Herefordshire Fungus Survey Group

News Sheet Nº 31: Spring 2016

Rhodocybe popinalis - Crow Wood & Meadow (4/11/15)

Contents

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Recorder:	Jo Weightman
Chairman:	Roger Evans
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Welcome to the Spring 2016 News Sheet

Once again, I have to apologise for the inordinate delay in publishing this issue. I know that, thanks to all our contributors, it will prove well worth the wait, though.

Ted Blackwell has written about two rarely recorded ascomycetes:

Octospora coccinea - a tiny bryophilous fungus, of the type that he and Tom Preece encouraged us to look out for last year in News Sheet no. 29 (pp10 - 11);

Phaeobotryosphaeria visci - the teliomorph of the much more commonly found Mistletoe leaf spot, *Sphaeropsis visci*. This is not only a first record for the County, but also for the UK. You may have also seen mention of it in 'The Lost and Found Fungi project Update March-April 2016'.

Debbie spent some time last Autumn surveying grassland fungi on five sites on the Llŷn Peninsula, for the National Trust. In this issue she describes some of her more uncommon finds and has illustrated her article with some very nice photographs of them.

Jo sheds some really helpful light into the world of Jelly Fungi (Heterobasidiomycetes), covering quite a number of the larger ones that we may come across. As many of us find these difficult, this is well worth reading.

Several years ago, I remember that Tom Preece spent some time puzzling over a mystery 'Jelly Fungus'. He eventually decided that it was, in fact, not fungal at all, but some of the moisture retention gel of the sort that is used in disposable nappies and also with the compost for potting plants. Graham & Paula Park also came across some of this mystery 'Jelly Fungus' recently and Graham decided to investigate.

I hope you enjoy reading this issue.

The deadline for the next News Sheet will be September 20th. Don't forget that the Editor is always looking for ***your*** contribution(s) to the News Sheet. It is by no means too early to start sending these to me - it does help a great deal if you can send me your articles, photos, etc. as far as possible in advance of the deadline!

Happy reading!

Mike Stroud

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In February, Shane Jones sent me this photograph of a very early appearing Morel (probably the Black Morel, *Morchella elata*, according to Jo*)*, which he found in grass on the edge of some woodchipping laid on a flower border in Lugwardine.

The ascomycete, *Cudoniella acicularis* (Oak Pin), although quite common, is always nice to find - like this one at Oaker Wood on 18/11/2015.

RECORDER'S REPORT FOR 2ND HALF YEAR SEPTEMBER TO DECEMBER 2015

The autumn season has been exceptionally mild throughout. Dry conditions at the outset seem to have caused a shut down – and the ensuing wet weather did not restore fruiting.

Overall, we have seen a good range of dead wood and litter species, but rarely any abundance.

Downton Gorge 09.09.15
12 new site records
This was the Group`s first visit to Downton Gorge National Nature Reserve and a very rewarding one. Simon Cooter from Natural England kindly arranged to transport members to Castle Bridge from where it is possible to explore in several directions. One group went along the north side of the river and a second group along the south.

Agarics and boletes dominated the scene. *Melanophyllum haematospermum* which often occurs in gardens and hothouses, was present in rich deciduous litter. It is cousin to the Lepiotas but differs in having red gills and spores. 5th VC36 record. When *Cortinarius cinnabarinus* was recorded here in 1872 it prompted some purple prose in the Transactions of the Woolhope Club - "its tint is so gorgeous and refulgent as to defy water colours to reproduce – the most luminous scarlet-vermilion pales before it. It is beyond question the most brilliant addition of the year to the British Mycological Flora". Since then there have been no known sightings at this site until now. I was not present but I hope a cheer went up. 3rd site since 1960.


Cortinarius cinnabarinus - Downton Gorge (9/9/2015)


Porphyrellus porphyrosporus - Downton Gorge (9/9/2015) photo by John Bingham

Porphyrellus porphyrosporus is a rarely seen, sombre bolete with green-staining pores and vinaceous grey-staining flesh. It was first found in the county at Croft in the 1990s and this find now gives us a second VC36 site. (Interestingly, it was also collected at Clunton in Shropshire in late October this year. 3rd VC40 record.)

Eastnor Castle 23.09.15
33 new site records
This was a fruitful foray, with a good number of agarics, mainly litter species, beneath the mature conifers set in grass. The mycorrhizal Inocybes were abundant under the trees. *I cincinnata* (formerly *I phaeocomis*) - coll.Sue Hunter - has a distinctive brown edge to the gills, a most unusual feature in an *Inocybe*.

