Bushy Park Fungi Survey Report 2009



BY Andy Overall

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Contents

1.0	INTRODUCTION & HISTORICAL CONTEXT	⊥
	Current Status	1-2
1.0	Fungal Modes & Habitat	2
3.0	Method	.2-3
4.0	Areas of particular note & future potential	4
4	4.1 Compartment 13a-13d-Woodland Garden west	4
4	4.2 Compartment 13d,e & 14a,b, c-Woodland Gardens east	5
4	4.3 Compartment 11L-White Lodge Lawns and Lime Avenue (in part	5
4	4.4 Compartment 11a-11-Paddocks, semi improved Grassland	5
4	4.5 Compartments containing unimproved acid grassland	5
4	4.6 All compartments containing fallen or standing dead wood	6
	1.7 Compartments containing deciduous broadleaved and mixed open dland	6
4	4.8 Compartments containing open water, ponds, streams or brooks	6
5.0	Results and Species of particular note	7
!	5.1 Rhodocybe popinalis	8
!	5.2 Amanita inopinata	9
!	5.3 Paxillus rubicundulus	.10
!	5.4 Phylloporia ribis	10
ļ.	5.5 Russula raoultii	10
ļ.	5.6 Lepiota fuscovinacea	11
ļ.	5.7 Coprinus sterquilinus	12
Į.	5.8 Gymnopus obscuroides	12
Į.	5.9 Clitocybe costata	12
5	i.10 Agaricus gennadii	13

5.11 Inocybe cincinnata var. major	13
5.12 Laccaria purpureobadia	13
5.13 Calocybe carnea	14
5.14 Cortinarius saturninus	14
5.15 Humaria hemisphaerica	14
5.16 Simocybe sumptuosa	15
6.0 Recommendations	16
6.1 Bracken Management	16
6.2 Acid Grassland	16
6.3 Rhododendron	16
6.4 Biodiversity Action Plans	16
6.5 Harvesting of edible fungi	16
7.0 Conclusion	17

FIGURES

Figure I Compartment Map	4
Figure 2 Rhodocybe popinalis	8
Figure 3 Amanita inopinata	9
Figure 4 Paxillus rubicundulus	10
Figure 5 Lepiota fuscovinacea	10
Figure 6 Coprinus sterquilinus	11
Figure 7 Inocybe cinncinatta var. major	12
Figure 8 Cortinarius saturninus	13
Figure 9 Simocybe sumptuosus	15

APPENDICES

Appendix I: Species lists and notes for each visit in order of date

Appendix 2: Previous Records 1994 -2009

Appendix 3: Bibliography

Appendix 4. Acknowledgments

Glossary

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 Bushy Park 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 park was carried out from April 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. Certain 'fungi hotspots' were identified and these are discussed in results. 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 283 species were identified from 986 records. Most species were what you would expect from an area such as Bushy Park and the complex of habitats therein. However the survey revealed endangered and very rare species, such as *Coprinus sterquilinus*. This and other rare species found are discussed and pictured (in part) in results. The acid grasslands and some of the woodland plantations were relatively poor for fungi and numbers of species from the genus *Boletus* were low for habitat such as Bushy Park these are discussed in the results and recommendations are given to encourage a future presence.

Management of bracken, rhododendron, sycamore and Honey Fungus is highlighted and discussed as a recommendation to encourage more fungi in certain areas of the site, as is the promotion of Silver Birch scrub. 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, apart from some poor results from key habitats for the larger fungi, Bushy Park still holds a diverse range of fungal species 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 BUSHY PARK SURVEY CARRIED OUT FROM APRIL 22ND TO DECEMBER 15TH 2009.

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Introduction & Historical context

At 450 hectares (1099 acres) Bushy Park stands as the second largest Royal Park within the Greater London Area. The park is situated in outer southwest London within the London Borough of Richmond. The River Thames forms an enclosing loop around the park, which sits on flat, low-lying ground and therefore constitutes part of the Thames floodplain. Bushy Park is bordered by the Hampton Hill and Hampton areas to the west, Hampton Wick to the east, and Teddington to the north. The Palace, Hampton Court and its gardens lie to the south.

As with Richmond Park this is the first baseline fungi survey to have been carried out in the park.

Non-formal records of fungi prior to this survey do exist and these will be included in the appendix to the report. I am also aware of other various reputable individuals making visits to the park to record fungi. As a result of these previous visits some collections prior to this survey may be held at the Royal Botanic Gardens Kew at the Fungi Herbarium and as a consequence may appear on the FRDBI (Fungi Recording Database of Britain & Ireland) the national fungi database held by the British Mycological Society.

- 1.1 Historically the park has had to endure a fair amount of disturbance during its 500-year history, most notably from the impact of the two world wars, during which large areas were and not for the first time, ploughed for agricultural and also military use to be utilised by stationed troops. However despite this disturbance it remains largely unchanged, acid grasslands remained pretty much intact. The creation of the Longford River, water gardens, the planting of thousands of trees to bring about avenues and woodland gardens, all would have had an influence/impact on the fungi present in the park today.
- Pre 1491 belonged to Manor of Hampton as common arable land, medieval openfield system producing crops of wheat, rye and barley
- 1491-1537 Formation of Deer Park the park was enclosed by Henry V111 and stocked with deer
- 1620 James 1st adds new area now known as Courtfield completing current boundaries
- 1638/7 Longford River project began by Charles 1st was carried out by Edward Manning.
- 1690-1,050 Lime Trees planted to form the Great Avenue
- 1699-732 Horse Chestnut and Lime trees planted in Great Avenue by Henry Wise
- 1711-1714 Planting of 700 Elms and White Poplars possibly directed by garden designer and writer Stephen Switzer
- 1797 Ranger, William, Duke of Clarence sold 758 trees and left little standing
 within a year of his tenancy but he was responsible for newly planted areas
 mostly in an area that would later become known as the Woodland Gardens. The

duke was also responsible for 50% of the park being enclosed for arable farming, pasture land and tree growing, therefore halving the amount parkland.

- 1800's Plantations created with mix of Oak, Beech, Holm Oak and Scots Pine.
 Now in serious need of management due to either over grazing (unenclosed) or sycamore and rhododendron encroachment (enclosed)
- 1900 2009 Millennium Wood planted and renewal planting took place. The
 creation of the Woodland Gardens and modification of Waterhouse Gardens by
 Joseph Fisher developer of the Isabella Plantation at Richmond Park. Many trees
 destroyed and decimated by the 1987 and 1990 storms and the advent Dutch
 Elm disease. Now a very popular public park through which a lot of traffic
 passes bringing with it its own pollution issues as with Richmond Park, trees and
 fungi will suffer alike.

Most notably, there has been a beneficial outcome from the large planting of trees, however the rather more negative ploughing of large areas for agriculture in the past would have hugely influenced the fungi present in the park today. The introduction of deer would also have affected the fungal populations. Deer would, and still will be, helping to move fungal spores around the park, either by ingestion or on their body. Also deer droppings provide a very fertile food source for various types of fungi and it is likely that certain fungi form a part of the deer's diet. The constant presence of horses, their dung and the pasture they graze also provides fertile habitat for certain types of fungi.

1.2 Current Status

Bushy Park is considered to be of National Importance and is recognised in, among other notable documents, the English Heritage Register of Parks, Gardens and Listed Buildings. The park is a 500 year old deer park within Greater London that is largely unchanged which contains ever scarce acid grasslands, veteran oaks, old and varied woodland, parkland trees and water bodies. Past, present and future surveys on the natural fabric of the park should eventually combine to reveal for some areas a statutory designation for the park.

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.

Bushy Park is low-lying and consistently flat, varying from 10m OD in the South to 15m OD in the North West corner, determined by arrangement of the river terraces. The park forms part of the Thames Floodplain.

Terrace gravels over London Clay form thin, gravely, free draining soils throughout most of the park.

At present Bushy Park contains some 4,000 free standing trees scattered throughout the mature parkland and in several woodland plantations, which constitute 47ha across the site. Pendunculate Oak, *Quercus robur* is probably the most dominant tree in the park, which is not surprising given that this tree has a close association with old deer hunting grounds. There are also a fairly large number of Lime and Horse Chestnut trees that form the avenues, complemented by a small number of Beech, Hornbeam, Holm Oak and Scots Pine, all but Horse Chestnut have mycorrhizal fungi associated with them. In some areas a shrub layer of mycorrhizal partners such as Silver Birch, Willow and Alder supports these canopy trees, most importantly in parts of the Woodland Gardens. The relatively healthy fungal diversity within this area is a testament to this, whereas the lack of under storey in the unenclosed plantations has led to a relatively low fungal diversity. In particular areas, trees such as Willow and Alder that border the watercourses of the Longford River and the various ponds of the park, provide good habitat for associated fungi.

There are 128 hectares of unimproved acid grassland across the park, which potentially represents an invaluable habitat for fungi across all modes, various classes and genera.

Areas where bracken predominates will inhibit most fungi through lack of light and moisture, however the bracken is restricted to certain areas and I wouldn't say that it poses such a big problem. Rhododendron on the other hand does have a grip in some areas such as Broom Clumps. This will inhibit fungi if not removed and managed. Bramble clearance from the around the Poplar trees in the Canal Plantation would encourage fungi as would the removal of Sycamore and bramble from the southern end and other areas surrounding the water gardens.

3.0 Method

The survey was carried out from April until December, therefore providing 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.

Given the size of the park, 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.

