



Herefordshire Fungus Survey Group

News Sheet N° 41: 2023



Lactarius semisanguifluus, Ross-on-Wye, 07.10.2023. Photo: Mike Stroud.

President:	Ted Blackwell
Chairman:	Roger Evans
Recorder:	Jo Weightman
Secretary:	Mike Stroud
Treasurer:	Charles Hunter (2023)
	Sharon Hart (2024)

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Editor's Notes:

Welcome to issue 41 of our News Sheet.

As you may well know, 2023 was the 25th anniversary of HFSG & there is a brief report and some photographs of the celebration held at the Croft Castle Estate.

Again, in this issue we have some super pictures. The Recorder's Report by Jo Weightman is a mammoth item and we are all very grateful for the time and effort this must involve.

Finally, there are a selection of 'snippets' from past News Sheets which were brief items that you, our members, sent in and were published under the general heading of 'Fungal Fragments' maybe this should be started again? It is up to you!!

Many thanks to all for their contributions to this issue.

The next HFSG News Sheet will be with us before you know, so get out and find lots of Fungi. Then tell us all about your experiences for that issue.

HFSG 25th Anniversary celebration at Croft Castle on Sat Aug 26th 2023



Early in 2023 Cherry Greenway had the brilliant idea that it would be good to celebrate the 25th anniversary of HFSG. It was decided to do so by having a whole day foray at Croft Castle on Sat. 26th Aug, with a picnic at lunchtime.

To honour the occasion Cherry baked a special cake which was decorated with ceramic toadstools given by our President (and founder), Ted Blackwell. Very kindly, Susan Hunter, Maria Bonnin and Shelley Evans also contributed more cakes and cheese scones to add to the delicious fare. Ted, who very sadly could not be present for the

event, most generously gave the wherewithal for our Treasurer, Charles Hunter, to buy some 'bubbly' - which he organised with great efficiency!

The drinks and food were protected by a very small gazebo supplied by the National Trust: this did little to protect the 26 members of the Group present when there was a sudden, torrential downpour. Luckily, the rain was short-lived and we were soon able to emerge from our cars and continue celebrating. Our Chairman, Roger Evans, gave a short speech and proposed a toast and Cherry read out a card from Heather Colls who, sadly, was also unable to be present.

Then came the business of the day, as Jo Weightman identified the morning's finds as far as possible although some obviously needed to be taken home for further examination.

As stated earlier, the very sad part was that, in the end, Ted was not well enough to attend memorable and enjoyable occasion, but he was in all our thoughts.



Cherry;s Anniversary cake, Croft Castle 26.08.2023.



The fungi collection, Croft Castle 26.08.2023.



The Bubbly & Sue's cake

Recorder's Report 2023

Jo Weightman

In 2023 some interesting vernal species were reported. Aaron Woods found Thimble Morel *Verpa conica* in two places on his land at Wofferswood Common on 12 -13 April and Cherry Greenway saw one along Birchwood Lane two days later. Bleach Cup *Disciotis venosa* (Pl.1) was also recorded by Aaron in April and another was seen in the Leintwardine area. In early May, Ivan Brown sent in a photograph of a *Morchella* from his garden in

the Goodrich area. It was possibly *M. esculenta* but did look somewhat conical and may have been one of the other morels.



Pl. 1. *Disciotis venosa* photographed in a lightly wooded area of a private garden, Leintwardine. Photo:© Janette Evason.

Rain in early July triggered a flush of fungi including Russulas and boletes, followed by week after week of dry weather, dashing all hopes of a bumper main season. Once again there was a dearth of mycorrhizal species in August and September when they should have been at their best. Some rain fell eventually and then too much rain. It was all too trying for people and fungi alike. In late autumn, litter and dead wood specialists did make an appearance but not in good numbers.

Ewyas Harold Common SO382300

12.04.2023

Five people gamely strove to keep their feet and wits alive in the cold and bitter gale-driven sleet. In the circumstances we managed a short circuit and collected just 6 species half of which were new site records. They included those heralds of spring St George's mushroom *Calocybe gambosa* and the Conecap *Pholiotina aporos*.

