

# Carmarthenshire Nature Recovery Plan

Almost Carmarthenshire's entire coast is made up of Welsh Priority ('Section 7') 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 affect 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** habitats 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

## Coastal habitats

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### Natural benefits of coastal habitats

As well as the inherent value of these habitats and for the species they support they provide us with a number of natural benefits:

- Provision of free coastal defences.
- Provision of food - fish and shellfish.
- Tourism and recreation.
- Agriculture - salt marsh lamb, seaweed fertilizer.
- Sand and gravel for industry.

### Why are coastal habitats changing

(from the *State of Nature* report: [www.rspb.org.uk/stateofnature](http://www.rspb.org.uk/stateofnature))?

- Habitat loss to development.
- Sea level rise.
- Habitat fragmentation.
- Increased recreational pressure.
- Stabilisation of sand dunes and soft cliffs.

### Associated priority species

(NB this may not be an exhaustive list):

#### Birds

Skylark  
Common linnet  
Yellowhammer  
Herring gull  
Eurasian curlew  
Northern lapwing  
Ringed plover  
Black-headed gull

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 habitat, whilst the built up south-east corner is fringed by artificial sea defences. Although 'fossil' cliff lines (e.g. east of Pendine) may occur behind the dunes and other habitats, there are only 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 other 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

Bar-tailed godwit

### Associated priority species (continued)

#### Mammals

Brown hare

#### Invertebrates

Small Heath

Small Blue

Dingy Skipper

Grayling

Wall

Brown-banded carder bee

Red-shanked Carder-bee

Silky Gallows-spider

Crucifix ground beetle

Narrow-mouthed Whorl snail

Narrow-bordered Bee Hawk-moth

Rosy Minor (moth)

Shoulder-striped Wainscot moth

Dark Spinach (moth)

Shaded Broad-bar moth

Feathered Gothic (moth)

Garden Tiger

Mullein Wave

#### Herpetofauna

Common lizard

Adder

Common toad

#### Plants/lower plants

Dune Gentian

Sea Barley

Fen Orchid

Sea Stock

Prickly saltwort

Stricta canariensis (lichen)

Sea Bryum

Awl-leaved Ditrichum (moss)

Petalwort

Deptford Pink

Maidenhair fern

Fragrant orchid

Wilson's Pottia (moss)

#### Wales Biodiversity Partnership priority action areas:

##### Sand dunes

- Laugharne and Pendine Burrows
- Pembrey Burrows
- North Dock Dunes (Llanelli breakwater)

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 a significant proportion of the Welsh sand dune resource. 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 (now considered extinct in the county) to a far more densely vegetated environment. In recent years, however, much effort has been put into clearing sea buckthorn from these important dune systems and the benefits are beginning to be seen.

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 fritillary butterflies 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 and grizzled skippers and old records of the brown argus. There is also an interesting variety of orchids and other flowering plants.

### Where to see these habitats in Carmarthenshire:

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

**Saltmarsh:** National Wetlands Centre, Wales, at Penclacwydd and from the Millennium Coastal Park at North Dock Local Nature Reserve, Pembrey Burrows Local Nature Reserve (the latter being one of the best examples of ungrazed saltmarsh)

**Sea cliffs:** cliffs west of Llansteffan; cliffs along the Amroth–Marros–Pendine length of coast.

**Sand dunes:** 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.

### • Morfa Uchaf & Ferryside dunes

#### Welsh coastal soft cliff

- Tywyn Bach – Burry Port
- Craig Ddu to Llanstephan Castle
- Marros–Pendine Coast

#### Coastal Vegetated Shingle



#### Coastal Sand Dunes



#### Coastal Saltmarsh



### Vision statement and objectives

The overall vision for this plan is to maintain, restore and extend these habitats in the county and the priority species associated with them. Maintaining these natural systems will also provide benefits in terms of flood defence, fisheries and managing coastal erosion. Any action would seek to meet one or more of the following objectives:

- ▶ To positively manage these coastal habitats in Carmarthenshire and connect and expand where possible.
- ▶ To maintain and expand the range and/or population of species associated with these habitat types.
- ▶ To identify and record priority areas of coastal habitats within Carmarthenshire outside SSSIs.
- ▶ To raise awareness of coastal habitats and the benefits they bring us.

