EC Directive 92/43 on the Conservation of Natural Habitats and of Wild Fauna and Flora

Citation for Special Area of Conservation (SAC)

Name:	Solent Maritime
Unitary Authority/County:	City of Portsmouth, City of Southampton, Hampshire, Isle of Wight, West Sussex
SAC status:	Designated on 1 April 2005
Grid reference:	SU756003
SAC EU code:	UK0030059
Area (ha):	11325.09
Component SSSI:	Bouldnor and Hamstead Cliffs SSSI, Chichester Harbour SSSI, Eling and Bury Marshes SSSI, Hurst Castle and Lymington River Estuary SSSI, Hythe to Calshot Marshes SSSI, King's Quay Shore SSSI, Langstone Harbour SSSI, Lee-on-the-Solent to Itchen Estuary SSSI, Lincegrove and Hackett's Marshes SSSI, Lower Test Marshes SSSI, Medina Estuary SSSI, Newtown Harbour SSSI, North Solent SSSI, Thorness Bay SSSI, Upper Hamble Estuary and Woods SSSI, Yar Estuary SSSI

Site description:

The Solent encompasses a major estuarine system on the south coast of England with four coastal plain estuaries (Yar, Medina, King's Quay Shore, Hamble) and four bar-built estuaries (Newtown Harbour, Beaulieu, Langstone Harbour, Chichester Harbour). The Solent and its inlets are unique in Britain and Europe for their hydrographic regime with its double tides, as well as for the complexity of the marine and estuarine habitats present within the area. Sediment habitats within the estuaries include extensive estuarine flats, intertidal areas that support eelgrass *Zostera* spp., sand and shingle spits, and natural shoreline transitions. The mudflats range from low and variable salinity in the upper reaches of the estuaries to very sheltered almost fully marine muds in Chichester and Langstone Harbours. As well as occurring within the estuaries, mudflats and sandflats are found throughout the Solent and form the predominant intertidal substrates. Unusual features include the presence of very rare sponges in the Yar estuary and a sandy 'reef' of the polychaete *Sabellaria spinulosa* on the steep eastern side of the entrance to Chichester Harbour.

Shallow sediment communities (comprising the subtidal sandbanks feature) occur around the Solent, particularly in the large harbours. They are typically colonised by a burrowing fauna of worms, crustaceans, bivalve molluscs and echinoderms. Where coarse stable material is present, species attached to the surface may include foliose algae, hydroids, bryozoans and ascidians. Mixtures of sand and associated hard substrate can lead to the presence of very rich communities. Mobile fauna at the surface of the sandbanks may include shrimps, prosobranch molluscs, crabs and fish. Shallow sandy sediments may be important nursery areas for fish and feeding grounds for seabirds.

Pioneer saltmarsh vegetation colonises intertidal mud and sandflats in areas protected from strong wave action. This habitat is dominated by open stands of glasswort *Salicornia* spp. or annual sea-blite *Suaeda maritima*. It occurs within pioneer marsh communities along the lower marsh and at the lower limits of tidal inundation, as well as in small depressions or saltpans in the upper and middle saltmarsh, or in narrow strips running along the margins of

rivulets and creeks within the saltmarsh. This is one of only two sites where significant amounts of the native cordgrass species, small cord-grass *S. maritima* are found. It is also the only site for the naturalised North American species, smooth cord-grass *Spartina alterniflora* in the UK, and one of the few remaining sites for Townsend's cord-grass *S.* x *townsendii*. There are also extensive areas of common cord-grass *Spartina anglica* throughout the site. Thus all four cord-grass taxa occur here in close proximity.

The Solent contains the second-largest aggregation of Atlantic salt meadows in south and south-west England. The salt meadows are representative of the ungrazed type and support a range of communities dominated by sea-purslane *Atriplex portulacoides*, common sea-lavender *Limonium vulgare* and thrift *Armeria maritima*. In general, the salt meadow is somewhat less truncated by man-made features in the Solent than other parts of the south coast. In places such as Chichester Harbour it shows rare and unusual transitions to freshwater reedswamp and alluvial woodland as well as coastal grassland. Typical Atlantic salt meadow is still widespread in this site, despite a long history of colonisation by cord-grass *Spartina* spp.

Driftline habitats support a number of specialist plant species and can be found on a variety of coarse substrates across the Solent, including shingle beaches, shingle spits, shingle islands and chenier banks (formed by the deposition of broken shells by wave action on the saltmarsh edge). A transition is found in many areas from vegetated shingle to saltmarsh. Two important driftline communities can be identified. The first is dominated by spear-leaved orache *Atriplex prostrata* or grass-leaved orache *A. littoralis* on the seaward edge of the shingle. The second are sea sandwort *Honkenya peploides* – sea rocket *Cakile maritima* strandline communities with perennial associations of sea mayweed *Tripleurospermum maritimum*, curled dock *Rumex crispus*, sea beet *Beta vulgaris* ssp. *maritima*, sea campion *Silene uniflora* and yellow-horned poppy *Glaucium flavum*.

On more stable (typically landward) shingle or stony substrates, additional perennial species are found (these communities comprise the perennial vegetation of stony banks feature). There are at least four distinct community types present within the Solent including a specialised community characterised by hare's-foot clover *Trifolium arvense* occurring with lichens and mosses. Sites such as Calshot Spit and Chichester Harbour are important locations for this feature.

The site supports a number of coastal lagoons both on the Isle of Wight and along the Hampshire coast. This suite of lagoons provides examples of a variety of successional stages and salinity regimes including quite brackish conditions. Some of the lagoons support specialised invertebrates such as the nationally rare insensible shrimp *Gammarus insensibilis* occurring at Yar Bridge lagoon on the Isle of Wight.

The extensive sand dunes at East Head at the mouth of Chichester Harbour are dominated by marram grass *Ammophila arenaria*. There are also accreting sand dunes found at Pilsey Island in Chichester Harbour.

Desmoulin's whorl snail *Vertigo moulinsiana,* which is rare in Great Britain and usually occurs within base-rich wetlands where there are long established swamps, fens and marshes, is found in the reedbeds at the top of Fishbourne channel in Chichester Harbour.

Qualifying habitats: The site is designated under **article 4(4)** of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I:

- Annual vegetation of drift lines
- Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)
- Coastal lagoons*
- *Spartina* swards (*Spartinion maritimae*). (Cord-grass swards)
- Estuaries
- Mudflats and sandflats not covered by seawater at low tide. (Intertidal mudflats and sandflats)
- Perennial vegetation of stony banks. (Coastal shingle vegetation outside the reach of waves)
- *Salicornia* and other annuals colonising mud and sand. (Glasswort and other annuals colonising mud and sand)
- Sandbanks which are slightly covered by sea water all the time. (Subtidal sandbanks)
- Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes). (Shifting dunes with marram)

Qualifying species: The site is designated under **article 4(4)** of the Directive (92/43/EEC) as it hosts the following species listed in Annex II:

- Desmoulin's whorl snail *Vertigo moulinsiana*

Annex I priority habitats are denoted by an asterisk (*).

This citation relates to a site entered in the Register of European Sites for Great Britain.
Register reference number: UK0030059
Date of registration: 14 June 2005
Signed: Trevor Salmon
On behalf of the Secretary of State for Environment, Food and Rural Affairs