Richmond Park
Fungi Survey Report
2008

BY
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Prepared by
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BAP – Biodiversity Action Plan

FRDBI – Fungal Records Database of Britain and Ireland

SSSI – Site of Special Scientific Interest

REPORT ON THE FUNGI OF RICHMOND PARK
SURVEY CARRIED OUT FROM APRIL 20TH TO DECEMBER 10TH 2008.
BY ANDY OVERALL*

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1. Introduction and Historical context

At 995 hectares Richmond Park is by far the largest green space situated close to London. In fact it is stated in the Richmond Park consultation draft management plan for 2008 as being an outer part of South West London, falling within the Borough of Richmond. It is surprising that no baseline survey of the fungi of the park had been carried out before now, though given the size of the park, coupled with the lack of knowledgeable personnel and man power, this is hardly surprising.

Informal records of fungi prior to this survey do exist, namely those included as wildlife supplements to the park, entitled *Richmond Park Wildlife in the 20th Century*. These were compiled or commented on by various authors including eminent mycologists such as Brian Spooner of Kew Gardens and Tomas Laessoe of Holland. These will be included as an appendix to this report. There were also visits to the park by Peter Roberts a mycologist from Kew Gardens and Shelley Evans, former conservation officer for the British Mycological Society. Their visits were specifically aimed toward records of *Piptoporus quercinus* a UK BAP Priority and schedule 8 listed species of the Country and Wildlife Act 1981. The findings of which were included in a 2001 report on the national status of this species for the then named English Nature, now known as Natural England. It is worth noting here that the current survey has significantly built upon those sites for *Piptoporus quercinus* initially noted by Roberts and Evans, and has added many new locations for this endangered species.

Historically the park can be seen in four main phases taking place over 350 years, all of which helped shape the park into what it is today and therefore influencing the fungi present.

- Pre 1637 the park was common land, used for low grade agriculture
- From 1637-1872 became an exclusive Royal Hunting Ground and the park was surrounded by 8 miles of wall
- From 1761-1872 there was more of an emphasis on deer farming and game preservation
- From 1872 to present day a public park described as an informal oasis for greater London

Over 350 years the landscape of the park has been through many changes, these can be seen taking place in 6 distinct phases.

- 1637 – 1801: pre-enclosed woodlands were consolidated with other planting limited mainly to the Queens Ride (completed by 1770) and the boundary beech trees were planted.
- 1801 – 1844: A significant period for the park was the Sidmouth* era which saw major plantations formed, covering half of the extent of the current woodland which included the Isabella Plantation. The most favoured tree was Sessile Oak because of its tolerance to variable soil conditions; it was often planted around existing trees. The Terrace Walk of Beech from Richmond Gate, the Hornbeam Walk and Pembroke Lodge were planted between 1834/5.
- 1844-1900: Parkland clumps isolated trees and limited smaller plantations with extensive drainage of low lying areas. Nine ponds were created as drinking holes for deer.
- 1900-1950: During the two world wars much of the grassland was ploughed and ornamental trees were planted in commemorative clumps.
- 1950-2000: Woodland areas were renewed following the loss of many trees during the two great storms of 1987 and 1989. Dutch elm disease decimated mature trees during the 1970's and more recently the huge rise in vehicle traffic through the park has

increased pollution. The latter was particularly noted during the survey and the impact it may already have had on the fungi populations of the grassy roadside verges.

Most notably, the large scale planting of trees and the ploughing of the grasslands, would have hugely affected the fungi present in the park today, beneficially and adversely, respectively. Drainage would also have had an affect as this would have meant less moisture, in particular, low lying areas.

The introduction of deer would also have affected the fungal populations. Deer would, and still will, be assisting in the distribution of fungal spores around the park, either by ingestion or by transporting them on the surface of their body. Deer droppings also provide a very fertile food source for various types of fungi. It is also likely that certain fungi form a part of the deer's diet.

1.1 Current Status

Richmond Park is a Site of Special Scientific Interest (SSSI), a National Nature Reserve (NNR), and a Special Area of Conservation (SAC). These designations relate directly to the ancient trees (mainly oak), dead wood habitats, the assemblage of invertebrates and areas of acid grassland. All of these habitats have associated fungi, which were revealed during the survey.

* Viscount Sidmouth favoured by King and Prime Minister was appointed deputy ranger of the park in 1813. The following 30 years saw extensive planting of mainly, native forest trees.

2.0 The Fungal Modes and The Habitat

In order to obtain nutrients, larger fungi are Mycorrhizal, Saprobic or Parasitic in nature. In the case of the latter two modes, in some species they are observed in combination.

Mushrooms and toadstools are often termed fruitbodies by mycologists. 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 three main ways in which fungi obtain nutrients.

1) 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 the UK's native trees have this association with fungi whereas naturalized trees such as Horse Chestnut and Sycamore do not.

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

3) 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.

Richmond Park sits at an elevation of 56m above sea level. It is a habitat complex, comprising of areas of open woodland within a matrix of grazed grassland/heathland, listed in the National Biodiversity Action Plan as lowland wood pastures and parkland.

Pedunculate Oak, *Quercus robur* is the dominant tree in Richmond Park as would be expected from an ancient hunting ground and it covers almost half of the canopy. Beech is also fairly prominent especially on the boundaries. There are also populations of Hornbeam, Sweet Chestnut and smaller populations of Scots Pine and Poplar including the rare Black Poplar. All of these trees form mycorrhizal associations with various fungi genera.

These canopy trees are supported by a shrub layer consisting of Hawthorn, Hazel and some Birch, with Willow and Alder surrounding the damper and open water areas. These are also mycorrhizal partners. There is a distinct lack of Silver Birch throughout the park and, although there are a few small stands, it is not well represented. Silver Birch is a very good mycorrhizal partner for many species across many genera. Acid, wet and neutral grasslands are present, as are areas of open standing water and canals such as the Beverley and Pen Pond, which are also productive habitats for fungi.

The soils are mainly sandy and clay loams with fairly large areas of drift, gravel soils. Much of this is of low fertility and badly drained, apart from the free draining sandier soils. Most fungi will prefer the latter.

Note: Large areas of bracken reduce the amount of light and moisture input needed for fungal production. In my opinion, bracken is the main fungal inhibitor present in the park. There are areas of Rhododendron but these are mostly enclosed and are being managed, however, where they do exist, they will inhibit fungi from fruiting. I also suspect that the large deer populations in the park probably utilise the edible fungi readily available to them, though I didn't observe this.

3.0 Method

The survey was carried out from April until December, which provided enough of a time period to cover 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, I felt that the best way to approach the survey was by allocating certain compartments for particular visits 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. These hotspots moved compartments as the seasons progressed. Compartments were covered by Keir Mottram and me taking separate routes through them, noting and collecting en route. With regard to the roadsides, we allocated a verge each, and in this way were able to cover two compartments at the same time.

Where possible, species were named in the field. Otherwise, species were collected for later 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. Global Positioning System (GPS) readings were taken for each rare or endangered species, in order to identify their exact location. Specimens of the rare and unusual species were collected, dried, recorded and deposited as voucher specimens at the Fungal Herbarium, Royal Botanic Gardens, Kew. Peter Roberts took receipt of the collections.

Figure 1. Map of compartments used for survey

(A4 size map on page 86)

4.0 Areas of particular note and future potential

4.1. Compartment 16c – Ham Bottom*

Throughout the survey the area called Ham Bottom which stretches from the brick wall boundary to the recreational polo field, provided some very interesting records in particular a very healthy population of the Hornbeam associate, *Lactarius circellatus* which was noted on the 24th June 2008. Subsequent visits gave us three species from the ascomycete genera, *Otidea*. On one visit on 14th Sept, they were found fruiting in bare soil beneath Hornbeam amongst the wispy grasses. On the same day the uncommon and infrequent *Amanita ceceliae* was found amongst the sward between Oaks running alongside the brook and the Hornbeams next to the boundary wall. The combination of the fairly narrow strip of unimproved acid grassland running between Oak, Willow and Hornbeam with the wind protection and shade provided by the wall provides a perfect habitat for various types of fungi, both mycorrhizal and saprobic. Good collections and records of *Russula grisea, R. ionochlora, R. cutefracta, R. graveolens, R. heterophylla* and *R. parazurea* were also carried out in this location, as well as many different species from other genera. On the amenity grassland on the other side of the brook, various species of *Hygrocybe* were found during November as were species of *Entoloma* and *Clavulinopsis*, proving that, although extensively use by people, this is still a fairly fertile ground for grassland species.

4.2 Compartment 16b – Hornbeam Walk*

The mix of Hornbeam, old Oak trees, a grassy roadside verge and unimproved acid grassland proved to be an excellent habitat for fungi. Although centrally this is a well trodden area, where soil compaction may become a future problem for fungi populations, during the survey some good records were made from this compartment. The species of note were *Russula maculata* a rarely reported species and *Amanita gemmata* an uncommon to rare species. Four fruit bodies of the endangered *Piptoporus quercinus* were recorded from Quercus robur -tree No.0853. *Neolentinus lipideus* which is an occasionally recorded species was found growing on one of the wooden steps of the stairs that run down the valley toward Petersham Park.

4.3 All Compartments containing grassy roadside verges of semi unimproved grassland*

Of all the compartments covered during the survey, this habitat type proved to be the most fruitful. Although slow to fruit, many rare and common species were recorded from these verges. As many of the verges have trees set back from the roadside and the grass is kept short with plenty of moisture available, they are an excellent habitat for a variety of fungi. Compartment 37 with its mature Scots Pine mixed with Oak was a case in point and many interesting species recorded from the grassy roadside verge, of which *Russula melitodes* and *Hygrophorus hypothejus* were highlights. Species of *Hygrocybe* were recorded from all of the verges covered. These form a component of the scoring system known as CHEG, denoting the genera, *Clavulinopsis, Hygrocybe, Entoloma* and *Geoglossum,* which are all good indicators of unimproved acid or chalk grassland. The first three genera were all represented on these roadside verges. With the amount of traffic that passes through the park it is unlikely that these verges could pass as areas of unimproved grassland, slightly improved and most definitely somewhat polluted would be a fairer assessment. This will take its toll, eventually on the number of different fungi species that prefer cleaner, unimproved habitats and most probably already has had an effect on a number of fungi species past and present.

4.4 Compartment 36b* – Unimproved Acid Grassland

This was a particularly rich area for fungi associated with this habitat as was the small area just outside of Prince of Charles Spinney in Comp 29c. As well as the CHEG criteria mentioned previously for the grassy roadside verges, many other species were in evidence in these compartments, most notably *Lepista panaeola* a rather rare species of this type of habitat. Some of the more common species were also in evidence, such as *Cystoderma amianthinum*, *Hygrocybe virginea* and *Agrocybe pseudocyanea*. One of the reasons that this area was more productive than other areas of similar grassland could be due to the fact that the nearby trees afforded protection from wind and the relatively short and sparser sward.

4.5 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. Thankfully, the park has many areas that contain dead wood in situ, both standing and fallen, making it internationally renowned as a result of the invertebrates that this type of habitat attracts. Some nationally important species of fungi were recorded from these habitats during the survey, such as *Coriolopsis gallica*, *Spongipellis delectans*, *Schizophyllum amplum,* and *Gloeoporus dicrous*. (See notes on species)

4.6 Compartments containing deciduous broadleaved and mixed open woodland

This is a very important habitat for dead wood specialists, parasitic, saprobic and mycorrhizal fungi. The single most important species recorded from this type of habitat was *Piptoporus quercinus* notably from the veteran Oak trees, although one or two records were from slightly younger trees. Apart from this particular species, these areas were a little disappointing in terms of type and number of species, especially from the genus *Boletus* but also from other genera such as *Russula, Lactarius, Tricholoma, Cortinarius* and *Amanita*. Compartments such as Barn Wood, Conduit Wood, revealed very little, apart from common, leaf litter saprobes such as *Collybia dryophila* and various species of *Mycena*. That is not to say that more species will not fruit in the future or may have done previous to this survey, as mycelium is likely to be present. Therefore these areas remain very important habitats for fungi. The Oak trees lining the roads, just back from the verges were among the most productive with regards to the presence of mycorrhizal fungi as were the Hornbeam at Ham Bottom. Spankers Hill Wood

was to be the most fruitful of the open woodlands. Due to the nature of the composition of the woodland, such as Scots Pine, Oak, Sweet Chestnut and Beech, coupled with slopes and undulations which provide good water run off and microhabitats for fungi, some interesting species were recorded from here such as, *Pseudobloetus parasiticus* and *Russula violeipes*.

