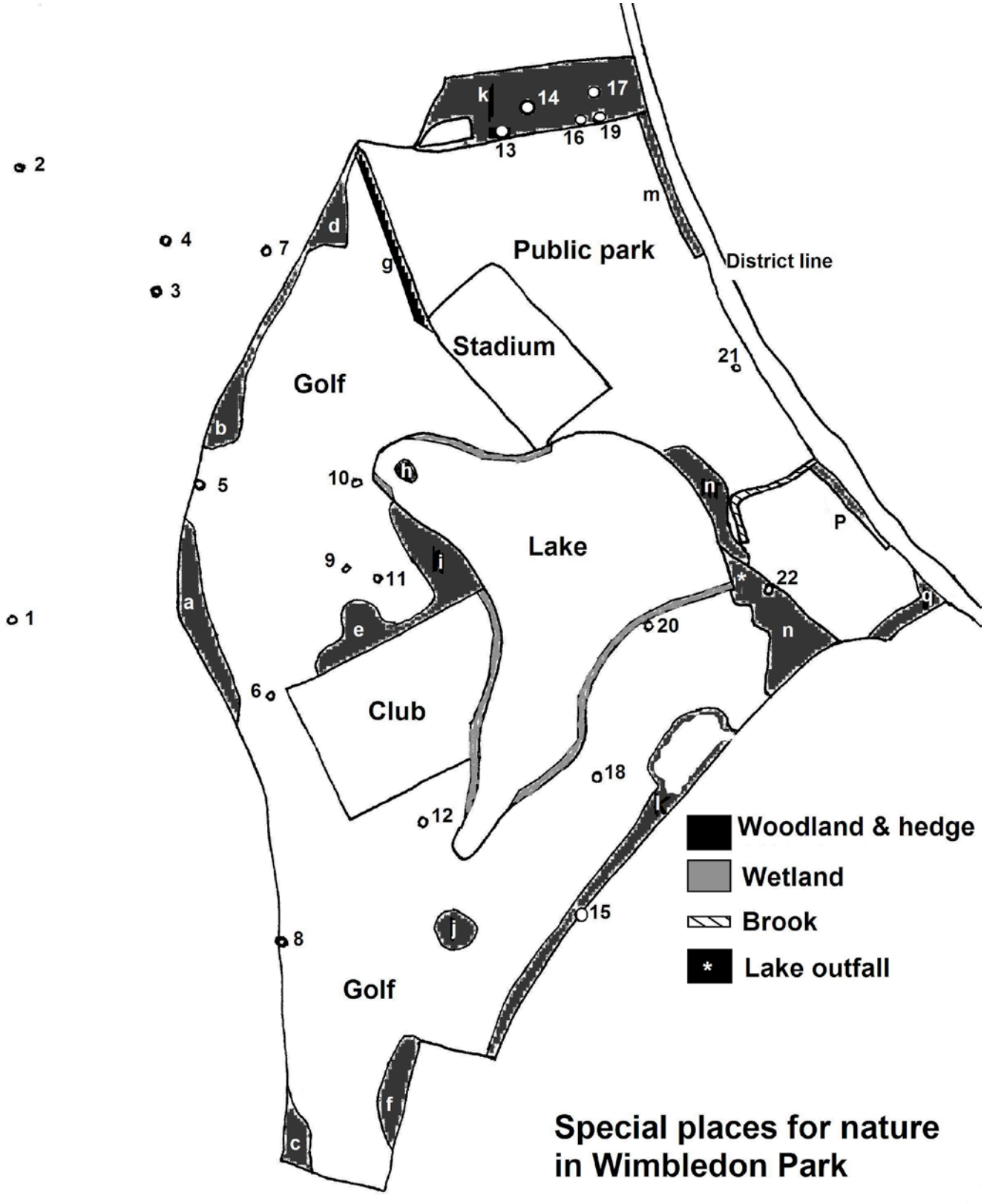
Special species and special places for nature in the Wimbledon Park Grade II* Heritage Site: a map, schedule and background.

Draft by Dave Dawson

This map and the accompanying schedule define the special features in the heritage site (referred to below as the “park”). This is followed by the background and appendices.



