

**County:** Hampshire **Site Name:** Upper Greensand Hangers: Empshott to Hawkley SSSI

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

**Local Planning Authority:** Hampshire County Council, East Hampshire District Council

**National Grid Reference:** SU 741284 to SU 765322

**Ordnance Survey Sheet 1:50,000:** 186, 197      **1:10,000:** SU 73 SW, SE, SU 72 NW, NE

**Area:** 42.26 (ha)

**Date Notified (Under 1981 Act):** 28 October 1999

**Confirmed:**

**Description and Reasons for Notification:**

Upper Greensand Hangers: Empshott to Hawkley SSSI comprises a series of steep, rocky woodlands on the escarpment of the Upper Greensand along the western edge of the Weald. The geology and landform of the Upper Greensand give rise to an unusual type of lime-rich (calcareous) woodland with natural rock exposures and characteristic vegetation, including many specialised bryophytes (mosses and liverworts) growing on the rocks. This calcareous, steep, rocky woodland is recognised as a habitat rare on a European scale and is also very limited in extent in Southern Britain.

The Upper Greensand is a sandstone which varies from soft sand to fairly hard rock (known as malmstone which is used locally for building) and is usually alkaline due to a high calcium carbonate (lime) content. Extensive outcrops of hard calcareous rock are not found elsewhere in the Weald but in East Hampshire the Upper Greensand forms a raised tract running north-south about 2 kilometres wide and over 20 kilometres long, deeply cut by many small stream valleys, falling away as an escarpment along its eastern edge. The deep slopes of the escarpment are generally not easily accessible to animals and are not easily cultivated and so have traditionally been managed as woodland. This continuity of management has allowed the development of a very diverse community of plants and animals.

The most prominent tree in the woodland canopy is ash *Fraxinus excelsior*, which is often multi-stemmed due to the traditional woodland practice of regular coppicing. Amongst these coppice stools are standard trees of ash and common oak *Quercus robur*, with occasional beech *Fagus sylvatica*, wild cherry *Prunus avium*, yew *Taxus baccata* and (where it has survived elm disease) wych elm *Ulmus glabra*. Field maple *Acer campestre* is common as coppice or small trees and a well-developed shrub layer is usually present comprised of hazel *Corylus avellana*, elder *Sambucus nigra* and old man's beard *Clematis vitalba*.

The ground vegetation is varied and species-rich with a characteristic predominance of species which are adapted to calcareous conditions (calcicoles). One of these, dog's mercury *Mercurialis perennis*, is found throughout the woods, growing with plants such as yellow archangel *Lamiastrum galeobdolon*, ivy *Hedera helix*, ground ivy *Glechoma hederacea*, stinging nettle *Urtica dioica*, herb Robert *Geranium robertianum*, lords-and-ladies *Arum maculatum* and primrose *Primula vulgaris*. On the steeper slopes occur a variety of ferns including male fern *Dryopteris filix-mas*, broad buckler-fern *Dryopteris dilatata*, hart's-tongue *Phyllitis scolopendrium* and polypody *Polypodium vulgare* which also grows on older trees.

The vegetation varies according to the soil conditions and topography. Where the soil is more neutral, bluebell *Hyacinthoides non-scripta* is frequent, while in damper areas ramsons or wild garlic *Allium ursinum* forms dense stands in spring. Near the lower edges of slopes there are many springs and flushes, where opposite-leaved golden saxifrage *Chrysosplenium oppositifolia* and other plants of wet woodland occur. Where the soil is dry and relatively acidic along the tops of slopes there are frequently lines of mature beech *Fagus sylvatica*, with much holly *Ilex aquifolium* but little ground vegetation. Plants characteristic of ancient woodland are found widely; these include early purple orchid *Orchis mascula*, herb Paris *Paris quadrifolia*, butcher's broom *Ruscus aculeatus*, sanicle *Sanicula europaea*, wild daffodil *Narcissus pseudonarcissus* and sweet woodruff *Galium odoratum*. The woodland supports the nationally scarce\* Italian lords-and-ladies *Arum italicum* sub species *neglectum*.

The exposed rock found throughout these woodlands forms a valuable habitat. Rock occurs as small cliffs at the top of slopes, as outcrops on valley spurs and, most commonly, as loose stones and boulders, either scattered over the woodland floor or in piles (talus) at the foot of the steep slopes. The rocks are often covered by carpets of bryophytes and because of the high calcium (lime) content of the rock these are generally lime-loving (calcicole) species such as *Tortula marginata*, *Chiloscyphus pallescens* and *Fissidens minutulus* var. *tenuifolius*. The woodlands support the nationally scarce\* mosses *Rhynchostegiella curviseta* and *Campylostelium saxicola*.

The invertebrate fauna of the woodlands include a number of nationally scarce\* species including the hoverflies *Volucella inflata* and *Mallota cimbiciformis* (a bee-mimic) and the molluscs *Phenacolimax major* and *Macrogastera rolphii*.

\* Nationally scarce species occur in 16–100 of 10 × 10km squares in Britain.