

LIMESTONE LANDSCAPES

Holme, Burton & Hutton Roof

Between the villages of Holme, Hutton Roof and Burton lies one of the most impressive areas of limestone habitats in Britain. Extending to more than 650 hectares, it is dominated by the impressive bulk of Farleton Knott which rises to over 200 metres above sea level. The area has a fascinating history which has shaped the landscape and produced the attractive mosaic of limestone pavement, crag, grassland, woodland and scrub we see today. Much of the area has been designated as a Site of Special Scientific Interest (SSSI) and a Special Area of Conservation (SAC) reflecting its outstanding wildlife habitats. There are also two National Nature Reserves (NNR) and one Local Nature Reserve (LNR). The area is owned and managed by many different organisations and individuals.

Access

Public rights of way and permissive paths linking the areas and the villages of Burton, Holme and Hutton Roof are shown on the map inside this leaflet. Areas managed by Cumbria Wildlife Trust and the National Trust have open access and people are welcome to explore them on foot. Please note that limestone pavement becomes slippery when wet and suitable footwear should be worn. Areas within and next to the quarry may be restricted for safety reasons - observe local signs. An hourly bus service links Burton and Holme to Lancaster, Carnforth (nearest railway station) and Kendal seven days a week.

Please help look after this special area by observing the following:

- * Keep horses and mountain bikes to bridleways
- * Use gates and stiles provided - don't climb walls
- * Take litter home
- * Close gates

For more information about the area please contact;

Holme Park Fell
The National Trust
Property Office
Bank House Farm,
Silverdale
Lancs, LA5 0SS
Tel: 01524 701178



**Hutton Roof Crag,
Park Wood NNR, Lancelot Clark
Storth, Burton Fell**
Cumbria Wildlife
Trust, Plumgarths
Crook Road, Kendal
Cumbria LA8 8LX
Tel: 01539 816300



Dalton Crag
Forest Enterprise
The Old Sawmill
Dunsop Bridge
Clitheroe BB7 3AZ
01200 448256



Holme Park Quarry LNR
Cumbria County
Council, County
Hall, Kendal
Cumbria LA9 4RQ
Tel: 01539 773000



**Clawthorpe Fell NNR
and general information about
the SSSI and SAC**
English Nature
Juniper House
Murley Moss
Oxenholme Road
Kendal, Cumbria LA9 7RL
Tel 01539 792800



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RMC Environment Fund

Front cover pictures: dark red helleborine, common blue butterfly, dropwort, male fern, small pearl bordered fritillary, limestone fern.

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Common Blue



Geology

The limestone rock was laid down some 350 million years ago during the Carboniferous period, long before dinosaurs roamed the earth.

Fossils within the rock show that it was laid down in a warm shallow sea inhabited by corals, shelled creatures and sea lilies. Over hundreds of thousands of years, fragments of these life forms accumulated on the sea bed and compacted to form the limestones of today. The rock is over 300m thick here, and since being deposited has been folded and faulted into shape by movements in the earth's crust.

Just 10,000 years ago, glaciers and ice sheets covered the Lake District, scouring and eroding the rocks beneath. After the ice melted, it left flat expanses of limestone covered in glacial debris. Over time, rain water filtering through this debris etched the characteristic patterns of grikes and runnels into the rock and eventually washed most of the debris away, leaving just erratics. These range from large limestone boulders perched on pavement, to small pieces of sandstone and other rock from further afield.

Human History

Before the Enclosure Acts of the early 19th century, you could have walked from Farleton Knott and Holme Park Fell to Hutton Roof Crag, Burton Fell and Lancelot Clark Storth without crossing any boundary walls.

The area was unenclosed and was held by the commoners of Holme, Burton and Hutton Roof parishes for grazing livestock, harvesting animal bedding, quarrying stone and cutting firewood.

With the Burton, Dalton and Holme Enclosure Act of 1818, much of the land was taken into private

ownership and miles of dry stone walls were built, changing the landscape dramatically. Hutton Roof Crag and Burton Fell remained as commons, the latter providing stone 'for making or repairing houses, fences, roads, or improving any land within the manor, township or division of Burton'.

Land is improved for agriculture by adding lime. In the past this was made by burning limestone in lime kilns using

local charcoal, or later, coke brought in by canal. Thirteen such kilns are still in evidence, all located on the boundary between the fell and the farmed land. Lime produced this way was also used for mortar and plaster for houses.

