

Fungus Survey of Oxfordshire

Newsletter 2016



Russula sardonica Waterperry Woods 2015: Caroline Jackson-Houlston

Notes from our President

Richard Fortey FRS

2015 was an exceptionally good year for fungi of all kinds. The autumn season started early and continued until the end of November. Fungi that we normally associate with late October were at their best in September. This sort of serendipity is both one of the charms of mycology, but also a curse to foray organisers who have to assume that there is such a thing as an average year. The truth is that there is *never* an average year for fungi.

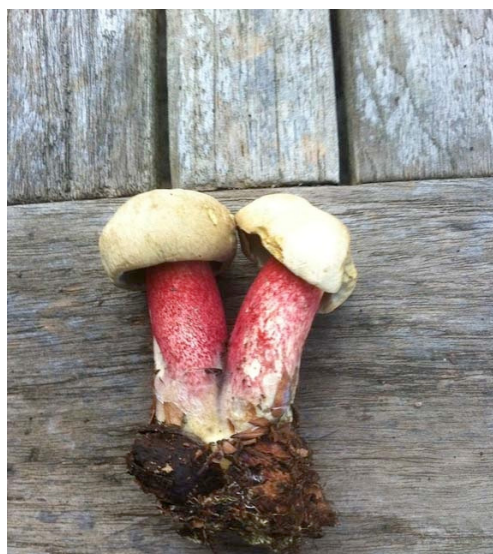
The September bonanza in my part of the Chiltern Hills may have been stimulated by a very dry summer followed by plentiful rains at the end of August. The real beneficiaries were mycorrhizal species – exactly those that had put on a perfunctory performance last year. Our beech woods abounded with *Russula*, *Lactarius*, and boletes. The latter included a good showing for *Boletus edulis*, which can be timid in many years. Rarer species turned up also – like ‘*Boletus*’ *appendiculatus* in Crowsley Park. I’ve put ‘*Boletus*’ in quotes in this case, because the molecular taxonomists have been at work on that familiar genus, and split it into a number of smaller genera – so the latest (and one hopes the last) name for this fungus is *Butyroboletus appendiculatus*. The most exciting and beautiful discovery was another bolete – ‘*Boletus*’ *calopus* (now renamed *Caloboletus calopus*) – with a brilliant red stipe, in Harpsden Wood. I have seen this species before under beech, but only in Scotland, at Crathes Castle. A careful search through the Fungus Record Database for Britain and Ireland (FRDBI) found only one alleged Oxfordshire record in 1949 – but this was clearly an error since the grid

Editor's News

Molly Dewey

Thanks to our President, Richard, and Paul Cannon at Kew, the FSO dried Fungal specimens, all 1590 of them, that were housed at the Oxford County Museum Reserve at Standlake have now been deposited at Kew and will, in time, be accessed into the BMS National Fungarium. A copy of the database of all the specimens submitted to Kew can be obtained from Molly@fmdewey.com. Many thanks to Wendy MacEachrane and Oliver Faulk for helping me check the info on the FSO database spread sheets with the info on each specimen packet at Standlake. In future all new, interesting dried specimens should be sent direct to Kew.

reference given placed it in the Vale of Evesham. Otherwise, northerly and westerly records dominated. So it seems I had an ‘Oxfordshire first’ - as far as the official records went, at least. Nor is it in the list prepared for the Warburg Reserve nearby by F.B. Hora. It seems very unlikely to me that such a striking species would pass unnoticed. However, the changing of the generic names is confusing to beginners, and stretches the memory of even the most experienced mycologist. One begins to see the virtue of common names - long looked down on by many forayers – they seem to be more stable than many of the scientific names at the present time! So the ‘oak bolete’ (*appendiculatus*) and ‘bitter beech’ (*calopus*) are the finds I have mentioned.



‘*Boletus*’ *calopus* (now renamed *Caloboletus calopus*)

A good *Russula* year meant a dozen species in our local woods, and several that were hard to determine. I finally sorted out *R. solaris* to my satisfaction. The fact that abundant *R. nigricans* fruit bodies had so long to lie around as black wrecks meant that the little parasitic toadstool *Nyctalis asterophora* had time to mature on the remains – something that seldom happens in our county. There were also plenty of *Cortinarius* in evidence, so it seems that all the beech associates were fruiting.

