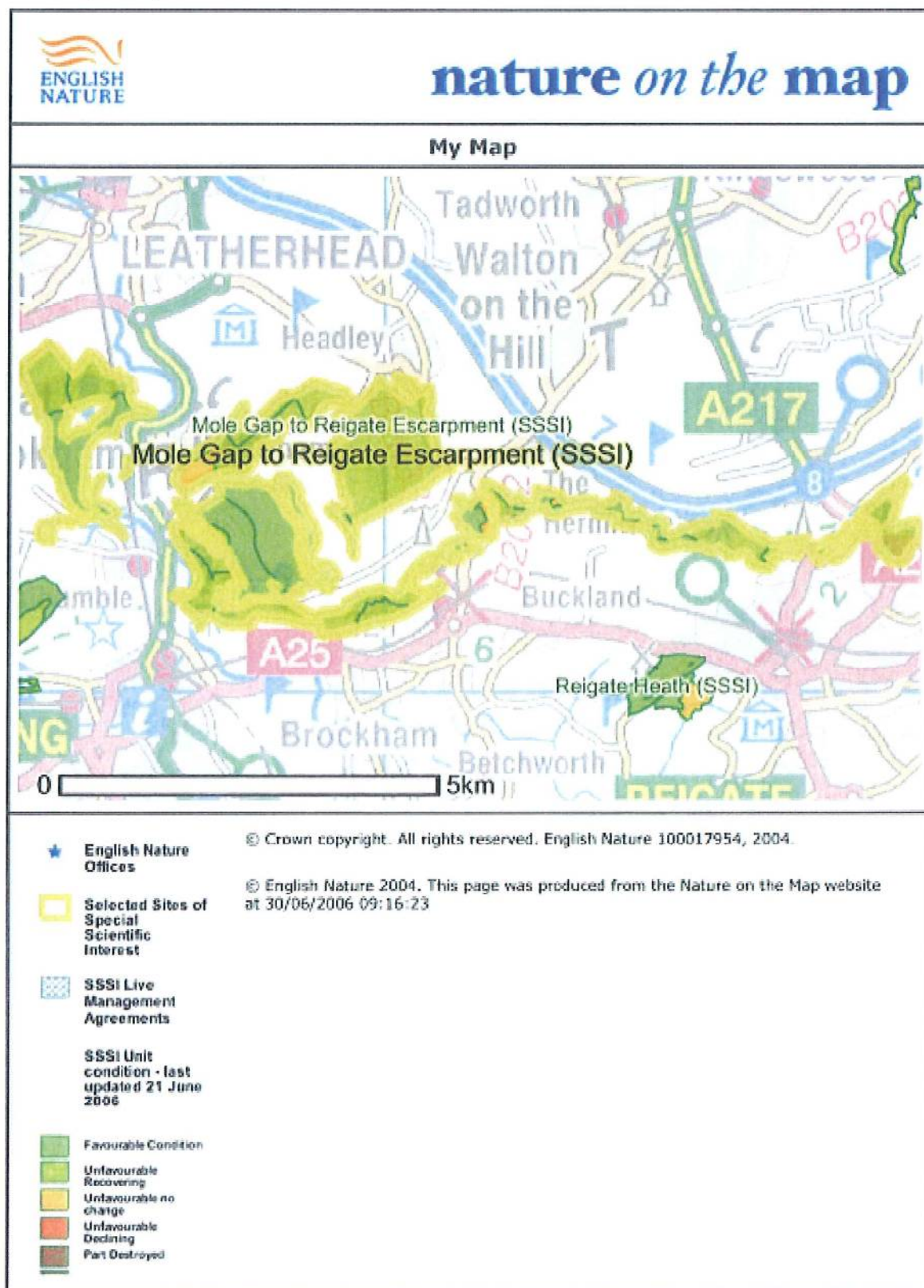


Mole Gap to Reigate Escarpment SAC :



## EC Directive 92/43 on the Conservation of Natural Habitats and of Wild Fauna and Flora

### Citation for Special Area of Conservation (SAC)

**Name:** Mole Gap to Reigate Escarpment  
**Unitary Authority/County:** Surrey  
**SAC status:** Designated on 1 April 2005  
**Grid reference:** TQ199533  
**SAC EU code:** UK0012804  
**Area (ha):** 887.68  
**Component SSSI:** Mole Gap to Reigate Escarpment SSSI

#### Site description:

Woodland, chalk grassland, chalk scrub and heathland form an interrelated mosaic at this site on the North Downs.

