

Colony Bog & Bagshot Heath

Surrey

Boroughs: Surrey Heath, Guildford, Woking File Reference: SU/95-2
Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1991.
Local Planning Authorities: Surrey Heath Borough Council, Guildford Borough Council, Woking Borough Council
National Grid References: SU 930 590 Area: 1127.9 ha, 2785.8 acres
SU 913 619
Ordnance Survey Sheets: 1:50,000: 186 1:10,000: SU 95 NW, SU 96 SW
Date Notified (under 1949 Act): 1975
Date Notified (under 1981 Act): 1988 Date of Last Revision: 1993

Other Information:

1. This site includes much of Lightwater Country Park, managed by Surrey Heath Borough Council.
2. Much of the site is within a military Danger Area where high explosives are regularly used, and where there is no public access.
3. The site is listed in 'A Nature Conservation Review'¹.
4. The site forms part of Thames Basin Heaths proposed Special Protection Area for Birds (pSPA), proposed for designation under European Commission Directive 79/409 on the Conservation of Wild Birds (the Birds Directive).

Reasons for Notification:

Colony Bog and the associated complex of bog, wet and dry heath and other habitats within this site form one of the finest surviving tracts of predominately wet heathland in south east England, as well as being the largest in the London Basin. Also included is some rich unimproved grassland. A large part of the site is military land, and a separate block to the north is managed as a Country Park. The wide range of habitats within the site support a rich variety of plants and animals, including county and national rarities, many of which are dependent on high quality heathland or bog for their survival. The site supports many characteristic heathland birds, including strong breeding populations of nightjar *Caprimulgus europaeus*, woodlark *Lullula arborea*, and Dartford warbler *Sylvia undata*, all birds listed on Annexe 1 of the Birds Directive.

The limited and dangerous access to much of this site means that relatively little is known of the rare plants and animals. However, even from the recording that has been possible, many specialised and restricted species are known to occur. Open heathland has been part of the Surrey landscape for thousands of years, during which time traditional grazing and gathering of brushwood and bracken maintained its character. Western Surrey was, at one time largely covered by these open habitats, but drainage and development for intensive agriculture, forestry, housing and roads have severely reduced their extent. Much of this site has been protected from development by its use as military land, but in common with much heathland and downland, it is no longer grazed by stock, and many areas are now threatened by becoming overgrown with scrub and woodland.

The western margin of the site follows the east-facing escarpment of Chobham Ridges, where the soil is dry, acidic and sandy, derived from the Barton Beds locally overlain by plateau gravels. These beds also underlie the central part of the site, where they are often waterlogged and overlain with deep peat, as are the Bracklesham Beds in the east.

Bogs and wet heathland

Where the ground within the site is waterlogged, a layer of peat has built up from the partly decomposed remains of plants. On slightly sloping ground a thin layer of peat supports wet heathland, dominated by cross-leaved heath *Erica tetralix*, purple moor-grass *Molinia caerulea*, deer-grass *Trichophorum cespitosum* and bog-moss *Sphagnum compactum*. Other plants include ling *Calluna vulgaris*, tormentil *Potentilla erecta*, mat-grass

¹ "A Nature Conservation Review", D A Ratcliffe (1977), Cambridge

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Nardus stricta and the nationally scarce marsh club-moss *Lycopodiella inundata*. In hollows and valley bottoms wet heathland grades into valley mires (bogs), where a thick layer of peat has built up over thousands of years. The most important of these are Colony Bog itself, Lightwater, Hagthorne, Folly and Great Bottom Bogs. The bog surface is covered with a spongy mass of bog-mosses *Sphagnum papillosum* and *S. capillifolium*, amongst which a diverse bog flora grows, dominated by bog asphodel *Narthecium ossifragum*, purple moor-grass, common cotton-grass *Eriophorum angustifolium* and bog myrtle *Myrica gale*. Other plants include round-leaved sundew *Drosera rotundifolia*, meadow thistle *Cirsium dissectus*, devil's-bit scabious *Succisa pratensis*, sharp-flowered rush *Juncus acutiflorus*, heath spotted orchid *Dactylorhiza maculata*, and at least ten species of bog mosses *Sphagnum* spp. Bog pools add valuable diversity, and support long-leaved sundew *Drosera intermedia*, bog pimpernel *Anagallis tenella*, the large raft spider *Dolomedes fimbriatus* and provide breeding sites for damselflies and dragonflies (Odonata). The bogs support many county rarities, including early marsh orchid *Dactylorhiza incarnata*, lesser butterfly orchid *Platanthera bifolia*, flea sedge *Carex pulicaris*, brown sedge *C. disticha*, dioecious sedge *C. dioica*, hare's-foot cotton-grass *Eriophorum vaginatum*, white beak-sedge *Rhynchospora alba*, a scarce hybrid horsetail *Equisetum X litorale*, the mosses *Campylopus brevopilus* and *C. pyriformis*, and the scarce bog-mosses *Sphagnum molle* and *S. magellanicum*. In some areas, such as Lightwater and Folly Bogs, calcium-enriched ground water provides suitable conditions for bog-rush *Schoenus nigricans*, and calcium-enriched pools at map reference SU 919 602 support few-flowered spike-rush *Eleocharis quinqueflora*, the moss *Drepanocladus revolvens* and the only known south eastern England colony of the moss *Scorpidium scorpioides*.

