



Newsletter

Autumn 2021



View from the Chair.....	2	Ash Dieback: the fearful flying fungus.....	12
Editorial.....	3	A.G.M. Notice.....	13
Waiting in the tall grass.....	4	Aberduna Nature Reserve foray 25 July 2021.....	14
In Praise of Kendal Parkside Cemetery.....	5	Quiz.....	16
An Anamorphic Puzzle.....	7		
Moore Nature Reserve foray 15 August 2021.....	10		

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View from the Chair

Looking back, we might regard 2021 as a year of two halves. Up to mid-year the continuing COVID restrictions and another lockdown meant that we needed to rely on our facebook, email group and website to keep in touch with members. Zoom support for committee meetings and the AGM was particularly useful and also enabled us to put on several interesting talks, presented by Irene Ridge, John Watt and Mike Hall. The recordings are available on our website. Along with the talks organised by the British Mycological Society (BMS), they helped to provide some continuity when the usual in-person events and outdoor activities were not possible.

July saw the very welcome, albeit cautious, return of our foray programme. Recording trips to Aberduna NR, Moore NR, Stanley Bank Woods, Moor Piece NR, Finsthwaite Heights, Ainsdale NNR, Turn Slack Clough and Lytham Hall were all very well supported. It's been great to see old friends, renew acquaintances and welcome new members. Visit reports, species lists and collections of photographs can be found on our website.

Our autumn residential foray in Keswick was able to take place once again in October. Despite the inclement weather at times, there were visits to several sites where plenty of fungi were found. If you've not tried a residential foray before, the Keswick weekend is a good introduction. Also in October, our public events programme made a comeback. A Family Fungus Day was organised at Mere Sands Wood. There were guided forays around the reserve and the NWFG team set up a visitor experience comprising a display of fungi, videos, children's activities, microscopes and giveaways. Elsewhere around the region, NWFG members gave talks and guided walks for other conservation organisations.

For the wider mycology community, the first weekend in October was a particularly busy one. The BMS's UK Fungus Day (UKFD) celebration took place as did the inauguration of World Fungus Day. Online recordings from UKFD and the results of the photography competition can be viewed on the UKFD website. World Fungus Day, new for 2021, was a successful one-day online event organised by Professor Lynne Boddy and hosted by the Arboricultural Association. The programme of speakers included Suzanne Simard who is credited with coining the term "Wood Wide Web".

The BMS open meeting in November was held via Zoom again with the theme "The World of Fungi". Recordings of the presentations will be available on BMS's Youtube channel and I would definitely recommend them to anyone seeking to expand their knowledge of fungi, their ecology, interactions and taxonomy.

In 2022, I hope we will be able to return to a full programme of activities, be they in-person, online or a combination of both. I'm also looking forward to picking up our DNA sequencing work again.

For now though, I'd like to say a big thank you to all who have contributed their time and effort organising, leading or delivering events in 2021, and to all NWFG members for your continued support.

Season's Greetings!

Jeanette

Editorial

Finally, after all the lockdowns last year we have at last been able to carry out our Group forays again and with the ones I have managed to attend there have been record turnouts. It has been very gratifying to see many new faces on our forays largely thanks to Max Furmidge for advertising them on Facebook. Some of the foray reports have been included in this issue and a couple held back until next year to provide content for the Spring issue of the Newsletter always more difficult to fill. Jeanette Maddy has now taken over as Chair and her first 'View from the Chair' is included in this issue. My heartfelt thanks to Irene Ridge for all her help and encouragement in the past.

Many thanks also to all those members who have contributed articles for this issue, and to Mike Walton for typesetting and sending out 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

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WAITING IN THE TALL GRASS

Tony Carter

In July 2020, I visited Childwall Woods and Fields LNR in Liverpool. I only go there a couple of times a year. The woods are elderly beech and rhododendron. Not a lot of variety. There is also a heavy footfall being surrounded by housing. Because of this it gets very muddy when it rains.

I decided to explore the fields part looking for microfungi on dead stems. Some good finds on the nettles, hogweed, meadowsweet and some rushes in damp areas.

