Herefordshire Fungus Survey Group

News Sheet N^{o} 32: 2016

***Belonidium mollissimum* - The Flits Nature Reserve (13/7/16)**

Contents

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A rather belated welcome to News Sheet, Issue 32!

Firstly, my apologies to everyone for the very long delay in producing this issue - some of which, I am afraid, may be rather out of date by now. However, such is the quality of all our contributors, that I am sure that you will find plenty to interest you, even so. It contains the two Recorder's Reports for 2016 and most of the material that was sent to me for inclusion at the time.

in his article on 'Death by Fungi - The Insidious poisoners' (pp. 12-13) , Ted Blackwell takes a look at the darker side of some species of the fungal kingdom and their influence on human society over the ages.

Throughout our News Sheets over the years, Jo Weightman has drawn attention to particular genera and how to distinguish between some of the more commonly found species within them. On pp.14-17 she has turned her attention to the genus *Polyporus* with a very helpful guide to some of the key features of the ones we frequently find in VC 36 - as well as a 'County first' turned up by botanist, Dr. Judith Oakley.

Finally, no News Sheet issue would ever be complete without one of Debbie Evans' lovely articles on Rusts. Following the publication of the Rust Red Data List for Wales in 2015 (see HFSG News Sheet No. 29, p. 2), she points out that several of the rusts listed have now been found at new sites in Wales: it is often more a question of under-recording, rather than of true rarity. Many of the Welsh RDL rusts may also occur in VC 36 and she urges us to keep 'Looking, Finding and Spreading the Word' (pp. 17-20) .

This will almost certainly be the last issue of our News Sheet in the form that we have been used to since Spring 2002 - ie two issues per year, with not only the half-yearly Recorder's Reports, but also containing your articles, photographs, etc. as well. My thanks are to all who have contributed to it over the years.

We have not yet fully decided the future structure and format, but it will probably need to be simpler. ***If you have any suggestions, please do let me know***.

However, I do hope that you enjoy reading this issue.

Mike Stroud

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Thanks to Cherry for this photograph of a blackbird's nest that she found on a bracket (*Ganoderma sp.?*), Talk about opportunism!

HALF YEAR REPORT - 1ST JANUARY - 31ST AUGUST 2016

Jo Weightman - County Recorder

FORAYS

Hollybush Roughs 30. 03. 2016
New site records 16 *Foreyers 13*

The first foray of the year took us to a dry, steep slope in the Malverns, first across grassland where, understandably, nothing was showing and then into broad-leaved woodland with oak and ash, locally dominated by sycamore. There was much bramble – fortunately as it turned out: see below. Most finds were on fallen or dead wood.

Finds included:
Hapalopilus nidulans a fine well developed bracket of this rather soft gingerbread-like species high up on a dead attached branch of rowan. *Bisporella sulfurina* is similar to *B. citrina* but somewhat smaller and a sharper yellow. It grows over pyrenomycetes.

Chaetosphaerella fusca - but for its smaller spores, this species could be mistaken for the better known and more common *C. phaeostroma,* both looking like mini shiny black eggs in a nest of jet black hairs. This was a new County record and is rarely recorded nationally. Det. E. Blackwell.

A large piece of fallen hawthorn was host to three species. A patch of yellow was provided by the disc fungus *Episphaeria fraxinicola* (2nd County record and rarely recorded nationally), which was growing parasitically over what appeared to be *Melanopsamma pomiformis* (1st County record). A few contaminating conidia of the *Entomosporium* state of the hawthorn leaf spot fungus, *Diplocarpon mespili* were also present. These conidia remarkably resemble water boatmen. 1st County record and also rarely recorded nationally. All det. E. Blackwell.

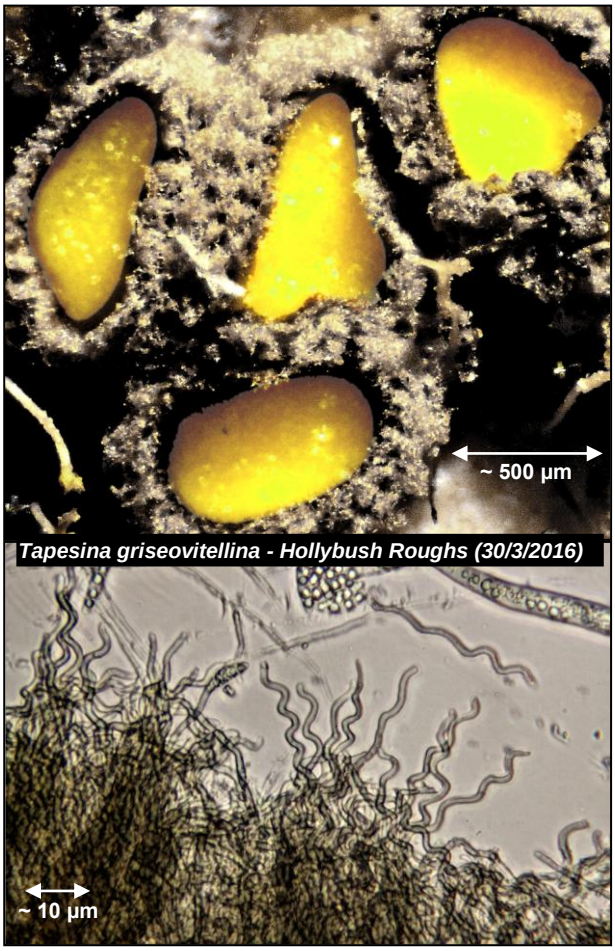
The highlight of the day was a collection of *Tapesina griseovitellina*, a species confined to bramble and a first County record. The FRDBI lists only eight records. This species has a bright yellow disc surrounded by grey hairs which, under the microscope, can be seen to be coiled like a corkscrew. Coll./det. Shelly Stroud.

Upper Grange Bacton 20. 04. 2016
New site records 2 *Foreyers 11*

We forayed in the garden, sheep pasture and a wooded dingle with a range of broad-leaved trees, but conditions were dry overall. Although early season rusts and smuts were in evidence, no spring specials, such as St George`s mushroom or morels were found.

The larger fungi were mostly bleached out, but there was a one *Psathyrella spadiceogrisea* in good condition - this is a species of woody debris and a spring look-alike of *P. candolleana*. A *Coprinus domesticus* was very desiccated, but recognisable under the microscope. *Panaeolus acuminatus* was quite frequent in the lawns and *Clitocybe fragrans,* which is more commonly found in the autumn, was also present.

After the foray we gathered in warm sunshine to talk about our finds and enjoy a welcome drink on the terrace, before being regaled with a delicious soup and cheese lunch by our hosts Susan and Charles Hunter. We thank them most warmly for their hospitality.



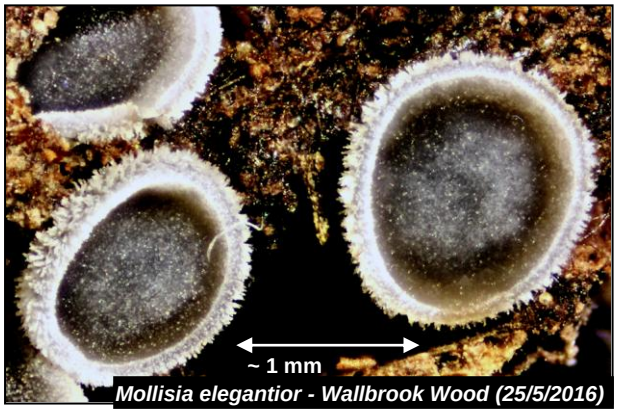
Tapesina griseovitellina - Hollybush Roughs (30/3/2016)

Walbrook Wood 25. 05. 2016
A new site *Foreyers 9*

This new-to-the-Group site mainly comprises broad-leaved woodland. Conditions were dry on the day but, in spite of this, 24 base-line species, covering ascos, agarics, brackets, a jelly fungus, some rusts and some myxos, were recorded. Visits made later in the year are likely to be rewarding.