Dry heathland

The dry, acidic sandy soils of the higher ground within the site support dry heath and grass-heath, dominated by ling *Calluna vulgaris*, dwarf furze *Ulex minor*, bell heather *Erica cinerea* and grasses including mat-grass *Nardus stricta*, sheep's fescue *Festuca ovina*, wavy hair-grass *Deschampsia flexuosa*, purple moor-grass *Molinia caerulea*, sweet vernal grass *Anthoxanthum odoratum* and common bent *Agrostis capillaris*, which is mixed with or replaced by bristle bent *A. curtisii* in the east and north of the site. Other plants include petty whin *Genista anglica*, pill sedge *Carex pilulifera*, heath milkwort *Polygala serpyllifolia*, heath bedstraw *Galium saxatile*, squirrel-tail fescue *Vulpia bromoides* (beside tracks), bilberry *Vaccinium myrtillus*, tormentil *Potentilla erecta*, dodder *Cuscuta epithymum*, and bracken *Pteridium aquilinum*, which in many places forms extensive stands. The scarce orb web spiders *Neoscona adiantum* and *Tetragnatha striata*, and the rare heathland spider *Oxyopes heterophthalmus* have been recorded within the site.

A number of rifle ranges are kept mown, maintaining short heather and grass-heath which provide valuable diversity and form ideal habitat for short-heath plants and animals.

Woodland and scrub

Lack of grazing or other management on many parts of the site is leading to progressive over-growth by scrub, which eventually develops into secondary woodland. On very dry heath areas dense colonies of bracken spread, and seedlings of silver birch *Betula pendula* and Scot's pine *Pinus sylvestris* become established. These eventually shade out the heathland plants, forming, together with oak *Quercus robur* and holly *Ilex aquifolium*, a dense species-poor woodland, with a ground layer of bramble *Rubus fruticosus*, honeysuckle *Lonicera periclymenum*, occasional heath relicts such as bell heather and, in one place, the Surrey rarity common wintergreen *Pyrola minor*. Wet heath becomes overgrown with tussocky purple moor-grass and shrubs such as downy birch *Betula pubescens* and grey and goat willows *Salix cinerea* and *S. caprea*. Some areas have developed into alder *Alnus glutinosa* woodland. One area near Grid Ref SU 930 595 is particularly rich, supporting moschatel *Adoxa moschatellina*, wood anemone *Anemone nemorosa*, pignut *Conopodium majus*, the Surrey rarity lemon-scented fern *Oreopteris limbosperma* and the nationally scarce² marsh fern *Thelypteris thelypteroides*.

² Nationally scarce species: recorded from 16-100 10 x 10 km squares in Britain.

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Neutral grassland

Several fields near map references SU 932 596 and SU 930 607 support rich grassland, a habitat type becoming rare in the county. The sward of the wetter fields is maintained by traditional cattle-grazing and is dominated by grasses such as crested dog's-tail *Cynosurus cristatus* and common bent *Agrostis capillaris*, many broad-leaved plants including meadow-sweet *Filipendula ulmaria*, marsh marigold *Caltha palustris*, devil's-bit scabious *Succisa pratensis* and sedges such as star sedge *Carex echinata*, carnation sedge *C. panicea* and oval sedge *C. ovalis*. The diverse flora also includes southern marsh orchid *Dactylorhiza praetermissa*, ragged robin *Lychnis flos-cuculi*, valerian *Valeriana officinalis* and meadow thistle *Cirsium dissectum*. Drier areas are dominated by crested dog's-tail, red fescue *Festuca rubra* and meadow buttercup *Ranunculus acris*, with cat's-ear *Hypochaeris radicata*, common sorrel *Rumex acetosa* and autumn hawkbit *Leontodon autumnalis*.

Birds

The diverse habitats within the site, particularly the extensive open heath and scrub, provide ideal breeding areas for characteristic heathland bird species. Nightjar *Caprimulgus europaeus* is a summer migrant, breeding in heathland with scattered scrub, and in heathy areas within woodland. Dartford warbler *Sylvia undata* depends on gorse *Ulex europeus* scrub, and woodlark *Lullula arborea* prefers open areas with short vegetation, such as mown firing ranges and recently felled forestry. Other heathland species breeding within the site include hobby *Falco subbuteo*, stonechat *Saxicola torquata*, tree and meadow pipits *Anthus trivialis* and *A. pratensis*, yellowhammer *Emberiza citrinella* and reed bunting *Emberiza schoeniclus*.

Colony Bog and Bagshot Heath SSSI forms part of Thames Basin Heaths pSPA, which consists of a group of heathlands extending from Wisley in Surrey to Tadley in Hampshire and Bracknell in Berkshire, supporting nationally important populations of a number of bird species. These include nightjar, woodlark and Dartford warbler (all listed on Annex 1 of the Birds Directive as being rare and in need of protection) and hobby. Thames Basin Heaths pSPA, taken as a whole, supports an estimated 9.0, 29.2, 16.3 and 3.2% respectively of the British breeding populations of these species.

Date: 29 September 1993