

Lost & Found Fungi project report, November-December 2015

By Brian Douglas

Hi all,

Merry Christmas from the Lost and Found Fungi project! Here's an update of what has been happening over November and December, rounding off LAFF activities and announcements for this year.

A new project assistant, and a volunteer

Lukas Large, our new Community Fungus Survey technician, has started working for the Lost and Found Fungi project. So far, he's been helping put together background information and records for our Top 100 Target Species, which will allow us to build on our successes so far, and take the project to the next level in the coming year.

We've also been very lucky to have the help of Michael Harris, a volunteer from Brighton, who has been curating and geolocating historic records. We've now got a considerable portion of the whole dataset geolocated, so the coming year should see some major advances in our distribution maps of species. This in turn will hopefully help people recognise and revisit the sites of historical records in their vice counties, providing essential information for conservation assessments of these species.

Publicity

Throughout November we've been getting word of the Lost and Found Fungi project out to as many people as possible. Following on from a publication in the Plantlife magazine in October, we've had an opportunity to promote the project via the Woodland Trust magazine "Wood Wise", thanks to its editor Kay Haw (see the magazine here: [link](#)). The other articles and editions of Wood Wise (all free to access) are also well worth a read.

In November, I gave talks about the Lost and Found Fungi project at the Cumbria Biological Recording conference (thanks to the [Cumbria Biodiversity Data Centre](#)); the Glamorgan-Gwent Biological Recording conference (thanks to the [South East Wales Biodiversity Records Centre](#)); and the British Mycological Society Autumn Open Meeting at Kew. Dave Genney (Scottish Natural Heritage) also presented the project to the [Inverness Botany Group](#) in Scotland this December, with the aim of getting botanists looking for LAFF species associated with rare plant hosts. Hopefully between us we're starting to reach a slightly bigger audience of biological recorders, which can only be a good thing for the Lost and Found Fungi project, and for fungal conservation in general.

Species to look out for

Two species worth keeping an eye out for over the Christmas and New Year period are *Gliophorus reginae* (the Jubilee Waxcap – species page here: [link](#), and distribution map here: [link](#)), and *Mollisia subglobosa* (on cut or pollarded holly, in association with *Nectria punicea* var. *ilicis* – species page here: [link](#), and distribution map here: [link](#)). Both are likely to be actively fruiting over this period but may be gone by late February/March, so please keep them in mind if you're out on a festive foray or in the next two months!

Recent finds and records

Amanita nivalis, associated with *Salix herbacea* beds in montaine habitats. Datasheet here: [link](#), distribution map here: [link](#).

During the Cumbria Biological Recording Conference at the start of November, Stephen Hewett (National Museums Scotland) told that he was responsible for the Lake District records of *Amanita nivalis* mentioned in the last report, and gave us permission to use his records in the Cumbria Biodiversity Data Centre under a Creative Commons license.

As can be seen from our current distribution map, the species is much more widely distributed in the Lake District than suggested by the single previously known site. We now have four known sites in Wales (Snowdonia), around seven in England (the Lake District), and a widespread distribution of sites in the mountainous regions of Scotland. Overall, this is a considerable improvement on our initial original knowledge of *A. nivalis*, and a promising sign for the long term persistence of this species in Britain.



Image © Liz Holden.

Anthracoidea limosa, ovary smut of *Carex limosa*.

Fred Rumsey has provided us with details of his 2010 find of an ovary smut occurring on *Carex limosa*, very probably *Anthracoidea limosa*. This species is only known in the UK from two localities, both in Scotland: three sites across Rannoch Moor (Mid Perthshire and Argyll), one in Altnaharra, West Sutherland; and to our knowledge was last recorded in 1954.



Image © Fred Rumsey.

Fred's record is very close to the one of the previous Rannoch Moor sites, and he recalls seeing smutted inflorescences at this site for over 20 years, indicating it seems to be a well-established population. However, this particular site is fairly small and could well be vulnerable. The host is not enormously uncommon, if restricted to certain parts of Britain (see the NBN distribution), and it would be very useful to know if further populations of the smut can be found elsewhere

in the UK, or if UK *C. limosa* populations are otherwise uninfected. Please keep an eye out for it next July to August!

