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View from the Chair

Irene Ridge, August 2016

Since the last “View” there has been a busy and (mycologically) fruitful year which began with our AGM in February. This was the first AGM for our new President, Geoffrey Kibby, who travelled from London to be with us and delivered a memorable talk (see later). It was also the first time that due to a communications malfunction (not our fault) we couldn’t get into the Risley Moss Centre on time and everything started almost an hour late! But we made it. Significant events were the election of Kath Ryan to the committee, an excellent lunch prepared by Robin Dean and, of course, Geoffrey’s talk. There was also discussion about the value or otherwise of keeping group records of fungi or depositing records solely in the national database? The general feeling was that we should have group records, a view reinforced in later discussions by the committee, but things could change when the new national database is up and running.

This new database was a major topic at the BMS Group Leaders’ Meeting in June, which three of us attended. The old database, FRDBI, was basically managed by one person in his spare time and he simply could not cope with the flood of records: so there is still a considerable backlog of records to be entered onto the database. The new system will allow individuals and group recorders to enter records direct-
ly and should have been available by now (but sadly isn’t): FRDBI stopped accepting records at the end of May so we are in something of a recording limbo at present. We will keep you informed about progress.

Eight of the 16 forays planned for 2016 have now taken place (I managed to attend five) and we always managed to find good numbers of fungi. If you look on the NWFG website under ‘News update’ there are lists of species found on each foray and also notes under Mycogolfer (= Tony Carter, currently our Group recorder) for some forays; comments or discussions about identification on a foray usually go also to attenders via e-mail. The last foray at Risley Moss was for beginners and accompanied by a microscope workshop, which was the best yet. Out of ten possible attendees seven came and all said they found it useful. Jeanette Maddy brought along two dissecting and a simple compound microscope which have been purchased by our Group for events such as this and for outreach activities as on National Fungus Day. The microscopes will be used at Jodrell Bank (8 October) on the NFD event so do come along if you would like to try them out.

There are still plenty of interesting forays to come, some of them at new sites or sites not visited for many years (see the foray programme on the website if you have lost your copy). And of course there is the Keswick Residential weekend which is now fully booked. This year our immediate past President, Professor Bruce Ing and Ellie (Mrs Ing) will be attending so we can expect a huge spike in the number of records for slime moulds! I’m going to miss Keswick this year by going on the BMS Overseas foray to Germany instead but Kath Ryan and Mike Walton are taking care of things and they have a particularly difficult task: only half of our usual laboratory space will be available in the games room but space upstairs can be used we hope.

I hope you enjoy the rest of the fungal year and hope to see more of you on forays.

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**Mykogolfer**

On the allotment produce is being harvested. Nets and canes are being taken down. My neighbour has stacked his bamboo canes by his shed and, on one, I was pleased and surprised to find *Astrosphaeriella stellata*, my Asian alien. It was on the end that had been stuck in the ground. The fruit bodies on a piece of cane from my original find are now dull and many have fallen off leaving small craters. The new fruit bodies are bright and there are hardly any craters. This suggests that the growth is from this year. Having sawn the specimen off, I have stuck the cane back into the soil to see if the fungus will grow again.

**Tony Carter - August 2016**
Tricky *Tricholoma*
Tony Carter

In October 2015 I came across a white (well almost) *Tricholoma* growing beside a small copse.

Referring to the article by our President, Geoffrey Kibby, *T. album* has a sweetish odour, *lascivum* is fruity nauseous and *stiparophyllum* is like commercial fly spray. I did not have any sulfoformal to test the *stiparophyllum*, which turns green.

So I plumped for *Tricholoma lascivum* (Aromatic Knight), although my spores were a little short of the required Q value. And I did not think the smell justified the description aromatic.

I told Kew Herbarium of my find and they expressed interest so it was dried and posted.

Kew was non-committal about my identification so I thought it had been accepted.

Until April. Kew wrote to me that Geoffrey Kibby had examined my specimen and pronounced it to be *Tricholoma stiparophyllum*, based on my photos and spore size. They said that even dried it still gave off a strong smell.

The spray I use in my greenhouse has a chemical smell, not sweet. I do not use household spray. (I prefer to suck flies into a tube. Much more fun and I do not have to clean the windows.) So I had eliminated *stiparophyllum* for this reason.