Later, it was the grasslands that were the stars: a great *Hygrocybe* year on familiar sites like Watlington Hill, and Crowsley Park. I had not seen the magnificent *H. punicea* for years – but it was in both localities. Associated coral fungi were also abundant: *Clavaria fumosa* and *Clavulinopsis umbrinella* reappeared after several missing seasons. Judy Webb found the very uncommon earth tongue *Microglossum olivaceum* in more than one locality. Genera like *Omphalina* and *Hydropus* turned up, rare in our county. The famous fairy ring of the large blue *Entoloma* we have long known as *E. bloxami* was in full display – although I have been told that it might, after all, have to be called *E. madidum*. Never mind the names, we enjoyed the show. I received a call from Lt. Col. Peter Blaker of Rotherfield Greys to inspect his ancient lawn, which was one of the best carpets of grassland fungi I have ever seen - white, yellow and red with waxcaps. A memorable year.



Rotherfield Greys - Ancient Lawn 2015

Molly and John Dewey took the Oxon collection to Kew for safe storage. This is something of a relief as it seemed that the county was reluctant to store our collection much longer. Since it represents more than 20 years identifications and many county ‘firsts’ it is of scientific importance, even without counting the hours of work involved in collection and microscopy. It was also a chance to clean up what may be some over optimistic determinations. Many years ago I identified the uncommon white bracket *Spongipellis delectans* and put it into the collection. I have learned more since, and enough to make me lose confidence in my earlier ID. By a strange piece of luck I found a certain *S. delectans* (I trust) in my own wood, and was able to replace the voucher of the one I had doubts about.

The FRDBI is an invaluable resource, but has been gradually falling behind. Good news: new records and data importing is on the way to being completed in 2016. Not least, it will allow us to keep track of all those name changes to make sure our records are as up-to-date as possible. We would be very lucky if 2016 turns out to be as full of riches as 2015.

Of course, it is even more important than that. The western part of the British Isles might prove to be a haven for many fungus species endangered in parts of continental Europe. The western part of the British Isles might prove to

be a haven for many fungus species endangered in parts of continental Europe where pollution levels are higher. We still do not know the effects of atmospheric nitrification, we are only beginning to grasp the mycological implications of global climate change. Fifteen years ago I wrote an article in the first number of *Field Mycology* pointing up the importance of old Oxfordshire churchyards as fungal conservation areas. I based my article on the old churchyard at St Nicholas Rotherfield Greys, near Henley, which at that time was replete with uncommon *Hygrocybe*, *Dermoloma*, *Entoloma* and *Clavaria* species. Not any more. In the last few years I have struggled to find a quarter of those I originally recorded. Is this a local phenomenon? If anything, there is less cultivation in the fields around, so I can rule out local fertilizer pollution. Is it just a series of bad fungus seasons? Or is something more fundamental at work? I don’t know the answers to these questions, but I do know that the answers will be important. The local data feeds into a wider view, and one that will be relevant to the status of fungi for the unforeseeable future.

A word from our Chairman

Prof Alison Banham

This has been a busy year for myself, and the group as a whole. We owe particular thanks to Molly Dewey, Wendy MacEachrane and Oliver Faulk for the work they have been doing in getting our FSO herbarium collection fully documented so the specimens can be transferred from the Standlake Museum to Kew. It is really good news that this collection will be properly stored and looked after, so that it can provide a resource for the future. This is a fitting legacy for Marion and Arthur Warland, who played such a pivotal role in establishing the collection. Thanks are also due to Judy Webb for all her dedicated and time consuming recording work, Max Peterson for being our treasurer and Rod Maceachrane for auditing our accounts.

John and I were really sorry to miss out on the forays this autumn, my ankle is recovering slowly and we are looking forward to seeing more of you all in 2016. While finally having some time to watch television I was fascinated to see a US company, Ecovative, using fungal mycelium to make Mushroom® Packaging materials, and to discover that ‘Myco Foam’ could replace Styrofoam for many applications. An inoculum and wood shavings were placed in a mould and the mycelium was grown to fuse the materials together and create the desired shape. Apparently those in the USA can now buy ‘Myco Make’ kits, to create their own shapes, or use supplied moulds to make mushroom teddy bears or balls.

It was great to catch up with so many of you at the AGM in November, Molly and John were as hospitable as ever and Caroline’s chocolate mushrooms remain a firm favourite. I was particularly glad to hear that the public engagement undertaken, jointly with the Ashmolean Natural History Society, at Harcourt Arboretum on National Fungus Day went so well that FSO are planning on doing the same again this year. I am looking forward to joining in this time!