4.7 All compartments containing veteran and younger oak trees

This habitat is primarily concerned with populations of the Oak parasite, *Piptoporus quercinus.* As previously mentioned in this report, this is a UK BAP Priority and schedule 8 species, which is protected by Natural England in the Country and Wildlife Act 1981. It is believed that this species is not a strong competitor (Lynne Body Pers. Comm.) and therefore the importance of the trees surrounding it, which are of the right age and condition for it to colonise, are vital for its survival in Richmond Park. This species is fairly well distributed across the park which would suggest that it is associating with these particular trees.

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

These areas are of importance to fungi in that many of them will have Alder or Willow nearby. These trees are host to some fungi that are not found with other trees, such as species of the genera *Naucoria*, *Inocybe* and others. On the Willows good numbers of *Phellinus igniarius* were recorded and on soil associated with Salix the rare *Russula laccata* was recorded from Comp 29, a small pond surrounded by Salix. These are often quite productive habitats given there is some shelter from prevailing winds and direct sunlight.

* Hotspots

5.0 Results and species of particular note.

A total of 289 species from 1,096 records were identified from the park during April and December 2008. Most of the genera, which were spread across many different families, were what you would expect from an area such as Richmond Park and the complex of habitats therein. Some of these genera were well represented in some cases and not in others. I found that particular species of certain genera were conspicuous by virtue of their absence.

For instance, there are no records of species belonging to the genera *Cortinarius*, a mycorrhizal genus associated with various broadleaved deciduous and conifer trees. *Salix*, *Oak*, *Beech* and *Pine* would have been prime tree genera from which to record species of *Cortinarius*, though none were recorded. This could be due to where we concentrated our efforts, during which, some may have fruited in other areas. I doubt this though as 'hotspots' that were identified fairly quickly during the survey, represented the most likely areas we could have recorded them from. Having said this, species of *Inocybe*, a genus that is within the family *Cortinariaecae*, were recorded, suggesting that species of *Cortinarius* are likely to be present in the park, even though they were not picked up by this survey.

Members of the genus *Tricholoma* were not recorded and therefore absent from the survey, even fairly common species such *T. sculpturatum* and *T. sulphureum* which you would expect to see around Oak, Beech or Hornbeam trees.

There was also a distinct lack of *Boletus* species. Whilst the family *Boletaceae* is fairly well represented by the smaller species of the genus *Xerocomellus*, the larger species of the genus *Boletus* were represented only by one or two species.
This could be due to a number of factors. As many of these larger species of *Boletus* are edible and sought after by collectors they could be absent for this reason. Though this unlikely as I would have noticed evidence of harvesting, such as discarded stem bases as these are usually removed with a knife and thrown away. Further more not all specimens are collected as these are either missed or deemed 'past it'.
Another possible reason for the absence of the larger *Boletus* species is that the deer in the park may eat them as a part their diet. They most certainly eat them in other more forested areas of the country. Again I would have noticed discarded remnants or old, rotten specimens. With these factors in mind I doubt that either of these reasons adequately account for the lack of these species.
Another point to consider is that most species of *Boletus* fruit during the summer to late summer when the bracken is at its most vibrant. This will have a detrimental effect on fungal fruiting by omitting light and moisture.

I believe that it is because of a number of factors that these species were not so evident during the survey. Namely small populations and a low number of species, concentrated in certain areas that are harvested by people, eaten by deer or inhibited by bracken growth.
It should be noted, however, that every year is different and this genus may be more prevalent another year. This would also be a factor to consider when looking at other genera that were not particularly well represented during the survey.

Another species which I expected to find in a park such as Richmond, but was not picked up on this survey, is *Podoscypha multizonata*. This species is especially associated with old deer parks, infrequently found fruiting 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 an old deer park of this type provides.

Informal records of fungi from the park carried out by various amateur and professional field mycologists dating from 1948 through to 1992 also showed no records of *Cortinarius, Tricholoma*, larger *Boletus* or *Podoscypha multizonata*. Though these records show some species that were not picked up on this survey, which is to be expected given these old records were sporadically carried out over decades, many species from these old records were in fact recorded during the survey.

As already mentioned above, most of the species recorded are frequent, common and widespread across England and represent what would be expected from each of the types of habitat covered in Richmond Park. Some very rare and nationally important species were recorded from the park during the survey and some of these are covered below.

5.1 *Piptoporus quercinus*

A Species of UK BAP Priority and schedule 8 of the Country and Wildlife act 1981 enforced by Natural England. It was recorded between 7th July and Aug 28th from no less than 13 new sites. Records from compartments within which it has previously been recorded were High Wood and the Isabella Plantation. New compartments from which it was recorded were Hornbeam Walk and Queens Plantation the details of which are on the accompanying spreadsheet. Current thinking is that this species is a poor competitor (Lynne Body pers.comm.) This highlights the importance of veteran Oak trees, which are not infected with other fungi such as *Fistulina hepatica* and *Laetiporus sulphureus*, which are of the right age and condition and are close to an existing population, thus allowing the species to distribute. This is vital for the survival of this species in Richmond Park. Records are well distributed across the park which would suggest that, for now, the species is managing well.

5.2 *Schizophyllum amplum - TQ 21134 72170*

A near threatened species associated with dead or dying attached branches of various species of Populus, more rarely *Salix fragilis*. This record was from *Poplar sp* alongside a wall on southern boundary of the park that running parallel with Kingston Vale. It was found on fallen dead branches that had been left in situ. With only 37 records on the Fungi Recording Database of Great Britain and Ireland (FRDBI) this record constitutes the first for the county of Surrey.

5.3 *Russula maculata - TQ 21122 72174*

A rare mycorrhizal species with only 45 records on the FRDBI this being only the fourth record for Surrey. This collection was of only one specimen that was associated with either Hornbeam or Oak in Compartment 16b along the Hornbeam walk.

Figure 2 - *Russula maculata*

5.4 *Russula laccata -TQ 20717 72358* - Vulnerable (Red Data List, ed. 1)

A rarely recorded mycorrhizal species with only 64 records in the FRDBI at present, this constitutes the second only record of this species for the county of Surrey, the first being made pre-1960. It is a mycorrhizal species associated only with *Salix* sp. This collection was made from beside a small pond surrounded by *Salix* in compartment 29c.

5.5 *Russula melitodes*

A rarely recorded mycorrhizal species with only 54 records in the FRDBI, this record constitutes the first for Surrey. This is the lowland counterpart of *Russula integra* which is found with Pine in the highlands of Scotland. This collection was recorded from the grassy roadside verge of Compartment 36a with either Pine or Oak which were both nearby.

5.6 *Bolbitius lacteus - TQ 18750 72761*

This was a very interesting record as, according to the current British Basidiomycota Checklist there has only been one collection from Sterling, Scotland and one from North Yorkshire which was based on a single sterile specimen. Considering its apparent rarity it is not, however, deemed either vulnerable or endangered. I would therefore suggest that this species is poorly understood with regard to its distribution throughout the country. This record constitutes the first for Surrey. It was recorded in compartment 16a during April and May, fruiting close to a ground tree stump on bare soil and buried wood.

Figure 3 - *Bolbitius lacteus*

5.7 *Boletus riparielus* (*Xerocomellus*) - *TQ 20672 74385*

This species was only described as a distinct species in 2005 (Redeuilh) Watling & A.E. Hills, *Edinb. J. Bot.* 60(1): 45 (2005). It is a species that prefers damp habitats close to ponds etc. and is often associated with *Salix*. This collection was found in compartment 13a, close to Adams Pond, and was found fruiting directly beneath a young poplar tree with which it can be associated (mycorrhizal). It is a rare species with only 22 records in the FRDBI. Though as this is only newly described, I would suggest that it has been overlooked and mistaken for other similar species such as *B. rubellus* and *B. cisalpinus*.

Figure 4 - *Boletus riparielus* (*Xerocomellus*)

5.8 *Coriolopsis gallica - TQ 20313 72314*

This is a rare, dead wood specialist and serves to highlight the importance of the dead wood left in situ around the park. This species was recorded from a heap of dead beech wood; some decorticated some not, it was also found on fallen wood of a nearby Ash tree in compartment 29c just west of the Prince Charles Spinney.

Figure 5 - *Coriolopsis gallica*

5.9 *Gloeoporus dicrous* - *TQ 18757 71920* - Near Threatened-Red Data List ED 2

This species was recorded from four different compartments, namely 25c, 29c, 16 and 36b during the survey. All the specimens were recorded from small dead branches of Oak. This species can easily be overlooked and it is likely that it is under recorded.

Figure 6 - Gloeoporus dicrous

5.10 *Hericium cirrhatum* - *TQ 18898 72492* – Vulnerable–Red Data List Ed 1.

Even though this species is by far the most common of the *Hericium* genus encountered in this country, it is still considered to be quite rare, though it is widespread with a South-South East England bias. It is a weakly parasitic or saprobic species favouring dead sections of old, standing, living or dead Beech trees, though Ash, Sycamore, Birch, Oak and Elm have also been recorded as host trees. This record was slightly unusual in that the host tree was a Horse Chestnut in compartment 21c.

5.11 *Hygrocybe lacmus* - *TQ 19750 73827*

This is a rarely recorded species found in unimproved grasslands. One fruitbody was recorded from the grassy roadside verge of compartment 14f. The genus *Hygrocybe* forms a component of the unimproved grassland scoring system known as CHEG. The higher the number of these species in one area of grassland indicates the importance of that habitat for these fungi, either locally or nationally. This was the rarest of the *Hygrocybe* genus found during the survey.

5.12 *Laccaria fraterna* - *TQ 18603 72822*

This was an unexpected record and was found on the penultimate survey visit. It is an introduced species which is mycorrhizal solely with *Eucalyptus sp*. It is rarely recorded with only 22 records in the FRDBI, although it may be spreading. This record constitutes the second only record for the vice county of Surrey. This record was from the Pembroke Lodge Gardens and was found beneath *Eucalyptus amygdalina* the only *Eucalyptus* tree in compartment 38. This is interesting in itself as the majority of existing records note this species associating with *Eucalyptus gunnii*.

Figure 7 - *Laccaria fraterna*

5.13 *Spongipellis delectans* - *TQ 20624 84526*- Rare (Red Data List, ed. 1)

This species has only been recorded from six counties in England, including Surrey. It is a dead wood specialist species and this is the first record from Surrey in 11 years. In total there have been only 19 records from Surrey. This record was made from a fallen, dead, Horse Chestnut tree in compartment 13c. Once again this highlights the value of leaving dead wood in situ, it has also been recorded on Ash, Sycamore and Beech.

Figure 8 - *Spongipellis delectans*

5.14 *Amanita ceceliae - TQ 18850-71927*

Not a particularly rare species, being more infrequent and uncommon. It usually fruits singly, which is the reason for noting it here as up to 15 fruit bodies were spread out among the sward at Ham Bottom, compartment 16c, which is indicative of a good healthy population. It is a mycorrhizal species and in this case it was between both Oak and Hornbeam, either of which it could have been associated with.

Figure 9. Amanita ceciliae

5.15 *Lepista panaeola - TQ 2075711997*

This is a rather rare, only occasionally recorded species, usually found in upland meadow and unimproved grasslands. This species seemed very well established in the acid grassland of Compartment 36b where it had formed two fairly large rings amongst the anthills and sward. The length of grass in compartment 36b seems to have been kept fairly low, maybe through grazing by deer, which assists fungal fruiting and the distribution of spores.

