



North Eastern Fungus Study Group

Newsletter No 89 - Summer 2018

Index

Forthcoming events	Page 1.
Mycology through a hand lens	Page 7.
How to survive winter: three fungi with sclerotia	Page 9.
Using the website noticeboards	Page 12.
Lichen lookout	Page 14.

NEXT ISSUE: The deadline for articles for the Autumn newsletter is 17th November 2018.
All contributions will be gratefully received!



Forthcoming Events

September 2nd	Sunday	Wingate Woods	Alan Simkins
September 9th	Sunday	Stocksfield	Mike Cruse
September 15th	Saturday	Deerness Woods	Val Standen
September 22nd	Saturday	Bellister Woods	Gordon Beakes
September 29th	Saturday	Clay Bank Bilsdale	Jo Scott
October 6th	Saturday	Howardian Hills	Rhona Sutherland
October 13th	Saturday	Newtondale	Tom Kirby
October 14th	Sunday	Upper Teesdale	Gordon Beakes with Natural England
October 21st	Sunday	Kyloe Wood	Cameron Diekonogan - Borders group
October 26-28th	Week-end	Brathay Hall	Mike Cruse
November 3rd	Saturday	Milkwellburn Woods	Ron Pattinson TBC
November 10th	Saturday	Whittle Dene, Ovingham	Mike Cruse

ALL FORAYS MEET AT 10:30 READY FOR AN 11AM START (unless otherwise stated)

WINGATE WOODS - 2nd SEPTEMBER Alan Simkins

Meet at 10:30am (for 11am start) at NZ 395 382 (arrowed on the attached map) which is roadside parking on the yellow road from Wingate centre to the A181 towards Durham.

Coming from the north or south on the A19 exit at the CASTLE EDEN JUNCTION and take the A181 going WEST, and then turn LEFT after approx 100 yards onto the yellow road and UP THE HILL into Wingate village. Go STRAIGHT ACROSS at the junction with the B1280 and after 400 yards or so, beyond the housing, PARK on the roadside.

The foray is in the woodland south of the yellow road and is a mixture of deciduous and coniferous trees.



Wingate Woods Parking

STOCKSFIELD - 9th SEPTEMBER Mike Cruse

Meet at Stocksfield Community Woodland car park.

Stocksfield community woodland car park

<https://www.searchforsites.co.uk/marker.php?id=29478>

OS grid ref NZ051 613 Postcode NE43 7HG

From the A68 / A695 roundabout (just south of the A69) proceed east 1.4 miles to the B6309 turning (signed Ebchester, Hindley) take a right turn there, the car park is almost immediately on your right.

Tel 01661 823229, Mob (On the day only) 07486 992923

DEERNESS WOODS - 15TH SEPTEMBER Val Standen

Deerness Woods, New Brancepeth. NZ219416

From the A167 turn west at Neville's Cross traffic lights towards Langley Moor, then straight on. Pass under the main line railway bridge then turn immediately right before the General Boyne pub. Road winds for 2-3 miles through Alum Waters to New Brancepeth. At the T junction turn left then first right (indicated by blue 'not suitable for heavy traffic' sign). The Methodist church is the last building on the left. Park on the road verges either side.

NATIONAL TRUST BELLISTER ESTATE - 22ND SEPTEMBER Gordon Beakes

OS grid ref NY622 684

This foray is to the woodland associated with the National Trust owned Bellister Estate, that lies a few miles south of Haltwhistle (the nominal centre of Britain!). This recording foray is really a favour to the Ranger Sarah Bennett who has responsibility for this part of the National Trust "Hadrian's Wall" group of properties. Over the years she had been very helpful facilitating forays to the nearby Allen Banks Estate, which is probably one of the best woodlands for fungi in Northumberland. Bellister will not be as rich, as it is more or less a mono age woodland with, as

