



North Eastern Fungus Study Group

Newsletter No 105 Summer 2022

Index

Forthcoming Events	Page 1
Clematis Woes - Alan Simkins	Page 8
Lidophia graminis, or Twist - Lydia Koelmans	Page 9
When Fungi Fight Back - Mike Cruse	Page 10
Honeysuckle Rust - Lydia Koelmans	Page 12
Absconditella lignicola - Lydia Koelmans	Page 12
Telephora anthocephala - from The Forager.....	Page 13
Typhula erumpens - Gordon Simpson	Page 14
Lichen Lookout - Jo Scott	Page 15

NEXT ISSUE: The deadline for articles for the Autumn newsletter is 25th November 2022
All contributions will be gratefully received!



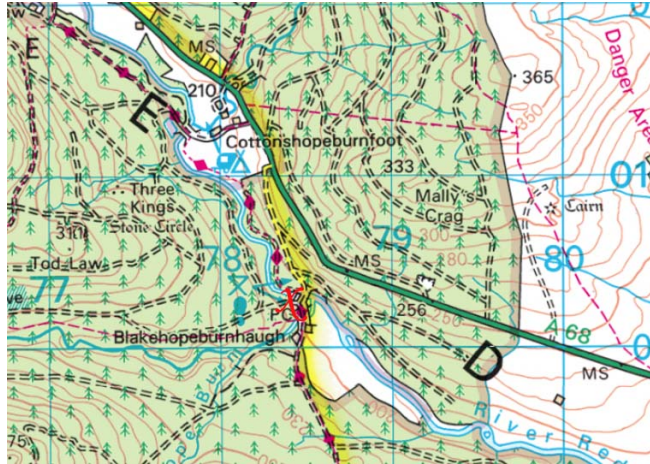
Forthcoming Events - All forays start at 11am unless otherwise stated.

Sat Sept 3 rd	Lydia Koelmans	Hindhope Linn, Rochester, Redesdale, North Northumberland
Sat Sept 10 th	Louise Watson	Twizell Wood, Chester-le-Street, County Durham
Sun Sept 18 th	Alan Simkins	Middleton-in-Teesdale, Upper Teesdale, County Durham
Sat Sept 24 th		Week-end away in Scotland (poss incl Fri 23 rd - Mon 26 th)
Sat Oct 1 st	Mike Cruse	Featherstone Castle, Haltwhistle, West Northumberland
Sun Oct 2 nd	Alan Simkins	Guisborough Woods, Guisborough, North Yorkshire NP
Sat Oct 8 th	Cath Gillie	Bedburn, Hamsterly, Co Durham
Sun Oct 9 th	Ron Pattinson	East Chevington Widdrington, South Northumberland
Sat Oct 15 th	Sally Pattison	UK fungus Day, Morpeth, South Northumberland
Sun Oct 16 th	Lydia Koelmans	Scotch Gill, Morpeth, South Northumberland
Sun Oct 23 rd	David Miller	Bonfield Ghyll, Bilsdale East Moor, North Yorkshire Moors NP
Sat Oct 29 th	Louise Watson	Oakenshaw, Brandon, County Durham
Sat Nov 5 th	Doug McCutcheon	Westernhopeburn Farm, Eastgate, Weardale, County Durham
Sat Nov 12 th	Alan Simkins	Keldy Castle, Cropton, North Yorkshire Moors NP
Sun Nov 13 th	Rhona Sutherland	Kirkdale, Nawton, North Yorkshire Moors NP
Sat Nov 26 th	David Miller	Beaconhill, White Lea Farm, Easington Coll. County Durham
Sat Dec 3 rd	Mike Cruse	Warkworth Dunes, Warkworth, Mid Northumberland

Sat 3rd Sept Hindhope Linn, Rochester, Redesdale, Northumberland - Lydia Koelmans

Mixed woodland and scenic Linn . 4 miles north of Rochester on the A68 look out for the Forest Drive sign , turn left and proceed to the Forestry Commission Picnic Area (with toilets) . Grid Ref:- NT 784 002 approx post code :- NE19 1SW

lydia.koelmans@blueyonder.co.uk tel:- 07759781721



Sat 10th Sept Twizell Wood/Fox and Parrot Woods - Chester-le-Street, Co Durham - Louise Watson

OS Grid NZ227512

A broadleaf wood about 4 miles west of Chester-le-street. At the site there's a big grass verge to park on. Some paths are a bit uneven/steep.