Patricia Morgan discovered two of the day`s 'specials'. One was *Agaricus bohusii,* a large dark 'mushroom' with broad flat dark scales. It usually occurs in clumps although in this instance it was solitary.

On the other hand, her second species, *Gyrodon lividus*, is a bolete which normally occurs singly within a troop, but this time grew in an overlapping cluster. This was a species restricted to alder and listed as Near Threatened on the current British Red Data List. 6th VC36 site. Key characters are the decurrent, strongly blue-green staining pores below a yellow-ochre cap.

Finally, careful examination of some earthstars collected by Cherry Greenway proved to be a fourth Herefordshire collection of the 'new' earthstar *Geastrum britannicum* (see Issue 29 of the News Sheet). The specimens were old and tatty, but diagnostic characters could be seen and the very small spores clinched the identification.

Moccas Park NNR 07.10.15
10 new site records
This was an all-day foray held under a benign sky. The fungi were not having a field day and many that might have been there were not. Nevertheless, a splendid number of species were recorded. Most surveying was concentrated in the lower pastures and under the old parkland trees.

Geoglossum umbratile was picked up at the outset on the car parking side of the road -so not in the NNR. Rather surprisingly the dry, fibrillose *Hygrocybe intermedia* was one of the commonest waxcaps and several members collected the pink waxcap *Hygrocybe calyptriformis*.

A large *Agaricus* resembling an overgrown field mushroom proved to be *A. litoralis* (formerly *A. spissicaulis*).

Cortinarius purpurascens is a large fungus which readily bruises purple. The current position is that the name is retained for specimens growing with conifers,but, if found with broad-leaf as this was, the name *Cortinarius collocandoides* should be used.

Sue Hunter collected a cluster of white, branched clubs from grassland which keyed out as *Ramariopsis subtilis*, a first Herefordshire collection.
Cherry Greenway found a fungus that looked like frost colonising an old myxo. Both elements were identified by Ted Blackwell, the frosting being the rarely recorded *Stilbella byssiseda* (third VC36 record) and the myxo was *Lindbladia tubulina*. This was last recorded in Herefordshire in 1877 and has very few entries on the national database. Ted tells me that it looks like the sole of an old boot!

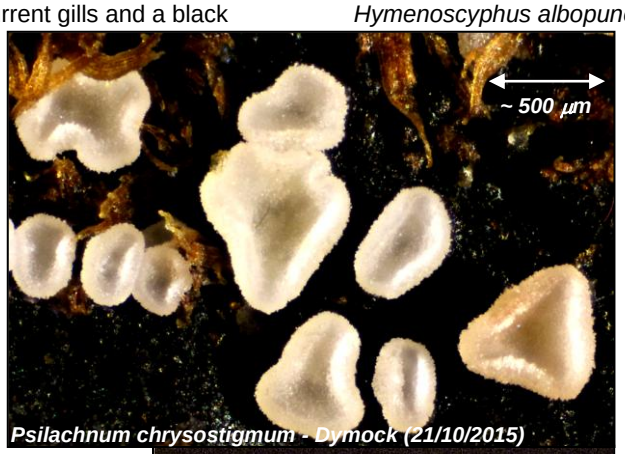
Xeromphalina cauticinalis - Moccas Park (7/10/2015) photo by John Bingham

And finally the greatest surprise of the day - *Xeromphalina cauticinalis*, a distinctly northern species found growing in sheets under a pine by John and Denise Bingham. It is nationally rare, having been classed as Vulnerable in the Provisional Red Data List although removed in the current one. A nineteenth century Herefordshire collection from Merryhill Common was painted by Dr Bull. This is a small yellow- capped fungus with decurrent gills and a black stipe.

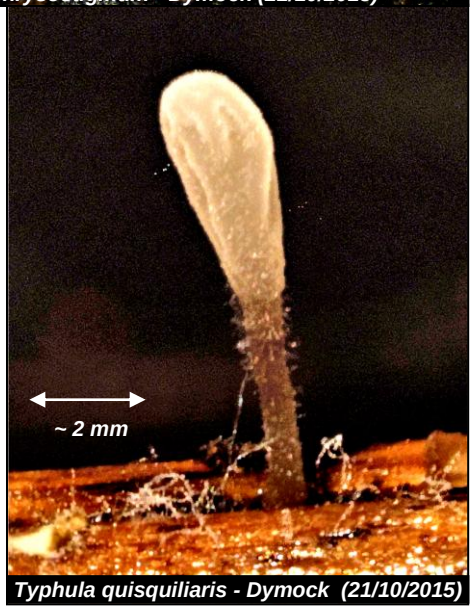
Queens Wood Dymock 21.10.15 17 new records

Much of the wood is converted to conifer so it was no surprise, but as always a delight to see the gelatinous and spiny *Pseudohydnum gelatinosum* on dead coniferous wood and stumps. By far the commonest species seen was *Marasmiellus ramealis* which had emerged in countless thousands in response to the long waited rains. Jelly baby *Leotia lubrica* was abundant in thick litter under beech and here also nestled a large ring of the yellow hare`s ear *Otidea onotica*.