The best places to look for these small species is at the base of the dead stems which are usually in deep grass, as most were on this day. While scrabbling around in this grass, mainly large tufts of *Agropyron repens* (Couch Grass), I came across a number of tiny species on this substrate. I have not previously found much on grass and usually ignore it as a source of fungi.

I collected a few and took them home for microscopic examination.

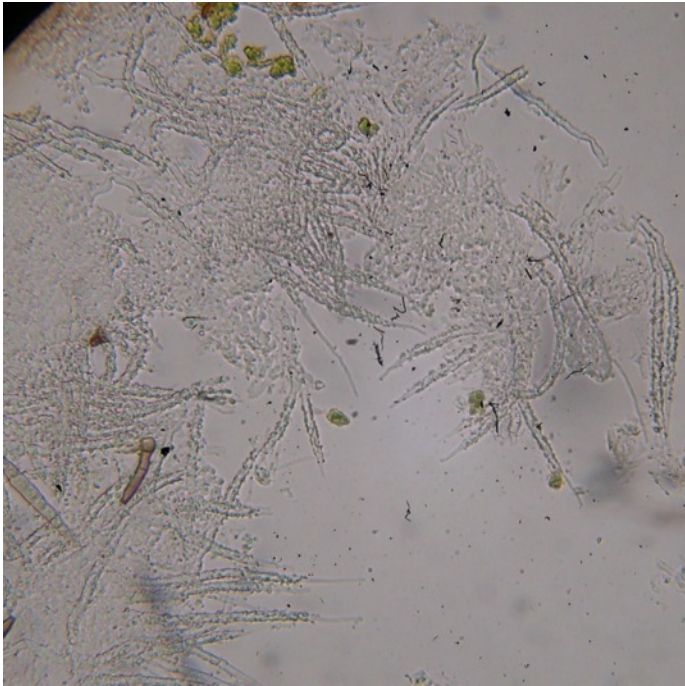
From the grass stems I identified *Brunnipila palearum* and *Lophodermium arundinaceum*.



Then I looked at some small white hairy specimens. The first thing I noticed was a lack of asci, and then some heavily encrusted hairs. They looked like a *Flagelloscypha* but my specimens were not in such a condition as to be certain.

Next day I went back for more. Amazingly, I found my clump of grass and better specimens. Microscopic examination confirmed that they are *Flagelloscypha*. The hairs are unmistakable. Unfortunately, I could not get a clean photo of spores. The basidia are four spored. The species that grows on grass stems is *Flagelloscypha pilatii*. It gets a mention in Collins; a fuller description is in *Funga Nordica*.





It is an unusual find, not often recorded. In view of its size and where it is found this is not surprising.

Interestingly, while extending my search area, on some dead *Epilobium* stems about fifty yards away, I identified *Flagelloscypha minutissima*. A major difference from *F. pilatii* is that the basidia is only two spored.

I shall revisit the site to see if I can find some more but I am not hopeful.

In Praise of Kendal Parkside Cemetery

Helen Speed



I live just off the canal path in Kendal, and during lockdown it was my daily exercise to walk our dog Max up the path, through the cemetery and return home through Fletcher Park and the allotments. Kendal cemetery spans Parkside Road, with graves on both sides dating from 1855, with a number of areas ‘full’ and undisturbed for decades. Tree planting is varied and includes beech, turkey oak, paper birch, monkey puzzle, Scots pine, yew and a variety of cedars. It is prized locally for fine displays of crocuses in the spring, though if you wait a while these are followed by swathes of rather nicer wild cousins - lesser celandine, wood anemone and dog violet.

I had found fungi there in previous years, but hadn’t really ever looked closely. Last year, I paid attention. The first notable event was a massive and widespread flush of *Lacrymaria lacrymabunda*, Weeping Widows, in July – how apt! One gravestone was ringed by them.

After that, the waxcaps started coming up. At first, in the area I called ‘waxcap corner’, then more widely throughout the cemetery. By autumn, I had amassed

records of 16 species, including *Hygrocybe punicea* (2 sites), *Porpolomopsis calyptriformis* (5 sites) and *Hygrocybe intermedia* (1 site), all carefully checked with Boertmann. Using Rald's scale, this would rate the conservation importance of the cemetery, based upon the waxcap species count, 'of regional importance'. It did occur to me to suggest that we should stop digging it up!