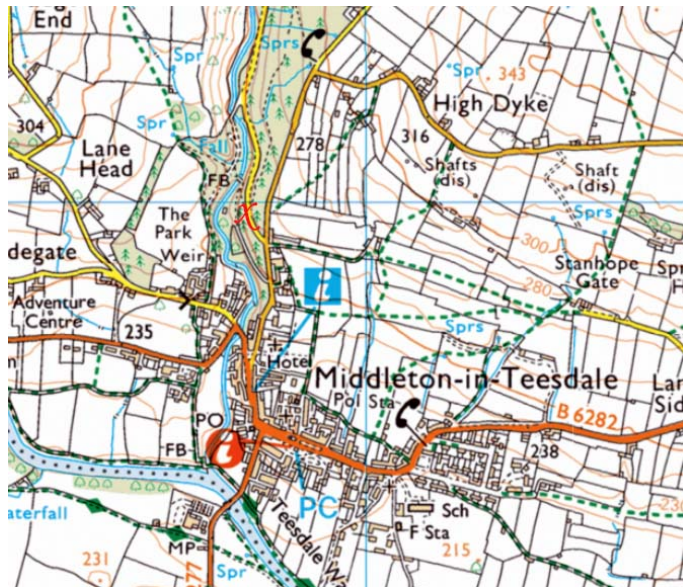
Louise's numbers - 01388745063, or 07977628741 on the day.



Sun 18th Sept Middleton -in-Teesdale - Alan Simkins

Grid Ref. NY947259

Drive into the centre of Middleton in Teesdale and before the sharp turn on the B6277 over the beck [leading to Bowlees etc] turn right [signposted Stanhope and Weardale] up a hill. Then turn left [at cul de sac sign] in about 250 yards on to a minor road. Drive about 300 yards down a hill to a level parking area on the left side of the road. The habitat is a mix of deciduous and coniferous woodland with some open areas alongside the beck. No toilet facilities at the site.



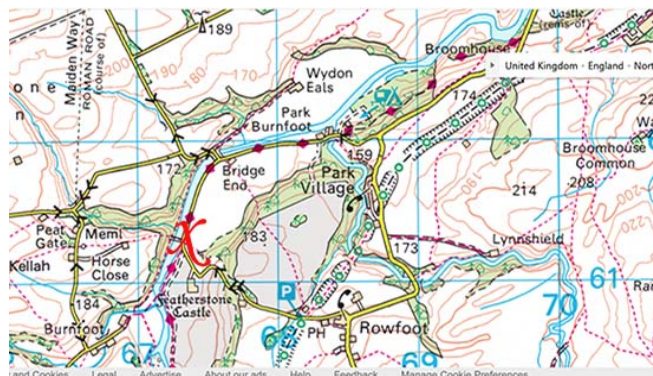
Friday Sept 23rd , Saturday Sept 24th , Sunday Sept 25th (possibly Monday Sept 26th) Aviemore area- Mike Cruse

Details of foray sites to be sent to NEFSG members shortly .

mikecruse@live.com tel:- 01661823229

Sat 1st Oct - Featherstone Castle - Haltwhistle - West Northumberland - Mike Cruse

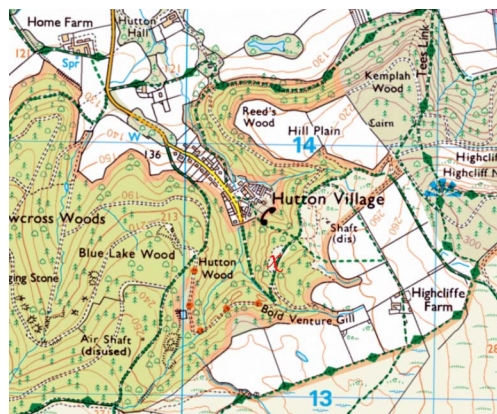
Mixed woodland , grassland and parkland . 2 miles west of Haltwhistle park on the roadside near the footbridge across the River South Tyne just before Featherstone Castle .
Grid Ref:- NY 673 613 post code :- NE40 0JG