As I am unlikely to find another such specimen, the problem may not arise again. It does highlight the problems of a smell test as we all know from our differences of opinion when we sniff specimens on our forays.
Introduction to basidio clades

John Watt

After I started to learn something of field mycology with the Northwest Fungus Group and the BMS, I wanted to know more about fungal biology so I started with Ingold’s ‘The Biology of Fungi’ then progressed to the Carlisle and Watkinson’s ‘The Fungi’ both of which I had enjoyed (both second hand from Kew at the time of the winter meetings). I have contemplated one of David Moore’s books as a next step in learning of the amazing world of fungi, but when the late Jane Ingham’s books were auctioned earlier this year, I was lucky enough to be able to buy her copy of the wonderfully researched ‘Introduction to Fungi’ by Webster (Exeter University) and Weber (University of Kaisierlautern).

I had been trying to disentangle the confusing relationships between apparently similar looking fungi; for instance amongst the Clavaria, Clavulina, Clavulinopsis, Ramaria genera. I had become familiar with the phylogenetic cladistic diagrams showing fungal relationships, of which there is one for the Homobasidiomycetes with representative species listed in the cladogram.

At the same time, there is a stress upon how different fungi have evolved in a convergent manner which is most strikingly set out in a table reproduced overleaf from Hibbet and Thorn (2001) http://bit.ly/2a35GZ1 in which the eight major clades (orders if you will) are shown to have representatives in many of the seven major different morphologies. So for example, species within the Russuloid clade may manifest themselves in all seven morphologies and all the others have at least four different morphological representations. Thus we have had to come to accept that the Gasteromycetes species span five different clades.

In the basic table as printed in the book, there is a + sign to indicate there be species representing this form, otherwise it is blank. There are 42 such + boxes out of the total of 56. To better understand this, I thought that I’d add to each box within the table marked with a + sign a photo of an example akin to those listed in the cladogram, using my own photos where possible, but with thanks to Tony Carter for the photo of Lachnella villosa However, I was left with sixteen boxes without representative species which I had knowledge of.

It would be good to be able to complete this and so I then thought members may enjoy this as a little competition to see who can come up with the missing examples, as well as it all being a bit of fun.

Answers on a stamped addressed envelope.
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<tr>
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<tr>
<td>a) Agaricoid</td>
<td>+ Lentinus tigrinus</td>
<td>+ Amanita crocea</td>
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<td>b) Poroid</td>
<td>+ Polyergus squamosus</td>
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<td>c) Hydnoid</td>
<td>+ Sparassis spathulata</td>
<td>+ Macrotyphula juncea</td>
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<td>d) Clavate</td>
<td>+ Bjerkandera adusta</td>
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<td>e) Resupinate</td>
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<td>+ Cyathus striatus</td>
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<td>f) Epigeous/gasteroid</td>
<td>+</td>
<td>+ Lycoperdon nigrescens</td>
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<td>g) Cyphelloid</td>
<td>+</td>
<td>+ Calyptella villosa</td>
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**Homobasidio morphotypes (Hibbett, Thorn)**
### Homobasidio morphotypes (Hibbett, Thorn)

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Homobasidio morphotypes (Hibbett, Thorn)
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<td>+ Geaster tripex</td>
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<td>+ Clavulina rugosa</td>
<td>+ Ramaria abietina</td>
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<td>+ Hydnum repandum</td>
<td>+ Phallus impudicus</td>
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<td>+ Gloeophyllum separium</td>
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<td>+ Cantharellus tubaeformis</td>
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<td><strong>Gomphoid-Phalloid</strong></td>
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ITSY BITSY TEENY WEENY

Tony Carter

During the winter months, I went out looking for Ascomycetes.

In an earlier article, I wrote about *Epi-sphaeria fraxinicola*, a tiny Basidiomycete that looks like an Ascomycete. Only when examined under the microscope does it become obvious that there are no asci but basidia.

I was fortunate to find another example of this uncommon species at Speke Hall.

My searches also unearthed a number of other similar tiny species. Most of them are uncommon but they are so small that you have to look very closely to find them. Fortunately they tend to grow in a mass, so it makes it a bit easier to spot them.