Sarah herself says rather too much Sycamore. However part of the woodland near the banks of the South Tyne is noted for its Calamarian grassland with lots of heavy metal specialist plants (thrift, spring sandwort, dune helleborine etc.). There is some conifer and alder in this part as well, which can be very wet underfoot (the whole woodland is on clay so be prepared for muddy tracks). **Meeting Place.** The woodland lies just north of Park Village about 2 miles south of the town of Haltwhistle. Take the A69 Newcastle to Carlisle Road (map a) and continue on the Haltwhistle bypass. Just after the A69 crosses the South Tyne take the first left hand turn (signposted to Alston (A689) Halton, Lea Gate, Coanwood). The road climbs steeply up Bellister bank before swinging west towards Park Village. Where the road makes a sharp left hand bend there is a right hand turning (which should be signposted to the Haltwhistle Caravan club site). This narrow road goes steeply downhill to Park Burnfoot Farm (map c). There is a lay-by just before the farm buildings (bottom left photo below). If cars are parked at an angle at 5-6 cars could be parked here. There is also space 2 or 3 more cars just up the hill adjacent the National Trust Bellister Estate sign (top right below). If all these spaces are taken then drive past the farm and there should parking a few hundred yards further up the road towards Bridge End. If you arrive early and need refreshment then I have indicated tearooms in Bardon Mill Village (and Starbucks on A69) in asterisks on map b. There are no toilets on site - and nearest public loos are in Haltwhistle.



For those of you (e.g. Alan and Gwen) who like to make a weekend of these "faraway" northern sites, then on Sunday 23rd I am leading two fungus walks for the National Trust at Allen Banks (starting 10.00 am and 1.30pm NY798642) which should be excellent for *Amanita's* at this time of year. This site has *A. phalloides*, *A. pantherina* and *A. virosa* - so it could be renamed "Death (cap) Valley"!

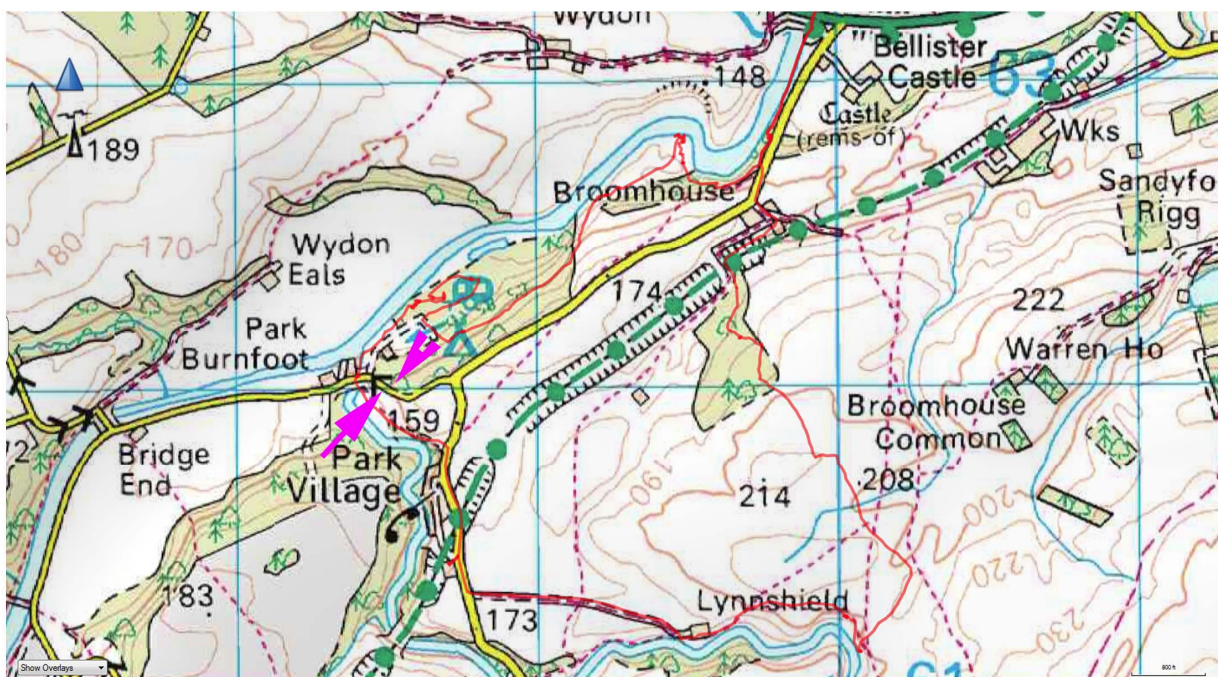
a



b



c



From Stokesley take the B1257 road to Helmsley, through Great Broughton and at the top of the bank take the minor road signed to Ingleby Greenhow. We will meet in the car park on the right at the bottom of the bank. I thought we would start out on the marked paths where I know there are points of access into the woodland but there are miles of track available to us.