Schedule

1. **Old trees.** There's at least one ancient oak in the Golf Course, growing near the western corner of the Wimbledon Club (6). This is the highest priority for conservation. Five younger veteran trees are on the Golf Course (9, 11, 12, 18, & 20) and three on a boundary of the golf course with a road (5, 8 & 15). Two are in Horse Close Wood (13 & 14) and one near the dog free picnic area in the public park (21). These are of considerable value, especially for their dead wood and species that depend upon it. Many younger trees should be conserved to provide a succession of value into the future. See appendix I.
2. **Old woodland.** Ashen Grove Wood (o) is ancient and Horse Close Wood (k) an old planted wood. Ashen Grove is a remnant of a much larger wood. It should be protected, managed appropriately and judiciously expanded. Opportunities for expansion are in the near parts of the Golf Course, the slope down from the dam (n) and the park periphery, including areas p and q. Horse Close Wood should be managed according to the adopted management plan. See appendix II.
3. **Younger woodland and hedgerows.** Whilst not of such considerable value as the old woodland, these support many woodland species and provide a landscape benefit. The best hedgerow (g) is in the Golf Course on the northern boundary with the public park. There is potential to develop wet woodland, which is rare in London, in areas h, i, n and in other places around the lake. Other areas on the periphery of the park, have potential to re-create the wooded belt that bounded the Capability Brown park. These enhancements would benefit bats. See appendix II.
4. **The lake margin.** The unsympathetic management of the woody vegetation here has harmed natural habitat. There is great potential to restore wet woodland, whilst retaining some open views across the water. The vegetation emergent from the water is of great wildlife habitat value, but limited by the shortage of shallows in the lake. More extensive shallows would enhance the margin. The London Lakes Project[1] provides a model for the management and re-establishment of vegetation in the shallows. This too would enhance the habitat of bats.
5. **The lake.** Thirty-years ago the underwater and floating vegetation of the lake was much better, with fine displays of water lilies. Most of this was lost. In the last two years, since the treatment of the water to consolidate silt, waterweed has spread, providing food for swans and coots. Further recovery of the water of will depend upon preventing recurrent pollution and appropriate management of the fish and waterbird populations. Again, the London Lakes Project provides a good model for the re-establisment of the vegetation and of the animals that feed upon it. This will also benefit the traditional fishery and food for bats and aerial foraging birds.
6. **Ponds and the brook.** The brook provides valuable habitat. The only pond in the park is small and heavily shaded. It serves as the outfall for the lake (*). It is of little habitat value, and its situation and function preclude enhancement. Ditches on the Golf Course, draining into the southern arm of the lake once supported pond vegetation, but intensive management has harmed this. There is potential in this area, and in other parts of the park where water lies in the winter, to develop ponds.
7. **Grassland.** The park has no quality grassland, but has potential to re-create the species-rich sward of the eighteenth century. Wet grassland could be restored in the area reclaimed from the southern arm of the lake in the 20th century, and beyond there, where the water table is often at or near the ground surface (see 6 above). Drier grassland could be allowed to grow as Golf Course roughs and at the edges of the woodlands and hedgerows, providing wildlife a transition to the mown areas.

Background: homes for nature.

Much loved animals and plants don't need just protection, they need (in RSPB terms) a "home", in ecological jargon, a "habitat"[2]. All the protection in the world will not ensure that animals thrive if they cannot find food, shelter and the requisites to breed. Similarly, plants require suitable places to grow[3].

All the open spaces of the park provide homes for nature, even the least obvious places: the flat, regularly-mown grasslands, for example, provide food for wintering gulls, geese and breeding thrushes, pigeons and starlings and support some special plants, such as Meadow Barley and Lesser Chickweed. However, special places provide more species with homes: these are the woodlands, hedgerows, veteran trees, brook and the lake and its banks. Some features have extra value because they are survivors. These include the old trees, Horse Close and Ashen Grove Woods and the Lake.

Places to live can be harmed. Loss can come from built development. Fortunately, here, planning policy requires that any such development should be confined to places essential to the open space use of the area[4]. Artificial sports surfaces, although allowed in planning policy, also represent a loss of places for wildlife to live. Disturbance and artificial lighting can render what would otherwise be suitable habitat unsuitable for some species[5].

