpine saw-wort *Saussurea alpina*. Associated lowland species include globeflower *Trollius europaeus*, water avens *Geum rivale*, wood crane's-bill, meadowsweet, and early-purple orchid *Orchis mascula*. Sea plantain *Plantago maritima*, typically a plant of coastal habitats occurs on the cliffs at one of its few inland localities in the Lake District. By way of contrast the more open rock faces of the crags have a great abundance of small montane herbs and ferns. These include starry, mossy and yellow saxifrages *Saxifraga stellaris*, *S. hypnoides* and *S. aizoides*, alpine lady's mantle, brittle bladder-fern and green spleenwort.

Also associated with the crags is a rich bryophyte flora which includes several rare "Atlantic" species including *Hypnum hamulosum*, *H. callichroum*, *Grimmia montana*, *Campylopus setifolius* and *Dicranum blytii*.

Above the crags and on the south facing slopes of Fleetwith Pike are areas of heath and grassland. The heaths are dominated by heather *Calluna vulgaris* and bilberry *Vaccinium myrtillus*, with crowberry and cowberry, whilst the grassland sward comprises sheep's fescue *Festuca ovina*, mat-grass *Nardus stricta*, bents *Agrostis* species, heath rush, tormentil and heath bedstraw. Within these two habitats are found all three of the commonly occurring species of club-moss, *Lycopodium clavatum*, *Diphasiastrum alpinus* and *Huperzia selago*.

In addition to the natural habitats found on the site, slate quarrying has created a range of artificial, man-made habitats. Old quarry faces and walls have been colonised by rank growths of saxifrages, ferns and rose-root, whilst fine calcareous screes and spoil heaps support mossy and yellow saxifrages in abundance.

The outcrops in Warnscale Bottom provide important exposures of rocks of the Skiddaw Group in contact with lavas and tuffs of the Borrowdale Volcanic Group. The nature of the contact between these two rock groups is controversial and appears to vary in character from place to place. At Warnscale Bottom, small crags north of the path expose Skiddaw Group slates showing small-scale folds with associated cleavage (closely spaced parallel fractures). South of the path, adjacent to Warnscale Beck, the Skiddaw Group/Borrowdale Volcanic Group junction is exposed. At this point it is faulted, with a clear discordance between the folded and cleaved slates, showing substantial local changes in orientation, contrasting with the lavas and tuffs, inclined steadily south-eastwards. In the adjacent Black Beck the contact has an entirely different character, with an unconformity and conglomerate separating the two groups. These outcrops provide an important demonstration of the character of the contact between these two rock groups, a highly contentious subject in Lake District geology. An understanding of this contact is of great importance in dating the events which shaped the structure of the Lake District and understanding the overall geological development of the region.