Action Plan Scope:

This Action Plan covers the UK BAP priority habitat Maritime cliff and slopes¹, which encompasses a variety of vegetation types, ranging from saxicolous lichen communities in the spray zone, through sparsely vegetated cliff-faces and ledges to coastal grassland, heath and scrub on the deeper soils of the cliff-top. Included is the full vertical range of Welsh hard and soft sea cliffs, extending from the supralittoral to the cliff-top zone. In practice, the natural landward limit of cliff-top vegetation will almost always have been curtailed by artificial barriers such as enclosed agricultural land. There is no generally accepted definition of the minimum height or angle of slope that constitutes a cliff, therefore low rocky coastlines that may be just a few metres above spring tides are also included within this HAP.

1. CURRENT STATUS

1.1 Legislation and priority status

International Habitats Directive^a (Annex I)

SPAb

UK and Wales SSSI legislation (some areas of maritime cliff and slopes)

UK BAP priority Welsh S74 list^d

Gwynedd Llŷn AONB

Heritage Coast

1.2 Status in Wales and beyond

Approximately 4000km of the UK coastline has been classified as cliff. Wales has a coastline about 620 km in length, with 3500 ha of maritime cliff and slope habitat. This encompasses 890 ha Hard cliff, 83 ha Soft cliff, 1600 ha Coastal grassland, 890 ha Coastal heath and 120 ha of grass / heath mosaic. Several Welsh sea-cliff sites are of outstanding biogeographic interest, supporting both species and plant communities with a strongly disjunct distribution, the limestone cliffs of Great Orme's Head, south Gower and south Pembrokeshire being particularly noteworthy.



 $^{^{}m a}$ Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora

e UK BAP for Maritime cliff and slopes



^b May cover specific areas of Maritime cliff and slopes; designated under the EC Birds Directive

^c Wildlife and Countryside Act 1981, Countryside and Rights of Way Act 2000

^d Welsh Assembly Government, Going Wild in Wales-List of Species and Habitats of Principal Importance for the Conservation of Biological Diversity. Crown Copyright 2003.

1.3 Status in Gwynedd^f

Gwynedd (including Snowdonia National Park Authority) has 107km of coastline with Maritime cliff and slope habitat (surpassed only by Anglesey and Pembrokeshire), while the area of this habitat within the Gwynedd BAP area is second only to Pembrokeshire at 820 ha². Significant stretches of hard-rock cliff are noted as occurring along the Gwynedd coastline, and there are major exposures of soft cliffs comprising boulder clay and other superficial deposits². Most of the Llŷn Peninsula coast contains cliffs and cliff-top habitat, mainly soft cliffs, and there are small lengths of this habitat along the Meirionnydd coast, mainly between the Dyfi and Mawddach estuaries.

Much of the Llŷn Peninsula's seacliff vegetation is of national and potentially international importance. A number of stretches are included within the Seacliffs of Llŷn candidate SAC^g . The heaths, found on more acidic soils, at Ynys Enlli and along the coast of Aberdaron are of national importance. The coastal soft cliffs of the Llŷn are also particularly important for priority invertebrate species².

The regional cliff fauna is of particular interest. Aberdaron Coast and Bardsey Island SPA is designated for its important seabird colonies. The Llŷn Peninsula's cliffs also holds some of the few remaining colonies of the chough in Britain, which has led to the recent designation of Mynydd Cilan, Trwyn y Wylfa and the St Tudwal Islands SPA. Colonies of sand martin nest along some of the soft boulder clay cliffs.