My find of the year was the Field Earthstar, *Geastrum campestre*, with its first Northern UK record, which Mike Hall verified and later made it into the annals of *Field Mycology* (thanks Mike).



But I also found multiple sites of *Geastrum striatum* and also *Geastrum pectinatum*.

There were many other delights – I had never seen the Chestnut Bolete, *Gyroporus castaneus*, before. There were fairy rings of *Marasmius oreades* and wood blewits, a plethora of Russulas and Lactarius species, in total over 100 species. On my birthday, the cemetery even supplied a giant puffball for lunch! Because I was visiting daily, there was less need to 'binge' on finds and overwhelm myself. I spent more time with my books and microscope trying to understand the species I knew as well as identifying the ones I didn't.

And Max was pretty impressed too.

An anamorphic puzzle

Mike & Di Hall and Paul Cannon

Some readers of the NWFG Newsletter may be unfamiliar with the terms 'anamorph' and 'teleomorph'. For those unsure, teleomorph is the name for the familiar fungal fruit bodies which are the result of some type of sexual reproductive process, i.e. mushrooms, cups, discs, clubs, brackets, etc. However, many fungi (especially, Ascomycetes) also reproduce asexually and in so doing, develop fruitbodies with an entirely different structure. These asexual fruitbodies are known as anamorphs and produce conidiospores.

Now to turn to our puzzle. One of the joys of a fungal foray is the expectation of finding something entirely novel: Finding out what it is, is even better. Such a find occurred in November 2020 when Mike and Di Hall visited a strip of private woodland a couple of miles north of Kirkby Lonsdale - predominantly *Larix* plus *Fagus* with a scatter of mature *Betula*.

Although a few mushrooms were about, there was time to scrutinise the brash and debris a little more closely than usual. At one spot several old *Betula* branches had fallen and some of the bark had detached providing a moist space on the inside. Upon examining this surface with a hand lens, we noticed clusters of tiny fruit bodies. They were dark brown tending downwards towards black with a somewhat punctate 'stem' and cream-coloured 'caps'. They were all between 3 and 6mm high, often in clusters (Figure 1 below). In form, they were not unlike minute Jelly Babies (*Leotia lubrica*).

