

## COASTAL HABITATS GROUPED ACTION PLAN

### Introduction and Vision Statement

This grouped habitat action plan includes coastal saltmarsh, coastal vegetated shingle, coastal sand dunes and maritime cliff and slope.

Almost Carmarthenshire's entire coast is made up of priority BAP habitats. These habitats are the transition between the land and the sea and can be very dynamic, changing with time. The plants and animals that live here are often restricted to very specific 'zones' between the land and the sea and so are vulnerable to any changes that might adversely effect their habitat. These habitats create one of Carmarthenshire's most distinctive landscapes and contribute to the character of the county.



Although shingle beaches are widely distributed around the coast of the UK, where the shingle remains mobile and any vegetation is restricted to temporary strandline communities, **coastal vegetated shingle** structures above the reach of wave action are rare, and support specialised communities of plants and invertebrates.

Three stretches of coastal vegetated shingle occur in Carmarthenshire: at Penrhyngwyn, Machynys to the south of Llanelli, Morfa Bychan to the west of Pendine and at Cefn Padrig, immediately east of Burry Port.

**Coastal saltmarshes** comprise the upper, vegetated parts of intertidal mudflats, located between mean high-water neap tides and mean high-water spring tides. Saltmarshes require an accumulation of sediment, and shelter from strong wave action. Many are therefore found in sheltered estuarine situations.

Many of the plants that occur in saltmarshes are halophytic (salt-tolerant) and are adapted to regular immersion by the tides. They typically are divided into zones determined by the frequency of immersion that particular species can tolerate.

Saltmarshes provide important high-tide roosting areas for wading birds and wildfowl feeding on adjacent mudflats. They also act as breeding sites for a variety of species and provide winter feeding grounds for large flocks of wild duck and geese. Saltmarsh habitat can also support a number of uncommon invertebrate species and provide sheltered nursery sites for several species of fish.

Coastal saltmarshes are dynamic systems which typically experience natural fluctuations, especially along the mobile seaward edge. Erosion and growth in response to natural coastal processes is therefore a characteristic feature of saltmarsh habitats. Despite their dynamic nature, however, saltmarshes often provide an effective means of dissipating wave energy and thus can play a significant role in providing a defence for our coastlines.

One of the most important areas for this habitat in Wales is the Carmarthenshire coast and the Burry Inlet, which supports the second largest continuous area of saltmarsh in the UK, only the Wash having a larger area. The Tywi, Taf and Gwendraeth estuaries also hold significant areas of saltmarsh. The Carmarthen Bay and Estuaries Special Area of

Conservation, includes the Burry Inlet and the Taf, Tywi and Gwendraeth estuaries, has been designated partly because of its saltmarsh habitat.

Of the various saltmarsh communities identified in Carmarthenshire, we are lucky to have a good example of the internationally important 'Atlantic salt meadow' type. Ungrazed saltmarsh, itself a scarce resource, is also well represented on the Taf and Gwendraeth estuaries.

A high proportion of Carmarthenshire's coastline is dominated by sand dune, whilst the built up south-east corner is fringed by man-made sea defences. Although fossil cliff lines (e.g. east of Pendine) may occur behind the dunes and other habitats, there are two main **cliff and slope** concentrations in the county:

- The Old Red Sandstone cliffs west of Llansteffan, between the mouths of the Rivers Tâf and Tywi; with a minor outlier south of Ferryside.
- The more extensively cliffed areas along the Amroth–Marros–Pendine length of coast.

Unlike Pembrokeshire, our cliffs are not home to colonies of seabirds, but on cliff sections such as west of Pendine and on the Llansteffan Peninsula there are scatterings of gulls, fulmars and the predatory peregrine. However there are plants of note such as the native maiden-hair fern on a tufa-cliff near Craig Ddu.

**Coastal sand dunes** develop where there is a sufficient supply of sand in the intertidal zone to form an area of beach, the surface of which dries out between tides. The dry sand is blown landwards and deposited above the high tide mark, where it can be trapped by specialised dune-building grasses, before eventually being colonised by more plant communities typical of more stable conditions.

Sand dune systems are typically made up of a number of different zones, including embryonic and mobile dunes, semi-fixed dunes, fixed dune grassland and dune slacks (which occupy damp depressions between dune ridges).

Sand dunes systems, especially calcareous ones, can support an extremely diverse range of plants and animals and provide habitat for a variety of specially adapted species, including a number of uncommon plants, fungi and invertebrates.