*Flagelloscypha minutissima* (the clue is in the name) was another that turned up at Speke Hall. Difficult to spot as it is a hairy cup but it turns in on itself when dry, looking just like those tiny fluffy balls that are common on fallen wood. There are a number of different species that are host dependent.

*Lachnella villosa* looks exactly the same as *Flagelloscypha* but differs microscopically.

Both can be found on dead stems of plants such as nettle and hogweed so need checking when found.

I found *Henningsomyces candidus* on two visits to my local golf course. Said to be common, the tiny white tubes are easy to recognise but the second discovery was so small I thought it was a patch of dust.

Perhaps more common is *Merismodes anomala*, also from the golf course. This is one we have found on NWFG forays. Interestingly, when dry it looks like a crust fungus and needs rehydrating to see properly.
These are not the only small species of Basidiomycetes. It is surprising how many there are. Most are uncommon to rare but their size means that they are rarely reported because they are overlooked or ignored, particularly if you are not interested in Ascos.

Impossible to identify without using a microscope, most are not included in the popular literature. A number can be found in the latest Collins Guide.

The foray produced fifty species, the highlight being four groups of the Funnel Cap, *Clitocybe vermicularis*. This species is very rare, there being only 24

**Freshfield and Ainsdale in the spring**

Tony Carter

On the 10th April, I led the foray for North West Fungus Group to Freshfield Dune Heath and Ainsdale Sand Dunes Reserve.

The main attraction in spring is the chance of finding morels. Twenty years ago, hundreds grew in the woods. But now that the woods have been reduced to recreate a dune ecosystem and following a severe blow out of frontal dunes during a gale, the number of morels has been severely reduced.

I had a look round a week before the foray but saw no sign of morels.

I did find a couple of *Geastrum pectinatum* (Beaked Earthstar). The last record for this species at Ainsdale was in 1972.
national records, most of them from Ainsdale.

Only a few other gilled species were found. The rest were mostly brackets, crusts or tiny Ascomycetes, which is normal for the time of year.

A couple of days after the foray the Reserve Manager contacted me to tell me that he had counted 24 fresh morels on the dune slacks.

Not to be missed, I persuaded a couple of members to join me on an expedition out to the dune slacks to see if we could find them.

Find them we did. We counted 10 fresh Morchella elata (Black Morel) on the back of one sand hill with others spread around the area.

We also found many more Geastrum pectinatum, a species that seems to prefer the tops of the sand hills. The very common Geastrum triplex (Collared Earthstar) can also be found in hundreds all over the slacks but seems to prefer the lower levels.

The other species we found in significant number was Melanoleuca cognata (Spring Cavalier). To be expected.
First Foray for 2016 round Roddlesworth

John Watt

The first recording foray of the NWFG in 2016 took place on Sunday March 20th at Roddleworth woodlands, a 350 acre site owned by United Utilities. With extensive woodlands comprising a wide range of broadwoods and conifers, it would seem to present excellent opportunities for finding plenty of fungi. Having said that, at the time of my first recce in August the year before, I had not seen many cap and stem toadstools and was somewhat worried if dead wood had been tidied away on account of perceived safety for the public. When I visited again a few days prior to the formal foray for the purpose of planning a suitable route - off paths so far as possible, yet accessible and with plenty of dead wood - I became rather despondent with the lack of show which I attributed to the preceding mild early winter, when many fungi were still making appearance followed by a dry spell in early March. I may have unwisely deterred some from attending even though I was heaping praise on the landscape, but in the event, amongst those of us who forayed that day, we noted a total of 62 species, a reflection of the extra pairs of experience eyes and our taking due time. Out of this total we were finally able to identify a total of 49 species, a number of which had been examined microscopically for spores and other features.

The day started well with the finding - as if one cue on seeing beech mast on the ground - of Xylaria carpophila. A short time after that, Irene then found an unpromising looking desiccated specimen on a dead tree, but this could be identified subsequently as Mycena galericulata. The only fresh 'toadstools' were the Oyster mushroom and Mica Inkap on an old stump found during my reccy visit. It is the case that at this early time of year, most fungi which one might expect to find would belong to the Ascomycota Phylum, with crusts and brackets in the Basidiomycota Phylum, but we did also identify three 'honorary' fungi, namely Trichia varia, Trichia affinis and Ceratomyxia fruticulosa; not related to fungi at all as is now realised.