2. FACTORS AFFECTING THIS HABITAT IN GWYNEDD

- Erosion is vital for constantly exposing new surfaces for re-colonisation by pioneer plants and allows early successional vegetation types to be maintained. It also provides an essential supply of sediment to coasts lying below the cliffs. However it can destroy cliff-top vegetation where it is squeezed between a crumbling cliff face and cultivated land (e.g. at Nefyn).
- Coastal protection systems have been built on many soft cliff coasts in order to slow down or prevent erosion. This usually has a detrimental effect on the conservation interest of cliffs by preventing the development of natural exposures and bare areas and by causing natural wet flushes to dry out. It can also starve coastal sites of sediment. The latter has been estimated to have resulted in a 50% decline in sediment inputs over the past 100 years.
- Urban or industrial developments and holiday accommodation are often built too close to clifftops. This usually leads to the development of coastal protection systems, and also prevents plant communities from retreating inland in response to cliff erosion. Holiday accommodation usually reduces the visual value of coastal landscapes and creates a greater disturbance to nesting birds.
- Near coastal footpaths, localised erosion caused by livestock worrying may be a problem. This may also encourage farmers to remove their stock from these areas leading to a lack of appropriate grazing and to scrub encroachment.
- Abandonment of traditional agricultural practices (e.g. grazing) on coastal slopes can lead to development of rank vegetation and to the deterioration of quality and extent of maritime grass and heath communities. In turn this has a deleterious effect on ley grassland species which these habitats support and also creates a fire hazard.
- Intensive agriculture has led to maritime grassland on level cliff tops being ploughed up, while the lower sloping ground is left abandoned and frequently becomes overgrown. Other

^f Within this document the term "Gwynedd" refers to areas outside the Snowdonia National Park area, except where specified otherwise

⁹ Designated for the presence of high quality examples of "Vegetated sea cliffs of the Atlantic and Baltic coasts"

consequences of intensive agricultural practices include fertiliser run-off and land drainage, which can lead to an influx of 'weed' species and localised erosion. Alteration in drainage systems on adjacent land can detrimentally affect seepages and flushes on coastal slopes.

 Predators such as cats and rats can have an impact on nesting seabirds, particularly on island sites. In some areas alien plant species e.g. Hottentot Fig (Carpobrotus edulis) have had a detrimental effect on indigenous maritime plant communities.

3. ASSOCIATED GWYNEDD SAPS / HAPS

Arable field margins, Lowland heathland, Mudflats

Polecat, Chough, Grey bush cricket, A weevil (Sitona gemellatus), Bumblebees, Golden hair lichen

4. CURRENT ACTION IN GWYNEDD

4.1 Site and habitat protection

- Several stretches of the Gwynedd coastline have been designated as candidate SACs (Seacliffs of Llŷn) and / or SPA (Aberdaron Coast and Bardsey Island; Mynydd Cilan, Trwyn y Wylfa and the St Tudwal Islands).
- Most of Gwynedd's coastline is bordered either by the Pen Llŷn a'r Sarnau marine candidate SAC or by the Menai Strait and Conwy Bay marine candidate SAC.
- A number of areas of maritime cliff and slopes are included within SSSIs (including Glannau Aberdaron, Ynys Enlli, Glanllynau, Penarfynydd, Porth Ceiriad, Porth Neigwl ac Ynysoedd Sant Tudwal and Yr Eifl), also within areas identified as potential Wildlife Sites.
- Bardsey Island is an NNR.
- Much of the coast of Pen Llŷn is designated as a Heritage Coast and much of the Peninsula is included within the Llŷn AONB.

4.2 Management and programmes of action

- An independent partnership of coastal practitioners has been established in Wales called Arfordir.
- Over 700km of cliff coastline in the UK is owned by the National Trust, including a large proportion of Gwynedd's maritime cliff resources.
- A draft Shoreline Management Plan has been produced for Gwynedd county.

4.3 Survey, research and monitoring

None identified

5. ACTION PLAN OBJECTIVES

- 1. Maintain and enhance the existing maritime cliff and slopes resource
- 2. Maintain wherever possible the free functioning coastal physical processes acting on this habitat.
- 3. Seek to lessen the impact of coastal defence and other engineering works

