

## Appendix 2: Interest Features of the Internationally Important Sites Discussed in this Report

### 1.1 Plymouth Sound & Estuaries SAC

4.2.5 This SAC is designated for the following habitats and species:

- **Sandbanks which are slightly covered by sea water all the time** - Plymouth Sound and Estuaries, on the south-west coast of England, has been selected for its extensive areas of sublittoral sandbanks, which consist of a range of sandy sediments within the inlet and on the open coast. These sediments include tide-swept sandy banks in estuarine habitats, sandy muds north of the Breakwater, muddy sands in Jennycliff Bay, fine sands with eelgrass *Zostera marina* and a rich associated flora and fauna in the Yealm entrance, as well as tide-swept sandy sediments with associated hard substrates colonised by distinctive communities of algae and invertebrates.
- **Estuaries** - Plymouth Sound and Estuaries is representative of ria estuaries in south-west England. The Rivers Tamar and Lynher are linked at their mouths. The upper parts of the Tamar and Lynher include a very well-developed estuarine salinity gradient. As a consequence, they exhibit one of the finest examples in the UK of changing estuarine communities with changing salinity regime. Rocky reefs in low salinity estuarine conditions far inland on the Tamar are very unusual and support species such as the hydroid *Cordylophora caspia*. The Tamar is one of few estuaries where zonation of rocky habitats (intertidal and subtidal) can be observed along an estuarine gradient.
- **Large shallow inlets and bays** - Plymouth Sound and Estuaries on the south-west coast of England includes the rias of the rivers Tavy, Tamar, Lynher and Yealm. The first three of these join at the wide, rocky inlet of Plymouth Sound and the Yealm enters the adjacent Wembury Bay. The Yealm has good examples of habitats and communities characteristic of sheltered marine inlets with little freshwater input, including a range of sponge- and worm-dominated communities on lower shore mixed sediments. The Plymouth Sound complex has a high diversity of habitats and communities characteristic of different salinities, in contrast to the Fal and Helford. Some of these support extremely rich marine flora and fauna, which include abundant southern Mediterranean-Atlantic species rarely found in Britain, such as the carpet coral *Hoplorgia durotrix*. Particularly notable habitats include (i) littoral and sublittoral limestone reefs extensively bored by bivalves and harbouring a rich fauna; (ii) offshore sublittoral tide-swept reefs; (iii) tide-swept limestone channels with animal communities rarely encountered in other marine inlets; and (iv) subtidal sediments with rich and often diverse invertebrate communities.
- **Reefs** - Plymouth Sound in south-west England has a wide variety of intertidal and subtidal reef biotopes. Of particular importance are the limestone reefs running along the northern shore from West Hoe to Batten Bay, which are one of only two coastal areas in south-west Britain with Devonian limestone. This relatively soft rock is extensively bored by the bivalve *Hiatella arctica* and the spionid worms *Polydora* spp., and harbours a rich fauna. In the sublittoral this steep-sided, wave-sheltered reef is dominated by a dense hydroid and bryozoan turf with anemones and ascidians. A number of rarely-recorded low shore biotopes also occur along the shores from Devil's Point to Batten Bay, at Wembury, Penlee, Hoo Lake Point, and in the mouth of the River Yealm. The sublittoral is of particular importance for its kelp- and animal-dominated habitats. The area off Batten Bay contains

the south-western kelp *Laminaria ochroleuca*, together with other uncommon species including the rare sea slug *Okenia elegans* and trumpet anemone *Aiptasia mutabilis*. Most circalittoral rocky reefs occur in areas of the Outer Sound, such as off Wembury, the Mewstone, Penlee Point and south of the breakwater. In the approaches to Plymouth Sound, abundant populations of the slow-growing, long-lived, nationally important pink sea-fan *Eunicella verrucosa* occur.

- **Atlantic salt meadows** (Glauco-Puccinellietalia maritimae) - This site is representative of a ria system in south-west England. The well-developed salinity gradient supports Atlantic salt meadow together with natural transitions to brackish and freshwater communities, including reedbeds supporting the only UK population of triangular club-rush *Schoenoplectus triquetus*. Some stands of saltmeadow are structurally and botanically diverse and include sea club-rush *Scirpus maritimus* and saltmarsh rush *Juncus gerardii*, with red fescue *Festuca rubra*, sea rush *J. maritimus* and thrift *Armeria maritima* at higher levels. The locally common parsley water-dropwort *Oenanthe lachenalii* is also found in some parts of the site, and there are stands of sea-purslane *Halimione portulacoides*, which is unusual in Cornwall. The Atlantic salt meadows make a vital contribution to the structure and function of the estuary and the other habitats within it.
- **Mudflats and sandflats not covered by seawater at low tide** (i.e. intertidal mudflats/sandflats);
- **Shore dock** *Rumex rupestris* - One of the chief rocky-shore strongholds for shore dock *Rumex rupestris* on the UK mainland, in 1999 comprising 15 colonies and 42 plants. The site also holds a sizeable area of additional suitable habitat.
- **Allis shad** *Alosa alosa*

## 4.3 Tamar Estuaries Complex SPA

- 4.3.1 This SPA was designated for its populations of over wintering avocet (*Recurvirostra avosetta*) and its passage population of little egret (*Egretta garzetta*).