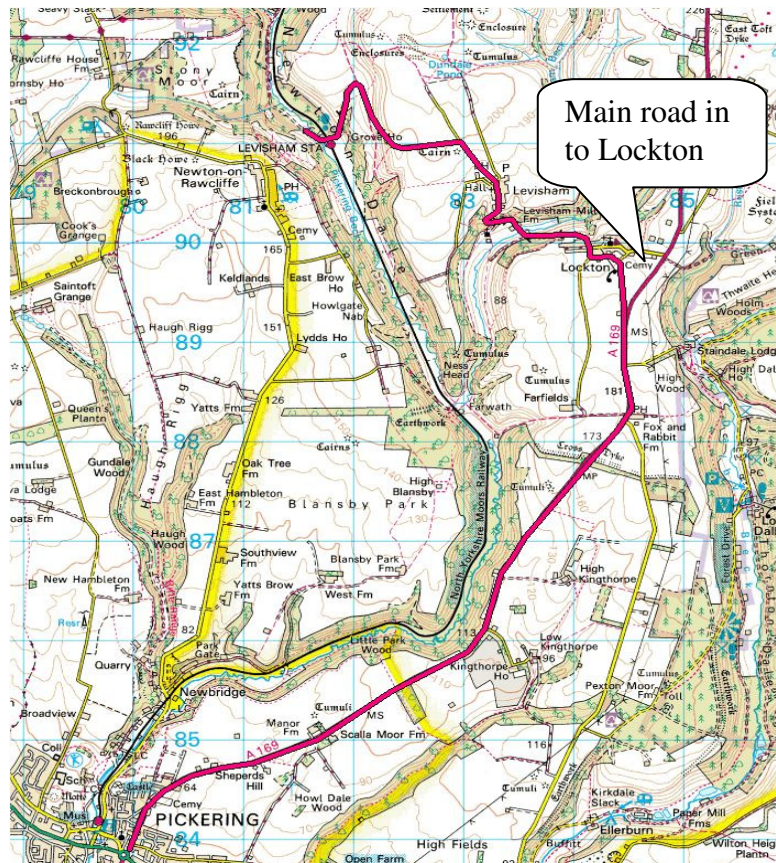
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DALBY FOREST, 13th OCTOBER - Tom Kirby

Strictly speaking, this foray is in Newton Dale, west of Dalby. To access the forest, drive to Thirsk, then drive east on the A170 to Pickering.

At the main roundabout in Pickering turn left, on to the A169 heading north. After 4.5 miles you will see an unmarked slip-road on your left. This is Hostess Lane and it WILL take you in to Lockton as indicated on the map below, BUT if you miss this turning there is a better road 0.75 miles further on, signposted Lockton and Levisham. Once in Lockton follow the signs to Levisham Railway Station. You will pass the Horseshoe Inn where we may or may not retire to post-foray.



UPPER TEESDALE - 14TH OCTOBER - Gordon Beakes

This is public event run by Natural England but NEFSG members are welcome to attend. Meet at the Bowlees Visitor Centre at **10am**.

GR: NY906282

BRATHAY WEEKEND - 26 - 28TH OCTOBER - Contact: Mike Cruse

A 4 day, 3 night stay, Friday October 26 to Monday October 29 , the main forays will be on the Saturday and Sunday with smaller optional ones on arrival on Friday and on the way back on Monday. Please feel free to join us for any of the days.

WHITTLE DENE, Ovingham - 10th NOVEMBER - Mike Cruse

Meet at Tyne Riverside Country Park , Low Prudhoe (free parking)

Tyne Riverside Country Park | Adventure Sports in Prudhoe ...

