

Site Name: Langdon Ridge

Unitary Authority/County: Essex, Thurrock

District: Basildon

Status: Site of Special Scientific Interest (SSSI) notified under section 28C of the Wildlife and Countryside Act 1981

Local Planning Authority: Basildon District Council, Essex County Council, Thurrock Council

**Ordnance Survey
1:50,000 sheets:** 178

National Grid reference: TQ684868

Notification date: 29 June 2018

Area: 345.09 ha

Reasons for notification:

Langdon Ridge SSSI is of special interest for the following nationally important features that occur within and are supported by the wider habitat mosaic:

- species-rich neutral grasslands
- fen meadows
- ancient and long-established semi-natural woodlands
- assemblages of invertebrates chiefly associated with open short sward and scrub-heath
- populations of the plant Deptford pink *Dianthus armeria*

General description:

Langdon Ridge SSSI is a landscape-scale interconnected area of conservation priority located to the south and west of the town of Basildon. It supports a diverse mosaic of semi-natural habitats, including grasslands, fen meadows, woodlands, scrub, species-rich hedgerows and ponds. The SSSI includes the following areas: Dunton Plotlands and Lincewood, Langdon Hills Recreation Ground, Hall Wood and Gravelhill Wood, Marks Hill Wood, Westley Heights, Long Wood, Willow Park, Coombe Wood and The Park, Old Hill and Great Sutton Woods, Northlands Wood, One Tree Hill and Hawkesbury Bush.

The underlying geology of the area is composed of Bagshot Sand overlying Claygate Beds and London Clay. The southerly slopes that characterise the Hawkesbury Bush area lie on a transition zone onto the Claygate formations. The higher points are capped with flint gravel, known as 'Pebble Gravel' or 'Stanmore Gravel'. Historically this gravel was used for road mending and depressions from such excavations can still be detected. The sands and clays of the ridge once supported historic brick and tile making industries in the area.

The Langdon Ridge is influenced by the history of the 'Plotlands'. These were small plots of rural land sold, mainly to Londoners, in the first half of the 20th century. These plots were used to build weekend cottages, holiday bungalows or small holdings. The last of the 'Plotlands' were abandoned in the 1980s but the grid of grass avenues and remains of bungalows can be seen amongst the mature scrub at Dunton Plotlands.

The building of Basildon New Town during the 1950s to the 1970s transformed the area and Langdon Ridge is now situated directly on the urban fringe. Several of the meadows, especially in Willow Park, were top-soil stripped in preparation for development as part of the New Town proposals but the development plans were later abandoned. The resulting removal of nutrients has almost certainly benefited the botanical richness of these meadows.

Species-rich neutral grasslands and fen-meadows

A network of species-rich neutral grasslands is present across the Langdon Ridge complex. These range from small pockets of less than a hectare, interspersed with woodland and scrub, to significant areas of interconnected meadows of over 10 ha.

The majority of meadows support an abundance of crested dog's-tail *Cynosurus cristatus* and common knapweed *Centaurea nigra* with plentiful oxeye daisy *Leucanthemum vulgare*, bird's-foot-

trefoil *Lotus corniculatus*, agrimony *Agrimonia eupatoria* and meadow vetchling *Lathyrus pratensis*. Added diversity is provided by a number of nationally scarce species, including sulphur clover *Trifolium ochroleucon* and Deptford pink *Dianthus armeria*. Other species of note include green-winged orchid *Anacamptis morio*, quaking-grass *Briza media*, fairy flax *Linum catharticum*, adder's-tongue *Ophioglossum vulgatum* and pepper-saxifrage *Silaum silaus*.

In damper areas the grassland becomes more of a fen-meadow characterised by sedges and rushes, including glaucous sedge *Carex flacca*, compact rush *Juncus conglomeratus* and hard rush *J. inflexus*. In these areas the herb devil's-bit scabious *Succisa pratensis* is common, along with an abundance of greater bird's-foot-trefoil *Lotus pedunculatus* and marsh thistle *Cirsium palustre*.

In some areas, coarser grasses such as false oat-grass *Arrhenatherum elatius* are more abundant and although these meadows may be flower-rich, they represent grasslands in transition to more species-rich communities.

Ancient and long-established semi-natural woodland

Langdon Ridge supports an extensive network of semi-natural woodlands ranging from ancient semi-natural woodland to other long-established semi-natural woodlands and areas of mature scrub. The mosaic of woodland and mature hedgerows and significant areas of species-rich neutral grassland is of considerable importance for nature conservation

The largest block of ancient semi-natural woodland is at Northlands Wood. The underlying geology of Bagshot Beds and London Clay influences the composition of the woodlands creating a complex mosaic of ash *Fraxinus excelsior* – field maple *Acer campestre* – dog's mercury *Mercurialis perennis* woodland and pedunculate oak *Quercus robur* – bracken *Pteridium aquilinum* – bramble *Rubus fruticosus* agg. woodland. Ground flora characteristic of historic woodlands is present throughout with carpets of bluebells *Hyacinthoides non-scripta* and brambles, interspersed with bracken, dog's mercury, three-nerved sandwort *Moehringia trinervia*, yellow archangel *Lamium galeobdolon* and wood anemone *Anemone nemorosa*. At Dunton Plotlands, historic land use has led to the development of large areas of mature scrub, characteristic of hawthorn *Crataegus monogyna* – ivy *Hedera helix* communities. The woodlands also support locally important populations of breeding birds and butterflies.

Invertebrates

The landscape-scale suite of habitats provided within the Langdon Ridge supports a complex mosaic of vegetation structures and habitats. Many of the meadows are very flower-rich, providing an important resource for pollinators, whilst others support more grass but provide important cover for invertebrates and linkages across the landscape. The thick hedgerows and woodland edges bounding the meadows provide shelter and the southerly facing slopes and undulating landscape provide warm sunny areas and a variety of microclimates. All of these factors are important in meeting the nesting, foraging, hunting and overwintering requirements of invertebrates.

The site is particularly important for invertebrate assemblages characterised by open habitat mosaics. Specifically these are an open short sward assemblage, which is found within open areas across the Langdon Ridge landscape, and a more specialised scrub-heath assemblage associated with the damper areas at Willow Park.

The assemblage is characterised by true flies, beetles, true bugs, bees, wasps and ants. A number of nationally scarce and priority invertebrate species have been recorded at the site. Some of these have a significant county population in the Langdon Ridge area, including the thin weblet spider *Meioneta mollis*, the beetle *Cryptocephalus bilineatus*, the fly *Dicraeus tibialis*, the carder bumble bee *Bombus humilis* and the grizzled skipper butterfly *Pyrgus malvae*.

Deptford pink

The grasslands in the southern part of Langdon Ridge support populations of Deptford pink *Dianthus armeria*, a flowering plant species that is both nationally scarce and has suffered a drastic decline leading to its 'Endangered' status in England and Great Britain.