Coppett Hill Foray, Grid Ref SO 5718,

10.05.2023

Members were kindly allowed to leave their cars at Goodrich Village Hall as there is no parking area closer to the site. This entailed a fairly long walk and some wayside foraging. The Group has forayed on the hill before but not in springtime and this gave us a number of vernal records. It had been a good year generally for St George's Mushroom *Calocybe gambosa* so it was expected – and there it was. Oddly, although the Hill had been extensively surveyed by Graddon in the 1970s and 80s, he had not recorded it. Other early fungi included Common Fieldcap *Agrocybe pediades*, Scarlet Elfcap *Sarcoscypha austriaca* and a number of rust fungi including Bluebell Rust *Uromyces muscari*, the latter nowhere near as common as its Bluebell host *Hyacinthoides non-scripta*. The waxcap *Hygrocybe chlorophana* made a surprise early appearance.

Barnett Wood Foray Grid Ref SO 4068

14.06.2023

Heroes of the day – Moo and David who unlocked the mystery of the padlock to the entrance.

It was yet another hot, dry day but once in the cool of the woodland, we found the strength to foray, following the track along the top of the slope under high forest oaks.

Fleshy fungi are always few and far between in June so a single *Amanita excelsa* and a lone Charcoal Burner *Russula cyanoxantha* were a welcome sight. Most of the new site records were Ascomycetes. The large brown, pale-backed *Peziza arvernensis* was growing on a thick bed of dead oak leaves in a ditch and what was thought

to be another but desiccated *Peziza*, proved to be Greater Toothed Cup *Tarzetta catinus*. This species is one of several Tarzettas that occur on soil in woodlands, all are small, and have dull cream colours and a notched margin. An eyelash fungus was identified by Shelly Stroud as *Scutellinia subhirtella*.

Bucknall's Wood Foray, Grid Ref SO 407392 12.07.2023

We have forayed in this wood twice before, in 2014 and 2018, also in July. With its drying out ponds and generally damp soils, it is ideal for a summer foray – but only if well provided with mosquito deterrent.

Hazel Porecrust *Dichomitus campestris* (Pl.2) forms fat, coarsely poroid cushions that are black at the base and usually occur on living oak or hazel branches. It is somewhat uncommon species generally but may be well established in this wood as two separate examples were found.

Dead wood was abundant and yielded a number of new to site species including Tuberous Polypore *Polyporus tuberaster* and a scattering of Whitelaced Shank *Megacollybia platyphylla*, The early bolete *Hortiboletus engelii* was locally frequent.



Pl. 2. *Dichomitus campestris* showing the cushion-like growth and large pores, Bucknall's Wood foray, 2023. Photo: © Mike Stroud.

25th Anniversary Foray

Croft Castle Estate, Fishpool Valley Grid Ref SO 4565 and 4566 26.08.2023

I cannot say that the fungi were also celebrating for this the 25th Anniversary of the HFSG's first foray (at Humber Marsh) but Group members were and between them built up a handsome list under dry conditions.

Most of the species recorded were old friends in Fishpool Valley and included some 'specials' such as Salmon

Coral *Ramaria formosa*, Dusky Bolete *Porphyrellus porphyrosporus* (Pl.3) and Violet Coral *Clavaria zollingeri*.



Pl. 3. *Porphyrellus porphyrosporus* Dusky Bolete, Croft Castle foray. Photo: © Jo Weightman (France).

Yellow cobweb *Phlebiella vaga*, although a first record here is a not uncommon corticioid species occurring on the underside of fallen hard wood and is readily identifiable in the field by the acid yellow spidery edged patches that reach out from a quieter brownish yellow centre.

Scopuloides rimosa, another corticioid species, is best seen when young and fresh when the very small white spicules are separate and distinct on the waxy pale greyish crust. They are less easy to distinguish as the fungus dries.

Big Bellied Webcap *Cortinarius largus*, a large agaric with a swollen but not marginate stipe base is one of the more common *Cortinarius* species in the Phlegmacium section (ie sticky cap and dry stipe). It has a violet cap (soon brown), violet gills when young, violaceous tones on the stipe and flesh and often has a strong yellow reaction on the flesh with KOH.

Pallid coral *Ramaria pallida*, identified by Peter Roberts, is a white clumping coralloid fungus previously recorded in Fishpool Valley in 1997 when it was identified by Alick Henrici.

The foray ended with an address by the chairman Roger Evans, followed by a sudden downpour and then followed by a miscellany of cakes dressed for the occasion and a celebratory tipple. [See also above, pp.2,3]

Whitfield Estate Foray Grid Ref SO SO4233

24.09.2023

We were delighted to have the opportunity to record on the Whitfield Estate.

All the records on the list bar a handful were new. However, the database does hold a hundred plus other, earlier records, made by the Woolhope Club in the 1860s and 70s. One specimen collected then is held at RBG Kew and seven are the subject of paintings by Dr H.G.Bull.