Species

Whether they be threatened, interesting, or part of our daily experience of nature, particular species help to encapsulate the value of the park for nature. We value the special species that the park supports: those that are less common, protected, declining or threatened. However, we also value the commonplace, as it's those that are most often seen and which can serve equally to raise our spirits. They provide tangible access to nature[6]. All species can help us to understand ecological processes and the nature of "ecosystems". There's many to choose from, so appendix I lists just a selection to illustrate the diversity in the park. Those that make a greater visual impression are listed here:

For the lake. Margins: Yellow Flag Iris, Hemlock Water-dropwort, Pyramidal Orchid, Water Mint, Bulrush, Grey Heron, Kingfisher, Common Sandpiper, dragonflies and damselflies. *Open water:* Eel, Black-headed Gull, Coot, Great-crested Grebe, Mallard, Mute Swan, Tufted Duck, Shoveller, Pochard and Common Tern.

For the brook: Yellow-flag Iris, Water Mint, Pendulous Sedge, Grey Wagtail and Water Rail.

For the Woodlands: Pedunculate Oak, Ash, English Elm, Cow Parsley, Lords-and-Ladies, Bluebell, Sweet Violet, Lesser Celandine, Hedge Woundwort, Bay, Hazel, Speckled Wood butterfly, Blackcap, Mistle Thrush, Stock Dove and Nuthatch.

For the hedgerows: Hawthorn, Honeysuckle, Great and Blue Tits and Holly Blue Butterfly.

For the grassland: Veteran trees and Meadow Barley.

Priority species

The park has a few species that are regional, national or international priorities for protection and conservation[7]. Appendix III lists those known to occur and their status in the park[8]:

The European Eel[9] occurs in the lake. As elsewhere, it is thought to have declined in numbers recently. Although it is listed internationally as critically endangered, not enough is known about its population dynamics to be confident about what action to take to conserve it here.

Three of the bats that occur in the park are listed as national priority species. Two prefer wetlands, Daubentons and the Soprano Pipistrelle, and the other is a woodland specialist, the Brown Long-eared. All bats are specially protected. It's likely that some of the older trees in the park provide suitable cavities for bats to roost, breed or hibernate. Elsewhere, it's important to conserve places that produce the insect food, here particularly the water quality of the lake and foliage of the woodland and hedgerows.

The long list of birds of conservation concern that occur in the park again shows that it provides important places to live. In many cases the population trend in the park matches the national trend. More interesting are a few species that buck the national trend. These suggest that the park provides special places to live for species in need of help.

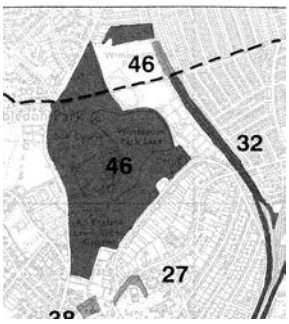
Special places to live

Animals and plants occur in the park only because it provides their habitat requirements. Some habitats are widespread elsewhere: mown grass, for example, but others are in short supply. The conservation of these habitat features in the park provides for species requiring more special places to live. On a London-wide scale, the London Plan identifies targets for "habitats" that should have priority for conservation and enhancement because they are regionally scarce, or support special species. These are Priority Habitats[10]. Of that list, five occur in the park:

- Woodland
- Large bodies of standing water
- Rivers and streams
- Fen, marsh and swamp
- Reedbeds

Sites of importance

Wildlife and homes for nature should be considered across the map of London. However, government guidance seeks special consideration and protection for be best such areas. In London, these are *Sites of Importance for nature conservation*[11]*.* Two such sites were first confirmed in 1998:



1. Wimbledon Park Lake, Woods and Golf Course (indicated on the map above as "46"), a Site of Borough Importance grade I. This includes the Golf Course, Wimbledon Club and Ashen Grove and Horse Close Woods.

2. Railside habitats (indicated on the map as "32"), a site of Borough Importance grade II.

Little has changed since that time[12].

These sites highlight priority areas, important on the scale of an individual London Borough. More detail within them[13] is required to assist local planning. The map and schedule identify those places that could not be compromised without harm to the special animals and plants they support.

Appendix I The older oaks in Wimbledon Park and surrounds.

All these are *Quercus robur,* the Pedunculate Oak[14]. Age is estimated from the girth using a Forestry Commission method[15]. These ages are not precise, as the growth rates of individual trees vary considerably. The numbers refer to locations marked approximately on the map.

