Kensington Gardens
Fungi Survey Report
2009

BY
Andy Overall

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Prepared by
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BAP – Biodiversity Action Plan

FRDBI – Fungal Records Database of Britain & Ireland

CHEG – Clavulina, Hygrocybe, Entoloma and Geoglossom (scoring system used to ascertain importance of grassland habitats)

Executive Summary

This report was commissioned to give an appraisal of the importance of Kensington Gardens in terms of its species richness and the relative scarcity and status of the species of larger fungi recorded therein.

The very first formal fungi survey of the gardens was carried out from August to December 2009, comprising two visits per month, rising to three visits during peak fruiting months such as October. Particular compartments were allocated for each visit. Identifications were carried out in the field and where necessary collections were made for identification by microscope. Specimens of rare and unusual species were collected, dried, written up and deposited as voucher specimens at the Fungal Herbarium, Royal Botanic Gardens, Kew.

A total of 177 species were identified from 564 records. Most species were what you would expect from an area such as Kensington Gardens and the complex of habitats therein. However the survey revealed endangered and very rare species, such as *Tricholoma populinum* and *Lepiota cingulum*. These and other rare species found are discussed and pictured (in part) in results. Results revealed that important acid grassland remnants were found to be well managed and in good condition, with associated fungi, present. Horticultural areas provided a good habitat for some rare and common saprobic species of fungi. The meadow areas within The Quarters, where some of the older Oak and Sweet Chestnut trees reside, alongside younger specimens and other tree species such as Lime and Silver Birch, were much better habitats for the mycorrhizal fungi.

Among recommendations the wooded areas along the east bank of the Longwater were found to be in need of some management to open up areas around the large poplar trees. More fallen and standing dead wood is to be encouraged in areas not so heavily used by the public. The practice of fungi harvesting should continue to be discouraged and appropriate BAPS should be attached to the rare and endangered fungi present in the park.

The report concludes that, considering the nature, popularity and geographical position of Kensington Gardens, with the help of past and current management practices, the gardens were found to hold a diverse range of fungal species. These were represented by most genera of the major groups of larger fungi to be expected from the complex of habitats therein. However some species are of local or national importance and these should be given protection under applicable BAP schemes.

REPORT ON THE FUNGI OF KENSINGTON GARDENS SURVEY CARRIED OUT FROM AUGUST 7TH TO DECEMBER 16TH 2009.

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1. Introduction & Historical context

The 98 hectares (242 acres) that comprise Kensington Gardens are situated in central London, straddling the boroughs of The City Of Westminster and Kensington and Chelsea. The Bayswater Road borders the gardens to the North, whilst The Kensington Road borders the Southern end. On the eastern side, the gardens run side by side with Hyde Park separated only by the busy, public, West Carriage Drive. The private and enclosed gardens of Kensington Palace border the western side. By nature this is a very cosmopolitan green space. Kensington Gardens shares its origins with Hyde Park and is situated in part of a shallow valley formed by the Westbourne River at a low elevation of between 16-29 metres AOD.

Non-formal records of fungi prior to this survey are virtually non-existent; those few records that do exist will be included within the report as an appendix.

1.1 **The natural fabric of Kensington Gardens has changed a great deal over the centuries, changing from agricultural land to principle royal residency to a highly popular Public Park. Many trees succumbed to Dutch Elm disease and two great storms and now the gardens have to endure the pressure of millions of visitors. However a wide range of old and healthy young trees still survive among a variety of habitats across the park. Established shrubberies and flowerbeds, riverbanks, some dead wood and the generally free-draining soils will all hugely influence the fungi present in the park today.**

- **Pre 1536 as agricultural land granted to Geoffrey de Mandeville by William the Conqueror. De Mandeville in turn bequeathed the land the Westminster Abbey**
- **1536 By compulsory exchange the land was obtained by Henry V111 and enclosed as a deer park**
- **1689 – A royal residence is established by King William 111 and Queen Mary**
- **1726-1735 Reign of King George. An intensive period of work takes place on the gardens. Charles Bridgeman replaces Sir John Vanbrugh in the designing of the gardens. Many trees are planted to create formal avenues and wooded quarters. Later this was further expanded with the extensive planting of Oak groves and the creation of formal lawns in 1727 with the ascension of George 11 to the thrown.**
- **1760 Death of George 11. Palace ceases to be a principle Royal Palace**
- **1837-1890's sees a relaxation of the formal nature of the gardens that were created by Charles Bridgeman. With an increase in public use, some of the walks and gardens are lost and public amenities are introduced. 1870-1880 planting of Lancaster walk for the Albert Memorial, East-West Avenue (Albert Memorial Avenue) is also planted at this time.**
- **1950's-1970's The advent of Dutch Elm Disease decimates many of the avenue Elms**
- **1987–1990 Following two fierce storms, damage to trees is extensive**
- **1992- An historic landscape survey instigates a tree survey and identifies neglect and need for replanting which leads to many areas being restored close to the true design of Bridgeman.**

- **2000-2010 An ever popular park for tourists, countrymen and Londoners alike places ever greater pressure on the natural fabric of the garden through soil compaction and wear and tear.**

- **The replanting of tree stock that had taken place historically in the gardens, extended periods of Royal Residency (i.e., when the gardens were closed to the public) and current conservation practises will have generally benefited fungi at Kensington. However, damaging influences on the tree stock would have effects on fungi communities. Dutch elm disease, the storm of 1987 and further high winds may have adversely affected some fungi species although may have benefited other species, such as the dead wood specialists. Atmospheric pollution and dog fouling in addition to the rise in visitor numbers resulting in compaction and general wear and tear all impacts upon the natural fabric of the gardens.**

1.2 Current Status

Kensington Gardens is included in the English Heritage Register of Parks, Gardens and Listed Buildings of special historic interest, as a grade 1 site of exceptional historic interest. In accordance with policies from the adopted unitary development plans for the Royal Borough of Kensington and Chelsea and for the City of Westminster the gardens have been given the designated of being a conservation area. As a result of this designation, at present, all trees within the gardens hold a preservation order.
A national monuments record (NMR) for the gardens includes a medieval field system, ponds, a moat, gravel pits and the longwater among other features.
Contained within the Mayor of London's Spatial Development Strategy for Greater London (2004) Kensington Gardens also holds the following designations;
Metropolitan Open Land (MOL), which is included within local planning policies as a unique designation for London to help protect important open spaces within the built up environment.
Site of Metropolitan Importance (SMI) a designation arrived at by employing criteria contained within the London Biodiversity Action Plan and Biodiversity Strategy.

2.0 The Fungal Modes & The Habitat

In order to obtain nutrients Larger Fungi are Mycorrhizal, Saprobic or Parasitic in nature, the latter two modes are combined with some species.

Mushrooms and toadstools can either be called fruitbodies or sporocarps; the main part of the fungus is within the given substrate and is called the mycelium. The mycelium, consisting of cottony, thread-like elements known as hyphae, absorbs nutrients to enable it to produce mushrooms and toadstools. There are 3 main ways in which fungi obtain nutrients.

Mycorrhizal fungi form a mutual symbiosis via the roots of various trees and shrubs with which they exchange nutrients. These are very important fungi that help maintain healthy trees and woodland. Most of our native trees have this association with fungi; naturalized trees such as Horse Chestnut and Sycamore do not.

Saprobic fungi feed on dead and dying matter, helping to break down matter and release nutrients back into the soil.

Parasitic fungi take and give nothing in return. Some of these fungi are very destructive, such as *Armillaria mellea* - Honey Fungus or *Meripilus giganteus* the Giant Polypore, the former is parasitic and then saprobic on its host.