Figure 10. ***Lepista panaeola***

6.0 Recommendations

6.1 Bracken Management

Although partly managed, the amount of bracken across the park from late spring to late summer most certainly inhibits fungi from fruiting. Given that the large populations of Red and Fallow Deer are a big draw in the park, and that the deer need the bracken cover when they bear their young, the removal of bracken may prove to be impractical. Though if possible, it would be a good idea to target some large areas of bracken for removal, especially those close to trees in open woodland. This would help promote the growth of more fungal species. Bracken that flourishes along the edges of woodlands could be managed into scallop shapes; this will allow for more light and moisture and will help to encourage fungal growth, as these can be very productive areas for fungi. However, bracken cover is, I believe, good for birds, which means considering the possible conflicts of interest, i.e. the removal of bracken may not be welcomed, for the reasons mentioned above, and thus the growth of fungi maybe inhibited.

6.2 Silver Birch Scrub

Apart from a scattering of trees, this is one habitat that is largely lacking in the park and one that I would suggest is encouraged. Silver Birch is one of the major mycorrhizal partners for many genera of fungi and the lack of areas of Silver Birch in the park is partly the reason why some genera are missing from the survey. The previously mentioned missing genera of *Cortinarius*, *Tricholoma* and *Boletus* are also affected as there are many species which are associated with Birch. Having Birch populations on the sandier areas of the park would encourage these genera.

6.3 Rhododendron

This very invasive shrub is largely well managed in the park and restricted to particular enclosures. Where it does exist, it will inhibit fungi as it reduces light and moisture. Although this is not a major problem in the park it would be worth keeping an eye on its effect.

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 this has not already been implemented, 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 continue to be discouraged by the park constabulary, rangers and also by the inclusion of notices to this end, which can be placed on site or in relevant publications. This would publicise the message to the wider public.

7.0 Conclusion

In conclusion, apart from some conspicuously absent genera, most notably *Tricholoma, Cortinarius* and the larger species of *Boletus* I found Richmond Park to be well represented by most genera of the major groups of fungi to be expected growing in the complex of habitats therein.

Particular areas of the park revealed themselves as 'hotspots' for various types of fungi. Ham Bottom is one of these hotspots and many different mycorrhizal and saprobic species, from different genera, thrive here. The grassy roadside verges and some of the acid grassland areas were also identified as hotspots where many of the expected, as well as rare, species were recorded.

The woodlands were a little disappointing whilst looking very promising. The redeeming feature of the woodlands and open woodland in Richmond Park is the veteran oak trees and the associated BAP priority species *Piptoporus quercinus*- the Oak Polypore. The species looks to be thriving in the park with 13 new sites recorded during the survey that are well distributed across the park.

A good number of mycorrhizal genera and species were recorded associating with various trees across the park and where these occurred this is a good indication of healthy trees.

Dead wood piles and standing dead wood provided some excellent records and stand as a nationally important habitat for species, such as *Spongipellis delectans*, *Coriolopsis gallica*, *Schizophyllum amplum* and *Gloeoporus dicrous* which are all very rare or vulnerable throughout England and Ireland.

With all these factors combined, the habitats, which collectively constitute Richmond Park, hold a diverse range of fungal species across many genera of the major fungal groups. In a number of cases, some species are also 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

Richmond Park
Fungi Survey
20/04/2008

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

Temperature on the day 12 degrees-
Conditions damp.

SHEEN GATE CAR PARK

Compartment 10e – Quercus robur

Ganoderma australe
Hypholoma fasciculare
***Daedalea quercina* – Worked wood – cap park sleeper**

Compartment 14g – 2 Storm Wood

***Psathyrella spadiceogrisea* - Under hawthorn**

Compartment 11 Enclosed

***Daldinia concentrica* (on Birch)**

***Chondrostereum purpureum* (Birch)**

Compartment 10c – Bog Gate

***Exidia glandulosa* on dead Oak branch**

***Psathyrella spadiceogrisea* - disturbed ground**

Trametes versicolor

Daedaleopsis confragosa

Compartment 10a

Psathyrella spadiceogrisea

***Hypoxylon fragiforme* - Beech**

***Trametes gibbosa* – Beech**

***Ganoderma australe* – Lime**

***Daldinia concentrica* – Horse Chestnut**

***Lycoperdon pyriforme* – Lime**

<u>Compartment 14a – unimproved meadow</u>

Panaeolus ater

Compartment 14b – Mixed Deciduous Woodland

Exidia glandulosa

Coprinellus domesticus

Daedalea quercina

***Hypoxylon multiforme*- Birch**

Compartment 10d

***Phellinus punctata* - resupinate on birch**

A good supply of dead fallen and standing wood of mainly oak, beech and birch provided most of the species today, among which *Daedalea quercina* on both worked wood and oak were good records. Growing in soil among woodland debris and grass *Psathyrella spadiceogrisea* is a typical member of the genus for this time of year. Also slightly unusual was the occurrence of *Phellinus punctata* on Birch, usually associated with Hazel or Hawthorn.

Andy Overall

Richmond Park
Fungi Survey
28/04/2008

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

Temperature on the day 15 degrees-
Conditions wet.

Pembroke Lodge CAR PARK

Compartment 16a

Heading toward Richmond Gate. Roadside grassland and trees, mainly Oak but also some Beech. Down into the valley that meets the boundary with the golf course, here again Oak and beech with scattered Ash and Cyprus.

Agrocybe vervacti
Agrocybe pusiola
Bolbitius lactea
Bolbitius titubans
Calocybe gambosa
Daedalea quercina
Ganoderma australe
Lepista nuda
Panaeolus fimicola
Panaeolus papilionaceus
Perreniporia fraxinus
Parasola auricomus
Trametes gibbosa

Compartment 38 - Pembroke Lodge Gardens

Tidy, gardened area, consisting of various broadleaved trees, Oak dominated. Good grassy areas.

Calocybe gambosa
Entoloma sericium
Hebeloma mesophaeum

This was an unsettled day of sunshine and showers that followed a week of, intermittent heavy rain. As a consequence of the rains certain fungi were in evidence during this visit such as various species of *Agrocybe*, the ubiquitous *Calocybe gambosa*, St Georges's mushroom. Particularly of note was *Bolbitius lactea*, a species that is very rarely recorded or reported, this would constitute the only record for Middlesex and Surrey, unfortunately one specimen was lost during the taking of the spore print and the other was immature and they were the only two fruiting bodies present. Good photos were taken, though demonstrating size and colour.

Andy Overall

Richmond Park
Fungi Survey
14/05/2008

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

Temperature on the day 22 degrees-
Conditions dry.

Pembroke Lodge CAR PARK

Compartment 16a

Rest area next to refreshment building. Associated with wood or woodchip.

Coprinellus domesticus
Parasola auricomus

Compartment 32 - Isabella Plantation

Calocybe gambosa – under conifer peg no. 30, nr entrance
Trametes versicolor
Daedaleopsis confragosa
Piptoporus betulinus
Kretzschmaria deusta – Beech no. 1389 Tree work
Ganoderma australe

Compartment 33a –Corner with disabled car park and plantation

Handkea utriformis TQ 19579 71842

Compartment 33d – High Wood – Oak dominated open woodland-with many veteran oaks.

Laetiporus sulphureus – Oak

Compartment 33h – Nothing seen – layered dead Bracken may inhibit or have an effect on the growth of any mushrooms or toadstools that may fruit in this area and others like it.

Compartment 37 – Kingsgate Car Park to Ladderstile Gate
Open woodland consisting of mainly English Oak, Q. robur and Beech along the boundary. A group of Scots Pine at the northern end of the compartment may prove to be interesting in latter months.

Pleurotus ostreatus
Trametes Gibbosa
Both fruiting on the fallen Beech limbs along the boundary

***Laetiporus sulphureus* –** On live, standing Oak, no tree number.

Compartment 33c – Nothing seen

Compartment 33g – King Clump - open area with scattered Oak trees and the odd Beech – some promising veteran Oaks.

Pleurotus pulmonarius – Dead Standing Sweet Chestnut
Daedaleopsis confragosa

Compartment 36a – Nothing recorded.

Compartment 29e & 30 Around and the pathway & through Gibbet Wood

Polyporus squasmosa on dead fallen beech
Pleurotus ostreatus " " "

Compartment 29c – Dead fallen and standing Beech tree, North West of Prince Charles Spinney.

Polyporus squasmosa
Pleurotus pulmonarius
Hypoxylon fragiforme
***Coriolopsis gallica* – TQ 20313 – 72314**
Inonotus hispidus

This visit followed a prolonged hot spell of nearly 2 weeks when temperatures reached 25-26 degrees Celsius, combined with some windy days, most areas visited had seen some considerable drying out, and this of course would affect any fungi present. Having said that, some notable records were made during this visit, the most important being that of *Coriolopsis gallica* an infrequent and uncommon fungus belonging to the Polyporaceae. Only 28 records of this fungus exist for Britain & Ireland in the FRDBI. Also of note is that of *Handkea utriformis* with only 15 records for the county Surrey. Many of the compartments visited showed dead layers of bracken with new growth pushing through. Due to light exclusion and acidity, most mushrooms and toadstools will not tolerate these conditions, I expect this be the case as the month's role out and the bracken takes hold.

Andy Overall

Richmond Park
Fungi Survey
22/05/2008

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

Temperature on the day 20 degrees-
Conditions dry.

Pembroke Lodge CAR PARK

Compartment 16a

Bolbitius lacteus – TQ 18750 72761 – Ground tree stump among grass on roadside verge
Bolbitius titubans

Compartment 24d - Lawn Plantation

Laetiporus sulphureus
Ganoderma australe

Compartment 39a – Pond Plantation

Laetiporus sulphureus – Castanea vesca
Calocera viscosa – Pinus sylvestris
Piptoporus betulinus
Ganoderma australe
Hypholoma fasciculare
Daedaleopsis confragosa
Auricularia auricula judae
Trametes versicolor

Compartment 17f

Pleurotus ostreatus – Castanea vesca

17a, b, & C and 22 b – nothing seen

Compartment 23b –

Laetiporus sulphureus – Quercus robur

Compartment 23c

Phellinus igniarius - Salix fragilis – TQ

Agrocybe praecox on wood chipped bank

Compartment 27a – back of car park

Fomes Fomentarius – Fagus silvaticus

Conditions during the visit were rather dry in general so very little was expected on soil. *Bolbitius lacteus* made another appearance in the same area of comp. 16a, which will help with confirmation and determination of this species, which is still rather in a state of flux, uncertain. I will deposit it as B. lacteus though. A nice surprise was *Phellinus igniarius* a hard bracket fungus that prefers Salix, this was growing on a fallen, live, Crack Willow overhanging a stream in comp 23c, and this is only an occasionally recorded species though widespread.

Andy Overall

Richmond Park
Fungi Survey
16/06/2008
Species list and mini report
Survey led by Andy Overall
Assisted by Keir Mottram

Temperature on the day 20 degrees-
Conditions dry.

Sidmouth Enclosure

Compartment 19

Collybia fusipes
Laetiporus sulphureus
Daldinia concentrica
Stereum hirsutum
Hypoxylon fragiforme

Compartment 18

Amanita rubescens
Fuligo septica

Compartment 39a – Pond Plantation

Datronia mollis

Compartment 17b

Amanita rubescens
Macrolepiota procera

Compartment 31 – Isabella Plantation

Clitocybe amarescens
Phallus impudicus

Compartment 32

Russula parazurea
Trametes gibbosa
Bjerkandera adusta
Ganoderma australe
Xylaria polymorpha

Compartment 16a

***Crepidotus applanatus* –** Fraxinus excelsior

Compartment 13a

Phellinus igniarius – TQ 21040 74128 – Salix

Compartment 25b

Phellinus igniarius – TQ 21074 74091

Agaricus osecanus
Laetiporus sulphureus
Kuehneromyces mutabilis

Conditions during the visit were rather dry in general though this followed weeks of previous rain, therefore a few species such as *Amanita rubescens* and *Macrolepiota procera* made their first appearance, along with *Agaricus osecanus* a Horse Mushroom look-alike. The record of the day was *Clitocybe amarescens,* an introduced, though rare species found on a fresh chipped pile of *Abies.* More *Phellinus igniarius* was recorded from the Willow on the banks of Polo Field and Playing Field brook.

Andy Overall

Richmond Park
Fungi Survey
24/06/2008

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

Temperature on the day 20 degrees-
Conditions dry.

