

Notified to the Secretary of State on 3 November 1999

County: Dorset **Site Name:** **St. Leonards and St. Ives Heaths**

District: East Dorset, Christchurch

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

Local Planning Authorities: Dorset County Council, East Dorset District Council, Christchurch Borough Council

National Grid Reference: SU 127014

Area: 529.83 (ha)

Ordnance Survey Sheet 1:50,000: 195

1:10,000: SU 10 SW, SZ 19 NW

Date Notified (Under 1949 Act): 1977 (part)

Date Notified (Under 1981 Act): 1986 (part), 1988 (part), 1999

Reasons for Notification:

The St. Leonards and St. Ives Heaths are notified for acidic grassland, dry and wet heath, and mire vegetation types (including: sheep's-fescue *Festuca ovina* – common bent *Agrostis capillaris* – sheep's sorrel *Rumex acetosella* grassland; heather *Calluna vulgaris* – dwarf gorse *Ulex minor* heath; dwarf gorse *U. minor* – bristle bent *Agrostis curtisii* heath; bog moss *Sphagnum auriculatum* bog pool community; cross-leaved heath *Erica tetralix* – bog moss *S. compactum* wet heath; bog asphodel *Narthecium ossifragum* – bog moss *S. papillosum* valley mire and purple moor-grass *Molinia caerulea* – tormentil *Potentilla erecta* mire). The site is also notified for nationally scarce plants; the assemblage of breeding birds of lowland heath habitat and significant breeding populations of the rare Dartford warbler *Sylvia undata*, nightjar *Caprimulgus europaeus* and woodlark *Lullula arborea*; its contribution as part of the Dorset heathlands towards supporting significant wintering populations of hen harrier *Circus cyaneus* and merlin *Falco columbarius*; important populations of smooth snake *Coronella austriaca* and sand lizard *Lacerta agilis* and nationally rare and scarce invertebrates.

General Description:

The St. Leonards and St. Ives Heaths form part of a complex of sites which together comprise the Dorset heathlands. Although these heathlands have declined in extent and now occupy only 14% of their original area they show a high degree of ecological cohesion and clear ecological trends and patterns. The Dorset heaths complex is one of the

major lowland heathland areas in Britain and is of international importance for its plant and animal communities.

The site is centred on high ground marked by several low hills between the flood plains of the Moors River and River Avon, and also extends to lower lying areas on river terraces bordering the Avon valley. On the high ground the underlying geology of Boscombe Sand and Branksome Sand gives rise to soils which are mostly sandy, infertile and freely draining. Locally, clay beds within these deposits impede drainage, while on the clayey sands and gravels of the river terrace deposits the soils are subject to prolonged waterlogging.

Historical exploitation of these poor soils for subsistence living led to the development of heathland which, in this part of Dorset, extended as an unbroken tract from Alderholt to Christchurch until the early 19th century. Only fragmented areas of heathland now remain. The St. Leonards and St. Ives Heaths, although covering only a small proportion of the earlier area, form one of the largest parts of the present-day Dorset heathlands.

Dry heath vegetation types are found extensively on the sandy soils, often in mosaics with acidic grassland and mixes of both heath and grassland vegetation (grass-heath). Heather is usually dominant, occurring with typical associated plants such as bell heather *Erica cinerea*, dwarf gorse and several species of *Cladonia* lichen. Gorse *Ulex europaeus* is also present in dense and scattered stands. Where soil conditions are less dry this sward is replaced by another dry heath vegetation type, locally known as humid heath, which is distinguished by an increased presence of cross-leaved heath and purple moor-grass.

Cessation in traditional use of the heathland has encouraged invasion by pioneer woodland trees, especially pine *Pinus* and birch *Betula* species and, in some places, a dominance of bracken *Pteridium aquilinum*. This succession towards woodland is held in check to the benefit of an open heath vegetation where heathland management is practised.

Areas of acidic grassland and grass-heath are found widely and this is unusual compared with other parts of the Dorset heathlands. They mainly occur on dry soils but also extend to humid and wet situations. Some have formed following attempts to convert heath for agricultural use. More substantial areas have formed following periodic ground disturbance by military activities, leading to successional mosaics from bare sandy ground to sparse pioneer grassland, acidic grassland, grass-heath and, eventually, re-established heath.