In my absence, Shelley Evans reported that The Miller *Clitopilus prunulus* (Pl.4) was surprisingly abundant and that, conversely, the larger fungi were on the whole surprisingly absent.

Although there were no waxcaps the presence of a few *Entoloma* and *Clavulinopsis* species suggested that at least some of the lawns and mown grassland might support them later in the year. Finds of special interest included Netted Fieldcap *Bolbitius reticulatus* (Pl.5), Lilac Oysterling *Panus conchatus*, the honey-scented Beeswax Bracket *Ganoderma pfeifferi* and the Box *Buxus* specialist *Peniophora proxima*.



Pl. 4. *Clitopilus prunulus* – the common Miller with a white cap, Whitfield Estate foray, 2023. Photo: © Mike Stroud.



Pl.5. *Bolbitius reticulatus*, a rarely seen wood-dwelling, grey and wrinkled species, Whitfield Estate foray, 2023. Photo: © Mike Stroud.

Homme House Foray Grid Ref SO 6532
04.10.2023



In the morning we forayed near the house, where there were far fewer fungi than on former visits to Homme. The woods behind the house yielded a few more specimens, among them the yellow *Pluteus chrysophaeus* Yellow Shield (Pl. 6), fruiting on a fallen log.

Pl. 6. *Pluteus chrysophaeus*, Yellow Shield, with the typical *Pluteus* free, pink gills shown in the insert
Homme House foray, 2023. Photo: © Mike Stroud.

Some of us went into the park after lunch ... again not very productive, but there was a large number of *Hortiboletus rubellus* Ruby Bolete (Pl.6a) in the grass near an oak tree.

Pl. 6a. *Hortiboletus rubellus* at its colourful best, Homme House foray, 2023.
Photo: © Mike Stroud.



Eastnor Deer Park Foray Grid Ref S07337
18.10.2023

As rain fell intermittently all morning, sometimes hard, there was much dodging under trees for shelter. This was in its way fortunate as the grass in the park was rather long and most of the fungi present were associated with



Pl. 7. *Lactarius acerrimus* showing the distorted gills, Eastnor Park foray.
Photo: © Jo Weightman (Kent).

the parkland trees. Picnic benches adjacent the cafe provided a more than welcome retreat for lunch and for looking at our collections, displayed on a dog blanket. In defiance of the damp conditions Cherry Greenway and Graham Davison looked in the nearby churchyard in the afternoon. New site records included Trunk Funnel *Clitocybe truncicola*, a pale brownish species with a white pruina. It is one of only two *Clitocybes* in Britain that occur on wood. Also present was the Two Spored Milkcap *Lactarius acerrimus*, (Pl.7) a species which is easily confused with the other large and often zoned golden milk caps. It can be distinguished in the field by the markedly distorted gills.

Of the species recorded in the churchyard *Agaricus crocodilinus* Macro mushroom and *Trichoglossum hirsutum* Hairy Earthtongue have not been recorded before anywhere at Eastnor.

Mowley Wood Grid Ref SO 3459

28.10.2023

Mr Edward Bulmer, the owner of Mowley Wood, very kindly gave us permission to foray freely on this large estate and also offered us the use of a fishermen's hut where we could gather and, at midday, picnic and look at our collections in comfort on the sunny veranda.

This was the Group's first visit to the site, a large complex of old, managed and unmanaged broad-leaved woodland and pasture with the River Arrow threading through on the southern side. We only scratched at the western end of the site and hope to be able to explore and record further another year.



Pl. 8. *Cortinarius triumphans*, Mowley Wood foray.
Photo: © Jo Weightman, (Barnett Wood).

The wooded north-facing slope above the river was particularly productive. *Cortinarius triumphans* Birch Webcap (Pl.8) was abundant here under the birch and this is where the uncommon *C. anthracinus* Smouldering Webcap was found.

The lower part of the stipe of this fairly small, dark species is coloured a distinctive cinnabar red by the remains of the veil. This uncommon species has been found in just a handful of other sites in the county.

The grasslands had not been hard grazed recently so waxcaps et al.were difficult to spot. The find of both *Gliophorus irrigatus* Slimy Waxcap and *Hygrocybe citrivirens* Citrine Waxcap suggest that a large range of waxcaps could be present.