Among the new site records, *Lepiota ignivolvata* is a pale, quite large (for a *Lepiota*) species - the red-brown band on the ring is a good indicator. Identification of a large pallid, brown-gilled agaric collected by Charles Hunter was instant, once smelled – it was the almond- perfumed *Hebeloma radicosum* which arises on a long root-like structure from the underground latrine or nest of small rodents.



Psilachnum chrysostigmum - Dymock (21/10/2015)



Typhula quisquiliaris - Dymock (21/10/2015)

Typhula quisquiliaris is common, but has to be looked for on dead splitting bracken stems. This time it was spotted by Shelly Stroud, who also collected and identified *Psilachnum chrysostigma,* a tiny white disc turning yellow then red when touched.

Bromyard Downs 28.10.15 29 new records

The Group was asked to survey a small patch of woodland dominated by ash and sycamore with some limited sweet chestnut and a ground layer with much ivy and bramble. Despite this unpromising habitat, we recorded a useful list of baseline woodland species and some members reached an area of open grassland at the far end. The lichen flora was very limited – our thanks to Heather Colls for the two! that she did manage to find.

A few common mycorrhizal species (*Lactarius*, *Russula*) were found in small numbers with the sweet chestnut – recording under the other trees was limited to litter and dead wood species. The most dramatic of these was probably the black and white *Coprinopsis picacea,* which was present in some quantity (the pungent smell was equally imposing) and a fine display of the blue-green cups of *Chlorociboria aeruginascens* (coll. Annamaria Paterson).

The slender clubs of *Macrotyphula fistulosa* stood improbably to attention along twigs fallen to the woodland floor. Delving beneath dry fallen leaves, especially of oak, to the damp ones beneath, revealed the tiny *Mycena polyadelpha.*

Hymenoscyphus albopunctus (coll/det Shelly Stroud) is a small white stalked cup which dries yellowish. Although Ellis & Ellis describe it as common on the dead midrib and petiole of rotten leaves, there are very few records on the national database. 2nd VC36 record.

Crow Wood and Meadow 04.11.15 52 new records

There are no new vice-county records on the list this time, but numerous new site records from the cow-grazed pasture nearest the entrance and also from the wood pasture above. Little was recorded from the hay meadow. The diversity of species seen made up for an overall lack of abundance.

<u>Notables in the woodland:</u>
First, a very common species on an uncommon host. Patricia Morgan found Jelly ear *Auricularia auricula-judae* on an attached branch of a wild service tree *Sorbus torminalis.*K.

Rain-soaked mossy trunks of living trees should always be

inspected and we were not disappointed. The tiny blue-grey fluted parachutes of *Mycena pseudocorticola* occurred on Wych Elm, *Ulmus glabra* (Val Deisler), as well as on the more usual oak; *Mycena rubromarginata* was equally tiny – the red edge to the gills is a good distinguishing feature; *Mycena hiemalis* (coll/det. Shelly Stroud) has only been recorded twice before, suffering from being overlooked and confused with other species. It has a grey cap, grading into white at the margin and a powdered stipe.

It was too late for much in the way of mycorrhizal species and there were only a few large other agarics, the wood blewitt being the only one in any numbers. Nonetheless we recorded a satisfying list of base line species, dominated by those occurring on litter and dead wood. Among the more interesting were:

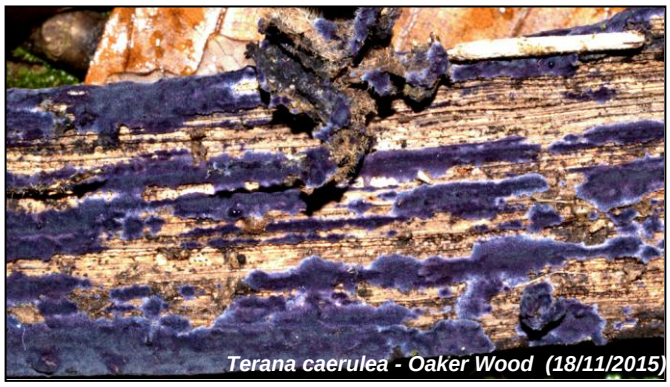
Collybia cirrhata – one of the only three taxa remaining in *Collybia*. All are small and look alike. Two have sclerotia, this one does not. *Lyophyllum connatum* often occurs in troops and clusters close to or even on paths. The caps look like damp marble and smell of pea shucks. *Conocybe rugosa* is distinguished in the field from other small tan species by the presence of a good ring on the stem.