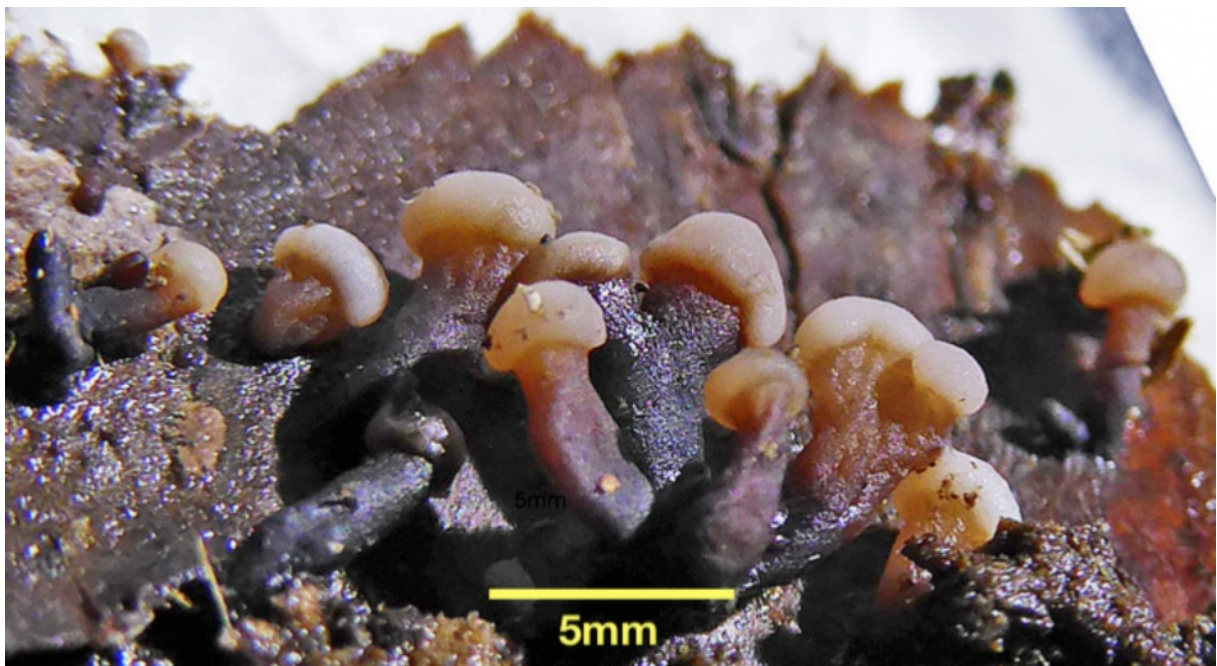


Figure 1. Minute fruit bodies on the inside of a strip of *Betula* bark

The 'caps' were rubbery and tough to cut, but under the microscope we expected to see asci and ascospores. Mounts in Congo red and Plaqsearch blue dye failed to locate anything resembling an ascus sac. Rather, within the solution, there were vast numbers of allantoid spores (slightly curved sausage shaped – Fig 2a) often with one or two inclusion bodies. There were also what appeared to be swollen basidia (Fig 2b and 2c), often at the ends of hyphae (Fig 3).

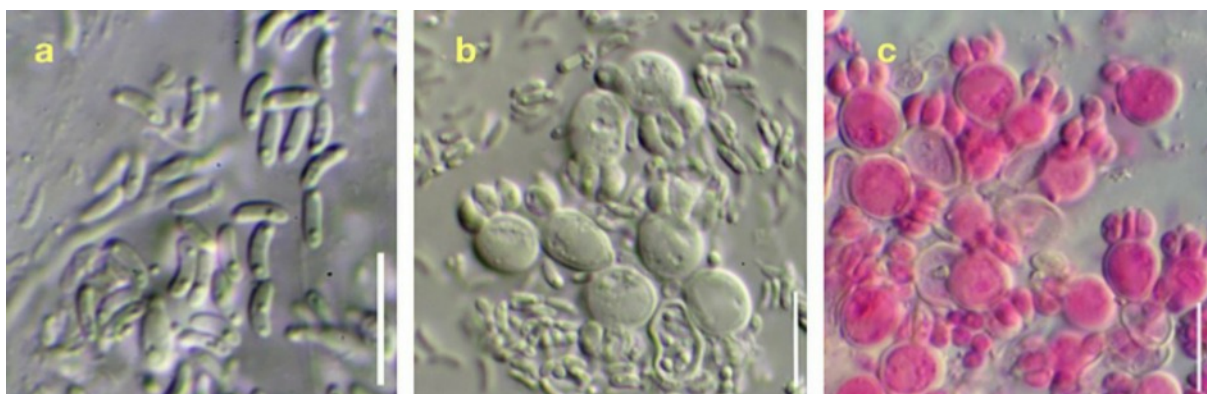


Figure 2. (a) Separated allantoid spores, (b) swollen cells with attached spore-like appendages, (c) as (b) but stained in Plaqsearch. Differential interference contrast images prepared by Paul Cannon. Image bars 10 μ m.



Figure 3. 'Basidium-like' cells terminating a hyphal filament

A detailed search of the available literature failed to identify any candidate with this combination of features. Finally, the images and specimen were referred to Paul Cannon, a Senior Research Leader in the identification and naming of fungi at the Kew mycology group. Paul suggested that the specimen may be the anamorph (asexual) stage of *Ascocoryne albida*. For further details see the web site <http://fungi.myspecies.info/all-fungi/ascocoryne-albida>.

However, if our specimen was indeed an ascomycete, then what were the basidium-like structures observed? In a paper published in 1962, M P Christiansen examined what he called '*a peculiar fungus*' named at that time as *Sirobasidium cerasi* and first described as far back as 1909. Christiansen's paper included line drawings much like our specimen (Figure 4) with components labelled as 'basidia', 'spores' and conidia. Christiansen stated that '*...the most characteristic feature of the microscopic details is the basidium*'. But doubts remained as to whether this fungus was truly a basidiomycete. Taking account of these opinions and based on

his detailed study, Christiansen concluded that the 'basidia' (Figure 4a) are not true basidia but are rounded hyphal links bearing conidiophores (4b) which bud off the fusiform conidiospores (4c) in vast numbers throughout the 'cap-like' structure. Mistaking these structures for basidia is understandable. Quite recently, Laessle & Petersen (2019) in *Fungi of Temperate Europe*, referred to '*onion-shaped conidiophores that may resemble basidia*' when discussing this species. Based on our present studies, it seems likely, therefore, that our specimen is the same as that studied by Christiansen; the allantoid spores are asexual conidiospores, and it is indeed an anamorphic stage.