The 98 hectares that constitute Kensington Gardens comprise of 87ha of grassland and 4,700 trees. The land slopes from North to South at a low elevation of between 16-29 metres AOD, giving an appearance of being flat. Apart from the natural slope of the Thames Valley, all other inclines such as Buck Hill are entirely man made to fit in with the Bridgeman design.

Soils are generally free draining, mildly acidic, gleyic argillic brown earths of a sandy loam texture. These overlie river terrace gravels. These are good soil types for many genera and species of the soil dwelling, larger fungi.
A variety of trees inhabit the park, Oak, Sweet Chestnut and Lime are the dominant species with the Oak and Sweet Chestnut providing some splendid old specimens. There are a scattering of Beech, Hornbeam, Yew, Holm Oak and Poplar throughout the gardens amongst London Plane, Sycamore and Horse Chestnut. Most of these trees are in the open parkland and are not supported by an under storey. Along the banks of the Long water there are canopy trees with a shrub layer.
Important pioneer and fungi associate trees such as Birch, Willow and Alder, are here in small numbers and where present, associated fungi were recorded.

The 87ha of grassland is maintained regularly as a mown amenity sward, which is primarily seen as providing the setting and context for the avenues of trees and rides. As a result of this management regime and setting, a good habitat is provided for all types of fungi, mycorrhizal, saprobic and parasitic.

Thin soils on Buck Hill have created small remnant areas of acid grassland, an important habitat for some types of fungi. Current management practices should be maintained and where and when possible honed to enhance bio-diversity.
The Horticultural areas that run around the boundaries of the gardens are good habitats for fungi that prefer the richer soils. A number of notable species were recorded from these areas during the survey. The leaf yard and nearby environs also offer a similar potential.

Fallen and standing dead wood is present in the gardens, albeit rather scarce. Given the nature of the gardens, regarding popularity and position in central London, this otherwise excellent habitat for fungi may be seen as posing a heath and safety issue to the public. Where and when possible, in situ dead wood, fallen and standing should be encouraged.

Among the areas of water within the gardens the Long water banks with their Poplar trees in particular and shrub layer, provide a good habitat for fungi. Shrubberies concentrated within enclosures of the Longwater offer good potential. It was noted that the western bank of the Longwater was more prolific for fungi than the northern side. I found the east bank to be more overgrown compared with the western side and I would offer this as an explanation for the difference in fungi recorded. Areas around the large poplar trees on the east bank could do with opening up, so as to encourage associated fungi.

Ultimately, the nature and geographical position of the gardens and its consequential external influences, which are essentially metropolitan, will influence the types of fungi present in the park.

3.0 Method

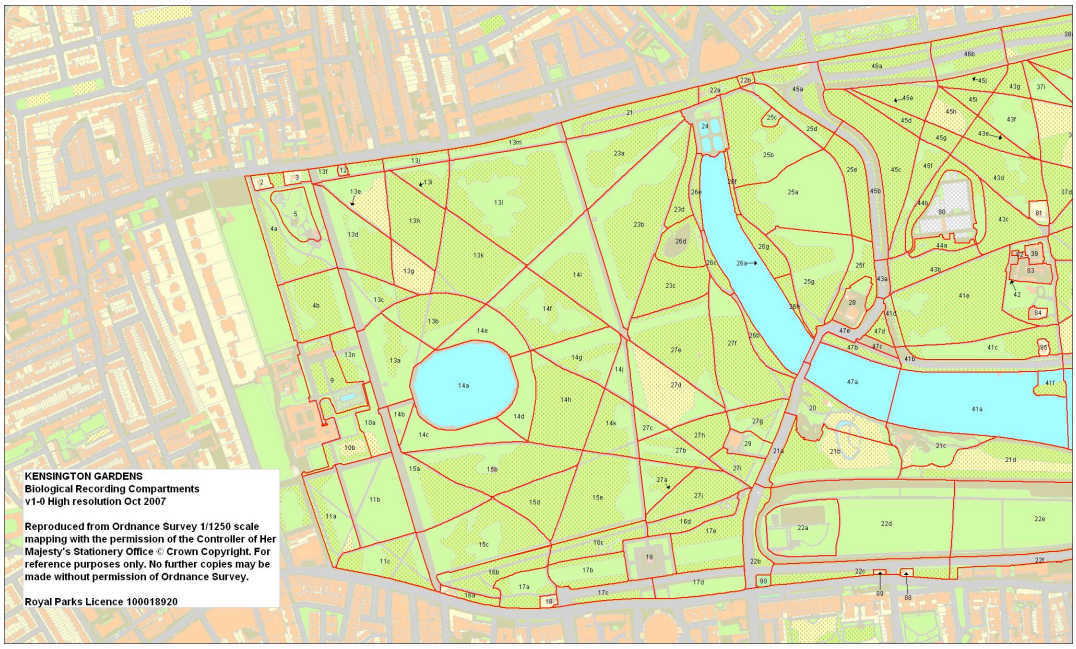
The survey was carried out from August until December and other than excluding spring fungi provided a good time period that covered the changing, environmental conditions. Two visits per month were allocated for the months in which fewer fungi

were to be expected and three visits during October and November during which more fungi were expected to appear.

Even though relatively small compared to Richmond and Bushy Parks, allocating certain compartments for particular visits, I felt was the best way to approach the survey, in this way most of the compartments were covered during the entirety of the survey.
Compartments were covered with each of us taking a separate route through them, noting and collecting as needed as we went.

When possible, species were named in the field, if not possible, collections were made for identification by microscope. Status and nomenclature criteria used in the accompanying spreadsheet of species recorded, was based upon recent literature listed in the bibliography at the end of the report, in particular the *Checklist of British and Irish Basidiomycota* by Legon and Henrici (2005, published by Kew Gardens). Frequency was given as in the pre-mentioned publication, as frequent, infrequent, occasional, widespread, rarely reported, rare or Red Data Listed. In some instances these entries were modified with qualifiers such as locally common. GPS readings were taken for each rare or endangered species for their exact location. Specimens of the rare and unusual species were collected, dried, written up and deposited as voucher specimens at the Fungal Herbarium, Royal Botanic Gardens, Kew.

Fig 1. Map of compartments used for survey



4.0 Areas of particular note & future potential

4.1. South Flower Walk - Compartments 16b and 16c containing horticultural areas & borders

The shrub and flower gardens of The South Flower Walk was one of the most prolific areas in the gardens and of this habitat type provided some good records of saprobic species that prefer the richer soil types. Species belonging to the genera, *Agaricus*, *Lepiota*, *Cystolepiota*, and *Chlorophyllum* were all represented. The Giant Puffball, *Calvatia gigantea* was abundant and fruited throughout August, September and into October.

4.2. North Walk & North Flower Walk Compartments 13m & 21

Although not as horticulturaly diverse and kempt as The South Flower Walk, this area containing various shrubs, conifers and Holm oaks, provided some very good records such as, *Agaricus bohusii* and *Lepiota cingulum,* which are both relatively rare species.