Mycena pseudocorticola ***Mycena rubromarginata - both at Crow Wood (4/11/2015)***

In the grassland:
Hygrocybe virginea was as usual the commonest of the nine waxcaps present but the brownish variety distinguished as var. *fuscescens* is a second vice county record (coll/det. Shelly Stroud). *Entoloma porphyrophaeum* is a handsome and sturdy reddish-grey species with a fibrillose cap and gills that are white before becoming pink. The highlight of the day was a good colony of the infrequently recorded *Rhodocybe popinalis* (see front cover photo), a large grey agaric with a thin wavy margin, which would have passed muster as a *Tricholoma* or *Lepista* had it not had decurrent gills. 3rd VC36 site.

Back home I had two surprises. A battered *Crepidotus* on a twig collected by Paula Park proved to be the far less common *Clitopilus hobsonii* and habitat material presented by Susan Hunter along with a specimen included a lurking holly leaf bearing the tiny, hairy-capped *Marasmius hudsonii*.

After that, it is a microscope job. 1st VC36 record. *Diderma deplanatum* (coll/det Shelly Stroud) 1st VC36 record. *Lyophyllum gangraenosum* (coll. Charles Hunter) is dingy white to grey but discolours black with handling. 2nd VC36 record. *Mycena mirata* is a very small whitish species that usually grows on live mossy trunks but can, as here, occur on litter (coll/det Shelly Stroud) 2nd VC36 record. *Terana caerulea* was found by Val Deisler who was turning over dead wood and found a treasure. This corticioid (crust-like) fungus used to be called *Pulcherricium* which means beautiful, the fungus at its freshest being a glorious inky blue. 3rd VC 36 record.



Terana caerulea - Oaker Wood (18/11/2015)

Oaker Wood Kingsland 18.11.2015 64 new site records

Oaker Wood is used for a range of outdoor activities, but these have impacted little on the wood as a whole. It offers a variety of habitats on undulating ground, with conifer plantation, broadleaf patches and fringes and both managed and unmanaged lakes.

As this was the Group`s first visit, most of the records are first timers – those without the * on the post foray list having been recorded during a recce. made by Mike, Shelly and myself in November last year and another I made in the spring. For the foray we spread ourselves around the site to get a good coverage and met up again to share our finds in a very welcome shelter.

Haugh Wood and Indoor Foray 02.12.15

The weather was kind so we spent the morning in Haugh Wood and repaired to Woolhope Village Hall for a picnic

lunch and to name and share our collections. As a bonus Mike Stroud had brought along his camera and linked computer equipment to demonstrate its paces.

Heather sent us the lichen records – thank you Heather – and noted that *Parmotrema perlatum* is the latest, but perhaps not the final name for *Parmelia perlata*.

The trees had not fully shut down for the winter, so there were a few mycorrhizal species still to be found, including a Junoesque *Amanita rubescens* from Roger Evans. He also collected *Hypholoma marginatum* which occurs in woody litter on acid soils. The cap in a yellow/warm brown range of colours is undistinguished but beneath this the stipe is slender and elegantly clad in grey. At the bottom end of the size scale, Shelly Stroud, picking over leaves, found the diminutive pink *Mycena smithiana* and Cherry Greenway an even tinier white *Marasmius epiphylloides*, a species entirely restricted to ivy leaves.

In the car park Shelly had shown us a pen made by a neighbour from wood stained green by *Chlorociboria aeruginascens* (see above). At the end of the morning Mike Hoult staggered from the wood beneath a large hulk of the conspicuously blue-green timber as an offering for the craftsman.

At the outset the challenge to members was to find the rare *Postia guttulata* which broke onto the Herefordshire stage from this wood in 2013. Accordingly we set off at what was for once a cracking pace for the far north side and it was not long before calls rang out. Congratulations to Heather Colls and Jean Wynne-Jones. It has to be admitted that the interest of the brackets outweighed their beauty. This is the third year running that the fungus has been recorded here. Its importance? It is hard to assess the significance of a species apparently dependent on the rotting stumps of alien conifers!

Amanita simulans - a pearly grey species close to *A. argentea,* Moccas Park, David Michel, 31.08.15. 1st VC36 record.

Clavaria zollingeri - together with 18 waxcaps, 11 clubs, 3 earth tongues, recorded during a recce. An exciting new site. Kentchurch Court, 22.11.15.