### Useful links:

[www.biodiversitywales.org.uk/Coastal](http://www.biodiversitywales.org.uk/Coastal)

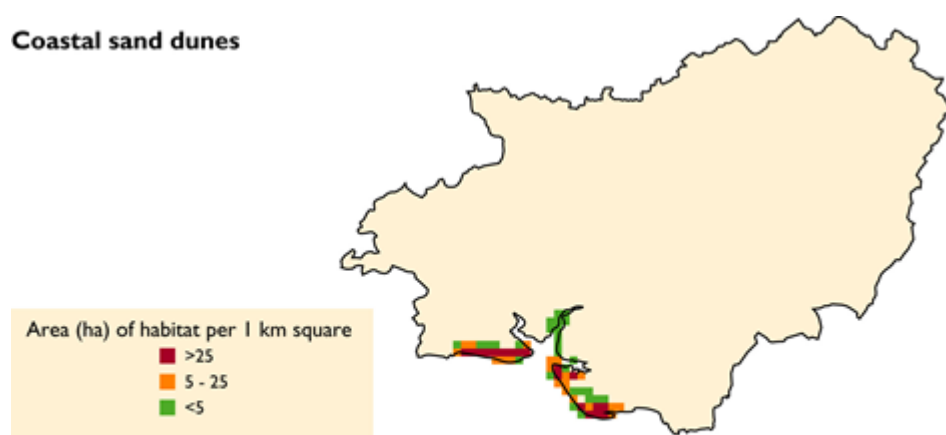
[www.wildlifetrusts.org/wildlife/habitats/coastal](http://www.wildlifetrusts.org/wildlife/habitats/coastal)

<http://jncc.defra.gov.uk/page-1429>

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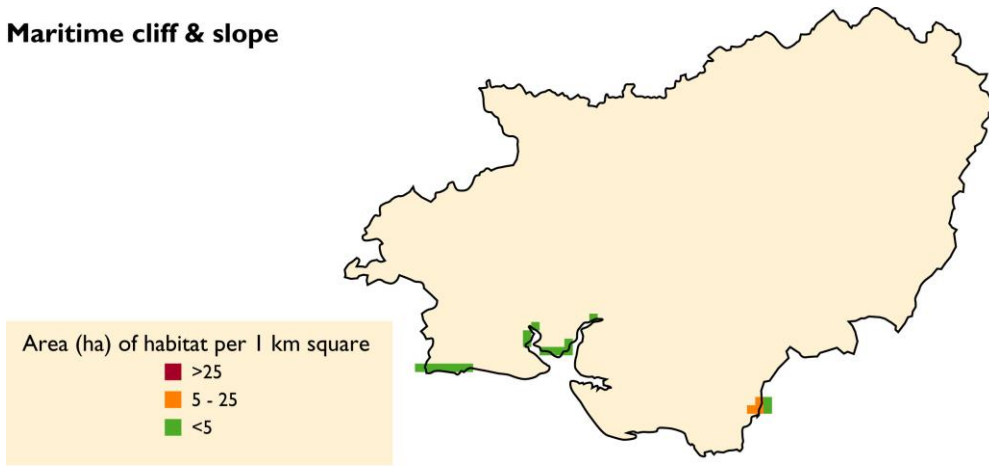
### Coastal sand dunes



Distribution of 1 km squares with coastal sand dune habitat within Carmarthenshire and sediment cells/sub-cells. Data are summarised from the NCC/CCW Lowland Habitat Survey of Wales (1987-1997) and comprise open dune, dune grassland, dune slack, dune heath and dune scrub.

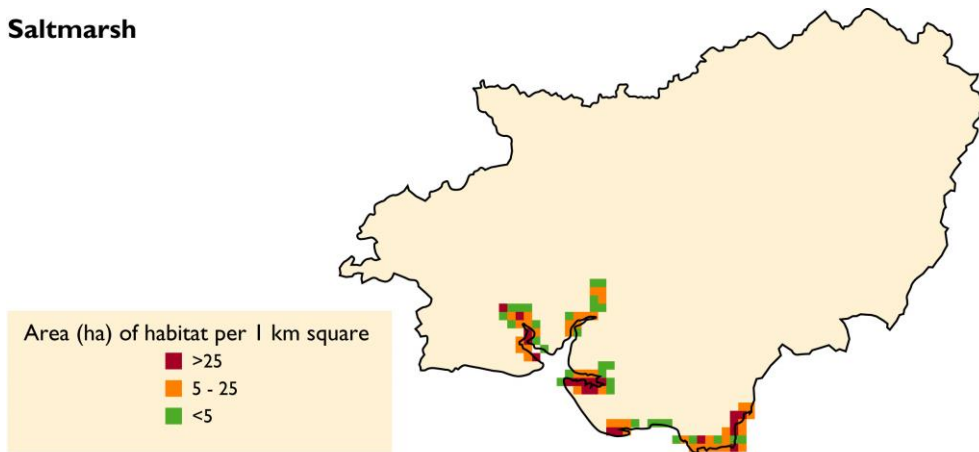


## Maritime cliff & slope



Distribution of 1 km squares with maritime cliff & slope habitat within Carmarthenshire and sediment cells/sub-cells. Data are summarised from the NCC/CCW Lowland Habitat Survey of Wales (1987-1997) and comprise coastal hard and soft cliff, coastal grassland, coastal heath and coastal grass/heath mosaic.

## Saltmarsh



Distribution of 1 km squares with saltmarsh within Carmarthenshire and sediment cells/sub-cells. Data are summarised from the NCC/CCW Lowland Habitat Survey of Wales (1987-1997) and comprise dense/continuous saltmarsh.