

## **Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat**

**Name:** Dungeness, Romney Marsh and Rye Bay

**Unitary Authority/County:** East Sussex, Kent

**Consultation proposal:** Parts of the Dungeness, Romney Marsh and Rye Bay Site of Special Scientific Interest (SSSI) and Hastings Cliffs to Pett Beach SSSI have been recommended as a proposed Ramsar site (pRamsar site) because they are a Wetland of International Importance, for wetland habitats, threatened ecological communities and species, and waterbirds. See pRamsar site map for detail of boundary.

**Site description:** Dungeness, Romney Marsh and Rye Bay is located on the south coast of England, on the border of East Sussex and Kent between Hastings and New Romney. This is a large area with a diverse coastal landscape comprising a number of habitats, which appear to be unrelated to each other. However, all of them exist today because coastal processes have formed and continue to shape a barrier of extensive shingle beaches and sand dunes across an area of intertidal mud and sand flats. The site includes the largest and most diverse area of shingle beach in Britain, with low-lying hollows in the shingle providing nationally important saline lagoons, natural freshwater pits and basin fens. Rivers draining the Weald to the north were diverted by the barrier beaches, creating a sheltered saltmarsh and mudflat environment, which was gradually in-filled by sedimentation, and then reclaimed on a piecemeal basis by man. Today this area is still fringed by important intertidal habitats, and contains relict areas of saltmarsh, extensive grazing marshes and reedbeds. Human activities have further modified the site, resulting in the creation of extensive areas of wetland habitat due to gravel extraction. As a whole, Dungeness, Romney Marsh and Rye Bay is important for breeding, wintering and passage waterbirds, wetland plants, bryophytes and invertebrates, and natural or near-natural wetland habitats. In addition to the internationally important wetland habitats and species, the pRamsar site and adjacent areas are also of national and international importance for a variety of non-wetland habitats and species.

**Size of pRamsar site:** 6,416.15 ha.

**International importance of pRamsar site:** The pRamsar site is a Wetland of International Importance because (Kampala 2005 Criteria):

The site qualifies under **Criterion 1** because it contains representative, rare, or unique examples of natural or near-natural wetland types:

- Annual vegetation of drift lines and the coastal fringes of perennial vegetation of stony banks (Ramsar wetland type E – sand, shingle or pebble shores).

Dungeness and Rye Harbour comprise the largest cusped foreland (a low-lying triangular foreland) in Britain and form part of a system of shingle barrier beaches that can be traced 40 km from Fairlight in East Sussex to Hythe in Kent. This is ideal habitat for annual vegetation of drift lines, which occurs on naturally functioning shingle beaches. It is one of the scarcest habitats in the UK. The frontage at Rye Harbour and Dungeness is one of the most important areas in the country for this habitat, with approximately 15 km of shingle foreshore. The annual vegetation of drift lines grows on the seaward and landward sides of the beach ridge where waves deposit seed. The habitat grades into and overlaps with the more stable perennial vegetation of stony banks that grows on ridges inland from the beach.

- Natural shingle wetlands: saline lagoons (Ramsar wetland type J – coastal brackish/saline lagoons), freshwater pits (Ramsar wetland type K – coastal freshwater lagoons) and basin fens (Ramsar wetland type U – non-forested peatlands).

The vast shingle beach at Dungeness contains a number of natural wetlands, referred to as the Open and Fossil Pits, within Dungeness RSPB Reserve and Lydd Ranges. These wetlands have been subject to colonisation by vegetation and display stages of a classic hydrosere succession, from open water and marginal reed-swamp, through a form of marsh or fen, to grey willow *Salix cinerea* carr. Some of the pits have reached a stage in the hydrosere succession where they have little or no open water. Most have floating rafts of vegetation, varying in the degree to which they have stabilised. These floating rafts of vegetation are typical of the “Schwingmoor” type of basin fen, where layers of peat are separated by lenses of water. The pits contain a range of fen types from nutrient-rich to poor fen, with vegetation ranging from single species swamps to more

complex communities. The oldest of the pits are now on the eroding south coast of Dungeness (in Lydd Ranges) and have reverted to saline conditions. They are typical, relatively stable, shingle percolation lagoons. There is at least one natural shingle wetland at Rye Harbour, which is much younger than those at Dungeness and still retains a brackish character. It complements the older examples at Dungeness by displaying an earlier stage in the evolution and succession of these unique natural wetlands.

The site qualifies under **Criterion 2** because it supports threatened ecological communities:

The site consists of a complex network of wetland habitats including saltmarsh, natural freshwater pits, fens, ponds, gravel pits, and grazing marsh and ditches. They support rich and diverse assemblages of bryophytes, vascular plants and invertebrates that are rare, threatened, listed as priority species in the UK Biodiversity Action Plan (BAP) or specially protected under the Wildlife and Countryside Act 1981. Important areas for these assemblages include the gravel pits, ditches and shingle wetlands at Dungeness and Rye Harbour, the grazing marsh and ditches of Walland Marsh, Dengemarsh and Pett Level, ponds throughout the site, the Royal Military Canal, and the saltmarshes of the River Rother.