	Location	Age	Grid ref.
1	On "Henman Hill" AELTC	146	TQ24067224
2	Corner of Victoria Dr and Albert Dr	350	TQ24107275
3	In Frimley Close off Victoria Drive	190	TQ24237264
4	Off Waterfold Close	330	TQ24257268
5	Wimbledon Park Road pavement	208	TQ24277241
6	Golf Course by Wimbledon Club	500	TQ24367217
7	Osbourne Ho, by Princes Way	175	TQ24367267
8	Boundary Church Rd & Golf Course	206	TQ24377188
9	Golf Course W	207	TQ24447231
10	Golf Course W	154	TQ24467241
11	Golf Course by 8th green	300	TQ24487230
12	Golf Course SW	263	TQ24537201
13	Edge of Horse Close Wood	225	TQ24627280
14	Centre of Horse Close Wood	250	TQ24647283
15	Home Park Road pavement	228	TQ24707190
16	Edge of Horse Close Wood	170	TQ24727282
17	Centre, Horse Close Wood, ivy clad	?	TQ24727285
18	Golf Course near bridge	259	TQ24737206
19	Edge of Horse Close Wood	175	TQ24747282
20	Lake edge of WP Golf Course	209	TQ24817225
21	Wimbledon Park by ex-bowling green	215	TQ24907253
22	Ashen Grove Wood, East	171	TQ24967226

The estimated ages of the 22 trees marked on the map are imprecise, so only broad general conclusions should be made on this basis alone. The oldest oak in the area (6), in the Golf Course by the western corner of the Club, has an estimated age of 500 years and would certainly predate the landscaping of Capability Brown[16]. Two others (2 & 4), in the suburbs north-east of the park near Victoria Drive, have estimated ages older than 300 years, so they also probably predate Brown. A further ten, with estimates between 200 and 300 years, could well date back to Brown's landscaping. Five of these are on the Golf Course (9, 11, 12, 18, & 20) and a further three on a boundary of the golf course with a road (5, 8 & 15). Two are in Horse Close Wood (13 & 14) and one near the old bowling green in the public park (21). One is of uncertain age (17). The remaining eight (1, 3, 7, 10, 14, 16, 19 & 22) are estimated to be younger than 200 years, so probably subsequent to Brown's landscaping. Further survey would find more old trees, especially those around 200 years old. The oldest of these oaks could properly

be called a “veteran”, and has the greatest conservation value, but the others also have considerable value. Ensuring that a succession of old oaks survives into the future would ensure the survival of the rich fauna and flora associated with these trees[17].

Appendix II. The woodlands and hedgerows of the park.

a	Western boundary of Golf Course
b	Western boundary of Golf Course
c	SW corner of Golf Course
d	Northern tip of Golf Course
e	Beside the Wimbledon Club
f	Southern tip of Golf Course
g	Boundary Golf Course & public park
h	On the island
i	West of N arm of lake
j	Clump south of Lake
k	Horse Close Wood
l	On Golf Course by Home Park Rd
m	Children’s hedge by Tube line
n	On east slope of dam
o	Ashen Grove Wood
p	Hedge south of Brook
q	Eastern corner of park

The oldest wood is certainly Ashen Grove (m), first recorded as a “great wood” in an “exact survey” of Wimbledon by Treswell for the Lord of the Manor in 1617[18], making it an “ancient wood”[19]. The surviving fragment spans the boundary between the Golf Course and public park. Horse Close Wood is described in a management plan prepared in 2015; it was probably planted on land enclosed from common arable land in the 17th century. The other wooded areas are more recent, often of planted origin, but with many trees and shrubs that have arrived by natural colonisation. Area “n” on the damp slope down from the dam, “h” on the island and “i” on the western side of the lake have potential for developing wet woodland, a priority habitat for London. Hedgerow “g” was established when the public park and golf course were purchased by the then Municipal Borough of Wimbledon in 1914, and has acquired a considerable diversity of woody species since then. Hedgerow m was planted by school children around 1990 and hedgerow p shortly afterwards.

Appendix III. A list of plant and animal species that give the park its character.