Favolaschia calocera, the invasive “orange ping-pong bats”.
Species page: [link](#), and distribution map here: [link](#).

Favolaschia calocera is an extremely distinctive orange mushroom, appearing as numerous 10-15 mm bright orange fans or ping-pong bats with rounded bulbous pores rather than gills, and a lateral stipe (if present), growing from dead wood of a number of different species. It seems to be a highly invasive species in New Zealand, Australia, Hawaii, and an increasing number of other countries. *F. calocera* was first spotted in the UK in 2012, and since then sightings have been gradually growing in Cornwall.



Image © Paul Gainey.

Very soon after Martyn Ainsworth and others published an article in Field Mycology about this species last October ([link](#)), new sightings of the species were made at known and new locations by Paul Gainey, Philip Martin and Johanna Snel (details forwarded by Paul Gainey and David Farley). Six sites are now known, well distribute throughout West and East Cornwall, and four discrete sightings have now been made at the place of the first UK observation at Enys Estate, Penryn. Somehow, this distinctive but invasive species appears to be on the move...

Geastrum marginatum (= *G. minimum*), the “tiny earthstar”.
Species page here: [link](#), and distribution map here: [link](#).

Geastrum marginatum was until recently only known from two localities: in Norfolk, Holcolm Gap and surrounding areas (numerous colonies), and two coastal sites in Cumbria. A find earlier this year near Sizewell B Nuclear power station in East Suffolk has extended its known distribution down the east coast of England.



Image © Y. Mynett and S. Pinnington.

This November, Tony Leech told us that Yvonne Mynett and Stephen Pinnington had found a new site at Horsey Gap (Winterton - Horsey Dunes SSSI), near Winterton-on-Sea. This site is approximately in between the two previously known sites, and could suggest that the species may be present in other similar sites along the east coast of England.

Gliophorus cf. perplexus (= *Hygrocybe cf. perplexa*), an unusual member of the Parrot Waxcap lineage.

David Harries has forwarded a collection by Trevor Theobald of a collection resembling *Gliophorus perplexus*, i.e. resembling *G. psittacinus* (the Parrot Waxcap) but lacking any green coloration. The Parrot Waxcap lineage is currently in the process of being revised, with two new species described in 2013 (*G. reginae* and *G. europaerplexus*), at least three green species (two unnamed) and four broadly corresponding to the *G. perplexus* description (*G. perplexus*, *G. europaerplexus*, and two unnamed) (see Ainsworth et al. 2013: [link](#)). Determining this specimen's precise identity will require DNA sequencing early next year, but it should add to our knowledge of the distribution of these cryptic species, how to identify them morphologically, and how we can conserve them, once we know what this collection is. Please keep an eye out for odd "Parrot Waxcaps" lacking any green coloration!



Image © Trevor Theobald.

***Gliophorus reginae*, the Jubilee Waxcap.** Species page: [link](#), and distribution map: [link](#).

Rob Foster and David Harries have sent in new recent records of *G. reginae* from Derbyshire and Pembrokeshire respectively. Our knowledge of the distribution of this member of the Parrot Waxcap lineage has increased from the four sites known in 2013, to about twelve sites from nine localities, scattered throughout England, Wales and Ireland. Given this distribution, it may be likely to be present in many other suitable waxcap grasslands, possibly being unrecorded, mistaken for *Gliophorus psittacinus*, or discarded because of difficulties in recognising what it is – a great shame for such a distinctive but rarely recorded species!



Image © Rob Foster.

Thyronectria roseovirens, visible as yellow coloured perithecia on burned gorse (datasheet: [link](#)).

Sue Rogerson has reported that *Thyronectria roseovirens* is fruiting in a new site (the fourth known) in the New Forest this December. This is much earlier than we were expecting based on few finds early this year. The latest find (by Alan Lucas) is at a new site, and thanks to the site management data we obtained earlier on in the year (via Dave Morris), we think the gorse at this site was burned in March 2015, giving us a vital clue as to where else to look to assess its distribution in the New Forest.