- Bryophytes  
The bryophyte flora includes an assemblage of wetland thread-mosses *Bryum* species. These mosses are colonists of unshaded calcareous sand that must be persistently damp all year but not inundated by standing water. They occur on wet sand beside large freshwater gravel pits and small pools in Dungeness RSPB Reserve.
- Vascular plants  
Foremost amongst the assemblage are the suites of species associated with grazing marsh and saltmarsh (including brackish ditches and wetlands associated with low-lying depressions within shingle areas). Saltmarshes and other brackish wetlands are particularly rich, with at least eight nationally scarce species, including the vulnerable sea barley *Hordeum marinum*, Borrer's saltmarsh-grass *Puccinellia fasciculata* and slender hare's-ear *Bupleurum tenuissimum*, and the near-threatened sea-heath *Frankenia laevis*. Grazing marshes support the nationally rare (and critically endangered) sharp-leaved pondweed *Potamogeton acutifolius* and at least six nationally scarce species, including the vulnerable divided sedge *Carex divisa* and rootless duckweed *Wolffia arrhiza*. The remaining species are chiefly associated with gravel pits and their margins, saline lagoons, shingle beaches and fens.
- Invertebrates  
The freshwater wetlands (with the exception of the deep, cold and largely sterile open waters of the main gravel pits) exhibit a number of similar characteristics. Shallow open water and emergent vegetation, largely comprising common reed *Phragmites australis* and bulrush *Typha latifolia*, supports a rich water beetle assemblage. Other noteworthy aspects of the invertebrate assemblage include a suite of reed beetles *Donacia*, snail-killing flies (Sciomyzidae) and soldier-flies (Stratiomyidae) that are typical of coastal marshes. Much of this assemblage is found within the ditch systems. The saline and brackish gradients of the saltmarsh, saline lagoons, brackish ditches and damp brackish hollows in the shingle beaches also share many characteristics in terms of the habitats they provide for invertebrates.

The site further qualifies under **Criterion 2** because it supports vulnerable, endangered or critically endangered species:

In addition to the threatened ecological communities, the site is of international importance for nine individual wetland species:

- greater water-parsnip *Sium latifolium* – an endangered UK BAP priority species of wet ditches and tall-herb fens and swamps. The site supports several populations, chiefly in the northern areas of Walland Marsh.
- Warne's thread-moss *Bryum warneum* – a vulnerable UK BAP priority species. A colonist on wet sand beside the margins of freshwater gravel pits in Dungeness RSPB Reserve.
- water vole *Arvicola amphibius* – a UK BAP priority species and is also listed in Schedule 5 to the Wildlife and Countryside Act 1981. The pRamsar site contains the core of an extensive distribution of water voles dependent on the network of ditches that drain the grazing marsh and arable habitats of the Romney Marsh and Rye Bay area.

- aquatic warbler *Acrocephalus paludicola* – a globally vulnerable and declining UK BAP priority species. Between 2004 and 2008 the pRamsar site supported an average of two aquatic warblers during autumn passage, which represents 6.1% of the GB passage population. Aquatic warblers occur on Pett Level, where they are recorded by bird ringers.
- great crested newt *Triturus cristatus* - a UK BAP priority species that is listed in Schedule 5 to the Wildlife and Countryside Act 1981 and Annex II to the EC Habitats Directive (92/43/EEC). The particular combination and distribution of aquatic and terrestrial habitats in the site provide exceptional breeding, foraging and hibernation conditions for great crested newts. The site contains three metapopulations; two in the Dungeness area and one at Romney Warren.
- medicinal leech *Hirudo medicinalis* – a rare (Red Data Book category 3) species that is listed in Schedule 5 to the Wildlife and Countryside Act 1981. Medicinal leech is found at a wide range of localities between Dungeness and Rye, and the site is a stronghold for the species in Great Britain. The range of shallow, well-vegetated waterbodies, including ponds, ditches and shallow areas in flooded gravel pits, provide ideal conditions for medicinal leeches.
- a ground beetle *Omophron limbatum* – an endangered (Red Data Book category 1) species living in burrows in sand at the margins of freshwater, where it is active at dusk and at night. It has been recorded from the margins of waterbodies at Dungeness and Rye Harbour and, except for recent records in Suffolk, is not known from any other site in Great Britain.
- marsh mallow moth *Hydraecia osseola hucherardi* – an endangered (provisional Red Data Book category 1) UK BAP priority species, restricted to two main population centres: one on the River Medway south of Rochester, Kent; the other in and around Walland Marsh. The Walland Marsh population centre comprises three discrete colonies at Money Penny Farm near Rye, Old Cheyne Court near Brookland, and Woodruff's Farm, Fairfield. Marsh mallow moth is associated with the nationally scarce marsh-mallow *Althaea officinalis*, which is the larval food plant.
- De Folin's lagoon snail *Caecum amoricum* – listed in Schedule 5 to the Wildlife and Countryside Act 1981. Until recently, its only known locality in the UK was the Fleet in Dorset. Now the species has been discovered at a further two locations, one of which is the saline lagoons at the seaward end of Lydd Ranges.

The site qualifies under **Criterion 5** because it regularly supports 20,000 or more waterbirds:

- In the non-breeding season, the site regularly supports 34,957 individual waterbirds (5 year peak mean 2002/3 – 2006/7).

The site qualifies under **Criterion 6** because it regularly supports 1% of the individuals in the populations of the following species or subspecies of waterbird in any season:

Species	Count and season	Period	% of population
Mute swan <i>Cygnus olor</i>	348 individuals – wintering	5 year peak mean 2002/3 – 2006/7	1.1% Britain
Shoveler <i>Anas clypeata</i>	485 individuals – wintering	5 year peak mean 2002/3 – 2006/7	1.2% NW & C Europe (non-breeding)

**Bird counts from:** 1) Wetland Bird Survey (WeBS database)  
2) Innogy. 2004. *Little Cheyne Court Wind Farm – Ornithological Assessment: update on wintering birds*. Report to Npower Renewables Ltd, Kent