Carmarthenshire has more dunes than nearly all of the other Welsh counties. Two major sand dune systems occur, namely Laugharne–Pendine Burrows and the Pembrey Coast SSSI; there are also smaller examples at Llansteffan, Ferryside, Burry Port and Llanelli. Historically, these would have been grazed and far more mobile, and partly because of the cessation of grazing the vegetation has become considerably ranker and the dunes more stabilised. Not only has the invasive sea buckthorn spread, but other trees and shrubs, coarse grasses and perennials have changed the habitat from rather bare open dunes favoured by such rarities as the fen orchid to a far more densely vegetated environment. Fen orchid appears to be extinct at Pembrey and is very close to extinction at Pendine, though discussions to initiate favourable management are still on-going at both sites.

Nevertheless, the dunes are still exceedingly rich in wildlife, with a range of habitats from foreshore, through wet dune slacks ('hollows') to young alder, willow and birch woodland.

Hares still have a stronghold on the open areas, whilst a rare beetle *Panageus crux-major* was discovered at Tywyn Point in 1985. Many other rare or scarce invertebrates have been found in Carmarthenshire's dune systems – with marsh fritillaries in wet slacks at RAF Pembrey and over 30 species of butterfly seen on the same duneland area. Marbled whites are a typical species, but there are also small blues, grizzled skippers and the brown argus. There is also an interesting variety of orchids and other flowering plants.

The overall vision for this plan is to maintain, restore and extend these habitats in the county and the BAP species associated with them. Maintaining these natural systems will also provide benefits in terms of flood defence, fisheries and managing coastal erosion.

<b>Associated species:</b>	Common toad	Silky Gallows-spider
Skylark		Crucifix ground beetle
Common linnet	Dune Gentian	Narrow-mouthed Whorl snail
Yellowhammer	Sea Barley	
Herring gull	Fen Orchid	
Eurasian curlew	Sea Stock	Narrow-bordered Bee
Northern lapwing	Prickly saltwort	Hawk-moth
Ringed plover	<i>Stricta</i>	Rosy Minor (moth)
Black-headed gull	<i>canariensis</i> (lichen)	Shoulder-striped
Bar-tailed godwit	Sea Bryum	Wainscot moth
	Awl-leaved <i>Ditrichum</i>	Dark Spinach (moth)
Brown hare	Portugese Pocket moss	Shaded Broad-bar moth
	Petalwort	Feathered Gothic (moth)
Small Heath	Deptford Pink	Garden Tiger
Small Blue	Maidenhair fern	Mullein Wave
Dingy Skipper	Fragrant orchid	
Grayling		
Wall	Wilson's Pottia	
	Brown-banded carder bee	
Common lizard	Red-shanked Carder-bee	
Adder	Cliff tiger beetle	

### Action Plan Objectives

- CO1ME** To maintain extent of coastal habitats in Carmarthenshire
- CO2AC** To achieve condition of these coastal habitats through appropriate management
- CO3RS** To restore currently degraded coastal habitats in Carmarthenshire
- CO4EX** To expand coastal habitats in Carmarthenshire
- CO5SP** To maintain and where possible expand the range and/or population of species associated with these habitat types

CODE	TEXT	START/END DATE	Lead partner	Action goals	Key Partners	Funding	Priority L,M,H	Report Jan-Dec 2010		
CO2AC1	Ragwen Point (SN220072). Write a management plan for maritime cliff and slope habitat here	2010–2014	NT	Management plan produced	CCW		M	No update from National Trust		
CO2AC2	Salt marsh habitat management at Mwche/Pentowyn, Taf estuary – control grazing (SN320112)	2010–2014	NT	89.6 Ha salt marsh managed	CCW	✓	M	No update from National Trust		
CO2AC3	Manage dune slacks at Pembrey CP – scrub clearance & willow coppicing (SS405997)	2010–2014	CCC (Pembrey CP)	0.2 Ha	Pembrey CP			No progress. Hopefully next winter complete sea buckthorn clearance, removal of pines and coppicing of willows.		
CO2AC4	Establish conservation grazing herd for Carmarthenshire dune habitats (SS418996)	2010–2014	CCC (MCP)	Grazing herd established	PONT CCW	✓	H	Grazing licence for Pembrey Burrows LNR to be renewed Oct 2011. Discussion ongoing regarding setting up conservation grazing herd, though no further progress to date.		
CO2AC5	MoD Pendine - establish appropriate dune management (SN243008)	2010–2014	Defence Estates	Management plan agreed and implemented	CCW BSBI	✓	H	No update		
CO3RS1	Pembrey Country Park – clearance of sea buckthorn from dunes (SS405997)	2010–2014	CCC (Pembrey CP)	20 Ha dunes restored	CCW Vols	✓	H	No progress over the past year. Work to be undertaken in Feb 2011 and further grant funding sought.		
CO3RS2	Pembrey Burrows – clearance of sea buckthorn from dunes (SS418996)	2010–2014	CCC (MCP)	3 Ha cleared	CCW Vols	✓	H	Paths kept open and approx 3 acres cleared in 2010.		
CO5SP1	Monitor Petalwort at Pendine (SN243008) and Pembrey (SS405997)	2010–2014	CCW	Annual (?) monitoring undertaken	Defence Estates		H	No action in 2010		
CO5SP2	<i>Bryum warneum</i> - bryophyte recorder to visit site at Pembrey dunes and see if species present (SN362052)	2010–2012	CCW	Site visit undertaken	CCC (MCP)		M	No action in 2010		
CO5SP3	Monitor site at MoD Pembrey where there are records for Narrow-bordered Bee Hawkmoth (SN374038)	2010–2014	BC	Monitoring visit/s undertaken and report produced	Defence Estates	✓	L	Site visited in 2010 but again failed to find larvae. Will change to an absence/presence adult count from now on instead.		