Image © Sue Rogerson.

Mollisia subglobosa, on cut holly in association with a *Nectria* species. Species page: [link](#), distribution map: [link](#).

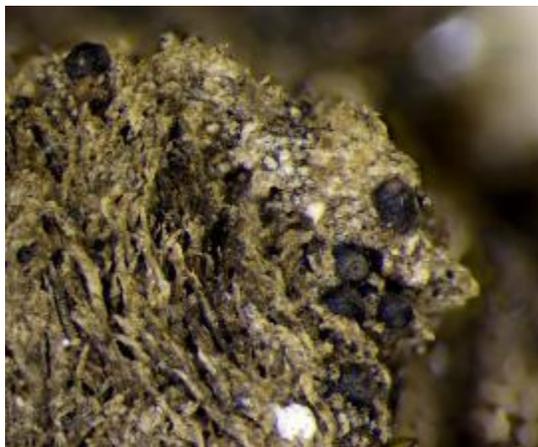
Sue Rogerson has reported that *Mollisia subglobosa* has started fruiting early this December, as seen in previous years. We hope to obtain more records of this species in the New Year, especially since we now have records of all holly pollarding sites in the New Forest. However, Alan Lucas's find in Somerset this year does suggest a more widespread distribution in the UK, so if you know of any cut holly in your local woodlands, please check it out!



Image © Sue Rogerson.

Surveys for LAFF species in West Cornwall

Towards the end of November, an attempt to re-find the rare lichen *Porina sudetica* was made by John Douglass, Paul Gainey, Peter Lambley, Tim Wilkins and Paul Cannon. It's a LAFF species with a **Vulnerable** conservation assessment, though this needs revising. Its only known collection in England was made by Vince Giavarini in 1986, on decaying moss in the entrance of a low adit (horizontal tunnel) of a mine in a sea cliff in West Cornwall. The collection in the NHM has a locality of Botallack, but the BLS database gives its location several miles away in the Zennor area, and Vince confirmed that this was the place he visited. The search was hampered by rain and the encroaching winter gloom, and while the adit was not located, several similar habitats were surveyed but without success. It is possible that the adit entrance has become obscured by overgrowing vegetation (which would be likely to kill the lichen), but one remaining part of the area still needs searching and a further attempt will be made in 2016.



Porina sudetica specimen in NHM (left), graphical representation of survey made by Tim Wilkins (right).

Earlier in the day, one of the new Cornish sites for *Favolaschia calocera* was revisited, as was the largest UK population of the lichenicolous fungus *Lichenochora epifulgens*, recently discovered by Paul Gainey. Both species are on the LAFF target list, and both the lichenicolous fungus and its host *Gyalolechia (Fulgensia) fulgens* are assessed as **Endangered**.



Favolaschia calocera at Halwyn, W Cornwall (left), *Lichenochora epifulgens* (black perithecia on the lichen thallus), right.

Thank you to everyone for their efforts in less-than-ideal weather conditions, and especially to Peter and Gill Lambley for their hospitality.

County and Personal Records of LAFF species

Tony Leech has updated us with records of LAFF species from Norfolk since 2008, including *Battarrea phalloides*, *Geastrum marginatum* (= *G. minimum*), *Hericium coralloides* and *H. erinaceus*, *Piptoporus quercinus*, and *Poronia erici*. In many cases these were not just records, but accounts of years where the species had not shown at sites, and background information about the finds – all extremely important information which we very rarely receive.

Malcolm Storey has been kind enough to send us a list of his personal records of LAFF species with additional data to that stored on the FRDBI. He has also allowed us to use the images from his website, BioImages.org ([link](#)) for which we're very grateful.

LAFF images

Obtaining images of LAFF species can be a major challenge given the few records of most species in the UK, but essential if we're to tell people what to look for in the field. We're therefore extremely grateful to the many contributors who have allowed us to use their images of these species for the project, in this and previous months.

We've still got quite a few gaps to fill, so don't be surprised if some of you get an email from me in the New Year... If anyone does have good images of any LAFF species, especially of those we haven't yet featured on the website, please send them in to help other people look for them!