<https://www.visitnorthumberland.com/activity-centres-adventure...>

OS grid ref NZ087 635 Postcode NE42 6NR

From the A68 / A695 roundabout (just south of the A69) proceed 4 miles eastwards to Prudhoe / Low Prudhoe and take a left turn at the roundabout signed Tyne Riverside Country Park / Ovingham . The car park is on the left after the railway crossing .

We will cross the River Tyne on foot and head for the FP behind Ovingham Church where Northumberland's most famous naturalist is buried .

Thomas Bewick - Wikipedia - https://en.wikipedia.org/wiki/Thomas_Bewick

Bewick Society - www.bewicksociety.org

Tel 01661 823229 Mob (On the day only) 07486 992923

Mycology through a hand lens...

Just over twenty years ago, the North East (or Eastern, we were never entirely as one on this) Fungus Study Group came in to being. Conceptually, there is no doubt that Alan Legg, our founder, was responsible for the birth...with a handful of metaphorical mid-wives present...but once up and running it quickly became clear that to accommodate the varying requirements of “new” members we, affectionately known as The Committee, needed to cobble together some sort of mission statement.

With a little give and take, largely a matter of achieving a balance between enthusiasm and ethos, we arrived very quickly at a position where an enduring constitution combined the need to learn, identify accurately and record our foray finds, whilst at the same time providing a degree of fun. Fun? I hear you ask...well, yes. Fun is the absolutely essential glue that holds groups such as ours together. We are not talking slap-stick, banana-skin slip jocularity or endless “fun guy” clichés but that heightened enjoyment which a gentle but steady increase in knowledge brings.

Of course, mistaken identities loudly and confidently proclaimed...unfortunate wanderings in to territory unknown by our more elderly, but adventurous members...exciting new ways of getting down slippery, wet banks...risqué but humorously malformed specimens...and so on, all contributed to pleasurable days foraging in some of the most splendid woodland and varied terrain that is the North East of England. We, as a Group, have prospered.

There HAVE been changes, and so there must be, but without going into a microscopic analysis of how these changes have affected Field Mycology, the purpose of this short article is to reflect on how the future looks through a hand lens...well, my hand lens.

First of all, the Internetty Webby thing. It is here, it is a resource and it affects us all. Quite apart from the overwhelming abundance of mycological imagery available to “users” there is a whole world of arguably useful contact with “other” groups, societies, institutions, departments and individual field mycologists. Not wishing to be in any way dismissive of what is, in fact, an enormously varied and burgeoning world of wonder...the “arguably” word is there just BECAUSE of the variability...read reliability...of the information temptingly plated up before us.

The point here is that nothing can substitute for the “field” in Field mycology. So the first plea is for all field groups to encourage members to get out there and “feel” your finds...that where the fun is (to paraphrase Manfred Mann’s “Blinded by the Light”...Google it if this makes no sense to you). Sometimes it can be daunting to travel 100 miles in the round to a distant foray location, but the rewards are greater for the effort. Though the NEFSG has a very large territory, membership is also spread widely and so forays are usually well attended by the “locals”, but nonetheless there is a general concern, nationally if my contacts are reliable, that the stay-at-home mycologists are on the increase...and therein lies a begged question. The answer to the question why, is that we are all getting older...and that is the first change seen through this hand-lens.

On a somewhat more general, but irritatingly familiar point...the vexed question of what will happen when the changes heralded by DNA profiling come fully to the fore? Views have been expressed, widely varying; it is the end of field mycology (as we know it); it is a brave new beginning; it will make no difference whatsoever.

Through a hand-lens, and looking myopically at that, there must be short-term changes. It is inevitably the case...and as with anything inevitable, we must go with it. To see what the future brings you only need to hang around for long enough...easier said than done...but there is good news NOW.

Once again, without looking at the detail of what DNA profiling may or may not “do” to Field Mycology, look to the bigger picture. Right now, and this from personal experience, we rely heavily upon a scattering of dedicated and more experienced group members to aid and assist in specimen identification. The process can be quick and immediate when experience is the tool...or sometimes long and difficult when dedication to the task is the only way. Books, microscopy, midnight oil...and yes, the Internetty, too...as well as phone calls, more books, samples posted or variously transported to other known “experts”...usually produces an answer; but not always. There is a suspicion that much the same procedure will prevail for quite some time yet though to say that DNA identification will make no difference whatsoever is, perhaps, as naïve as suggesting that the microscope made no difference to field mycologists; true, though, if you do not use a microscope...and so the same applies.