Sun 2nd Oct - Guisborough Woods, Guisborough, North York Moors NP - Alan Simkins

Once in Guisborough drive through suburbia to Hutton Village on the south west side of Guisborough [shown on the O.S. map North York Moors western area 1:25000]. In Hutton Village drive to the end of the public road and arrive at a gate [unlocked] at the entrance to Guisborough Woods. Through the gate drive up the hill and follow the forest track which takes a sharp left turn after about 300 yards. About 200 yards further on there is a large parking area on the left side of the forest track.

The habitat is a mixture of deciduous and coniferous woodland. No toilet facilities at the site.



Sat 8th Oct - Bedburn, Nr Hamsterley, Co Durham - Cath Gillie

Post Code DL133PF

From the A68 travelling North turn left for Hamsterley village just after the entrance to Witton Castle on your right. .

From the A68 Travelling South turn right for Hamsterley village after the turn off for Witton Le Wear on your left. then take the next right turn onto a road which becomes a track though a farm and onto Park house following signs for NEFSG Foray.

Please meet and park cars at the aptly named Park House which is a farmhouse at the end of a long private track (please note the track is v rough in places so you will need to drive slowly to avoid the potholes)

The route from Park House will be decided nearer the time depending on weather, but expect that it will be around route of between 1-3 miles along side the river wear and its tributaries into mixed woodland and grassland.



Sun 9th Oct - East Chevington Widdrington, South Northumberland - Ron Pattinson

Details to follow by e-mail.

Sat 15th Oct - UK Fungus Day - Morpeth Methodist Church, Howard Terrace, NE61 1HU

Sally Pattison

Free public forays - 10.30am & 1.30pm

Talks & displays - chat to the scientists and discover how fungus makes bread rise, how fungal pathogens burst out of immune cells and how fungal infections can kill!

Meet 'Urban Mushrooms' and find out how to overcome challenges of sustainability in mushroom farming

Unique hand-made crafts

Delicious autumn refreshments

Sun 16th Oct - Scotch Gill, Morpeth, South Northumberland - Lydia Koelmans.

Deciduous, semi-ancient woodland on side of a Dene. CP, picnic tables. Please car share if possible. At northern end of the main road through Morpeth, take B6343 road to Mitford. A short distance along this road, the road turns left to cross the river. Don't turn left, carry straight on into the car park. Grid Ref: NZ182863. Post Code: NE61 1RG.

lydia.koelmans@blueyonder.co.uk tel: 07759781721

Sun 23rd Oct - Bonfield Ghyll. Bilsdale East Moor, North Yorks - David Miller

Details to follow by e-mail

Sat 29th Oct - Oakenshaw Nature Reserve, Brandon, Co Durham - Louise Watson

Post Code: DL15 0TD

A follow up to last year's foray as we only covered about one third of the site. There's logging going on in the area we surveyed last year, so glad we did it! We have to meet at a different gate, the postcode given above is for my street, New Row. Park anywhere along the street, and I'll be at the gate.

Louise's numbers 01388745063 and 07977628741 on the day.

**Sat 5th Nov - Westernhopeburn Farm, Eastgate, Weardale, Co Durham - OS NY935 378
Doug McCutcheon NOTE: **10AM** FOR A 10:30 START.**

Early start to get the best of the light.

Travelling West go through Stanhope on the A689 and in about 4 miles turn left just before Eastgate. Cross the River Wear and then turn right at the T junction. The farm is about 2 kilometres along this road and if the ground conditions are reasonably dry we will park in the field on your right. It may be advisable to car share from the Stanhope Centre which has good parking. The foray will commence near the farm in pasture land and the lower slopes of the woodland which cloak the burn (SSSI). This should keep us occupied until lunchtime and then we may have the option of driving up onto the hill depending on the good will of the neighbouring landowner. It is a working farm so stout footwear is essential and insect repellent is always advisable!. Mobile reception may be patchy in Weardale.