Pembroke Lodge

Compartment 16a

Polyporus squamosus
Laetiporus sulphureus

Compartment 38

Russula ionochlora
Laetiporus sulphureus

Compartment 34

Laetiporus sulphureus
Daldinia concentrica
Inonotus hispidus

Compartment 16c – Ham Bottom

Phellinus igniarius - Alnus
Macrolepiota procera
Amanita rubescens – Carpinus betulus
Lactarius circellatus – Carpinus betulus – TQ 18700 72054
Xerocomus porosporus – Carpinus betulus – TQ 18636 72217
Russula ionochlora – Carpinus betulus

Compartment 36b

Schizophyllum amplum – TQ 21134 - 72170

Compartment 36b

Rigidiformis ulmarius – Horse Chestnut
Ganoderma australe
Trametes gibbosa
Russula ionochlora
Amanita rubescens
Amanita excelsa var. spissa
Datronia mollis

Compartment 29c

Datronia mollis

Compartment 28

Collybia fusipes
Laetiporus sulphureus

Conditions dry, no rain for a few weeks. The *Carpinus betulus* boundary at Ham Bottom proved to be a good site for *Lactarius circellatus* the first of the genus to appear to date. Also from this compartment *Xerocomus porosporus, Amanita rubescens* and *Russula ionochlora* were recorded. I expect that more will be revealed from this site. *Schizophyllum amplum* a threatened species across the UK was recorded on dead Poplar wood in Compartment 36b, a very good record for the Park with only 37 records across the country, this being the 1st for Surrey.

Andy Overall

Richmond Park
Fungi Survey
10/07/2008

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

Temperature on the day 20 degrees-
Conditions dry.

Pembroke Lodge

Compartment 16b – Hornbeam Walk

Laetiporus sulphureus
***Russula maculata* – TQ 21122 72174**
Crepidotus variabilis
***Piptoporus quercinus* TQ 18827 72392 - Tree No. 0853**
***Coprinus auricomus* Rd side- buried wood**

Compartment 16c _ Ham Bottom

Amanita rubescens
***Laetiporus sulphureus*- Hawthorn**
Exidia sp – Willow – TQ 18876 72376
***Lactarius circellatus* - Hornbeam**

Compartment 21c

Marasmius oreades
***Russula parazurea* - Oak**
***Collybia dryophila* – Oak**
***Conocybe tenera* - grass**

Compartment 16b

Panaeolus ater

Compartment 24a

Agrocybe pediades
***Pluerotus pulmonarius* – Sorbus nr Pen Pond**

Compartment 21e

Agrocybe pediades
Paneolina foenisecii

Compartment 33a

***Scleroderma areolatum* - Grey Poplar**

Compartment 41 – Dann's Pond

Scleroderma cepa

Compartment 32 – Isabella Plantation

***Piptoporus quercinus* – Old decorticated Oak stump – TQ 19656 71662**
***Daedalea quercina* – Live, Standing Oak – Unusually large brackets**
***Russula parazurea* – Oak**

Compartment 33d

***Piptoporus quercinus* – TQ 19930 71587 _ Tree No. 0681**

Conditions dry, following heavy rain. Heading along Hornbeam Walk, *Russula maculata* an infrequent member of the genus *Russula* was record. At the boundary with compartment 16b we recorded our 1st record of *Piptoporus quercinus* – The Oak Polypore, one of a few species of fungi actually protected by law. It is has been recorded previously from Richmond Park, we recorded it twice more during the day, all from new sites. Various other genera emerged during this visit such as *Scleroderma* a relative of the Boletes. Due to the heavy rain, certain grassland fungi such as *Agrocybe pediades* were evident as was The Brown Hay Cap - *Paneolina foenisecii*.
Andy Overall

Richmond Park
Fungi Survey
24/07/2008

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

Temperature on the day 20 degrees-
Conditions dry.

Pembroke Lodge

Compartment 16b – Hornbeam Walk

***Piptoporus quercinus* TQ 18799 72629 - Tree No. 0872**
***Boletus radicans* – with Carpinus betulus**

Compartment 21c

***Hericium cirrhatum* – Growing on dead, standing, Aesculus. TQ 18898 72492**
***Amanita rubescens var. annulosulphurea* – Beech – TQ 18997 72560**

Compartment 33d - High Wood

***Piptoporus quercinus* TQ 19664 71732 – relatively young tree for this species, planted 1830's – Near to the Isabella Plantation fence.**

***Russula atropurpurea* – With Castanea**
***Fistulina hepatica* – On Quercus 1st of the year.**

***Piptoporus quercinus* TQ 19777 71444 - Tree No. 0696**

***Piptoporus quercinus* TQ 19669 71438 - Tree No. 0752**

***Collybia fusipes* – On roots of Quercus robur.**

Compartment 32 – Isabella Plantation

***Chlorophyllum brunneum* - Growing under a Cyprus tree, one Fruitbody.**

Compartment 31

***Agaricus silvicola* – Under broadleaved trees**

Compartment 14g

***Macrolepiota procera* In grass among Quercus robur**

Collybia fusipes
Laetiporus sulphureus
***Boletus declivitatum* – Close to Quercus robur roadside**
Compartment 17f

***Pluerotus pulmonarius* – On Aesculus**
***Coprinus micaceus* – at base of Aesculus**
***Chondrostereum purpureum* - On dead wood Aesculus**

Compartment 20

***Piptoporus quercinus* TQ 19367 72964 – on dead, decorticated, piece of Oak used as dip guard.**

***Piptoporus quercinus* TQ 19415 72930 - Tree No. 2166 – On the burnt out core of a half dead Oak. 2 fb's**

***Piptoporus quercinus* TQ 19400 72913 - Tree No. 2168 – on cut limbs of a standing, live Oak – 2 fb's**

Compartment 16a

***Ganoderma resinaceum* – On live Carpinus betulus next to the Pembroke Lodge Car park.**

A prolonged warm spell brought about further fruiting's of *Piptoporus quercinus* from another 9 new sites that included, High Wood, Queens Plantation and Hornbeam Walk. We have been extremely fortunate that these fruit bodies appeared during the survey as it could easily have been a year when fruiting was virtually non-existent. We now know that this fungus occurs across the whole site wherever the veteran Oaks are situated. One notable exception was a fruiting on a relatively young Oak in High Wood, close to the Isabella plantation perimeter fence, the tree is thought be from an 1830's plantation. Other notables on this visit were *Hericium cirrhatum* a fairly rare toothed fungus that occurs on the dead wood of various, standing or fallen dead or dying broadleaved trees. *Chlorophyllum brunneum* recently separated from *Chlorophyllum rhacodes* forming one part of a trio of species around this complex.
Andy Overall

Richmond Park
Fungi Survey
12/08/2008

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

Temperature on the day 20 degrees-
Conditions damp.
Starting Point
SHEEN GATE CAR PARK

Compartment 10e – Quercus robur

Macrolepiota procera
Collybia dryophila
Trametes versicolor
Daedalea quercina

Compartment 13a - Adams Pond

Marasmius oreades
***Boletus riparielllus* – with Populus sp**
Ganoderma australe

Compartment 13 c

Ganoderma australe

Compartment 13d

***Ganoderma resinaceum* – on Salix x 3**

Compartment 25a

***Ganoderma resinaceum* – Salix x 3**
***Daedaleopsis confragosa* – Salix**

Compartment 25c

***Perreniporia fraxinea* – Salix**

Compartment 13b

***Meripilus giganteus* – Oak**
***Collybia dryophila* – Oak among grass**

Compartment 14h

***Tubaria furfuracea* – Oak – soil among grasses**

Compartment 10d

Clitocybe sp
Bovista plumbea

Compartment 10c

Agrocybe pediades

Compartment 15

Agrocybe pediades

Compartment 16a

***Ganoderma resinaceum* – Hornbeam x 2**
***Psathyrella candolleana* x 2**
Marasmius oreades
***Collybia fusipes* – Oak x 3**
Polyporus squasmosa
***Collybia dryophila* x 6** among soil and wood debris near Oak
Fistulina hepatica
***Meripilus giganteus* –** In rest area, unusually on young birch tree
Bovista plumbea
Collybia dryophila
***Piptoporus quercinus* –**4 new fruit bodies inside of Oak tree No. 872

Compartment 16b

***Piptoporus quercinus* –** 1 new fruiting on same Oak
Pleurotus ostreatus – Oak
***Neolentinus lepideus* –** On railway sleeper used for steps

Compartment 32 – Isabella Plantation

Psathyrella candolleana
Laetiporus sulphureus
Piptoporus betulinus
Russula parazurea
Exidia glandulosa

Compartment 29e

Agaricus campestris

Compartment 38 – Pembroke Lodge Gardens

Marasmius oreades
Collybia fusipes

Given that there had been plenty of rain and sunshine in the weeks previous to this visit; it was a little disappointing to not see more terrestrial fungi belonging to genera such as *Russula, Lactarius* and *Boletus*. I don't know whether a pattern is emerging of Richmond Park being a habitat that harbours rare fungal species and less of the more common species and genera, I don't know, we shall see over the coming months? Highlights from this visit were undoubtedly the recently described *Boletus ripariellus* which was found fruiting close to *Populus* sp on the edge of Adams Pond, the right habitat given this species prefers damp areas. Another species of note was *Neolentinus lepideus* 'The Train Wrecker' (USA) which was found fruiting from a railway sleeper used as a step.

Andy Overall

Richmond Park
Fungi Survey
28/08/2008

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

Temperature on the day 20 degrees-
Conditions damp.
Starting Point
Pembroke Lodge

Compartment 16a

Boletus declivitatum
Ganoderma resinaceum

Compartment 16b

Marasmius oreades
Coprinus plicatilis
Collybia fusipes
Laetiporus sulphureus
Fistulina hepatica
Laetiporus sulphureus
Macrolepiota procera
Macrolepiota procera
Macrolepiota procera
Macrolepiota procera
Macrolepiota procera
Boletus radicans
Boletus radicans
Russula amoenolens
Russula amoenolens

Russula amoenolens
Russula amoenolens
Gyroporus castaneus
Russula parazurea
Amanita rubescens
Pluteus cervinus

Psathyrella candolleana
Russula violeipes
Collybia dryophila
Lycoperdon perlatum
Boletus chrysenteron

Compartment 16c

Boletus declivitatum
Boletus porosporus
Piptoporus quercinus
Lepiota oreadiformis
Macrolepiota procera
Russula amoenolens
Collybia dryophila
Gyroporus castaneus
Russula parazurea
Russula parazurea
Boletus declivitatum
Boletus declivitatum

Lycoperdon perlatum
Nectria cinnabarina
Lycoperdon nigrescens
Laetiporus sulphureus
Lepiota cristata
Clitocybe phaeophthalma
Mycena pura
Amanita rubescens
Amanita ceceliae
Russula ionochlora
Russula grisea
Russula graveolens
Scleroderma cepa
Russula heterophylla
Boletus luridiformis
Amanita rubescens
Lactarius circellatus
Inocybe geophylla
Inocybe cincinnata var. cincinnata

Scleroderma areolatum
Clavulina coralloides
Russula grisea
Paxillus involutus
Leccinum pseudoscabrum
Russula cyanoxantha
Laccaria amethystina

Russula cicatricata
Russula heterophylla
Russula ionochlora
Helvella lacunosa
Boletus porosporus
Russula grisea
Leccinum pseudoscabrum
Mycena pura
Boletus chrysenteron
Russula parazurea
Russula cyanoxantha
Russula atropupurea
Hemimycena marei
Macrolepiota procera
Russula insignis

Comp 21c

Leucoagaricus leucothites

Comp 14f

Russula subfoetens
Russula graveolens
Russula grisea
Russula pseudointegra

Comp 31

Agaricus silvicola

Comp 29b

Amanita fulva

Comp 33c

Fistulina hepatica
Fistulina hepatica
Scleroderma citrinum
Russula parazurea
Laetiporus sulphureus

Comp 34

Russula parazurea
Boletus declivitatum
Amanita rubescens
Lepiota oreadiformis
Russula graveolens
Russula heterophylla
Boletus rubellus
Boletus declivitatum

Comp 17a

Lepiota oreadiformis
Fistulina hepatica
Laetiporus sulphureus
Macrolepiota procera
Russula amoenolens

This was a very successful visit. Species of note would *Amanita ceceliae* an infrequently recorded species usually only occurring singly; here it was a fruiting in quite large numbers among the sward down at Ham Bottom. Many Russula species were evident *Russula cicatricata*, *R. grisea, R. pseudointegra* and *R. violeipes* being of note. *Leccinum pseudoscabrum* was present with its host, Hornbeam as was the second fruiting of *Lactarius circellatus,* in large numbers beneath the hornbeam at Ham Bottom, which is turning out to be a hot spot for various fungi genera. *Lepiota oreadiformis* was a notable record from the grass roadside verge of Compartment 16c. Also a relatively late recording of fresh fruit-bodies of *Piptoporus quercinus* was notable.
Andy Overall.

