

County: Dorset **Site Name:** Town Common

District: Christchurch

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

Local Planning Authority: Christchurch Borough Council, Dorset County Council

National Grid Reference: SZ 138966 **Area:** 256.75 (ha) 634.42 (ac)

Ordnance Survey Sheet 1:50,000: 195 **1:10,000:** SZ 19 NW, SW

Date Notified (Under 1949 Act): 1951 (part), 1971 (part)

Date of Last Revision: 1977

Date Notified (Under 1981 Act): 1985 (part), 1986 (part), 1994

Other Information:

This site contains St. Catherine's Hill Geological Conservation Review site. Most of the site is proposed as part of the Dorset Heathlands Special Protection Area (SPA) under the EEC Directive on the Conservation of Wild Birds (Directive 79/409/EEC). Large parts, including Town Common and Sopley Common, are managed as nature reserves by the Dorset Trust for Nature Conservation and the Herpetological Conservation Trust.

There are several boundary extensions at this notification and adjacent parts of the Hurn Common SSSI (1986 notification) are also included. The site adjoins the Moors River SSSI and the Avon Valley SSSI which is also proposed as a SPA and as a Wetland of International Importance under the Ramsar Convention.

Description and Reasons for Notification:

Town Common SSSI covers an extensive tract of lowland heathland centred on a hilly ridge separating the floodplain of the Avon Valley from the Moors River. Exposures of the deposits forming this ridge are of special geological interest. The topography is diverse, and with variations in the underlying geology and drainage conditions, there is a varied mosaic of heathland plant communities. Areas of succession from open heath to conifer and mixed woodland add further interest. The heathland is especially valued for a wide assemblage of bird, reptile, dragonfly and other invertebrate species distinctive to this habitat, including several that are nationally rare or scarce. Further heathland, wet grassland and other wetland covered by the adjoining Avon Valley, Moors River and Hurn Common SSSIs place Town Common within an exceptionally large tract of such habitats for lowland Britain. This entire area has a national and international importance for its wildlife interest.

St. Catherine's Hill at the southern end of the ridge provides key evidence for reconstructing the geography of the area during late Eocene times, some 35 to 40 million years ago. Two disused pits expose a sequence of fine sands and silty clays containing plant debris, and the sediments show evidence of having been laid down in fluvial (river-lain) or estuarine conditions. The strata are the lateral equivalents of marine rocks ("Lower Barton Beds") seen at Hengistbury Head and Friar's Cliff on the coast to the south. They are the only known strata of this age in southern England to have been laid down in a fluvial or estuarine environment, all others having been deposited under marine conditions. If the determination of the age of the rocks seen at St. Catherine's Hill is correct, then the site is of critical importance in showing that the late Eocene shoreline lay in the area between Christchurch and Hengistbury Head.

Lowland heathland has become much reduced in extent both in Britain and continental Europe. The loss in south-east Dorset has been about 86% since the mid 18th century but this remains one of the few locations in Britain where heathland has an extensive presence. The tract at Town Common is relatively little fragmented and includes one of the largest unbroken blocks.

The heathland has developed on infertile and mostly sandy soils, which along the ridge are derived from the Branksome Sand and Poole Formation, with occasional clay layers causing impeded drainage on the slopes. A broad, low-lying plain extends along the eastern flank of the ridge on Head and River Terrace deposits, widely giving rise to poorly drained clayey sands. In places these deposits have a rather hummocky surface due to areas of blown sand. Gravely sands from an older river terrace cap parts of the ridge adding yet further diversity to the physical nature of the site.

The freely drained soils on the higher ground support dry heath. This is dominated by heather *Calluna vulgaris*, a dwarf-shrub which widely forms deep, mature stands. Bell heather *Erica cinerea* and dwarf gorse *Ulex minor* also occur, while bare areas of firm, sandy ground are important for the diminutive and nationally scarce mossy stonecrop *Crassula tillaea*. Cross-leaved heath *E. tetralix* becomes significant where conditions are less dry, forming a humid heath. In places this vegetation supports an abundance of *Cladonia* lichens such as *C. impexa*. On large parts of the ridge, particularly at St. Catherine's Hill, the heathland has been replaced by pine woodland. Other areas are at a transitional wooded-heath stage with invading Scots pine *Pinus sylvestris*, maritime pine *P. pinaster* and birch *Betula* species. This succession to woodland provides temporary niches for heathland edge animals, mostly notably some bird species, but causes a decline and eventual loss of the heathland interest.