The true fungi were represented by 24 species of Basidiomycetes belonging to 3 classes, and 15 families. One could be forgiven for thinking Basidios are represented only by the typical cap and stem toadstool but in our collection we had the well-known Phragmidium violaceum, a bramble rust, in the Uredinales order. In addition, we had two representatives of the Heterobasidiomycetes Class, the Dacrymyces stillatus and related Calocera pallidospathulata, the former on oak, the latter on pine. Thus most of the remaining Basidios were crusts and brackets which can present their own challenges. One striking specimen keyed out to Phlebia rufa of which I had taken a photo, shown opposite. The collections of Fuscoporia, also known as Phellinus, were striking for their...
variously shaped hymenial setae – great when you can finally find one!

Turning to the 21 species of Ascomycetes, these spanned 6 classes and 10 families. One ought not to forget to include in one's checklist the Witches' Broom, *Taphrina betulina*. This belongs to an ancient group of Ascos, the Archiascomycetes, other members of the genera being responsible for Peach Leaf Curl. Irene honed in onto a dead Buckler Fern stem and found *Leptopeltis filicina*, for which there are 19 old records on FRDBI *. Jeanette, always on the look out for Holly leaves, found the common *Trochila ilicina*, an Asco related to the Disco group, growing on the upper surface; but she also found the less commonly reported *Phacidium lauri*, or multivalve. These Ascos penetrate the holly leaf and display greyish centres to the black stroma which represent the conidial, or asexual state.

We had three different species of *Mollisia*, the so-called Disco fungi, and one of the so-called Glasscup fungi, *Orbilia luteorubella*. Jeanette collected a rather similar looking asco from a Pine tree trunk which Irene keyed out to *Ciliolarina larici* for which there are 70 records on the FRDBI. Next on a Larch tree trunk, Jeanette identified *Lachnellula calyciformis*, of which there are 18 records on FRDBI. Reeling off names like this can lead to glazed expressions but without attending, it is rather too easy to conflate *Lachnellula* with *Lachnum*; apparently the fruit body of the latter being ephemeral, whilst the former being 'revivable' in addition to their microscopic differences. The potential for confusion doesn't stop there however for the look-alike *Lachnella* genus turn out to belong to the Agaricales order, as Basidios.

The NWFG has forayed in Roldlesworth in past years but only once in the month of March, in 1999, when 39 species had been found. Twelve of those species were also found on this occasion but there were 27 additional different species which, when added to this year's finds, bring the spring total to 76, quite a reasonable number for that early time of year. Merging all the NWFG recordings over the years since 1991 brings the total number of species to 330.

FRDBI lists the totals for our Vice Counties as follow: South Lancs (59) 1889; West Lancs(60) 1538; Westmoreland (69) 1791; Cumbria (70) 1651.

*FRDBI - Fungal Records Database of Britain & Ireland.
The Changing World of Britain's Fungi
(NWFG President’s Lecture 2016)

Geoffrey Kibby

Abstract including notes taken at lecture by Irene Ridge

Like all other organisms fungi frequently have to adapt to changing circumstances if they are to continue growing and survive. Failure to adapt will usually result in their eventual loss. The last 100 years and in particular the last 50 years has seen quite dramatic changes in the British landscape and in our climate. Many of the direct changes in habitat are as a result of human activity, both deliberate and accidental and of course it is strongly suggested and debated that the changes in climate have also been as a result of human interference. Fungi have responded in various ways to these changes and some of the more obvious cases are discussed in this talk.

Ted Gange’s 50 year study which provided over 52,000 fungal records, has been invaluable for detecting changes in fungi which could relate to climate change. In the 1950s, for example, the average length of fruiting period was 33 days: currently that figure is 75 days and many species now fruit both in spring and in autumn (e.g. the Blusher, Amanita rubescens). Other changes which might reflect the effect of global warming are the spread in the UK of species from warmer climates. Examples include several Stinkhorns (e.g. Clathrus archeri and Mutinus revenelii) and the New Zealand species Amanita inopinata, which has been spreading north at a great rate. Interestingly, other species of Amanita have not behaved in this way: the Mediterranean species A. ovoidea still occurs only at 2 southern sites and the famously edible A. caesarea still hasn’t crossed the channel.