The presence of two rarely recorded club fungi *Clavaria falcata* and *C. flavipes* (*straminea*) echoes that hope. *C. falcata* is a white club, easily misidentified as the taller and common *C. fragilis* which it closely resembles. This is a new record for Herefordshire. In the field, the yellowish *C. clavipes* might also be passed over this time as *Clavulinopsis helvola*. It differs from the latter in having a well differentiated stipe that is clearly darker than the club itself. The club of the Mowley collection was almost white and the stipe yellow. Both these species can only be confirmed after detailed and expert examination under the microscope. This is the second county record, the first having been found during the Kentchurch foray last year and was again identified by Peter Roberts.

The find of Blushing Dapperling *Leucoagaricus badhamii* was the third in 2023 for a seldom seen species.

Credenhill Park Wood Grid Ref 4544 08.11.2023

As the database holds nearly two thousand entries for 'Credenhill' dating back to the nineteenth century, it is interesting and pleasing to report that this foray generated fourteen new site records. They included *Agaricus moelleri* Inky Mushroom formerly *A. placomyces*, a species in the Yellow Stainer group and distinguished from the others by the small, black scales on the cap; *Armillaria ostoyae* Dark Honey Fungus, which is also recognised by black markings, this time on the underside of the ring and on the stipe below the ring; and Mealy Oyster *Ossicaulis lignatilis* (Pl.9) which was gathered earlier from a dead standing tree.

Pl. 9. *Ossicaulis lignatilis*, Credenhill foray, 2023.
Photo: © Mike Stroud.



This last was a notable find as it has been recorded only seven times since the nineteenth century, and never before at Credenhill,

Conifer Shield *Pluteus pouzarianus* is identical in the field to the very common Deer Shield *P. cervinus* but is restricted to the dead wood of coniferous trees, Under the microscope the clamped hyphae in the cuticle are definitive. There is one previous record from the Wigmore Rolls in 2003.

Haugh Wood North Foray Grid Ref SO 590370 06.12.2023

We forayed on the north side of the wood, mainly under the oaks, most of us not covering any great distance and searching intently for the fugitive fungi. There were no great fungal surprises but some species had not



been recorded for several years or were new to some people. For example the Yellowdrop Milkcap *Lactarius chrysorrheus* (Pl.10) which is restricted to oaks had not been recorded in Haugh Wood since 2001. The cap has pinkish brown zones on a cream-coloured base and when broken oozes a white milk that turns yellow quickly.

The dusky Bloodred Webcap *Cortinarius sanguineus* can be separated in the field from the very similar Crimson Webcap *C. puniceus* by the host tree. *C. sanguineus* grows with conifers, *C. puniceus* with hardwoods.

As usual for our last foray of the year, we had a base in the Woolhope village hall where we could picnic and examine our finds in comfort.

Pl. 10. *Lactarius chrysorrheus* - an oak species with a distinctively coloured cap and milk that discolours strongly yellow. Haugh Wood foray. Photo: © Jo Weightman (Kent).

Database entries are further swollen by records from our outreach events and throughout the year from members and non members. Some of the more notable are mentioned below.

Bold print = new Herefordshire record

+ = 2nd / 3rd county record or not recorded since the 19th century

K = deposited in The Fungarium, RBG Kew

Agarics



+ *Lactarius semisanguifluus* (Pl. 11): a Pinus species, similar to the other milkcaps with orange milk but in this species the milk rapidly turns a striking purple staining the surrounding flesh. Judith Oakley brought a sample to add to the display at Queenswood for National Fungus Day. She had found them under a pine on a grassy area near her home in Ross-on-Wye, 7.10.23. A few days later, Ed Fox found another colony along Monnington Walk, 14.10.23.

Pl.11. *Lactarius semisanguifluus* - The image shows where the copious milk had flowed down the stipe, staining it purple. Ross-on-Wye, 2023.
Photo: © Sharon Hart.

+ *Tricholomella constricta* Mealy domecap + (Pl. 12): Safi Zagni found several in her garden in a composted area, where her dogs had urinated and where the car was parked. It is almost a hundred years since the only other collection was made in Moccas Old Park in October 1926 with the earlier name of *Lepiota constricta*. Pembridge, 12.07.23.

PL.12. *Tricholomella constricta* - An uncommon species with a radicate stipe. Pembridge 2023.
Photo: © Jo Weightman.



Amanita fulvoides - (Pl. 13) this newly erected species in the *Amanitopsis* Section is described by Geoffrey Kibby in his addenda to Volume 4 of *Mushrooms and Toadstools of Britain and Europe*. It is close to the common *Amanita fulva* but the cap is distinctly brown and the volva has a number of orange patches. Hampton's Rough Wood, Dewsall, Jo Weightman, 27. 07.23 and Red House Farm, Lingen, Jo Weightman, 13.10.23.

