

**UNITARY AUTHORITY:** SEFTON

**SITE NAME:** SEFTON COAST

**Status:** Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981 as amended.

**Local Planning Authority:** Sefton Council

**National Grid Reference:** SD 295 106

**Area:** 4605.32 (ha.)

**Ordnance Survey Sheet 1:50,000:** 108

**1:10,000:** SD 21 NE; SE  
SD 31 NW; SW  
SD 20 NE; SE; NW; SW  
SJ 29 NE; SJ 39 NW

**Date Notified (Under 1981 Act):** 16 August 2000

**Reasons for Notification:**

Sefton Coast SSSI extends for over 20km between Southport and Crosby. The site is of special interest for intertidal mud and sandflats, embryonic shifting dunes, mobile dunes, dunes with creeping willow *Salix arenaria*, humid dune slacks, fixed dunes, dune grasslands and dune heath. Small areas of saltmarsh are also present. Its assemblages of vascular and non-vascular plants, in particular the nationally rare grey hair grass *Corynephorus canescens*, nationally scarce liverwort *Petalophyllum ralfsii* and nationally rare moss *Bryum neodamense*, are also of special interest.

The site is of special interest for its populations of internationally important wintering waterfowl and its nationally and, in some cases, internationally important populations of individual waders. Its populations of sand lizard *Lacerta agilis*, natterjack toad *Bufo calamita* and great-crested newt *Triturus cristatus* are also of special interest, along with the populations of the Red Data Book species, sandhill rustic moth *Luperina nickerlii gueneei*.

The Sefton Coast is also of special interest for coastal geomorphology, in particular for the large, mobile dune system and the multiple sand bars that occur on the foreshore. Relatively stable bar features occur in the intertidal zone and many different bedforms are represented on the foreshore.

**General Description:**

**Foreshore**

The extensive intertidal mud and sandflats are part of an internationally important site for birds and provide feeding grounds and roosts for many species of waders and wildfowl. The total population of wintering waterfowl is internationally important and populations of individual wader species reach national and, in some cases, internationally important levels. Specifically, in winter the site supports internationally important populations of grey plover *Pluvialis squatarola*, knot *Calidris canutus*, sanderling *Calidris alba* and bar-tailed godwit *Limosa lapponica*. Oystercatcher *Haematopus ostralegus* and dunlin *Calidris alpina* also occur in nationally important numbers. The site is also an important staging post for migrating birds during both spring and autumn. Internationally important numbers of ringed plover *Charadrius hiaticula* and sanderling, together with nationally important numbers of dunlin, are regularly seen on passage.

**Embryonic Shifting Dunes**

This dynamic, transient habitat, which incorporates the strandline, is the main precursor to the main dune building vegetation. Typically it consists of a species-poor community variously dominated by common saltmarsh-grass *Puccinella maritima*, sea sandwort *Honkenya peploides* and sea rocket *Cakile maritima*. Where dune development is more advanced, sand couch *Elytrigia juncea* with occasional lyme-grass *Leymus arenarius* dominate. Sea holly *Eryngium maritimum* and common restharrow *Ononis repens* are also present.

Localised erosion at Hightown is exposing previously dumped 'sea defences'. However, this exposed rubble forms an artificial shingle bank which has developed shingle flora, which includes sea kale *Crambe maritima*, rock samphire *Crithmum maritimum*, viper's-bugloss *Echium vulgare* and yellow-horned poppy *Glaucium flavum*.

### **Mobile Dunes**

Marram grass *Ammophila arenaria* usually dominates the mobile dunes, amidst considerable areas of blown sand. Where rates of sand deposition decline, lyme-grass, sea-holly and cat's-ear *Hypochoeris radicata* occur, with red fescue *Festuca rubra* and colt's foot *Tussilago farfara* present on the more sheltered ridges. Sea spurge *Euphorbia paralias* and the nationally scarce dune fescue *Vulpia fasciculata* are frequent.

Formby Point is the hinge point between two coastal sub-cells. The zone around the Point has been eroding since 1906 while areas north and south of this zone are accreting (where the nature of the coast allows). The rapid erosion is therefore reducing the area of mobile dunes at Formby and high, steep eroding dunes abut the beach with extensive areas of blown sand immediately inland.