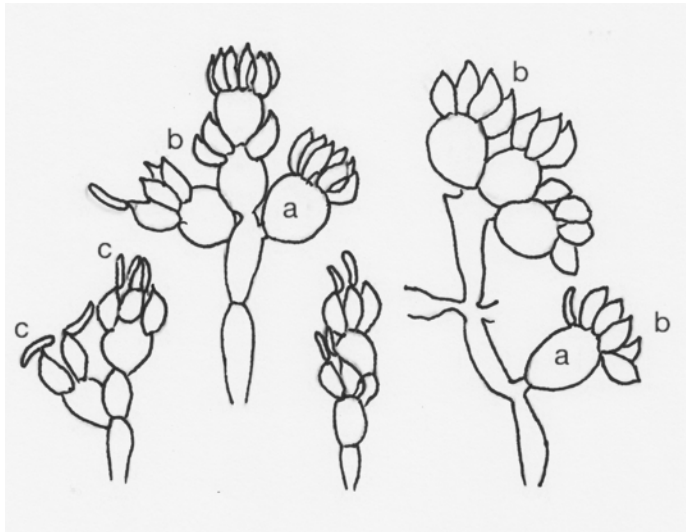


Figure 4. Microscopic features observed in *Siriobasidium cerasi*. (reproduced from Christiansen 1962).

a = 'basidia'; b = 'spores' and c = conidia

Naming fungi which produce both asexual and sexual reproductive structures has long been a source of confusion. The earliest name of our anamorph, dating from 1836, appears to be

Tubercularia albida. But until the 1970s, the sexual stage was named as a separate organism, *Ascocoryne solitaria*. Fortunately, this confusing dual naming system was discontinued following the International Botanical Congress in Melbourne in July 2011 – published by D L Hawksworth, in 2014. Hence, the correct name for both forms of our specimen is now *Ascocoryne albida*. Both morphs are illustrated in Laessle & Petersen's *Fungi of Temperate Europe*, page 1369. The sexual stage (teleomorph) is a small turbinate structure which may vary from purplish to brown.

So, thanks to Paul Canon, our 'puzzle' has been solved. Our specimen will be lodged with Kew for DNA sequencing to hopefully confirm the true relationships of this unusual anamorphic fungus.

Moore Nature Reserve foray, 15 August 2021

Paul F. Hamlyn

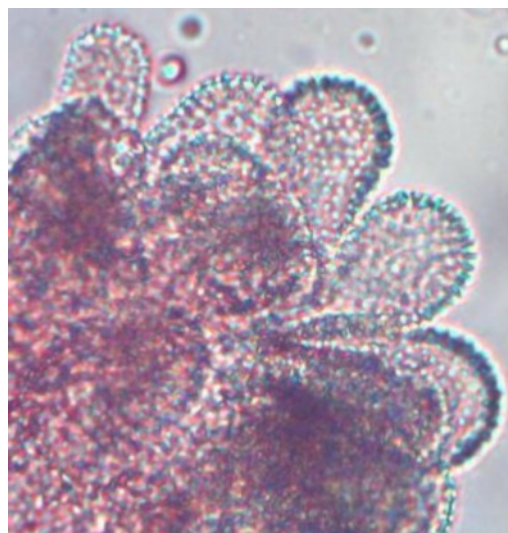
I had not visited Moore NR since 2019 as this annual foray for beginners had to be cancelled last year due to the pandemic. I was expecting about 10 people to turn out, in the event there were 19 of us. The small car park was filled to capacity but fortunately plenty of parking spaces at the side of the road. It had rained recently so there were high expectations but it was still early in the year. Past forays at this site have mainly been held in late September or early October.