On the generally acidic plateau deposits of the crest of the Downs, the woodland is dominated by beech *Fagus sylvatica*, pedunculate oak *Quercus robur*, ash *Fraxinus excelsior* and yew *Taxus baccata*. On the lime-rich chalk slopes, the dominant trees are beech, ash and yew, together with field maple *Acer campestre* and common whitebeam *Sorbus aria* agg. and occasional large-leaved lime *Tilia platyphyllos*. Yew woodland has been formed both by invasion of chalk grassland and from development within beech woodland following destruction of the beech over-storey. Yew occurs in extensive stands, with, in places, an understorey of box *Buxus sempervirens*. This site supports the only area of stable box scrub in the UK, on steep chalk slopes where the River Mole has cut into the North Downs Escarpment, creating the Mole Gap. Here natural erosion maintains the open conditions required for the survival of this habitat type.

The site supports a range of species-rich chalk grassland types on steep slopes, dominated by red fescue *Festuca rubra*, sheep's-fescue *F. ovina*, quaking-grass *Briza media* and, in taller areas, upright brome *Bromus erecta*, tor-grass *Brachypodium pinnatum* and slender false-brome grass *Brachypodium sylvaticum*. Typical herbs include salad burnet *Sanguisorba minor*, yellow-wort *Blackstonia perfoliata* and field scabious *Knautia arvensis*. The site supports important populations of the nationally scarce musk orchid *Herminium monorchis* and man orchid *Aceras anthropophorum*, the former occurring in areas of shorter turf. A range of more widespread but local orchids are also present, including autumn lady's-tresses *Spiranthes spiralis* and green-winged orchid *Orchis morio*, as well as commoner species, such as pyramidal orchid *Anacamptis pyramidalis*, fragrant orchid *Gymnadenia conopsea* and bee orchid *Ophrys apifera*.

The acidic plateau deposits on Headley Heath support acidic heathland, dominated by heather *Calluna vulgaris*, bell heather *Erica cinerea* and dwarf gorse *Ulex minor*, often mixed with grasses such as wavy hair-grass *Deschampsia flexuosa* and common bent *Agrostis capillaris*. Chalk heath occurs on a small area of Headley Heath where the special conditions allow both acid and lime-loving plants to grow side by side.

An old chalk mine is used as a winter roost by several species of bats.



**Qualifying habitats:** The site is designated under **article 4(4)** of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I:

- *Taxus baccata* woods of the British Isles. (Yew-dominated woodland)
- *Asperulo-Fagetum* beech forests. (Beech forests on neutral to rich soils)
- European dry heaths
- Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*) (dry grasslands and scrublands on chalk or limestone).
- Semi-natural dry grasslands and scrubland facies: on calcareous substrates (*Festuco-Brometalia*) (important orchid sites). (Dry grasslands and scrublands on chalk or limestone, including important orchid sites)
- Stable xerothermophilous formations with *Buxus sempervirens* on rock slopes (*Berberidion* p.p.). (Natural box scrub)

**Qualifying species:** The site is designated under **article 4(4)** of the Directive (92/43/EEC) as it hosts the following species listed in Annex II:

- Bechstein's bat *Myotis bechsteinii*
- Great crested newt *Triturus cristatus*

This citation relates to a site entered in the Register of European Sites for Great Britain.