### **Fixed Dunes**

The fixed dune communities are extensive. In places the natural topography has been modified by golf course management, sandwinning and extensive pine plantations. Substantial areas of open dune remain, however, exhibiting a range of calcareous, neutral and acidic communities, the composition reflecting land-use, age, aspect, humidity and grazing pressure.

The principal communities of the fixed dune are a closed sward dominated by marram, although with great variation including species-poor and species-rich communities. On calcareous sand, red fescue with sand sedge *Carex arenaria* and dewberry *Rubus caesius* are frequent, along with the nationally scarce Portland spurge *Euphorbia portlandica*, seaside centaury *Centaureum littorale*, restharrow *Ononis repens*, kidney vetch *Anthyllis vulneraria* and carline thistle *Carlina vulgaris*. Bee orchid *Ophrys apifera* and pyramidal orchid. *Anacamptis pyramidalis* are rare components.

Early flowering annuals include sand cat's-tail *Phleum arenarium* and dune fescue. Where rabbit grazing is intense, smooth hawkbeard *Crepis capillaris* and mouse-ear hawkweed *Pilosella officinarum* are common along with the mosses *Tortula ruralis* ssp. *ruraliformis* and *Brachythecium albicans*. The cooler, damper north facing ridges are characterised by the presence of common polypody *Polypodium vulgare* and wood sage *Teucrium scorodonia*.

On the older dunes, this community is frequently replaced by sheep's fescue *Festuca ovina* with common bent, cat's-ear and common bird's-foot trefoil *Lotus corniculatus*, although sand sedge, marram, dewberry and restharrow can still be found. The nationally scarce dune helleborine *Epipactis leptochila* var *dunensis* also occurs in such dunes. The nationally rare grey hair-grass *Corynephorus canescens* can be found within the mosaic of decalcified fixed dunes, dune heath and acidic dune grassland.

### **Dune Slacks**

Dune slacks occur throughout the coast but are particularly frequent in the north. Water levels in the slacks have high seasonal variability, resulting in seasonally wet or damp conditions. The slacks are often dominated by creeping willow. Where grazing pressure is intense, the slacks exhibit a more diverse flora including the nationally scarce dune helleborine, green-flowered helleborine *Epipactis phyllanthes*, variegated horsetail *Equisetum variegatum* and round-leaved wintergreen *Pyrola rotundifolia*. Uncommon species, including marsh helleborine *Epipactis palustris*, small-fruited yellow sedge *Carex viridula* ssp. *viridula*, few-flowered spike-rush *Eleocharis quinqueflora*, marsh pennywort *Hydrocotyle vulgare*, glaucous sedge *Carex flacca*, sneezewort *Achillea ptarmica*, water

mint *Mentha aquatica*, grass-of-Parnassus *Parnassia palustris* and early marsh orchid *Dactylorhiza incarnata* can also be found. The nationally scarce Baltic rush *Juncus balticus* is found at its only English location in a dune slack at the north end of the Birkdale Hills. In drier areas, false oat-grass *Arrhenatherum elatius*, wild carrot *Daucus carota* and wild parsnip *Pastinaca sativa* are found. In some areas, these communities are rapidly being invaded by scrub, typically birch *Betula* spp. and sea buckthorn *Hippophae rhamnoides*.

### **Dune Grassland**

Dune grassland has developed behind the fixed dune ridges. Calcareous, acid dune and calcifugous grasslands are present, depending largely on the relative age of the dune and thus the level of leaching of the substrate. Some of these areas were farmed until the 1960s, primarily for asparagus, but have now been abandoned and have reverted to typical dune grassland communities. These areas, typified by their flat topography, support abundant sand sedge and dewberry, together with red fescue and patches of creeping willow. In places, Lady's bedstraw *Galium verum* and wild thyme *Thymus praecox* are found, along with wild parsnip and hawkweed *Hieracium umbellatum*, while elsewhere sheep's fescue, common bent, sheep's sorrel *Rumex acetosella*, sweet vernal-grass *Anthoxanthum odoratum*, heath bedstraw *Galium saxatile*, cat's-ear, tormentil *Potentilla erecta* and wavy hair-grass *Deschampsia flexuosa* occur. In the absence of grazing, these herbs are maintained by trampling pressure. Large areas of scrub, comprising largely of poplar, willow and sea buckthorn, have developed on the oldest fixed dune communities. On the golf courses, the dune grassland habitat is fragmented by the tees, greens and fairways. A damp, species-rich dune grassland is found on the Altcar firing ranges, supporting a large colony of green winged orchid *Orchis morio*.