Holme Park Quarry



Holme Park Quarry originally had six kilns producing lime for a variety of uses including steel making. More recently, rock from here was used in the construction of the M6, and today it is used for making cement.

Limestone pavement for decorative use in gardens became popular in the early 20th century. Whilst many areas of pavement have been irreparably damaged as a result, the removal of limestone pavement is now illegal.



High brown fritillary

Cuckoo Rocking Chair (erratic)



Harebells



Juniper berries



Limekiln



Brimstone



LIMESTONE LANDSCAPES

Holme, Burton & Hutton Roof

Limestone Pavement, Grassland & Heath

The limestone pavements here occupy an intermediate position between the low lying pavements of Gaitbarrows and those on the flanks of Ingleborough some 350 metres above sea level.

Past management has created great diversity in pavement vegetation, from the very open expanses of Holme Park Fell to the totally wooded areas of Lancelot Clark Storth, and all stages in between.

Open pavement tends to occur at higher elevations and is home to some of the really special plants which grow here such as rigid buckler fern, angular Solomon's seal, limestone fern and dark red helleborine. Managing these more open pavements involves light grazing and some manual scrub clearance.

Where there is less exposure to wind or grazing pressure, hazel, ash and juniper scrub can colonise. Tree growth is checked by lack of soil and water, so even small trees can be exceptionally old. Juniper, a native conifer, is almost completely absent from Holme Park Fell but is abundant on other pavements in the area. Wooded pavement, found at the lowest elevations, has its own character with mosses completely covering the limestone.

Between the pavements where varying thicknesses of soil cover the underlying limestone, grassland and heath has developed.

On the thinnest soils, one plant dominates. Blue moor grass, so called because of its silky blue flowers which appear in April, is nationally scarce although abundant here. Look closely through the summer and you can find a diversity of other flowering plants from the tiny white flowers of fairy flax, limestone bedstraw and eyebright, to the larger fly orchid, carline thistle and harebell. Thicker soils provide conditions favoured by a different range of plants such as wavy hair grass, heather, bilberry and lady's bedstraw.

Bracken, which in the past would have been kept in check by cutting and cattle grazing, also favours these areas and can become the dominant species here.

Today the grassland is lightly grazed with sheep, whilst some areas of bracken are cut or bruised.



Harts Tongue Fern



Carline Thistle

- public footpath
- permitted footpath (mountain bikes NOT permitted)
- — — public bridleway (mountain bikes permitted)
- P parking
- ➔ access on foot only (no parking in the immediate vicinity)
- limekiln
- ▲ Trig pillar
- NNR National Nature Reserve
- LNR Local Nature Reserve



Blue Moor Grass



Speckled Wood

Woodland

This whole landscape would once have been far more wooded than it is today. Early farmers cleared much of the woods to graze their animals, and grazing has kept these areas open.

Where grazing pressure has been reduced, as at Hutton Roof Common, Burton Fell and Lancelot Clark Storth, woodland has started to make a comeback. Ash and oak are the main canopy trees with occasional yew and birch. Field maple, here at the northern edge of its range, can be found in Park Wood. Beneath the canopy, hazel, holly and hawthorn are the main shrub

species, however also look out for spindle, crab apple and alder buckthorn. Mezereon is a much smaller and quite inconspicuous shrub with sweet smelling pink flowers appearing in early spring.

Bluebell, wood anemone, wild garlic, and primrose carpet the woodland floor from April until the trees come into leaf. Coppicing stimulates flowering of the woodland plants which in turn provides food for a variety of insect and bird life. Coppiced areas are fenced to prevent deer browsing the regrowing trees.

Wildlife

In summer, a walk across this limestone country is usually accompanied by the song of skylark, willow warbler and yellowhammer. Many other species of bird can be seen here, such as raven, buzzard, sparrowhawk and cuckoo.

Residents of the woodlands include nuthatch, greater spotted woodpecker, woodcock and tawny owl. Mammals will only be occasionally encountered, but roe deer, fox and badger are common.

From April through to September, a succession of different butterflies can be seen. The first to appear are those which have hibernated over winter such

as small tortoiseshell and brimstone. Green hairstreak flies in April and is associated with patches of bilberry on which the caterpillars feed.

From May onwards, the fritillaries appear, starting with the pearl bordered fritillary. This is closely followed by small pearl bordered and dark green fritillary in June, and high brown fritillary in late June and early July. By this time, common blue, grayling, peacock and meadow brown are also on the wing.

Coppicing, light grazing and bracken management benefit these species.