

Site name: Bushy Park and Home Park **County:** Greater London

District: London Borough of Richmond

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981, as substituted by Schedule 9 to the Countryside and Rights of Way Act 2000.

Local Planning Authority: London Borough of Richmond, Greater London Authority

National Grid reference: TQ159692 **Area:** 540.39 ha

Ordnance Survey sheet: **1:50,000:** 176 **1:10,000:** TQ 16 NE, NW
TQ17 SW, SE

Notification date: 5 September 2014

Reasons for notification:

Bushy Park and Home Park SSSI is of special interest for its nationally important saproxylic (dead and decaying wood associated) invertebrate assemblage, population of veteran trees and acid grassland communities. These features occur within and are supported by the wider habitat mosaic. The saproxylic invertebrates include those associated with heartwood decay, bark and sapwood decay and with fungal fruiting-bodies found within the veteran trees which are located throughout the site, notably in the large areas currently managed as wood pasture. Lowland dry acid grassland communities present include National Vegetation Classification (NVC) types U1 sheep's fescue *Festuca ovina*-common bent *Agrostis capillaris*-sheep's sorrel *Rumex acetosella* grassland and U4 sheep's fescue *Festuca ovina*-common bent *Agrostis capillaris*-heath bedstraw *Galium saxatile* grassland community which are found within the grassland mosaic of the site.

General description:

Bushy Park and Home Park SSSI sits on the floodplain of the River Thames with the London Clay Formation overlain by the more recent Kempton Park gravel, and Taplow gravel formations. These sand and gravel deposits are of Quaternary age and extend north across Bushy Park and south over much of Home Park, superficial deposits of alluvium associated with riverine floodplains are also present in the south east of the park near the bordering river Thames. This underlying geology gives rise to the well-drained, acidic soils found across the site, and a moderate calcareous influence in places.

The history of Bushy Park and Home Park is well documented and enables an unusually detailed insight into habitat continuity; the land was enclosed as a Royal Park in the early 16th Century. The park boundary and design was altered over time incorporating first Home Park, then Bushy Park and the Home Park paddocks. There remains several ancient trees which predate the enclosure of the site. The site was used by Henry VIII as a royal hunting ground, and some oak trees which were planted during his reign to demark boundaries of what was the original Bushy Park boundary still survive. Subsequent monarchs made further alterations to the landscape and hydrology of the site, including the addition of the Longford River and its associated wetland habitats, and the planting of many of today's veteran and ancient trees. Long term management of the site as a deer park has maintained a large area of acid grassland habitat, a rare resource nationally.

Invertebrates

The veteran trees and associated habitats support a nationally important assemblage of saproxylic invertebrates. These are associated with heartwood decay, bark and sapwood decay and with fungal-fruiting bodies. The high diversity of specialised deadwood invertebrates at this site is comparable with the most important sites in the UK for this group.

The site is known to support a substantial number of nationally scarce and otherwise uncommon beetles including *Aeletes atomarius*, *Stenichnus godarti*, *Trichonyx sulcicollis*, *Velleius dilatatus*, *Aplocnemus impressus*, *Diplocoelus fagi*, *Teredus cylindricus*, *Scryptia fuscula* and many more, all of which are part of the saproxylic assemblage for which this site has been notified.

Assessment of the beetle fauna of the site has shown high numbers of species which are indicative of ecological continuity; this demonstrates that the long term continuation of dead wood habitat on site has enabled retention of species which may have been present before the site was emparked. Trees such as lime and flowering shrubs such as hawthorn *Crataegus spp.* in addition to flowering plants within the surrounding park also provide important nectar sources for insects as well as places to breed.

Veteran trees

Bushy Park and Home Park has a large number of veteran trees occurring in open parkland, amongst avenues of trees, and in woodland. The veteran tree population is distributed across the site and is predominantly comprised of lime *Tilia x europaea* and *T. platyphyllos* and Pedunculate oak *Quercus robur* along with alder *Alnus glutinosa*, sweet chestnut *Castanea sativa*, crack willow *Salix fragilis*, small-leaved lime *Tilia cordata* and sycamore *Acer pseudoplatanus*. A range of tree forms exist, the majority being either maiden or natural and managed pollards. Park management has maintained continuous replanting of trees since the Tudor period and there exists a range of tree age cohorts ranging from trees planted in the sixteenth century, to more recent planting infilling of gaps in avenues resulting from losses to storms and Dutch elm disease. A further notable feature is the occurrence of a large number of veteran hawthorn trees from which Bushy Park gets its name. It is unusual for such a large number of hawthorns to reach the veteran stage at a single site; hawthorns were planted during the Tudor period as part of management of the park for deer coursing and occur widely across Bushy Park as scattered trees, and along the course of old field boundaries.

As well as being a feature of national significance in their own right, the veteran trees provide habitat for the sites outstanding saproxylic invertebrate assemblages. The trees also supports associated species interest including locally uncommon mistletoe *Viscum album* which is frequent on the lime and hawthorn trees and fungi including the bracket fungus *Phellinus torulosus* which is believed to be at its northern extent in the British Isles.

Acid grassland

Extensive areas of two distinctive lowland dry acid grassland types are present in a mosaic with neutral grassland, stands of bracken, wetland areas and woodland. The acid grassland is characterised by typical plants including common bent *Agrostis capillaris*, squirrel-tail fescue *Vulpia bromoides*, sweet vernal-grass *Anthoxanthum odoratum*, heath grass *Danthonia decumbens*, mouse-ear hawkweed *Pilosella officinarum*, sheep's sorrel *Rumex acetosella*, heath bedstraw *Galium saxatile*, harebell *Campanula rotundifolia* and tormentil *Potentilla erecta*. Several plants which are locally uncommon add to the special interest. These include rough clover *Trifolium scabrum*, clustered clover *T. glomeratum*, autumn squill *Scilla autumnalis*, crested hair-grass *Koeleria macrantha*, upright chickweed *Moenchia erecta*, sand spurrey *Spergularia rubra*, birds-foot *Ornithopus perpusillus* and early hair-grass *Aira praecox*. Ant-hills are a feature of many areas and these support specialised plants including little mouse-ear *Cerastium semidecandrum*, parsley-piert *Aphanes arvensis*, wall speedwell *Veronica arvensis* and thyme-leaved sandwort *Arenaria serpyllifolia*. Parts of Home Park include grassland with a calcareous influence occurring in a mosaic with acid grassland. These areas support plants more characteristic of limestone grassland such as salad burnet *Sanguisorba minor*, dropwort *Filipendula vulgaris*, large thyme *Thymus pulegioides* and meadow oat-grass *Helictotrichon pratense*, a highly unusual feature.