6. PROPOSED ACTIONS

Code	Action	Partner(s) ^h	
Policy o	nd legislation		
1	Use planning conditions to ensure developments in sensitive locations are compatible with conservation of maritime cliff and slopes TARGET/TIMESCALE: Ongoing	<i>GC</i> , Relevant partners	
2	Ensure that all examples of maritime cliff and slopes which meet the relevant criteria are designated as Wildlife Sites TARGET/TIMESCALE: Start process of designation, by 2005	GC, CCW, NWWT	
Species	/ habitat management and protection		
3	Include and implement conservation requirements for maritime cliff and slopes in all relevant site management plans, and in marine SAC management plans TARGET/TIMESCALE: Ongoing	CCW, GC	
4	Ensure that the conservation requirements of maritime cliff and slopes are accommodated in relevant shoreline management plans (by Cardigan Bay Coastal Group, Ynys Enlli to Llandudno Coastal Group) – ensuring adequate mitigation, encouraging soft rather than hard engineering techniques where possible, and considering non-replacement of coastal cliff defences which have come to the end of their useful life TARGET/TIMESCALE: Ongoing	GC, Arfordir, CCW, NWWT, NT, RSPB Cymru	
5	Promote and support grant schemes including Tir Gofal, Lŷn ESA and / or use management agreements to secure favourable management and / or restoration of maritime cliff and slopes habitat, taking into account the needs of associated LBAP species and habitats TARGET/TIMESCALE: To be set, Ongoing	FWAG Cymru, CCW, CLA, DEPC, FUW, GC, NFU Cymru, NT, NWWT, RSPB Cymru	
6	Seek funding for land management by developing a biodiversity grant scheme, which would include grants for appropriate management and / or restoration of maritime cliff and slopes habitat TARGET/TIMESCALE: By 2005	GC, Relevant partners	
Advisor			
	None identified	NA	
Survey,	research and monitoring		
7	Identify important areas of maritime cliff and slopes in Gwynedd through a programme inventory of available data (Phase One, Wildlife Site and other surveys) and survey work, including survey for important lichen communities within the spray zone, and target key sites for management and restoration (information to be stored electronically) TARGET/TIMESCALE: By 2006	CCW, CEH, GC, NT, NWWT, RSPB Cymru, UWB	
8	Ensure that habitat surveys of maritime cliff and slopes include identifying key invertebrate species wherever feasible TARGET/TIMESCALE: Ongoing	CCW, CEH, GC, NT, NWWT, RSPB Cymru, UWB	
9	Assist with the development of coastal and sea defence strategies which are sympathetic to the nature conservation interests of maritime cliff and slopes, where appropriate and feasible. TARGET/TIMESCALE: Ongoing	EAW, CCW, CEH, GC, UWB	
10	Identify areas where alien species are a problem (e.g. Hottentot fig) and draw up a programme for eradication where appropriate (information to be stored electronically) TARGET/TIMESCALE: By 2006	CCW, CEH, EAW, GC, UWB	

^h Lead partner for this action is indicated by bold typeface, see section 7.2 for explanation of abbreviations

Communications and publicity					
11	Raise public awareness of the mobile nature of soft cliffs, the impact of coastal defences, its importance for uncommon invertebrate and bird species, and the potential damage to wildlife of introduced species. This may be achieved through attending local agricultural shows and events, creating local publicity, and in producing educational/advisory material TARGET/TIMESCALE: Ongoing	NT, N	WWT,	EAW,	

7. PARTNERS & OPPORTUNITIES

7.1 Overall lead partner for HAP

Countryside Council for Wales (CCW)

7.2 Key partners

Arfordir

Centre for Ecology and Hydrology (CEH)

Country Land and Business Association (CLA)

Department for Environment, Planning and Countryside (Welsh Assembly Government) (DEPC)

Environment Agency Wales (EAW)

Farming and Wildlife Advisory Group Cymru (FWAG Cymru)

Farmers Union for Wales (FUW)

Gwynedd Council (GC)

National Farmers Union Cymru (NFU Cymru)

National Trust (NT)

North Wales Wildlife Trust (NWWT)

RSPB Cymru

University of Wales Bangor (UWB)

7.3 Opportunities

Farming unions, landowners and managers, recreational users of the coast

8. ACKNOWLEDGEMENTS

Principal Author: Nerys Davies (GC)

Consultation: Elinor Gwynn (CCW), Gabrielle Wyn (CCW), Jill Jackson (GC), Peter Rhind (CCW)

Line drawings: English Nature

9. ABBREVIATIONS

AONB: Area of Outstanding Natural Beauty, BAP: Biodiversity Action Plan, HAP: Habitat Action Plan, JNCC: Joint Nature Conservation Committee, LBAP: Local Biodiversity Action Plan, NNR: National Nature Reserve, SAC: Special Area of Conservation, SAP: Species Action Plan, SPA: Special Protection Area, SSSI: Site of Special Scientific Interest

Version 1, 2004

¹ UK Biodiversity Group classification - Jackson, D.L. 2000. Guidance on the interpretation of the Biodiversity Broad Habitat Classification (terrestrial and freshwater types): Definitions and the relationship with other habitat classifications. JNCC Report No. 307.

² Jones, P.S. et al, 2003. Priority habitats of Wales: a technical guide. CCW.