

COASTAL GILLS

What are COASTAL GILLS?

The wooded denes along the coast of the Durham area are well known. The smaller coastal gills with their vegetation of small trees, shrubs and herbs are perhaps less well known. The coastal gills run in a south-west to north-east direction. They are small valleys, following the course of streams, which cut through the cliffs and finish on the beach. These gills support a range of habitats that are valuable for wildlife, including calcareous grassland, base-rich flushes and scrub.

Where are they found in the UK?

The coastal gills of the Durham coast are unique. They were cut by rivers during the last Ice Age (approximately 10,000 years ago). The current water courses that run through the gills did not cut them. The "chines" on the Isle of Wight represent a similar habitat.

Why are coastal gills of CONSERVATION IMPORTANCE?

Because of their sheltered nature, the vegetation in the coastal gills is very different from that on the neighbouring cliff tops. The gills contain scrub, grasslands and areas of mire. The scrub which includes species such as gorse and hawthorn, provides cover for incoming migratory birds, including notable rarities, as well as breeding sites for residents and summer visitors including cuckoo and yellowhammer. Flocks of wintering redwings and fieldfares can be found feeding on berry-bearing bushes while stonechats can sometimes be seen on gorse bushes.

The grasslands in the coastal gills are of considerable botanical importance with species such as round-leaved wintergreen and birds-eye primrose being present. The grasslands at Cross Gill are typical of traditionally managed herb-rich grassland, whilst the gills, denes and cliff slopes include examples of vegetation that is as near-natural as anywhere in Britain. The interface of scrub and grassland forms important habitats for small mammals and invertebrates.



Other action plans and statements covering issues relevant to coastal gills:-

- (C) UPLAND AND COASTAL DENE ASH WOODLAND*****
- (C) MAGNESIAN LIMESTONE GRASSLAND***
- (C) JUNIPER SCRUB***
- (C) LOWLAND MEADOWS AND PASTURES***
- (C) COASTAL GRASSLANDS*****
- (C) NORTHERN BROWN ARGUS***
- (C) CISTUS FORESTER MOTH*****

COASTAL GILLS

COASTAL GILLS IN THE DURHAM AREA

What is the state of coastal gills in the DURHAM AREA?

The condition of the coastal gills is variable as is their conservation value.

Blue House Gill is part of the Durham Coast SSSI and the Durham Coast NNR. It is actively managed and therefore of considerable conservation interest. It contains species-rich mosaics of calcareous and neutral grassland, scrub, scrub-woodland and mire (including tall-herb fen) as well as important populations of dark-leaved willow. Species recorded in Blue House Gill include those with a southerly distribution at the northern edge of their range such as pale St John's Wort (*Hypericum montanum*) and woolly thistle (*Cirsium eriophorum*) as well as species at the southern edge of their range such as melancholy thistle (*Cirsium heterophyllum*).

Cross Gill also contains a variety of habitat types including areas of scrub-woodland, species-rich calcareous grassland along with extensive areas of unimproved neutral grassland and a very small area of weakly acid grassland where there are a few relict heathers (*Calluna vulgaris*). There are areas of scrubby woodland at Cross Gill, Blue House Gill and Castle Eden Denemouth. In Limekiln Gill, there are also species and community-rich calcareous and neutral grasslands with soligenous mires. Whitesides Gill contains species rich grassland with invertebrate interest.

Small burns drain the gills at Blue House Gill and Cross Gill, but the burns in the gills are generally too small or seasonal to support riparian vegetation. Slippage is a beneficial process for maintaining herb-rich grasslands by ensuring thin soils remain. However it is not a significant process in the gills.

WHERE do they occur in the Durham area?

Coastal gills occur along the coast of County Durham from Crimdon, northwards, to Hawthorn Dene Mouth. Just north of Horden, are Warren House Gill and Ash

Gill. To the south of this area are Blackhills Gill and Whitesides Gill. Limekiln Gill is adjacent to Castle Eden Denemouth. North of Blackhall, lies Bluehouse Gill; Cross Gill and Limekiln Gill occur to the south of Blackhall.

Coastal gills are at RISK from:

VEGETATIONAL SUCCESSION AND ENCROACHMENT OF SCRUB.

DISTURBANCE - resulting from fairly high public usage and the associated problems of litter and fly tipping.