Cortinarius bolaris - with oak, Wigmore Rolls Denise and John Bingham, 21.10.15. A 4th VC36 site.

Entoloma pseudoturci - a brown, umbilicate, finely scaly grassland species, Moccas Park David Michel 31.08.15. 1st VC36 record.

Hydnellum concrescens s.l. - on a dry bank Great Doward coll. Cherry Greenway & Jo Weightman, det. Dr Martyn Ainsworth. 11.11.15. Recorded twice before on the Doward but nowhere else in the county.

Microglossum viride s.l. - a greenish earth tongue, in scrub, White Rocks HWT Reserve, Doug Lloyd 23.10.15. 4th county site for an uncommon species.

Nidularia deformis - a Bird`s Nest fungus, on cone of Wellingtonia *Sequoiadendron giganteum*, Upper Grange Bacton coll. Sue Hunter, det. Ted Blackwell, 18.11.15. 1st VC36 record.

Paecilomyces marquandii - a violet coloured Hyphomycete growing over *Hygrocybe virginea*, garden on Common Hill, Fownhope, Mike and Shelly Stroud, 21.10.2015. 2nd VC36 record. And a 3rd record from Colwall churchyard, Sheila Spence, 24.11.2015.

Phellodon melaleuca - on a dry bank close to *Hydnellum concrescens s.l* Great Doward, coll. Cherry Greenway & Jo Weightman, 11.11.2015. 3rd VC36 record.

Podoscypha multizonata - on oak roots Croft Castle Estate, last recorded here in 2005, John Bingham, 25.09.15. Only 3 other sites in the County.

Sparassis crispa - on *Pinus radiata,* Eastnor. John Ockenden 06.10.15. 2nd GB record on this host.

Clavaria zollingeri - Kentchurch Court (22/11/2015)

Paecilomyces marquandii - Fownhope (21/11/2015)

Stropharia albonitens - a snowy white species, cap centre becoming yellow, similiar in stature and habitat to *S caerulea* but never having any blue-green tints, Mathon area Cherry Greenway & Jo Weightman. 04.11.15. 1st VC36. Rarely recorded. K.

Vuilleminia cystidiata - on dead attached branch of hawthorn *Crataegus monogyna,* Woodside Reserve, Great Doward, coll. Cherry Greenway & Jo Weightman, 11.11.2015. 1st VC36 record, rarely recorded nationally.

Other sources

Agaricus porphyrocephalus under oak, Wigmore Rolls Denise and John Bingham, 15.08.15. 2nd VC36 record.

Xeromphalina cauticinalis - a second collection this year! In litter under *Pinus* sp., Holywell Dingle, Mike and Shelly Stroud, 01.11.2015. 2nd VC36 record, a Scottish species, rare in England.

National Fungus Day, Queenswood Arboretum 10.10.15

In addition to the numerous fungi gathered elsewhere for the display, a good range and number of species from the site were generated during the walks led by members of the group. First time forayers were amazed by the number and diversity of fungi found, and this on a day when local conditions were poor following weeks of long dry sunny weather.

***Echinoderma asperum* - Queenswood Arboretum (10/10/2015)**

Mycorrhizal fungi included Russulas, Amanitas and Cortinarius among which the green *R. cyanoxantha* (var./f. *peltereaui*) and dusky purple-red *C. sanguineus* were notable finds at Queenswood. Agarics that were new to the site included *Echinoderma asperum* with its dramatic head scarf of pointed scales and the sombre and highly mealy *Tephrocybe rancida*. Hedgehog and club fungi were seen, the latter colonised by the previously unrecorded *Helminthosphaeria clavariarum*. Another 'double' was *Asterophora parasitica*, hitching a ride on an old *Russula nigricans*. Jelly fungi were represented by *Sebacina incrustans* crawling over some woody debris. The massed horns or funnels of *Craterellus cinereus* and Pseudocraterellus sinuosus, both new site records, added yet more diversity of shape.

Out of County

Phellodon confluens -on a bare bank in mixed woodland on acid soils, coll. Graham Bunting, det Martyn Ainsworth, Clunton, Shropshire 11.10.15. 1st Shropshire record.

Hydnellum sp. - same site as above, coll. Rob Rowe, 03.11.15. Hydnellum species are very rare in the county.

Gymnosporangium sabinae - on *Pyrus* living leaves. Dyrham Park (National Trust property), near Bath. ST740757. VC34, West Gloucestershire. 3.10.2015. Col. & Det: A.D.M. Rayner. Conf. E Blackwell.