The grassland swards are dominated by combinations of bents *Agrostis* species, fescue *Festuca* species, hair-grass *Aira* species and other grasses. Mosses and *Cladonia* lichens are locally prominent, and some swards are rich in spring annuals and other herbs such as cudweeds *Filago* species,

bird's foot *Ornithopus perpusillus*, yellow bartsia *Parentucellia viscosa*, heath pearlwort *Sagina sublata* and various clover *Trifolium* species. These grasslands, along with the grass-heaths, also support several nationally scarce plants including mossy stonecrop *Crassula tillaea*, hairy bird's-foot-trefoil *Lotus subbiflorus*, Deptford pink *Dianthus armeria* and, in wet more base rich situations, narrow-leaved marsh-orchid *Dactylorhiza traunsteineri*. The presence in some areas of green-winged orchid *Orchis morio* is of further interest as this species has declined markedly and is now uncommon in Britain. Seasonal pools, a habitat which has also become uncommon, occur in places with impeded drainage and especially where there has been ground disturbance as a result of military activities. These ephemeral features are notable for coral-necklace *Illecebrum verticillatum*, a nationally scarce plant which occurs at few other locations in Dorset.

Wet heath occurs locally on low lying ground and more extensively with mire vegetation types on land bordering the Avon valley. On wet heath purple moor-grass and cross-leaved heath become dominant, growing with bog mosses such as *Sphagnum compactum* and other flowering plants such as deergrass *Trichophorum cespitosum*, round-leaved sundew *Drosera rotundifolia* and oblong-leaved sundew *D. intermedia*. Where the soils are often waterlogged purple moor-grass can form dense tussocky stands with areas of bog-myrtle *Myrica gale* and common cottongrass *Eriophorum angustifolium*. On waterlogged peat in less densely vegetated situations bog mosses are more abundant and other associated plants include white beak-sedge *Rhynchospora alba* and bog asphodel *Narthecium ossifragum*. Hare's-tail cottongrass *E. vaginatum*, a plant virtually confined in Dorset to the extreme east of the county, is present and the nationally scarce brown beak-sedge *R. fusca* also occurs. In places bog pools are present and these typically support the bog moss *Sphagnum cuspidatum* and the locally uncommon lesser bladderwort *Utricularia minor*.

The large size and varied nature of the heath and grassland habitats are important in providing suitable conditions for a diverse and abundant fauna. The assemblage of breeding birds includes several which are of conservation concern owing to declining or small national populations. These include stonechat *Saxicola torquata*, and relatively large breeding numbers of the rare Dartford warbler, nightjar and woodlark. The population of breeding woodlark is among the largest on any part of the Dorset heathlands. During winter the site also contributes towards the value of the Dorset heathlands in supporting small but nationally significant numbers of two rare raptors, hen harrier and merlin, which require large areas of suitable habitat for their survival.

The site has breeding populations of all six reptiles native to Britain. These include the rare smooth snake¹ and sand lizard¹ which are now mostly restricted to the Dorset heathlands. Both species are typically

associated with mature dry heath and such habitat supports a widespread presence of these species on this site.

The invertebrates are less well studied but records of several nationally rare and scarce species from a range of insect groups indicate the presence of a significant interest. There is, for example, a species rich assemblage of grasshoppers and crickets (Orthoptera). These include the nationally rare heath grasshopper *Chorthippus vagans* and nationally scarce species such as long-winged conehead *Conocephalus discolor* and wood cricket *Nemobius sylvestris*.

Among the Lepidoptera (butterflies and moths) the site is notable for the nationally scarce silver-studded blue *Plebejus argus*. This small butterfly favours short heathy swards and, although its distribution has declined greatly in parts of Britain, the Dorset heathlands remain one of its major strongholds.

Compared with other parts of the Dorset heathlands the dragonfly and damselfly (Odonata) fauna is restricted by the limited presence of mire and freshwater habitats. Despite this the assemblage includes variable blue damselfly *Coenagrion pulchellum* and blue-tailed damselfly *Ischnura pumilio* which are both nationally scarce. The heath wetlands also support several nationally rare and scarce beetles (Coleoptera). Among the scarce species are the scavenger water beetles *Enochrus affinis* and *Helochares punctatus*, and the rare long-toed water beetle *Dryops striatellus* is also recorded. The mire habitat is especially of note for the very rare bladderwort flea beetle *Longitarsus nigerrimus* which has been re-found here and only elsewhere in the New Forest after an absence of British records for over 50 years.

Other Information:

This notification incorporates Matchams SSSI and the major part of Hurn Common SSSI, and includes several boundary extensions. Other parts of Hurn Common SSSI are incorporated into Town Common SSSI (1994 notification), Moors River System SSSI (1999 notification) or remain unaltered.

The site covers much of Avon Heath Country Park.

¹ Species of European interest listed in Annex IV of the EC Habitats and Species Directive and listed in Schedule 2 of the Habitats Regulations for special protection.