

COUNTY: SURREY/HAMPSHIRE

SITE NAME: THURSLEY, HANKLEY AND
FRENHAM COMMONS

DISTRICT: WAVERLEY/EAST HAMPSHIRE

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

Part of Thursley Common is a National Nature Reserve (NNR)
The Flashes on Frensham Common is a Local Nature Reserve (LNR)

Local Planning Authority: Waverley Borough Council; East Hampshire District Council

National Grid Ref: SU 855405 (Frensham)
SU 885405 (Hankley)
SU 915410 (Thursley)

Area: 1832.2 ha (542.2 acres)

Ordnance Survey Sheets 1:50,000: 186

1:10,000: SU83 NW, NE SU84 SW, SE
SU93 NW, SU94 SW

Date notified (under 1949 Act): 1955

Date of last revision: 1975

Date notified (under 1981 Act): 1985

Date of last revision: 1991

Other Information: Thursley and Hankley Commons are together listed in 'A Nature Conservation Review'
as a key heathland site. Thursley Common is 'A Nature Conservation Review' peatland
site*. The Surrey Wildlife Trust have a reserve on Bagmoor Common. Frensham
Common is a Country Park owned by the National Trust and managed by Waverley
Borough Council. There have been several extensions to this site.

Reasons for Notification

This extensive site represents some of the finest remaining heathland on the Lower Greensand in Southern
England. The valley mire on Thursley Common is regarded as one of the best in Britain. The site is of national
importance for its bird, reptile and invertebrate populations.

The site lies mainly on the strongly acid, leached, podzolic soils of the Folkestone and Sandgate Beds of the
Lower Greensand, which are highly infertile. Variations in drainage, topography and management however,
account for the wide diversity of habitats present. Heathland resulted from the Neolithic clearance of
woodland but the national extent of this habitat has declined in recent years due to agricultural change and
afforestation; at this site heathland communities range from dry heath through humid and wet heath to mire.
Scattered scrub and trees are present in most parts of the heath and broadleaved/coniferous woodland covers
approximately half of the site. There are several areas of permanent grassland. Open water habitats
contribute significantly to the interest of the site ranging from acid boggy pools and ditches to large ponds.

The diversity of habitat types is responsible for a remarkable flora and fauna. The heath and bog areas are

particularly valuable because as their national extent has declined, so too have the populations of plants and animals which are specifically associated with these habitats. The site supports several plants with a restricted distribution but is best known for its animal populations. The commons are one of the few sites in Britain to carry all six of the native reptiles and are regarded as probably of national importance for seven invertebrate groups. The community of breeding and wintering birds is exceptionally rich and includes species associated with heath, open water and woodland.

Grass and Heath Habitats

Areas of pure acidic grassland occur on the open heath and range from wet communities dominated by purple moor grass *Molinia caerulea*, through damp communities with Yorkshire fog *Holcus lanatus* and brown bent *Agrostis canina*, to dry grasslands dominated by wavy hair grass *Deschampsia flexuosa*. Neutral grassland fields are mainly permanent pasture and vary in composition; the meadows around Borough Farm (SU 920417) with rushes *Juncus* species and cyperus sedge *Carex pseudocyperus*, and wet grassland on a terrace of the River Wey (SU855420) with meadowsweet *Filipendula ulmaria*, water mint *Mentha aquatica*, sedges *Carex* species and rushes, are the most extensive examples of this habitat type.

Hankley Common has the most extensive tracts of dry heath, but the habitat is also well represented on the other Commons. The dominant floral association is ling *Calluna vulgaris* with bell heather *Erica cinerea*. Dwarf gorse *Ulex minor* and petty whin *Genista anglica* are locally important in the community and lichens are prominent in parts. Plants of the dry heath occur in association with wavy hair grass or, in damper areas, with purple moor grass, in a heath/grassland mosaic. Bracken *Pteridium aquilinum* has colonised a few areas of former dry heath. The wet heath represents a transitional zone between dry heath and mire; a wide range of plant communities are present reflecting stages along this ecological gradient. The dominant association of ling with purple moor grass and cross-leaved heath *Erica tetralix* is most extensively demonstrated in the northern parts of Thursley and Hankley Commons. A feature of the wet heath is an interesting microtopography of hummocks and peat-filled hollows; ling dominates the drier hummocks with cross-leaved heath, rushes, bog asphodel *Narthecium ossifragum*, *Sphagnum* mosses, long leaved sundew *Drosera intermedia* and common sundew *Drosera rotundifolia* in the hollows.