Octospora coccinea - on *Bryum capillare* on flat tombstone. at Smallcombe Cemetery, near Bath, VC 6 North Somerset, grid ref: ST763642, 10 February 2015. Coll. Mrs M.L. Rayner, det. E Blackwell. Appears to be only the second record for England, with a total of 14 in Scotland, Wales and Ireland in the FRDBI. See also the note below, by Ted Blackwell.

OCTOSPORA COCCINEA

Ted Blackwell

Apothecia of *Octospora coccinea*

A small orange 2mm diameter Discomycete growing on *Bryum capillare* moss on a tombstone in a cemetery near Bath was sent to me. This keyed out as ***Octospora coccinea,*** of which there are only 13 UK records on FRDBI and only one previous English record (Yorkshire, 1955). The RBG Kew Fungarium has only four specimens, one from Austria, one from Northern Ireland and two from Wales, so this specimen has been sent to Kew as the first English collection. (Collector and photo: Marion L. Rayner, Bath).

A TALE OF FIVE SITES

Debbie Evans

Rhiw: ***Microglossum olivaceum*** ***Clavulinopsis umbrinella*** ***Clavaria amoenoides***

Last autumn I was asked to survey five sites on the Llŷn Peninsula, owned by the National Trust, for their grassland fungi. This resulted partly from a workshop I held in 2013, when I must have inspired Dave Lamacraft, the Welsh Plantlife officer. He subsequently 'discovered' a new site at Rhiw, near to where he lives on the Llŷn and was soon sending me samples to identify or confirm, including the UK BAP species[1] Olive Earthtongue, *Microglossum olivaceum*. He then suggested to the NT that this inland site and four selected coastal ones, all owned by the Trust, should have proper, more intensive surveys. ……And it proved to be a very enjoyable, interesting and productive autumn.

2015 was not the most typical of years for the Grassland Fungi. Generally, they appear between late September and early November, disappearing with the first frosts. However, a wet summer encouraged some of the earlier fruiting species of waxcap, like Blushing Waxcap (*Hygrocybe ovina)*, Citrine Waxcap (*H. citrinovirens)* and Fibrous Waxcap (*H. intermedia),* to appear in late August on some of the sites I monitor and, mostly, they did not fruit again.

The second problem was a long dry period, with no rain at all from September through to mid October, which delayed the emergence of many fungi. Coastal sites are very exposed to wind, are often sloping, generally have short vegetation and can dry up very quickly. My remit was to survey each site at least twice over the autumn period, but my visits in early October proved very poor and I started to worry that I would have nothing to report on. When rain finally arrived in mid October fruiting began properly and, with mild temperatures and a lot more rain, fungi were still around well into November and beyond. In fact, I saw my last identifiable waxcaps in an Anglesey graveyard in mid January, which is unprecedented in my experience.

In total, I recorded 68 of the CHEGD species[2], (C12, H29, E19, G5, D3), and all five chosen sites had a good range of species with at least one Class A species of Grassland Fungi - indicative of the best unimproved or semi-improved grassland. I would like to share some of my highlights from the surveys.

The new site at Rhiw proved exceptionally good. Unlike the coastal sites, the vegetation was longer and the ground remained moister: so fungi did appear earlier in October. This site consists of a series of little fields, possibly once part of a small-holding, and appeared unimproved. It was by far the smallest of the five sites, but fungi were much more concentrated. The brown form of *M. olivaceum* was present in good numbers in the best field and there were many quite large and contorted specimens, as well as the more typical ones with a stipe and fertile head. This is important as a UK BAP and Section 42 species[3].

Another gem was finding several clumps of the beautiful Violet Coral, *Clavaria zollingeri* (see also the "find" at Kentchurch Court, page 6) - always a pleasure to see and I never fail to be impressed by its surreal colour for a fungus; also on the Section 42 list. A total of 17 waxcap species were present on the fields, recorded over 2 visits, including the uncommon Class A, Dingy Waxcap, *Hygrocybe ingrata* and the large and colourful Crimson Waxcap, *H. punicea.* This latter Class A species is not uncommon in NW Wales, as we are very lucky and privileged still to have a number of good sites, despite widespread agricultural intensification. It always indicates a site which has had very little intervention, with the prospect of recording several other species of waxcap in the nearby environs.

The fields additionally supported a good range of Entolomas and further Clavarioids, including several groups of the attractive Smoky Spindles, *Clavaria fumosa*, Beige Coral, *Clavulinopsis umbrinella* and, best of all, a single small group of the rare *Clavaria amoenoides*. This is a pale yellow species with only a handful of British records, including the first confirmed one from near Caernarfon. (Roberts, 2008 & Evans, D., 2009). I have now recorded this species locally at a further five sites, but it remains a rare finding.