Other rarities

Atradiymella cf. muscivora (species page here: [link](#))

Tom Preece forwarded to me a bryophilous fungus found by Arthur Chater in Aberystwyth, Wales. This species is visible as black dots immersed in the decaying umbrella-like archegoniophores, receptacles and stalks of *Marchantia polymorpha*. The species turned out to resemble the ascomycete *Atradiymella muscivora*, with a phoma-like anamorph (not recorded in the UK), but with slightly different ascospore dimensions, host plant and geography to the few previous records.

Although *A. muscivora* is known to colonise several bryophyte species, we are not aware of any reports from *Marchantia*, so it will be very interesting to see if this is indeed a novel species when we sequence it. Either way, this is a new genus and species to the UK, and may well be much more common than the single UK record suggests. We'd be very interested in any other finds of this species.



[Marchantia polymorpha](#), showing archegoniophores, by Manfred Morgner, [CC BY-SA 3.0](#).

Clavaria atroumbrina (description here: [link](#))

Clavaria atroumbrina is a dark basidiomycete club fungus which can be mistaken for an earth tongue at first sight, and is previously only known from 12 records in the UK. This November, the species seems to have had a moment of synchronised fruiting, with finds by Sam Bosanquet, Malcolm Greaves, David Harries, and Philip Jones. Interestingly, the one UK collection which has been DNA sequenced does not seem to be the same as sequenced American collections. Since the type collection was from Tennessee, USA, we're not quite sure if *C. atroumbrina* in the UK is the same species, if indeed there is only one species out there. The recent finds will do a lot to help resolve this issue.



Image © David Harries.

Opegrapha rotunda

Stewart Taylor has sent in some images of *Opegrapha rotunda*, a rarely recorded lichenicolous lichen, parasitising the common lichen *Physconia distorta*. It can be seen in the image to the right, with the tiny black apothecia fruiting among the much larger *Physconia* apothecia. The species has only about 12 records in Britain (to my knowledge), plus Stewart's recent finds, and may be an interesting new species for anyone with an interest in rarely seen lichens. Stewart's images can be found here ([link](#)), and his account of his search for this and other species can be seen on his blog here ([link](#)).



Image © Stewart Taylor.

Mycena juniperina

Malcolm Storey forwarded us details of a tiny *Mycena* found on common juniper (*Juniperus communis*) wood, found by Anne Appleyard. Initially thought to be *Phaeomarasmium rimulincola* based on macro images, this species has been confirmed by Martyn Ainsworth as *Mycena juniperina*, new to Britain, and currently known only from a single site. A good description, illustration, and account of the species (in Poland) can be found in the following article by Halama et al. (2014): [link](#).



Image © Anne Appleyard.

Zygopleurage zygospora and *Podospora communis*

Vivien Hodge has sent us details of two interesting species from cow (*Bos taurus*) dung, both in the Lasiosphaeriaceae (Sordariales, Ascomycota). The first, *Zygopleurage zygospora*, is apparently new to Britain, and the second, *Podospora communis*, is a “lost” species (not seen for 50 years or more).

Both initially seem to be inconspicuous tiny dark perithecia poking out of the dung. However, *Zygopleurage zygospora* is notable for having rather beautiful coiled immature ascospores, which develop into two dark cells separated by a hyaline intercalary cell. *Podospora communis* ascospores have multiple hyaline appendages at both ends (see here: [link](#)), as seen in many *Podospora* spp. Despite being virtually unrecorded in Britain, both species have an apparently widespread global distribution, and may be much more common in Britain than these few records show.



Zygopleurage zygospora ascospores, immature (top), and mature (bottom).
Images © Vivien Hodge.

I think that’s all from me for 2015!

Best regards, Merry Christmas and a Happy New Year!

Brian Douglas

Dr. Brian Douglas
Community Fungus Survey Leader for the Lost and Found Fungi Project
Email: b.douglas@kew.org
Project website: <http://fungi.myspecies.info/content/lost-found-fungi-project>