Richmond Park
Fungi Survey
14/09/2008

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

Temperature on the day 20 degrees-
Conditions damp.
Starting Point
Ham Gate

Compartment 16c

Parasola pilicitalis
Lactarius circellatus
Amanita rubescens
Laccaria amethystina
Inocybe lanuginosa
Helvella crispa
Clavulina cinerea
Hyphodontia sambuci
Scleroderma cepa
Laccaria laccata
Amanita ceceliae
Humaria hemisphaerica
Collybia dryophila
Macrolepiota procera
Gloeoporus dicrous
Panaeolus acuminatus
Russula amoenolens
Mycena leptocephala
Lycoperdon pratense
Russula vesca
Russula graveolens
Otidea bufonia
Otidea alutacea aff.

Otidea onotica
Paxillus involutus
Phlebia tremellosa
Helvella lacunosa
Lycoperdon perlatum
Russula ionochlora

Compartment 16b

Fistulina hepatica
Phlebia tremellosa
Stereum hirsutum
Macrolepiota procera
Paxillus involutus
Russula graveolens
Boletus declivitatum
Boletus cisalpinus
Marasmius oreades
Russula amoenolens
Russula parazurea
Bovista plumbea
Amanita gemmata
Russula atropupurea
Boletus radicans
Lycoperdon excipuliforme
Meripilus giganteus
Boletus chrysenteron
Mycena olivaceomarginata

Compartment 21c

Boletus cisalpinus
Marasmius oreades
Macrolepiota procera
Laetiporus sulphureus

Compartment 21f

Bovista plumbea
Russula sororia
Hygrocybe conica

Compartment 29a

Boletus edulis

Compartment 32 – Isabella Plantation

Boletus cisalpinus
Russula ochroleuca
Scleroderma areolatum
Scleroderma citrinum
Laccaria laccata
Russula atropurpurea
Lycoperdon perlatum
Fistulina hepatica
Gyroporus castaneus
Laccaria laccata

Compartment 29e

Laccaria laccata
Russula ionochlora
Agaricus campestris

Compartment 36a Grassy Road side verge up to Ladderstile Gate

Piptoporus betulinus
Collybia dryophila
Agaricus campestris
Hygrocybe irrigata
Helvella crispa
Scleroderma citrina
Lepiota subincarnata
Hygrocybe conica

Stropharia coronilla

Compartment 33h grassy roadside verge

Hygrocybe conica
Gyroporus castaneus
Hygrocybe miniata
Hygrocybe irrigata
Clitocybe gibba

Compartment 33g – grassy roadside verge

Leccinum scabrum
Russula subfoetens
Entoloma sericeum
Entoloma serrulatum
Inocybe rimosa
Hygrocybe conica
Hygrocybe psittacina
Bovista plumbea
Mycena galericulata
Laetiporus sulphureus
Fistulina hepatica
Bjerkandera adeusta
Collybia peronota

Compartment 37 – grassy roadside verge

Hygrocybe conica
Phaeolus schweinitzii
Macrolepiota procera
Suillus luteus
Russula risigallina
Russula ochroleuca
Lycoperdon pratense
Agaricus campestris

Compartment 34 - Toward Ham Gate

Ganoderma resinaceum
Clitocybe phaeophthalma
Agaricus silvicola

Russula pseudointegra

This visit truly highlighted the importance of the grassy, tree lined, roadside verges as an essential habitat for the parks fungi. Some species along the particular verges that we covered on this day, such as *Stropharia coronilla, Lepiota subincarnata, Hygrocybe irrigata* and *Entoloma serrulatum* were excellent additions to the survey records. Ham Bottom and Hornbeam walk both continued with excellent records, such as *Amanita gemmata* from Hornbeam Walk and *Otidea alutacea aff, O. bufonia* and *O. onotica* from one spot at Ham Bottom.

Andy Overall

Richmond Park
Fungi Survey
29/09/2008

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

Temperature on the day 15 degrees-
Conditions damp.
Starting Point
Broomfield Car park

Comp 36b

Boletus declivitatum
Hebeloma theobrominum
Boletus rubellus
Amanita rubescens
Meripilus giganteus
Lycoperdon excipuliforme
Macrolepiota procera
Hypholoma sulphureum
Scleroderma citrinum
Rigidiporus ulmarius
Russula atropurpurea
Russula ochroleuca
Russula ochroleuca
Pleurotus pulmonarius
Fistulina hepatica
Fistulina hepatica
Macrolepiota procera
Hypholoma fasciculare
Gloeoporus dicrous
Russula parazurea
Clitocybe phaeophthalma

Comp 26e

Fistulina hepatica
Hypholoma fasciculare
Trametes versicolor

Russula atropurpurea
Russula atropurpurea
Mycena pura
Laccaria laccata
Gymnopilus junonius
Mycena galericulata
Macrolepiota procera
Parasola pilicitalis

Comp 26b

Trichaptum abietinum
Ganoderma australe
Russula amoenolens
Russula parazurea
Inocybe rimosa
Parasola leiocephala
Phaeolus schweinitzii
Phaeolus schweinitzii
Pluteus cervinus
Lactarius quietus
Amanita rubescens
Boletus badius
Laetiporus sulphureus
Scleroderma citrina
Agrocybe cylindracea
Russula nigricans
Collybia erythropus
Boletus edulis
Pluerotus ostreatus
Meripilus giganteus
Amanita rubescens var. annulosulphurea
Amanita citrina
Russula fragilis
Macrolepiota procera
Amanita rubescens

Not such a fruitful visit this, there seemed to be a lull in the amount of fungi around in general, compared to the previous visit, though this does happen. Species of note during this visit would be *Hebeloma theobrominum* which was fruiting close to oak and the Broomfield car park, also the 2nd record of the red date poroid species *Gloeoporus dicrous* on small dead oak branches.
Andy Overall.

Richmond Park
Fungi Survey
09/10/2008

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

Temperature on the day 15 degrees-
Conditions damp.
Starting Point
Roehampton Gate Car Park

Comp 25c

Lycoperdon utriforme
Fistulina hepatica
Mycena galericulata
Hypholoma fasciculare
Gloeoporus dichrous

Comp 25d

Lepista flaccida
Russula parazurea

Comp 25e

Fistulina hepatica
Scleroderma citrinum
Russula parazurea
Boletus badia

Comp 26e

Armillaria gallica

Comp 26b

Lycoperdon utriforme
Ganoderma australe
Stereum hirsutum

Hypholoma fasciculare
Collybia butyracea
Xerula radicata
Armillaria gallica
Meripilus giganteus
Hypholoma fasciculare
Mycena vitilis
Macrolepiota konradii
Russula violeipes
Russula ochroleuca
Boletus badius
Amanita rubescens
Pseudoboletus parasticus
Scleroderma citrinum
Laccaria laccata
Pholiota squarrosa
Russula parazurea
Lycoperdon pyriforme
Mycena leptocephala
Russula parazurea

Comp 26a

Fistulina hepatica
Marasmius oreades
Stereum hirsutum
Russula vesca
Paxillus involutus
Collybia dryophila

Comp 22e

Russula nigricans
Fistulina hepatica
Fistulina hepatica
Amanita rubescens
Hypholoma fasciculare
Macrolepiota konradii

Comp 25d

Psathyrella marcescibilis

Comp 23c

Agaricus silvicola
Gymnopilus junonius
Fistulina hepatica
Fistulina hepatica
Fistulina hepatica
Pluteus cervinus
Hypholoma fasciculare
Laetiporus sulphureus
Psathyrella conopilus

Comp 23b

Armillaria gallica
Mycena leptocephala
Psathyrella spadiceogrisea
Psathyrella conopilus
Mycena vitilis
Russula atropurpurea

Comp 17d

Russula vesca
Russula grisea

Comp 17b

Amanita rubescens
Boletus edulis

Comp 14e

Collybia dryophila
Hypholoma fasciculare
Amanita rubescens
Laccaria laccata

Comp 22a

Mycena galericulata
Hypholoma fasciculare
Panaeolus acuminatus
Lycoperdon pratense
Hygrocybe virginea
Marasmius oreades

Comp 14f

Clavulinopsis helvola
Hygrocybe conica
Hygrocybe virginea
Hygrocybe lacmus
Hygrocybe pratensis

Comp 14g

Gymnopilus junonius
Collybia dryophila

Comp 14h

Hypholoma fasciculare
Hygrocybe virginea
Marasmius oreades

Comp 13a

Pholiota gummosa
Clitocybe rivulosa
Hygrocybe virginea

Comp 22c

Hygrocybe pratensis

Clitocybe rivulosa
Marasmius oreades
Gymnopilus junonius

Comp 25a

Lycoperdon pratense
Marasmius oreades

This visit highlighted the habitat value of the grassy, mossy, roadside verges that border roads throughout Richmond Park. One stretch of verge was covered during September, which revealed some good species. This was no exception, common *Hygrocybe* species such as *H. pratensis*, *H. virginea*, and *H. conica* were all in evidence as was the much less common *H. lacmus*.
Andy Overall

Richmond Park
Fungi Survey
16/10/2008

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

Temperature on the day 15 degrees-
Conditions damp.
Starting Point
Pembroke Lodge Car Park

Comp 16a

Pluteus salicinus

Parasola leiocephala

Laccaria laccata
Mycena vitilis
Melanoleuca polioleuca
Mycena pura
Panaeolus acuminatus
Pholiota aurivella
Lycoperdon pyriforme
Lycoperdon pyriforme
Stereum rugosum
Collybia butyracea
Hypholoma fasciculare
Hypholoma fasciculare
Armillaria mellea

Comp 17b

Conocybe tenera
Melanoleuca exscissa

Comp 10a

Lycoperdon pyriforme
Armillaria mellea
Hypoxylon fragiforme
Mycena pura
Psathyrella spadicea
Mycena inclinata
Mycena galericulata
Clitocybe nebularis
Clitocybe nebularis
Clitocybe nebularis
Clitocybe nebularis
Meripilus giganteus
Postia subcaesia
Pluteus chrysophaeus
Armillaria ostoyae
Armillaria ostoyae
Stereum hirsutum
Panaeolus acuminatus
Fistulina hepatica
Mycena haematopus
Macrolepiota procera

Chondrostereum purpureum
Coprinellus micaceus
Daedaleopsis confragosa
Amanita rubescens
Pholiota aurivella
Pluerotus dryinus
Pholiota aurivella
Pholiota squarrosa
Oudmansiella mucida
Hypholoma fasciculare
Melanoleuca exscissa
Stereum gausapatum
Auricularia mesenterica
Ossicaulis lignitalis
Pleurotus dryinus

Comp 10c

Agrocybe cylindracea
Auricularia mesenterica
Pluteus umbrosus
Parasola disseminatus
Psathyrella conopilus
Meripilus giganteus
Entoloma sericeum
Parasola micaceus

Comp 14b

Collybia butyracea

Comp 14e

Entoloma sericeum
Hygrocybe conica
Marasmius oreades
Hygrocybe virginea
Hygrocybe virginea
Galerina vittiformis
Lycoperdon pratense
Clavulinopsis helvola
Hygrocybe coccinea

Comp 14f

Agaricus campestris
Calocybe carnea
Hygrocybe pratensis
Mycena leptocephala
Hygrocybe conica
Galerina vittiformis
Entoloma sericeum
Clavulinopsis helvola
Hygrocybe virginea
Mycena galericulata

Comp 22a

Marasmius oreades
Dermoloma cuneifolium

Agaricus campestris
Clitocybe fragrans
Mycena galericulata
Melanoleuca polioleuca

