CYNGOR CEFN GWLAD CYMRU
COUNTRYSIDE COUNCIL FOR WALES

SITE OF SPECIAL SCIENTIFIC INTEREST CITATION

SWANSEA **COEDYDD PARKMILL A CWM LLETHRID/PARKMILL WOODLANDS AND LLETHRID VALLEY**

Date of Notification: 1961,1986, 2003

National Grid Reference: SS 533903, SS 553891

OS Maps: 1:50,000 Sheet number: 159
1:10,000 Sheet number: SS 59SW, SS 58NW

Site Area: 191.5 ha

Description:

Coedydd Parkmill a Cwm Llethrid/Parkmill Woodlands and Llethrid Valley is of special geological interest for the karstic landscape exemplified by the dry river valley known as Green Cwm, the best example on Gower. One of the caves associated with this landscape is Cathole, which is also of special scientific geological interest, containing an exceptional combination of evidence that has subsequently enabled a better understanding of the period towards the end of the last major ice age.

Coedydd Parkmill a Cwm Llethrid/Parkmill Woodlands and Llethrid Valley is of special biological interest for its semi-natural broadleaved woodland, particularly its large continuous area of ash *Fraxinus excelsior* woodland on limestone.

The site consists of several steep wooded valleys, converging on the village of Parkmill, two km north-east of Three Cliffs Bay on the Gower Coast. Ilston Cwm, Llethrid Cwm and Green Cwm form the principal valleys, individual woods include Park Woods, Kilvrough Wood and Carey's Wood.

Altitude varies from 80 m on higher ground, to 5 m along the valley bottoms. Soils are shallow loamy, brown rankers, developed over Carboniferous Limestone.

Geology

The site is selected for its karstic landscape which covers the complete dry valley of the Llethrid, together with the sinkhole, resurgence and intervening caves of the underground drainage system. It is an excellent example of the Gower karst, with well preserved surface morphology and associated underground features extending across the entire width of the narrow karsted limestone outcrop.

Cathole Cave is an important Pleistocene site for a series of deposits containing artefactual and faunal remains that have been dated to the end of the last glaciation (Late Devensian). The deposits comprise a lower silty sand overlain by thermoclastic scree. Numerous flint artefacts of

Creswellian type have been found in the scree together with an extensive cold climate fauna. The fauna includes many typically Devensian mammals, eg mammoth, woolly rhino, horse, reindeer, Arctic fox, spotted hyaena and abundant small mammals such as Arctic lemming. The fossiliferous scree is succeeded by a humus-rich horizon containing Early to Middle Bronze Age and Mediaeval remains. The evidence from Cat Hole Cave, therefore, extends the Pleistocene record derived from the older Devensian and Ipswichian faunas found nearby at Minchin Hole and Bacon Hole.

Deposits from the platform in front of the cave entrance have yielded an extensive cold fauna dated archaeologically to the Devensian Stage. The fauna includes mammoth, woolly rhino, horse, reindeer, Arctic fox, spotted hyaena and abundant small mammals including Arctic lemming. Deposits remain in situ.

Biology

Coedydd Parkmill a Cwm Llethrid/Parkmill Woodlands and Llethrid Valley supports various types of woodland, often on steep valley sides, with a variety of aspects. The ecological diversity within the site is significant, particularly the juxtaposition of typically upland woodland communities on steep shallow limestone soils, with the low-lying poorly drained areas supporting lowland communities. The majority is semi-natural broadleaved, although there are small areas with planted conifers and broadleaves. The woodland is structurally and botanically variable, including high forest and coppice with standards. There are three main types: the majority is ash *Fraxinus excelsior* woodland, interspersed with smaller areas of oak *Quercus* species, and beech *Fagus sylvatica* woodland.

The major canopy species is ash, accompanied by frequent sycamore *Acer pseudoplatanus* and pedunculate oak *Quercus robur*; hybrids between pedunculate and sessile oak *Quercus petraea* are common in Kilvrough Wood. The shrub layer is generally dense and dominated by hazel *Corylus avellana*, with frequent ash and sycamore saplings, holly *Ilex aquifolium*, wych elm *Ulmus glabra* and hawthorn *Crataegus monogyna*. The field layer is carpeted with dog's mercury *Mercurialis perennis*, ivy *Hedera helix*, wood anemone *Anemone nemorosa*, bluebells *Hyacinthoides non-scripta*, bramble *Rubus fruticosus* agg. and locally dominant ramsons *Allium ursinum*. The ground layer is sparse to dense, with mosses such as *Thamnobryum alopecurum* and *Eurhynchium praelongum* prominent.

Coedydd Parkmill a Cwm Llethrid/Parkmill Woodlands and Llethrid Valley also support pedunculate oak woodland, found mostly in blocks amongst ash woodland in Park Woods. The canopy is generally dominated by pedunculate oak, with a shrub layer of hazel and a field layer of bramble, bracken *Pteridium aquilinum* and bluebells.

Several areas within the site have been planted with beech, particularly at Kilvrough south of the A4118 road, and in the south-west of Park Woods. Planted beech is dominant, ash often remains frequent, along with other elements of semi-natural woodland, including a field layer dominated by ramsons, wood anemone, bluebells, lords-and-ladies *Arum maculatum* and enchanter's nightshade *Circaea lutetiana*.

The site supports populations of the locally uncommon royal fern *Osmunda regalis* and herb paris *Paris quadrifolia* and there are a small number of individual small-leaved lime trees *Tilia cordata*.

Several of the caves within the woodlands are known hibernation sites for greater and lesser horseshoe bats *Rhinolophus ferrumequinum* and *Rhinolophus hipposideros.* The hibernation sites are also used by whiskered *Myotis mystacinus* and natterer's *Myotis nattereri* bats.

Remarks:

1. The site supports vegetation assignable to the '*Tilio-Acerion* forests of slopes, screes and ravines', listed on Annex I of the European Comminity (EC) Habitats Directive (Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna). Together with four other sites in the vicinity, the SSSI is included within the Gower Ash Woods candidate Special Area of Conservation (cSAC)

2. Greater and lesser horseshoe bats are listed on Annex II (a) of the EC Habitats Directive and all British bat species are fully protected by the Wildlife and Countryside Act 1981 (as amended) and under Annex IVa of the EC Habitats and Species Directive (as above).

3. There are three Geological Conservation Review (GCR) sites within the SSSI boundary: Cathole Cave (Pleistocene/Quaternary of Wales), Cathole Cave (Pleistocene Vertebrata) and Llethrid Valley (Karst). Part of this site is described in the GCR Volumes: *Quaternary of Wales S Campbell and D.Q. Bowen, (1989); Karst and caves of Great Britain A.C. Watham, M.J. Simms, A.J. Farrant & H.S. Goldie (1997); Fossils, mammals and birds of Great Britain M Benton, E Cooke, D Shrive, A Currant & JJ Hooker (In draft).*

4. There are three Scheduled Ancient Monuments scheduled by CADW within the site, Cathole Cave, Tooth Caves and Parc le Breos burial chamber.

5. Coedydd Parkmill a Cwm Llethrid/Llethrid Valley and Parkmill Woodlands is within the Gower Area of Outstanding Natural Beauty (AONB). Two parts of the SSSI, Kilvrough Manor Wood and Reddenhill Wood are Wildlife Trust of South and West Wales Reserves.