The most interesting fungus recorded was *Mollisia elegantior*, (previously known as *Haglundia elegantior).* This is only the 6th County record for a species with few national records and very probably

under-recorded. It looks like any other *Mollisia* ie a dark bluish-grey disc and frosted margin, swarming on damp rotting wood. A distinguishing character is the long cylindrical septate hairs, (coll/det S.Stroud).



Mollisia elegantior - Wallbrook Wood (25/5/2016)

Brampton Bryan 15. 06. 2016
New site records 16 Foreyers 9 + our President Ted Blackwell at lunchtime

The number of new site records may be some reward for the drenching received by all present and demonstrates a triumph of motivation over adversity.

Not many agarics would be expected in mid-June, but species seen included *Agrocybe pediades* and *Russula odorata.* The latter is a fairly small, rather fragile species with reddish –purple and olivaceous cap colours, very deep yellow spores and a smell of Pelargonium. 2nd County record for an uncommon species.

Dead herbaceous stems were host to a number of new Asco records, all common species found mainly in spring/early summer.

Ascobolus denudatus and *Fimaria theioleuca,* which occur on dung, are less commonly reported. Det. E. Blackwell. A battered pyrenomycete encrusting a piece of bark surprisingly yielded a good crop of spores of *Nemania* (formerly *Hypoxylon*) *serpens* - a common species but not previously recorded at this site.

We are grateful to Mr and Mrs Harley who gave us permission to foray in the Park.

The Flits NNR Foray 13. 07. 2016
New site records 21 Foreyers 9

There was little to be found in the meadow areas and most finds were made in the wooded patches and scrubby edges. We had to search hard to find anything, so it is pleasing to note that well over half our finds represented new site records.

An extremely diminutive *Coprinus* present in small amounts at the base of rotting sedge stems appeared on examination to be *Coprinopsis urticicola.*

Damp ash petioles hosted swarms of *Hymenoscyphus albidus* – this is the very common species which can mutate/evolve into the form currently posing such a threat to our ash trees. Short, however, of DNA analysis, it is impossible to tell if our collection was ‘good’ or ‘bad’.

Dead nettle stems produced six species, of which four were new to the site. A fallen alder was host to a spiny resupinate *Steccherinum ochraceum*. Dog Stinkhorn, *Mutinus caninus* eggs were found - these are much smaller than ordinary stinkhorn eggs and oval rather than round.

Belonidium mollissimum, a common asco previously known as *Dasyscyphus mollissimus,* has a pale whitish/grey disc prettily edged with yellow hairs (see photo on front cover).

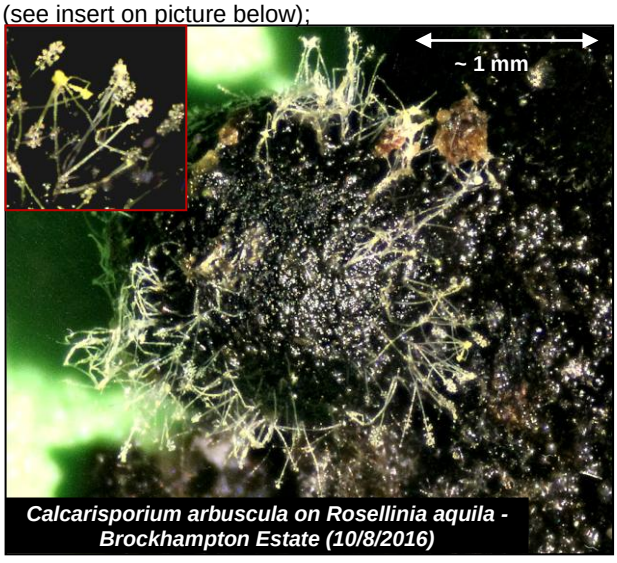
Some very young *Gloeophyllum sepiarium* was growing on the gate at the entrance to the site. This species can form hand-sized brackets with red-brown concentric ridges and zones. The underside – the spore-bearing hymenium – consists of gill-like plates.

For a wet site conditions were, on the whole, remarkably dry - although one forayer`s trousers were proof to the contrary!

Brockhampton Estate 10. 08. 2016
New site records 14 Forayers 12

Most of us sought the wooded slope leading down to a stream (which proved to be dry). The trees were mostly hardwoods with much sycamore. Others tried the beech avenue. It proved to be another very dry foray, but looking hard brought its results. Some finds at this well-forayed site were inevitably ‘repeats’, but our attention was caught by the following species:

Calcarisporium arbuscula - a hyphomycete producing tiny white sunbursts on a pyrenomycete (see insert on picture below);



Calcarisporium arbuscula on Rosellinia aquila - Brockhampton Estate (10/8/2016)

Euepixylon (formerly *Hypoxylon*) *udum* – a rather uncommon pyrenomycete on beech;

Hypomyces aurantius colonising an old *Trametes versicolor;*

Russula subfoetens - similar to *R. foetens,* but usually less robust and smelling less disgusting. The stipe flesh turns golden yellow with KOH.

Inonotus dryadeus, young but showing off its amber jewels.

The biggest find (literally) was *Meripilus giganteus* in all its glory.

Inonotus drayadeus - Brockhampton Estate (10/8/2016)

Erysiphe mayori, Millbrook Way, Orleton, coll./det. Ted Blackwell. 1st VC36 record. 22.06.16.

Postia guttulata, on fallen indet. conifer, Downton Gorge NNR. 16.07.16.

OUT OF COUNTY RECORDS

Ionomidotis fulvotingens, on hazel in a damp dingle, Ribbesford Woods, Wyre Forest, coll. J. Bingham, det. member of staff at RBG Kew, 05.01.16. Clusters of green cups bursting through the bark.

Steccherinum bourdotii, on indet. twig, Sallow Coppice, Craven Arms, Shropshire. SO421821. Coll. J. Pitt, det. A. Henrici.

OTHER HEREFORDSHIRE RECORDS

Phaeobotyrosphaeri visci as reported in the 2016 Spring News Letter. On old, fallen mistletoe sticks Yatton 21.02.16.

Morchella esculenta – Coughton Forge, Ann Wills, 18.04.16.

Polyporus umbellatus, wood in south Herefordshire. Found by Dr Judith Oakley under both oak and sweet chestnut, 19.06.16. A new County record for a nationally rare species. [See also Jo's article on page 14 - Ed]

Meripilis giganteus - Brockhampton Estate (10/8/2016)

Bartheletia paradoxa on fallen leaves of *Ginko biloba*, Botanic Gardens, Royal Victoria Park Bath, VC6, 31.3.16, coll. M. L. Rayner, det E.Blackwell.

Rimbachia bryophila, on fading fronds of the moss *Brachythecium notabulum*, Swainswick, Bath VC6 03.01.16, coll. M.L. Rayner, det. EB.

Hypocreopsis rhododendri, on attached hazel twig, Ty Canol, Pembrokeshire, coll./det. J. Weightman, 09. 05.16. K. Known as 'Hazel gloves' on account of its finger-like growth.

HALF YEAR REPORT - 1ST SEPTEMBER - 31ST DECEMBER 2016

Jo Weightman - County Recorder

Pluteus atromarginatus - Berrington Hall (07/9/2016)

FORAY RECORDS

Berrington Hall 07.09.2016

Thank you for your records and especially to Shelly Stroud, Roger Evans and Ted Blackwell who, between them and with the kind assistance of Peter Roberts and Shelly Evans, undertook the post-foray identification work.

This was a very rewarding meeting with a high number of new site records. Records for Berrington date from 1969 and the Group has previously visited in November (2000 and 2002). There is also a set of February records. So a September foray was timely. I am particularly sorry to have missed it, especially the Pluteus species.

Pluteus atromarginatus is a widespread, but rarely recorded species of conifer debris, not unlike the very common *Pluteus cervinus,* but distinguished by having a black edge to the gills. A Herefordshire first, coll. Anna-Maria Paterson det. Shelly Stroud.

P. aurantiorugosus (image by Ted Blackwell) is an occasional species that quite often occurs inside dead hollow trunks where the very bright orange cap appears to lighten the gloom. Coll. Anna-Maria, det. E. Blackwell.