Repeated visits to particular compartments were made at certain points during the year, as they had been identified as fungal hotspots on previous visits. 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

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4.0 Areas of particular note & future potential

4.1. Compartment 13a-13d - Woodland Garden*

Throughout most of the survey the southern end and western side of the Woodland Gardens was the most fungi diverse area on site. This situation is reflected by the habitat of the Woodland Gardens which has a good age range and diversity of trees such as, Oak, Beech, Hornbeam, Scots Pine, Birch, Alder and Willow. It also has open areas of lush grass and mosses surrounded by mature and young trees, all this

and the fact that the area has some protection from adverse weather conditions by being enclosed encourages fungi. The Woodland Gardens provided some rare species such as *Paxillus rubicundulous* found in association with Alder (mycorrhizal) and *Amanita inopinata* found in association with Scots Pine (mycorrhizal) which is unusual in itself as it is usually found with Lawson Cypress or Yew. Both of these species are a first records for Middlesex. Other rare species such as *Russula raoultii* a mycorrhizal species with Oak was also a first record for Middlesex.

4.2. Comp 13d & E-14a, b & c - Woodland Gardens East*

This side of the woodland gardens although not as prolific as the western side of the gardens was still very interesting and produced a varied array of mushrooms and toadstools. The habitat is very conducive to mycorrhizal, saprobic and parasitic fungi alike with Oaks, Beech, Scots pine, Birch, Willow, Alder and Lime all in evidence and with dead wood left in situ. Mycorrhizal genera such as Russula, Cortinarius, Inocybe, Hebeloma and Paxillus were recorded, as were infrequent saprobic species such as Leucopaxillus giganteus and tree parasites such as Fistulina hepatica and Grifola frondosa. Open, grassy and mossy areas provide good habitat for species of Galerina and some species Mycena.

4.3. Comp 11L – including the White Lodge Lawns* and Lime Avenue (in part)

The semi improved grassland surrounding the White Lodge and running down the Lime Avenue provided some good and interesting records of mostly saprobic species indicative of this type of habitat. Healthy numbers of *Agaricus campestris* were a good indicator of the presence of horses and quality of the grassland. The small lawn behind White Lodge was surprisingly fruitful, given its size; with a first record for Middlesex of the nationally rare *Rhodocybe popinalis* also recorded from here were the occasional *Agaricus comtulus* and *Agaricus dulcidulus* and the more common *Leucoagaricus leucothites*. Mycorrhizal species such as *Russula grisea*, *Russula parazurea*, and *Russula amoenolens* were also in evidence in association with the Lime trees on the grass avenue.

4.4. The Horse Paddocks and adjoining grassland compartments 11a through to 11k

These areas of semi improved grasslands that are used consistently by horses on a rotatory basis actually proved to be quite productive. I wouldn't of expected to score too much at all on the CHEG* scale here however the small meadow that is compartment 11k revealed 4 species of Hygrocybe and one of Entoloma. Clavulinopsis is present in the other grassland paddocks, however Geoglossum was not picked up during the survey. Once again healthy populations of Agaricus campestris were present, mostly in Comp.11g but in the others also. Calocybe carnea and Crinipellis scabella are also worth mentioning from 11q. The horse dung pile was excellent habitat that provided some good records such as the red date listed Coprinus sterquilinus and unusually on dung a record of Agrocybe rivulosa. The Hawthorn hedge that separates the gymkhana area from compartments 11i and 11h brought some good records early in the survey such as Entoloma clypeatum which is known to associate with hawthorn, also recorded here was Agrocybe praecox. In late autumn Tubaria dispersa appeared, as did a plethora of Laccaria laccata. This section of 11h is providing an excellent habitat for fungi, as is the whole compartment.

* CHEG is a scoring system that is to ascertain the importance of a given piece of grassland, the more species of the genera involved at any one time (visit) the better the grade and importance.

4.5. All Compartments containing Unimproved Acid Grassland

Although this is an unquestionably important habitat, especially for London, the survey actually revealed very little and was disappointing for fungi. Among the 128 ha of acid grassland across the park I would have expected more CHEG species from these areas but in fact very few, if any were recorded. *Pseudoclitocybe cyathiformis, Lepista nuda, Hygrocybe virginea* and various species of common *Clitocybe* were recorded from Compartment 25f but nothing especially of note. *Macrolepiota procera* and *Macrolepiota mastiodia* were recorded as would be expected from this type of habitat. Why these grasslands proved to be so poor could be that more shelter and grazing are needed. Dog fouling and atmospheric pollution would also be an influencing factor. The more fruitful areas of acid grassland at Richmond Park were more sheltered and grazed, the poorer areas had less of these influences.

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 park does contain areas of both of these habitats and some good records were made such as *Phylloporia ribis* on dead, standing Hawthorn in the Willow Plantation on the Eastern Border of the Woodland Gardens and *Simocybe sumptuosa* on dead fallen Beech in the British Woodland section of the Woodland Gardens. However I would encourage more dead wood here and more to be left out in the grasslands if possible.

4.7. Compartments containing deciduous broadleaved and mixed open woodland

These fall into two categories, enclosed and unenclosed plantations. As mentioned in the 2003 management plan for Bushy Park a lot of these need serious management to control invasive species such as Rhododendron and Sycamore in the enclosed areas and the impact of heavy grazing within the unenclosed plantations, which has led to very little in the way of shrub layer and this is still the situation in many cases. The Woodland Gardens provide by far the most conducive habitat of this type for fungi, especially toward the southern end and western side of the gardens in areas such as Fishers Field. Mature and younger native trees mixed with a few exotics stand spaced apart and surrounded by lush mossy grass, this is excellent habitat for all types of fungi. As one heads towards the Willow Plantation, the habitat does deteriorate, however on some of the older Willow trees present here, the tough; polypore bracket Phellinus igniarius was recorded. I would have expected more mycorrhizal species with the Pine Trees in the Half Moon and Oval Plantations but they were not forthcoming. Some Russula grisea and Russula graveolens were recorded with the Oaks within the plantations and late on, Russula ochroleuca and Lactarius subdulcis with the Beech of Half Moon. Round Plantation was the worst of the overgrazed plantations with very little growth beneath the canopy. Broom Clumps has wonderful large Oak trees, which are surrounded by Rhododendron. A large, fallen, dead Beech trunk revealed a nice record of Pluteus umbrosus from this area, which otherwise needs cleaning up and managed for Rhododendron. All of these areas are potentially good habitat for fungi, however at present they are struggling to be so. An area between the water gardens and the canal plantation consisting of a row of old Willows on the edge of acid grassland has the fallen limbs and trunks of which have been left in situ. This area looks very promising and did provide some good records such Pluteus petasatus. The acid grassland here combined with the Willow, Alder and Oak I think is worth keeping an eye on in future years. Very little fungi were recorded from or with the veteran Oaks of the Old Park border, and species such as Piptoporus quercinus were not evident. However, this does not mean that such a species is not present and would need revisiting each year by an appropriate person, to check. The canal plantation would also provide good habitat for fungi with the mature Poplar trees and Oaks but the area needs clearing of bramble and debris.

4.8. Compartments containing open water, ponds, river, streams or brooks*.

These areas are of importance to fungi in that many of them will have Alder or Willow nearby. Compartment 11h which is used as a wildlife education area has some willow close to the edge of the Longford river, *Cortinarius saturninus* was recorded growing in association with the northern most Willow tree and the one or two Birch trees in this area also produced some good records such as *Lactarius pubescens* and *Cortinarius decipiens*. Also in this area, a small, mossy pathway on the western side that runs parallel with the river and the British Woodland brought some nice records, notably *Inocybe maculata*.

* Hotspots

5.0 Results and species of particular note.

A total of 283 species from 986 records were identified from the park during April and December 2009. Most of the genera, spread across many different families, were what you would expect from an area such as Bushy Park and the complex of habitats therein. In contrast to the Richmond Park survey certain genera that were found conspicuous by their absence were in evidence at Bushy Park For example, species in the genus *Cortinarius*, a mycorrhizal genus associating with various broadleaved deciduous and conifer trees were recorded from a few different areas in the park, as were closely related species of the genera, *Inocybe*.

Members of the genus *Tricholoma*, which were also absent from Richmond Park were also present during the survey; common species such as *T. fulvum* & *T. sulphureum* were recorded from around Oak and Birch trees in the woodland gardens. However, as was found with Richmond Park there was a distinct lack of *Boletus* species. This is a mycorrhizal genus that one would expect to find fairly well represented in old deer parks such as Bushy Park. The family *Boletaceae* was not particularly well represented by either the smaller species of the genus, *Xerocomellus*, or the larger species of the genus *Boletus*, which were represented only by 1 or 2 species. The majority of these were recorded from small areas within the Woodland Gardens, not from the open parkland

My explanation for this absence is the same as that put forward in the Richmond Park survey. It is important to note that this could be due to a number of factors. Firstly, as many of the larger species of *Boletus* are edible they are highly sought after by collectors which could account for the absent, although I am not convinced by this explanation. There would have been signs that these fungi had been collected, such as discarded stem bases, as these are usually removed with a knife. Furthermore, not all specimens are collected as some are either overlooked or deemed 'past it'. There was no evidence of this.

A further factor which could account for the absence of the larger *Boletus* species in the park is that the deer in the park may eat them as a part their diet. Deer eat them in other, more forested areas of the country. Again, if this were the case, discarded remnants or old, rotten specimens, would have been found.

However, I believe that the lack of this fungi genus is due to a combination of a low number of species and small populations which are concentrated in certain areas that are either harvested by people or eaten by deer. As the bracken in Bushy Park is generally not surrounded by Oak, Birch or Beech, as in many areas of Richmond Park, this explanation could be eliminated a causal factor accounting for the lack of Boletus species.

