



Habitat Action Plan: Coastal

Introduction

Scope

This grouped habitat action plan (HAP) includes:

- Beaches above the strand-line, or high water springs where no strandline exists
- Coastal Saltmarsh
- Coastal Sand Dunes
- Coastal Vegetated Shingle
- Maritime Cliffs (hard & soft)
- Maritime Scrub (including bracken)
- Strandline

This plan does not include coastal heathland, which is covered by the Heathland HAP. On coastal slopes, coastal and/or lowland heathland tends to grade into maritime grassland. The two communities often exist in a dynamic mosaic of plant communities with their distribution influenced by both natural (soil type & depth, exposure to wind and salt spray, aspect etc.) and anthropogenic factors (grazing, mowing, burning etc.). Heathland / grassland mosaics are covered in the Heathland HAP. Where maritime grassland does not form a mosaic with heathland, the community will fall within the Grasslands HAP. Coastal slopes may therefore fall within the Heathland, Coastal and Grassland HAPs and reference should be made to all three plans for coastal slopes.

The strandline delimits the seaward extent of coastal habitats for the purposes of this plan. Although much of the material on the strandline originates in the marine environment, most species utilising this resource are considered terrestrial, hence their inclusion in this plan (for example the strandline beetle, *Nebria complinata*). There will, however be crossover with the marine HAP.

Although areas of saltmarsh occur below the strandline, the predominance of essentially terrestrial plant communities on saltmarshes (many species are limited in distribution by competition from other species away from the salt-

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water inundated conditions of the saltmarsh, rather than a physiological requirement for these conditions) and the use of terrestrial based management practices (such as grazing) provide a rationale for the inclusion of these habitats in this plan instead of the Marine HAP.

Vision Statement

During the next five years the partners will maintain and / or enhance the condition and extent of coastal habitats in Pembrokeshire whilst acknowledging the constraints of land potential to support these habitats. It is recognised that some of these habitats are dynamic and subject to natural processes such as erosion or accretion. Change may be unavoidable and in some cases even desirable. Some threats to these habitats are beyond the control of the members of the Pembrokeshire Biodiversity Partnership producing this plan (for example, sea level rise or climate change). In these instances, the emphasis may be more on providing opportunities for habitat adaption or migration, rather than maintaining existing areas.

Management of an area should be steered (but not constrained) by the historical regimes undertaken at the site in order to maximise the biodiversity potential.

Description of Habitats

Collectively, these seven habitats make up much of the un-developed coastal fringe of Pembrokeshire. These Habitats display a strong zonation in the distribution of plant & animal communities reflecting the degree of exposure to factors such as salt water spray, wind and substrate stability, along with the impact of management regimes such as grazing or burning. Pembrokeshire's varied geology gives rise to a diversity of communities associated with both limestone and acidic rocks.

The term 'beaches' encompasses a broad range of settings from gently sloping sandy expanses to steep pebbly storm beaches and even boulder fields at the base of cliffs. Their management may therefore be similar to sand dune, vegetated shingle or cliff habitats, depending upon their characteristics. Beaches of all kinds can be important moulting or pupping sites for Atlantic Grey Seals.

Maritime cliff includes rock crevice communities and lichen communities in the splash zone on both hard and soft cliffs.

Maritime scrub communities often develop where topography precludes grazing (which would produce heathland or grassland) and salt spray and wind prevents the establishment of woodland. The distribution and extent of maritime cliff and scrub communities is therefore often governed by natural factors such as erosion, salt water spray and wind exposure, rather than specific management.

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Coastal Sand Dune habitats can be highly mobile and colonised by only a few pioneer species such as Marram Grass in the fore-dune area, whereas mature dunes and associated dune slacks support diverse communities (including species such as Petalwort [*Petalophyllum ralfsii*]) which are often rich in invertebrate fauna, including priority species such as the Brown-banded Carder Bee (*Bombus humilis*).

Saltmarsh habitats are regularly inundated by salt water and host communities of halophyllic plants such as the locally important Glasswort *Salicornia pusilla*. The Cleddau Estuary and Milford Haven Waterway provide key Welsh sites for Otters.

Coastal Vegetated Shingle habitats are not extensive in Pembrokeshire, however, a good example can be found at the Gann near Dale.

Threats

Dynamic habitats such as Saltmarsh, Sand Dunes and Vegetated Shingle rely on maintaining levels of erosion, accretion or inundation. Coastal defences against erosion & flooding often act to disrupt these natural processes, jeopardising the functioning of these ecosystems. Sea defences also limit the inland migration of these habitats as sea levels rise, restricting them to an ever-diminishing lateral strip (coastal squeeze). A strategic level response to pressures on the coastal zone from coastal processes, sea level rise and increased frequency of coastal flooding is provided by a series of Shoreline Management Plans (SMPs). Pembrokeshire falls within the Carmarthen Bay and Cardigan Bay SMP areas.