As it turned out fungi were not that abundant and many specimens were still at an early stage of development. The heathland had become very overgrown presumably due to the demise of the local rabbit population who used to keep the area well grazed. A great pity since we used to find a lot of grassland species there. I avoided part of the woodland area around the old canal bed that we have always visited on past forays since there were so many biting insects around. Perhaps this is not the best time of the year to visit Moore NR.

While most fungi identified were common there were a few more unusual species around. A tiny white powdery Bonnet fungus growing on a mossy trunk turned out to be *Mycena corynephora* independently verified at home using microscopy by myself, Max Furnidge and Tony Carter. This species has cheilocystidia with dense protuberances and almost spherical spores.



Mycena corynephora



Cheilocystidia
of *M. Corynephora*

A highlight of the foray both for beginners and for more experienced members was finding a cluster of the very colourful *Melanophyllum haemospermum* (Redspored Dapperling - right).



A rarely recorded fungus identified by Tim Rogers was *Entoloma myrmecophilum* - below.



A total of 48 species including two slime moulds were recorded so not bad under the circumstances.

Acknowledgements

All photographs taken by Paul F. Hamlyn except *Entoloma myrmecophilum* taken by Tim Rogers.

Please note:

NWFG has two basic ways of disseminating information to members using email:

- by Bcc email from the Secretary to all members containing information about the management of the group and about activities of interest to all members, or
- via the email group which consists of a group of members, with shared email addresses, sharing information via Bcc about literature, recent finds, follow-ups to foray finds, etc. If you want to join this group, please email Tony Carter at tocart2@btinternet.com

Ash Dieback: the fearful flying fungus

Tom Waghorn

Late summer and early autumn are the best times to recognise Ash Dieback disease. Look out for the early shedding of leaves, developing dark patches in summer, which discolour to black. Lesions (a structural change caused by the disease) develop on the base of trunks of mature trees: often diamond-shaped red and dark brown, the inner brownish grey. And if any examples land in your garden, be sure to BURN THEM. Ashes to ashes!

Common Ash, (*Fraxineus excelsior*) is the third most notable of the fifty-sixish native tree species in the British Isles. It has no natural defence against Dieback, and the National Trust, which has felled many thousands at a



cost of more than £2 million, estimates that 79-95% of our native ash will be lost in the next 15 years. The charity says that increased prolonged hot and dry conditions driven by the climate crisis are putting trees under stress and making them more susceptible to the disease.

Dieback is devastating many of the landscapes of England and Wales, and even parts of Scotland. The Trust says woodlands, including the White Peak of Derbyshire, where ashes cling to the limestone of the steep dale-sides, will change beyond recognition.

The shores of Derwentwater and Great Wood – one of our Group's favourite

foraying grounds - have been seriously blighted. Beatrix Potter, who set Squirrel Nutkin on the lake, would have been appalled. So would painter John Constable, whose old home at Flatford Mill, Suffolk, is surrounded by threatened woodlands. "The ash was his favourite, and all who are acquainted with his pictures cannot fail to have observed how frequently it is introduced as a near object." [1]

In Greater Manchester the picture is rather mixed with, curiously, neighbouring mature ashes sometimes reacting differently. For instance, some of the ashes at Fletcher Moss Gardens, Didsbury, are dying while others nearby are unaffected. I have been puzzled by this too on my own patches like Heaton Park and the well-wooded Whitfield Golf Course.

Ash Dieback (*Hymenoscyphus fraxineus*) is an airborne ascomycete fungus which blew into Britain from northwest Europe having spread from east Asia, where the native *Excelsior manchuriana* is its resistant host. There are suggestions also however that it might have been partially transported by infected planting stock; originally from the natural host tree *Fraxinus mandshurica* to Estonia, thence later from Holland to England. It was only first described scientifically in 2006 under the name *Chalara fraxinea*.

Ascocarps (sexual whitish fruiting bodies) form in late spring on the petioles of the fallen leaves of the previous year. Each ascocarp can produce up to an astonishing 100,000 microscopic spores according to the Royal Forest Society. Dieback was first observed in the British Isles in 2021, though there are suggestions that it could have been present from at least 2004. It affects trees of all heights and ages, though it can take up to ten years for a mature ash to perish.