It is also important to note that each year is different and this genus may be more prevalent during another year. This would also be applicable to other genera that were not particularly well represented during the survey. NOTE: *Leccinum scabrum*, one of the Birch Boletes was found fruiting in the Birch area of the Woodland Gardens.

It was noted that Honey Fungus (Armillaria mellea) was quite rampant in parts of the Woodland Gardens, especially the Birch glade and surrounds. I would recommend that if the Honey Fungus were not already under supervision that it should be kept in check. Although it is very difficult to manage I would not advocate, however, the use of any chemical substances.

Another species, which one would expect from a park such as Bushy, is *Podoscypha multizonata*, although, surprisingly, this was not recorded in this survey. This species is especially associated with old deer parks, and fruits around the roots of the old or veteran oak or beech, generally in open areas. South East England is host to 80% of the world's population of this species precisely because of the type of habitat provided by old deer park of this kind.

Previous records of fungi available for the park do not include records for either *Podoscypha multizonata* or any of the larger species of *Boletus*.

The acid grasslands were found to be generally poor for fungi, which could be due to under grazing, air pollution or the ramifications of dog fouling all of which influence a low diversity sward and therefore a low diversity of fungi. More species of fungi were recorded from the semi-improved grasslands, either on Lime Avenue in association with the Lime trees or in paddocks that are horse grazed or mown grassland or lawn around White Lodge.

Most of the species recorded during the survey are frequent, common & widespread across England and what you would expect from the various types of habitat that comprise Bushy Park. Some very rare and nationally important species were recorded from the park during the survey. Some of these are covered below.

5.1 Rhodocybe popinalis - TQ 14403 69397 - Rear Lawn - White Lodge

This was an unexpected record from unexpected area, which was the rather unassuming and small lawn at the rear of the White Lodge. The species is rarely recorded although widespread and is described as being more usually fruiting on soil in deciduous and conifer woodland, also in grassy areas on dunes, and in hill pasture. With 106 records currently in the FRDBI* this record constitutes a first for Middlesex.



Fig 2. - Rhodocybe popinalis - © Andy Overall

5.2 Amanita inopinata -TQ 14952 69374 - Fishers Field - Woodland Gardens

This is a relative newcomer to our shores with records only beginning in 1981. It is a rare species in the country with only 52 records in the FRDBI and it was included in the first Red Data List for fungi in the UK. The origin of this species is uncertain but it is thought to have been introduced to this country and possibly to the Netherlands and New Zealand where it is also found. It generally associates (mycorrhizal)? With Yew or Cedar but at Bushy it was with Scots Pine. This record is in fact the second for Middlesex, the first coming from a park in Lambeth, South London which has mistakenly been entered in the FRDBI as being in the county of Surrey.



Fig.3 Amanita inopinata ©Andy Overall

5.3 Paxillus rubicundulus - TQ14895 69421- Woodland Gardens with Alder

A species that is apparently common in Scotland but much less frequent southwards. This is born out by there being only 118 records in the FRDBI. This is a species that associates only with Alder with which it is mycorrhizal. It was found growing in very healthy numbers around one particular Alder tree alongside a brook in the Woodland Gardens. This record is another first for the county of Middlesex.



Fig. 4 Paxillus rubicundulus - © Andy Overall

5.4 *Phellinus torulosus* - TQ 14771 69883 – Dead Standing and Living Hawthorn

Recorded on *Quercus cerris, Quercus robur, Castanea, Prunus avium* and *Crataegus monogyna* with which it was recorded here. With only 24 records in the FRDBI that originate from Berkshire, Surrey and West Kent this is a very rare species thought to be at its northern limit in the British Isles. It is very common in the Mediterranean area. This is the first record for Middlesex.

5.5 Russula raoultii -TQ14895 69395 - Woodland Gardens West - Oak

This rare species is closely related to the far more common *Russula fragilis* and was in this instance fruiting in the same vicinity as this species. It is a mycorrhizal species often associated with Beech but here it was with Oak. There are currently only 53 records in the FRDBI and this record is the first for Middlesex.

5.6 Lepiota fuscovinacea - TQ 14738 69510 - Compartment 11k

This rare species was last recorded from the county of Middlesex in 1997 during a short survey Buckingham Palace Gardens; this is the second only record for the county. It was found beneath Snowberry bushes to the side of a small path leading off east from the wildlife education area toward the Woodland Gardens that runs alongside the river and pasture ground. It is a saprobic species that is rarely recorded yet widespread. There are currently 82 records held in the FRDBI for Great Britain and Ireland.



Fig. 5 Lepiota fuscovinacea - ©Andy Overall

5.7 Coprinus sterquilinus – Horse Dung Pile – Compartment 11L & 11f - Vulnerable / B (Red Data List, ed. 2)

This very rarely recorded yet widespread species is restricted to the weathered dung of Horses or Rabbits. It is vulnerable and included on the current red data list for fungi of Great Britain and Ireland. This highlights the importance of having Horse dung piles at Bushy that are allowed to weather as this species was found on two separate dung piles within the area of the horse paddocks. This is the first record for this species in Middlesex; there are currently only 48 records in the FRDBI.



Fig. 6 Coprinus sterquilinus ©Andy Overall

5.8 *Gymnopus obscuroides* - TQ 14403 69397 - Compartment 11L - Semi-improved grassland - White Lodge

This species was described only as recent as 2008 and with just two records in the FRDBI it is understandable that existing information on the species is insufficient to be

able to have an idea of its distribution throughout Great Britain and Ireland. This record will stand as the first for Middlesex. It was recorded and collected from the grassland just in front of the large glass window doors of the White Lodge.

5.9 Clitocybe costata - Compartment 13a

Found in one of the Woodland Garden hotspots close to Oak on soil among grass. This is a rarely recorded though widespread saprobic species with 115 records in the FRDBI, this constitutes only the second record for Middlesex, the first record was in 2001. It is known to fruit on soil or in leaf litter, in deciduous or mixed coniferous and deciduous woodland.

5.10 Agaricus gennadii – Fishers Field – Woodland Garden - Compartment 13e

This is a rarely recorded and not particularly widespread species that fruits on soil with conifers in cemeteries, woodland or roadside verges. This record was with Cypress just across the bridge into Fishers Field in the Woodland Gardens. There are only 20 records for Great Britain and Ireland in the FRDBI with only one for Middlesex making this the second record.

5.11 Inocybe cincinnata var. major - Woodland Garden - Compartment 13e

This is an uncommon species from a very difficult genus to identify to species. This record came from the Woodland Garden on soil among short grass and moss with a young Beech tree with which it is mycorrhizal. It is known to associate less commonly with conifer and other deciduous trees and usually on calcareous loam among decayed leaf litter. There are 176 records of this species in the FRDBI with only two previous records from Middlesex the last being from Buckingham Palace Gardens in 1998. This will be the third record for the county.



Fig. 7 Inocybe cinncinatta var. major @Andy Overall

5.12 Laccaria purpureobadia - Woodland Gardens - Compartment 13d

This species was found among grass close to both Alder and Birch on a path side through the west side of the southern end of the Woodland Gardens. It is a rarely recorded species that is apparently widespread. Often found in dried out woodland swamps or bogs among sphagnum with either Alder or Birch, as was this record. Just 66 records exist in the FRDBI with only two previously from Middlesex making this record the third.

5.13 Calocybe carnea - Gymkhana Field - Compartment 11g, 11b & 10a

This is an occasional yet widespread species found in various types of habitat that involve grassland, such as parkland, heath land, lawns and down land. At Bushy it was recorded on a few occasions from three separate compartments. There are plenty of records for this species throughout Great Britain and Ireland on the FRDBI yet it isn't particularly common in Middlesex with only four records. This will be the fifth record for Middlesex.

5.14 Cortinarius saturninus - Compartment 11h - Wild Life Education Area

A rarely recorded yet widespread mycorrhizal species associated with a variety of deciduous trees especially Willow and Hawthorn. This record was found with the further of the two Willow trees in what is known as the wild life education area. It had formed a crowded, small, almost perfect circle of clustering fruit bodies. This is only the sixth record for this species in Middlesex among 115 records for Great Britain and Ireland in the FRDBI.



Fig. 8 Cortinarius saturninus ©Andy Overall

5.14 Humaria hemisphaerica – River Bank Woodland Garden Compartment 13a

Among the 385 records of this species on the FRDBI there is not one for Middlesex so this stands as the first. This species belongs to the order of *Ascomycetae*; these do not

have the same structure as mushrooms and toadstools, such as a cap and stalk. This record was on bare soil close to an Oak tree on the riverbank just as you enter the Woodland Garden from the White Lodge end of the Lime Avenue.

5.15 *Geastrum striatum* – Beneath Cypress in Fishers Field – Woodland Garden Compartment 13e

This species was found fruiting beneath the group of Cypress close to the large dead tree trunk in Fishers Field of the Woodland Garden. It is one of the small Earthstars that have an extended neck and a beak on the top of its spore sac from which it disperses spores. Not such a common species in Middlesex with only four among 300 or so records in the FRDBI, it is occasional and widespread, most often found with Conifer but also with deciduous trees. In parks, gardens, dunes and cemeteries.