Pl.13. *Amanita fulvoides* -This specimen spent too long lying in a collecting box and tried to grow vertically again. Dewsall, 2023.
Photo: Photo: © Jo Weightman.

+ *Amanita coryli* Hazel Amanita (Pl. 14), also in the *Amanitopsis* Section, was recorded twice in 2023. The cap is grey-beige or drab hazel cap and the capacious pure white volva has a few rusty stains. The gills do not have a dark edge (unlike *A. betulae*) and turn pinkish when dry. As the name suggests it occurs with hazel. Wigmore Rolls, 01.08.23 and Wapley Hill, 23.11.23.

Pl.14. *Amanita coryli* is restricted to hazel and may have rusty marks on the volva.
Photo: © Jo Weightman (Scotland).



Limacella delicata var. *vinosorubescens* (Pl. 15) fruits with some regularity in mixed coppice above the brook in the Wigmore Rolls. First recorded there in 1999, it was recorded in 2023 by John Bingham on the 16th August. This generally southern and rare species is also known from the adjacent Barnett Wood which has a very similar aspect and also from Croft Castle Estate 2008 and Frith Wood, Ledbury 2001.



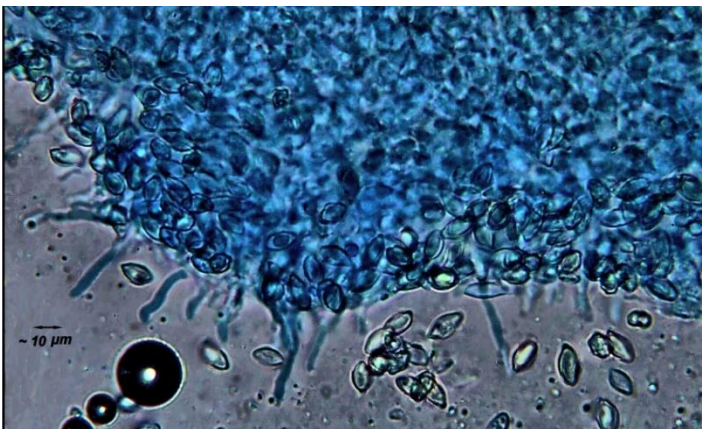
Pl.15. *Limacella delicata* var. *vinosorubescens* is a rare southern species well established in the valley in Wigmore Rolls 2023. Photo: © John Bingham.

Hygrocybe intermedia Fibrous Waxcap (Pl. 16) fruited in extraordinary abundance on upper slopes in the Leysters area in August in company with *H. citrinovirens* Citrine Waxcap and a very thin scattering of common waxcaps, 20. 08. 23.



Pl.16. *Hygrocybe intermedia* - This large, dry waxcap occurred in hundreds in June 2023 in the Leysters area. Photo: © Jo Weightman (Leysters).

Mycena erubescens and *M. mirata* + are both small, greyish Mycenae occurring on mossy bark of broad-leaved trees after copious rainfall. They can easily be confused with other similar species and require careful examination of subtleties of field character and then of spore and cystidia character. Both species were recorded at Red House Farm, Lingen and determined by Shelly Stroud, 13.10.23.



Clitopilus cystidiatus Grey Miller (Pl. 17) resembles *C. prunulus* The Miller but has a grey cap. The presence of cystidia is the defining character. Red House Farm, Lingen, Shelly Stroud, 13. 10. 23.

Pl.17. *Clitopilus cystidiatus*, the Grey Miller, showing the cystidia. Lingen, 2023. Photo: © Mike Stroud.

Gyroporus castaneus Chestnut Bolete: (Pl. 18) - this find in a private garden in Birtley was notable as there have been only six previous records in the county since 1951. The cap is a firm and brown, the pores pale and the stipe chambered. It occurs with oak and sweet chestnut. Jo Weightman, 3.11.23.



Pl.18. *Gyroporus castaneus* is easily recognised by its colour and firm flesh. The stipe is chambered. Lingen 2023. Photo: © Jo Weightman (France).

Brackets, hedgehogs et al



Leptoporia* (formerly *Antrodia*) *carbonica Cottony Porecrust (Pl. 19) forms large, very white patches with short poroid brackets on dead conifer stumps. It instantly stains purple with Melzer's iodine. Wapley Hill, Helen Theroux, 02.02.2. K.

Pl.19. *Leptoporia carbonica*, showing the purple stain where dabbed with Melzer's iodine solution. Photo: © Jo Weightman.