4.3. Buck Hill – Compartments 25a to 25g Acid Grassland Remnants, Amenity Grassland, shrubs and mature trees.

This large sloped area containing a variety of grassy habitats with scattered trees, including small areas of acid grassland remnants, amenity grassland, shrubberies and areas around tree roots nourished with woody mulch, is as a result of these diverse habitats, an important area for fungi. At the top end of the sloping terrain alongside Buckhill walk; various important species were recorded such as *Leucoagaricus serenus*, *Rhodocybe gemina*, *Melanoleuca brevipes* and *Pholiota brunnescens*. Large rings of *Marasmius oreades* and *Lepista saeva* were also evident as were various species of *Hygrocybe* in the acid grassland on the lower part of the slope.
The acid grassland remnants are a sparse habitat within the gardens and this small area is in good condition. A healthy number of associated grasses were thriving and even though nothing particularly rare was recorded from here during the survey the indication was that this might not always be the case. Various species of *Hygrocybe* were noted, as were *Crinipellis scabella, Rickenella swartzii*, various *Clitocybe* species and both *Lepista saeva* and *Lepista nuda*. As pointed out in the other surveys, the quality of this habitat type can be qualified by the number of species present at any one visit, belonging to genera, *Clavaria*, *Hygrocybe*, *Entoloma* and *Geoglossum*. This is a scoring system known as CHEG.

4.4. The Longwater enclosures – Compartments 26b, 26c & 26e.

This row of enclosed compartments bordering the west bank of The Longwater was the more prolific of the banks with regard to fungi. The mature Poplar trees and shrub layer with a more open nature in contrast to the opposite bank would be a big factor in the diversity of species recorded from here. Species such as *Lactarius controversus*, *Lepista sordida* and various species of mycorrhizal fungi such as *Tricholoma*, *Cortinarius* and *Inocybe* indicate that this is an important habitat.

4.5 Longwater enclosures Compartments 26f, 26g & 26h.

These east bank enclosures were not as rewarding as the west bank. I think mainly because it is too over grown and crowded with little light allowed in. Some management is needed here, especially around the large Poplar trees. The open grassy areas of 26g & H were also practically bereft of fungi, with the odd species such as *Tubaria furfuracea*.

4.6. All compartments containing fallen or standing dead wood

This type of habitat is crucial for a succession of various types of dead wood specialists across many genera. The gardens do contain areas of both of these habitats but it is sparse and therefore few records of this type were collected from this habitat. However I would encourage more dead wood here and more to be left out in the grasslands and other habitats if possible.

4.7. The Quarters - 14 Compartments containing various grassland types & trees

This is the most extensive area of the park containing trees and grassland within radiating, diagonal and cross, tree lined avenues. It is within the quarters that ancient Sweet Chestnut and Oak trees survive from the old planting stock. The areas that are more meadow-like in nature are of importance to certain types of mycorrhizal fungi, especially genera such as *Russula* and *Boletus* the former of which was represented by a good number of species. The rare *Rubinoboletus rubinus* was recorded from compartment 23b with either Sweet Chestnut or Lime and the even rarer *Russula decipiens* with some old Oaks in compartment 15e. The ancient trees themselves will provide good habitat for various saprobic and parasitic fungi. *Fistulina hepatica* the beefsteak fungus is widely known to be an Oak inhabitant but it is occasionally recorded from Sweet Chestnut and this was the case in the gardens.

4.8. The Palace – Compartments 9, 10a, 10b & 13n. Lawns and surrounding grassland

Despite this area not being under the management of the Royal Parks I thought it necessary to report my findings from this area. The lawns immediately in front of the orangery provided some good records and should be monitored in future years. Three species of *Hygrocybe* were recorded as were *Arrhenia spathulata*, *Clitocybe rivulosa* and *Stropharia inuncta*. The small lawns next to the palace eventually provided some records such *Cystoderma amianthinum*. The piece of grassland behind the Queen Victoria statue also provided some good records such as, *Collybia fuscopurpurea* and *Clitocybe agrestris*.

5.0 Results and species of particular note.

A total of 177 species of larger fungi from 564 records were identified from Kensington Gardens during August and December 2009. Most of the genera, spread across many different families, were what you would expect from an area such Kensington Gardens. In contrast to both Richmond and Bushy Park, Kensington Gardens is not as complex with regard to habitats and is essentially cosmopolitan in nature. However, the gardens revealed interesting and in some cases rare species of fungi, this, no doubt, is due to the historic significance of the natural fabric of the gardens, especially some of the older trees. The horticultural areas with their rich composted soils and the shrubberies, acid grassland remnants and the lawns around the palace are also of importance.

The horticultural areas provide an excellent habitat for mainly saprobic fungi that prefer the richer soils that these areas provide. *Calvatia gigantea* (the Giant Puffball) a nitrofilous species that is normally found in pasture or woodland pasture seemed to be very at home and fruiting at will among the shrubs and flowers of many of the horticultural and shrubbery areas around the gardens. Among the rarer species found with this habitat type were *Leucoagaricus serenus*, *Cystolepiota pulverulenta*, *Lepiota cingulum* and *Pholiota brunnescens*. As these areas are transient in nature these species will come and go but the fact that they were recorded is very encouraging for future survey work.

The Longwater banks were imbalanced with regard to fungi present on either side, the west bank provided some very good records of mycorrhizal and saprobic fungi whilst the east bank revealed very little. The east bank will need some clearance management to allow for some light and space in the wooded areas. Some of the excellent records from the west bank were *Tricholoma populinum* and *Lactarius controversus,* with more common species such as *Cortinarius decipiens, Inocybe geophylla, Agrocybe cylindracea* and *Tricholoma scalpturatum*.

Most of the trees in the gardens are out in the open among grassland, as opposed to a woodland setting, in a large area known as The Quarters. Some of these trees are veteran and among them Sweet Chestnut and Oak. Out in these open areas, among various grassland types, such as meadow and amenity, a good habitat is provided for mycorrhizal, saprobic and parasitic fungi. The meadow areas of the quarters are more favourable to fungi; *Russula* species in particular were in abundance here for a time during the survey, species such as *Russula grisea*, *Russula graveolens* and the rarity *Russula decipiens* were recorded. *Boletus* species were not in great abundance but the rare *Rubinoboletus rubinus* was recorded from compartment 23b, the highly sought after edible and common species *Boletus edulis* was in the gardens associating with Birch, as was the less palatable and fairly common *Boletus radicans*, which was associating with Lime. The smaller *Xerocomus* boletes were fairly well represented by four species. The virulent root parasite *Perenniporia fraxinea* was discovered fruiting at the base of a lime tree and *Inonotus hispidus* was seen fruiting high on some of the gardens Plane trees. Both of these species more commonly associate with Ash. The Quarters were found to be quite productive for larger fungi, especially with trees among the meadow areas, and less so where the grass becomes more amenity orientated.

The small pockets of Acid Grassland remnant, situated on the slope of Buck Hill are in good condition and I feel will produce more species of fungi in the years to come. Some good species indicative of this habitat type were recorded from here such as *Hygrocybe chlorophana*, *Hygrocybe virginea, Crinipellis scabella* and *Rickenella swartzii* these are all fairly common unimproved grassland species. Other areas of the gardens such as the stretch of compartments 15e, 27a & 27j have in parts, an acid grassland nature, with heather, an acid grassland shrub, growing amongst the sward. The rare *Russula decipiens* was recorded associating with the large oak trees of compartment 15e.

The lawns and grassland in and around the Kensington Palace were found to be good areas for unimproved grassland species. The lawns of the Orangery gave some good records with *Hygrocybe psittacina*, *H. virginea*, and *Hygrocybe quieta* the latter being a less common species than the former two, *Arrhenia spathulata* and *Stropharia inuncta* were also good records from here, these lawns are area certainly worth monitoring. The grassland directly behind the Queen Victoria statue also provided some good records such as *Collybia fuscopurpurea*, *Clitocybe agrestris* and *Hygrocybe virginea*.
Other species such as *Cystoderma amianthinum* were recorded form the lawns to the side of the staterooms.