5.16 Simocybe sumptuosa - TQ 1486 69837 — On dead fallen beech in Compartment 12a of the Woodland gardens

This is an occasional and widespread species that fruits on the dead wood of a various broadleaved deciduous tress, especially Beech. This collection is the first record for Middlesex among 215 records for Great Britain and Ireland on the FRDBI



Fig 9. Simocybe sumptuosus ©Andy Overall

6.0 Recommendations

6.1 Bracken Management

Even though Bracken is not such a big problem at Bushy with regard to fungi, which is largely due to its locations within the park, I would still recommend that it be discouraged from spreading. Any bracken that does occur close to trees in open woodland or along the edges of woodland should be removed or scalloped to create areas for fungi to flourish. However, this is with the proviso that I understand the need to have bracken cover for newborn deer and for birds. Thus, in some cases, the management of bracken will have to be balanced, bearing these, sometimes opposing factors in mind.

6.2 Acid Grassland

As the acid grassland within the park was generally and relatively fungi poor I would advocate more grazing across the site to help bring about a more diverse sward. This will in turn help to encourage more fungi of different genera to the grasslands. If this cannot be achieved a mowing/cutting regime would be advisable during spring and early summer. The off cut should be removed. This process should continue for up to three years to allow for seeds of the ranker grasses to grow out and for other grasses to move in to form a more diverse sward.

6.3 Rhododendron, Sycamore, Bramble & Honey Fungus

This very invasive shrub is largely well managed in the park and restricted to particular enclosures such Broom Clumps. Where it does exist, however, it will inhibit fungi as it omits light and moisture. This may not be of particular concern in Bushy but it is worth monitoring. Sycamore trees need thinning out in some areas such as The Water Gardens to help create more light for native trees to prosper. Sycamore is not a mycorrhizal partner. Honey Fungus was rather rampant in parts of the Woodland Gardens such as the Birch Glade and will therefore need some management, but without the use of any chemical products. Clearance of bramble and debris in the Canal Plantation would encourage fungi to the area and any species that are present with the mature Poplar and Old Oaks, to fruit.

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 Biodiversity Action Plans should be applied, if this has not already been done. This will 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 by the park constabulary and rangers they should continue to discourage the practice. Notices to this effect should be placed in relevant publications.

7.0 Conclusion

In conclusion, Bushy Park appears to be well represented by most genera of the major groups of fungi to be expected from the complex of habitats therein. Larger species of the genus *Boletus* were low in number as were the smaller species of *Xerocomellus*. Particular areas of the park can be identified as 'hotspots' for various types of fungi. The southern end and west side of the Woodland Gardens is one such 'hotspot', followed closely by the east side of the gardens where many different mycorrhizal and saprobic species, from different genera, thrive.

Some areas alongside the River Longford, especially the wildlife education area and the woodland gardens, proved to be rich habitats for fungi where Willow and Alder trees thrive. Rare species such as *Paxillus rubicundulous* was recorded with the Alder, as well as *Cortinarius saturninus* an important species which is mycorrhizal with Willow. The small lawn at the back of White Lodge looks rather innocuous but in fact, species such as species as *Rhodocybe popinalis*, the first record for Middlesex, was recorded from here. Some good species from the genus *Agaricus* such as *A. comtulus* and *A. dulcidulous* were also recorded. A recommendation would be to preserve this small lawn as it is.

Apart from the Woodland Gardens, other woodland plantations were generally disappointing in terms of both numbers and diversity of fungi. There is a good mix of trees in some of the plantations such as Beech, Oak and Pine so one would expect to see a fairly good variety of mycorrhizal, saprobic and parasitic fungi, however in the main this was not the case. This could be a result of overgrazing and compaction from trampling. The loss of understory would also be a contributing factor. A recommendation would be to put wood chipping around the base of the trees in these areas which would encourage worm activity and, therefore, aeration of the soil. Terra venting could also be considered but it is a harsher, more expensive measure capable of producing similar but faster results. Additionally, some dead hedging could be carried out which would support this measure.

The Canal Plantation if cleared of bramble beneath the mature Poplar trees on the northern bank and of fallen trees and blockage along the southern perimeter of Oaks and Alder it would encourage any fungi present to fruit as, at present, there is too much ground cover. Some areas such as the small row of mature Willows, which are located among acid grassland, opposite the canal plantation in compartment 12b, have good potential for fungi diversity, with the dead wood and limbs that had been left in situ. Some good records were provided here such as *Pluteus petasatus*.

The acid grasslands were also generally disappointing for all types of fungi. It is likely that more grazing or a mowing/cutting regime is needed to allow for more diverse grass species. In comparison some of the more fungi productive acid grassland at Richmond Park was more grazed and sheltered. The influence of dog fouling and atmospheric pollution would also be an influencing factor.

Standing and fallen deadwood provided some good records such as *Phylloporia ribis* on Hawthorn, *Hapalopilus nidulans* on Cherry and *Simocybe sumptuosa* on Beech. Most of these records came from the Woodland Gardens. Recommended action in this case would be to encourage more standing and fallen deadwood, wherever possible, out in the open areas of the park.

Collectively, these habitats, which constitute Bushy Park, 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

Bushy Park Fungi Survey 22/04/2008

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

Temperature on the day 21 degrees-Conditions dry.

Compartment 24 g

Calocybe gambosa

Compartment 22b

Psathyrella spadiceogrisea
Parasola sp

Compartment 11L

Stereum hirsutum
Schizophyllum
commune
Auricularia mesenterica
Kretzchmaria deusta
Bjerkandera adusta

Compartment 12b

Reticularem lycoperdon
Trametes versicolor
Coprinellus disseminatus
Ganoderma australe
Polyporus squamosus
Bolbitius titubans
Annulohypoxylon minutellum

Compartment 12a

Coprinopsis atramentarius

Compartment 23c

Daedaleopsis confragosa	
Trametes gibbosa	
Ganoderma australe	

Compartment 27

Hypholoma fasciculare

A dry, hot day for the time of year and given that this warm spell followed a rather wet period it's not surprising that the above species were recorded during this first visit to the park. Nothing unusual among those recorded.

Andy Overall

Bushy Park

Fungi Survey 30/04/2008

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

Temperature on the day 15 degrees-Conditions dry.

Compartment 11	a q
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Coprinellus lagopus

Compartment 11i

Entoloma clypeatum

Compartment 11h

Coprinellus domesticus
Daldinia concentrica
Agrocybe praecox
Daldinia concentrica
Agrocybe praecox
Calocybe gambosa

Compartment 11k

Kretzchmaria deusta	
Daldinia concentrica	

Compartment 10c

Agrocybe molesta

Compartment 10b

Daldinia concentrica

Compartment 10d

Annulohypoxylon minutellum

Compartment 10a

Piptoporus betulinus

Compartment 13c

Phylloporia ribis
Daedaleopsis confragosa
Chlorociboria
aeruginascens
Piptoporus betulinus

Compartment 13b

Cerena unicolor

Compartment 13d

Coprinellus micaceus
Daldinia concentrica
Rigidiporus ulmarius
Kretzchmaria deusta
Annulohypoxylon
multiforme
Trametes gibbosa
Ganoderma applanatum
Ganoderma australe

Compartment 15a

Daedalea quercina

This visit included some interesting species not least *Phylloporia ribis* on *Cratageus*, an infrequent species in Surrey and *Entoloma clypeatum* on soil, also beneath *Cratageus*. Spring species such *Calocybe gambosa* was recorded and the April arrival of the common *Agrocybe praecox* found in three different locations

Andy Overall

Bushy Park Fungi Survey 18/05/2009

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

Temperature on the day 15 degrees-Conditions dry.

Compartment 13d

Ganoderma australe	
Daldinia concentrica	
Trametes gibbosa	
Chondrostereum	
purpureum	
Bjerkandera adusta	

Compartment 13e

Agaricus gennadii

Compartment 14a

Calocybe gambosa	
Thelephora terrestris	

Compartment 14c

Trametes gibbosa

Compartment 22d

Stereum gausapatum

Compartment 22b

Laetiporus sulphureus
Stereum subtomentosum
Stereum hirsutum
Ganoderma australe
Piptoporus betulinus
Daedaleopsis confragosa

Compartment 11

Panaeolus semiovatus

The very windy and predominantly dry conditions that preceded this visit had an effect on the fungi present on the day. Even so, species such as *Agaricus gennadii* a rare species and *Panaeolus semiovatus* were welcome records on otherwise quiet day.

Andy Overall

Fungi Survey 03/06/2009

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

Temperature on the day 20 degrees-Conditions dry.

Compartment 24 b

Ganoderma australe	

Compartment 23m

Kretzchmaria deusta
Polyporus squamosus

Compartment 17d

Coprinellus micaceus Ganoderma applanatum

Compartment 24d

Daedaleopsis confragosa

Compartment 30a

Pleurotus pulmonarius

Compartment 12b

Laetiporus sulphureus Pluteus petasatus

Compartment 18c

Daedalea quercina

A very dry period leading up to this visit meant that we were unlikely to encounter too many fungi during the day and this did indeed turn out to be the case. However as is often the case if you keep looking we did record *Pluteus petasatus* an infrequent species and saprobe on dead wood, in this case on Willow.

Andy Overall

Bushy Park

Fungi Survey 19/06/2009

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

Temperature on the day 20 degrees-Conditions dry and windy.

Compartment 11 b

Marasmius oreades	

Compartment 13b

Trametes gibbosa
Psathyrella multipedata
Pleurotus pulmonarius
Ganoderma australe
Kretzchmaria deusta

Compartment 13c

Agrocybe rivulosa	
Peniophora quercina	
Annulohypoxylon	
minutellum	

Compartment 18b

Laetiporus sulphureus

Compartment 14a

Ganoderma australe
Agaricus osecanus
Agaricus sp
Amanita fulva

Following heavy rain earlier in the week this visit looked to be promising, however strong winds on the day and the day before soon rendered conditions dry. Therefore the visit was quite disappointing, until the very end when *Agaricus osecanus* and *Amanita fulva* were very welcome additions to another wise very ordinary list of bracket fungi such as *Ganoderma australe* and *Trametes gibbosa*.

