

**Site name:** Canvey Wick **County:** Essex

**District:** Castle Point

**Status:** Site of Special Scientific Interest (SSSI) notified under section 28 of the Wildlife and Countryside Act 1981 substituted by Schedule 9 to the Countryside and Rights of Way Act 2000

**Local Planning Authority:** Castle Point District Council.

**National Grid reference:** TQ 761834 **Area:** 93.19ha

**Ordnance Survey Sheet: 1:50,000:** 178 **1:10,000:** TQ 78 NW

**Date notified (under 1981 Act):** 11 February 2005

**Reasons for Notification:**

Canvey Wick SSSI supports a nationally important assemblage of invertebrates, chiefly associated with herb-rich grassland, early successional habitat and scrub edge, and brackish (coastal wetland) habitats. The site also supports a nationally important population of the shrill carder bee *Bombus sylvarum*.

**General description:**

The site is located at the southwest corner of Canvey Island, and forms an open expanse of land between Holehaven Creek to the south and West Canvey grazing marshes to the north. This site is part of an area that was previously developed as an oil refinery during the 1970s. The development transformed an area of grazing marsh, south of Northwick Road by raising land levels, realigning ditches and constructing areas of hard-standing and scattered buildings. As part of the preparation for the refinery, most of the site was covered with a thick layer of silt and sand. Studies indicate that this consisted largely of river-silt and estuarine deposits and the presence of shell fragments which provides a calcareous nature to much of the substrate. After undertaking the preparatory development work the site was not brought into operational use as a refinery and de-commissioned in 1973. It remained non-operational thereafter.

Due to the impoverished qualities of the imported substrate and the variable ground water conditions, the site now supports a complex mosaic of dynamic and merging habitat types. The site is dominated by free-draining grassland and wetland features that support a nationally important assemblage of invertebrates, chiefly associated with herb-rich grassland, disturbed bare ground, open sward, scrub edge, and brackish (coastal wetland) habitats.

The site supports an outstanding assemblage of invertebrates including, twenty-two Red Data Book (RDB) species (one RDB1 species, six RDB2 species and fifteen RDB3 species) and nine species suspected to fall within RDB categories but currently

not listed (6 RDBK<sup>1</sup> and 3 RDB(Ae)<sup>2</sup> species). This assemblage includes three species previously recorded as extinct in Britain (the weevil *Sitona cinerascens*, the ground beetle *Scybalicus oblongiusculus* and the moth *Hecatera dysodea*).

The herb-rich grassland is characterised by abundant grasses, such as bents *Agrostis* spp., and herbs such as Narrow-leaved bird's-foot-trefoil *Lotus glaber*, clovers *Trifolium repens*, *T.pratense*, common vetch *Vicia sativa* and locally frequent patches of the orchids, common spotted *Dactylorhiza fuschii* and southern marsh *D. praetermissa*. These areas provide an abundant forage resource for a number of aculeate hymenoptera (bees, ants and wasps). In particular, the assemblage includes the shrill carder bee *Bombus sylvarum* and the locally common brown banded carder bee *B. humilis*. These bees require an abundant forage resource within a landscape and operate at a metapopulation level. Canvey Wick SSSI is regarded to be a principal node for the Thames Corridor populations of both carder bee species and nationally important for the shrill carder bee.

In exposed, free-draining areas the grassland is characterised by sparse, flower-rich swards dominated by fine-leaved grasses *Festuca* spp., *Agrostis* spp. and scattered herbs such as yarrow *Achillea millefolium*, yellow-wort *Blackstonia perfoliata* and bee orchid *Ophrys apifera*. These areas support the nationally scarce ground dwelling shieldbug *Sciocoris cursitans*, its RDB1 parasitic fly *Gymnosoma nitens* and the RDB3 solitary bee *Lasioglossum pauperatum*. In addition to this, the sparse patches of dead over-wintering stems are believed to be important for larval development of the RDBK tumbling flower beetles *Mordellistena acuticollis*, *M. neuwaldeggiana*, *M.parvula*, *M.pseudoparvula*. The sand mounds, adjacent sand exposures and patches of bare ground provide important nesting sites for ground-nesting species such as the solitary wasp *Cerceris quinquefasciata* and its RDB3 cleptoparasite *Hedychrum niemalei*.

In addition, the scrub edges provide suitable shelter and forage resource for a number of species, including the larvae of the RDB2 micromoth *Cnaemidophorus rhododactyla*, which feeds on the stems and flowerbuds of dog-rose, and the RDB3 cuckoo bee *Stelis ornatula* which searches for hosts within the stems of bramble. The brackish wetland habitats include ditches, shallow temporary pools and ponds. These provide aquatic habitat for the RDB3 water beetle *Graptodytes bilineatus* and valuable breeding habitat for the RDB2 scarce emerald damselfly *Lestes dryas*. Emergent plants provide important habitat for RDB2 hoverfly *Lejops vittata*. In places, these brackish areas are dominated by the presence of upper saltmarsh plants (eg. glasswort), which provides suitable habitat for the RDB3 ground beetle *Anisodactylus poeciloides* and the RDB3 water beetle *Dryops similaris*. Common reed marsh also provides supporting habitat for the spiders *Clubiona juvenis* (RDB2), *Hypomma fulvum* (Nationally Scarce) and the RDB3 solitary wasp *Passaloecus clypealis*.

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<sup>1</sup> RDBK: Taxa suspected to fall within the RDB categories but are at present insufficiently known to enable placement. <sup>2</sup>RDB (Ae): Appendix (extinct) and awaiting consideration of RDB status.