

FUNGI ROYALE

Some interesting larger fungi of the Royal Parks - Part 2 saprobes

Andy Overall*

Part 1 of this series (Overall, 2010) discussed some of the wood-rotting fungi recorded during surveys of Richmond Park, Bushy Park and Kensington Gardens throughout 2008 and 2009. Whether it was the dead wood of Richmond Park, the dung heaps and horse paddocks at Bushy Park or the horticultural areas of Kensington Gardens, all three sites offered good habitats for saprobic fungi.

Bolbitius lacteus – Richmond Park - Fig. 1.

This was a very interesting record as, according to the *Checklist of British & Irish Basidiomycota* there is only one collection from Sterling, Scotland and one from North Yorkshire, based on a single sterile specimen. It seems to be poorly understood in Britain. It was recorded during April and May, fruiting close to a tree stump on bare soil. Unfortunately these specimens met an untimely end and I was therefore unable to dry



Fig. 1. *Bolbitius lacteus*, a rare, delicate white species. Richmond Park, 2009. Photo © A. Overall.

and deposit them at Kew. However, I was able to examine them microscopically and found the spore size to be consistent in barely reaching 13 μm , while the spores of the closely related *B. titubans* have a wide size range extending to 16 μm . There was no indication of any yellow colouration in the specimens shown here.

[Editor's note: not to be confused with the much commoner *Conocybe lactea* of *British Fungus Flora* Vol. 3 = *C. albipes* of *Funga Nordica*. That has a more narrowly conical cap, broader spores and typical cheilocystidia and is wrongly named as *Bolbitius lacteus* in Bon: Mushrooms and Toadstools].

Lepiota fuscovinacea – Bushy Park - Fig. 2.

This rare species was last recorded from the county of Middlesex in 1997 during a survey of Buckingham Palace Gardens; this is only the second record for the county. It was found beneath Snowberry bushes on waste ground. It is a saprobic species that is rarely recorded yet widespread. There are currently 82 records held in the FRDBI (Fungal Records Database of Britain and Ireland). A small to medium-sized species at 40–100 mm across with, grey-brown, woolly scales on the cap with variable vinaceous tints, especially when immature and often toward the margin in older specimens. The stem is vinaceous-grey, smooth at the apex, becoming more woolly below the ring-zone. Gills are white, free and spotting-red-brown. Spores were cylindrical-ellipsoid, 5–5.5 x 2 μm . A good microscopic character is the upright, multi-septate hyphae of the pileipellis.

Lepiota cingulum – Kensington Gardens – Fig. 3

This fairly recently described and rarely recorded species was found growing on relatively rich soil, among shrubs. This is the first record for Middlesex. The previous collections were made in

*Flat 2, 39 Northend Road, Golders Green, London NW11 7RJ



Fig. 2. *Lepiota fuscovinacea*, a rather pale collection with vinaceous-brown to vinaceous-grey colours but with a typical woolly-scaly cap and stem. Bushy Park, 2009. Photo © A. Overall.

woodland scrub, two of them with willow. This is a small to medium, yet relatively robust species, similar to *L. brunneoincarnata* in this respect but also resembling *L. castanea*, which is much less robust and has more vivid orange-brown tones, although these distinctions have to be approached with some caution, due to variability.



Fig. 3. *Lepiota cingulum* is an uncommon member of the group sharing spurred or truncate spores. Photo © A. Overall.

(Tofts, 2002). The habitat would also be correct for *L. castanea*. The caps measured 35–40 mm across, had rather dull, medium brown scales radiating outward on a white ground. The stem was 40–45 x 8–10 mm, robust, with brown girdles toward the rather swollen base. Gills were white and free. The spotting on the gills in the picture is not staining but adhering soil. (*L. castanea* can have orange-spotted gills with age). Spores were spurred and penguin-shaped, smooth and measuring 5.3–9.2 x 3.0–5.3 μm .

Leucoagaricus sericifer – Kensington Gardens
Fig. 4.

This small, delicate and relatively rare species of *Leucoagaricus* was found fruiting in rich soil beneath a very prickly shrub, close to a Yew tree. This record is the first for Middlesex. There are 41 records currently held on the FRDBI for England and Wales. Previous records indicate that this species fruits on loamy soil in deciduous woodland. Known from England (Berkshire, East Gloucestershire, Herefordshire, Hertfordshire, North & South Somerset, North Wiltshire, Oxfordshire, Surrey, West Kent and West Sussex) and Wales (Anglesey & Radnorshire). This is a small to medium, essentially white species, yellowing at the disc with age, measuring

13–41 mm across with silky radial fibrils. The stem was deeply rooting, 30–45 x 3–5mm, silky with an upturned ephemeral ring. Gills were white and free with or without notched edges. The ellipsoid to amygdaliform and smooth spores were on the large side for this species at 9–11 x 4–5 μm . However, the spore size is known to be variable and larger-spored specimens were often assigned to a 2-spored form, *L. sericatella*, that is now included within the concept of *L. sericifer*. The size of the spores, combined with the variable lageniform shapes of the cheilocystidia help differentiate this species from the commoner and very similar *L. serenus*, which has smaller spores and clavate cheilocystidia.