## 4.4 South Dartmoor Woods SAC

- 4.4.1 This SAC is designated for the following habitats:

- **Old sessile oak woods with Ilex and Blechnum in the British Isles** - This complex is the most southerly of the sites selected and is representative of old sessile oak woods in south-west England, with regionally important assemblages of lower plants and dry *Lobaria* communities that are unique in Western Europe. The woods are notable for the variations in stand type that reflect past management (old coppice and high forest) and also include grazed and ungrazed areas. The woodland is part of a complex mosaic that includes heathland and species associated with open ground, such as the high brown fritillary *Argynnis adippe* and pearl-bordered fritillary butterfly *Boloria euphrosyne*. Variations also arise due to geology, resulting in the presence of small-leaved lime *Tilia cordata*, ash *Fraxinus excelsior*, wild service tree *Sorbus torminalis*, and small areas of wet woodland dominated by alder *Alnus glutinosa* and willow *Salix* spp.
- **European dry heaths**

## 4.5 Dartmoor SAC

- 4.5.1 This SAC was designated for the following internationally important habitats and species:

- **Northern Atlantic wet heaths with *Erica tetralix*** - Dartmoor is representative of upland wet heath in south-west England. M15 *Scirpus cespitosus* – *Erica tetralix* wet heath predominates and together with other mire communities and small areas of drier heathland, forms a distinctive mosaic of vegetation types not fully represented elsewhere. Smaller amounts of M16 *Erica tetralix* – *Sphagnum compactum* wet heath occur. Additionally, there are transitions to areas of M21 *Narthecium ossifragum* – *Sphagnum papillosum* valley mire.
- **European dry heaths** - Dartmoor is representative of upland heath in south-west England. The site is notable because it contains extensive areas of H4 *Ulex gallii* – *Agrostis curtisii* heath, a type most often found in the lowlands, and H12 *Calluna vulgaris* – *Vaccinium myrtillus* heath, a predominantly upland type. *Calluna* – *Vaccinium* heath generally occupies the steeper, better-drained slopes, with *Ulex* – *Agrostis* heath occurring on the lower slopes of the moor. A number of predominantly northern species occur on the southern edge of their national range. Plants found on dry heaths that are rare in south-west England include crowberry *Empetrum nigrum* and stag's-horn clubmoss *Lycopodium clavatum*.
- **Blanket bogs** - Dartmoor is the southernmost blanket bog in Europe and is representative of blanket bogs in south-west England. The main vegetation community is M17 *Scirpus cespitosus* – *Eriophorum vaginatum* blanket mire. Many of the bogs are dominated by purple moor-grass *Molinia caerulea* and micro-topography is poorly developed. There are also widespread peat-cuttings, dug by hand in the 19th Century, but these have revegetated and many once again support a healthy cover of *Sphagnum* bog-mosses. Nevertheless, good areas are frequently encountered that are very wet, support frequent and widespread *Sphagnum* mosses of a range of species, and display small-scale surface patterning. Of particular note is the rare *Sphagnum imbricatum*, which occurs at two localities.
- **Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles** - Three main areas of oak woodland are included within this site. Wistman's Wood is notable as a high-altitude relict surviving on a granite clitter slope. Unusually for old oak woods in the UK, it is dominated by pedunculate oak *Quercus robur* rather than sessile oak *Q. petraea*. The epiphytic and ground-covering bryophyte flora, with filmy ferns, is species-rich, although there are some indications that some species may have declined in recent years, possibly because as the tree canopy has grown conditions below it have become less humid. Wistman's Wood has a well-documented record of changes over the last century. Dendles Wood is dominated by pedunculate oak *Q. robur*, but with substantial areas of beech *Fagus sylvatica* on the lower slopes (considered to be a possible outlier of the native range of beech). The ground flora is a mixture of grasses, bracken *Pteridium aquilinum*, bluebell *Hyacinthoides non-scripta*, with locally many boulders supporting a species-rich bryophyte mat. There is a luxuriant epiphytic lichen flora including several rare species. Although selected for its oakwood community, the beechwood is a fragmentary outlier of *Ilicio-Fagion*. Black Tor Copse has similarities to Wistman's Wood, consisting of stunted trees developed on granite clitter. The vascular plant species-richness is limited, with much bilberry *Vaccinium myrtillus*, hard-fern *Blechnum spicant* and ivy *Hedera helix*, but the bryophyte and lichen assemblages are very rich including nationally-rare species and others seldom found outside the uplands of Scotland and Wales.
- **Southern damselfly *Coenagrion mercuriale*** - A valley mire at 280 m altitude supports a southern damselfly *Coenagrion mercuriale* population of 20–100 individuals, first discovered on the site in 1998. The stronger population occurs in the northern portion of the mire, where springs feed shallow soakways that flow through wet heath. The southern part of the mire has a higher water table with *Sphagnum* bog-mosses dominating.
- **Atlantic salmon *Salmo salar***

- **Otter** *Lutra lutra*