Any future? Tree scientists in Norfolk, which was one of the earliest counties to have been affected, are working on a scheme to procure ash seed with a high frequency of genetic resistance over a period of five to twenty-five years. Let's hope that their work succeeds.

[1] C.R.Leslie (1896) *Life and Letters of John Constable*. (Quoted in Oliver Rackham's Little Toller Monograph 'The Ash Tree'.)

Photographs by Carol and Peter Rafferty showing Ash Dieback by Derwentwater.

2022 A.G.M.

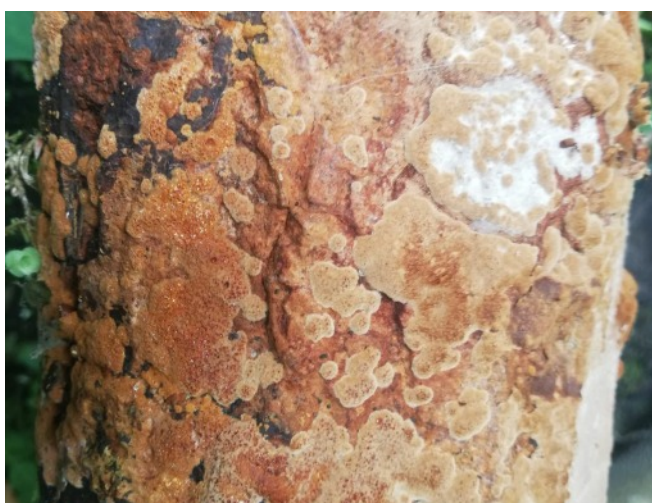
Saturday 26 February 2022
10.30 a.m. (10.00 a.m. Coffee)
Risley Moss Centre.

Aberduna Nature Reserve foray, 25 July 2021

John Ratcliffe (Ratty)

Today is Saturday, 24 July; I'm doing my recce for the foray tomorrow and things are not looking good. Dry as a bone and not a fruitbody in sight! Oh dear, this is going to be a blinkin' disaster. I eventually manage to find a little polypore, some Dead Moll's Fingers and even a small cluster of Sulphur Tuft.

Aberduna NR is limestone woodland and grassland surrounding a disused quarry, a charming and extensive Reserve managed by the North Wales Wildlife Trust, it even boasts three ponds. Sunday dawns fine and sunny yet again and we are a little group of nine, I'm relieved to see several eagle-eyed friends. Soon after setting off we do actually begin to find things; Clive showed us a Rust on Enchanter's Nightshade. Watty found *Phellinus ferruginosus* (Rusty



Porecrust - above right - photo John Watt) and Lynne found the tiny white cups of *Hymenoscyphus fraxineus* (Ash Dieback). Shortly afterwards Eagle-eyed Lynne found a Scutellinia, a tiny red Eyelash fungus which Tim later identified as *S. legaliae*, described as rare in Thompson's Ascomycetes book with only 15 records on FRDBI and the first record for North Wales. Lynne then also showed us a Rust on Pendulous sedge which Clive identified as *Puccinia caricina* var. *ribesii-pendulae*. We then found a lovely yellow spiny resupinate under a fallen Hazel branch, *Phlebia* (formerly *Mycoacia*) *uda*, the i.d. later microscopically confirmed by Watty who also found and identified *Schizopora paradoxa* (Split Porecrust).

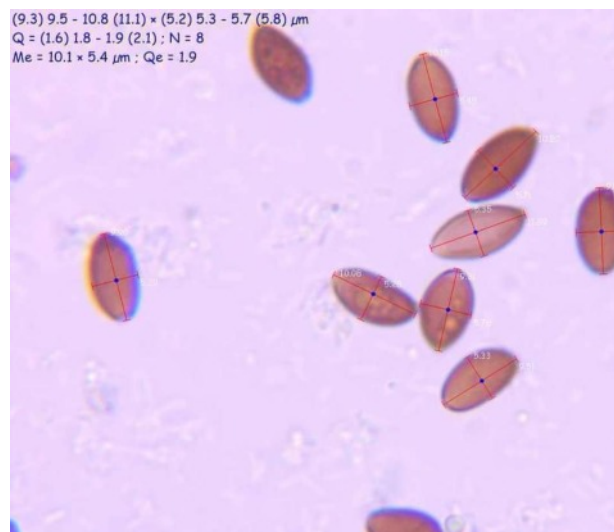
Before we left the first wooded area Clive found a beautiful little Inkcap peeping out from under a rotten log, this was taken home by Max and following internet discussions was thought to be *Coprinopsis conioophora* which has only 4 other records on FRDBI, all in the South of England. Around this area Watty and Tim both found tiny grey ascomycetes on rotten wood (i.e. tiny grey cups) both independently identified them as *Mollisia cinerea* (Common Grey Disco) and Watty showed us a mildew on Ragwort. Clive found *Hypocrea pulvinata* (Ochre Cushion), a fungus on a fungus! It grows on the pore surface of old Birch