The Fungus Conservation Trust is for Field Mycologists and if you do not know yet you soon will...in fact, right about now. The FCT has invested in the necessary kit and kaboodle to bring this DNA facility to the members. What does this mean? Well, it means the change is here BUT what it does NOT mean is that every unknown fungal find will, by due process, be whisked off down to the waiting embrace of Mr. Michael Jordan and his shiny, new deoxyribonucleic acid de-mystifying machine...I mean, where's the fun in that? No, but it is very reassuring to know that through this hand-lens, technology can be seen to bring changes which are to the advantage, and not the detriment, of the dedicated field mycologist.

Finally, but probably most significantly, it is worth looking historically at what noticeable changes have meant to the majority of field mycologists...or at least, what changes have been the most discussed. Of course, this is a reference to "name" changes. There is nothing new under the sun but when the "new" name of your find is cause for a correction, confidence can collapse and competence can be questioned. Do not fear...plus ça change, plus c'est la même chose...a rose is still a rose. The mantra of the amateur field mycologist should be "I know what I mean"...but if a hand lens is not good enough to be sure, get a young person to take a look.

To survive change, all that field mycology needs is for more young people to see the challenge, the fun and the exciting future which technology will bring to the subject. We are living through a fascinating period; developments in science and the appearance of new species, plant and fungi, brought to you by the likelihood of global temperature changes make field mycology increasingly important.

Begin by buying a hand lens as a Christmas present for your niece, nephew or grandchild...it worked for me and I look through the same hand lens I bought twenty years ago.

Tom Kirby (NEFSG)

How to survive winter: three fungi with sclerotia

Keith Tulip

Dancing in the breeze ...

The windflowers, wood anemones, were carpeting the woods at Tyne Watersmeet one April. But amongst the leaves were also the flobbery brown parasitic anemone cups, *Dumontinia tuberosa* (previously called *Sclerotinia* (see Kohn 1979)). It doesn't kill the host, but does suppress flowering, and this may be a hint when searching for them. If the stipe is traced underground, a hard black lump will be found, called a sclerotium, associated with the rhizomes of the plant.



Figure 1: *Dumontinia tuberosa* (Cooke 1906)
[as *Sclerotinia*]

Sclerotia are dense aggregates of fungal tissue that help fungi survive conditions such as freezing, desiccation, microbial attack or the long term absence of a host (Smith *et al* 2014), and are usually packed with nutrients. In the case of *D. tuberosa*, these are beta-glucans and proteins (Mircea *et al* 2016), allowing the rapid development of the parasite as the host emerges from dormancy.



Figure 3: *D. tuberosa* at Tyne Watersmeet



Figure 2: showing sclerotium



Figure 6: 'Ergot, with *C. purpurea*' (Berkeley 1860 plate 23)

The dance of death

More well known, and not uncommonly found, is the ergot, *Claviceps purpurea*. The black ergot sclerotium is usually found replacing a seed in the flower head of grasses, especially rye grass or cocksfoot. The sclerotia fall to the ground in autumn, and germinate in the next spring, from which ascomata arise (see fig. 5). These produce ascospores that infect the grass through the stigma. The mycelium that develops produces masses of conidial spores in a sweet nectar, attracting insects that spread these spores to other plants. The sclerotium is then formed (Kendrick 2000).