Leratiomyces ceres (formerly *Stropharia aurantiaca*) is most usually seen swarming on chippings in flower beds. 3rd county record.

Russula odorata is a small, fragile rosy-purple species, often with olivaceous tints, yellow gills and a fruity or Geranium smell. Coll./det. Shelly Stroud. 3rd county record.

Inonotus hispidus forms handsome red brown thickly hairy brackets, singly or in tiers, usually on ash and often high above one`s head. Nice to have fresh material – it is so often found as dead fallen specimens. Det. Peter Roberts.

Ceuthospora lauri - shiny black spots on a dead laurel leaf, coll. Susan Hunter, det. Ted Blackwell. This proved to be an exciting collection of a species not reported in the county since the nineteenth century and rarely reported nationally.

Great Doward 14.09.2016

This was an all day foray. In the morning we walked through wooded areas to White Rocks Reserve and returned to the cars for lunch. For the afternoon we drove on to the Leeping Stocks Reserve. However, there were only six forayers, three of us and three local people - who all joined the Group afterwards - but, as traffic on the A40 was at a standstill, it is likely that some would-be forayers were unable to make it to the meeting point.

Some fungi brought to the meeting from elsewhere on the Doward got us off to a good start. They included *Boletus radicans* and *Lentinellus cochleatus var. inolens* - a clumping species with tan caps often split down one side. The latter usually smells of almonds but, disappointingly, this was the scentless variety. One of the new members also reported a new site for *Boletus satanas* and *Amanita echinocephala.*

The most interesting of the species seen on the White Rocks reserve were E*ntoloma incanum* - a small brownish yellow species with a green stipe which is said to smell of mouse droppings (coll. Cherry Greenway); *Inocybe cincinnata var. major*, that rare object – an Inocybe that can be named in the field because the varietal form has a brown edge to the gills. Only one previous county record - at Homme House, 2014; and a bolete of vermilion hue which may have been *Boletus rhodoxanthus* but is more cautiously attributed to *B. luridus.*

In the afternoon in the more shaded woodland of Leeping Stocks reserve, it soon became obvious that *Amanita phalloides* the Death Cap, was having a good year. Species recorded here included *Cortinarius elegantissimus* a robust golden member of the Phlegmacium section of the Cortinarii (only one other Herefordshire record, also from The Doward in 1997), *Cystolepiota hetieri* a white, powdery/ flaking Lepiota which reddens in all its

parts on handling and *Psathyrella leucotephra* a pale clumping species with a ring on its stipe.

Croft Castle 05.10.2016
We spent the morning in Fishpool Valley, and met up in the car park for lunch and discussion of our finds. In the afternoon a smaller group headed across the pasture into the wooded and scrubby natural play area.

Clavaria zollingeri is a gem among fungi. It is like a purple coral, growing in grassland or woodland. At Croft, it was found under horse chestnut in 1997 and 1998 and had not been seen again since until this foray, thanks to Annamaria Paterson. It appears to be at the same site.

Clavulinopsis umbrinella is a club we should be looking out for as the identifier, Peter Roberts tells me he finds it fairly regularly in waxcap grasslands. It grows in clumps, with more or less erect branches which divide into two towards the tip. It is a cream

Clavulinopsis umbrinella - Croft Castle (05/10/2016)

The myxo *Diachea leucopoda* is to be found occasionally on a range of herbaceous litter. The fruiting 'heads' are a beautiful metallic blue, bronze or purple. It has been recorded just once before in VC36 on strawberry in 1973. National records only have one other entry on a *Dryopteris* species when it was found in Gwent by Shelly Stroud who also collected and identified the Croft specimen. Confirmed by Ted Blackwell.

Diachea leucopodia - Croft Castle (05/10/2016)

Oxyporus populinus, despite its specific name, is not restricted to poplar but grows on a range of living and dead hardwood trees. It occurs as a perennial bracket, or series of brackets, often fusing, and can become quite thick. Slicing it from top to bottom reveals the annual succession of tube layers. It is whitish in colour, often green with moss at the base in older specimens.

Xerula pudens formerly *Oudemansiella longipes* was a thrill, just the third Herefordshire record for rather uncommon species generally. In appearance and mode of growth it closely resembles *X. radicata* but is velvety brown on both cap and stipe. Coll. Sue Hunter.

Kentchurch Court 19.10.2016
This was the Group's first visit to Kentchurch Court. That the unimproved lawns are very rich in grassland fungi species was first realised in September 2015 and confirmed by a visit by a few HFSG members in the following November. The lawns were, therefore, our starting point on this occasion.

By the end of the afternoon, the 'waxcap grassland' count for the site had grown to 14 clubs, 23 waxcaps + 1 Dermocybe, 7 Entoloma and 2 earth tongues. These figures indicate that the lawns at Kentchurch Court are nationally and probably internationally important for their fungi. It certainly appears to be the best site in the County with a total of 47 species.

With all this excitement going on, it was quite hard to tear oneself away and survey the more wooded areas as well. Fortunately, this was an all day foray and this would have been a most rewarding day, even without the lawns. The range of native and exotic trees and shrubs seems likely to support a rich fungus flora as records build up over the years.

To mention just a few of the species recorded:

Arrhenia retiruga - Kentchurch Court (19/10/2016)

Arrhenia species are small and insignificant, very easy to overlook. Remarkably, two were seen. Viv Geen found *Arrhenia retiruga* which is no more than a little whitish 'flap'on moss, no more than puckered underneath and Tristan Gregory found the very different *A. rickenii* which has a proper toadstool shape, brownish gray cap and decurrent grey gills, det. Peter Roberts, 1st county record.

Entoloma atrocoeruleum is dark blue-black when fresh becoming grey-brown. 1st county record. *Entoloma bloxamii* is initially a beautiful violet, but becomes grey. Some yellow at the stipe base is a useful pointer for this species. This is one of the species listed for the Lost and Found project for collection as it requires further study. Both Entolomas coll. Shelley Evans, det. Peter Roberts.

Neohygrocybe (*Hygrocybe*) *ovina* is the ugly duckling in the flashy waxcap set, a dirty mid to dark grey in colour and staining red when damaged. New to me so it made my day. 3rd Herefordshire record.

Neohygrocybe ovina - Kentchurch Court (19/10/2016)

Inocybe whitei is a conifer species and is also distinguished by 'bleeding' when handled. It is a whitish silky-fibrillose species with just two other sites in the county– Wigmore Rolls and Mortimer Forest.

Leucoagaricus pilatianus is an exciting find of a nationally rare species. *Leucoagaricus* species are similar to *Lepiota* from which they can be distinguished in the field as the ring is attached to a 'belt' which holds it in place. This species has brownish scales over a white ground, bruises red and has gills which turn green in ammonia fumes. Coll. Shelley Evans, det. Peter Roberts.1st county record.

Loreleia postii is a thin-fleshed, red-brown species with markedly decurrent gills formerly in *Gerronema* and *Omphalina*, coll. Shelly Stroud, det. Peter Roberts. A rarely recorded species nationally, the only other Herefordshire records date from the days of the Woolhope Club`s visits to Downton Gorge where it was first recorded from charcoal heaps in 1873 and determined by Broome.

The club / coral fungi were well represented, some familiar, others less so. This is the second county site for the pink, simple club Clavaria *incarnata* – the other being Cherry Greenway`s garden. *Clavaria tenuipes* is another simple club but has dirty white tones. It may be having a good year as I have now seen it in two other sites this year. 2nd county record. *Ramariopsis tenuiramosa* is, as its name tells us, thinly branched. It is a white, candelabra-like coral fungus, All these det. Peter Roberts.

My special thanks to all those who helped with the identifications at this very well attended foray and also to Jan Lucas-Scudamore for permission to foray at the Court.