For the lake margin, commonplace plants include the **Yellow Flag Iris** (*Iris pseudacorus*), Alder (*Alnus glutinosa*), Greater Pond Sedge (*Carex riparia*), Gypsywort (*Lycopus europaeus*), **Hemlock Water-dropwort** (*Oenanthe crocata*) and Grey Willow (*Salix cinerea*). Less widespread species include **Pyramidal Orchid** (*Anacamptis pyramidalis*), Reed Sweet-grass (*Glyceria maxima*), **Water Mint** (*Mentha aquatica*), Common Reed (*Phragmites* australis) and **Bulrush** (*Thypha latifolia*). Common **dragonflies and damselflies** occur, for example the Blue-tailed Damselfly (*Ischnura elegans*), Four-spotted Chaser (*Libellula quadrimaculata*), Emperor (*Anax imperator*), Southern Hawker (*Aeshna cyanea*), Ruddy Darter (*Sympetrum sanguinium*) and Broad-bodied Chaser (*Libellula depressa*). Birds include **Kingfisher** and **Grey Heron**.

In the open water, commonplace plants include Rigid Hornwort (*Ceratophyllum demersum*), Small Pondweed (*Potamogeton berchtoldii*) and Horned Pondweed (*Zannichellia palustris*). Fish include Carp, Pike **and Eel.** Common birds include **Black-headed Gull**, Canada Goose, Common Gull, Egyptian Goose, **Coot**, **Great-crested Grebe**, Greylag Goose, **Mallard**, Moorhen, **Mute Swan**, **Tufted Duck**, Less common are Cormorant, House Martin, **Shoveller, Pochard, Common Tern, Common Sandpiper,** Gadwall, Grey Wagtail and Little Grebe.

The brook shares with the lake, **Yellow Flag Iris**, Hemlock Water-dropwort, Gypsywort and **Water Mint**. Additionally, the commonplace **Pendulous Sedge** (*Carex pendula*) and the less widespread Watercress (*Nasturtium officinale*) and Trifid bur-marigold (*Bidens* tripartita) occur there. **Grey wagtails and Water Rails** vist.

Common plant species in the woodlands are **Pedunculate Oak** (*Quercus robur*)**, Ash** (*Fraxinus excelsior*), **English Elm** (*Ulmus procera*), **Cow Parsley** (*Anthriscus sylvestris*), **Lords and Ladies** (*Arum maculatum*) and the native **Bluebell** (*Hyacinthoides non-scripta*). Less common species are **Sweet Violet** (*Viola odorata*), **Lesser Celandine** (*Ficaria verna*), **Hedge Woundwort** (*Stachys sylvatica*), **Bay** (*Larus nobilis*), Dog's Mercury (*Mercurialis perennis*) and **Hazel** (*Corylus avellana*). A woodland butterfly is the **Speckled Wood** (*Pararge aegeria*). More notable bird species include the **Blackcap,** Chiffchaff, **Stock Dove**, **Mistle Thrush** and **Nuthatch.**

For the hedgerows, common species are **Hawthorn** (*Crataegus monogyna*), **Honeysuckle** (*Lonicera* periclymenum) and the two common tits (**Great and Blue Tits**). Here, too, one might celebrate the **Holly Blue Butterfly.**

Even the mown grass supports Daisies (*Bellis* perennis) and Dandelions (*Taraxacum spp.*). The special species there, such as **Meadow Barley** (*Hordeum secalinum*) and Lesser Chickweed (*Stellaria pallida*) are often hidden by the regular mowing. Many of the veteran oaks are in a grassland setting.

Appendix IV. Conservation designations of species that occur (or may occur) in the park[20].

