

Site Notified to the Secretary of State on 17 March 1994

County: Dorset **Site Name:** Corfe Mullen Pastures

District: East Dorset

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

Local Planning Authority: East Dorset District Council, Dorset County Council

National Grid Reference: SY 975964 **Area:** 11.64 (ha) 27.94 (ac)

Ordnance Survey Sheet 1:50,000: 195 **1:10,000:** SY 99 NE

Date Notified (Under 1981 Act): 1994

Description and Reasons for Notification:

Corfe Mullen Pastures lie in a shallow valley between 40 and 65 metres above sea level to the west of Corfe Mullen village on the edge of the Poole conurbation. The valley slopes gently to the north towards the Stour Valley and straddles the boundary of the Poole Formation, consisting of sands and clays, and the underlying London Clay. The absence of drift has resulted in both geologies having a strong and contrasting influence on the overlying vegetation and the pastures consist of a range of unimproved grasslands and mires which have developed in response to the variety of soil and drainage conditions present in the valley. The special interest of the site is enhanced by the juxtaposition of the grassland and mire communities caused by local seepages and waterlogging where free draining sands overlies impermeable clay.

Free draining sands on the highest ground support acid grassland characterised by an open sward of grasses such as bents *Agrostis* spp. and Yorkshire fog *Holcus lanatus*. Small herbs are frequent such as cat's-ear *Hypochoeris radicata*, tormentil *Potentilla erecta* and selfheal *Prunella vulgaris*. The nationally scarce yellow bartsia *Parentucellia viscosa* is present and strongly associated with this community in Dorset.

Where drainage is impeded by underlying clay the free draining sandy soils are replaced by wet peaty mineral soils. These support a mire community dominated by tussocks of purple moor-grass *Molinia caerulea* with the dwarf shrubs, cross-leaved heath *Erica tetralix*, heather *Calluna vulgaris* and western gorse *Ulex gallii*. Wet runnels between the tussocks contain a variety of sedges and rushes including black bog-rush *Schoenus nigricans*, deer-grass *Trichophorum cespitosum*, flea sedge *Carex pulicaris*, star sedge *C. echinata* and common yellow-sedge *C. viridula* ssp. *oedocarpa*. Amongst the herbs present are pale butterwort *Pinguicula lusitanica*, bog asphodel *Narthecium ossifragum* and oblong-leaved sundew *Drosera intermedia*.

Where permanently waterlogged peat occurs the mire community dominated by purple moor-grass is replaced by a rare valley mire community characterised by a hummock and hollow system of shrubs on the drier hummocks surrounded by pools of bog mosses *Sphagnum* spp. Cross-leaved heath and purple moor-grass are prominent on the drier hummocks with white beak-sedge *Rhynchospora alba*, common cottongrass *Eriophorum angustifolium*, bog asphodel *Narthecium ossifragum* and the nationally scarce brown beak sedge *Rhynchospora fusca* and marsh gentian *Gentiana pneumonanthe* present on the wettest peat. The pools support a range of bog mosses such as *Sphagnum auriculatum*, *S. palustre* and *S. cuspidatum* and the nationally scarce *S. pulchrum*.

Brown earth soils have developed on the low lying clay towards the northern end of the valley and support neutral grassland managed as traditional hay meadow and pasture. Agriculturally unimproved neutral grassland is now extremely scarce in Dorset and known to have diminished by as much as 60% between 1983 and 1989. The neutral grassland at Corfe Mullen represents 2% of the county's known remaining source. The grassland contains a diverse range of herbs and grasses including the nationally scarce corky-fruited water-dropwort *Oenanthe pimpinelloides*. Grasses present include bents, red fescue *Festuca rubra*, sweet vernal-grass *Anthoxanthum odoratum* and crested dog's-tail *Cynosurus cristatus*. The diverse herb component includes bird's-foot-trefoil *Lotus corniculatus*, common knapweed *Centaurea nigra*, red clover *Trifolium pratense*, meadow vetchling *Lathyrus pratensis*, oxeye daisy *Leucanthemum vulgare* and cat's-ear. The declining green-winged orchid *Orchis morio* is present in two of the fields and represents one of only three substantial populations remaining in Dorset. Flushes on sloping ground support rush pasture dominated by sharp-flowered rush *Juncus acutiflorus* and a range of sedges such as hairy sedge *Carex hirta*, oval sedge *Carex ovalis* and to a lesser extent common yellow sedge, star sedge and carnation sedge *Carex panicea*. Herbs include lesser spearwort *Ranunculus flammula*, southern marsh orchid *Dactylorhiza praetermissa*, greater bird's-foot-trefoil *Lotus pedunculatus*, lousewort *Pedicularis sylvatica*, ragged-robin *Lychnis flos-cuculi* and fleabane *Pulicaria dysenterica*.

The fauna has not been surveyed in the pastures but is likely to be important for a wide range of invertebrates.