Lady`s Coppice 02.11.2016

This was the group`s third visit to this site, the first this late in the year. Lady`s Coppice slopes down to a stream feeding into the nearby River Wye and is close to Eaton Camp which some members visited. Although the fungi found were mostly fairly common litter and dead wood species, our morning`s recording went a long way towards filling in some gaps. The Prince *Agaricus augustus* collected by Cog Bowyer was actually found near the river, so off-site strictly speaking but still a good and tasty record. Another *Agaricus*, with pale scales, found by Cherry Greenway keyed out well as *A. fissuratus* on account of the scales but this species is now considered to be a form of *A. arvensis*. *Echinoderma echinaceum* formerly *Lepiota echinacea* has striking dark brown to black erect pointed scales on the cap and a large floppy ring. It seems to like deep litter under shrubs and hedges. Also found by Cherry. *Marasmius epiphylloides* on the other hand is tiny, very white species restricted to dead or decaying ivy leaves, coll.Val Deisler.

Sowerbyella radiculata was by far the most unusual species recorded - although it was nearly not found. Most of the Group walked round or perilously near it before Shelly Stroud, bringing up the rear, spotted its bright yellow cups among the autumn leaves on the path. The reverse of the cup is white, as is the well-developed stipe which 'roots' quite deeply. 5th county record for a nationally uncommon species.

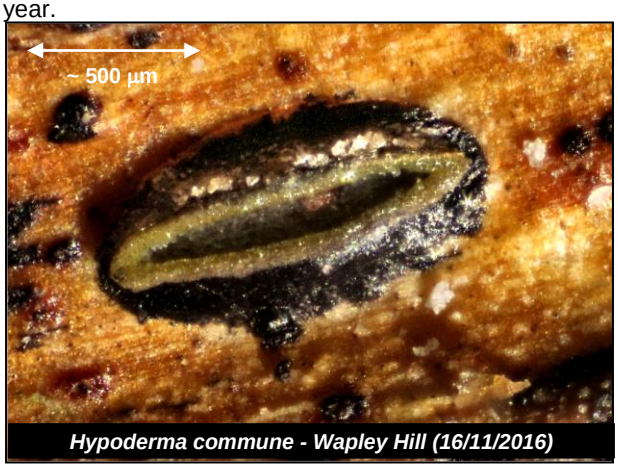
Sowerbyella radiculata - Lady's Coppice (02/11/2016)

Wapley Hill 16.11.2016

In addition to the conifer plantation, this site comprises mixed broadleaf area at the bottom of the hill, the large grassy area of the fort itself and generous beech alleys.

There were very few mycorrhizal species partly because of the date, and partly because of the combination prolonged drought followed by drenching rain and drying winds.

Litter species specially the Mycenas were still about and those on dead wood. Margaret Hawkins found the first Goblet *Pseudoclitocybe cyathiformis* of the year.



Hypoderma commune - Wapley Hill (16/11/2016)

Hypoderma commune (coll./det. Shelly Stroud) forms black lines, often wriggly ones, on dead herbaceous stems which split open to reveal a greenish yellow apothecia. There are few records nationally – indeed it was included in the Provisional Red Data list although later excluded. There are just two previous VC36 records, neither on dock. *Lenzites betulina* was a welcome sight – could it be declining or is it passed over as an old faded *Trametes versicolor*? The underside is distinctive with gill-like plates. Although most common on birch stumps, it can occur on a range of dead broadleaf trees. Some pink candyfloss clinging to blades of grass was identified by Ted Blackwell as *Laetisaria fuciformis*, Red Leg disease of grass. It may be under-recorded as records both nationally and locally are scarce.

The myxo *Oligonema schweinitzii* has not been recorded before in Herefordshire and rarely anywhere else, coll. Cherry det.Ted Blackwell, The scanty capillitium is characteristic with thickened bulges and often with blunt ends, some with superimposed spikes.

Haugh Wood 07.12.2016

The weather was benign so we forayed in the morning, repairing to the Woolhope Village Hall for lunch followed by examination and discussion of our collections.
We forayed on the South and less often visited side of the wood, finding mostly litter species, especially small white Mycenas and their allies. *Hemimycena lactea* was abundant on the spruce brash and a single example of the minuscule pink M. *smithiana* was found by rummaging among the fallen oak leaves. Paula Park picked up *Mycena flavescens* (det. Shelly Stroud) – this is one of those Mycenas lacking good field characters although this species may have a yellowish gill edge. We have only a handful of records for it – perhaps because it is too readily discarded as a 'don`t know'.


Mycena flavescens - Haugh Wood (07/12/2016)

The Goblet *Pseudoclitocybe cyathiformis* collected by Chris Adams was a timely reminder of the date as this is a species that ushers in the New Year. Among the species inhabiting dead wood, was some nice material of the distinctly pink corticioid *Peniophora incarnata* coll./det. Cherry Greenway. The weathered corticioid on a fallen oak branch proved to be untypical *Radulomyces confluens*.

Queenswood Arboretum National Fungus Day 08.10.2016

Conditions were dry on the hill but 44 species were found on site by members of the public and walk leaders from the Group and were added to the display. These included the spiny jelly *Pseudohydnum gelatinosum* on rotting conifer, the spiky terrestrial fan *Thelephora penicillata*, the yellow ears of *Otidea onotica* in thick litter and the almond smelling *Hebeloma radicosum*. Excitingly, the rare bracket *Postia guttulata* was collected from a conifer stump.

Queenswood Arboretum Outreach Day 06.11.2016

Conditions were even drier but enthusiasm made up for much of the shortfall. 37 species were found and explained, all common but in a range of fungal groups ranging from *Tricholoma lascivum* and the inkcap *Coprinopsis picacea* to the impressive even when spent *Calvatia utriformis* and the ever self-inventing *Helvella crispa*.

Other records *(See next page for photos of a number of these by Jo Weightman)*

Boletus satanus at a new site on Great Doward in mid September, reported by Simon Whittle. Not now known from anywhere else in the county although there are 19th century records from Eastnor and Moor Park.

Bovista aestivalis in a gravel path in a garden, Rushall 25.10.16 coll. Jo Weightman det. A. Henrici. K.

Camarophyllopsis atropuncta Pipe Aston churchyard 22.10.16, coll. / det. Jo Weightman, conf A. Henrici. K.

Cantharellus melanoxeros in beech *Fagus* litter Haugh Wood South, 23.09.16, coll. / det. Jo Weightman. 1st VC36 record. Described as Vulnerable on the Red Data List 2006, K.

Chamaemyces fracidus on bare soil under hazel *Corylus avellana*, 20.09.19, coll./det. John Bingham. 5th site in the county for an uncommon species.

Coprotus aurora on alpaca dung Fairfield Breinton 13.10.16, coll. Jo Weightman, cultured and det. Ted Blackwell. 2nd county record for a species very rarely recorded anywhere.

Crucibulum laeve on Wellingtonia *Sequoiadendron giganteum* cone, Eastnor Castle grounds, 04.10.16.

Cyathus olla on dead Drunkards Dream *Hatiora salicomoides* in a pot in a garden, Ross 07.10.16. Reported by Judith Oakley.

Lactarius controversus Putley 08.09.16 sent in by Sally Webster. Only 14 records since the 19th century.

Lepiota grangei on bare soil under hazel *Corylus avellana*, Wigmore Rolls 20.09.19, coll./det. John Bingham. 4th site in the county for an uncommon species.

Lepiota xanthophylla in cedar *Cedrus* litter Eastnor Castle grounds 04.10.16. 4th VC36 record for a nationally uncommon species.

Mycena vulgaris in conifer litter Oaker Wood 24.11.16. Recorded seven times in the 19th century and not at all in the 20th. This is only the third location for it this century.

Pilobolus crystallinus on alpaca dung Fairfield Breinton 13.10.16, coll. Jo Weightman, det. Ted Blackwell.

Podospora collapsa on llama dung, from paddock, Bodenham Moor, 09.10.2016. 1st VC36 record. Dung collected by Margaret Hawkins, cultured and determined by Ted Blackwell. 1st county record and only the second GB record.

Podostroma alutacea on bare soil under hazel *Corylus avellana*, 20.09.19, coll./det. John Bingham. 5th site in the county for an uncommon species.

Postia guttulata, abundant on indet. conifer stumps School Wood area Croft Castle Estate, 30.09.16. Also newly recorded this year in the Mortimer Forest and in Queenswood Arboretum (as noted above). Now known from eight locations in the county.