Sat 12th Nov - Keldy Castle, Cropton, North York Moors NP. - Alan Simkins

Grid Ref SE777916

From north or south drive to Cropton Village, turn left [from north] or right [from south] and drive through the village leading to High Lane heading east. Drive for about 1.75 kms. east and just past a road to the right signposted Cawthorne turn left on a minor road to Keldy Castle [Keldy Cabins] and drive on for about 2 kms. Follow a sign to "Reception" and

park in the largish car park at the restaurant and shop. The habitat is a mixture of deciduous and coniferous woodland.

There is a toilet in the restaurant but permission should be sought to use it.



Sun 13th Nov - Kirkdale, Nawton, North York Moors - Rhona Sutherland

Grid ref Kirkdale Church SE 675856

Follow the A 170 from Helmsley go through Nawton and go straight on at the junction on the right hand bend. Park in the Church “Overflow Carpark” Habitat : Mixed woodland with some good patches of Beech woods



Sat 26th Nov - Beaconhill, White Lea Farm, Easington Colliery - David Miller

Details to follow by e-mail

Sat 3rd Dec - Warkworth Dunes, Warkworth, Mid Northumberland - Mike Cruse

Dunes and dune grassland . Meet at Warkworth Picnic Site (with toilets) . Just north of Warkworth immediately turn right after crossing the River Coquet and proceed to the far end car park overlooking the sea .

Grid Ref:- NU 254 063 post code :- NE65 0SW

mikecruse@live.com tel:- 01661823229 mob:- 07748276183 (on the day only)



CLEMATIS WOES

Blackened wilted stems



Diagnosis: Clematis wilt, a relatively uncommon disease affecting large-flowered hybrid cultivars. Caused by the fungus *Calophoma clematidina* , infection can occur through leaves, causing leaf spots, or directly through stems, which show black discoloration when split open.

Solution: cut back all wilted stems to healthy growth and destroy affected material. Improve the soil by mulching with garden compost or manure, and healthy new shoots might emerge.

Taken from The Garden: 1 May 2022

Alan Simkins

Lidophia graminis, or Twist

This curious fungus glues the tip of emerging flower head of Holcus grasses (eg Yorkshire Fog) to its stem, resulting in a loop formation, as in the photo. I was first made aware of this fungus - for which there are apparently no records on CATE2 between the Scottish Borders and Sheffield - by Ron McBeath, only last month. Yet it is not rare, and not hard to spot either. Since then, I have spotted it in 5 different locations, including Redesdale Northumberland, central Newcastle, Wylam riverside, and West Chevington in Northumberland. So lets get a few more records throughout the north east!



Lydia Koelmans

AVOIDING THE CREEPY , SYRINGE WIELDING SERIAL KILLER . WHEN FUNGI FIGHT BACK



Scientists found that the fungi somehow sensed the predators and sent signals to other parts of their bodies.

Published January 20, 2019

Updated January 20, 2019

ZURICH (Switzerland) — It's known as fight or flight — the message the brain sends your body when it detects something frightening. Something like it happens to plants when they are under attack, too. And then there are fungi — perhaps the most mysterious kingdom of multicellular life.

Fungi too can sense attackers and manufacture powerful weapons to combat them, including the toxins and poisons that can send you to the emergency room if you eat the wrong mushroom.

But little is known about the built-in threat detectors of these limbless, brainless beings. Humans send messages through their nervous systems. A plant's vascular system is its relay apparatus. But fungi have neither.

Scientists trying to solve this mystery recently grew mushrooms in the lab, unleashed fungi-eating nematodes on them and videotaped the aftermath. They found that the fungi somehow sensed the predators and sent signals to other parts of their bodies. Their findings, published recently in *Current Biology*, shed new light on how the many cells within even primitive organisms communicate like plants or animals.

“They may appear simple, but they share features that are also known for more complicated organisms,” said Mr Markus Künzler, a microbiologist at ETH Zürich in Switzerland who led the study. “There is internal communication going on that we know very little about.”