Most of the species recorded are frequent, common & widespread across England and what you would expect from each of the types of habitat covered in Kensington Gardens. Some very rare and nationally important species were recorded from the park during the survey and some of these are covered below.

5.1 *Lepiota cingulum* –TQ26417 80657 – Horticultural Area – North Flower Walk

This very rare species was found growing on relatively rich soil, among the shrubs of one of the horticultural areas of the North Flower Walk. There are currently only three records of this species held on the FRDBI for Great Britain and Ireland, this will constitute the fourth and the first record for Middlesex. The previous records had been found in woodland scrub, two of which were with Willow.

Fig 2. – *Lepiota cingulum* (not taken in situ*) – © Andy Overall

5.2 *Leucoagaricus serenus* TQ 26952 80272– Magazine Gate – Buck Hill

This small, delicate and relatively rare species of the genus *Leucoagaricus* was found fruiting in soil beneath a very prickly shrub, close to a Yew tree, just to the left of the Magazine gate, as you enter the gardens. This record is the first for Middlesex. There are 78 records currently held on the FRDBI for England and Wales. Previous records indicate that this species fruits on loam soil in scrub, hedgerows, fen-carr and woodland, often under cover of *Mercurialis perennis* with *Fagus* in beechwoods, but also known with *Acer pseudoplatanus*, *Alnus*, *Corylus*, *Crataegus* spp. and *Sambucus nigra*.

Fig.3 *Leucoagaricus serenus* ©Andy Overall

5.3 *Russula decipiens* - TQ2648779984 – The Quarters-Comp 15e

This is a mycorrhizal species with Oak or Beech; in this case a single fruit body was found fruiting with mature Oak trees within compartment 15e. It is a rare species with only 33 records on the FRDBI; this is the first record for Middlesex. Previous records indicate that this species prefers deciduous woodland.

5.4 *Cystolepiota pulverulenta*- TQ26414 79767-Horticultural Area-South Flower Walk

This small, easily overlooked, rarely recorded species was found fruiting singularly in soil, among the shrubs and trees along the southern boundary of the South Flower Walk in compartment 16b. There are only 50 records for this species in the FRDBI and this is the first record for Middlesex. Previous records indicate that this species fruits on calcareous loam, in mixed deciduous woodland with Hazel and Elm spp. Other collections were from cool greenhouses on compost and from a garden under *Forsythia* SP.

5.5 *Rhodocybe gemina* – TQ26956 80608 - Buck Hill Walk - Among grass around the base of a Silver Maple Tree

This record was made from the grassy fringes of Buckhill Walk where it had formed a fairly large ring around one of the older trees. It is a species that prefers nitrogenous soils which would explain why it is often found among or close to stinging nettles (*Urtica dioica*) which are also found on soil with a high nitrogen content .There are currently 104 records of this species in the FRDBI and this would be the fifth only record for Middlesex.

Fig. 4 *Rhodocybe gemina* (not taken in situ*) - © Andy Overall

5.6 *Agaricus bohusii* - TQ 26518 80668 – North Walk - border fence with Bayswater Road

A large and distinctive species that is rarely reported and therefore genuinely rare. This record from the North Walk border with the Bayswater Road began on the 9th September and continued for some weeks. There are 72 records for this species in Great Britain and Ireland this will be the fifth record for Middlesex. Previous records indicate it to be species inhabiting parkland, open deciduous woodland and sometimes roadside verges.

Fig. 5 *Agaricus bohusii* - ©Andy Overall

5.7 *Rubinoboletus rubinus* – TQ26597 80548 – Compartment 23b – Sweet Chestnut/Lime

This was an unexpected and good record for Kensington Gardens. This small, yet beautifully coloured, member of the Boletus family usually associates (mycorrhizal) with Oak, yet here it was with either Sweet Chestnut or Lime. Among the 116 records held on the FRDBI only two are from Middlesex both of which are mine from the Kenwood Estate and Waterlo Park, Kensington Gardens holds the third record of this species from Middlesex. Previous records indicate a similar habitat to Kensington and it is seen to be widespread, south of Yorkshire.

Fig. 6 *Rubinoboletus rubinus* (not taken in situ*) ©Andy Overall

5.8 *Hygrocybe quieta* – Orangery Lawn

This beautifully coloured 'Waxcap' is one of the common and widespread species of the genus *Hygrocybe* to be found fruiting on soil in unimproved grassland. This species is supposed to have a smell that is reminiscent of engine oil, which is often difficult to detect. The genus *Hygrocybe* forms part of the grassland fungi scoring system known as CHEG, which is also comprised of the genera, *Clavaria*, *Entoloma* and *Geoglossum*. The more of these genera and consequent species that are present during any one visit will help grade the importance of the grassland.

Fig 7. *Hygrocybe quieta* (not taken in situ*) ©Andy Overall

5.9 *Arrhenia spathulata* – Orangery Lawn

This small, moss loving species is not your conventional looking mushroom, as it is without gills, cap and stalk, resembling lichen almost, with its fan-like appearance. This is a species that prefers heath land or unimproved grassland with mosses, with which some believe, it associates. Among the 163 records on the FRDBI there are none for Middlesex, making this record the first for the county.

5.10 *Russula nitida* – The Quarters - Compartment 13k

This is one of the more common and widespread species of the important mycorrhizal genus, *Russula*. It is a bright crimson red species that is usually found in damper areas associating with Birch trees which is exactly where this species found in the gardens.

5.11 *Melanoleuca brevipes* TQ 27044 80496– Buck Hill – Around base of mulched copper beech tree

This species is poorly understood in Great Britain although 190 records exist, however there are none for Middlesex, which I find surprising. This species was found fruiting among the mulch used around a large copper beech on Buck Hill. It did take some time to identify, as it was unfamiliar to begin with. The habitat within which this species was fruiting is correct and for many other species belonging to this genus. A good record.

Fig. 8 *Melanoleuca brevipes* ©Andy Overall

5.12 *Collybia fuscopurpurea* – Grassland behind Queen Victoria statue – Compartment 10a

This once considered rare species has become more common in recent years, especially in Southern England. Records were made from two separate areas of the gardens one in May and the other in November. It is a saprobic species of various habitats, on variable substrates, from woodland to grassland, on soil or woodchip mulch. There are currently 140 records of this species on the FRDBI; this would be the fifth record for Middlesex. Note; There is still some doubt surrounding the validity of this species in the UK due to certain chemical reactions not taking place on British material. The North American species *C. biformis* has been put forward as a possible candidate for the species here. DNA analysis is needed. Until then, this species remains valid.

5.13 *Clitocybe agrestis* – Grassland behind Queen Victoria statue – Compartment 10a

This is a rarely recorded saprobic species that is most often found on soil among grass. These specimens formed a partial ring and were recorded from the grassland area directly behind the Queen Victoria statue. There are only 52 records of this species on the FRDBI and only two records for Middlesex, both of which came from Buckingham Palace Gardens in 1997.

5.14 *Tricholoma populinum* - TQ 26700 80431 - Compartment 26c – Long water-West Bank with Black Poplar

This is a rare species of the mycorrhizal genus *Tricholoma* that is always recorded associating with members of the Poplar family. There are currently only eight known sites for this species (with this record, nine sites) and all of these are concentrated in South-South East England. The FRDBI currently holds only 30 records of this species for Great Britain and Ireland with five previous records from Middlesex, all but one of these records are mine from Kensal Green Cemetery and Hampstead Heath. This record will be the sixth for Middlesex. Note; A further collection of this species was made by Keir Mottram from Tower Hamlets Cemetery Park in 2009 bringing the total number of sites to ten and Middlesex records to seven. It appears as vulnerable on the UK red data lists 1 & 2.