Rugosomyces chrysenteron in spruce *Picea* litter, Haugh Wood North 19.09.16, coll. / det. Jo Weightman. 1st VC36 record for a species described as Vulnerable on the Red Data List 2006. K.

Sistotrema confluens Haugh Wood South 23.09.16. coll. / det. Jo Weightman. The only known Herefordshire record since the 19th century.

Suillus cavipes under larch *Larix*, Lords wood area Great Doward, 04.10.16. Reported by Ian Draycott. First recorded last year at this site. Nationally very uncommon, especially in England.

Terrana caerulea Penyard Wood, December 2016, reported Judith Oakley.

Xerocomus rubellus, in quantity at Awnells Farm, Much Marcle, reported by Viv Geen.

Peter Thompson who specialises in Ascomycetes has begun a series of recording visits to Fishpool Valley on the Croft Castle Estate. He has added many records to the site list, and has also found a good number of species new to the County, including one new to Britain, *Dasyscyphella montana* (photo next page). We are grateful to him for sharing these records with us.

Out of County Records

Geastrum britannicum Bishops Castle churchyard Jan 2016*,* Lydbury North churchyard autumn 2016*,* Halford churchyard, Craven Arms, Shropshire, 17.11.2016. Coll. /det. Rob Rowe, conf. Jo Weightman.

Hydnellum spongiosipes The Hurst, Clunton, Shropshire, 29.09.16. Coll. Rob Rowe, det. Martyn Ainsworth.

Podostroma alutacea Bury Ditches, Shropshire 01.10.16, Coll Rob Rowe, det. Jo Weightman.

Good this year

Here is my list of species which I think have fruited unusually well this year:
Amanita phalloides, Craterellus cornucopioides, Gymnopus erythropus, Helvella elastica, Otidea onotica, Psathyrella multipedata, Tricholoma ustale.

Jo Weightman

Bovista aestivalis - Rushall (25/10/2016)

Camarophyllopsis atropuncta - Pype Aston (22/10/2016)

Cantharellus melanoxeros - Haugh Wood (23/09/2016)

Lepiota xanthophylla - Eastnor (04/10/2016)

Podostroma alutacea - Bury Ditches (01/10/2016)

Dasyscyphella montana - Fishpool Valley (04/12/2016) Photo by Peter Thompson

HFSG foray at Croft Castle Estate, 5/10/2016

Strobilomyces strobilaceus (photo Cherry Greenway)

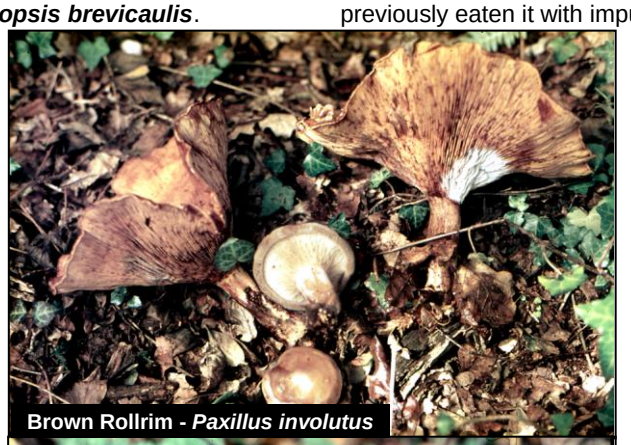
DEATH BY FUNGI – STEALTHY INSIDIOUS POISONERS

Text & photos by Ted Blackwell

When it comes to poisoning, at least timely warning is given by the Death Cap (*Amanita phalloides*) in its English name. But there are less accommodating subtle fungal poisoners that may lie in wait for us.

For many years after Napoleon Bonaparte's death it was suspected he had been murdered by administered arsenic. It was known from analysis of preserved specimens of his hair that during his imprisonment on St. Helena he had suffered arsenic poisoning. But in more recent times it is thought that accidental poisoning may well have been the case due, perhaps bizarrely, to the insidious action of a fungus mould ***Scopulariopsis brevicaulis***.

Evidence was found that the wallpaper of Napoleon's bedroom contained a colour-pigment known as Scheele's Green, a chemical compound of arsenic, copper arsenate. The Isle of St. Helena has a humid climate and it is known today that if the wallpaper had become damp and colonised by this mould it would chemically degrade the pigment to release a highly poisonous gas, trimethylarsine. Inhaling this vapour leads to arsenic poisoning, which is now believed to have been the source of arsenic in Napoleon's hair. Scheele's Green pigment has long been banned from such use, so a recurrence of these toxic circumstances is unlikely today.



Brown Rollrim - *Paxillus involutus*

Wood Blewit - *Lepista nuda*

But moulds abound wherever there is moisture and an ever-present one that is awaiting its opportunity is the black mould ***Stachybotrys chartarum*** (and kindred species of the genus). It occurs on damp parts of building structures and poorly ventilated damp places following leaks or flooding. Quite apart from its unpleasant appearance it carries certain health risks. Sometimes called Toxic Black Mould, it may give rise to serious symptoms and health problems. These include mental impairment, breathing problems, damage to internal organs and, sometimes in extreme cases, fatal consequences. Seriously large infestations should be treated by professional cleaners, who use procedures to minimise disturbance and dispersal of spores, with precautions against spore inhalation.

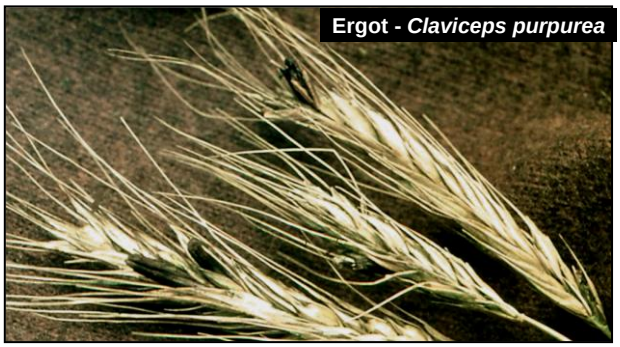
The common toadstool, Brown Rollrim ***Paxillus involutus***, was described in one of the first popular forayer's books *Collin's Guide to Mushrooms & Toadstools* (1963) as "Harmless if cooked, slightly poisonous to some when raw". It had long been eaten in parts of America and Central Europe, although known to cause gastric upsets if eaten raw. But more recently suspicion had grown that it is insidiously and, perhaps, cumulatively poisonous: even when cooked it could lead to acute renal failure. This is due to potentially fatal auto-immune haemolysis, causing the destruction of red blood cells and can affect those who for many years had previously eaten it with impunity. The respected German mycologist, Julius Schaeffer, who is known for the Schaeffer chemical test for *Agaricus* species identification, is also notable as the only distinguished mycologist of recent times known to have died from fungus poisoning as a result of eating this toadstool.

Rather worryingly, another red blood cell destroying principle has been found in the Wood Blewit, ***Lepista nuda***. However, this is destroyed by heat, so thorough cooking is essential.

With the bizarre involvement of space rocket fuel, the hidden dangers of another insidious poisoner were discovered. The strange story of the sometimes edible, sometimes poisonous, sometimes lethal, False Morel ***Gyromitra esculenta,*** has already been told (see New Sheet 15, page 13, Spring 2008). A definition from a Latin dictionary of the specific epithet "*esculenta*" says "fit for eating, good to eat, edible": but, unless cooked in the correct way, the consequences could be dire.

In Medieval times a baneful bodily affliction came to be known as Saint Anthony's Fire, because monks of that Order specialised in its alleviation. In a form of this illness known today as gangrenous ergotism, the hapless sufferer could experience a wide variety of symptoms, including such as a burning sensation of the extremities, or that of ants crawling under the skin. This was due to the constriction of blood-vessels leading to the extremities, which in prolonged cases led to gangrene of fingers, toes, hands and legs, and the eventual necrosis and loss of these parts. A different manifestation of this disease known as convulsive ergotism is

characterised by nervous dysfunction, shaking and trembling, and twisting and contorting of the body in pain; this could be accompanied by muscle spasms, confusion, and hallucinations.