EUTROPHICATION - leaching of nutrients and fertilisers from former arable farming on cliff tops which accumulate at the base of slopes and increase the nutrient status of damp communities at the base making them vulnerable to incoming giant horsetail and agrimony (*Agrimonia eupatoria*).

PRACTICAL DIFFICULTIES OF SITE MANAGEMENT due to steep slopes, awkward vehicular access and problems with keeping livestock in the area.

Coastal gills BENEFIT from:

BEING PART OF DESIGNATED PROTECTED AREAS ALONG THE COAST.

MANAGEMENT - in the form of scrub control and grassland maintenance to create a mosaic of open areas of herb-rich grassland and scrub.

STEEPER SLOPES AND A DEGREE OF NATURAL SLIPPAGE - steeper slopes will have a higher degree of slippage which means that more bare ground is exposed. Steeper slopes are also better drained with a lower nutrient status which encourages floral diversity.

RAISED AWARENESS OF THEIR WILDLIFE VALUE - the Durham coast path crosses or skirts several gills and provides opportunities via interpretation and events to increase public awareness of wildlife.

BUFFER ZONES - where land is used for agriculture, the establishment of buffer zones around cliff edges can help reduce the problems of run-off.

COASTAL GILLS

Important SPECIES for maritime cliffs and slopes in the Durham area:

STONECHAT

YELLOWHAMMER

CUCKOO

GREEN WOODPECKER

ROUND-LEAVED WINTER GREEN

BIRDS-EYE PRIMROSE

PYRAMIDAL ORCHID

DARK-LEAVED WILLOW

FIVE AND SIX SPOT BURNET MOTH

TARGETS

- 1** Increase the potential wildlife value of the gills, where possible by appropriate management. (ONGOING)
- 2** Survey the wildlife present in the coastal gills and establish a monitoring programme. (2001)
- 3** Raise public awareness of the unique nature of the gills and their importance as refuges for wildlife. (2002)
- 4** Include contingencies for managing coastal gills in local strategic plans such as the ICZM Plan. (2002)

ACTION PLAN

ACTION	DATE	Possible PARTNERS	Meets TARGET No.
POLICY AND LEGISLATION			
1. Incorporate protection and management of coastal gills into the forthcoming ICZM.	2001	LAs, NT, EN, DBAP, DWT	1, 4
SITE SAFEGUARD AND MANAGEMENT			
2. Ensure appropriate management regimes for designated areas are implemented - SSSI, NNR.	ONGOING	EN, DWT, EDC, NT, STMBC	1, 2
3. Ensure that all management incentives and protection schemes are in place for key sites.	ONGOING	DWT, NT, EDC, EN	1

continued...

COASTAL GILLS

ACTION PLAN

ACTION	DATE	Possible PARTNERS	Meets TARGET No.
SITE SAFEGUARD AND MANAGEMENT continued			
4. Ensure that management proposals for key sites for BAP species and habitats incorporate relevant specific recommendations (see list of relevant species and habitats).	ONGOING	EN, DBAP, NT, DWT, LAs	1
5. Establish buffer zones between intensively managed agricultural land and semi-natural slope habitat.	2002	DEFRA, local farmers, NT, DCC, EDC, FWAG	1
ADVISORY			
6. Encourage the adoption of policies and practices which are sympathetic to nature conservation. Prepare and disseminate "best practice" guidance materials.	ONGOING	DEFRA, EN, DWT, NT, DCC, EDC, CA	1
RESEARCH AND MONITORING			
7. Monitor local wildlife populations e.g. birds, plants.	ONGOING	DBC, DWT, EN	1
COMMUNITY AND PUBLICITY			
8. As part of an integrated coastal interpretation strategy: foster public awareness of the unique nature of Durham's coastal wildlife, the need to preserve cliffs and slopes, the pressures they are facing and the value and potential of the cliffs and slopes as a wildlife resource.	ONGOING	EN, DWT, DBAP, NT, EDC, DCC, SCC, STMBC, CA	3,4
9. Encourage public participation in their management through membership of local conservation groups.	2001 onwards	DCC, EDC, DWT, NT, STMBC, SCC	3,4
10. Provide information for walkers and users of coastal cliff top paths about any ongoing management work and about the importance of coastal gills and slopes for wildlife.	2001 onwards	EN, EDC, DWT, NT, SCC, STMBC	3,4