Fig. 9 *Tricholoma populinum* (not taken in situ*) ©Andy Overall

5.14 *Lactarius controversus* – TQ 26750 80323 - Compartment 26c – Long water-West Bank with Black Poplar

This is an occasionally recorded, mycorrhizal species that is most often recorded with either *Salix repens* or various species of Poplar.
This species is rare in the county of Middlesex, with only two previous records, both made by myself from Hampstead Heath, both with Poplar. There are currently 230 records for Great Britain and Ireland on the FRDBI and records indicate that this species is most often found in damp deciduous woodland or dune slacks.

5.15 *Leucocoprinus cretaceus* -TQ 26417 80657– Horticultural Area – North Flower Walk Compartment 21

A rarely recorded species that is often confused with *Leucocoprinus cepistipes*. It is a saprobic species that has been recorded from within cold frames, greenhouses, large fresh woodchip piles and compost soils, as is *L. cepistipes*. This record was from the rich compost soils surrounding shrubs along the North Flower Walk. There are currently only 17 records for this species in the FRDBI and only one previous record for Middlesex

that of Keir Mottram's and mine from Tower Hamlets Cemetery. This will stand as the second only record for the county.

5.16 *Pholiota brunnescens* TQ 27056 80400– Buck Hill Shrubbery - border with West Carriage Drive. Compartment 27f

A rarely recorded species which is recorded from burnt soil, soil and sawdust mix or woodchip. There are only eight records of this species currently held on the FRDBI it seems widespread in counties from Devon to Scotland. There were no records for Middlesex until this year when I had someone bring me some specimens from a South London community garden. This record will therefore count as the second record for Middlesex. Note; this species is very close to *Pholiota highlandensis* which fruits on the same types of burnt substrate and differs only microscopically.

Fig. 10 *Pholiota brunnescens* (not taken in situ*) ©Andy Overall

5.17 *Lepiota echinacea* TQ 27056 80400 - Buck Hill Shrubbery - border with West Carriage Drive. Compartment 27f

This is a rarely recorded saprobic species that is often confused with closely related species. It has pronounced pyrimidical warts on the cap surface and is small to medium in size. This record was of two specimens found fruiting on rich soil, among shrubs, bordering and running parallel with the West Carriage Drive. There are 115 records currently held on the FRDBI with only one record for Middlesex, which was made back in 1981 at Perivale Woods.

*** These pictures are included only to illustrate a particular species record during the survey and not of the actual species seen on site.**

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6.0 Recommendations

6.1 Acid Grassland

The acid grassland remnants situated at Buck Hill seemed well managed and in good condition, associated fungi recorded from here bear testament to this. Current management practices should be continued and where and when applicable any techniques or practices that would enhance the area should be employed.

6.2 Invasive scrub

This would be particularly applicable to the east side enclosure of the Long water, among the wooded areas. I found these areas to be rather untidy, tangled and overgrown and in contrast to the more open west side of the water, very little fungi were recorded. I would recommend the area to be cleaned up a little and thinned out, giving more light and space, especially around where the large Poplar trees are situated. This would help encourage fungi in these areas.

6.3 Dog Fouling

As the gardens are very popular for dog walkers, dog fouling could cause a problem in polluting the grassland and waterways. However, whilst carrying out the survey this was not too much of an issue as very little dog mess was actually encountered. A recommendation would be to continue monitoring and to continue current practices.

6.4 Biodiversity Action Plans

Where certain species from the park have been identified as vulnerable or endangered with reference to data from the current UK Fungi Draft Red Data List. A local or where appropriate, national BAP should be applied if not already done so, to afford further protection for the species.

6.5 Harvesting of edible fungi

Although the harvesting of fungi by the general public is very difficult to police, it should be continued to be discouraged by the park constabulary, rangers and the placing of notices in relevant publications.

6.6 Standing and Fallen Dead Wood

If and where possible more of this habitat type needs to be present in the gardens. Dead wood provides an important habitat for a series of dead wood specialists. Sites for fallen wood could be chosen in areas that are less inhabited by visitors to the gardens.

7.0 Conclusion

In conclusion, given their nature, popularity and geographical position, I found Kensington Gardens to be fairly well represented by most genera of the major groups of fungi to be expected from the complex of habitats therein. It must also be pointed out that the survey commenced in August therefore any spring fungi present in the park are not included in the results of the survey.

I wouldn't say that any particular areas of the park revealed themselves as 'hotspots' for various types of fungi, as records are fairly widely distributed across the park, however some areas were a little more prolific than others.

The horticultural areas known as, The South and North Flower Walks provided some good records, some of which were very rare, such as, *Lepiota cingulum*, *Leucocoprinus cretaceus* and *Cystolepiota pulverulenta*. Among these rarities more common species such as *Chlorophyllum rhacodes*, *Calvatia gigantea* and various members of the genus *Agaricus* were recorded. These are all species that thrive on the rich soils used for the flowers and shrubs and an added benefit would be the consistent watering of these areas.

Small pockets of similar areas such as a small area just to left of the Magazine Gate, before and as you take the steps down to rivers edge, also provided some rare species such as *Leucoagaricus serenus* and the more common *Agaricus osecanus* and *Agaricus impudicus*. A Yew tree is situated here, surrounded by various shrubs, the small earthstar, *Geastrum striatum* was recorded from here also.

These records proved that the horticultural areas across the gardens provide a rich habitat for fungi, especially the saprobic genera.

The banks alongside the Longwater with the mature Poplar trees, some Oak, willow and other shrubby trees provide an excellent habitat for various types of larger fungi. The west bank was the more productive with some good records of mycorrhizal species such as the rare and vulnerable, red data listed *Tricholoma populinum* and the uncommon, *Lactarius controversus* amongst more common species. The wooded areas of the east bank were found rather wanting and are in need of some management to encourage the presence of more fungi.

The lawns surrounding the Palace and the Orangery are certainly worth monitoring as various species of *Hygrocybe* were recorded as well as *Arrhenia spathulata* a moss loving species, recorded for the first time in Middlesex. The management practices of these lawns, especially regarding the non-use of chemicals will benefit the fungi that grow here.

The large expanse known, as The Quarters, containing most of the gardens trees and grassland is I would say better for fungi in the more meadow grassland areas. Where large, old, Sweet Chestnut trees mix with Oak and Silver Birch some of the mycorrhizal genera such as *Russula* and *Boletus* were recorded, including the rare *Russula decipiens*. The older/veteran trees provided a habitat for some of the parasitic fungi such as *Fistulina hepatica.* Where the grassland becomes more amenity orientated these species and other mycorrhizal species from other genera are not to be found. However around the mulched trees bases in such areas, species such as the uncommon *Macrolepiota fuliginosa* were recorded and among the grass, the common *Marasmius oreades* was very abundant during the wetter periods. I found there to be a good balance maintained between these different grassland habitats and as long as this is promoted further, The Quarters will continue to provide a good habitat for the larger fungi. Compaction and dog fouling could pose a problem in areas of the Quarters; these therefore must be kept in check.

The acid grassland remnant at Buck Hill, although not great in size is a good example of this habitat type and various fungi associated with such a habitat were recorded, such as various *Hygrocybe* species, *Entoloma* and *Crinipellis scabella*. If current management practices are continued the grassland will prosper as will associated fungi.

Standing and fallen deadwood is not abundant in the park possibly because of health and safety implications but where it is to be found, dead wood specialist fungi occur. I think

that the gardens could do with more of this habitat type but considering the nature and popularity of the park it is understandable that this may not be achievable.