+ *Ganoderma carnosum* : (Pl. 20) a rarely found fungus which forms beautiful chestnut brackets when young and is restricted to Yew, *Taxus baccata*. In the churchyard of St Michael, Sutton St Nicholas, Dan Stretton, 12.06.2023.



Pl.20. *Ganoderma carnosum* is an uncommon annual bracket restricted to yew. Sutton St. Nicholas, 2023. Photo: © Dan Stretton.

+ *Hydnum umbilicatum* Umbilicate Hedgehog (Pl. 21) is similar to *H. rufescens* but with a distinct depression in the centre which extends down the stipe. Under oak, Wigmore Rolls, Ed Fox, 28.08.23.

Pl. 21. *Hydnum umbilicatum* , cut to show the hollow stipe.
Wigmore Rolls 2023. Photo: © Ed Fox.



Clathrus archeri Devil`s Fingers (Pl. 22) – This spectacular fungus was first seen in Herefordshire at Brockhampton in August 2011. The second sighting was at Tregate Castle in November 2020 and the third on Bircher Common in October 2021. After a gap of twelve years it has now fruited again on the Brockhampton Estate where it survived long enough to be seen during our Outreach walk in the park in October 2023.

PL.22. *Clathrus archeri* - An alien fungus related to the Stinkhorn that is spreading westwards and northwards. Photo: © Jo Weightman.

Leaf Spots

The smut *Entyloma ranunculi-repentis* (Pl. 23) found on *Ranunculus auricomus* Goldilocks in the Leysters area was a Herefordshire first but reportedly very common over the border so probably under-recorded here. Adeline Jones, 10.06.23.

Pl.23. *Entyloma ranunculi-repentis* - A smut on Goldilocks *Ranunculus auricomus*, first recorded in Herefordshire in 2023 but very common on this host in Wales. Leysters area 2023. Photo: ©Jo Weightman.



OUT OF COUNTY

No *Squamanitas* have as yet been found in Herefordshire. In October however, one of our members, Rob Rowe, found *Squamanita paradox* Powdercap Strangler (Pl. 24) on the Stiperstones in Shropshire. *Squamanita* species are all parasitic on other fungi, hence the ghoulish English name. The grey cap of the *Squamnita* 'arises from a normal *Cystoderma amianthinum* Earthy Powdercap stipe.

Pl.24. *Squamanita paradoxa* - A rare fungus that lives parasitically on *Cystoderma amianthinum*. Found in Shropshire in 2023.
Photo: ©Rob Rowe



Leucoagaricus nymphaeum one of the Dapperlings was found in Far Forest Churchyard, Worcs by John Bingham. This rather rare fungus can easily be mistaken for a Chlorophyllum.

A Selection of Fungal Fragments from the News Sheets

Over the years, members and friends have contributed items of fungi-related news gleaned from other publications. These appeared in the News Sheet under the heading of Fungal Fragments. Here is a selection. Do go to our website to find more. (see [Online News Sheets | HFSG \(herefordfungi.org\)](https://herefordfungi.org))

In HFSG we take the art of stalking new species very seriously.



Cherry favours disguising herself as one of the local fauna;

whereas Mary lurks under a suitably placed large agaric, hoping to catch sight of her prey. (Note how her careful attention to dress colour detail contributes to an almost perfect camouflage).



Occasional Portraits – Cherry & Mary (News Sheet no. 5, p 9)

- There is a small Ascomycete which grows on pine twigs called *Zeus olympius*. The fungus is known only from one site at around 1300 m altitude - on Mount Olympus!
- The growing mycelium of *Armillaria mellea* is luminous in the dark, and pieces of wood infected with the mycelium have been known to glow. John Ramsbottom in his book *Mushrooms and Toadstools* recounts a number of instances (pp159-60) including one where he was informed that during World War 2, wood in a timber yard near London glowed so brightly on moonless nights that men on fire-watch covered it with a tarpaulin for fear it would attract enemy aircraft.

- Extract from old newspaper:

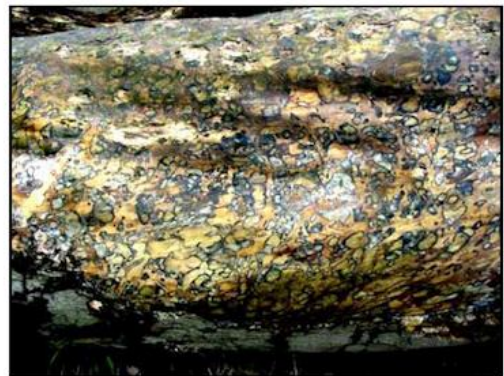
"TOADSTOOLS STARTED A SPY SCARE
A spy scare was caused in a country district of England when it was found that a main road had a luminous glow at night.