Andy Overall

Bushy Park Fungi Survey 06/07/2009

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

Temperature on the day 23 degrees-Conditions dry and windy.

Compartment 12 b

Ganoderma australe
Compartment 12a
Stereum hirsutum
Compartment 18g
Pleurotus pulmonarius
Stereum hirsutum

Compartment 16c

Ganoderma australe Agrocybe pediades

Compartment 24f

Laetiporus sulphureus

Compartment 25b

Agrocybe pediades Conocybe apala

Following heavy rain earlier in the week this visit looked to be promising, however high temperatures throughout the week followed by strong winds on the day soon rendered conditions dry. Therefore the visit was quite disappointing. *Conocybe apala* being the highlight. On a separate note, Little Owl were seen among a small line of Oak leading to the Water Gardens.

Andy Overall

Bushy Park Fungi Survey 21/07/2009

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

Temperature on the day 23 degrees-Conditions dry and windy.

Compartment 11 b

Agaricus campestris
Parasola plicatilis
Bolbitius titubans
Agrocybe rivulosa
Panaeolus papilionaceus
Coprinopsis cinerea

Compartment 25a

Macrolepiota mastoidea

Compartment 13e

Agaricus campestris
Boletus rubellus
Inocybe nitidiuscula
Marasmius rotula
Tubaria dispersa
Scleroderma areolatum
Panaeolus acuminatus
Collybia dryophila
Russula grisea
Agaricus comtulus
Flammulaster ferrugineus
Russula pectinatoides
Lycoperdon pratense

Compartment 13d

Hymenochaete rubiginosa

Xerocomus declivitatum

Russula amoenolens

Xerocomus declivitatum

Compartment 21b

Panaeolina foenisecii Fistulina hepatica Coprinopsis domesticus Agaricus bitorquis	Bolbitius titubans
Coprinopsis domesticus	Panaeolina foenisecii
	Fistulina hepatica
Agaricus bitorquis	Coprinopsis domesticus
	Agaricus bitorquis

Compartment 21c

Coprinellus micaceus
Pleurotus pulmonarius

Following heavy rain during the week interspersed with sunny spells this proved to be the most fruitful visit to date. Although nothing of particular note with regard to rarity was recorded, the site revealed its potential for future visits. Both saprobic and mycorrhizal species were in evidence with Boletus, Russula and Inocybe species making their first appearance. A record of the alien saprobic species Agrocybe rivulosa fruiting directly on horse dung was a particularly interesting observation.

Andy Overall

Bushy Park Fungi Survey 30/07/2009

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

Temperature on the day 23 degrees-Conditions dry and windy.

Compartment 11 L

Agaricus campestris
Agaricus arvensis
Russula parazurea
Russula amoenolens
Russula grisea
Collybia dryophila
Conocybe apala
Xerocomus subtomentosus

Compartment 13a

Russula graveolens
Amanita fulva
Russula subfoetens
Amanita rubescens
Boletus edulis
Russula sororia
Russula risigallina
Russula atropurpurea
Russula parazurea
Russula grisea

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Russula graveolens

Compartment 13d

Inocybe nitidiuscula
Inocybe sp
Laccaria laccata
Leptopodia elastica
Scleroderma areolatum
Russula sororia

Compartment 13e

Russula sororia	
Geastrum striatum	
Agaricus campestris	
Scleroderma areolatum	
Russula amoenolens	

Compartment 15a

Marasmius oreades

Dung Heap

Panaeolus semiovatus

Compartment 16a

Russula grisea
Russula parazurea
Xerocomus cisalpinus

Compartment 25f

Russula subfoetens
Collybia dryophila
Xerocomus subtomentosus
Mycena inclinata

Compartment 25e

Macrolepiota procera

Compartment 24d

Bovista plumbea

Compartment 28

Russula parazurea
Russula amoenolens
Agaricus campestris
Russula cyanoxantha
Amanita fulva
Russula grisea
Xerocomus cisalpinus

Compartment 26

Macrolepiota procera
Amanita rubescens
Russula graveolens
Collybia ocior
Xerocomus subtomentosus
Russula parazurea
Russula grisea
Russula amoenolens

Compartment 27

Russula parazurea
Russula amoenolens
Russula grisea

Compartment 23c

Macrolepiota procera
Coprinus comatus
Ganoderma resinaceum

Following heavy rain during the week interspersed with sunny spells this proved to another fruitful visit. Again both saprobic and mycorrhizal species were in evidence with Russula being the dominant genus. Our first Earthstar, *Geastrum striatum* was a highlight of the visit.

Andy Overall

Bushy Park Fungi Survey 14/08/2009

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

Temperature on the day 23 degrees-Conditions dry.

Compartment 11 L

Rhodocybe popinalis
Russula amoenolens
Russula parazurea

Compartment 15a

Scleroderma citrinum
Collybia dryophila
Agaricus campestris
Agaricus campestris
Russula parazurea
Russula parazurea

Compartment 13a

Scleroderma verrucosum
Mycena acicula
Russula amoenolens
Inocybe ochroalba
Inocybe nitidiuscula
Humaria hemisphaerica
Panaeolina foenisecii
Russula graveolens
Amanita fulva
Amanita fulva

Amanita fulva
Scleroderma areolatum
Collybia dryophila
Clitocybe costata?
Psathyrella candolleana
Russula parazurea
Russula subfoetens
Lactarius quietus
Russula amoenolens
Russula graveolens
Russula cicatricata
Chalciporus piperatus
Russula risigallina
Russula amoenolens
Inocybe cincinnata var major
Russula graveolens
Russula graveolens
Lactarius quietus

Compartment 13d

Marasmius rotula
Marasmiellus ramealis
Leccinum scabrum
Stereum subtomentosum
Psathyrella candolleana
Scleroderma areolatum
Russula risigallina
Psathyrella candolleana
Rigidoporus ulmarius
Collybia fusipes
Collybia fusipes

Inocybe geophylla
Hypholoma fasciculare
Marasmius oreades
Scleroderma areolatum
Psathyrella candolleana
Collybia fusipes

Compartment 13e

Coprinopsis marcescibilis
Russula parazurea
Fistulina hepatica
Fistulina hepatica
Fistulina hepatica
Fistulina hepatica
Meripilus giganteus
Meripilus giganteus
Marasmius oreades
Paxillus involutes

Some good records were made during this visit which was a visit of much drier conditions than the previous, *Clitocybe costata, Russula cicatricata, Humaria hemisphaerica* and *Clitocybe sp* are of note but of special note is the record and collection of *Rhodocybe popinalis* from the rear lawn of the White Lodge. A first record for Middlesex.

Andy Overall

Bushy Park Fungi Survey 28/08/2009

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

Temperature on the day 23 degrees-Conditions dry and very windy.

Compartment 30a

Inocybe cuticularis Meripilus giganteus

Compartment 21e

Fistulina hepatica

Macrolepiota mastoidea

Compartment 21g

Fistulina hepatica

Compartment 21f

Bjerkandera adusta

Compartment 30a

Meripilus giganteus

Compartment 12b

Daedaleopsis confragosa
Laetiporus sulphureus
Laetiporus sulphureus
Laetiporus sulphureus

Laetiporus sulphureus

Laetiporus sulphureus

Compartment 17c

Meripilus giganteus

Compartment 27

Trichaptum abietinum	
Meripilus giganteus	

Compartment 13a

Russula cicatricata	
Amanita fulva	

Compartment 11L

Coprinus sterquilinus

Following exceptionally dry conditions over the past 3 weeks, expectations of recording much were not very high. However the record and collection of *Coprinus sterquilinus* from the ever important heap of horse dung located just along form the stables, was well worth the visit as this is a nationally rare species with only 48 records in the Fungi recording database for Britain & Ireland (FRDBI). This constitutes the first record for Middlesex.

Andy Overall

Bushy Park Fungi Survey 17/09/2009

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

Temperature on the day 23 degrees-Conditions dry, following heavy rain.

Compartment 11h

Leucopaxillus giganteus

Compartment 13b

Inonotus hispidus

Compartment 15a

Fistulina hepatica

Compartment 13d

Boletus edulis	
Amanita fulva	
Russula grisea	
Exidia glandulosa	
Meripilus giganteus	

Compartment 13e

Hapalopilus nidulans
Fistulina hepatica
Grifola frondosa
Collybia dryophila

Compartment 13d

Paxillus rubicundulus

Compartment 17c

Meripilus giganteus

Compartment 13a

Lacrymaria lacrybunda

Compartment 24d

Ganoderma australe Exidia glandulosa

Compartment 23L

Laetiporus sulphureus

Compartment 28

Pleurotus pulmonarius

Following a day of consistent heavy rain on 15th Sept, expectations were fairly high for this visit to produce but expectations were dashed by a low yield yet redeemed by the very good record of *Paxillus rubicundulus* a first for the county of Middlesex. This species is mycorrhizal with Alder and was found with said genus close to the river in the Woodland Garden. Another good record was that of *Leucopaxillus giganteus* an uncommon species found close to or within unimproved grasslands.

Andy Overall

Bushy Park Fungi Survey 24/09/2009

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

Temperature on the day 21 degrees-Conditions dry.