The development of agricultural land often defines the landward extent of semi natural cliff top communities, forcing them into a narrow band along the coast, exacerbating coastal squeeze. Sand dune systems are a favoured environment for the development of Golf courses (eg. St David's and Newport).

The coastal strip is the area under most pressure as a recreational resource in Pembrokeshire. Physical damage from trampling or development and disturbance to wildlife such as nesting birds and seals are of increasing concern.

Related Plans & Policies

Other plans / policies directly affecting the management of these habitats in Pembrokeshire are:

- A Cough Conservation Strategy for Pembrokeshire. PCNPA, 1994.
- Conserving the Coastal Slopes 1999-2002. Project report. PCNPA, 2003.
- SAC Management Plans: <http://naturalresourceswales.gov.uk/our-work/policy-advice-guidance/designated-sites/?lang=en>

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- SSSI Management Plans: <http://naturalresourceswales.gov.uk/our-work/policy-advice-guidance/designated-sites/?lang=en>
- Carmarthen bay and Cardigan bay Shoreline Management Plan: <http://www.southwalescoast.co.uk/> & <http://www.westofwalesmp.org/>
- Grassland HAP: <http://ukbars.defra.gov.uk/project/show/36376>
- Heathland HAP: <http://ukbars.defra.gov.uk/project/show/36376>
- Marine HAP: <http://ukbars.defra.gov.uk/project/show/36376>

Species Associated with Coastal Habitats in Pembrokeshire

Priority Species Associated with this Grouped Habitat Action Plan				
Species Name	Common Name	UK Bap Spp	S42 list Welsh Spp	Locally Important Spp
Mammals				
<i>Lutra lutra</i>	Otter	✓	✓	
<i>Halichoerus grypus</i>	Atlantic Grey Seal			✓
Birds				
<i>Alauda arvensis subsp. Arvensis / scotica</i>	Skylark	✓	✓	
<i>Alco torda</i>	Razorbill			✓
<i>Anthus petrosus</i>	Rock Pipit			✓
<i>Carduelis cannabina subsp. Autochthona / cannabina</i>	Common Linnet	✓	✓	
<i>Charadrius hiaticula</i>	Ringed Plover		✓	
<i>Falco peregrinus</i>	Peregrine Falcon			✓
<i>Falco tinnunculus</i>	Kestrel		✓	
<i>Numenius arquata</i>	Eurasian Curlew	✓	✓	
<i>Prunella modularis subsp. occidentalis</i>	Hedge Accentor	✓	✓	
<i>Puffinus puffinus</i>	Manx Shearwater			✓
<i>Pyrrhocorax pyrrhocorax</i>	Chough		✓	
<i>Rissa tridactyla</i>	Kittiwake			✓
<i>Saxicola torquata</i>	Stonechat			✓
<i>Sula bassana</i>	Gannet			✓
<i>Uria aalge</i>	Guillemot			✓
<i>Vanellus vanellus</i>	Northern Lapwing	✓	✓	
Reptiles / Amphibians				
<i>Anguis fragilis</i>	Slow-worm	✓	✓	
<i>Bufo bufo</i>	Common Toad	✓	✓	
<i>Natrix natrix</i>	Grass Snake	✓	✓	
<i>Vipera berus</i>	Adder	✓	✓	
<i>Zootoca vivipara</i>	Common lizard	✓	✓	
Invertebrates				
<i>Amphimallon ochraceus</i>	A Chafer			✓
<i>Anania funebris</i>	White-spotted Sable Moth	✓	✓	
<i>Argynnis aglaja</i>	Dark Green Fritillary			✓
<i>Atypus affinis</i>	Purse Web Spider			✓
<i>Bembecia muscaeformis</i>	Thrift Clearwing			✓
<i>Boloria silene</i>	Small Pearl-bordered Fritillary	✓	✓	
<i>Bombus humilis</i>	Brown-banded Carder-bee	✓	✓	
<i>Bombus muscorum</i>	Moss Carder-bee	✓	✓	
<i>Bombus ruderarius</i>	Red-shanked Carder-bee	✓	✓	

