Fungi Walk at Brill Common, December 16th, 2018

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We numbered 10 for BFG's final outing of the year and were blessed with a fine clear though chilly morning, for which we were extremely grateful after the strong winds and rain of the previous day. Today we decided to focus on the area with Horse Chestnuts and Ash (known as The Walks) having found this part to be the most productive in previous visits. This paid off and we spent all our time here: though specimens on the ground were in short supply (not surprising for this late in the fruiting season) we found plenty to keep us occupied on the fallen trunks and piles of woodchip, brash and fallen branches. Our list of 44 species included 8 new to the site, one of which appears to be new to the county and is a species I've long wanted to find. Nick presented us with two miniscule dingy-whitish specimens of *Mycena* on a piece of wood which we though would probably turn out to be the fairly common *M. tenerrima* (more familiar by its previous name of *M. adscendens*). I carefully put the wood plus specimens in a pot but later on took a tumble which must have shaken them loose because all I found at home was the piece of wood with an extremely small stem – no cap attached – but at least this showed me an important feature which was the small disc at its base. I then searched around in the pot and found one somewhat damaged tiny cap which revealed enough microscopic information to lead me to ***Mycena aciculata*** (no common name and not to be confused with the bright orange-capped but equally miniscule *Mycena acicula*!). This particular *Mycena* has very distinctive cheilocystidia (cells on the gill edge) which are small, clavate and smooth but some of which sport amazingly long thin tassels. An earlier name of this species was *M. longiseta* which referred to these long hairlike cells which are to be found on the cap surface as well as the gills. It appears to be not that rare with over 100 records on the national database, but I was delighted to be able to identify it to add to our county list.

Right, two tiny specimens of *Mycena aciculata* found on a piece of wood. The caps were less than 5mm across – a new species for the county today. (NS)

Amongst the several other collections of *Mycena* species recorded today was a neat little group of another small pale species: this was ***Mycena speirea*** (Bark Bonnet), separable in the field from others which grow on wood by its pale beige cap with a darker centre and its distinctive decurrent gills.

Left, *Mycena speirea*, a common species found on fallen wood with caps up to 10 mm across and distinctive decurrent gills. The different gill shapes of our two small Bonnets is nicely illustrated for comparison here. (NS)

Ascomycetes (the spore-shooters) tend not to feature very highly in our lists and reports, but today on one of the rotting felled Horse Chestnut trunks we found amongst several other things not only a slime mould new to the site but also three specimens of a pale beige cup fungus which appeared at first sight to be a species of

Peziza. It was not until we extricated one of them that its distinct stem became visible, making *Peziza* unlikely and maybe *Tarzetta* more probable though the wood substrate rather than soil seemed strange. At home I examined a squash of the inner (fertile) surface in Melzers reagent (basically Iodine) which in *Peziza* turns the tips of the asci (long sausage-shaped cells containing the spores) blue, but in the asci of other cup fungi causes no colour change. I found no blue staining but also unfortunately no spores either because the specimen was just not mature enough or maybe the frost had curtailed development. There were, however, other clues to be found under the microscope, the first being the long thin paraphyses (cells which lie between the asci) which had simple thin tips – this fitted well with *Tarzetta* though didn't help me decide upon which of the two *Tarzetta* species we had. For that I took a tiny piece of the edge of the cup and stained it with Congo Red to see if I could find the tell-tale chains of hairlike cells present in ***T. cupularis*** (Toothed Cup) but absent in the more common *T. catinus*. Sure enough, there they were, so despite not being able to check the spore size I felt comfortable that my identification was correct.

Right above, three cups of *Tarzetta cupularis* emanating from a well rotted Horse Chestnut trunk, and below the catenate (chains of) cells found on the cup margin, here magnified x 400. It is these cells which cause the irregular slightly jagged edge to the cups described in its common name (Toothed Cup) and just visible on our specimens here. (Incidentally, the tiny orange blobs in the top right corner were not identified.) **(macro – NS, micro - PC)**

We found several collections of one other Ascomycete of note: ***Rustroemia firma*** (Brown Cup) – not the most imaginative and flattering of common names for this small olive-toned species which grows quite commonly on Hazel and Oak sticks. The caps are up to 10mm across, have hardly any stalk and tend to darken and develop undulating edges in maturity.