Ergot - *Claviceps purpurea*

Mysterious outbreaks of these hideous diseases among human populations, sometimes devastating, had been known for hundreds of years without the cause being known, but usually attributed to an act of God as punishment for sins. It was not until the late sixteenth century when the Medical Faculty of Marburg declared the cause to be the eating of bread made from spurred rye.

Cereal grains, especially rye, *Secale cereale,* are susceptible to infection by an Ascomycete fungus ***Claviceps purpurea,*** more commonly known as Ergot**.** This grows in the ear of rye where it replaces one of more of the grains, in a shape likened to a cock's spur, a curved purplish-black hard sclerotium. Although distinctly different in appearance, it had long been thought of as part the rye plant and therefore disregarded, and was milled to flour along with the true grain. Ergot contains powerful mycotoxins and bread baked from such contaminated flour was clearly poisoned. But the poisoning process was that of small but regular doses and never sufficiently acutely toxic to be associated with symptoms. Although in modern times derivatives of Ergot provide valuable pharmaceutical drugs, for centuries it had been consumed unwittingly by countless numbers and was the unsuspected cause of suffering, injury and death.

A theory has been advanced by an American professor of history, Mary Matossian, that up to 1775, population growth was restricted in N.E. Europe and parts of Russia - where there was a dependance on rye-bread - due to insidious poisoning by Ergot. She also argues that disorders arising from Ergot poisoning were often misdiagnosed in the past as contagious disease and that there were higher levels of susceptibility to disease due to an immunosuppressive function of the mycotoxins. The theory is not universally accepted.

Reassuringly, modern methods of processing and cleaning grain remove Ergot from wholesome grain, and, in advanced countries in normal circumstances, the risk of ergotism has been eliminated.

Reference: *Poisons of the Past, Moulds, Epidemics, and History*. Matossian, M.K. 1989. Yale University Press.

A QUICK GUIDE TO BRITISH SPECIES OF *POLYPORUS* - AND A COUNTY FIRST

Text & most photos by Jo Weightman

Polyporus species are annual and stipitate. The stipe may be attached in the centre or at the side (lateral) or somewhere in between.

2 with large pores easily seen with the naked eye

Polyporus squamosus - Dryad`s Saddle

Key features – huge, scaly, large pores, laterally stipitate, summer

Pileus (cap)
Shape - up to 18cm wide – fairly thin, kidney-shaped to almost circular, several brackets from a branched base
Colour –whitish to ochraceous with brown scales, matt
Texture – fairly fleshy when fresh
Stipe –lateral, black and finely hairy at the base, the upper part often covered by the decurrent tubes
Tube/pore layer –decurrent
Habitat – commonly on ash stumps but also on large pieces of dead wood of a wide range of broad-leaved trees. Also a wound parasite on living trees.
Season – late spring to summer. Soon past its best but rotting slowly. The remains can be found well into the winter.
Frequency – Very common

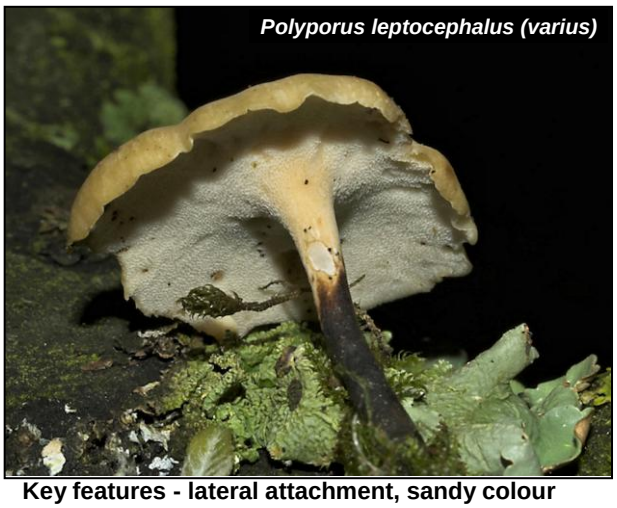
Polyporus tuberaster

Key features – looks and feels like a fleshy toadstool, large pores

Pileus (cap)
Shape - up to 15 cm wide but often much smaller–more or less circular, solitary when on wood. When terrestrial it can be clustered.
Colour –pale tan overlaid with brown scales.. In some pallid specimens, the scales are correspondingly paler and can be hard to see.
Texture – distinctly fleshy, like an agaric
Stipe – often central, up to 6 x 1.5cm, whitish to ochraceous. A black base can be seen under a white hairy coating.
Tube/pore layer –decurrent
Habitat – on fallen wood of broad-leaved trees or can be terrestrial. In the latter case it arises from a sclerotium.
Season – late spring to summer. Rots quickly like an agaric.
Frequency – Common.

2 with small pores, more or less laterally attached

Polyporus leptocephalus (varius)



Key features - lateral attachment, sandy colour

Pileus (cap)
Shape - up to 8cm wide – thin, fan-like to almost circular, singly or in small groups
Colour - dull sandy / dirty yellow / pale ochraceous with darker radial streaks
Texture – tough, leathery,
Stipe – usually more or less lateral, black and smooth at the base, cream above
Tube/Pore layer – often decurrent down to the black part of the stipe and so covering the cream upper part
Habitat – large pieces of dead wood of a wide range of broad-leaved trees.
Season – autumn – winter, drying out and persisting for some months
Frequency – Common

This fungus is better known as *P. varius*.

Until fairly recently a very diminutive relative of the above has been known as *P. varius* var.*nummularius* but it has now been absorbed into *P. leptocephalus* (*varius*) . It differs in its size, only 4cm in diameter and height, in often having a centrally attached stipe and in its occurrence on small pieces of fallen wood, commonly on willow. Cap and stipe colour are the same as *P. leptocephalus* . Interestingly, brackets of intermediate size do not seem to exist or perhaps are rarely observed and I would not be surprised if this fungus were one day re-instated as a variety.

***Polyporus durus* (*badius*)**

Key features lateral attachment, rich chestnut colour

Pileus (cap)
Shape – up to 15 cms wide, thin, fan-like to almost circular, singly or in small clusters
Colour – rich chestnut brown, dark brown to black near the point of attachment
Texture –tough, leathery, smooth, can be glossy
Stipe – usually more or less lateral, black and finely tomentose at the base, chestnut brown and smooth above
Tube/pore layer –decurrent
Habitat – large pieces of dead wood of a wide range of broad-leaved trees.
Season – autumn, drying out and persisting for some months
Frequency – Common

<u>2 small, tough, toadstool-shaped species</u>
(usually growing in an exposed position on top of fallen wood).

Polyporus brumalis

Key features – small species, central stipe, leathery, rich brown, autumn-winter

Pileus (cap)
Shape – up to 6 cms diameter, fairly thin, circular, usually solitary
Colour – darkish brown, no zones
Texture – leathery, with clusters of dark hairs, margin often finely hairy.
Stipe – central, paler than the cap, up to 4cm tall
Tube/pore layer –slightly decurrent. Pores small, just visible to the naked eye.
Habitat – dead wood of a wide range of broad-leaved trees.
Season – autumn and winter
Frequency – Common

Polyporus ciliatus

Key features – small species, central stipe, leathery, pale brown, spring-summer

Pileus (cap)
Shape – up to 10 cm diameter, fairly thin, circular, usually solitary
Colour – light brown, no zones
Texture – leathery, margin may be finely hairy.
Stipe – central, paler than the cap, up to 4cm tall
Tube/pore layer –slightly decurrent. Pores very small, lens needed

Habitat –dead wood of a wide range of broad-leaved trees
Season – spring and summer
Frequency – fairly common

2 rarely seen species

Polyporus melanopus
Key features - appears terrestrial, black velvety upper stipe, decays quite rapidly

Pileus (cap)
Shape – up to 10 cm diameter, fairly thin, flat, circular, often several from a common base
Colour – greyish brown to blackish brown.
Texture - at first finely scurfy to finely scaly becoming glabrous and wrinkled.
Stipe – central, blackish and velvety above, smooth below. Has an underground root-like part up to 5 x 2cm when fresh.
Pore/tube layer –white to ochraceous, clearly distinct from the dark velvety stipe.
Habitat –usually arising from rotten roots of a wide range of broad-leaved trees. Seems to prefer beech on calcareous soils.
Season – summer into autumn**,** decaying quite rapidly.
Frequency – uncommon. One nineteenth century and 3 recent Herefordshire records from Croft, the Doward and Ross.