Compartment 11L

Agaricus comtulus	
Schizophyllum commune	

Compartment 11h

Leccinum scabrum	
Lactarius pubescens	
Agaricus campestris	
Polyporus squamosus	

Compartment 10b

Coprinus sterquilinus
Panaeolus papilionaceus
Pluteus cervinus
Stereum subtomentosum
Agaricus campestris
Agaricus campestris
Inonotus hispidus
Phlebia tremellosa

Compartment 12a

Pluteus cervinus
Simocybe sumptuosus
Daedaleopsis confragosa
Trametes versicolor
Ganoderma australe
Agaricus sp
Mycena crocata

Xylaria hypoxylon	
Lacrymaria lacrybunda	

Compartment 13f

Fistulina hepatica

Compartment 13c

Phellinus igniarius

Compartment 23a

Fistulina hepatica
Fistulina hepatica
Laetiporus sulphureus
Laetiporus sulphureus
Ganoderma australe

Compartment 23c

Ganoderma resinaceum
Coprinus comatus

Despite dry conditions and a lack of rain for nearly a month this visit revealed some interesting and important species such as the rare *Simocybe sumptuosus* a dead wood specialist. *Phellinus igniarius* although not particularly uncommon is a valuable addition to the survey as was a further record of *Coprinus sterquilinus* on horse dung.

Bushy Park Fungi Survey 08/10/2009

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

Temperature on the day 15 degrees-Conditions wet.

Compartment 11L

Leucoagaricus leucothites

Compartment 15a

Macrolepiota procera

Compartment 23a

Meripilus giganteus

Compartment 24d

Armillaria mellea

Compartment 28

Pleurotus ostreatus
Xylaria hypoxylon
Bjerkandera adusta
Hypholoma fasciculare

Compartment 24p

Agaricus silvicola
Coprinopsis atramentarius
Paxillus involutes

Compartment 26

Collybia dryophila	
Macrolepiota mastoidea	

Compartment 23n

Marasmius oreades

Compartment 23e

Grifola frondosa
Agrocybe pediades
Collybia dryophila

Compartment 13d

Armillaria mellea
Coprinopsis atramentarius
Laccaria purpureobadia
Hebeloma crustuliniforme
Parasola plicatilis
Mycena acicula
Armillaria mellea
Abortiporus biennus
Trametes gibbosa
Hypholoma fasciculare
Chondrostereum
purpureum
Daldinia concentrica

Compartment 13e

Russula pectinata
Agaricus bitorquis
Marasmius oreades
Hypholoma fasciculare
Amanita phalloides
Coprinus comatus
Russula graveolens
Otidea alutacea
Fistulina hepatica
Laccaria laccata
Amanita muscaria

Compartment 13d

Paxillus rubicundulus
Russula parazurea
Russula graveolens

Laccaria laccata
Hebeloma sacchariolens
Mycena vitilis

Compartment 13b

Stropharia caerulea Psathyrella candolleana

Compartment 13d

Armillaria mellea
Leccinum scabrum
Tricholoma fulvum
Hypholoma fasciculare

This visit really highlighted the disparity between the open areas, plantations among which we found few species with the woodland gardens which was found to be rich in fungi following 3 days of rain. The woodland gardens had already emerged as a hot spot for fungi within the park but this really highlighted the fact. Many mycorrhizal species were recorded form the gardens among which *Laccaria purpureobadia* and *Amanita phalloides* were good records. The abundance of Honey Fungus – *Armillaria mellea* was noted and needs to be kept in check.

Andy Overall

Bushy Park Fungi Survey 14/10/2009

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

Temperature on the day 15 degrees-Conditions wet.

Compartment 11L

A manifesta a a materileta
Agaricus comtulus
Agaricus dulcidulus
Agaricus campestris
Leucoagaricus leucothites
Agaricus campestris
Agaricus campestris
Agaricus campestris
Russula parazurea
Mycena olivaceomarginata
Mycena aetites
,
Lycoperdon perlatum
Lycoperdon perlatum
Lycoperdon perlatum Laccaria laccata

Compartment 15a

Mycena aetites
Hypholoma fasciculare

Compartment 13a

Russula grisea
Russula praetervisa
Russula grisea
Hebeloma velutipes

Collybia dryophila
Collybia dryophila
Amanita muscaria
Amanita muscaria
Russula graveolens
Russula graveolens
Russula grisea
Russula ochroleuca
Cortinarius hinnuleus
Cortinarius flexipes var. flabellus
Cortinarius acetosus
Cortinarius sp.
Tricholoma fulvum
Hebeloma sacchariolens
Chalciporus piperatus
Laccaria amethystina
Cortinarius acetosus
Russula betularem
Russula amoenolens
Russula risigallina
Gymnopilus junonius
Chondrostereum
purpureum

Compartment 13e

Inocybe cincinnata var. major

Galerina vittiformis
Hypholoma fasciculare
Parasola plicatilis
Mycena galericulata
Armillaria mellea
Armillaria mellea
Grifola frondosa
Naucoria escharioides
Conocybe velata
Conocybe
Leratiomyces ceres
Psathyrella
Parasola conopilus
Psathyrella corrugis
Stereum hirsutum
Fistulina hepatica
Collybia fusipes

Compartment 14a

Leucopaxillus giganteus
Agaricus osecanus
Grifola frondosa
Lepiota cristata
Inocybe asterospora
Pluteus leoninus
Humaria hemisphaerica
Armillaria mellea
Xylaria hypoxylon
Collybia fusipes

Compartment 14b

Armillaria mellea
Armillaria mellea
Armillaria mellea
Armillaria mellea
Leratiomyces ceres
Psathyrella corrugis
Fistulina hepatica
Collybia fusipes
Laetiporus sulphureus
Fistulina hepatica
Fistulina hepatica

Fistulina hepatica
Fistulina hepatica
Coprinellus disseminatus
Coprinellus disseminatus
Gymnopilus junonius
Mycena galericulata

Compartment 25f

Laetiporus sulphureus

Compartment 14c

Fistulina hepatica
Fistulina hepatica
Fistulina hepatica
Fistulina hepatica
Coprinellus disseminatus
Coprinellus disseminatus

Compartment 13d

Naucoria escharioides
Naucoria striatula
Coprinellus micaceus
Mycena flavoalba

Compartment 13e

Agaricus silvaticus	
Amanita phalloides	

Compartment 15b

Marasmius oreades
Macrolepiota procera
Collybia dryophila
Chlorophyllum rhacodes
Psathyrella candolleana
Hebeloma crustuliniforme
Russula parazurea

Russula parazurea
Russula parazurea
Xerocomus declivitatum
Inocybe geophylla
Coprinopsis marcescibilis

Following the visit on 08/10/09 it was decided to concentrate efforts in the woodland gardens to maximize chances of recording whilst we had prime conditions. This decision paid off with the highest total of species recorded so far from Bushy Park in one visit, once highlighting the importance of The Woodland Gardens as a habitat for many different types of fungi. The presence of the genera Cortinarius in one particular area of the garden indicates a good healthy population of Oak trees. In fact many mycorrhizal genera thrive in the woodland gardens inc *Russula*, *Boletus* and *Inocybe*.

Bushy Park Fungi Survey 28/10/2009

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

Temperature on the day 18 degrees-Conditions wet.

Compartment 11L

Parasola micaceus
Lepiota cristata
Lepiota cristata
Agaricus comtulus
Agaricus dulcidulus
Rhodocybe popinalis
Clitocybe sp
Entoloma sericeum
Agaricus campestris
Mycena aetites
Agrocybe pseudocyanea
Gymnopus obscuroides
Hebeloma velutipes
Pluteus cervinus
Marasmius oreades
Lycoperdon pratense
Hypholoma fasciculare
Crepidotus mollis
Schizophyllum commune
Auricularia mesenterica
Chondrostereum
purpureum
Stereum subtomentosum

Postia tephroleuca
Melanoleuca polioleuca
Armillaria mellea

Compartment 11g

Agaricus campestris
Crinipellis scabella
Psilocybe semilanceata
Mycena flavo-alba
Clitcoybe rivulosa
Entoloma sericeum
Marasmius oreades
Calocybe carnea
Mycena olivaceomarginata

Compartment 11h

Parasola plicatilis
Russula pectinata
Russula risigallina
Laccaria laccata
Melanoleuca polioleuca
Hebeloma sacchariolens
Boletus edulis
Cortinarius saturninus
Russula atropurpurea
Coprinus comatus
Hebeloma crustuliniforme
Inocybe rimosa
Inocybe geophylla
Inocybe curvipes
Galerina vittiformis
Naucoria striatula
Stropharia caerulea
Stropharia caerulea

Lactarius pubescens
Paxillus involutus
Leccinum scabrum
Coprinellus micaceus
Parasola conopilus
Mycena galopus var. alba
Russula graveolens
Russula graveolens
Inocybe maculata
Inocybe rimosa
Russula amoenolens
Hebeloma sacchariolens
Mycena flavo-alba
Conocybe rickeniana
Agaricus campestris
Lactarius pubescens
Hebeloma crustuliniforme
Paxillus involutus
Tubaria dispersa

Compartment 11j

Bolbitius titubans
Psilocybe semilanceata
Mycena aetites

Compartment 11k

Hypholoma fasciculare
Lactarius glysioisimus
Coprinellus micaceus
Clavaria fragilis
Hebeloma pusillum
Lacarria laccata
Clitocybe sp

Lycoperdon pratense
Ganoderma australe
Mycena galericulata
Lepiota fuscovinacea
Marasmius androsaceus
Pholiota squarossa

This visit was predominantly spent concentrating on some of the unimproved grasslands such as the pasture ground close to the Horse Paddocks and the wildlife education area behind the main pasture ground. The large pasture ground was an area that apart from an early visit in April had not been surveyed since. A number of fairy rings created by the now uncommon Field Mushroom – Agaricus campestris were immediately evident. Also from here came more good records of Calocybe carnea, Crinipellis scabellus and one typical of this habitat Psilocybe semilanceata -The Liberty Cap. Cortinarius saturninus was a good record with Salix from the wildlife education area, as were Inocybe and other species of Cortinarius. Rhodocybe popinalis was fruiting for the second time on the White Lodge Lawn and this being the first record for Middlesex. A fantastic second record for Middlesex of Lepiota fucsovinacea came from beneath shrubs on rather waste ground just west of Waterhouse Pond the first record coming from Buckingham Palace Gardens back in 1997. An excellent visit.