2015 Foray round up news from our Recoder

Judy Webb

We managed 10 forays in 2015. Pinsley Wood in April was a beautiful start to the year with all spring flowers out and I was pleased to see the spring cup fungus known as bleach cup *Disciotis venosa* although not in the numbers seen in a previous spring visit.

Autumn forays started whilst conditions were still rather dry and warm at Waterperry Wood where the mixture of coniferous and deciduous trees ensured a fair list with nothing rare, but always nice to see the beautiful primrose brittlegill *Russula sardonica*.

After September rainfall increased throughout the autumn (to culminate in the wettest December on record) and thus foray lists just got better and better. We always get a good list from Stoke wood and this year was no exception. Especially nice to see (and smell) the flowery blewit *Lepista irina*. The increasingly wet conditions meant it has had a very good year as I found it also in good numbers (new to the reserve) at Aston Rowant NNR shortly afterwards.

In addition to our planned forays I lead forays for other groups. I found the rare *Rhodocybe gemina* growing under hazel coppice on a personal foray that I led at Lashford Lane fen, Wootton in September, for the Friends of Cothill Reserves local group.

The first October FSO foray was on National Fungus Day on the 8th. This was an educational foray at Harcourt Arboretum, joint with the Ashmolean Natural History Society of Oxfordshire. All agreed it was a great success – plenty of species fruiting in the Arboretum and a comprehensive and interesting display on tables at the finish point. There were lots of visitors, including children. Thanks to both Molly Dewey and Caroline Jackson-Houlston for putting in a lot of effort to liaison and preliminary visiting, or bringing lots of interesting neatly labelled specimens for the display table.

Good rainfall in October meant both Nettlebed Woods (Highmoor trench) and Bagley Wood forays produced large lists of species – I don't think I have seen 9 *Russula* species (Bagley) recorded at once for some years. Nettlebed had 95 species in total (the record for the year). I missed it but I would have liked to see the pelargonium webcap *Cortinarius palaceus*, the horn of plenty *Craterellus cornucopioides*, the gold flecked woodwax *Hygrophorus chrysodon* and the pick-a-back toadstool *Nyctalis agaricoides* which grows on old blackening brittlegills, *Russula nigricans*.

Increasing rainfall meant Broughton Castle in November was memorable for the really good range of grassland fungi on show in the grazed grounds with eight colourful waxcap species and a number of 'fairy clubs' in the genera *Clavaria* or *Clavulinopsis*.



Wax caps Broughton Castle Photo: Caroline Jackson-Houlston

The Watlington Hill foray on 15th Nov was notable for 9 waxcap species and some important weird- smelling grassland fungi, even though they were rather inconspicuous. A few caps of the tiny brown rare stinking fanvault *Camarophyllopsis foetens* (smells of mothballs) were found in extremely short rabbit grazed grassland, with mouse-pee pink gill *Entoloma incanum* (yes it does smell of mouse pee). The most unusual finding was no less than four species of earthtongues: *Geoglossum fallax*, *G cookeanum*, *Trichoglossum hirsutum* and *Microglossum olivaceum*. Obviously the combination of regular rain and warm conditions in November makes for a 'good earthtongue year'. The last of these, *Microglossum olivaceum*, is known as the olive earthtongue and is a UKBAP (Section 41 Species) so a very good find. The very next week, my personal surveys at Aston Rowant NNR found this same species spectacularly up in hundreds of greeny-brown tongues on Flinty Piece. As this was a new record for the reserve, Natural England devised a press release which meant that my photo of the olive earthtongue featured in the Oxford Mail with the heading 'Once in 50years fungus found by fungus fanatic'.



Microglossum olivaceum Photo: Judy Webb

The last official foray of the year to Youlbury Wood on 22nd November was notable for a tiny pink gill new to the county (*Entoloma minutum*) found by Richard Fortey in a lawn.

In my personal recording, Milham Ford Nature Park in Oxford sprouted numerous nitrous waxcap *Hygrocybe nitrata*. I have been recording fungi there annually for 26

years now and this is the first time it has made an appearance. It obviously needed the unusual rainfall/warmth combination to get it going.

The very wet late autumn and winter meant unusual fruitings were reported to me elsewhere as well. I had a report of around 20 fruiting bodies of the dog stinkhorn *Mutinus caninus* from the Trapgrounds wildlife site in Oxford. That must have been a spectacular sight!