Register reference number: UK0012804

Date of registration: 14 June 2005

Signed: *Trevor Salmon*

On behalf of the Secretary of State for Environment,  
Food and Rural Affairs

COUNTY: SURREY

SITE NAME: MOLE GAP TO REIGATE ESCARPMENT

DISTRICT/BOROUGH: MOLE VALLEY, REIGATE AND BANSTEAD

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

Local Planning Authority: MOLE VALLEY DISTRICT COUNCIL, REIGATE AND BANSTEAD BOROUGH COUNCIL

National Grid Reference: TQ 158 539; TQ 185 537      Area: 999.4 ha (2469.5 acres)  
TQ 185 514; TQ 200 530  
TQ 245 520

Ordnance Survey Sheet 1:50,000: 187      1:10,000: TQ 15 SE, 25 SW, 25 SE

Date Notified (Under 1949 Act): 1975      Date of Last Revision: 1975

Date Notified (Under 1981 Act): 1986      Date of Last Revision: -

Other Information:

This site lies within the North Downs Natural Area and the Surrey Hills Area of Outstanding Natural Beauty (AONB). Mole Gap to Reigate Escarpment is a nationally important site listed in 'A Nature Conservation Review' edited by D A Ratcliffe, Cambridge University Press 1977. The site contains an area which will be listed in 'A Geological Conservation Review'. The site includes Box Hill Country Park. The site was first notified in 1975 as an amalgamation of four previous sites. The boundary of the site has been modified at renotification by several deletions and a number of extensions, and now includes a former part of Gatton Park SSSI. The site includes an area of Common Land.

Reasons for Notification:

This site contains the largest part of the North Downs in Surrey which has remained relatively undisturbed by the pressures of modern farming and building. It stretches for 8 miles (12 km) between Leatherhead and Reigate, and includes a range of outstanding wildlife habitats representative of the best of those found on the North Downs. Woodland, chalk grassland, chalk scrub and heathland form an interrelated mosaic which supports a wide diversity of characteristic plants and animals, of which many are local or rare. The site includes the Mole Gap, Box Hill and Headley Heath areas which have been studied for many years and are used for teaching school-children and students at all levels.

Biology

Semi-natural woodland, which once covered most of Britain, has been severely reduced in area by conversion to farmland, commercial forestry plantations and by urban expansion; a change which has become particularly apparent this century. Extensive areas of woodland survive within this site, some of which can be termed as ancient, for example at Dean Wood and Updown Wood.

On the generally acidic plateau deposits of the crest of the Downs, the woodland is often well developed, and is dominated by beech *Fagus sylvatica*, pedunculate oak *Quercus robur*, ash *Fraxinus excelsior*



and yew *Taxus baccata*, with some birch *Betula pendula* and wych elm *Ulmus glabra*; Dean wood also has sessile oak *Quercus petraea*. Plants such as ramsons *Allium ursinum*, yellow archangel *Lamium galeobdolon* and wood sorrel *Oxalis acetosella* grow on the woodland floor.

On the lime-rich chalk slopes, the dominant trees of the best developed woodland are beech, ash and yew, together with field maple *Acer campestre* and whitebeam *Sorbus aria* and occasional large-leaved lime *Tilia platyphyllos*, which is scarce as a native tree. In some cases, the woodland over chalk has developed only recently from former chalk grassland or scrub, when it may be almost pure beech or yew. Whether ancient or secondary, dogs mercury *Mercurialis perennis* dominates the ground flora, often accompanied by twayblade orchid *Listera ovata*, white helleborine orchid *Cephalanthera damasonium*, stinking iris *Iris foetidissima*, and rarities including green houndstongue *Cynoglossum germanicum*, stinking hellebore *Helleborus foetidus*, and wood barley *Hordeum europaeus*. Box *Buxus sempervirens* is rare as a native tree; and is only native at this site and a few other places in Britain. Three areas of box woodland occur within the site, the largest and best developed of these is on the steep slope of Box Hill above the River Mole. Here it grows with holly *Ilex aquifolium*, yew, and elder *Sambucus nigra*. The ground flora includes dog's mercury, biting stonecrop *Sedum acre*, autumn gentian *Gentianella amarella* and the rare cut-leaved germander *Teucrium botrys*.