Polypores. He also showed us *Gymnosporangium confusum* growing on Hawthorn, this species needs two very different hosts, producing it's teleomorph (sexual) fruiting bodies on Juniper, appearing when wet as pronounced bright yellow growths.

We then walked through the meadows pausing at the ponds to admire the several species of Dragonflies, Damselflies and Butterflies before enjoying lunch sitting on limestone rocks above the quarry face. More hilltop meadows followed with a lovely view of the Clwydian Range before we entered woodland again. We passed several mature Beech where Clive found *Xylaria carpophila* (Beechmast Candlesnuff) and I ticked *Amanita rubescens* (Blusher) and *Russula ionochlora* (Oilslick Brittlegill) later confirmed by Tim. Clive then showed us *Phragmidium violaceum* (Violet Bramble Rust) and an *Inocybe* (Fibrecap) which Tim later found to be *Inocybe posterula*, a widespread but only occasional find. Charlotte then spotted a big Bolete which caused quite a stir, especially when the cut flesh quickly turned blue, Tim later confirmed our suspicion that it was *Suillus luridus*, another widespread but occasional find.

As we walked on Watty found a soft creamy white resupinate which he later identified as *Phanerochaete sordida*. This species has been known to infect an immunodeficient human in the form of a pulmonary nodule. John also identified *Hypoxylon rubiginosum* (Rusty Woodwort) found by Steve Hurley. The walk back to the cars produced *Arrhenia retiruga* (Small Moss Oysterling) for me and a couple of Myxomycetes (Slime Moulds) namely *Fuligo septica* which is bright yellow and *Stemonitis fusca*, strikingly beautiful under the hand lens.

What a rewarding and productive day despite the drought. We even managed a pint at the local before heading home. Thanks to all for a really lovely day.



Coprinopsis conioophora - photos Max

Puzzle break

Taken together, the chemical symbols of each of the elements in the following groups provide an anagram of the common name of a fungal species (number of letters in last column). The names are as given in the BMS list of “English Names for Fungi” in November 2021. Can you work out each one?

Compiled by Jeanette Maddy - Answers from Mike Walton - mike.a.walton@googlemail.com

Group No.	Chemical Elements	Oxygen	Germanium	Boron	Nitrogen	Thorium	No. letters
1	Thallium	Oxygen	Germanium	Boron			6
2	Calcium	Erbium	Phosphorus	Protactinium	Nitrogen	Thorium	10
3	Hydrogen	Boron	Erbium	Lutetium	Sulphur		7
4	Neon	Carbon	Potassium	Rhenium	Silicon		8
5	Aluminium	Americium	Cobalt	Nitrogen			7
6	Roentgenium	Selenium	Tellurium	Titanium			8
7	Calcium	Helium	Palladium	Tantalum			8
8	Cerium	Helium	Lanthanum	Lawrencium	Nitrogen	Tellurium	11
9	Oxygen	Roentgenium	Tellurium				5
10	Iodine	Nickel	Oxygen	Phosphorus	Polonium	Selenium	9
11	Aluminium	Argon	Osmium	Phosphorus			7
12	Hydrogen	Lithium	Osmium	Platinum			7
13	Iridium	Nobelium	Potassium	Thorium	Tin		9
14	Krypton	Lanthanum	Tellurium	Titanium	Uranium	Yttrium	10
15	Argon	Iron	Nihonium	Tantalum			8