Peatland Habitats

These habitats are typically found in waterlogged conditions where the wetland vegetation builds up organic deposits over the underlying mineral substrate. At this site peatlands have developed in three ways: along river valleys, over expanses of shallow water or on relatively flat ground where drainage is very heavily impeded. The bog communities associated with these modes of development are diverse due to local variation in a number of factors: these include the range of nutrient status of soil and water and the varying degree of inundation of, and the different speeds of water movement through the peat.

The peatland complex on Thursley Common represents one of the finest valley mires in Britain and supports vegetation communities which are exclusively characteristic of nutrient-poor soils. Examples of all 3 modes of peatland development are present on Thursley. Ockley bog has developed on relatively flat, poorly drained ground and shows a remarkable similarity to a raised mire in that the surface of the bog is gradually growing above the ground water influence. Carpets of *Sphagnum* mosses, chiefly *Sphagnum papillosum* and *Sphagnum magellanicum*, occupy an extensive area of Ockley bog; the associated plant community includes cross-leaved heath, purple moor grass, bog asphodel, ling, hare's-tail cotton-grass *Eriophorum vaginatum*, many-stemmed spike-rush *Eleocharis multicaulis* and two plants which are very rare in Surrey: cranberry *Vaccinium oxycoccos* and brown beaksedge *Rhynchospora fusca*. The presence of a river valley mire with a clear vegetation zonation and with relatively high nutrient status along the central water-course, adds to the

interest of the Thursley peatland complex. In addition several areas represent former open water which is being colonised by peatland; parts of Pudmore Pond (SU906417) are a good example of this and have a flora of bottle sedge *Carex rostrata*, bog bean *Menyanthes trifoliata*, lesser bladderwort *Utricularia minor* and marsh St John's-wort *Hypericum elodes*. Other plants of note recorded from the Thursley valley mire complex include royal fern *Osmunda regalis*, bog pimpernel *Anagallis tenella*, the nationally scarce stagshorn clubmoss *Lycopodiella inundata* and a rare sub-species of the early marsh orchid *Dactylorhiza incarnata* spp. *ochroleuca*.

Peatland on the other commons is less extensive but still important. The bog on The Flashes on Frensham Common is largely a river valley mire dominated by purple moor-grass, cross-leaved heath, common cotton-grass *Eriophorum angustifolium*, ling, rushes and *Sphagnum* mosses; a similar community dominates the peatland in the north west of Hankley Common.

Woodland and Scrub Habitats

Scrub is scattered throughout the open heath and forms dense belts in places; this scrub is almost exclusively of gorse *Ulex europaeus*. Western gorse *Ulex gallii* has its only known Surrey locality on Thursley Common. Scrub associated with some of the open grasslands is more diverse and consists of hawthorn *Crataegus monogyna*, blackthorn *Prunus spinosa*, sallow *Salix cinerea* and gorse.

The woodland is variable in age and composition. Woodland of recent origin has colonised wet and dry heath and consists of silver birch *Betula pendula*, pedunculate oak *Quercus robur*, downy birch *Betula pubescens* and Scot's pine *Pinus sylvestris*; naturally regenerated Scot's pine, of varying ages, represents the major part of the woodland at the site. Mature broadleaved woodland is best represented on the eastern side of Thursley Common where beech *Fagus sylvatica*, ash *Fraxinus excelsior*, holly *Ilex aquifolium*, coppiced hazel *Corylus avellana*, pedunculate oak and both birches occur above a field layer which includes wood-sorrel *Oxalis acetosella*, honeysuckle *Lonicera periclymenum* and yellow archangel *Lamiastrum galeobdolon*. Will Reeds (SU 903406) is pedunculate oak woodland on brown earth soils and has a distinctive field layer of wood sage *Teucrium scorodonia*, dog's mercury *Mercurialis perennis* and bluebell *Hyacinthoides non-scripta*. In several areas where drainage is very poor swamps of alder *Alnus glutinosa* have developed above a field layer which includes pendulous sedge *Carex pendula*, tussock sedge *Carex paniculata*, skull-cap *Scutellaria galericulata*, bitter-cresses *Cardamine* species and opposite-leaved golden saxifrage *Chrysosplenium oppositifolium*; good examples of this habitat type occur in the west of Royal Common (at SU 915402) and in the north west of Hankley Common (at SU 882432).

