

**CYNGOR CEFN GWLAD CYMRU
COUNTRYSIDE COUNCIL FOR WALES**

SITE OF SPECIAL SCIENTIFIC INTEREST CITATION

SWANSEA

GOWER COAST: RHOSSILI TO PORT EYNON

Date of Notification: 1953, 1978, 1986, 1994

National Grid Reference: SS383 876 to SS 474844

O.S. Maps: 1:50,000 Sheet number: 159
1:25,000 Sheet number: SS 48

Site Area: 364 ha

Description:

The main part of the site is located along the south west facing shore of the Gower peninsula extending from the Worms Head, eastward to Port Eynon Point. A short section with a north westerly aspect extends northwards from the Worms Head to the village of Rhossili. The whole section of coastline represents one of the most extensive exposures of the south crop of the South Wales Coalfield with steep cliffs of Carboniferous Limestone rising 70 metres above sea level. The site is noted especially for the range of habitats from intertidal rocks and the exposed maritime grasslands of Worms Head to blackthorn and hazel scrub within the more sheltered valleys towards Port Eynon which it supports. In addition, features of national geological and physiographic interest occur, as well as regionally important seabird nesting sites and a rich invertebrate fauna.

Plant communities range from those of the salt-spray zone, typically including golden samphire *Inula crithmoides* and rock sea lavender *Limonium binervosum* to cliff tops on which gorse and bracken may be conspicuous. Others occur on the cliff slopes, occupying rock ledges, scree, thin limestone soils, and deeper acidic drift.

Red fescue *Festuca rubra* is a constant component of the grasslands, but dominance is determined by soil type, exposure, slope and management; it is typically accompanied in para-maritime locations by buck's horn plantain *Plantago coronopus* and thrift *Armeria maritima*, and on limestone soils by cat's ear *Hypochoeris radicata*, thyme *Thymus drucei*, salad burnet *Poterium sanquisorba* and crested hair-grass *Koeleria macrantha*. The vernal squill *Scilla verna* occurs in the grasslands and also in the limestone heath together with gorse *Ulex europaeus* and a wide range of other plants. Cliff ledges support a range of attractive species, such as the bloody cranesbill *Geranium sanguineum*.

Important plants include the nationally rare yellow Whitlow grass *Draba aizoides*, small restharrow *Ononis reclinata*, goldilocks aster *Aster linosyris* and nitgrass *Gastridium ventricosum* while both spiked speedwell *Veronica spicata* and hoary rock-rose *Helianthemum canum* are nationally scarce and juniper *Juniperus communis* is outside its

normal geographical range. *Eurhynchium circinatum* is a moss of regional importance, with a south-western distribution.

The favourable climate and variety of coastal habitats along the south coast of the Gower combine to produce ideal conditions for a rich invertebrate fauna. The assemblage of coastal invertebrates contains several species that are nationally rare as well as many others that are extremely scarce in Wales. Hot, bare substrates and the diverse limestone flora are significant features of these coastal habitats for invertebrates. Bands of soft rock deposit in the cliffs provide nesting sites for a wide range of solitary bees and wasps, including *Andrena labiata* and *Podalonia hirsuta*. The richness of the limestone flora of the cliff top grassland ensures that there is a broad range of food sources for the bees and wasps and also supports an important diversity phytophagous insects, including the picture-winged fly *Myopites eximia* (which develops in galls on golden samphire), the moth *Epischnia banksiella* (whose larvae also feed on golden samphire), and the moth *Coleophora ochrea* (which feeds on rockrose as a larva). The south coast of the Gower is also regarded as the most important area in Wales for members of the Orthoptera and related insect orders, with Lesne's earwig *Forficula lesnei*, tawny cockroach *Ectobius pallidus*, and the grey bush-cricket *Platycleis albopunctata* amongst the eleven species recorded.

Worms Head and to a lesser extent the mainland cliffs incorporating Lewes Castle, Thurba and Paviland, constitute the largest and most eastern seabird colony in the county for kittiwake, guillemot, razorbill, puffin, fulmar and greater black-backed gull and at Mewslade choughs are found at their most easterly coastal breeding site in Britain.

The geological interest of this coastline includes three Geological Conservation Review sites. These are at Worms Head (Pleistocene/Quaternary of Wales) and Long Hole Cave, where there are two overlapping interests (Pleistocene/Quaternary of Wales and Vertebrate Palaeontology).

Worms Head is a site with information for changing environmental conditions during the Late Pleistocene. Sections reveal a sequence of 1) raised beach, 2) colluvium and 3) local lithology head. At the eastern end of the exposure colluvial sediments are overlain by gravels with clasts of mixed lithologies. Although it is generally believed that the raised beach around Worms Head was formed during the last (Ipswichian) interglacial and that the overlying colluvial and local lithology head deposits accumulated during a cold phase during the ensuing Devensian Stage, the origin of the mixed lithology gravels remains uncertain: these sediments may represent soliflucted glacial deposits from an earlier glaciation, or may have been deposited as outwash from the Late Devensian ice sheet. Worms Head therefore complements the sites at Broughton Bay and Rhossili Bay, which show more direct evidence for glacial activity during the Devensian. Collectively, these sites are important for reconstructing Late Pleistocene events and processes in the area, especially the establishment of the Devensian maximum ice limit.

Long Hole Cave is an important site because it contains a sequence of Pleistocene deposits which have yielded prolific remains of both mammals and pollen. Excavations at this site during the last century produced mammalian material apparently from a single stratigraphic horizon, but the fossils indicate the presence of species characteristic of two distinct time

periods, the Ipswichian and the succeeding, colder, Devensian. Recent excavations in front of the cave entrance have revealed a series of well-stratified deposits containing mammalian remains of an age pre-dating the late-glacial of the Devensian Stage. This fauna included spotted hyaena, mammoth, woolly rhino, giant deer *Megaceros giganteus* and reindeer, in association with early Upper Palaeolithic artefacts. Of particular importance is the record of elk *Alces alces*. This species is otherwise unrecorded in Britain, prior to the Late Devensian, Windermere, Interstadial. Pollen from the cave earths at Long Hole show that a period of Arctic conditions was interrupted by development of boreal coniferous forest, with *Pinus*, *Betula* and, significantly, *Picea*; a Chelford Interstadial age has been suggested for this forest episode.

Remarks:

This site lies within the Gower AONB and the Gower Heritage Coast.

The site includes Glamorgan Wildlife Trust Reserves at: Sedgers Bank, Port Eynon Point, Overton Mere, Longhole Cliff and Deborah's Hole.