Figure 4: *Claviceps purpurea* Stonehaugh, Northumberland

Serious poisoning occurs if bread made with infected rye flour is eaten. According to Spooner & Roberts (2005), the poisoning takes two forms: spasmodic ergotism, said to have led to medieval dancing manias, and gangrenous ergotism. Worthington Smith (1884) details the symptoms of the latter over four pages, seemingly revelling in the horrors: 'The flesh of one leg had separated and come off at the knee, leaving the bones bare, which she would not suffer to be taken off'. Animals such as sheep and cattle can also be affected by eating the infected grasses:



Figure 5: 'Imago Mortis' Michael Wolgemut (Schedel 1493)

'Graceless has lost a leg! Where is it? ...
Wi' the Queens's Bane blighting our corn,
and the King's Evil laying waste the clover
and the Prince's Forfeit bringin' black ruin on the hay ...'
(Stella Gibbons. *Cold Comfort Farm*)

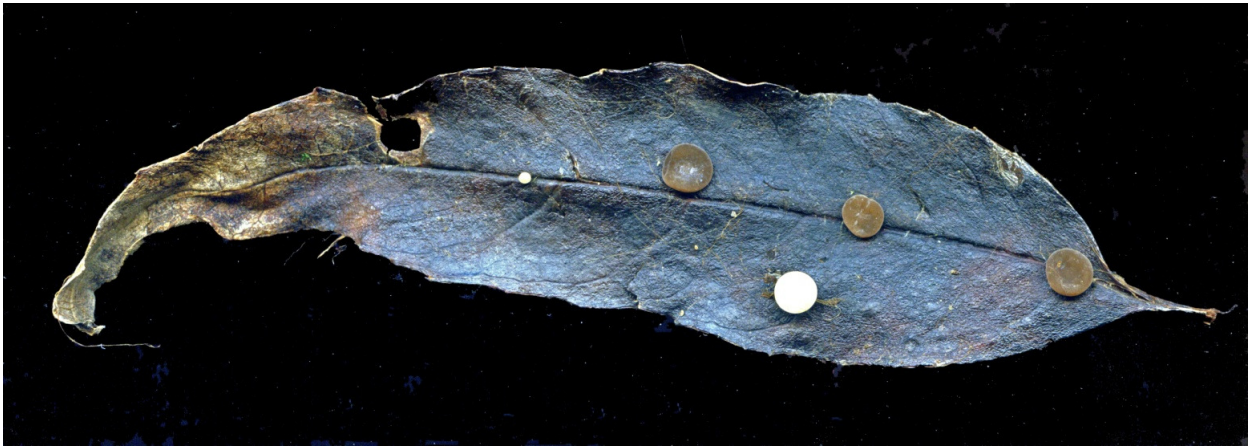


Figure 7: initially unidentified fungi from Harehope Burn

Led a merry dance

The leaf in fig. 7 was found at Harehope Burn. Initially, attempts to identify the brown and white discs caused great puzzlement. They were loosely attached to the leaf, and also attached by hair-like 'roots' (fig. 8). Under the microscope, no asci or spores were visible, just packed hyphae inside a hairy cortex (fig. 9). I wondered if it was a jelly fungus, due to the texture of the inside and imagined hypobasidia. Some thought discomycetes, with a well-known expert suggesting *Hymenoscyphus monticola* after seeing the photographs. But there were no asci. However, they were eventually identified by Jill Cunningham, following her discovery of specimens in the next stage in the life cycle (fig. 11). They are the sclerotia of *Typhula phacorrhiza*. After reviewing the photographs, jig-saw shaped cortical cells were found 'characteristic of the genus *Typhula*' (Morrison & McAdoo 2016) (fig. 10).

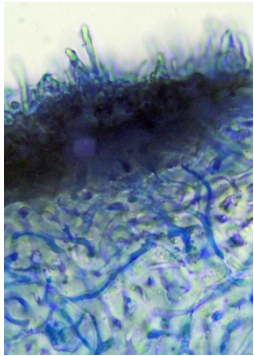


Figure 9: section through disc



Figure 8: underside, showing dark point of attachment, and attached hyphal threads

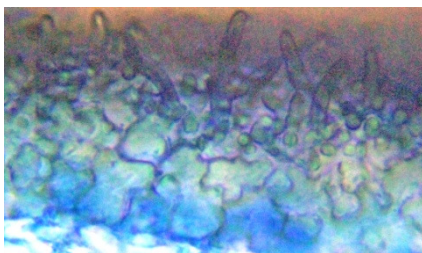


Figure 10: jig-saw shaped cortical cells

Confusion was understandable; most books seem to describe only the brown colour. But Kibby (2017) describes it as 'white then reddish brown, with pale mycelial strands running over the leaf'. An article in *Field Mycology* confirms the existence of white sclerotia (Edwards *et al* 2014).