<b>CO5SP4</b>	Ensure that site management is favourable for the maintenance of Awl-leaved ditrichium ( <i>Ditrichum subulatum</i> ) at its only Carms site (SN310117)	2010–2014	CCW	Species requirements incorporated into relevant management plans	CCC MoD	✓?		E-mail to raise awareness sent to relevant CCW staff and planning ecologist.		
<b>CO5SP5</b>	Undertake annual monitoring of the MoD Pembrey site, esp for dune gentian (SN243008)	2010–2014	BSBI	Annual monitoring visit	Defence Estates			Monitoring visit undertaken on 27 August – at least 150 - 200 plants of <i>G. uliginosa</i> , <i>G. amarella</i> and hybrids. The majority to my eye seemed to be <i>G. uliginosa</i> or the hybrid with only a few <i>G. amarella</i> .		
<b>POL3CO1</b>	Engage with the Shoreline Management Plan process	2010-2011	CCC	Response to SMP consltation	CCW/ WTSWW/E AW		H	Biodiversity officer responded to SMP consultation in December 2010.		
<b>POL2CO1</b>	Identify a list of candidate coastal SINC's in the county – prioritising habitat within settlement limits	2010–2014	CCC	GIS layer	WWBIC BSBI	✓	H	Not started		
<b>POL1CO1</b>	Consider the designation of the coastal vegetated shingle at Penrhynwyn as a LNR (SS517973)	2010–2014	CCC	Scoping report produced	CCW	✓	H	Not started – liaise with SJ and CCW in 2011.		
<b>DCM2CO1</b>	Undertake detailed vegetation study at Penrhynwyn (SS517973)	2010–2014	CCW	Survey report produced	CCC (MCP)			Not started – liaise with CCW in 2011.		
<b>DCM2CO2</b>	Undertake detailed vegetation study at Morfa Bychan (SN224074)	2010–2014	CCW	Survey report produced	CCC		L	Not started – liaise with CCW in 2011.		
<b>DCM2CO3</b>	Compile an inventory of all sites in ownership/management of LAs/NGOs (WT/NT/RSPB, etc) within LBAP area	2010–2011	CCC	One inventory produced	CCW, NT		L	Not started – Priority Action for 2011		
<b>DCM2CO4</b>	Collate and report information on loss of coastal habitat through development or other LA activities	Ongoing	CCC	Annual report on BARS			M	100% Relevant Applications. S/22176 – AA carried out - No Significant Effect. S/ 23950 – TLSE - No significant effect.		
<b>DCM2CO5</b>	Use simplified CSM to ascertain condition of all non-statutory sites	2010–2014	CCW	Report produced	CCC		H	Not started		
<b>DCM2CO6</b>	Establish access for annual	2010–	Defence	Annual	CCW		H	Meeting held in 2010 –		

	monitoring to Pendine ranges of dune habitats, esp. fen orchid and dune gentian	2014	Estates	monitoring report	BSBI			no access established as yet.		
<b>RA4CO1</b>	Add a description of coastal habitats to Carmarthenshire Biodiversity website with photos and maps	2010	CCC	Description and map added to website			M	Completed.		
<b>RA4CO2</b>	Hold a walk/event on these habitats	2010–ongoing	CCC	At least 1 guided walk every 2 years	LBAP Partners		M	• Walk through Pembrey Burrows – 22/08/10. Llanelli Naturalists.		