Some people thought that enemy agents had put a substance on the road to guide German bombers.

The glow, however, came from wood which had been attacked by luminous toadstools of the "honey-tuft" species. The wood had been cut down for war purposes, and during transit pieces had fallen from a lorry.

A Spy Scare (News Sheet no. 4, p 6)

- Spalting is a form of decay and the result of colonies of fungi, mainly of the *Xylariaceae*, creating barriers or zones to demarcate their territories and fairly common in Beech.



I have a wood-turning friend who gleefully finds or accepts this figured wood to make decorative objects.



He always 'masks-up' when working with it because he read that it gives off noxious fumes! (?)

Cherry Greenway

Spalting (News Sheet no. 13, p 7)

- A suspected murder case in Wales in 1932 was solved when an investigation on moulds growing on the green wallpaper of the death room revealed the culprit to be a fungus *Scopulariopsis brevicaulis*. During its growth this species had converted arsenic in the green pigment to the toxic gas trimethylarsine and so "murdered" several people in the process.

A Wallpaper Murder (News Sheet no. 5, p 8)

We are always delighted when Jo pays us one of her flying visits.



Occasional Portraits – Jo, who in the early days lived in Kent & visited when she could (News Sheet no. 6, p 8)

From 21st June 1870:

A visit of the Woolhope Club by river boat to the new railway tunnel (through Coppet Hill*) below Kerne Bridge.

"....About a mile below Kerne Bridge a stoppage was made to visit the tunnel for the railway now in course of construction between Ross and Monmouth. It passes through Coppet Wood Hill, and by the politeness of G.E.W. Wellesley, Esq., a man had been sent down to open it for any ladies or gentlemen who might wish to visit it. The navy appeared in due course and in costume, with a bunch of candles, and lighted one for every visitor who entered. Many did so, and found themselves in a passage boarded up on all sides dark, and damp, and cold. At first the candles only made its darkness the more intense, but by degrees as the eye accommodated itself to the gloom, a hunt for funguses began. Several *Polypores* were found quickly growing on the timber and boarding, a very pretty *Mycena*, and a fragile *Coprinus*, too delicate to exist long enough in the dry air outside for the exact names to be determined. From the boards forming the roof curious moss-like masses of Mycelium hung down. It was too dangerous to remain long, and the boats were soon regained in the warm air outside".

[*The railway was axed, almost certainly by Dr. Beeching in the 1960's, but the tunnel-approach cuttings are discernable on the OS map at approximately SO587184 to SO588178. EB.].

A Tunnel visit in 1883 - Extract from the Transactions of the Woolhope Naturalists Club. (News Sheet no. 18, p 5)

From 1884: extract from 'GIGANTIC FUNGI' by M.C. Cooke. *Sparassis crispa* Fries.

"Mr Worthington Smith exhibited at one of the Epping Forays....the largest individual of this species it has been my privilege to see. I have quite forgotten the dimensions....it was so large he had to bring it in two baskets. I think it was somewhere about a half a yard in diameter, and occupied a table to itself"

There follows a footnote:

"The large *Sparassis* came from...Vinter's Park, Maidstone. It was found at the base of a Scotch Fir. It took two men to carry the deal box in which it was packed and the box afterwards became a spacious rabbit-hutch. The *Sparassis* was very compact, solid and heavy; 3 feet 6 inches round; 10 inches high above the ground; with solid heavy base of Mycelium for six inches beneath the surface. It was divided and carried by two persons to Loughton in two fish baskets, one being sufficiently heavy for one person to carry with convenience -Ed."



Sparassis crispa (not so big, as the one cited here!)

A Giant Fungus - Extract from the Transactions of the Woolhope Naturalists Club. (News Sheet no. 18, p 5)

▪ **From 'Healthy Way':**

Fungi such as the razorstrop fungus (*Fomes fomentarius*) and members of the puffball family (*Lycoperdaceae*) were often used as styptics, to staunch the flow of blood from a wound. The fact that the puffballs may well contain anti-microbial compounds may again have influenced their success. The fungal kingdom also provides conventional medicine with a great many antibiotics, including Penicillin. An excellent account of the domestic use of Penicillium was recently sent in to Flora Celtica:

"In about 1932 or 1933, as a child I had boils on my neck. My Aunt insisted on applying the mould from the top of homemade jam daily and I also ate a spoonful of jam with the mould mixed in. I do not remember much about the recovery, except that my Father, who was previously sceptical, was astounded with the results. I am sure that my Aunt had no knowledge of, at the time unpublicised research into Penicillium!"