### **Dune Heath**

Inland sections of the dune system support large, fragmented areas of dune heath. On several of the golf courses it can be found in the rough and semi-rough areas, often as a mosaic with areas of acid dune grassland and calcifugous grassland. Due to being frequently mown, the stands are often even-aged. Outside the golf courses, where management is less intense, older, more mature stands can be found. The dune heath is dominated by heather *Calluna vulgaris*, with sand sedge, sheep's fescue, common bent, wavy hair-grass and mat-grass *Nardus stricta* less frequent. Wetter areas contain heath rush, broad buckler fern *Dryopteris dilatata*, narrow buckler fern *D. carthusiana* and southern marsh orchid *Dactylorhiza praetermissa*. Patches of gorse *Ulex europaeus* are present, particularly within more mature stands.

### **Other Features of Special Interest**

Small areas of saltmarsh and reedbed are present near the mouth of the Alt. The saltmarsh is characterised by common saltmarsh-grass, creeping bent, spear-leaved orache *Atriplex hastata*, glasswort *Salicornia europaea*, sea arrowgrass *Triglochin maritima* and common cord-grass *Spartina anglica*. Saltmarsh is also found on the beach at Birkdale, where it is dominated by common saltmarsh-grass.

The dune slacks provide suitable habitat for the nationally rare moss *Bryum neodamense* and the nationally scarce liverwort *Petalophyllum ralfsii*.

The seasonal pools of the dune slacks support large populations of the nationally rare natterjack toad and great-crested newt, while the sand lizard, found at the north western extent of its natural range on the Sefton Coast, is present on the frontal dunes, on relict dunes in Ainsdale and along the railway line between Hillside and south Ainsdale. The species here is morphologically and genetically distinct from the nearest colonies in Dorset and other southern counties.

The Sefton dunes have a rich invertebrate fauna. Notable invertebrate species include the sandhill rustic moth *Luperina nickerlii gueneei* (a Red Data Book species), which is found on the embryo dunes and strandline at Altcar.

**Other Information:**

- Part of this site is listed in 'A Nature Conservation Review' edited by DA Ratcliffe (1977), Cambridge University Press.
- Part of the site comprises the Ainsdale Geological Conservation Review (OCR) site.
- The site includes five previously notified SSSI: Altcar Sand Dunes and Foreshore, Formby Sand Dunes and Foreshore, Freshfield Dune Heath, Ainsdale Sand Dunes and Southport Sand Dunes and Foreshore (first notified in 1979, 1963, 1979, 1983 and 1966 respectively).
- It includes Ainsdale NNR, Cabin Hill NNR, Ravenmeols Hills LNR and Ainsdale & Birkdale Hills LNR (declared in 1965, 1991, 1983 & 1980 respectively).
- Parts of the site were designated as a Ramsar site and Special Protection Area in 1985. These areas and other parts were incorporated within the larger Ribble and Alt Estuaries Ramsar/SPA in 1995.
- Sand lizard, natterjack toad and great crested newt are protected under Schedule 5 of the Wildlife & Countryside Act 1981 as amended. The nationally rare moss *Bryum neodamense* and the nationally scarce liverwort *Petalophyllum ralfsii* are protected under Schedule 8 of the Wildlife & Countryside Act 1981 as amended.
- Great crested newt is listed on Annex II and IVa of the European Communities Directive 92/43/EEC, on the Conservation of Natural Habitats and of Wild Fauna and Flora (the Habitats Directive).
- Sand lizard and natterjack toad are listed on Annex IVa of the European Communities Directive 92/43/EEC, on the Conservation of Natural Habitats and of Wild Fauna and Flora (the Habitats Directive).
- Embryonic shifting dunes, mobile dunes (shifting dunes along the shoreline with *Ammophila arenaria*), dunes with creeping willow *Salix arenaria*, humid dune slacks, fixed dunes (fixed dunes with herbaceous vegetation) and dune heath (Eu-Atlantic decalcified fixed dunes) are all habitats listed under Annex I of the European Communities Directive 92/43/EEC, on the Conservation of Natural Habitats and of Wild Fauna and Flora (the Habitats Directive); fixed dunes and dune heath are also listed as priority habitat types under this Annex.