Rhodocybe popinalis – Bushy Park - - Fig. 5.

This was an unexpected record from an unexpected area—the rather unassuming small lawn at the rear of the White Lodge. It is rarely recorded although widespread, described as more usually fruiting on soil in deciduous and coniferous woodland, as well as in grassy areas on dunes, and hill pastures. A first for Middlesex, this species has 106 entries on the FRDBI. A small to medium sized species, the caps were 39–45 mm in diameter, the cylindrical stem

30–35 x 4–10 mm. It displayed a characteristic spotting on the cap margin, not unlike some species of *Clitocybe*. Gills were decurrent, grey-buff, of differing lengths and with an entire margin. The rather bitter, rubbery taste is a reliable field character. The spores are atypical for the genus, weakly angular with lumpy nodules (most other species being minutely spinulose), measuring on average 5.3 x 4.6 μm .

Agaricus bohusii – Kensington Gardens – Fig. 6

A large and distinctive species that is uncommon but widely distributed. This cluster began fruiting on the 9th September and continued for some weeks. There are 72 records for this species in Great Britain and Ireland and this is the fifth record for Middlesex. Previous records indicate it to be a species inhabiting parkland, open deciduous woodland and sometimes roadside verges. The fasciculate growth is unusual within the genus *Agaricus* and combined with the coarsely scaly cap make it easy to recognise in the field. The pointed cap scales are dark brown on a pale ground. The long, deeply rooting and clustered stems are tough and fibrous with darker zones of veil below. The cap is 8 to 20 cm across and the stem 7–20 cm tall and 2.5 cm wide, with a rather



Fig. 4. *Leucoagaricus sericifer* is a rarely reported, silky, satiny white species. Kensington Gardens, 2009. Photo © A. Overall.



Fig. 5. *Rhodocybe popinalis* showing its characteristic dull grey-brown colours and cap margin with darker spots. Photo © A. Overall.



Fig. 6. *Agaricus bohusii* is one of the most distinctive of *Agaricus* species, growing in dense clumps and having sharply pointed cap scales. Photo © A. Overall.

weak, fleeting, pendulous ring. Spores are sub-globose to ellipsoid, smooth and thick-walled measuring 5.3–6.1 x 4.6–5.3 µm. Cheilocystidia are clavate with a basal cell, not or rarely in chains.

Coprinus sterquilinus – Bushy Park – Vulnerable / B (Red Data List, ed. 2) – Fig. 7.

This rarely recorded yet widespread species is restricted to the weathered dung of horses or rabbits. It is vulnerable and included on the current red data list for British fungi. There are horse dung piles at Bushy Park that are allowed to weather and this species was found on two separate dung piles within the area of the horse paddocks. This is the first record for this species in Middlesex; there are currently only 48 records in the FRDBI. This species resembles a small *Coprinus comatus* as it also has a scaly cap and annulate stem. These are the only two British species that remain in *Coprinus* after the rest are transferred to *Coprinellus*, *Coprinopsis* or *Parasola*. The cap of this collection measured 33 x 13 mm, and was covered in fleecy white scales, soon greying beneath. Gills were grey then black and inky. The stem was 73 x 7 mm, white and annulate. The spores (always very large in this species) measured 13.8–20.2 x 8.4–12.3 µm, ellipsoid with a large germ pore. Figure 7 shows an immature specimen.



Fig. 7. A young specimen of *Coprinus sterquilinus* showing the fluffy veil covering the cap. Photo © A. Overall.

Clitocybe costata – Bushy Park – Fig. 8.

This is a poorly recorded species of mixed deciduous/conifer woodland or just deciduous woodland on clayey or loamy soils. This collection was with oak in an open deciduous area. This is the second record for Middlesex with 128 records currently held on the FRDBI. The ribbed or costate margin of the cap is usually a good field character. It is of small to medium size measuring 30–65 mm across and varying in colour from pinkish to buff-ochre with a light tomentose covering. It has a depressed centre (infundibuliform). The gills are sub-distant, broad and intervenose, dirty pinkish-buff. The stem is cylindrical to clavate, 35-70 x 4–11 mm, concolorous with the cap. The spores are tear-shaped (lacrymoid), smooth, hyaline and measure 6.0–8.0 x 3.0–4.5 µm.

A final instalment will describe some of the interesting mycorrhizal fungi found in the parks.



Fig. 8. *Clitocybe costata* showing the costate or crenulate margin typical of the species. Photo © A. Overall.

References

Fungal Records Database of Britain and Ireland. <http://www.fieldmycology.net/FRDBI/FRDBI.asp>

Overall, A. (2010). Fungi Royale. Some interesting larger fungi of the Royal Parks - Part 1. *Field Mycology* 11(3): 101–104.

Tofts, R. (2002). The British species of *Lepiota*. 1. Section *Stenosporae*. *Field Mycology* 3(4): 124–136.