

SITE NOTIFIED TO THE SECRETARY OF STATE ON THE 13TH MARCH 1990

COUNTY: LANCASHIRE

SITE NAME: ARTLE DALE

DISTRICT: LANCASTER

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

Local Planning Authority: Lancaster City Council

National Grid Reference: SD 545628

Area: 26.1 (ha.) 64.5 (ac.)

Ordnance Survey Sheet 1:50,000: 97

1:10,000: SD 56 SE
SD 56 SW

Date Notified (Under 1949 Act): 1951

Date of Last Revision: 1979

Date Notified (Under 1981 Act): 1990

Date of Last Revision: 1990

Other Information:

1. This site lies within the Forest of Bowland AONB.
2. Boundary revised by partial deletion on renotification.

Description and Reasons for Notification:

Artle Dale is the wooded gorge of Artle Beck and is situated 7km east of Lancaster. It is of importance, as one of the two or three best valleys in Lancashire, for its bryophyte (moss and liverwort) communities, with over 160 species having been recorded.

Of particular interest are excellent examples of base-enriched cliff, streamside gorge and Atlantic woodland communities, the latter rare in Lancashire, all of which include species which are scarce in the county.

Several of the communities and species in Artle Dale are approaching the south-eastern limit of their range in Britain. The bryophytes of Artle Dale are therefore outstanding in a local context, and also important nationally.

Along this part of its length Artle Beck occupies a deep valley and is shaded and sheltered throughout by surrounding woodland. The banks vary from being shallowly sloping to vertical rock walls several metres high and there are a number of higher shale scars. A substantial amount of base-rich flushing occurs on the banks.

The range of habitats is reflected in the bryophyte flora, which is rich and includes several scarce species. Bryophytes are abundant and often luxuriant on rocks in the beck, on scars, in flushes and on alluvium. In the beck *Scapania undulata*, *Hygrohypnum ochraceum*, *Fontinalis antipyretica* and *Racomitrium aciculare* are common. On alluvium *Dichodontium pellucidum*, *Rhizomnium punctatum* and *Chiloscyphus polyanthos* are often abundant and *Barbula spadicea* is locally frequent. Rock scars close to the stream have abundant *Thamnobryum alopecurum*, *Hyocomium armoricum* and *Brachythecium plumosum*, while shale scars and cliffs with extensive seepage and base enrichment have a characteristic flora including *Cratoneuron commutatum*, *Eucladium verticillatum*, *Bryum pseudotriquetrum*, *Blindia acuta* and the minute *Seligeria pusilla*.

The central part of the gorge has areas of base-rich sandstone with *Ctendium molluscum*, *Fissidens cristatus* and the liverwort *Lejeunea cavifolia* all occurring. Also present on rock here are the liverworts *Lejeunea patens* at its only Lancashire site and *Saccogyna viticulosa*, a strictly Atlantic plant very rare in Lancashire. Other scarce bryophytes found in this deep, humid central zone include *Taxiphyllum wissgrillii*, *Rhynchostegiella teesdalei*,

Tetradontium browianum, *Jamesoniella autumnalis* and *Odontoschisma denudatum*.
Leucobryum juniperoideum occurs at its only Lancashire site.

Towards the east of the site is an area of boulder-strewn woodland more reminiscent of a western Scottish ravine woodland, with a strongly Atlantic bryophyte flora. Species such as *Scapania gracilis*, *Bazzania trilobata* and *Dicranodontium denudatum* are common on rocks and in rock crevices, and there is a good variety of ferns present.