The increase in monoculture farming, the dramatic increases in the use of pesticides, herbicides and fertilisers have all resulted in noticeable changes in the mycota of our woods and fields and in their responses to the increased use of chemicals. Nitrification from fertilisers leaching into surrounding soils has had quite dramatic and measurable effects of many fungi throughout Europe; some species (chanterelles and tooth fungi for example) declining rapidly while others seem to be stimulated to increased production (Russula and Lactarius species). Acid rain from industrial pollutants has long been known to have a detrimental effect on lichens but is also thought to be responsible for the decline of many species across Europe. Monoculture farming has allowed the rapid and sometimes catastrophic spread of fungal pathogens.

In recent years the arrival of a number of fungal pathogens from overseas has resulted in widespread loss of tree species, in some cases exacerbated by the recent increases in temperatures. In other cases species of pathogen which
have been present here for many years but not especially aggressive have suddenly become extremely pathogenic for reasons not entirely clear but possibly related to global warming in some instances.

The relatively recent practice of covering garden borders and woodland paths or even large areas of woodland floors with woodchip mulch has produced some of the most striking and easily observable changes in our fungal biota, with numerous new species making a foothold on this new substrate and other, formerly rare species now fruiting in abundance. Observations on the mulched flower beds at Kew has produced lists of some 200 or more species recorded from this new habitat, many of foreign origin. New species for the British lists are appearing annually and some of these are more aggressive and more successful on these substrates than our native species. This may also be occurring more often because of the increase in global travel by humans and the resulting direct transmission of fungal spores on shoes and clothing from country to country. Although not fully investigated (no funding) the observed increase in Armillaria mellea, the most aggressive pathogenic Honey fungus, could be another effect: are we unwittingly spreading Honey fungus via wood chips?

Finally the effects of the warming and changing seasons has resulted in a much longer fruiting season for fungi than was known 50 years ago. The direct knock-on effects of this on all of the attendant invertebrates and other organisms associated with the fungi are not yet known, nor the effects on the decomposition rates of litter in woodlands etc. It has been observed that the longer season for fungal spore production has had a direct and measurable effect on the incidence of fungal related respiratory diseases, now occurring across a much longer seasonal period than hitherto.

Editorial

Again it has been necessary to delay publication of the newsletter due to a shortage of material. In order to try to circumvent this problem in the future it has been agreed by the NWFG committee to ask foray leaders to prepare short reports after they have led a foray (together with one or two pictures if available) for publication in the newsletter. It is not necessary to reproduce the full list of species identified on the foray since this will be made available on the website but it would be useful particularly for members who could not attend to include details of any interesting or unusual finds together with an overview of the event (number of people attending, weather conditions, general ecological features of the site, comparison with visits to the site in previous years if not a new site etc.). We have 16 scheduled forays for 2016 and in addition the Keswick residential weekend and National Fungus Day events (see pages 18-19 for details) so there is plenty of potential material available for the newsletter.

Many thanks to all those members who have contributed articles for this issue and to Mike Walton for typesetting and
organising the printing and posting of the newsletter. Articles can be submitted to me by email. Pictures of fungi to accompany articles are very welcome preferably sent as separate attachments. Please note that it is important to show due diligence when including any photographs (or other material) that have not been taken by yourself by getting permission and including the name of the photographer (or copyright holder) so that due credit can be given in the newsletter.

Paul F Hamlyn
pfhamlyn@gmail.com

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Fungal education in school

Alistair McKernon

My name is Ali McKernon and although I've only become interested in fungi in the last couple of years, I've been completely bitten by the bug and managed to attend several NWFG forays in 2015 including the glorious day at Turn Slack Clough.

So taken am I with this fascinating kingdom, that it seemed only right to take advantage of my working at Cheetham Church of England Community Academy as a higher level teaching assistant, and introduce the year 4 children (8 & 9 yr olds) to fungi.

We try to learn through a question based stimulus, and so, a week prior to my coming into class to teach, I brought in around 20 different macro species that I was able to harvest on my bicycle ride to work. It's a positively hazardous ride in the Autumn as I'm forever staring at the grass verges! The children carefully examined the fungi and created a long list of questions, on the premise that I would come in the following week and try to answer them. These included: 'Why do some have spots?', 'Is the red one more dangerous?', ‘Where do they grow?’