Comp 17b

Hygrocybe virginea
Marasmius oreades
Psathyrella multipedata
Mycena olivaceomarginata
Lycoperdon pratense
Hypholoma fasciculare
Mycena galericulata

Some good collections and records from this visit such as *Psathyrella spadicea*, *Melanoleuca exscissa*, *Pluteus umbrosus*, and especially *Ossicaulis lignitalis* from *Populus nigra* the trunk parts of which are in Compartment 10a, provided habitat to at least 4 different species of infrequent lignicolous species.
Andy Overall

Richmond Park
Fungi Survey
24/10/2008

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

Temperature on the day 15 degrees-
Conditions damp.
Starting Point
Robin Hood Gate

Comp 21a

Coprinopsis atramentarius

Comp 26e

Helvella crispa
Xerula radicata
Parasola micaceus
Mycena galericulata
Hypholoma fasciculare
Lycoperdon pratense
Clavulinopsis helvola
Mycena flavoalba
Clitocybe rivulosa
Hygrocybe virginea
Melanoleuca polioleuca
Postia tephroleuca

Comp 29c

Parasola kuehneri
Mycena galericulata
Lycoperdon pratense
Hygrocybe virginea
Parasola micaceus
Agaricus campestris
Hebeloma sacchariolens
Entoloma rhodopolium
Russula laccata
Galerina vittiformis
Clitocybe rivulosa
Psilocybe semilanceata
Grifola frondosa
Collybia dryophila
Collybia butyracea
Clitocybe nebularis
Mycena pura
Hypholoma fasciculare
Hygrocybe reidii
Lycoperdon perlatum
Clavulinopsis helvola
Panaeolus acuminatus
Gymnopilus junonius
Pluteus nanus
Bisporella citrina
Calocybe cornea

Clitocybe nebularis
Stereum subtomentosum
Armillaria mellea
Mycena leptocephala
Chlorophyllum brunneum
Trametes gibbosa
Stropharia inuncta
Entoloma sericeum
Clitocybe rivulosa
Psilocybe semilanceata
Russula fragilis
Russula atropurpurea
Laccaria laccata
Gloeoporus dichrous
Hebeloma sacchariolens
Agaricus campestris
Russula parazurea

Comp 36b

Hygrocybe virginea
Cystoderma amianthinum
Mycena pura
Stropharia pseudocyanea
Fistulina hepatica
Lepista flaccida

Mycena inclinata
Lepista panaeola
Lepista panaeola
Grifola frondosa
Rickenella fibula
Clavaria fragilis
Lepista nuda
Macrolepiota procera
Mycena leptocephala
Galerina vittiformis
Clitocybe nebularis
Collybia butyracea
Pluerotus dryinus
Armillaria mellea
Melanoleuca polioleuca
Laccaria proxima
Lycoperdon perlatum
Mycena galericulata
Macrolepiota mastoidea
Mycena pura
Lepista flaccida
Clitocybe fragrans

This visit highlighted again the importance of the grassy roadside verges and the tree lines on some of these verges. Acid grassland also came to prominence during this visit with some good records and collections of *Lepista panaeola* an infrequent to rare grassland species and the rare *Russula laccata* a medium sized species smelling of stewed apples, growing in association with Salix. The appearance also of various species of *Hygrocybe* also highlights the importance of the unimproved grassland as a fungal habitat.

Andy Overall

Richmond Park
Fungi Survey
11/11/2008

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

Temperature on the day 8 degrees-
Conditions damp & windy.
Starting Point
Kingston Gate Car Park

Comp 37

Clitocybe nebularis
Lepista nuda
Psathyrella pilluliformis
Mycena pura
Auricularia auricula judae
Chlorophyllum olivieri
Hypholoma fasciculare
Clitocybe fragrans
Lepista flaccida
Lycoperdon perlatum
Ganoderma australe
Meripilus giganteus
Meripilus giganteus
Meripilus giganteus
Trametes versicolor
Trametes gibbosa
Bjerkandera adeusta
Collybia butyracea
Clitocybe fragrans
Mycena leptocephala

Lycoperdon pyriforme
Phaeolus schweinitzii
Lycoperdon perlatum
Hygrocybe chlorophana
Entoloma sericeum
Clavulinopsis helvola
Inocybe nitidiuscula
Inocybe cincinnata var. cincinnata
Inocybe sindonia
Hygrophoropsis aurantiacus
Suillus luteus
Hygrophorus hypothejus
Russula melitodes
Amanita muscaria
Hebeloma crustuliniforme
Clitocybe metachroa
Melanoleuca polioleuca
Hygrocybe virginea
Amanita citrina

Comp 33g

Hygrocybe virginea
Mycena leptocephala
Mycena olivaceomarginata
Entoloma sericeum
Hypholoma fasciculare
Mycena galericulata

Hygrocybe psittacina
Panaeolus acuminatus
Mycena flavoalba
Clitocybe fragrans
Clitocybe fragrans
Collybia butyracea
Clitocybe nebularis
Lepista flaccida
Lepista nuda
Mycena inclinata
Laccaria amethystina

Comp 36a

Psilocybe semilanceata
Hygrocybe ceracea
Clitocybe fragrans
Lycoperdon perlatum
Clitocybe geotropa
Hypholoma fasciculare
Hygrocybe virginea

Comp 33h

Hypholoma fasciculare
Lepista nuda
Lepista flaccida
Clitocybe nebularis

Lycoperdon perlatum
Mycena pura
Collybia butyracea var. asema
Hygrocybe virginea
Hygrocybe chlorophana
Hygrocybe conica
Melanoleuca polioleuca
Panaeolus fimicola

Comp 36b

Lepista nuda
Grifola frondosa
Mycena galericulata

Comp 28

Mycena inclinata
Stropharia caerulea
Mycena flavoalba
Pholiota gummosa
Entoloma sericeum
Bovista plumbea
Clavulinopsis helvola
Clitocybe fragrans
Panaeolus fimicola

Psilocybe semilanceata
Mycena galericulata
Melanoleuca polioleuca
Hygrocybe virginea
Hygrocybe chlorophana
Hygrocybe cerea

Comp 26e

Fistulina hepatica
Lepista nuda
Russula risigallina
Laccaria laccata
Mycena inclinata
Hygrocybe virginea
Collybia butyracea
Psilocybe semilanceata

This visit highlighted again the importance of the grassy roadside verges and the tree lines on some of these verges. Compartment 37 with the mature Scots Pine mixed with Oak is particularly interesting with a few interesting species of Russula and Inocybe.
Andy Overall

Richmond Park
Fungi Survey
13/11/2008

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

Temperature on the day 8 degrees-
Conditions damp & windy.
Starting Point
Sheen Gate Car Park

Comp 10e

Gymnopilus junonius

Comp 14h

Mycena galericulata
Mycena flavoalba
Stropharia pseudocyanea
Mycena leptocephala
Collybia butyracea
Clitocybe rivulosa
Laccaria laccata
Hebeloma velutipes
Hygrocybe virginea
Hygrocybe virginea
Hygrocybe virginea
Entoloma sericeum
Hygrocybe ceracea

Comp 13b

Lepista flaccida
Lepista nuda
Clitocybe metachroa

Collybia butyracea
Grifola frondosa
Psathyrella multipedata
Hypholoma fasciculare
Psathyrella pilluliformis
Meripilus giganteus
Trametes gibbosa
Stereum gausapatum

Comp 13a

Laccaria laccata
Lepista nuda
Mycena pura
Agaricus campestris
Collybia dryophila
Mycena flavoalba
Collybia butyracea
Flammulina velutipes
Bolbitius titubans

Comp 13c

Mycena pura
Postia subcaesia
Clitocybe metachroa
Stropharia caerulea
Xylaria hypoxylon
Clitocybe phaeophthalma
Spongipellis delectans
Pluteus cervinus

Ganoderma applanatum
Psathyrella tephrophylla
Lepista nuda
Hygrocybe virginea
Rickenella fibula
Clavulinopsis helvola
Clavulinopsis luteoalba
Hygrocybe ceracea
Hygrocybe chlorophana

Comp 26b

Lepista nuda
Macrolepiota procera
Russula cyanoxantha
Clitocybe metachroa
Collybia butyracea var. asema
Laccaria laccata
Mycena leptocephala
Russula sanguinea
Hygrophoropsis aurantiacus
Russula parazurea
Russula parazurea
Russula parazurea
Hypholoma fasciculare
Lactarius fulvissimus
Xerula radicata
Meripilus giganteus
Mycena inclinata

Collybia butyracea
Pluerotus ostreatus
Clitocybe fragrans
Mycena pura
Psilocybe cyanescens
Chlorophyllum brunneum
Paxillus involutus
Amanita muscaria
Chlorophyllum rhacodes
Clitocybe nebularis

Comp 26e

Gymnopilus junonius

With the cold snap having moved on from the previous weeks and with the advent rain, we still have some interesting fungi appearing. This is the time of year for the Waxcaps, Clitocybe and Lepista and they are all in evidence. Though not a great diversity of Waxcaps species are showing up, those are evident are fruiting right across the park on the unimproved grasslands and roadside verges. Wood Blewits are in full swing with good fruiting's across the park as are many different species of Clitocybe. This visit though revealed a very rare Polypore, fruiting on a dead fallen Horse Chestnut across from the Sheen Gate, its name, *Spongipellis delectans*. Only 19 records exist for Surrey and this the first in 11 years. There are only 67 records for the whole Great Britain and Ireland. It was included in 1st edition of red data species.

Andy Overall

Richmond Park
Fungi Survey
20/11/2008

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

Temperature on the day 8 degrees-
Conditions damp & windy.
Starting Point
East Sheen Car Park

Comp 13a

Bulgaria inquinins
Pleurotus ostreatus
Laccaria amethystina
Mycena inclinata
Datronia mollis

Comp 33g

Hygrocybe coccinea
Hygrocybe virginea
Hygrocybe chlorophana
Hygrocybe ceracea
Clitocybe fragrans
Clavulinopsis helvola
Mycena aetites
Parasola pilicitalis
Lepista nuda
Entoloma sericeum
Rickenella swartzii

Mycena pura
Melanoleuca polioleuca
Psilocybe semilanceata
Collybia butyracea var. asema
Hygrocybe psittacina
Cystoderma amianthinum
Panaeolus acuminatus
Dermoloma cuneifolium
Mycena flavoalba

Comp 34

Mycena flavoalba
Rickenella fibula
Mycena galericulata
Hygrocybe ceracea
Rickenella swartzii
Entoloma sericeum
Hygrocybe virginea
Melanoleuca polioleuca
Lepista nuda
Clavulinopsis luteoalba
Cystoderma amianthinum
Hygrocybe chlorophana
Clitocybe fragrans
Mycena abramsii

Macrolepiota procera
Russula parazurea
Collybia dryophila
Macrolepiota fulignosa
Lepista nuda
Mycena pura
Mycena inclinata
Laccaria proxima
Bolbitius titubans
Panaeolus acuminatus

Comp 33c

Lepista nuda
Hygrocybe laeta
Dermoloma cuneifolium
Clitocybe fragrans
Collybia butyracea var. asema
Entoloma conferendum var. conferendum
Mycena inclinata
Ampuclitocybe clavipes
Rickenella swartzii
Clitocybe fragrans
Clitocybe nebularis

Comp 16d

Pholiota gummosa
Nectria cinnabarina

Comp 16c

Ganoderma resinaceum
Stropharia caerulea
Lepista nuda
Collybia butyracea var. asema
Collybia dryophila
Clitocybe fragrans
Mycena pura
Panaeolus acuminatus
Mycena rosea
Laccaria laccata
Lepista nuda
Lycoperdon perlatum
Cystoderma amianthinum
Collybia butyracea var. asema
Mycena leptocephala
Clitocybe geotropa
Clitocybe nebularis
Hygrocybe ceracea
Hygrocybe virginea
Hygrocybe coccinea
Psilocybe semilanceata
Dermoloma cuneifolium
Mycena flavoalba
Hygrocybe psittacina

Comp 34

Grifola frondosa
Clitocybe nebularis

Clitocybe geotropa
Lepista nuda
Lycoperdon perlatum
Agaricus silvicola
Mycena haematopus
Chlorophyllum brunneum

This visit once again concentrated mainly on the productive, grassy roadside verges, where the genera *Hygrocybe* were producing good numbers amongst which *H. coccinea* made its first appearance, among others that have already appeared.
Compartments 33g, 33c & 34 were covered as well as Ham Bottom and the playing field within the compartment 16c, which proved to be fairly productive of *Hygrocybe* species and *Entoloma*. *Dermoloma cuneifolium,* an occasional species associated with grasslands was recorded from 3 separate compartments.