Polyporus tubaeformis
Key features – funnel-shaped, small, rich red brown, persistant

Has recently been added to the British checklist. First recorded in N. Ireland in 2012 and from Scotland in 2014. This, so far, rare species occurs on dead wood, is deeply funnel-shaped, up to 6 cm diameter, becomes a rich red-brown and may last until the following spring.

And so to the last species – one of the stars of 2016– *Polyporus umbellatus*.

The story began in June with an email from Dr. Judith Oakley.....
Had she found *Polyporus umbellatus*?
Immediate scepticism. .....
But the accompanying photograph took my breath away – it seemed she was right!
I questioned Judith – 'Did you notice any black areas around the fungus?'

By the time I arrived to inspect her find, Judith had been back to the site to check and had found a second fruiting some distance away.. ..
There was no doubt about her identification.and the black 'something' was indeed present.


Dr. Oakley & *Polyporus umbellatus* (photo Brian Griffiths)

Polyporus umbellatus is all but unmistakable

Key features – a football-sized mound of close-packed caps on a much branched stipe.

Pileus (cap)
Shape – each caplet ~3 cm diameter, circular
Colour – sandy to light brown, sometimes greyish
Texture – fairly fleshy when fresh
Stipe – central, whitish, strongly branching
Pore/tube layer –. Decurrent, whitish
Habitat –under broad-leaved trees, sclerotium usually present
Season – June to August. Soon rotting.
Frequency – very uncommon

***Polyporus umbellatus* - sclerotium**

The black something was a sclerotium - a compacted hyphal mass from which a few fungi arise. For example, the delicate club *Typhula phacorrhiza* arises from a tiny lens-like sclerotium, rather like an apple pip. So do *Collybia cookei* and *C. tuberosa*.

When years ago I first saw this species on the Kent-Surrey border, the fungus was arising from a black, hard, roughened mat – this was the sclerotium. It was breaking the soil surface in places and could be seen to extend across an amazing two metres.

I was naturally curious to know if the sclerotium was present and visible in the Herefordshire material. At one of the two sites it could not be found. At the second site it looked as if several sacks of broken asphalt had been dumped in the wood. Loose lumps lay far and wide. A gentle scrape at the soil however revealed the hard, black, irregularly lumpy surface of an intact sclerotium which in places was breaking through the soil while in others the broken edge could be seen. Fruiting appeared to be on the outer limit rather than in the middle. With increasing wonder, I paced it out - seven good strides – perhaps 6 metres! It was a rather solemn moment. Just how long would it take a fungus to grow such an enormous structure?

Why all the broken bits? .....the site was on a steep slope, heavy rain would wash soil away and expose the sclerotium to damage..... maybe rooting boar or running deer were responsible? .....maybe it just happens with age?

I am not putting in print where this wood was, having been informed that the sclerotium commands high prices in the oriental, medicinal market .... for hair loss among other things!

LOOKING, FINDING AND SPREADING THE WORD (Updating The Welsh Rust Fungus RDL)

Text & most photos by Debbie Evans

The Rust Fungus Red Data List for Wales (Woods *et al*) was published in 2015 and it was hoped that this would act as an incentive to fellow recorders to go out and look for rusts in Wales and beyond. With Herefordshire situated on the Welsh border it is quite possible for keen rusters to contribute to the Welsh lists as well as those for VC36. I have always thought it is debateable as to whether some rusts (and other fungi) are genuinely rare, or simply under-recorded: thus, an increased awareness, with more people out looking, is very important in case the latter is true. The BMS's 'Lost and Found' project will, hopefully, answer this question for at least some of its target species, and it does include six rusts in the master list, two of which are discussed here.

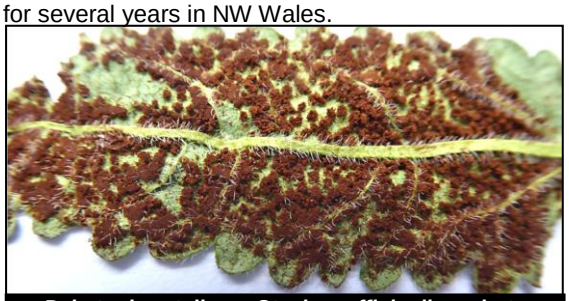
Puccinia major one of the rusts in our RDL was thought to be extinct in Wales, (Regionally Extinct (RE), which is defined as no records in Wales since 1964). It occurs on Marsh Hawk's Beard, *Crepis paludosa* and had not been seen in Wales since 1887, when it was recorded in Meirionydd, VC48. The host plant is not common, but does occur in wet woodlands and ravines on a number of sites in Wales.

***P. major* aecia on *Crepis palustris* - photo Wendy McCarthy**

It was thus excellent news in July 2015 when I received an email from Ray Woods to say that he had found *P. major* in 2 places in a ravine below the Trawsfynydd Lake dam in VC48. Things got even better in 2016 when my friend Wendy McCarthy, the VC49 plant recorder, found the rust on 2 sites in Caernarfonshire while she was out recording. She remembered me mentioning the rust - a good example of how important it is to 'spread the word'. Initially the rust produces little yellow aecial cups on the underside of leaves followed by brown uredinia and telia. I note there is a single record in the FRDBI for Moccas Park, Herefordshire from 1951 which would be well worth looking for again if the host is still present.

Wendy made a further addition to the rust list for VC49 in 2016, by finding *Puccinia betonicae* on Betony, *Stachys officinalis*. This is a microcyclic rust and only the dark-brown telia are formed on the undersides of the leaves. It's not one of our RDL species, being assessed as Locally Common (LC),

but I have been looking for this rust, unsuccessfully, for several years in NW Wales.



***P. betonicae* telia on *Stachys officinalis* - photo Wendy McCarthy**

Now Wendy has found a 'nice, unimproved, little bit of pasture', as she described it, which was full of Betony and almost all was heavily infected. I was pleased and only slightly envious! Again looking at the FRDBI this is an uncommon rust in VC36, with only a single modern record, from 2015. Thus, there is plenty of scope to update the records! The advice is to look for it in old meadows where the host grows.

I have had some significant successes myself. In July 2015 I was walking above Llyn Idwal in the Ogwen Valley and I grabbed a few sprigs of Wild Thyme, *Thymus polytrichus*, to look at with my hand lens as I've done 100's of times before. To my surprise and joy, I saw a little tan-brown pustule on the underside of a leaf. The walk stopped while further leaves were carefully examined and I found a few more infected ones, but all were only very lightly infected. I checked out further clumps of Thyme around the Cwm and I did find one more group of rusted plants, this time with a slightly heavier infection.

The rust *Uredo morvernensis* has only 4 other known British records - NE Galloway in Ireland 1947; Westerness in Scotland 1983; and 2 recent records from Carmarthenshire, VC44 - the latter from a limestone grassland and an upland Old Red Sandstone cliff. It is assessed as Critically Endangered (CE) in the RDL.

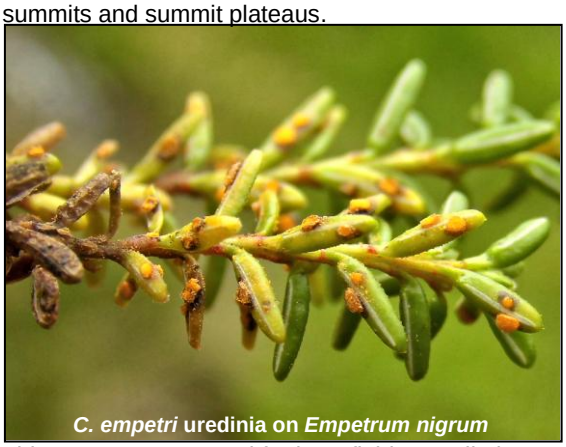
U. morvernensis* uredinia on *Thymus polytrichus

This is a difficult rust to find for several reasons. From my limited experience there is no visible sign on the upper-side of the infected leaves, although I did notice a slight etiolation of some of the shoots. The uredinia formed on the under-side of leaves are tan-brown in colour and I have not found telia. The leaves are tiny, so the best way to check for it is simply to pick a few sprigs and examine them quickly with a lens - or even crawl on the ground looking at leaves as I now do!