[1] UK BAP species = UK Biodiversity Action Plan species, (JNCC, 2007).

[2] **CHEGD** = **C**lavarioids, **H**ygrocybes, **E**ntolomas, **G**eoglossaceae, **D**ermolomas (plus *Porpoloma* & *Camarophyllopsis*).

[3] Section 42 list = Species of principal importance for conservation of biological diversity in Wales. (WBP, 2007).

Uwchmynydd: ***Hygrocybe punicea* en masse** ***Hygrocybe ingrata***

A single Mealy Meadowcap, *Porpoloma metapodium* (Class A), which is considered a good indicator species, was recorded on the first visit. This fairly robust fungus, smelling of damp flour, is seldom found, so it was a pleasing addition to the list. The site thus proved to support a number of quality species and it can be predicted that further species, including some or all of the earlier fruiting waxcaps described above, might also occur there. I will be back this autumn…..

Rhiw: ***Porpoloma metapodium***

The best site, by far, for waxcaps proved to be a coastal site near Uwchmynydd on the SW tip of the Llŷn Peninsula. This beautiful site, including the headlands of Mynydd Mawr, Mynydd y Gwyddel and Trwyn y Gwyddel, has wonderful views over to Bardsey Island. I carried out a one day survey of part of the site in early November 2004 with quite good results, but visits in subsequent years were much less productive, probably due to timing and weather.

In 2015 this site spectacularly proved how small the window can be for optimum recording. The gently sloping land between the headlands is very heavily sheep grazed, resulting in a sward of only a few centimetres length and it is very exposed to the wind, thus requiring a lot of rain to moisten it properly. I visited the site on the 3rd and 11th October, with very poor results. The only fungi of note I saw were a lot of the majestic Parasols, *Macrolepiota procera*, which seem to be able to emerge and survive even on the driest and most exposed of sites. The visit of 23rd October, after some rain, was more successful, but my visit on 6th November, following an extended wet period, was really excellent. Unfortunately, it was also a very wet day, which meant photos were far fewer than I would have liked, but the records were not!

The Grassland Fungi were fantastic, with some large groups of over 100 *H. punicea* and sizable groups of both *H. ingrata* and Nitrous Waxcap, *H. nitrata* - two species I usually only see in singles or small numbers. There were large fairy rings of some of the more common waxcaps, such as Butter Waxcap, *H. ceracea*, and Snowy Waxcap, *H. virginea*, good groups of Cedarwood Waxcap, *H. russocorriacea*, and Honey Waxcap, *H. reidii,* amongst others, as well as several species of Entolomas, Geoglossums and Clavarioids. The total number of waxcap species recorded on that day was an impressive 26. This is of significance, as it has been proposed that the number of waxcap species recorded on a single visit and over several visits can be used as one way to assess and compare the value of a grassland site.

Conservation Value	Hygrocybe *spp. in one visit*	*Total no. of* Hygrocybe *spp.*
Internationally important	***15+ (?)***	***22+***
Nationally important	***11-14***	***17-21***
Regionally important	***6-10***	***9-16***
Locally important	***3-5***	***4-8***
Of no importance	***1-2***	***1-3***

The site classification system of Rald, (1985), adapted by Vesterholt et al, (1999).

On this basis, Uwchmynydd with 26, (27 in total over all surveys), easily qualifies as of International Importance. Again, it is very possible that some of the early species might be present, so the total number of waxcaps could be even greater. A week later I visited the site again but, following a few days of strong, drying and desiccating winds, the fungi had all but disappeared, or were unidentifiable. The window had closed!

I have surveyed the coastal strip at Trefor on several occasions, so there was a reasonable list already, including *H. punicea* and a further Class A species, Splendid Waxcap, *H. splendidissima.* The adjacent fields had not been looked at before.

The ones nearest to the coast seemed to have had a limited amount of improvement, but the more inland fields appeared fairly lush and improved, so were not expected to be very productive. However, a few interesting species were found, mainly in between areas of gorse to the side of the more coastal fields. A single Pink Waxcap, *H. calyptriformis,* was found on one field in early October, the only record from any site. This was surprising, as it is a fairly common waxcap, but it is sometimes an early

species: it may fruit earlier on coastal sites and thus could have been missed.

In one of the gorse areas Straw Club, *Clavaria straminea,* was recorded. This pale-yellowish club with a distinct, more yellow, sterile stipe is a RDL species, (Evans, S., 2007). Until recently, *C. straminea* was poorly known in Britain. However, it has now been recorded quite widely in both upland and lowland grasslands, as a result of the increased recording effort on Grassland Fungi and I find it fairly regularly in NW Wales.