Andy Overall

Richmond Park
Fungi Survey
05/12/2008

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

Temperature on the day 6 degrees-
Conditions damp & windy.
Starting Point
Pembroke Lodge Car Park

Comp 17a

Lepista nuda
Lepista saeva

Comp 10a

Cystoderma amianthinum
Clitocybe metachroa
Collybia butyracea var. asema
Laccaria amethystina

Comp 15

Lepista nuda
Hygrophoropsis aurantiacus
Clitocybe metachroa
Mycena inclinata
Laccaria proxima
Calocera pallidospathulata
Clitocybe fragrans
Baeospora myospora

Comp 14c

Ganoderma australe
Mycena inclinata

Comp 14g

Collybia butyracea
Trametes versicolor
Bjerkandera adeusta
Phlebia rufa
Mycena flavoalba
Rigidiporus ulmarius
Armillaria mellea

Comp 14f

Clitocybe geotropa
Rickenella fibula
Hygrocybe virginea

Comp 38

Laccaria fraterna
Clavulinopsis luteoalba

Comp 16a

Lepista nuda
Mycena pura
Kretzschmaria adusta
Collybia butyracea var. asema

Despite the very cold that preceded this visit there was till some good records, though numbers of species were down considerably on the previous visit. *Laccaria fraterna* has to be the stand out species from this visit as it was totally unexpected. From beneath a single Eucalyptus tree at the rear of the Pembroke Lodge this colourful species appeared in large numbers and brightened up the afternoon gloom. This is a rarely recorded species which is associated only with species of Eucalyptus, to find them beneath the one and only Eucalypt in this area was almost as if it was meant to be. A fantastic way to end the day.

Andy Overall

Richmond Park
Fungi Survey
10/12/2008

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

Temperature on the day 6 degrees-
Conditions damp & windy.
Starting Point
Pembroke Lodge Car Park

Comp 22a

Clitocybe geotropa
Clitocybe metachroa
Lepista nuda

Steccherinum ochraceum

Comp 30

Clitocybe metachroa

Comp 29c

Bjerkandera adeusta
Calocera cornea
Stereum rugosum

Comp 29b

Flammulina velutipes
Pleurotus ostreatus

Comp 24d

Collybia butyracea var. asema
Stereum gausapatum

Comp 24a

Lepista nuda

Mycena inclinata

Comp 29e

Lepista nuda
Collybia butyracea var. butyracea
Postia stiptica
Crepidotus variabilis
Lycoperdon perlatum
Hygrophorus hypothejus
Clitocybe fragrans
Clitocybe nebularis
Phlebia radiata
Laccaria proxima

Highlight of this visit was the appearance of the 'herald of winter' *Hygrophorus hypothejus* which was fruiting in numbers inside a small enclosed area containing various conifer trees just opposite the Broomfield car park. The mushroom wasn't wrong; it was absolutely freezing on the day.

Andy Overall

Appendix 2
Previous Species lists 1948 -1992

LIST CONTAINED WITHIN RICHMOND PARK WILDLIFE LIST SUPPLEMENT - supplement to P. HALLIDAY, Richmond Park Wildlife in the 20th Century, A handful of lists made between 1909 and 1988

SINNOTT, N.H., RICHMOND PARK COLLECTIONS (1963-70)
(Material collected between 1963 & '67 deposited in Oxford (OXF), 1969; material deposited at Kew marked K

1963 Apr	**Daedalea quercina (N)**
	Stereum hirsutum (N)
	Calvatia caelata (utriformis) [old material] (N)
1963 May	**Panaeolus campanulatus (N)**
	Panaeolus papilionaceus (N)
	Coprinus exstinctorius (N)
	Peziza anthracophila (N)
	Calocybe gambosa ? (N)
	Calvatia caelata (utriformis) (N)
	Conocybe rickenii (N)
	Agrocybe praecox (N)
	Pholiota highlandensis (Flammula carbonaria) (N)
	Psathyrella candolleana (N)
	Laetiporus sulphureus (N)
	Marasmius oreades (N)
	Hypholoma fasciculare (N)
1963 Jun	**Amanita fulva (vaginata f. fulva) (N)**
	Amanita rubescens (N)
1963 Jul	**Pluteus cervinus (N)**
	Bovista plumbea (N)
	Xerocomus rubellus (N) Sinnott 98, K
	Scleroderma aurantium (N)
	Fistulina hepatica (N)
	Conocybe rickenii (N)
1963 Aug	**Ganoderma applanatum (N)**
	Agaricus campestris (N)
	Vascellum pratense (N)
	Faeberia carbonaria (N)
1963 Sep	**Meripilus giganteus (N)**
	Psathyrella hydrophila (N)
	Lycoperdon pyriforme (N) (immature)
1963 Oct	**Lycoperdon pyriforme (N) (mature)**
	Inonotus cuticularis (N) Sinnott 251, K
	Clitocybe hydrogramma (N)
	Entoloma porphyrophaeum (N)
	Hygrocybe miniata (N)
	Camarophyllus pratensis (N)

	Coniophora puteana (N)
	Conocybe subovalis (N)
	Lycoperdon spadiceum (N) Sinnott 266, K
	Clitocybe depauperata (N)
	Bjerkandera adusta (N)
	Gymnophilus penetrans (N)
	Hygrocybe nigrescens (N)
1964 Jun	**Tephrocybe tesquorum (N) Sinnott 383, K**
	Paneolina foenisecii (N)
1966 Oct	**Trichoglossum hirsutum (N) Sinnott 938, K**
1967 Nov	**Coryne cylichnium (N) Sinnott 1132/1134, ?K**
	Claviceps purpurea (N)
1970 Aug	**Ganoderma lucidum (N) (on Carpinus) Sinnott 1236, ?K**
	Spongipellis spumeus (N) Sinnott 1237, ?K
	Mycena galericulata (N)
	Psathyrella hydrophila (N)

Handwritten comment at top of sheet says 'Comm. Brian Spooner'

Additional fungi from Richmond Park

Peziza petersii	**burnt ground**	**10/06/1952**	**D.A. Reid (K)**
Phomatospora gelatinospora	**on Rhododendron ponticum leaves**	**22/02/1981**	**(K)**

Records by F.B. DeLarge, 1981 - 1986 (first record dates only):

Agaricus arvensis	20/05/1981
Agaricus campestris	25/10/1980
Agaricus xanthodermus	20/05/1982
Aleuria aurantia	21/10/1981
Amanita fulva	28/05/1981
Amanita muscaria	03/10/1981
Amanita rubescens	01/06/1981
Amanita rubescens var. annulosulphurea	05/07/1986
Amanita vaginata	19/10/1981
Armillaria mellea	21/11/1981
Aureoboletus cramesinus	12/08/1981
Auricularia auricula-judae	28/02/1985
Auricularia mesenterica	07/12/1981
Auriscalpium vulgare	03/11/1981
Bisporella citrina	28/02/1985
Bolbitius vitellinus	12/08/1981
Callorina fusarioides	21/04/1985

Calocybe gambosa	13/04/1981
Calvatia excipuliforme	14/10/1981
Calvatia gigantea	23/03/1986
Chondrostereum purpureum	22/03/1985
Clitocybe rivulosa	17/10/1980
Collybia butyracea	03/11/1981
Collybia dryophila	15/09/1991
Collybia erythropus	22/09/1981
Collybia fusipes	29/09/1981
Collybia peronata	10/08/1981
Coniophora puteana	06/01/1985
Coprinus atramentarius	08/05/1981
Coprinus comatus	30/10/1980
Coprinus disseminatus	08/05/1981
Coprinus domesticus	27/06/1984
Coprinus impatiens	30/06/1985
Coprinus micaceus	08/05/1981
Coprinus niveus	22/09/1981
Coprinus picaceus	15/05/1981
Coprinus plicatilis	13/05/1981
Coriolus versicolor	23/01/1981
Dacrymyces stillatus	28/02/1985
Daldinia concentrica	15/05/1981
Fistulina hepatica	19/08/1981
Flammulina velutipes	16/02/1981
Ganoderma applanatum	12/03/1981
Grifola frondosa	21/11/1981
Gymnopilus junonius	22/09/1981
Gymnopilus penetrans	05/07/1985
Hygrocybe conica	12/08/1981
Hygrocybe pratense	07/12/1981
Hygrocybe psittacina	16/11/1982
Hygrophoropsis aurantiaca	30/10/1980
Hygrophorus hypothejus	21/11/1981
Hypholoma fasciculare	13/04/1981
Inocybe lanuginella	05/09/1981
Laccaria amethystina	30/10/1980
Laccaria laccata	17/10/1980
Lacrymaria velutina	07/08/1981
Lactarius rufus	21/05/1981
Lepista nuda	11/11/1981
Leptosphaeria acuta	23/03/1986
Lycoperdon pyriforme	30/10/1980

Macrolepiota procera	28/10/1980
Marasmius oreades	15/10/1980
Marasmius rotula	28/05/1981
Melanoleuca cognata	22/04/1986
Meripilus giganteus	29/09/1981
Merulius tremellosus	29/09/1981
Mycena leucogala	29/09/1981
Mycena sepia	21/10/1981
Nectria cinnabarina	25/02/1985
Panaeolina foenisecii	23/10/1980
Panaeolus campanulatus	29/10/1981
Panaeolus foenisecii	10/08/1981
Panaeolus sphinctrinus	19/10/1981
Paxillus atrotomentosus	05/09/1981
Paxillus involutus	12/10/1981
Phaeolus schweinitzii	19/08/1981
Phallus impudicus	01/06/1981
Phlebia merismodes	30/12/1981
Pholiota gummosa	06/10/1983
Pholiota squarrosa	03/11/1981
Piptoporus betulinus	12/08/1981
Pleurotus cornucopiae	30/10/1980
Pleurotus ostreatus	30/10/1980
Pluteus cervinus	08/05/1981
Polyporus squamosus	13/04/1981
Psathyrella candolleana	12/08/1981
Psathyrella multipedata	28/10/1981
Pseudotrametes gibbosa	30/12/1981
Psilocybe crobula	17/11/1981
Psilocybe merdaria	29/09/1981
Psilocybe semilanceata	15/10/1980
Rickenella fibula	29/09/1981
Rigidiporus ulmarius	05/04/1982
Rosellinia aquila	19/03/1985
Scleroderma citrinum	30/07/1981
Scleroderma verrucosum	17/11/1981
Scutellinia scutellata	21/04/1985
Sparassis crispa	02/11/1982
Stereum gausapatum	21/01/1981
Strobilurus tenacellus	17/05/1985
Stropharia aeruginosa	26/10/1980
Stropharia semiglobata	17/10/1980
Suillus luteus	02/11/1981

Tubaria furfuracea	27/10/1983
Xylaria polymorpha	14/09/1983

Myxomycete

Enteridium lycoperdon	08/07/1981

LASSOE, T., RICHMOND PARK RECORDS, (1991, 1992).

comm. Brian M. Spooner

Agrocybe cylindracea (TL).
Bjerkandera adusta (TL).
Boletus badius (TL).
Boletus chrysenteron (TL).
Ciboria amentacea (TL).
Coriolus versicolor (TL).
Fistulina hepatica (TL).
Hypoxylon howieanum (TL).
Laetiporus sulphureus (TL).
Macrolepiota procera (TL).
Macrolepiota rhacodes (TL).
Marasmiellus vaillantii (TL).
Pluteus aurantiorugosus (TL).
Psilocybe semilanceata (TL).
Pseudotrametes gibbosa (TL).
Rhodotus palmatus (TL).
Russula ochroleuca (TL).
Fuligo rufa (Myxomycete) (TL).
Badhamia utricularis (Myxomycete) (TL).