Collectively, these habitats, which collectively constitute Kensington Gardens, aided by past and current management practices, hold a diverse range of fungal species across many genera of the major fungal groups.
In a number of cases some species are of local or national importance, which should be noted and afforded some protection under the applicable BAP schemes.

APPENDIX 1

Species lists and notes for each visit in order of date

Kensington Gardens
Fungi Survey
07/08/2009

Species list and mini report
Survey led by Andy Overall
Assisted by Keir Mottram

Temperature on the day 23 degrees-
Conditions dry.

Compartment 21

Chlorophyllum brunneum
Calvatia gigantea
Agaricus osecanus
Agaricus silvaticus
Lepiota cingulum*

Compartment 13m

Marasmius oreades

Compartment 13L

Marasmius rotula
Russula praetervisa
Collybia dryophila
Russula parazurea
Collybia cirrhata
Russula grisea

Compartment 23a

Xerocomus cisalpinus
Russula praetervisa
Russula heterophylla

Russula grisea
Collybia cirrhata
Ganoderma australe
Marasmius oreades

Compartment 25b

Marasmius oreades
Rhodocybe gemina*
Paxillis involutus

Compartment 25g

Russula subfoetens
Marasmius oreades

Compartment 23b

Boletus radicans
Stereum rugosum
Rubinoboletus rubinus
Marasmius rotula
Russula atropupurea
Russula grisea
Xerocomus cisalpinus
Russula grisea
Russula atropurpurea
Russula graveolens
Marasmius oreades
Amanita rubescens
Russula atropurpurea
Amanita fulva
Russula praetervisa
Russula ionochlora
Lactarius quietus
Russula parazurea
Russula subfoetens
Amanita rubescens
Collybia dryophila
Russula betularem
Amanita rubescens
Xerocomus rubellus
Chondrostereum purpureum

Russula grisea
Russula parazurea
Marasmius oreades

Compartment 26d

Laetiporus sulphureus
Agaricus xanthodermus
Agaricus osecanus

Compartment 23c

Ganoderma australe
Meripilus giganteus

Compartment 14k

Ganoderma resinaceum

Compartment 15e

Russula decipiens*
Russula ionochlora
Meripilus giganteus

Compartment 16c

Calvatia gigantea
Chlorophyllum brunneum
Russula ionochlora

Compartment 15a/b

Calvatia gigantea
Russula grisea
Russula parazurea
Collybia dryophila
Russula ionochlora
Bjerkandera adusta
Postia tephroleuca
Marasmius oreades
Russula parazurea
Russula amoenolens

Compartment 27c

Marasmius oreades

Compartment 27d

Russula praetervisa

Compartment 25c

Russula parazurea
Russula atropurpurea

Arriving at Kensington Gardens during optimum fungi fruiting conditions did not disappoint, in fact it was a real revelation. Records such as *Rubinoboletus rubinus* and *Russula decipiens* combined with the fourth only record of *Lepiota cingulum* in the UK and a first for Middlesex, confirmed this impression. Apart from these rarer species, with such good conditions, many of the more familiar species to be expected at this time of year were also present. These were species such as *Russula parazurea, Xerocomus cisalpinus, Russula graveolens* and a plethora of *Marasmius oreades*. Notable species*

Andy Overall

Kensington Gardens
Fungi Survey
09/09/2009

Species list and mini report
Survey led by Andy Overall
Assisted by Keir Mottram

Temperature on the day 21 degrees-
Conditions dry.

Compartment 25g

Agaricus impudicus
Agaricus macrocarpus

Compartment 27h

Fistulina hepatica

Compartment 16c

Agaricus osecanus

Compartment 27f

Chlorophyllum brunneum

Compartment 16b

Calvatia gigantea
Calvatia gigantea
Rigidoporus ulmarius
Agaricus augustus
Chlorophyllum brunneum
Rigidoporus ulmarius
Calvatia gigantea
Chlorophyllum brunneum
Agaricus bitorquis

Compartment 27d

Inonotus hispidus

Compartment 26d

Calvatia gigantea
Agaricus bitorquis

Compartment 21

Agaricus bohusii*

Conditions were very dry for this visit and to be honest expectations to find anything of note were not high. However fungi have the habit catching you out as is what happened on this occasion. Dominated in the main by species of *Agaricus* this was a relatively fruitful visit. *Calvatia gigantea* was very abundant; more so than on previous visits but the species of note on this visit has to be *Agaricus bohusii* a rarely recorded species known only from wildly scattered localities in England. Notable species*

Andy Overall

Kensington Gardens
Fungi Survey
25/09/2009

Species list and mini report
Survey led by Andy Overall
Assisted by Keir Mottram

Temperature on the day 21 degrees-
Conditions dry.

Compartment 21

Agaricus bohusii*
Calvatia gigantea
Agaricus arvensis
Agaricus impudicus

Compartment 14a

Ganoderma australe

Compartment 23d

Coprinopsis lagopus var. lagopus

Compartment 26d

Chlorophyllum brunneum

Compartment 25g

Agaricus arvensis
Agaricus impudicus
Geastrum striatum

Compartment 16d

Geastrum striatum
Chlorophyllum brunneum

Compartment 16c

Chlorophyllum brunneum

Agaricus arvensis

Compartment 11c

Coprinopsis micaceus

Compartment 16b

Calvatia gigantea
Chlorophyllum brunneum
Coprinopsis disseminatus
Rigidoporus ulmarius

As with the previous visit, conditions were dry and little had changed with regard to fungi fruiting in the open grassland within the park. However, also similar to the previous visit, species continued to fruit on the shrub borders. *Agaricus bohusii* was still fruiting as were *Calvatia gigantea* and various species of *Agaricus* this owing to the rich soil and watering that takes place in these areas. Also evident and of note on this visit was *Geastrum striatum* one of the smaller species of Earthstar. Notable species*

Andy Overall

Kensington Gardens
Fungi Survey
02/10/2009

Species list and mini report
Survey led by Andy Overall
Assisted by Keir Mottram

Temperature on the day 17 degrees-
Conditions dry.

Compartment 21

Agaricus bitorquis
Agaricus bohusii*
Agaricus osecanus

Compartment 13L

Meripilus giganteus

Compartment 14f

Perenniporia fraxinea

Compartment 15c

Ganoderma australe

Compartment 16a

Chlorophyllum rhacodes

Compartment 16b

Calvatia gigantea
Chlorophyllum rhacodes
Cystolepiota pulverulenta*

Compartment 16c

Chlorophyllum rhacodes
Agaricus xanthodermus

Compartment 16d

Chlorophyllum rhacodes
Armillaria mellea
Trametes versicolor
Agaricus osecanus

Compartment 27i

Russula parazurea

Compartment 27f

Chlorophyllum rhacodes

Compartment 25g

Agaricus osecanus
Geastrum striatum

Compartment 25f

Daedaleopsis confragosa
Coprinellus micaceus

As with the previous visit, conditions were dry and little had changed with regard to fungi fruiting in the open grassland within the park. However, also similar to the previous visit, species continued to fruit on the shrub borders. *Agaricus bohusii* was still fruiting as were *Calvatia gigantea* and various species of *Agaricus* this owing to the rich soil and watering that takes place in these areas. Also evident and of note on this visit was *Cystolepiota pulverulenta* a rarely recorded species and a first record for Middlesex. Notable species*

Andy Overall

Kensington Gardens
Fungi Survey
12/10/2009

Species list and mini report
Survey led by Andy Overall
Assisted by Keir Mottram

Temperature on the day 15 degrees-
Conditions damp.