What we do know is that fungi-loving nematodes ingest their dinner like creepy, syringe-wielding serial killers. The worm uses a needle on its head to puncture the mushroom’s hyphae – the stringy filaments that make up its mycelium, or vegetative body – and suck out its cellular content.

Under attack, *Coprinopsis cinerea*, the mushroom commonly known as the gray shag or inky cap and often used in fungi research, puts up a slow but steady fight.

Mr Künzler and his colleagues paired the fungi and nematodes in a lab setting, and also added a dye to the mushrooms that glows under a microscope. They watched the mushroom’s response travel in the form of genes activating, lighting up as its warning message propagated up and down the fungus’ fattest hyphae. It did so every few hours – and it switched directions. As they switched on in succession, the genes produced a nasty toxin the nematodes don’t like.

It makes sense that to survive, a fungus would need to send defense signals throughout its body rather than only at the site of attack. For example, defending its reproductive caps above the soil, even pre-emptively, would help its legacy continue. But much remains unknown about the fungus’ signal and how it travels.

“In both plants and animals, electrical and chemical signaling is known,” Mr Künzler said. “It’s not very clear what happens in the fungus.”

Fungal architecture is quite different from that of plants and animals. It is possible that the cells within a fungus’ hyphae communicate using chemical or electrical signals, but Mr Künzler’s results suggest it is unlikely.

“We think the signal has to travel from one cell to another across the cytoplasm of the cells, which is very special or different from how the signaling is done in a plant or animal body,” he said. THE NEW YORK TIMES

Mike Cruse

Honeysuckle Rust

Found in Gosforth Nature Reserve in early July. Honeysuckle Rust, *Puccinia festucae*.

Photos by John Dalrymple.



Upperside of leaf



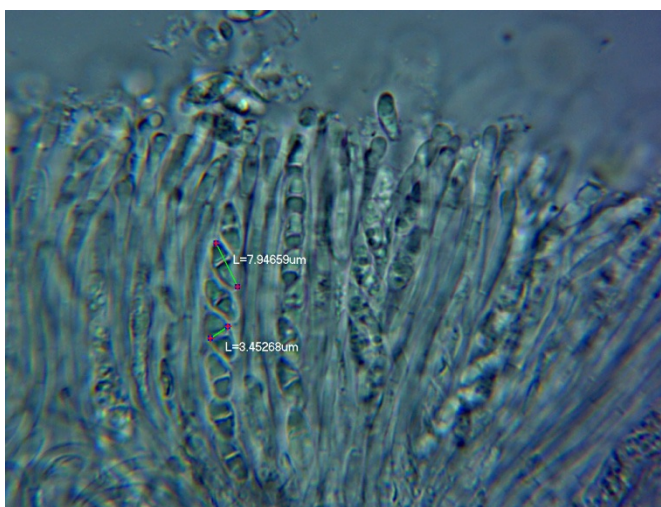
Spermogonia on Lonicera leaf underside

Lydia Koelmans

Absconditella lignicola

In early July 2022 I spotted, in Gosforth Nature Reserve, Newcastle, minuscule whitish flecks on a rotten wood boss that had fallen to the ground beneath a Wych Elm tree. These flecks were so tiny that I wondered if they might even be grains of pollen. Through my lens, I could see they were minute apothecia on a greenish filmy base. I had a hunch there might not be many records of this, because it was so inconspicuous. The cups measure only 0.1 - 0.2mm across. Doug McCutcheon kindly checked it out and found it to be a nationally rare lichen called *Absconditella lignicola*, one that he had not seen before, and which is new, not only to Gosforth Nature Reserve, but also to the 3 North Eastern Counties.

Macro photo by John Dalrymple, microscopy photo by Doug McCutcheon.



Lydia Koelmans



Mal Greaves has encountered a less than common species - *Thelephora anthocephala*

The CATE2 database has amassed only 126 records of this species, the great majority of them collected since the 1980s. Mal's record was obtained in Dalby Forest, North Yorkshire, in September 2021.

