CYNGOR CEFN GWLAD CYMRU COUNTRYSIDE COUNCIL FOR WALES

SITE OF SPECIAL SCIENTIFIC INTEREST CITATION

SWANSEA HORTON EASTERN AND WESTERN SLADE

Date of Notification: 1999

National Grid Reference: SS 479854 to SS 492852

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

1:10,000 Sheet number: SS48 NE

Site Area: 54.2 ha

Description:

Horton, Eastern and Western Slade is of special interest for both its geological and biological features.

The site is situated along the south west-facing shore of Gower, between Mean Low Water Mark and 60m, extending from Port Eynon Bay eastwards to adjoin the Oxwich Bay SSSI. A wide variety of soils has developed within the site which is underlain by Carboniferous Limestone. On the coastal terrace soils have developed on the superficial deposits and are principally sand/clayrich loams. On the rocky slopes of the relict cliff line, thin calcareous soils and peaty rendzinas show a patchy distribution.

The site is of special interest for its geology which comprises landforms and unconsolidated Pleistocene deposits. The special interest also extends to a variety of associated habitats including maritime heath and calcareous grassland. Small areas of marshy grassland are also of interest, together with a nationally important assemblage of solitary bees and wasps.

Geology:

Sections in the Quaternary deposits at Horton contribute significant evidence for interpreting changing environmental conditions and geomorphological processes in south Gower during the Late Pleistocene. The succession comprises: 1) raised beach; 2) colluvium; 3) head; and 4) loess sediments. Redeposited glacial sediments are found at the western end of the sections. Lying on the raised platform at 10m O.D. is a raised beach consisting of both cemented and uncemented parts. It contains erratic pebbles from father afield and is fossiliferous. Amino-acid analysis of the gastropod fossils has shown that two populations are present and that the raised beach accumulated during oxygen isotope sub-stage 5e, about 125,000 years ago. The raised beach is overlain by head deposited during the last ice age (Devensian).

Exposures at Eastern Slade and Western Slade provide important evidence for the Late Pleistocene history of south Gower. They show: 1) bedded colluvial silts; 2) slope deposits consisting of local lithology limestone head and redeposited glacial sediments.

Biology

Calcicolous grassland has developed on moderately to steeply sloping sections of limestone cliff along this stretch of the Gower coastline. In some areas the grassland occurs as discreet patches, but often is part of a complex mosaic with gorse heath/scrub. Species which occur frequently throughout the grassland include sheep's fescue *Festuca ovina*, crested hair grass *Koeleria macrantha*, common rockrose *Helianthemum nummularium*, salad burnet *Sanguisorba minor*, spring sedge *Carex caryophyllea* and wild thyme *Thymus polytrichus*. Where the sward is open, rocky species such as mouse-ear hawkweed, *Pilosella officinarum*, carline thistle *Carlina vulgaris*, scarlet pimpernel *Anagallis arvensis* and a range of acrocarpus mosses occur. The nationally scarce species hoary rockrose *Helianthemum canum* can be seen in this vegetation and the nationally rare yellow whitlow-grass *Draba aizoides* is associated with limestone outcrops.

Where the soil is deeper a closed sward has developed. The nationally scarce species spring cinquefoil *Potentilla neumanniana* occurs in this vegetation. In poached areas, the nationally rare nitgrass *Gastridium ventricosum* can often be seen.

In both types of grassland the maritime influence is shown by the frequent presence of spring squill *Scilla verna*. Open calcareous grasslands with maritime species are largely restricted in Britain to the south Gower and Pembrokeshire coasts.

An area of purple moor-grass *Molinia caerulea* dominated grassland occurs in one area. As well as more typical associates such as devil's-bit scabious *Succisa pratensis*, betony *Stachys officinalis* and tormentil *Potentilla erecta*, species indicative of more base-rich conditions such as common rockrose *Helianthemum nummularium*, bloody cranesbill *Geranium sanguineum*, fairy flax *Linum catharticum* and glaucous sedge *Carex flacca* also occur.

A western gorse *Ulex gallii* - bristle bentgrass *Agrostis curtisii* heath community occurs on steep well-drained slopes and intergrades at one location with an area of purple moor-grass dominated marshy vegetation. This heathland community occurs on the Gower peninsula at the extreme north western edge of its range in Great Britain.

Areas of maritime heath are characterised by the heather *Calluna vulgaris* - spring squill community. Other associated species include bell heather *Erica cinerea*, sheep's fescue, ribwort plantain *Plantago lanceolata* and common tormentil *Potentilla erecta*.

Where soils overlying the natural limestone outcrops are thin, a distinctive form of heather-western gorse dry heath often occurs. This rare vegetation is characterised by an unusual mixture of associated calcicolous (lime loving) forbs including salad burnet, purging flax, common rockrose and lady's bedstraw *Galium verum*, and calcifugous (lime hating) species such as heather.

This stretch of cliff supports an important assemblage of invertebrates, particularly bees and wasps. Many common and scarce species nest in great abundance in bands of soft rock on the vertical cliff face, whilst others utilise nest sites amongst the limestone grassland on the cliff top. The diversity of the cliff top flora is of value in providing sources of nectar, pollen and prey. At least thirteen Nationally Scarce or Rare species occur here and Horton is currently the only locality known in Wales for the spider-hunting wasp *Priocnemis schioedtei*, the mining bee *Andrena hattorfiana*, the solitary bee *Stelis punctulatissima* and the cuckoo bee *Nomada fucata*. This site is also important for the nationally rare silky wave moth *Idaea dilutaria*.

Remarks:

The site lies within the Gower AONB.