I am convinced that this rust will eventually turn up on other undiscovered sites in Wales and beyond: happily, it was still present in Cwm Idwal when I checked this summer. Spreading the word is again important and I have enlisted the help of an entomologist who specialises in the Rainbow Leaf Beetle, *Chrysolina cerealis*.

This very rare and exquisite beetle is associated with Wild Thyme and only occurs on Snowdon - hence its other name of Snowdon Beetle, (there are old records from Cwm Idwal). Thus, while checking closely for either the beetle or the rust, the other might well be found. I would be as thrilled to see the beetle as I was to find the rust. (Photo Christoph Benisch & see 'Chasing Rainbows', in the References at end).

***Chrysomyxa empetri* is in the RDL as Near** Threatened (NT). It infects Crowberry, *Empetrum nigrum*, a shrubby plant generally of mountains and moorlands. The rust has proved to be quite common on the mountains of Snowdonia, yet before it was found in 2010 there had been no records for over 80 years for Caernarfonshire. I have now found this rust on many, if not most of the mountains in VC49, where the host is growing. I nearly always find it high up and more often on older plants with a high degree of exposure, as on summits and summit plateaus.



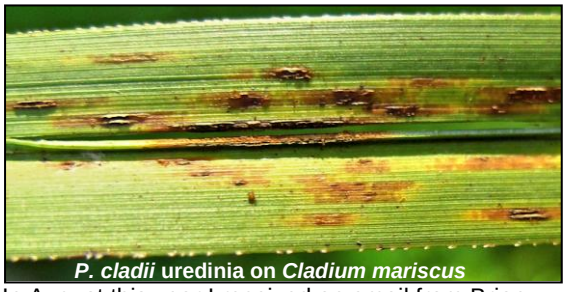
C. empetri* uredinia on *Empetrum nigrum

This summer I ventured further afield, to walk the mountains in Meirionydd and in Mid and South Wales, where I managed to record the rust at several locations. The VC48 records were the first since 1875 and there was only 1 previous Breconshire record.

C. empetri is fairly easy to spot if plants are examined closely. The rust sori (uredinia) are a bright orange when fresh and occur on the upper-side of the narrow leaves and they burst open to release the orange urediniospores. I find kneeling

on the ground and scanning a bush with my hand-lens for the sori to be quite successful.

This must surely be a previously under-recorded species judging by my success in finding it. There are currently no records for England, but keen rusters should look for it on excursions across the border to the Brecon Beacons and other mountain groups wherever Crowberry is growing.



P. cladii* uredinia on *Cladium mariscus

In August this year I received an email from Brian Douglas, Community Fungus Survey Leader for the Lost and Found project, to say that they had found *Puccinia cladii* in Crymlyn Bog near Swansea, where it was last recorded 10 years ago. The rust infects Great Fen-sedge (aka Saw-sedge), *Cladium mariscus,* which can often be found as part of the vegetation suite on calcareous fens.

It was considered extinct by Evans *et al* (2007) with no known records in GB for over 50 years, although there was in fact the Crymlyn record and it was assessed as Critically Endangered (CE) in the Welsh RDL due to the single small site in Wales and its rarity in England. In 2014 it was found in East Norfolk and targeted searches in 2016, as part of the L & F project, have found it on further sites in East Norfolk and, most recently, at Dungeness in East Kent, (pers. comm. B. Douglas).

Encouraged by the success at Crymlyn Bog I decided to target *Cladium* stands on some of the Anglesey fens and found the rust at the first site I visited. I have now recorded it at Cors Goch, Cors Bodeilio and Cors Erddreiniog on Anglesey. Only another ruster would probably understand how pleased I was with these finds! It is not a pleasant rust to search for, with the unforgiving saw-tooth edged leaves and my poor hands and wrists were very sore afterwards ..... but it was a small price to pay.

The infections were never heavy and leaves need to be closely inspected on both sides for small, dark cinnamon-brown uredinia, occurring either singly, or grouped and confluent, and surrounded by the ruptured epidermis of the leaf.

At the latter site I showed the rust to a friend, Dr Mike Howe, senior entomologist with NRW (Natural Resources Wales) and a couple of weeks later he proudly presented me with an infected leaf from Cors Geirch in Caernarfonshire found while he was surveying *Cladium* stands for a rare snail called *Vertigo moulinsiana* - more success by spreading the word!

This rust, considered Extinct in 2007, thus appears to be fairly widespread in NW Wales and even locally common on the fens of Anglesey and Caernarfonshire. It is possibly under-recorded at other sites in Wales and England where the host grows.

Another NRW worker I know has been monitoring the Dwarf Willow, *Salix herbacea*, beds on some of the Snowdonia peaks and he agreed to record any *Melampsora arctica* infection he found. This rust is regarded as Endangered (EN) in the RDL. The orange uredinia occur on both sides of the leaves and are fairly easy to spot, once the tiny *Salix* has been found high up on the mountain plateaus. This has resulted in some new monad records, a further successful collaboration.

M. arctica* uredinia on *Salix herbacea

There was one notable disappointment in 2016, when I was told that a rust had been found on Round-leaved Wintergreen, *Pyrola rotundifolia,* in Newborough Forest, by 2 surveyors while they were looking at ponds. *Chrysomyxa pirolata* is another L & F species and there is an old record from the 1970's from Newborough, which is its only known Welsh site - hence, its classification as Critically Endangered (CE) in the RDL.

Sadly, in this case 'the rust' was not confirmed, so the search goes on to rediscover it. Targeted searches in England have been more successful and I am sure it will eventually turn up again at Newborough, although numerous searches by myself have so far failed, - a little bit of luck might be needed in this case.

There is a great deal of pleasure in finding a fungus personally, but spreading the word will undoubtedly result in new records as I have proved and it is to be recommended. Other mycologists are the obvious targets but, with rust fungi, botanists, entomologists and anyone who looks at plants closely can be asked to help.

One rust I would ask VC36 mycologists to be aware of is *Puccinia heraclii* which infects the really common plant Hogweed, *Heracleum sphondylium*, yet the rust is considered Regionally Extinct (RE) in Wales with no records since 1909. It ***has***, however, been found at Richard's Castle in Herefordshire in both 2003 and 2012, so I urge Group members to look out for this rust in VC36 and to venture across

the border into Wales where it might well turn up….. one day. Happy Hunting!

References and further Information:

Evans, S. *et al*., (2007). *Red Data List of Threatened British Fungi (Edition 2) -Preliminary Assessment*.

Woods, R.G., Stringer, R.N., Evans, D.A. & Chater, A.O. (2015). *Rust Fungus Red Data List and Census Catalogue for Wales*. A.O. Chater, Aberystwyth. Downloadable as a pdf file:
http://www.aber.ac.uk/waxcap/downloads/Woods15-RustFungusRedDataListWales.pdf

The Lost and Found Fungi Project
http://fungi.myspecies.info/content/lost-found-fungi-project

Chasing Rainbows:
http://blog.liverpoolmuseums.org.uk/2015/08/chasing-rainbows-searching-for-the-rainbow-leaf-beetle-on-top-of-snowdon/

Beetle Fauna of Germany www.kerbtier.de

Marion and Alan Rayner have reported instances of *Melanotus horizontalis* on rope fencing, at 2 sites:
i. on the University of Bath campus (photo on right);
ii. at Timsbury, N. Somerset (photos below).

Currently there are only four FRDBI records of it on rope.
We are indebted to them for these photographs.

[See also HFSG News Sheets Nos. 25, p2 & 20, p11]