A member of the Thelephoraceae family and one of the so-called 'coral fungi', the species grows on soil and produces sporophores during the autumn months, from late August to early November. It is found mostly in broadleaved woodlands although it can also occur with conifers. With very rare exceptions it is not found

growing at altitudes higher than 200 metres. It was first described in 1786 by the French botanist, Bullard, who placed it initially in the *Clavaria* genus.

It generally appears with rather more rounded tips than are visible in Mal's specimen.

The evidence of the records indicates that is mainly a species of the English southern and midland counties although there are infrequent records from Scotland and Wales. Mal's collection is only the sixth record for Yorkshire.

Typhula erumpens

I have just found an article I wrote years ago. When I found this fungus the name was sent to me by Kew. A sample is lodged at Kew.

Gordon Simpson

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27 Apr 16

Dear Cathy

It has taken me a long time to get down to writing a report for you. My computer crashed at the end of last year and slowly I have replaced most of the lost files from backup discs.

For about 15 years I have spent three days in autumn searching for fungi with Colin and Beryl Stephenson because they do not have suitable transport. I have a permit to visit the FC forests between Scarborough and Cropton Forest. On 15 October 2011 we, as usual entered Givendale from the Allerston end. One of our stops is around SE885857 from which we walk east. At SE888857 I looked at dead willow branches about 1cm diameter and discovered a rare fungus *Typhula erumpens*. We could not identify this species because *Typhula sp* normally grow on dead vegetation such as fallen deciduous tree leaves and fallen bracken stems and not on dead wood. A specimen was sent to Kew Gardens and we were given the name of the fungus. It is the only British record. We have seen the fungus in most autumns but it relies on moist, dead branches. Tall willows still grow to the south of the ride. Willows on the north of the ride were felled a few years ago so this has affected the moist mini-habitat. This fungus has been seen on the west side of the ride running north.. If I had time I would have liked to explore the vicinity of the standing willows because there might be more in the area.

In order to increase the willows would you consider pollarding an old specimen or two at chest height. The resulting shoots will be safe from Roe Deer and Rabbit browsing. When the shoots are about 1cm diameter at their base they can be pulled away to make heel cuttings. If possible a large group of closely planted cuttings protected by tree shelters would eventually form a small, tight copse. Inside the copse, sheltered from the wind, the dead branches will be kept moist and this is the ideal habitat.

Gordon

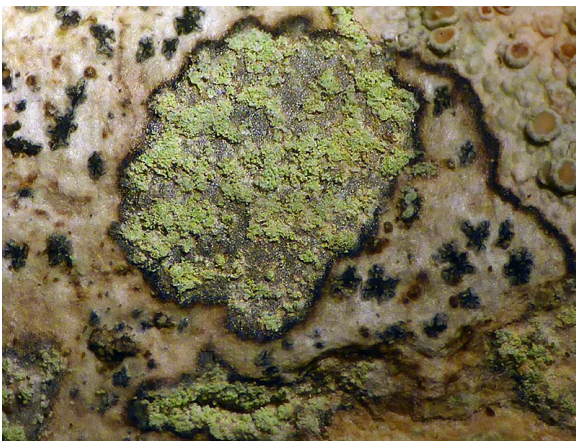
Lichen Lookout

Lichens to look out for on tree trunks.



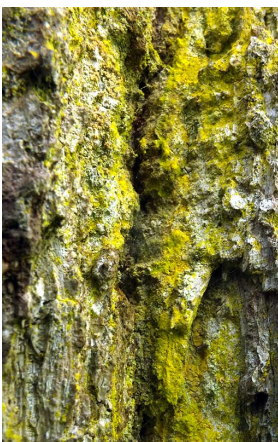
Lecanactis abietina

Tree trunk looks grey with a lilac tinge. Small pycnidia (pimples) with pruinose tips cover the surface. Apothecia are not common but have a distinct thin margin and the centre is covered with a cream coloured pruina.



Lecanora expallens

Seen here with star shaped apothecia of *Arthonia radiata*. *L. expallens* has a grey thallus covered in greenish/yellow soralia. The thallus can be edged with a thin dark prothallus. Common on trunks and stumps.



Chrysothrix candelaris

Found on rough barked deciduous trees in the dry crevases. The thallus is a bright golden-yellow. Apothecia are not usually found.