Open Water Habitats

The boggy pools and ditches of the open heath are highly acidic and support a flora of bog pondweed *Potamogeton polygonifolius*, bog bean *Menyanthes trifoliata* and marsh St John's-wort *Hypericum elodes*. A number of larger expanses of open water occur and these are generally less acid. The Thursley hammer ponds have an open water flora of white water-lily *Nymphaea alba* and yellow water-lily *Nuphar lutea* and a marginal fen community which includes lesser pond sedge *Carex acutiformis*, lesser reedmace *Typha angustifolia*, yellow flag *Iris pseudacorus* and trifold bur-marigold *Bidens tripartita*. Similar communities occur at Moat Pond (SU 900416) and Stockbridge Pond (SU 879429); the latter pond supports the shining pondweed *Potamogeton lucens*. Tall fen communities are most extensive on the southern shores of Frensham Little Pond where common reed *Phragmites australis*, great hairy willowherb *Epilobium hirsutum*, great reedmace *Typha latifolia* and lesser pond sedge dominate. Pudmore Pond (SU 905416) has a large central stand of common reed. The sandy beaches and banks around Frensham Great Pond support

a number of plants which are more usually found in coastal areas; these include bulbous meadow-grass *Poa bulbosa*, bearded fescue grass *Vulpia ambigua* and sand sedge *Carex arenaria*.

Fauna

The invertebrate fauna is numerous and diverse. Twelve species of orthoptera (grasshoppers and crickets) occur including the nationally rare large marsh grasshopper *Stethophyma grossum*. The boggy pools and ditches and the lakes and their margins support dragonfly and damselfly populations which include the nationally scarce white-faced dragonfly *Leucorrhinia dubia*. The fly fauna includes three nationally rare species: *Asilus crabroniformis*, *Thyridanthrax fenestratus* and *Chrysogaster macquarti*. The nationally scarce beetle *Altica ericeti* and the nationally rare bug *Micranthia marginalis* have also been recorded. The site supports several nationally scarce butterflies including silver-studded blue *Plebejus argus*, white-letter hairstreak *Strymonidia w-album* and purple emperor *Apatura iris*. The commons also support important populations of spiders, bees and wasps.

The heathlands are of outstanding importance for reptiles, most notably the nationally rare sand lizard *Lacerta agilis* and smooth snake *Coronella austriaca*.

The site is one of the richest for birds in Southern England. Breeding birds specifically associated with the heathland include woodlark *Lullula arborea*, Dartford warbler *Sylvia undata*, nightjar *Caprimulgus europaeus*, stonechat *Saxicola torquata* and whinchat *S. rubetra*; this is also one of the few inland breeding grounds for curlew *Numenius arquata*. The area of fen and open water also support rich communities of breeding birds including great crested grebe *Podiceps cristatus*, mute swan *Cygnus olor*, coot *Fulica atra*, water rail *Rallus aquaticus* and littlegrebe *Tachybaptus rufficollis*. Birds which breed in the areas of woodland include all three British woodpeckers, woodcock *Scolopax rusticola*, redstart *Phoenicurus phoenicurus*, tawn owl *Strix aluco*, nightingale *Luscinia megarhynchos* and hawfinch *Coccothraustes coccothraustes*. The open expanse of heath, scrub and unimproved grassland provide important wintering grounds for certain notable species including great grey shrike *Lanius excubitor* and raptors.

*A Nature Conservation Review, 1977; ed. D R Ratcliffe; published by Cambridge University Press.