Andy Overall

Bushy Park Fungi Survey 04/11/2009

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

Temperature on the day 13 degrees-Conditions damp.

Compartment 11a

Agaricus campestris
Psilocybe semilanceata
Mycena flavo-alba
Mycena olivaceomarginata
Panaeolus acuminatus
Marasmius oreades
Clitocybe rivulosa

Compartment 11c

Macrolepiota procera

Compartment 11b

Macrolepiota procera
Hygrocybe ceracea
Hygrocybe chlorophana
Hygrocybe virginea
Entoloma sericeum
Rickenella swartzii
Clavulinopsis helvola
Mycena olivaceomarginata
Stropharia caerulea
Mycena flavo-alba
Agaricus campestris
Marasmius oreades
Clitocybe rivulosa
Psilocybe semilanceata
Lycoperdon pratense
Coprinopsis nivea
Panaeolus papilionaceus
Calocybe carnea
Collybia fusipes
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Compartment 12b

Polyporus durus
Mycena haematopus
Coprinellus disseminatus

Armillaria mellea
Parasola conopilus
Pholiota squarossa
Chondrostereum
purpureum
Coprinellus micaceus
Auricularia auricula judae
Exidia nucleata
Lepista saeva
Bjerkandera adusta
Pholiota alnicola
Mycena haematopus
Grifola frondosa
Psilocybe semilanceata
Russula fragilis
Russula atropurpurea
Mycena vitilis
Laccaria laccata
Pluteus salicinus
Cortinarius
Collybia fuscopurpurea
Mycena stylobates
Pluteus cervinus
Mycena galopus var.
galopus
Boletus edulis
Stropharia caerulea

Compartment 30a

Coprinus comatus
Leucoagaricus leucothites

Mycena inclinata
Mycena inclinata
Mycena inclinata
Mycena inclinata
Mycena inclinata
Fistulina hepatica
Fistulina hepatica
Melanoleuca polioleuca
Melanoleuca polioleuca
Mycena galericulata
Pholiota aurivella
Coprinellus micaceus
Hypholoma fasciculare
Hypholoma fasciculare
Coprinopsis atramentarius

Psathyrella corrugis
Trametes gibbosa
Calocera cornea
Mycena galericulata
Pluteus umbrosus
Megacollybia platyphyla
Nectria cinnabarina
Clitocybe nebularis
Polyporus squamosus
Mycena pura
Lepista flaccida
Chlorophyllum rhacodes
Macrolepiota fuliginosa
Collybia butyracea
Mycena galopus var.
galopus
Pleurotus ostreatus
Bjerkandera adusta
Laetiporus sulphureus

Another fruitful visit although no species of particular note.

Andy Overall

Bushy Park Fungi Survey 12/11/2009

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

Temperature on the day 13 degrees-Conditions wet.

Compartment 11a

Leucoagaricus leucothites
Melanoleuca polioleuca
Psilocybe cyanescens
Rhodocybe popinalis
Lepiota cristata
Entoloma sericium
Hypholoma fasciculare

Compartment 15a

Clitocybe nebularis
Psathyrella spadicea
Russula grisea

Compartment 13a

Hebeloma crustuliniforme
Inocybe ochroalba
Russula praetervisa
Inocybe ochroalba
Russula risigallina
Russula risigallina
Inocybe flocculosa
Russula graveolens
Russula violeipes
Russula sororia
Russula amoenolens
Naucoria escharioides

Russula fragilis
Clitocybe costata
Laccaria amethystina
Russula ochroleuca
Cortinarius flexipes
Lactarius quietus
Boletus edulis
Russula graveolens
Lepista nuda
Mycena pura
Hebeloma sacchariolens
Tricholoma fulvum
Russula grisea
Paxillus involutus
Russula raoultii
Clitocybe nebularis
Laccaria laccata

Compartment 13e

Grifola frondosa
Psathyrella spadiceogrisea
Cortinarius flexipes
Hebeloma sacchariolens
Laccaria laccata
Rickenella swartzii
Mycena galericulata
Mycena inclinata
Mycena olivaceomarginata
Galerina vittiformis
Xerocomus chrysenteron
Russula parazurea
Melanoleuca polioleuca
Lepiota subincarnata
Armillaria mellea
Leucocoprinus brebissonii
Hypholoma fasciculare
Mycena inclinata
Mycena galericulata

Mycena aetites
Conocybe velata
Russula parazurea
Lepista nuda
Lepista nuda
Crepidotus variabilis
Clitocybe ditopa
Agaricus silvaticus
Agaricus silvaticus
Panaeolus fimicola
Mycena alcalina
Mycena cinerella
Amanita inopinata
Russula parazurea
Hygrophoropsis aurantiaca
Stropharia caerulea
Lepiota castanea
Inocybe petiginosa
Laccaria laccata
Mycena flavo-alba
Paxillus involutus
Stropharia inuncta
Chlorophyllum rhacodes
Clavulina rugosa
Hebeloma birrus
Coprinopsis atramentarius
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The Woodland Gardens with its variety of trees and shrubs once again revealed its importance as an excellent habitat for various fungi genera. The stand out species from this visit was another new record for Middlesex, *Amanita inopinata* which is thought to be an introduced species with a South East bias. Other good records from this visit include, *Russula raoultii* an uncommon species and another new record for Middlesex, *Clitocybe costata* the second only record for Middlesex the 1st being from 2001.

Andy Overall

Bushy Park Fungi Survey 20/11/2009

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

Temperature on the day 13 degrees-Conditions wet.

Compartment 11a

Tubaria dispersa
Lepista nuda
Mycena flavo-alba
Mycena flavo-alba
Coprinopsis nivea
Hebeloma crustuliniforme
Coprinellus domesticus
Cortinarius decipiens
Auricularia auricula judae
Mycena galericulata
Paxillus involutus
Laccaria laccata
Agaricus campestris
Cortinarius decipiens
Stropharia caerulea
Clitocybe nebularis
Russula subfoetens
Stropharia inuncta

Compartment 10a

Mycena aetites
Mycena olivaceomarginata
Clitocybe vibecina
Entoloma sericium
Calocybe carnea
Collybia dryophila
Lepista nuda
Mycena flavo-alba
Lepista sordida
Clitocybe fragrans
Laccaria laccata
Clitocybe gibba

Compartment 10b

Agaricus campestris

Compartment 10d

Lepista saeva
Armillaria mellea
Hebeloma pusillum
Nectria cinnabarina
Clitocybe phyllophila

Compartment 10c

Lepista inversa

Compartment 11h

Inocvbe	maculata
	macarata

Cortinarius decipiens

Compartment 11k

Lepista nuda	Le	pista	nuda
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Hygrocybe virginea

Lepista sordida

Hygrocybe conica

Mycena flavo-alba

Bolbitius titubans

Clitocybe vibecina

Mycena inclinata

Compartment 11L

Stereum subtomentosum

Schizophyllum commune

Stereum hirsutum

Chondrostereum purpureum

Panaeolus semiovatus

Compartment 13e

Chlorophyllum brunneum

Lepista nuda

Clitocybe fragrans

Laccaria laccata

Mycena galericulata

Russula sororia

Compartment 13d

Naucoria escharioides
Inonotus radiatus
Amanita fulva
Laccaria laccata
Leccinum scabrum
Lactarius tabidus
Tricholoma fulvum
Hypholoma fasciculare

With the weather remaining wet and mild for the time of year many mycorrhizal, saprobic and parasitic species continue to fruit. The first field on the left as you enter the Brewhouse Fields proved interesting with numerous rings of *Clitocybe vibecina* alongside *Calocybe carnea* and *Mycena aetites*. Some the late comers such as *Lepista nuda, Lepista saeva, Lepista sordid, Hygrocybe conica* and *H. virginea* were all in evidence.

Andy Overall

Bushy Park Fungi Survey 08/12/2009

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

Temperature on the day 8 degrees-Conditions dry.