Compartment 21

Calvatia gigantea

Compartment 13L

Collybia dryophila
Meripilus giganteus

Compartment 13k

Leccinum scabrum
Parasola plicatilis

Compartment 13d

Marasmius oreades

Compartment 4a

Coprinopsis atramentarius
Chlorophyllum rhacodes

Compartment 4b

Parasola plicatilis
Conocybe subovalis
Marasmius oreades

Compartment 9

Paxillus involutus
Lyophyllum decastes
Armillaria mellea
Psathyrella microrhiza
Agaricus campestris
Entoloma sericium
Clitocybe rivulosa

Compartment 10a

Marasmius oreades
Agaricus bitorquis

Compartment 10b

Lycoperdon pyriforme

Compartment 16b

Calvatia gigantea
Agaricus osecanus
Agaricus bitorquis
Macrolepiota procera

Compartment 27b

Meripilus giganteus

Compartment 15b

Perenniporia fraxinea

Compartment 25g

Meripilus giganteus
Agaricus impudicus

Compartment 27f

Agaricus xanthodermus
Agaricus osecanus
Chlorophyllum brunneum
Coprinellus micaceus
Bovista plumbea
Hypholoma fasciculare
Armillaria mellea

Compartment 27g

Psathyrella spadicea
Psathyrella corrugis

Following heavy rains during the previous week more was expected from the open meadow areas in the parkland, however the lawns in front of the palace threw up some interesting species. The rich soils of the shrub borders once again proved to be fertile collection areas.

Andy Overall

Kensington Gardens
Fungi Survey
21/10/2009

Species list and mini report
Survey led by Andy Overall
Assisted by Keir Mottram

Temperature on the day 15 degrees-
Conditions damp.

Compartment 25b

Parasola plicatilis

Compartment 25d

Marasmius oreades
Stropharia coronilla
Hebeloma sacchariolens

Compartment 25e

Agaricus campestris
Melanoleuca brevipes

Compartment 25f

Parasola plicatilis
Mycena olivaceomarginata
Bovista plumbea

Compartment 25g

Calvatia gigantea
Agaricus osecanus
Geastrum striatum
Leucoagaricus serenus

Compartment 26h

Tricholoma scalpturatum

Compartment 25a

Armillaria mellea
Coprinopsis micaceus

Compartment 21

Lepiota cristata
Lyophyllum decastes
Conocybe sp
Agaricus bohusii
Agaricus arvensis
Leucoprinus cretaceus

Compartment 23b

Russula grisea
Leccinum scabrum

Compartment 26e

Agrocybe cylindracea

Compartment 26c

Tricholoma scalpturatum

Paxillus involutus
Tricholoma scalpturatum

Compartment 23c

Fistulina hepatica
Armillaria mellea

Compartment 25f

Coprinellus disseminatus
Coprinellus micaceus
Collybia dryophila
Tricholoma scalpturatum
Mycena pura

Compartment 23a

Laetiporus sulphureus

A dry period between sporadic rainfalls presented some interesting records on this visit. A very dark form of *Melanoleuca brevipes* had me baffled until it went under the microscope and the spiny spores were revealed. Rare species, *Leucocoprinus cretaceus* and *Leucoagaricus serenus* were recorded form the rich shrubby borders. *Stopharia coronilla* was also a good record, this is an uncommon though widespread species that may be spreading.

Andy Overall

Kensington Gardens
Fungi Survey
05/11/2009

Species list and mini report
Survey led by Andy Overall
Assisted by Keir Mottram

Temperature on the day 15 degrees-
Conditions damp.

Compartment 23a

Parasola plicatilis
Russula risigallina
Marasmius oreades
Mycena olivaceomarginata
Russula graveolens
Russula risigallina
Macrolepiota procera
Marasmius oreades
Russula amoenolens
Xerocomus chrysenteron
Mycena olivaceomarginata
Mycena aetites
Clitocybe fragrans
Mycena flavo-alba
Tubaria dispersa
Collybia erythropus
Marasmiellus vaillantii

Compartment 23b

Marasmius oreades
Mycena olivaceomarginata
Russula graveolens
Russula risigallina

Macrolepiota procera

Compartment 13L

Marasmius oreades
Russula amoenolens
Xerocomus chrysenteron
Mycena olivaceomarginata
Mycena aetites
Clitocybe fragrans
Mycena flavo-alba
Tubaria dispersa
Collybia erythropus
Marasmiellus vaillantii
Parasola plicatilis
Mycena aetites
Clitocybe geotropa
Tubaria furfuracea
Xerocomus pruinatus
Mycena olivaceomarginata
Collybia fuscopurpurea
Russula amoenolens

Compartment 13K

Lepista nuda
Lepista flaccida
Xerocomus chrysenteron
Clitocybe fragrans
Tubaria dispersa
Boletus edulis
Chalciporus piperatus
Russula nitida
Marasmius oreades

Xerocomus cisalpinus
Meripilus giganteus

Compartment 13c

Mycena olivaceomarginata
Macrolepiota fuliginosa
Mycena aetites
Russula parazurea
Paxillus involutus
Hebeloma sacchariolens
Meripilus giganteus

Compartment 9

Clitocybe rivulosa
Flammulina velutipes

Compartment 11a

Mycena olivaceomarginata
Scleroderma aerolatum
Mycena aetites
Panaeolus fimicola
Parasola plicatilis
Clitocybe agrestis
Agaricus campestris
Marasmius oreades
Clitocybe rivulosa
Mycena galericulata

Compartment 15e

Mycena olivaceomarginata
Bolbitius titubans
Melanoleuca brevipes
Pholiota alnicola

Compartment 27a

Russula atropurpurea

Compartment 25j

Armillaria mellea
Bjerkandera adusta
Pholiota squarrosa

Compartment 25a

Cyathus olla
Agaricus bisporus
Marasmius oreades
Melanoleuca brevipes
Volvariella gloiocephala
Lepista sordida
Inocybe rimosa
Laccaria proxima
Mycena olivaceomarginata
Bovista plumbea

A diverse range of genera and species were on display during this visit indicating the optimum fruiting conditions for fungi. *Melanoleuca brevipes,* generally a spring species, but occasionally known from autumn was a good a record form this visit as with the previous visit. *Mycena olivaceomarginata* was very common in grassland across the park.

Andy Overall

Kensington Gardens
Fungi Survey
13/11/2009

Species list and mini report
Survey led by Andy Overall
Assisted by Keir Mottram

Temperature on the day 10 degrees-
Conditions damp.

Compartment 25a

Russula versicolor
Mycena olivaceomarginata
Inocybe geophylla var. geophylla
Inocybe geophylla var. lilacina
Cortinarius decipiens
Hebeloma crustuliniforme
Stropharia pseudocyanea
Clitocybe rivulosa
Lepista nuda
Clitocybe fragrans
Xerocomus cisalpinus
Mycena haematopus
Panaeolus fimicola
Mycena vitilis
Marasmius oreades
Mycena aetites
Agaricus osecanus
Armillaria mellea
Russula atropupurea
Mycena aetites
Marasmius oreades
Lycoperdon perlatum
Entoloma sericium
Lactarius plumbeus
Paxillus involutus

Collybia butyracea var. asema
Xerocomus cisalpinus
Mycena olivaceomarginata

Compartment 23d

Mycena olivaceomarginata

Compartment 26c

Inocybe geophylla var. geophylla
Inocybe geophylla var. lilacina
Cortinarius decipiens
Hebeloma crustuliniforme
Stropharia pseudocyanea

Compartment 27f

Clitocybe rivulosa
Lepista nuda
Clitocybe fragrans

Compartment 27e

Xerocomus cisalpinus

Compartment 27g

Mycena haematopus
Panaeolus fimicola
Mycena vitilis
Marasmius oreades
Mycena aetites

Compartment 26g

Hebeloma crustuliniforme

Compartment 25b

Entoloma sericium

Andy Overall

Kensington Gardens
Fungi Survey
30/11/2009

Species list and mini report
Survey led by Andy Overall
Assisted by Keir Mottram

Temperature on the day 5 degrees-
Conditions damp.