Left, *Rutstroemia firma* found today growing on several Hazel twigs. **(NS)**

Moving on from the Discomycete branch of the 'Ascos' (the 'cup' fungi) we rarely feature members of the Pyrenomycetes – also Ascos but completely different in appearance and characterised by their black crusty surface, often colonising fallen wood. Toni found one such colony which we were able to name as ***Lasiosphaeria spermoides***, no common name and not unalike a very small *Hypoxylon* (Woodwart). It is, however, recognisable by its tiny shiny black spheres, each with a small central 'nipple' from which the spores are expelled, and when 'ripe' the nipple tends to appear white from the exuding spore mass. In contrast, species of *Hypoxylon* are somewhat larger, less regular in shape and are covered in tiny 'ostioles' – pimples through which it expels the spores.

Left, a typical colony of *Lasiosphaeria spermoides* growing on Horse Chestnut bark today. (NS)

A couple of typically late fruiting mushroom species were found – things which we record regularly here and which seem quite at home in frosty or even snowy conditions**.** Just one specimen of ***Pseudoclitocybe cyathiformis*** (The Goblet) turned up in soil in thick leaf litter (though it's just as happy in grass). Its dark brown shiny cap, sunken in the middle, with decurrent gills and longish stem make it an easy one to recognise. ***Flammulina velutipes*** (Velvet Shank) was growing in clusters on another of the felled Horse Chestnut trunks – unmissable with their bright orange-ochre sticky caps, pale gills and velvety dark lower stems.

Right, one of several colourful clumps of *Flammulina velutipes* bursting through the bark of a felled Horse Chestnut trunk. (NS)

Several species belonging to the Heterobasidiomycetes were found – these are better known collectively as Jelly fungi and though they lack gills (suggesting that they should belong with the Ascomycetes – spore-shooters) they have the same mechanism for distributing their spores as the mushrooms, toadstools and brackets, i.e. by means of basidia, each bearing (usually) 4 spores. The best known of these is possibly ***Auricularia auricula-judae*** (Jelly Ear) which today caused some discussion over identifying the several bits of wood on which it was growing. Piles of mixed wood in winter can often prove a challenge to identify, and at first we could see no evidence of either

Elder or Beech in the vicinity – these two being the likeliest host trees for Jelly Ear. Joanna (a Brill resident) then told us of a lone Beech growing not far away, solving the first issue. The second was solved when both Derek and I independently spotted the common white resupinate fungus ***Hyphodontia sambuci*** (the aptly named Elder Whitewash) covering much of another stick with liberal fruitbodies of Jelly Ear, thus providing the answer to the stick's identity.

Above, two for the price of one: *Auricularia auricula-judae* growing in abundance together with *Hyphodontia sambuci*, a common species of white Corticioid which likes to inhabit Elder, both living and dying. It was the presence of both these two species together which confirmed the host branch as Elder. (NS)

I checked various *Galerina*-like specimens but could only make them the very common ***Tubaria furfuracea*** (Scurfy Twiglet). One collection in particular, on woodchip near the pond, deceived several of us into thinking they were more interesting, especially as they sported a ring zone on the stem and appeared rather too pale for *Tubaria*. Not so! Several descriptions of *Tubaria* include reference to the floccose white veil leaving remnants not only on the outer cap but also on the stem – something I'd not previously taken on board. There's nothing quite like trying to identify fungi for keeping one on one's toes and humbled!

Left, the common *Tubaria furfuracea* in the guise of a *Galerina* today. (PC)

That's it for the year! See the complete list for more details of what we found. A big thank you to Nick for all his photos which made this report possible, and to all of you who came and made it such an enjoyable morning.

Photos: NS = Nick Standing; PC = Penny Cullington