Flushes on the slopes of the ridge give rise to a sequence of communities from the dry and humid heath to wet heath and valley mire. The wet heath occurs on seasonally waterlogged soils, with differences in soil moisture conditions leading to varying proportions of heather, cross-leaved heath, purple moor-grass *Molinia caerulea* and certain bog-moss *Sphagnum* species such as *S. compactum*. Where the soils are permanently waterlogged small valley mires have developed on peat. These areas are more floristically rich. Among the characteristic plants are bog asphodel *Narthecium ossifragum* and cotton-grass *Eriophorum* species, including hare's-tail cotton-grass *E. vaginatum* which is very local in Dorset and further species of bog-moss such as the nationally scarce *S. pulchrum*. The insectivorous plants oblong-leaved sundew *Drosera intermedia*, round-leaved sundew *D. rotundifolia* and pale butterwort *Pinguicula lusitanica* are particularly associated with this community and also open patches of peat within the wet heath.

The broad plain on the eastern flank of the ridge extends from near the Moors River in the north to the floodplain of the Avon Valley. Wet and humid heath widely dominates the rather flat and poorly drained land, while occasional hummocks provide transitions to dry heath. Numerous pools are scattered across this plain. These support carpets of the aquatic bog-moss *S. cuspidatum*, and margins that include purple moor-grass, many-stalked spike-rush *Eleocharis multicaulis*, common cotton-grass *Eriophorum angustifolium*, white beak-sedge *Rhynchospora alba* and the nationally scarce brown beak-sedge *R. fusca*.

The heathland is used by a diverse assemblage of dragonflies and damselflies (Odonata), with some 24 species recorded in recent years. Some of these species occur as a consequence of the close position of the heathland with breeding locations along the Moors River and the wetlands of the Avon Valley. The scarce chaser *Libellula fulva*, a nationally rare damselfly, is an example. The many heathland pools support breeding populations of other species such as hairy dragonfly *Brachytron pratense* and downy emerald *Cordulia aenea*, both nationally scarce, and black-tailed skimmer *Orthetrum cancellatum*, another local species.

Other insect groups strongly associated with lowland heathland have been little studied at this site, but the available records indicate a significant interest. The assemblage of grasshoppers and crickets (Orthoptera) includes the nationally rare heath grasshopper *Chorthippus vagans* and the nationally scarce bog bush-cricket *Metrioptera brachyptera*. Suitable short heathland supports silver-studded blue butterfly *Plebejus argus*, also nationally scarce. The spiders (Arachnida) include many rare, scarce and local species such as the pirate spider *Ero aphana* presently recorded from only a few east Dorset heathlands, a jumping spider *Evarcha arcuata* and a crab spider *Thomisus onustus*.

The site has breeding populations of all six reptile species native to Britain. These include the rare sand lizard *Lacerta agilis** and smooth snake *Coronella austriaca** which are typically associated with the mature dry heath. This is an especially important stronghold for the sand lizard in Britain, with the many favourable heathland slopes supporting widespread populations.

The bird interest is substantial. The dry heath supports a large population of the rare Dartford warbler *Sylvia undata*§, with the number of breeding pairs reaching about 2% of the British total. Among the other breeding birds of the open heath are stonechat *Saxicola torquata* and the rare woodlark *Lullula arborea*§, while species of the heathland edge such as nightjar *Caprimulgus europaeus*§ and tree pipit *Anthus trivialis* also use the wooded-heath. The woodlands attract a further range of breeding birds including woodcock *Scolopax rusticola*, green and great spotted woodpecker *Picus viridis* and *Dendrocopos major* and siskin *Carduelis spinus*. There is also a mix of heathland and woodland raptors with the site being used during the breeding season by species such as hobby *Falco subbuteo*†, sparrowhawk *Accipiter nisus* and long-eared owl *Asio otus*.

The proximity of the ornithologically important wetlands of the Avon Valley and the extensive presence of wet heath and pools serves to attract a variety of wildfowl and waders. Small numbers of snipe *Gallinago gallinago* are often present, together in winter with teal and other wildfowl. The site has supported several of these wetland birds as breeding species including snipe, redshank *Tringa totanus* and shelduck *Tadorna tadorna*.

*Species listed in Schedule 5 of the Wildlife and Countryside Act 1981.

†Species listed in Schedule 1 of the Wildlife and Countryside Act 1981.

§Species listed in Annex 1 of the EC Birds Directive.