Common name	Protection	Status in the park
Mammals		
Brown long-eared bat	UK BAP priority	Recorded from Horse Close Wood
Hedgehog	UK BAP priority	Seen in the park
Noctule (bat)	UK BAP priority	Hunts over the park
Soprano pipistrelle bat	UK BAP priority	Hunts especially around the lake
Weasel	Least concern	Seen recently in the public park
Birds		
Black-headed gull	Amber list	A decline to 50% perhaps reversed recent years
Bullfinch	Amber list	Declined, last seen 2002.
Common gull	Amber list	A decline up to 2000, followed by a partial recovery.
Common sandpiper	Amber list	Passage migrant last seen 1998
Common tern	Amber list	More visiting since 2006.
Dunnock	Amber list	A decline to about 30%
Fieldfare	Red list	6 occasions, all with under five birds.
Gadwall	Amber list	Reglarly seen since 2009
Great black-backed gull	Amber list	Only four records in 30 years.
Grey wagtail	Red list	Sporadic, but seen more often in recent years.
Herring gull	Red list	A recent increase. Highest count 63 in June 2014.
House martin	Amber list	Heavy decline, last seen 2011
House sparrow	Red list	A decline to about 5% over the 90s and staying low.
Jack snipe	Amber list	Two seen in 2010.
Kestrel	Amber list	A decline to zero, last seen 2001.
Kingfisher	Amber list	Still visits.
Lapwing	Red list	Increase, with individuals in the last two years.
Lesser black-backed gull	Amber list	A decline to 20%
Lesser redpoll	Red list	Decline and last seen in 2000.
Lesser spotted woodpecker	Red list	Decline, with last record 1997.
Mallard	Amber list	Decline to 50%
Mistle thrush	Amber list	Decline to 50%
Mute swan	Amber list	Great increase in last two years
Pochard	Red list	A ten-fold increase.
Redwing	Red list	Winter visitor, no trend, usually fewer than 20 birds.
Shoveler	Amber list	A decline to about 10%.
Skylark	Red list	Few and last seen 1986.

Song thrush	Red list	Decline to about 15% over last 30 years.
Spotted flycatcher	Red list	One record in June 2004.
Starling	Red list	A decline to about 10% over last 30 years.
Stock dove	Amber list	Increased greatly since 2004.
Swift	Amber list	A three-fold increase
Wigeon	Amber list	Two records only.
Yellow wagtail	Red list	Few, and last seen 1996.
Amphibians		
Common Toad	Priority	Not known
Great-crested newt	Priority	Not known
Fish		
European eel	IUCN Critically Endangered	Occurs in the lake
Plants		
Horned pondweed	Least concern	In the lake
Lesser chickweed	Least concern	Beside the perimeter path near beach vollyball
Pyramidal orchid	Least concern	Lakeside of the Wimbledon Club
Small pondweed	Least concern	In the lake
Wood millet	Ancient wood indicator	In Ashen Grove Wood near the children's playground
Dog's mercury	Ancient wood indicator	On the edge of Horse Close Wood by the car park
Hybrid hawthorn	Ancient wood indictor	In the middle of Horse Close Wood

[1] The project ran from 1993 to 1996 under a grant from the EU Life fund to LB Wandsworth: LIFE93 ENV/UK/003051. www.wandsworth.gov.uk/info/745/biodiversity_and_wildlife/169/habitats/8

[2] The abundance of animals generally correlates well with the places that they select to live (Boyce, M.S. *et al.* 2015. Can habitat selection predict abundance? Journal of Animal Ecology 85:11-20). As a jargon term, "habitat" may not be easily understood. The RSPB describes "giving nature a home, another suggestion comes from the title of excellent review of conservation of UK nature by Sir John Lawton, published in 2010, "making space for nature".

[3] There is often a link between habitat and landscape, as many habitat features are also visual features: such as Horse Close Wood, or the Lake and its edges. However, it would be wrong to conclude that conserving the view will always also conserve biodiversity. In the park, a good example is bats, some of which roost under roofing tiles of ordinary houses and which depend upon flying insects, many of which live unseen underwater before they emerge as flying adults.

[4] As Metropolitan Open Land, for example, Policy 7.17 of the London Plan requires "protection from development having an adverse impact on openness……. Essential ancillary facilities for appropriate uses will only be acceptable where they maintain the openness of MOL".

[5] Some bird species are so susceptible that a distant view of people will cause them to depart. Less obvious is effect of disturbance on the availability of food for some bird species. Thrushes and Blackbirds,

for example, are seen feeding out on the open grassland mainly when they are forced by the demands of voracious nestlings to go there. At other times of the year these areas are essentially unavailable. Artificial light can disrupt the natural movements of bats, such as Daubenton's and the Brown Long-eared (Azam, C. et al. 2015. Is part-night lighting an effective measure to limit the impacts of artificial lighting on bats? *Global Change Biology* 21: 4333–4341). This light can also detract from the view of the dark night sky, something increasingly threatened in urban areas.