Using a mixture of BMS and Children's University resources (and a few of my own), I put together a full afternoon of fungi exploration for a class of thirty, 8 year olds and repeated this the following day for another 30. We examined real fungi, looked at the structure, spore dispersal, made our own giant mycelium, discovered how the fly agaric gets its spots and made our own spore prints! The children were thoroughly engaged, and for the first time in my teaching career - a few children actually came and thanked me for such a fun lesson!

As part of their follow up 'homework', I gave the children the chance to enter the BMS 'draw your own fungi' competition for UK Fungus Day. Lots of children were clearly inspired by fungi, and the very next day turned up with beautiful hand drawn pictures. Many of them had even included new facts that we'd not discussed, so had clearly researched their chosen fungi on the internet when they got home. The good news is that we had 7 winners! The BMS came into assembly and presented them all with their own microscopes, fungi guides and certificates! Let's hope some seeds (or spores) have been sown… (see page 20)
North West Fungus Group – Public Education and Outreach Events, Oct - Nov 2016

When  What                                                                 Partnership with/who for..

1 Oct  Fungal walk at Fir Tree Farm, St Helens, WA11 8RG. Meet in car park at 1.30pm. *Pre-book on 01744 894959.
       Fir Tree Farm

9 Oct  Fungal walk at Risley Moss, Warrington, WA3 6QS, SJ664920. 10 - 12noon.
       Meet at visitor centre. Warrington Rangers

9 Oct  Family day (display, activities and walks) at Jodrell Bank, Cheshire, SK11 9DW.
       *Entrance charge. Jodrell Bank Discovery Centre, Univ. of Manchester

15 Oct Fungal walk at Styal Woods, Styal, Cheshire. 10 – 1pm. Meeting in NT car park
       in Styal village, SJ836836. *Book online by 6th Oct. £4. (www.eventbrite.co.uk/e/fungus-foray-tickets-21492161634) Bollin Valley Partnership

15 Oct Fungal walk at Fir Tree Farm, St Helens, WA11 8RG. Meet in car park at 1.30pm.
       *Pre-book on 01744 894959.
       Fir Tree Farm
15 Oct  Fungal walk at Mere Sands Wood, Rufford, Lancashire, L40 1TG/SD447157.  
1.30 – 3.30pm. Meet in visitor centre. *Bookings 01704 821809  
Lancashire Wildlife Trust

16 Oct  Fungal Walk, Siding Lane, St Helens. Meeting point is off the A570 Rainford By-pass at WA11 7SR/SD463020.  
St Helen’s Rangers

22 Oct  Information stand and walk at Tegg’s Nose CP, Macclesfield, SK11 0AP. 1-3pm.  
Meet at visitor centre. *Book online  
£4. (eventbrite.co.uk/e/fungal-foray-at-teggs-nose-country-park-tickets-21492528732)  
Cheshire East Rangers

23 Oct  NWFG foray at Moore NR. 10.30 to approx 3pm. Meeting point is car park at SJ578855 (see NWFG foray programme).  
With members of Wilmslow Guild NH Society

23 Oct  Fungal walk at Stanley Bank Wood, St Helens, WA11 0AB.  
Meet at Ranger Visitor Centre at Blackbrook on the A58 at 10am.  
St Helen’s Rangers

30 Oct  Fungal walk at Clock Face Country Park, St Helens, WA9 4SN.  
Meet in Gorsey Lane Car Park SJ535915 at 10am.  
St Helen’s Rangers

5 Nov  Fungal walk at Lyme Park, Disley, Cheshire, SK12 2NR. 10 – 1pm.  
Meet in main car park 200 yards from house, SJ962824.  
National Trust
FLY AGARIC Fungi!

Facts:
The fly agaric fungus has a red and white cap.

It is found all across the UK in mixed woodland and heaths with birch and pine trees.

They can grow up to 20 cm across and so can fall.

They are very poisonous if you eat them.

Name: Soppa, Arwen
Class: Mycena
Group: Amanita

Jesman
Grade 7G

Soppa: Arwen
Class: Mycena
Group: Amanita

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