Do look at all the lists from the forays which are now on the website.

Finally a big thank-you again to Oliver Faulk for taking over the 2014-2015 foray data entry to MycoRec on the group's laptop.

National Fungus Day October 8, 2015

Molly Dewey

The purpose of a specific day designated by the BMS to fungi is to publicize the importance of fungi in our environment and every day lives. The 2015 event was only the second time that a specific day had been declared a National Fungus Day. FSO participated by having an afternoon joint-Foray with the Ashmolean Nat. Hist. Society at the University Arboretum at Harcourt. The Arboretum, which has a lot of visitors at that time of year, provided an ideal venue for reaching out to non-members. Ben Jones, the director of the Arboretum and the their educational officer Tegan Bennett were most helpful. Visitors expressed a lot of interest in the three displays set up with leaflets about fungi, provided by the BMS, plus labelled fresh fruiting bodies and grow your own mushroom kits. The latter were very popular. About 40 people including a number of keen young Children joined the Foray. Judy Webb did an excellent job in identifying the fungi that we found and explaining their relationship to trees and their importance in recycling nutrients. Forty-seven species including some spectacular specimens of Parasol mushrooms, *Macrolepiota procera*, were recorded.



Visitors interested in display of fungal fruiting bodies
Fungus Day October 8 Photo: Molly Dewey

Notes from John Killick taken from his articles for the Oxford times



Dappled Webcap *Cortinarius bolaris*

Photo: John Killick

This Webcap is easier to identify than many Webcaps; with its bright brown-red scales on the cap and stem, and flesh that on cutting turns yellow and then red, There are more than 2000 *Cortinarius* species worldwide and over 100 in Britain. The genus was named after cortinaria (meaning curtain) by Fries in 1838.



Judy Webb in foreground **Fungus Day October 8**

Photo: Molly Dewey



Cinnamon Bracket *Hapalopilus nidulans*
Photo: John Killick

H. nidulans is found almost worldwide on trees such as decaying-oak, beech or, as in this case on birch. It has 10mm long tubes with 2-4 pores per millimetre. Smells sweetish and when alkali is applied a purple colour is seen. It is a serious nerve poison; after 12 hours its polyporic acid causes nausea and can lead to kidney and liver failure.



Blackening Brittlegill *Russula nigricans*

This *Russula* is white to begin with then gradually turns black. Described as edible but poor; in Germany it is claimed to be good fried with bacon and onions.

Slime Moulds are Different to Jellies: a Layman's View

Wendy MacEachrane

Slime moulds or myxomycetes with their strange life-cycle are fascinating. One of our founders, Arthur Warland, was a myxomycete enthusiast and over a number of years he collected and dried 25, or so, myxomycetes. These dried

specimens were in our fungarium collection at Standlake and they will soon be going to Kew to join the dried specimen collection that is already there.

Unlike *Tremella mesenterica* (Yellow brain) or *Neobulgaria pura* (Beech jellydisc), slime moulds are not static and are able to feed on bacteria, fungal spores and other micro-organisms. In fact their rate of development depends on the availability of their food supply. In their plasmodial phase they feed by engulfing the material in an amoeba-like fashion, covering an inch of underlying substrate per hour. When they reach the spore-bearing phase, their spores are dispersed by wind or passing animals.

Most of us have seen the attractive bubble-gum pink *Lycoperdon epidendrum*, and, those on the Nettlebed survey in October, may remember the less attractive and somewhat aptly named, lemon- yellow, Dog Vomit slime mould (*Fuligo septica*) which was found in profusion.

There are about 900 different slime moulds all of which are found world-wide usually on decaying wood, bark, moss, leaves or even dung. Although not true fungus they have traditionally been studied by mycologists as their spore-bearing phase was considered to be similar to that of fungus.

Despite their similarities with fungus they are no longer part of the Kingdom of fungi.

There appears to be a paucity of books on the subject. The book by Bruce Ing, "The Myxomycetes of Britain and Ireland: an Identification Handbook", 1999, which was published by Richmond Publishing is now out of print but there is available from Amazon, "Myxomycetes: a Handbook of Slime Molds" by S. L. Stephenson and H. Stempen, as well as a few others.

To see videos of the life-cycle of slime moulds go to YouTube. Creepy!



Fuligo septica Dog Vomit slime mould Photo: Sandra Jensen, Cornell University, Bugwood.org