Chalk grassland has occupied large areas of the North Downs since agriculture began in this area but has gradually been replaced by modern arable and livestock farming and urban development. Now it survives as a habitat mainly on the steeper and less accessible chalk slopes. On this site the species-rich sward is dominated by red fescue grass *Festuca rubra*, sheep's fescue grass *F. ovina*, quaking grass *Briza media* and, in taller areas, upright brome grass *Bromus erectus*, tor grass *Brachypodium pinnatum* and slender false-brome grass *Brachypodium sylvaticum*. Typical herbs include salad burnet *Sanguisorba minor*, yellow-wort *Blackstonia perfoliata* and field scabious *Knautia arvensis*. Also found are knapweed broomrape *Orobancha elatior*, and a particularly wide variety of orchids including fragrant orchid *Gymnadenia conopsea*, bee orchid *Ophrys apifera* and pyramidal orchid *Anacamptis pyramidalis*. Many local or rare plants also grow here; musk orchid *Herminium monorchis*, greenwinged orchid *Orchis morio*, marsh helleborine *Epipactis palustris* (rare in Surrey), round-headed rampion *Phyteuma orbiculare*, early gentian *Gentianella anglica* (found only in Britain), ground pine *Ajuga chamaepitys* and meadow clary *Salvia pratensis*. Areas of open turf at Burford Bridge Ridge and Juniper Top support a rich lichen flora with many noteworthy species including *Toninia caeruleonigricans* and *Verrucaria mutabilis*.

Grassland on the North Downs is now seldom grazed by sheep (although sheepgrazing has been reintroduced on parts of this site), and as a result chalk scrub, which has always been an important part of downland, has replaced much former grassland. It is found throughout the site, and consists of a variety of shrubs dominated by hawthorn *Crataegus monogyna* and dogwood *Cornus sanguinea*, with privet *Ligustrum vulgare*, buckthorn *Rhamnus catharticus*, wayfaring tree *Viburnum lantana* and young yew, ash and whitebeam trees. Some areas on the scarp are dominated by juniper *Juniperus communis*, another scarce species on the chalk.

The acidic plateau deposits on Headley Heath support acidic heath, a habitat which, like chalk grassland, is much more restricted now than formerly. Ling *Calluna vulgaris*, bell heather *Erica cinerea* and dwarf furze *Ulex minor* dominate the heathland, often mixed with grasses such as wavy hair grass *Deschampsia flexuosa* and common bent grass *Agrostis capillaris*. As on chalk grassland, grazing on heathland has largely ceased, and the effect of this can be seen on Headley Heath where bracken *Pteridium aquilinum*, gorse *Ulex europaeus* and birch species *Betula pendula* and *B. pubescens* have replaced much of the open heather and acidic grassland.

Chalk heath occurs on a small area of Headley Heath where the special conditions allow both acid and

lime-loving plants to grow side by side. Chalk heath is particularly sensitive to damage, and is now only found in a few places in Britain. Several small ponds occur on Headley Heath one of which contains a rare and specially protected water plant, the star-fruit *Damasonium alisma*.

The wide range and high quality of habitats within this site support a rich variety of invertebrate life, including many rare and local species. Amongst the butterflies and moths (Lepidoptera) are the straw belle moth *Aspitates gilvaria*, the silverspotted skipper butterfly *Hesperia comma* and the adonis blue butterfly *Lysandra bellargus*. Rare flies (Diptera) include *Micropeza lateralis* a stilt-legged fly, and *Cheilosia nigripes*, a hoverfly. A large number of rare beetles (Coleoptera) have been recorded including *Diplocoelus fagi* and *Pityopogenes chalcographus*. A large true bug (a Hemipteran) *Gonocerus acuteangulatus* found here occurs nowhere else in Britain. Several local snails have been found including the Roman snail *Helix pomatia*.

A wide variety of woodland birds breed within the site, including hawfinch, sparrowhawk, nightingale, and all three species of British woodpecker. An old chalk mine is used as a winter roost by several species of bats.

### Geology

The Mole Gap is one of the classic geomorphological localities of south east England, long noted for its variety of landforms which include periglacial debris fans, river cliffs and swallow holes. The fans of the Mole Gap are the largest on the Chalk, and Cowslip Bank provides rare sections in Devensian deposits of this type. River cliffs are particularly well-developed where the fans have deflected the River Mole against the valley sides, especially at the Whites - the most imposing river cliffs in the Chalk and a landform landmark of southern England.





# Nature on the Map

## My Map



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