Compartment 11L

Lepiota cristata
Russula subfoetens
Lepista nuda
Pleurotus ostreatus
Calocera cornea
Mycena galericulata
Stereum subtomentosum

Compartment 11d

Clitocybe rivulosa
Galerina vittiformis
Mycena flavo-alba
Entoloma sericeum
Hygrocybe virginea
Panaeolus fimicola

Compartment 11g

Entoloma sericeum
Laccaria laccata
Stropharia semiglobata
Tubaria dispersa
Clavaria vermicularis
Peziza vesiculosa
Agaricus campestris
Tubaria dispersa

Compartment 11k

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Hygrocybe virginea
Hygrocybe virginea
Hygrocybe conica
Hygrocybe pratensis
Stropharia semiglobata
Mycena flavo-alba
Clitocybe vibecina
Lepista nuda
Lycoperdon pratense
Clitocybe rivulosa

Compartment 25b

Lepista nuda

Compartment 25f

Pseudoclitocybe
cyathiformis
Lepista nuda
Lepista nuda
Lepista nuda
Collybia butyracea var.
asema
Collybia butyracea var.
asema
Collybia butyracea var.
asema
Clitocybe nebularis
Mycena olivaceomarginata
Clitocybe decembris
Ampuclitocybe clavipes
Tubaria conspersa
Mycena cinerella
Clitocybe fragrans
Mycena aetites

Compartment 25e

Rickenella fibula
Collybia butyracea var.
asema
Clitocybe nebularis
Mycena galericulata
Mycena galericulata
Tubaria conspersa
Mycena leptocephala

Clitocybe decembris
Mycena inclinata
Hygrophoropsis aurantiaca
Lepista nuda

Compartment 24r

Lepista nuda	
Laccaria laccata	

Compartment 24p

Agaricus arvensis	
Macrolepiota procera	

Compartment 27

Collybia butyracea var. asema
Russula parazurea
Clitocybe ditopa
Clitocybe fragrans
Russula ochroleuca
Laccaria amethystina
Lactarius subdulcis
Collybia dryophila
Clitocybe vibecina

Compartment 24L

Clitocybe vibecina

Compartment 28

Hygrophoropsis aurantiaca
Russula foetens
Collybia butyracea
Clitocybe fragrans
Clitocybe ditopa

All of the usual suspects were evident for this penultimate late season visit. Lepista nuda, The Bewit was fruiting in most compartments visited on the day. Pseudoclitocybe cyathiformis although considered common and widespread across the country, in my experience it is not a species I have encountered very often in the county of Middlesex. I would therefore hesitate to say, it is not common or frequent at all across this county.

Bushy Park Fungi Survey 15/12/2009

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

Temperature on the day 2 degrees-Conditions dry.

Compartment 14a

Melanoleuca polioleuca
Xylaria hypoxylon
Lycoperdon perlatum
Tricholoma sulphureum
Tricholoma sulphureum
Helvella crispa
Clitocybe nebularis
Clitocybe nebularis
Ganoderma australe
Russula ochroleuca
Lepista inversa
Lepista inversa
Bjerkandera adusta
Coprinellus micaceus
Lepista nuda
Lepiota cristata
Clitocybe fragrans
Clitocybe fragrans
Galerina vittiformis
Galerina vittiformis
Mycena alcalina
Clitocybe geotropa
Tubaria furfuracea
Leratiomyces ceres
Hypholoma fasciculare
Amanita muscaria
Mycena flavo-alba

Laccaria proxima
Hygrophoropsis aurantiaca
Flammulina velutipes
Hebeloma mesophaeum
Pholiota squarossa

Compartment 14b

Mycena galericulata
Psathyrella spadicea
Bjerkandera adusta
Xylaria hypoxylon
Tubaria furfuracea
Amanita muscaria
Chlorophyllum rhacodes
Collybia butyracea var.
butyracea
Mycena inclinata
Stereum gausapatum
Chlorophyllum olivieri
Lepista nuda
Agaricus silvaticus
Collybia dryophila

Compartment 18L

Chondrostereum purpureum
Coprinopsis domesticus
Clitocybe nebularis
Chlorophyllum rhacodes

Compartment 13d

Bjerkandera adusta	
Xylaria hypoxylon	

Compartment 13a

Agaricus silvaticus
Collybia butyracea var.
butyracea
Lepista nuda
Chlorophyllum rhacodes

Lepista inversa Lactarius subdulcis Russula ochroleuca Clitocybe ditopa Hygrocybe pratensis Hygrophoropsis aurantiaca Scleroderma areolatum Clavulina rugosa Laccaria laccata Pleurotus ostreatus
Russula ochroleuca Clitocybe ditopa Hygrocybe pratensis Hygrophoropsis aurantiaca Scleroderma areolatum Clavulina rugosa Laccaria laccata Pleurotus ostreatus
Clitocybe ditopa Hygrocybe pratensis Hygrophoropsis aurantiaca Scleroderma areolatum Clavulina rugosa Laccaria laccata Pleurotus ostreatus
Hygrocybe pratensis Hygrophoropsis aurantiaca Scleroderma areolatum Clavulina rugosa Laccaria laccata Pleurotus ostreatus
Hygrophoropsis aurantiaca Scleroderma areolatum Clavulina rugosa Laccaria laccata Pleurotus ostreatus
Scleroderma areolatum Clavulina rugosa Laccaria laccata Pleurotus ostreatus
Clavulina rugosa Laccaria laccata Pleurotus ostreatus
Laccaria laccata Pleurotus ostreatus
Pleurotus ostreatus
Auricularia auricula judae
Galerina vittiformis
Laccaria laccata
Hypholoma fasciculare
Clavaria vermicularis

Compartment 16b

Hygrocybe virginea

Compartment 17b

Hygrocybe virginea

Some of the genera and species found during this final and relatively late season visit to Bushy Park are to be expected such as the Lepista and Hygrocybe species but others such Russula, Inocybe and Tricholoma would normally have disappeared by mid December due to hard frosts. The fact that many of these were evident during this visit is testament to the change in climate that England is now experiencing.

Andy Overall

Appendix 2Previous Records 1994 -2009

DATE1	RECORDER	SURVEY	COMNAME	SCINAME
30/09/2007	Pippa Hyde	TRP All Parks Occasional Records	Chicken of the Woods	Laetiporus sulphureus
30/09/2007	Pippa Hyde	TRP All Parks Occasional Records	Birch Polypore	Piptoporus betulinus
06/10/1996	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Giant Puffball	Calvatia gigantea
03/10/1994	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Beefsteak Fungus	Fistulina hepatica
06/10/1996	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Beefsteak Fungus	Fistulina hepatica
06/10/1996	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Coprinus	Coprinus
15/09/1994	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Deceiver	Laccaria laccata
06/10/1996	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Coprinopsis lagopus	Coprinopsis lagopus
03/10/1994	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Parasol	Macrolepiota procera var. procera
06/10/1996	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Clouded Funnel	Clitocybe nebularis
03/10/1994	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Coprinus plicatilis	Coprinus plicatilis
15/09/1994	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Yellow Stainer	Agaricus xanthodermus
03/10/1994	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Panthercap	Amanita pantherina
06/10/1996	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Collybia	Collybia
06/10/1996	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Russet Toughshank	Collybia dryophila
15/09/1994	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Crab Brittlegill	Russula xerampelina
03/10/1994	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Crab Brittlegill	Russula xerampelina
06/10/1996	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Honey Fungus	Armillaria mellea
06/10/1996	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Megacollybia	Megacollybia
03/10/1994	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Shaggy Inkcap	Coprinus comatus
03/10/1994	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Poisonpie	Hebeloma crustuliniforme
03/10/1994	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Blusher	Amanita rubescens var. rubescens
03/10/1994	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Fairy Ring Champignon	Marasmius oreades
03/10/1994	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Redleg Toughshank	Collybia erythropus
03/10/1994	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Honey Fungus	Armillaria mellea
03/10/1994	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Hen of the Woods	Grifola frondosa
03/10/1994	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Spindle Toughshank	Collybia fusipes
03/10/1994	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Stropharia aeruginosa	Stropharia aeruginosa
06/10/1996	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Mycena	Mycena
		, 3	Common Stump	
06/10/1996	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Brittlestem	Psathyrella piluliformis
15/09/1994	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Plums and Custard	Tricholomopsis rutilans
06/10/1996	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Lepiota	Lepiota
06/10/1996	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Deer Shield Coprinopsis	Pluteus cervinus
03/10/1994	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	atramentaria	Coprinopsis atramentaria
06/10/1996	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Coprinopsis atramentaria	Coprinopsis atramentaria
03/10/1994	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Velvet Shank Hypholoma	Flammulina velutipes var. velutipes
03/10/1994	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	fasciculare var. fasciculare	Hypholoma fasciculare var. fasciculare

06/10/1996	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Hypholoma fasciculare var. fasciculare Hypholoma fasciculare var.	Hypholoma fasciculare var. fasciculare
06/10/1996	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	fasciculare	Hypholoma fasciculare var. fasciculare
03/10/1994	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Dryad's Saddle	Polyporus squamosus
06/10/1996	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Shaggy Inkcap	Coprinus comatus
06/10/1996	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Conocybe pulchella	Conocybe pulchella
06/10/1996	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Pholiota	Pholiota
06/10/1996	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Mycena	Mycena
06/10/1996	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Spindle Toughshank	Collybia fusipes
06/10/1996	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Stump Puffball	Lycoperdon pyriforme
06/10/1996	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Honey Fungus	Armillaria mellea
03/10/1994	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Powdery Brittlegill	Russula parazurea
06/10/1996	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Common Bonnet Coprinellus	Mycena galericulata
03/10/1994	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	micaceus	Coprinellus micaceus
03/10/1994	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Red Cracking Bolete	Boletus chrysenteron
06/10/1996	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Red Cracking Bolete	Boletus chrysenteron
06/10/1996	Eleanor Lawrence	TRP Bushy Park Fungi and Lichens	Artist's Bracket	Ganoderma applanatum
06/10/1996	Eleanor Lawrence Elixabeth	TRP Bushy Park Fungi and Lichens	Artist's Bracket	Ganoderma applanatum
08/06/2008	Cheesman	TRP Bushy Park Fungi and Lichens		Coprinus picaceus
30/09/2009	Nigel Reeve	TRP Bushy Park Fungi and Lichens		Laetiporus sulphureus

Appendix 3

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Appendix 3

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