MISCELLANEOUS RICHMOND PARK RECORDS (1948-1992)
comm. Brian M. Spooner, 1993

1947 July		**Heteroconium tetracoilum (on Diatrype stigma, on Acer pseudoplatanus)**
1948 June		**Tapesia cf. cinerella (on Rhododendron sp.). S.J. Hughes**
1951 July		**Urocystis agropyri (on Agrostis tenuis). R.W.G. Dennis**
1952 June		**Bovistella radicata, (leg. Walters). ONLY BRITISH RECORD**
1961 May		**Ovulinia azaleae (on Rhododendron 'naomi-ophia'). D.A. Reid & R.W.G. Dennis**
		Sclerotinia candolleana, R.W.G. Dennis
1977 Sept.		**Agaricus campestris var. squamulosa, V.C. Hickman**
1986 Oct.		**Volvariella surrecta. J. Wood**
1991 July		**Bovista plumbea. T. Laessoe.**
July		**Hypoxylon howieanum (on Carpinus) T. Laessoe**
1991/92 Sept.		**Grifola frondosa. N.Newton**
	1992	**Fistulina hepatica (on oak). N.Newton**
1993 Sept.		**Leucopaxillus giganteus. N.Newton**
		Lycoperdon perlatum. N.Newton
		Sparassis crispa. N.Newton

RECORDS BY SPOONER, B.M., 11.5.75

Armillaria mellea (S)

Stereum hirsutum (S)

Chondrostereum purpureum (S)

Daedaleopsis confragosa (on Salix) (S)

Piptoporus betulinus (S)

Ganoderma adspersum (S)

Bjerkandera adusta (On Fagus) (S)

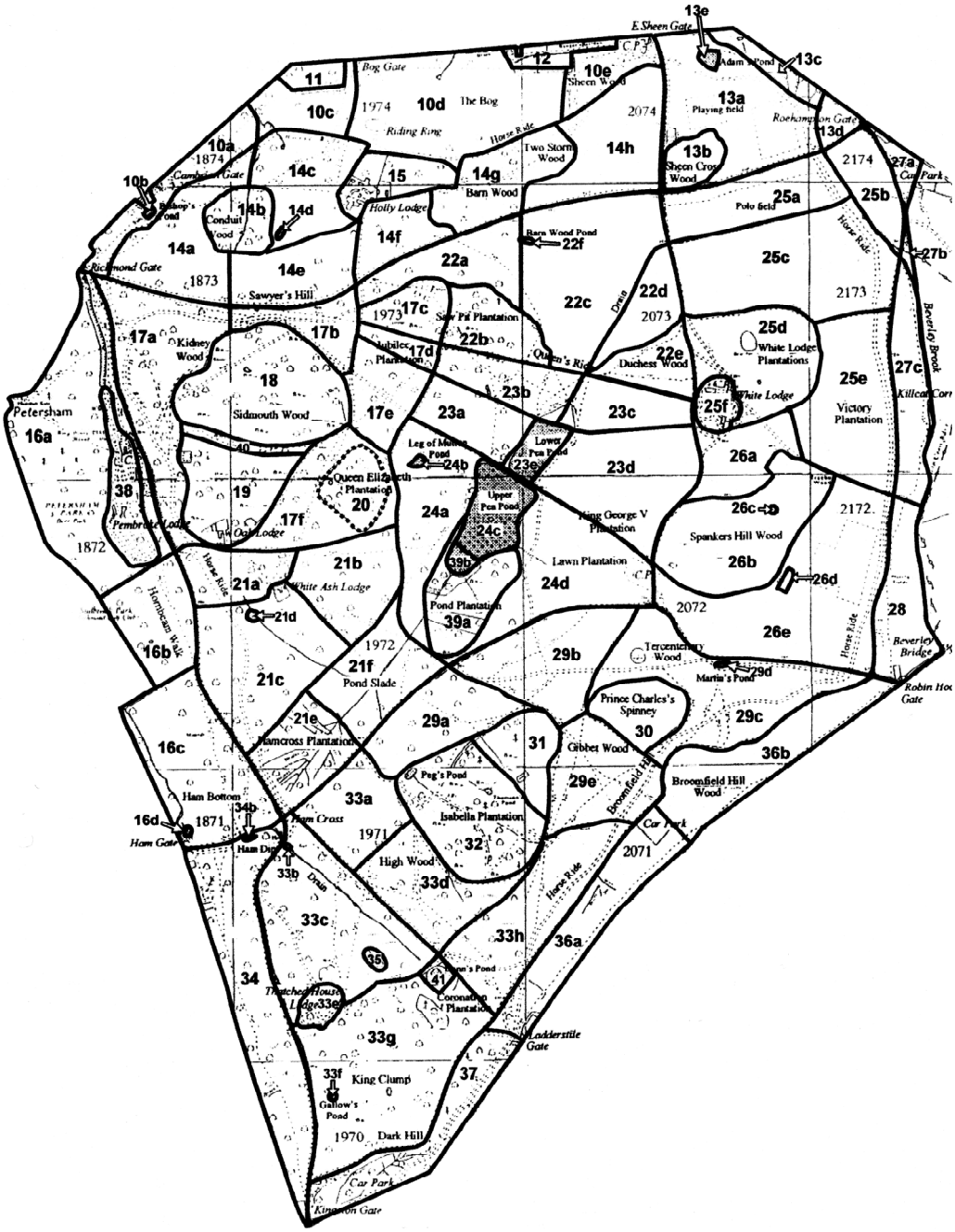
Coriolus versicolor (S)

Diatrype stigma (S)

Reticularia lycoperdon (Myxomycete) (S)

Appendix 3

Richmond Park biological recording compartment map. *Version 2 Feb 2006.*



Appendix 4

Bibliography

Antonín, V. & Noordeloos, M.E. (2004). **A monograph of the genera Hemimycena. Delicatula, Fayodia, Gamundia, Myxomphalia, Resinomycena, Rickenella and Xeromphalina (Tribus Mycenae sensu Singer, Mycena excluded) in Europe. IHW Verlag. 279 pp.**

Bas, C., Kuyper, Th.W., Noordeloos, M.E. & Vellinga, E.C. (eds) **(1988). Flora Agaricina Neerlandica 1. Entolomataceae. Rotterdam: Balkema. 182 pp.**

Bas, C., Kuyper, Th.W., Noordeloos, M.E. & Vellinga, E.C. (eds) **(1990). Flora Agaricina Neerlandica 2. Pleurotaceae, Pluteaceae, and Tricholomataceae (1). Rotterdam: Balkema. 137 pp.**

Bas, C., Kuyper, Th.W. Noordeloos, M.E. & Vellinga, E.C. (eds) **(1995). Flora Agaricina Neerlandica 3. Tricholomataceae (2). Rotterdam: Balkema. 183 pp.**

Bas, C., Kuyper, Th.W. Noordeloos, M.E. & Vellinga, E.C. (eds) **(1999). Flora Agaricina Neerlandica 4. Strophariaceae, Tricholomataceae (3). Rotterdam: Balkema. 191 pp.**

Noordeloos, M.E., Kuyper, Th.W. & Vellinga, E.C. (eds) **(2001). Flora Agaricina Neerlandica 5. Agaricaceae. Rotterdam: Balkema. 169 pp.**

Noordeloos, M.E., Kuyper, Th.W. & Vellinga, E.C. (Eds) **(2005). Flora Agaricina Neerlandica 6.Coprinaceae & Bolbitaceae. Taylor & Francis. 227 pp.**

Bernicchia A, **(2005). Fungi Europaei, Volume 10: Polyporaceae s.l. – Edizioni Candusso - 808 pp,**

Boertmann, D. **(1995). The genus Hygrocybe. Fungi of Northern Europe 1. 184 pp.**

Bon, M. **(1987). The Mushrooms and Toadstools of Britain and North-western Europe. Hodder & Stoughton. 352 pp.**

Breitenbach, J. & Kränzlin, **F. (1984). Fungi of Switzerland 1. Ascomycetes, Switzerland: Mykologia Luzern. 310pp.**

Breitenbach, J. & Kränzlin, **F. (1986). Fungi of Switzerland 2. Non gilled fungi, Heterobasidiomycetes, Aphyllophorales, Gasteromycetes. Switzerland: Mykologia Luzern. 412 pp.**

Breitenbach, J. & Kränzlin, F. **(1991). Fungi of Switzerland 3. Boletes and agarics, 1st part. Switzerland: Mykologia Luzern. 361 pp.**

Breitenbach, J. & Kränzlin, F. **(1995). Fungi of Switzerland 4. Agarics, 2nd part. Switzerland: Mykologia Luzern. 368 pp.**

Breitenbach, J. & Kränzlin, F. **(2000). Fungi of Switzerland 5. Agarics, 3rd Part. Switzerland: Mykologia Luzern. 338 pp.**

Kränzlin, F**. (2005). Fungi of Switzerland 6. Russulaceae - Russula & Lactarius, Switzerland: Mykologia Luzern. 317 pp.**

Courtecuisse, R. & Duhem, B. **1995. Mushroom & Toadstools of Britain and Europe. HarperCollins**.

Galli, R. **(1996). Le Russule. Milan: Edinatura. 480 pp.**

Heilmann-Clausen, J., Verbeken, A., & Vesterholt, J. (1998). **The genus Lactarius. Fungi of Northern Europe 2. 287 pp.**

Holec, J. **(2001). The Genus Pholiota in central and western Europe. Libri Botanici 20: 1–220.**

Kibby, G. **(2000-2008). Field Mycology Vols. 1-9 Published by Elsevier for the British Mycological Society. PO Box 211, 1000 AE Amsterdam, The Netherlands. An essential resource for articles and photographs of British fungi.**

Kibby, G. **(2008). The Genus Russula in Great Britain. 4th Ed. Digital Science. 109pp.**

Knudsen, H. and Vesterholt, J. **2008. Funga Nordica. Nordsvamp. 968 pp. An essential work by 41 mycologists from 16 European countries**

Pegler D N , Laessoe T, Spooner B M – **1995 British Puffballs, Earthstars & Stinkhorns — RBGK**

Phillips R, - **(2006) – Mushrooms – Macmillan 384pp**

Phillips, R. **(1981). Mushrooms and other fungi of Great Britain & Europe. London: Pan Books. 288 pp.**

Legon, N.W. & Henrici, A. (2005)
Checklist of the British and Irish Basidiomycota. Published by Kew Gardens. The most up-to-date and essential reference to the British species and their current names.

The Royal Parks & Land Use Consultants – **2008 – Richmond Park Draft Management Plan**

Rayner, R.W. **(2005) British Fungus Flora. Agarics and Boleti 9. Lactarius. Edinburgh: Royal Botanic Garden. 203 pp.tanic Garden. 174 pp.**

Sarnari, M. **(1998). Monografia Illustrata del Genere Russula in Europe (Tomo Primo). Associazione Micologica Bresadola. 799 pp.**

Sarnari, M. **(2005). Monografia Illustrata del Genere Russula in Europe (Tomo Secundo). Associazione Micologica Bresadola. 807–1568 - Via A. Volta, 46 –38100 TRENTO, ITALY.**

Vesterholt, J. **(2005). The genus Hebeloma. Fungi of Northern Europe 3. 146 pp.**

Watling, R. & Hills, A.E. **(2005). British Fungus Flora. Agarics and Boleti 1. Boletes and their allies. Edinburgh: Royal**

Watling, R. & Gregory, N.M. **(1989). British Fungus Flora. Agarics and Boleti 6. Crepidotaceae, Pleurotaceae and other pleurotoid agarics. Edinburgh: Royal Botanic Garden. 157 pp.**

Watling, R., Gregory, N.M. & Orton, P.D. **(1993). British Fungus Flora. Agarics and Boleti 7. Cortinariaceae p.p. Galerina, Gymnopilus, Leucocortinarius, Phaeocollybia, Phaeogalera, Phaeolepiota, Phaeomarasmius, Pleuroflammula, Rozites and Stagnicola. Edinburgh: Royal Botanic Garden. 131 pp.**

Watling, R. & Turnbull, E. **(1998). British Fungus Flora. Agarics and Boleti 8. Cantharellaceae, Gomphaceae and Amyloid-Spored and Xeruloid Members of Tricholomataceae (excl. Mycena). Edinburgh: Royal Botanic Garden. 189 pp.**

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