Compartment 25b

Mycena olivaceomarginata

Compartment 26c

Inocybe geophylla var. geophylla
Hebeloma crustuliniforme
Cortinarius decipiens
Tricholoma scalpturatum
Cortinarius decipiens
Clavulina coralloides
Collybia butyracea var. asema

Compartment 27c

Lepista nuda

Compartment 27f

Lepista nuda
Mycena olivaceomarginata
Collybia butyracea var. asema
Mycena aetites

Compartment 27d

Rickenella fibula
Mycena cinerella
Lepista nuda
Lepista nuda
Lycoperdon perlatum
Nectria cinnabarina
Russula parazurea
Mycena flavo-alba
Lepista saeva
Lepista saeva

Compartment 25f

Lepista saeva
Lepista saeva
Lepista saeva
Lepista saeva
Lepista saeva
Lepista nuda
Lepista nuda
Agaricus osecanus
Chlorophyllum rhacodes
Lepiota aspera
Lepiota echinacea
Volvariella gloiocephala
Lyophyllum decastes
Coprinellus micaceus
Mycena flavo-alba
Mycena flavo-alba
Mycena flavo-alba

Compartment 25e

Melanoleuca brevipes
Melanoleuca brevipes
Agaricus bisporus
Cyathus olla
Panaeolus fimicola
Laccaria laccata
Collybia dryophila

Compartment 25a

Lepista nuda
Lepista nuda
Lepista nuda
Lepista nuda
Lepista inversa
Marasmius oreades
Marasmius oreades
Laccaria proxima
Laccaria proxima
Bolbitius titubans
Bolbitius titubans
Mycena aetites
Agaricus campestris
Agaricus campestris
Volvariella gloiocephala
Lepista saeva
Collybia butyracea var. asema
Clitocybe nebularis
Coprinellus micaceus
Stropharia caerulea
Marasmius oreades
Russula parazurea
Lactarius plumbeus
Russula nitida
Mycena pura
Collybia butyracea var. asema
Tubaria furfuracea
Laccaria amethystina
Russula fragilis
Clitocybe vibecina
Agaricus silvaticus
Rickenella fibula

Crinipellis scabella
Exidia nucleata (Myxomycete)
Pleurotus ostreatus

Following a very wet period, many species of differing genera were in evidence today. Of note were the healthy populations of *Lepista saeva* the Field Blewit just one indicator of unimproved grassland.

Andy Overall

Kensington Gardens
Fungi Survey
07/12/2009

Species list and mini report
Survey led by Andy Overall
Assisted by Keir Mottram

Temperature on the day 8 degrees-
Conditions damp.

Compartment 21

Pholiota squarrosa
Tubaria conspersa
Mycena flavo-alba
Nectria cinnabarina

Compartment 23a

Inonotus hispidus

Compartment 13L

Clitocybe nebularis
Galerina vittiformis
Mycena aetites
Mycena olivaceomarginata
Stereum subtomentosum
Collybia butyracea var. asema
Lepista nuda
Lepista nuda
Clitocybe decembris
Pholiota squarrosa
Agaricus silvaticus
Ramaria stricta
Mycena flavo-alba

Compartment 10a

Entoloma sericium
Mycena olivaceomarginata
Mycena flavo-alba
Hemimycena mairei
Hypholoma fasciculare
Bolbitius titubans
Clitocybe rivulosa
Clitocybe rivulosa
Marasmius oreades
Agaricus bitorquis
Galerina vittiformis
Mycena olivaceomarginata
Hygrocybe virginea
Entoloma sericium
Entoloma sericium
Entoloma sericium
Cystoderma amianthinum
Mycena aetites
Collybia fuscopurpurea

Compartment 10b

Laccaria laccata
Mycena flavo-alba
Rickenella fibula
Cystoderma amianthinum
Psilocybe semilanceata
Stropharia inuncta

Compartment 9

Clitocybe rivulosa
Clitocybe rivulosa
Hygrocybe virginea
Hygrocybe virginea
Stropharia inuncta
Clavulina coralloides
Arrhenia spathulata
Hygrocybe quieta
Rickenella swartzii

Laccaria laccata
Hygrocybe psittacina
Mycena flavo-alba
Marasmius oreades

Compartment 27f

Lepista nuda
Collybia butyracea var. asema
Clitocybe decembris
Mycena cinerella
Bolbitius titubans
Pholiota brunnescens*
Marasmius oreades
Marasmius oreades
Laccaria laccata
Parasola plicatilis

Compartment 25d

Agaricus xanthodermus
Lepista saeva
Paxillus involutus
Lepista nuda
Hebeloma crustuliniforme
Mycena flavo-alba
Marasmius oreades

Species such as *Arrhenia spathulata*, *Hygrocybe quieta, Hyrocybe psittacina* and *Hygrocybe virginea*, located on the two main lawns around the Palace are good indicators of unimproved grassland. *Pholiota brunnescens* is a species that is poorly understood, with only a handful of records on the FRDBI, it is very closely related to the carbonicolous species *Pholiota highlandensis* with which it is practically identical, only microscopic details separate them. Notable species

Andy Overall

Kensington Gardens
Fungi Survey
16/12/2009

Species list and mini report
Survey led by Andy Overall
Assisted by Keir Mottram

Temperature on the day 2 degrees-
Conditions frosty and snowing.

Compartment 25g

Clitocybe decembris
Lycoperdon perlatum
Hygrocybe virginea
Laccaria laccata
Rickenella swartzii
Hygrocybe chlorophana
Rickenella fibula
Galerina vittiformis
Mycena flavo-alba
Lepista saeva
Chondrostereum purpureum

Compartment 26h

Xylaria hypoxylon
Mycena galericulata
Hypholoma fasciculare
Tubaria furfuracea
Bolbitius titubans

Compartment 25a

Tubaria furfuracea
Lepista nuda
Clitocybe phyllophila
Collybia butyracea var. asema
Collybia dryophila

Compartment 25b

Lyophyllum decastes
Kuehneromyces mutablis

Compartment 26e

Pluteus cervinus
Lepista inversa
Lepista nuda
Volvariella gloiocephala
Tricholoma scalpturatum

Compartment 26c

Hebeloma crustuliniforme
Inocybe geophylla var. lilacina
Tricholoma populinum
Lactarius controversus
Hygrocybe virginea
Tricholoma scalpturatum

Compartment 26b

Lepista inversa
Hygrocybe virginea
Clitocybe decembris
Stereum subtomentosum
Lepista nuda
Lepista sordida
Laccaria proxima

This late, frozen, snowy, final visit to Kensington Gardens held a few surprises in store. The Long water enclosures were the main target and it was among these that such species as, *Lactarius controversus* and the threatened red data species *Tricholoma populinum* were recorded, helping to finish the survey on a high note.

Andy Overall

Appendix 2
Previous Records 2002

DATE	RECORDER	COMNAME	SCINAME	SURVEY
06/08/2002	Steven Will	Oyster Mushroom	Pleurotus ostreatus	Habitat Survey of the RB Kensington and Chelsea
06/08/2002	Steven Will	Marasmius	Marasmius	Habitat Survey of the RB Kensington and Chelsea

Appendix 3

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Appendix 3

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