[6] Planning in London has long recognised that access to commonplace nature near to home plays a vital role in the quality of life of Londoners. This theme underpinned the work of the Ecology Section of the Greater London Council, the London Ecology Unit and the Mayor's 2002 Biodiversity Strategy (*Connecting with London's Nature*, see especially paragraph 2.63). The Mayor also published a special report on access to nature: Mayor of London. *Improving Londoners' Access to Nature*. GLA 2008.

[7] Some of these appear in "red lists", or lists of species of "conservation concern" and others in various schedules of specially protected species nationally or internationally, many are summarised in the Joint Nature Conservation Committee list of Conservation Designations for UK Taxa: http://jncc.defra.gov.uk/page-3408

[8] For birds, this is based upon a monthly standard walk undertaken since 1985.

[9] Jacoby, D. & Gollock, M. 2014. *Anguilla anguilla*. The IUCN Red List of Threatened Species 2014: e.T60344A45833138. http://dx.doi.org/10.2305/IUCN.UK.2014-1.RLTS.T60344A45833138.en. Downloaded on **10 December 2015**. This species has long been found in the lake, an early reference being in the time of the second Earl Spencer in the late 18th century.

[10] Identified by the London Biodiversity Partnership (www.lbp.org.uk/londonhabspp.html) and leading to the London-wide targets of the London Plan (Policy 7.19, Table 7.3). These targets are referred to in the LB Merton Core Planning Policy 21g and LB Wandsworth Core Policy PL 4f.

[11] Developed by the London Ecology Unit and continued by the Mayor of London. These sites are selected through an even-handed comparison across a search area of all candidate sites and so represent the best available for the purpose. They include internationally and nationally important sites, but also others important to London, individual London Boroughs and smaller localities. These are protected through the London Plan (Policy 7.19 and paragraphs 7.59-7.62) as reflected in the policies of the local plans, here the LB Merton Core Planning Policy 21g and Sites and Policies Plan policy DMO2 and the LB Wandsworth Core Policy PL 4f and Development Management policy DMO4.

[12] The railside habitats were damaged by extensive engineering work on the tube line embankments beside the park, and some rather inappropriate subsequent landscaping, but they are now substantially recovered from that insult. The losses there are somewhat compensated by the maturation of two hedgerows planted along the edge of the public park adjacent to the embankment (m and p on the map). Also, more information has become available on the detail of old trees and of the species that use the park. This account, therefore updates the information on the value of these feature.

[13] Remembering that not all priorities can be mapped. Bats, Badgers and many species of bird, for example, move across the whole landscape to find their food and shelter.

[14] Sometimes misleadingly called "English Oaks", but they are widespread as a native species across Europe and western Asia: https://en.wikipedia.org/wiki/Quercus_robur

[15] White, J. 1998. Estimating the age of large and veteran trees in Britain. Forestry Commission Information Note

[16] Off the map to the north, is another of similar age. It's near Smithwood Close.

[17] See, for example: Read, H. 2000 *Veteran Trees. A guide to good management.* English Nature. Robinson, T. 2000. *The future for veteran trees.* English Nature. Green, T. 2010. Importance of open-grown trees - from acorn to ancient. *British Wildlife* 21(5). Veteran trees are afforded special protection in planning. Planning authorities should refuse planning permission for developments that would lead to loss or deterioration of irreplaceable habitats unless the need for, and benefits of, the development in that location clearly outweigh the loss.: www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protection-surveys-licences

[18] Milward, R.J. *Wimbledon in the time of the Civil War.* 1976:19.

[19] An ancient wood is defined as one that has survived since 1600. Before that date, planting of new woodland was uncommon, so a wood present in 1600 is likely to have developed naturally as climate ameliorated following the end of the last ice age. The few woodlands planted before that date are also

defined as ancient, as they will have gained much natural character in their long period of survival. Ancient woods are afforded special protection in planning. Planning authorities should refuse planning permission for developments that would lead to loss or deterioration of irreplaceable habitats unless the need for, and benefits of, the development in that location clearly outweigh the loss.: www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protection-surveys-licences

[20] The master list of conservation designations kept by Defra: http://jncc.defra.gov.uk/page-3408 is not comprehensive, so other sources have also been consulted. One such is the list of BAP priority species: http://jncc.defra.gov.uk/page-5717. Generally, species are listed because of a significant decline in distribution or population, or risk of local extinction. “BAP” = Biodiversity Action Plan. “IUCN” = International Union for the Conservation of Nature”