Mary Hunt

The Healthy Way (News Sheet no. 9, p 9)

Musical Slime Moulds

Professor Eduardo Miranda is a prolific composer and researcher into artificial intelligence based at the University of Plymouth. Some of his compositions use sound generated by electrical signals passing through networks of neurons in the brain. He has recently turned his attention to the slime mould *Physarum polycephalum*, an organism easily grown in pure culture the laboratory. It has a bright yellow plasmodium and students are usually fascinated to see that this can move over the surface of agar in a Petri dish. By placing electrodes in a plasmodium, Miranda has been able to detect electrical activity that he is able to convert into sound. Since *Physarum* responds to light, he now plans to expose it to various light stimuli and to use the electrical activity which may be generated to produce 'music'. Next year he is writing a piece for an ensemble of slime moulds together with traditional instruments.

Roger Evans

Musical Slime Moulds (News Sheet no. 22 p 10)

- Victorian Cambridge by Gwen Raverat, a niece of Charles Darwin:

In our native woods there grows a kind of toadstool, called in the vernacular, 'The Stinkhorn', though in Latin it bears a grosser name. This name is justified, for the fungus can be hunted by scent alone; and this was Aunt Ety's greatest invention: armed with a basket and a pointed stick, and wearing a special hunting cloak and gloves, she would sniff her way round the wood pausing here and there, her nostrils twitching, when she caught whiff of her prey; then at last, with a deadly pounce, she would fall upon her victim, and then poke his putrid carcass into her basket. At the end of the day's sport, the catch was brought back and burnt in the deepest secrecy on the drawing-room fire, with the doors locked, because of the morals of the maids!

This passage is cited by Elio Schaechter in his book, "In the Company of Mushrooms"

Roger Evans

- Vaughan Fleming has sent this lovely photograph of his 'new, pinky puffball, *Calvatia rosacea*', which was found in Ecuador.



Victorian Cambridge (News Sheet no. 10, p 8)

A new 'Pinky Puffball' (News Sheet no. 12, p 13)

Mushrooms Can Create Air Currents to Aid Spore Dispersal

For spores to be effectively dispersed they need firstly to pass through a still layer of air which covers surfaces, including the ground. This is known as the 'laminar layer'. Once through, the air is then moving, ie is 'turbulent air'. Generally the laminar layer is just a millimetre or so thick, but spores released into it would soon sediment out onto the ground and thus not be widely dispersed.

Fungi have developed many mechanisms to get their spores through the laminar layer. In Basidiomycetes, the stipes of fruit bodies, or the nature of brackets growing above the ground, appear to have evolved to allow spores to drop into turbulent air.

However, Emilie Dessaire (a professor of experimental fluid mechanics at Trinity College, Hartford, Connecticut) and Marcus Roper (a mathematician from the University of California) have suggested an additional mechanism to aid spore dispersal. They studied this in cultivated Oyster and Shiitake mushrooms using high speed video recording and mathematical analysis and suggest that small water droplets, which appear just before spore release, evaporate, producing water vapour and local cooling. Presumably, this cool air - being denser than surrounding air - sinks; less dense air flows in to replace it and so convection currents are set up. These are easily capable of moving spores into the turbulent air, thus giving them the potential for widespread dispersal. The authors

speculate that this mechanism may be widespread amongst mushroom species.

These results were not presented at a meeting of mycologists, but at that of the 66th Annual Meeting of the American Physical Society's Division of Fluid Dynamics. It will be of great interest to see the details of this work when they are published in a science journal

The Fungal Destroyers

Recently a group of scientists, including some from the U.S.A., Imperial College London and the University of Oxford, wrote a paper in which they assessed the threats to animal and plant health.

They suggested that fungi destroy 125 million tonnes (1 tonne $\equiv$ 1000 kg) each year of the World's five most important food crops - namely, wheat, rice, maize, potatoes and soyabeans.

If

- stem rust on wheat,
 - rice blast,
 - maize smut,
 - late blight of potatoes
 - and soya bean rust
- were controlled, then 600 million people could be adequately fed each year.

Air Currents & also Fungal Crop Destroyers (News Sheet no. 27, p 19)