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<i>Bombus sylvarum</i>	Shrill Carder-bee	✓	✓	
<i>Carabus monilis</i>	A Ground Beetle	✓	✓	
<i>Cupido minimus</i>	Small Blue	✓	✓	
<i>Erynnis tages</i>	Dingy Skipper	✓	✓	
<i>Eucera longicornis</i>	Long-horned Bee	✓	✓	
<i>Eurodryas aurinia</i>	Marsh Fritillary	✓	✓	
<i>Hadena luteago</i>	Barrett's Marbled Coronet			✓
<i>Meloe proscarabaeus</i>	An Oil Beetle	✓	✓	
<i>Nebria complanata</i>	Strandline Beetle			✓
<i>Ochthebius poweri</i>	A Water Beetle	✓	✓	
<i>Odontoscelis fuliginosa</i>	A Shield Bug			✓
<i>Pionosomus varius</i>	A true bug			✓
<i>Ponentina subvirescens</i>	Hairy Green Snail			✓
<i>Pseudomogoplistes vicentae</i>	Scaly Cricket			✓
<i>Pyrgus malvae</i>	Grizzled Skipper	✓	✓	
<i>Scotopteryx bipunctaria</i>	Chalk Carpet	✓	✓	
Vascular Plants				
<i>Asparagus prostratus</i>	Wild Asparagus	✓	✓	
<i>Aster lynosiris</i>	Goldilocks Aster			✓
<i>Centaureum scilloides</i>	Perennial Centaury	✓	✓	
<i>Chamaemelum nobile</i>	Chamomile	✓	✓	
<i>Crambe maritima</i>	Sea Kale			✓
<i>Cytisus scoparius</i> ssp. <i>maritimus</i>	Prostrate Broom			✓
<i>Echium vulgare</i>	Viper's Bugloss			✓
<i>Euphrasia anglica</i>	Glandular Eyebright	✓	✓	
<i>Gentianella anglica</i>	Early Gentian	✓	✓	
<i>Gentianella campestris</i>	Field Gentian	✓	✓	
<i>Gentianella uliginosa</i>	Dune Gentian	✓	✓	
<i>Juniperus communis</i>	Juniper	✓	✓	
<i>Limonium binervosum</i>	Rock Sea Lavender			✓
<i>Limonium humile</i>	Lax-flowered Sea Lavender			✓
<i>Ononis reclinata</i>	Small Rest-harrow			✓
<i>Orchis morio</i>	Green Winged Orchid			✓
<i>Orobanche hederæ</i>	Ivy Broomrape			✓
<i>Orobanche purpurea</i>	Purple Broomrape			✓
<i>Petalophyllum ralfsii</i>	Petalwort	✓		✓
<i>Rumex rupestris</i>	Shore Dock	✓	✓	
<i>Salicornia pusilla</i>	Glasswort			✓
<i>Salsola kali</i> subsp. <i>kali</i>	Prickly Saltwort	✓	✓	
Lower Plants				
<i>Cephaloziella calyculata</i>	Entire Threadwort	✓	✓	
<i>Colema fragile</i>	A Lichen	✓	✓	
<i>Fulgensia fulgens</i>	A Lichen	✓	✓	
<i>Funaria pulchella</i>	Pretty Cord-moss	✓		
<i>Heterodermia leucomelos</i>	Ciliate Strap Lichen	✓	✓	
<i>Petalophyllum ralfsii</i>	Petalwort	✓	✓	
<i>Ramalina polymorpha</i>	Ramalina polymorpha			✓
<i>Telochistes flavicans</i>	Golden Hair Lichen	✓	✓	
<i>Tortula wilsonii</i>	Wilson's Pottia	✓	✓	

Plan Aims

Ref	Aim	Deadline	Comments
CO1	Maintain ecosystem functioning by avoiding further disconnectivity in habitats included in this plan. This includes avoiding disruption to natural coastal processes which help to maintain these habitats.	Review May 2018	
CO2	Maintain extent and condition of coastal habitats through supporting and encouraging natural coastal processes, grazing management, burning regimes, scrub clearance and infrastructure provision as appropriate and where land capability allows.	Review May 2018	
CO3	Achieve favourable condition of coastal habitats by managing invasive non-native species.	Review May 2018	
CO4	Achieve favourable condition of coastal habitats by identifying opportunities for addressing nutrient enrichment issues arising from management of adjacent farmland on coastal slopes.	Review May 2018	
CO5	Restore coastal habitats where appropriate opportunities arise through appropriate scrub clearance work, fencing, cutting, burning and grazing.	Review May 2018	
CO6	Create coastal habitat if appropriate opportunities arise to improve connectivity or ecosystem functioning.	Review May 2018	
CO7	Monitor coastal habitats where possible, including the impacts of increasing recreational pressure on LBAP habitats and species.	Review May 2018	

Action

Code	Action	Lead Role	Progress / Additional Information
CO1.1	Raise awareness and provide training for outdoor activity providers to ensure sensitive habitats are not disturbed through recreational activities. Public behaviour change.	PCF / POCG	
CO1.2	Discourage inappropriate recreation in sand dunes / beaches / shingle banks / saltmarsh.	PCF / POCG	
CO1.3	Encourage golf course management policies and practices which are sympathetic to the biodiversity of dune systems at Tenby.	CCW	SSSI
CO2.1			
CO3.1			
CO4.1			
CO5.1			
CO6.1			
CO7.1	Evaluate the practicalities of monitoring effects of recreational pressure on coastal habitats and species (desk top / literature review).	CCW	AR Discuss with David Jones, PCF to see what has been done and what is possible. Potential to produce brief for post graduate student dissertation.
CO7.2	Pembrokeshire Fungus Recording Network to monitor 3 sand dune locations a year with the output being a report summarising the mycological species of conservation concern recorded at the sites (by end March in year following recording).	PFRN	