The discs were originally thought to be a different species from the *Typhula*, called *Sclerotium scutellatum*. Berkeley (1860 p285) describes *T. phacorrhiza* as attached to *S. scutellatum*. In Greville (1825), the entry for *S. scutellatum* says 'This comparatively recently discovered species is new to the flora of Great Britain, and has hitherto been only found by my friend Captain Wauch.' It also says 'pale when young, at length deep brown'.

As the *Field Mycologist* article emphasizes, this species 'sets traps for the unwary field mycologist'.

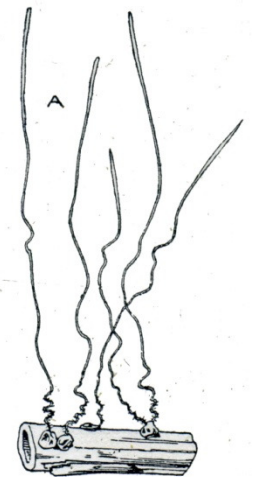


Figure 11: *Typhula phacorrhiza* (Smith 1908)

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all photographs by the author

USING THE NEFSG WEBSITE NOTICBOARDS

There are two noticeboards on the website for use by members. The Members Noticeboard is a useful way of sharing and discussing information or sharing photographs with other members of the group. The Public Noticeboard is useful for getting information out to non-members (or indeed members as well) It should only be used for articles that contain non-sensitive information and that do not include personal or contact details. It could well encourage new members!

Both Noticeboards work in the same way and are easy to use to create new notices or to reply to an existing notice. Details of how to edit and/or delete notices will be covered later.

You must be logged into the site.

Before attaching photographs please make sure you have resized them to 800 x 600 first. There is a document in the Public Noticeboard describing how to do this.

To create a new notice

At the bottom of the list of existing items you will see the following panel.

The screenshot shows a web browser window with the address bar displaying 'nefsg.co.uk/forums/forum/members-forum'. The page title is 'MEMBERS NOTICEBOARD - N...'. The user is logged in as 'Howdy, Joyce Scott'. The main content area is titled 'CREATE NEW TOPIC IN "MEMBERS NOTICEBOARD"'. It contains a form with the following elements:

- Topic Title (Maximum Length: 80):** A text input field with a red '1.' next to it.
- Rich Text Editor:** A toolbar with icons for bold, italic, link, b-quote, del, img, ul, ol, li, code, and close tags. A red '2.' is next to the editor area.
- Topic Tags:** A text input field.
- Topic Type:** A dropdown menu set to 'Normal'.
- Topic Status:** A dropdown menu set to 'Open'.
- Notify me of follow-up replies via email:** A checkbox that is currently unchecked.
- Attachments:** A section with a yellow box stating 'Maximum file size allowed is 40000 KB.' Below this is a 'Browse...' button with the text 'No file selected.' and a red '3.' next to it. Below the button is a link 'Add another file' with a red '4.' next to it.
- Submit:** A red '5.' next to the 'Submit' button.

In the dialog box marked **1.** above enter a title for your article.

Click into the area marked **2.** and you can enter the content of your article. Use the black boxes to choose tools such as bold, italic or underline if you need too.

To add an attachment click on the Browse button **3.** and choose the file you want. To add additional photographs click Add Another File **4.**

When you are happy with the content click Submit **5.** and your article will appear in the list.

To reply to an existing notice.

Click on the notice you wish to reply to and it will open.

At the foot of the screen you will see REPLY TO: and the title of the article you have chosen.

You enter your reply in the same way as creating a topic (above) and click the submit button when you have completed your reply.

Lichen Lookout

Two lichens seen on tree trunks and branches often seen together as mosaics on smooth barked trees. You may need a hand lense to see the small details.



Lecanora chlarotera

Thallus light grey/white. Apothecia pink to brown and can be numerous. Easy to spot as light patches on the bark.



Lecidella elaeochroma

A smooth thallus that is grey to greenish. More green when wet. Black or sometimes reddish apothecia