Nearby, I found some beautiful yellow waxcaps with dry, very scurfy caps and deeply decurrent gills. These were yellow variants of the more usual, orange to reddish-
Nearby, I found some beautiful yellow waxcaps with dry, very scurfy caps and deeply decurrent gills. These were yellow variants of the more usual, orange to reddish-orange Goblet Waxcap, *H. cantharellus,* which I had not seen before. An unusual subspecies of Snowy Waxcap, called *H. virginea* var. *fuscescens,* completed the hat trick. It has a buff coloured cap with a brown central spot and brownish radial striations and is only occasionally recorded in Caernarfonshire. (The more common variant, *H. virginea* var. *ochraceopallida,* also occurs on the coastal strip at Trefor). With a cumulative total of 24 waxcaps (plus the two *H. virginea* subspecies), recorded in 2015 and before, and a maximum of 18 on a single visit (9/10/15), Trefor is also ranked as of International Importance for its waxcaps. (The new Rhiw site with 17 waxcaps, 16 on 10/10/15, ranks of National Importance and is predicted to rank higher with more survey effort).

The site at Penarfynydd proved how a source of moisture can dramatically affect fruiting. On the early October visits, all of the coastal sites (including most of this site) were very poor, but a small area of north facing slope on the side of the headland here 'bucked the trend'. With no rain there must have been an underground source of moisture, via a spring or similar, allowing the ground to remain moist and the fungi to fruit. It was very 'busy' with lots of the typical heath loving species, like Heath Waxcap (*H. laeta*), *H. reidii*, Parrot Waxcap (*H. psittacina*), Star Pinkgill (*Entoloma conferendum)* and several large groups of Golden Spindles (*Clavulinopsis fusiformis)*.

A pleasing sight was seeing a lot of the uncommon to rare waxcap, *H. vitellina,* nestling in the moss. This small yellow species shows a preference for damp mossy habitats and often only the top of the cap is visible, sometimes appearing white through loss of pigment. It has decurrent gills with a viscid gill edge, a unique feature only shared with *H. laeta*. *H. vitellina* was also recorded in small numbers at Trefor and Uchmynydd, on steep slopes down to the sea. Disappointingly, despite several visits to this slope no Class A waxcaps were recorded there, although 3 were recorded in late October/early November on the main headland.

The most significant species on the slope were good numbers of Short Spored Earthtongue, *Trichoglossum walteri*, another RDL species (see photo on next page). It can have a bigger fertile head and shorter stem than the much commoner Hairy Earthtongue, *T. hirsutum*. However, the most reliable way of separating the 2 species is by their spores, as *T. walteri* has 7-septate spores and they are up to 15-septate in *T. hirsutum*. *T. walteri* has been found occasionally in both upland and lowland grasslands in NW Wales and it occurs frequently at Eithinog, Bangor, which acquired SSSI status in 2008 for its Grassland Fungi assemblage including this species.

The site at Penarfynydd was one of the best that I have seen for the Earthtongue. Despite no concentrations of fungi on the rest of the headland, Penarfynydd yielded a total of 21 waxcap species, 16 on a single visit, ranking it as of National Importance.

The fifth site, at a headland called Pen Y Cîl, was the poorest in terms of the total number of waxcaps recorded, (12), but still yielded good numbers of *H. punicea* on later visits, along with a good list of other species - still **indicating an important, unimproved grassland habitat.**

The surveying and recording of Grassland Fungi on sites like the five on the Llŷn Peninsula is important, as it highlights areas which need continued sensitive management to conserve these beautiful fungi. Suggestions for future management will, hopefully, be put in place now, to ensure that the sites continue to be naturally grazed with no artificial fertiliser, or other inputs. Future generations will then still be able to enjoy these disappearing grassland gems.

Trefor: *Hygrocybe cantherellus* (yellow form)

Hygrocybe virginea* var. *fuscescens

Please note: For ease and clarity I have used the nomenclature of Boertmann, (2010) for the waxcaps, *Hygrocybe* species discussed in this article. However, following recent DNA analysis, they have been reclassified and several have been given new generic names. (Lodge *et al*, 2013). The new names where applicable are shown in the table below:

Penarfynydd: *Trichoglossum walteri*

LATIN NAME	REVISED LATIN NAME	ENGLISH NAME
Hygrocybe calyptriformis	*Porpolomopsis calyptriformis*	Pink Waxcap
Hygrocybe ingrata	*Neohygrocybe ingrata*	Dingy Waxcap
Hygrocybe laeta	*Gliophorus laetus*	Heath Waxcap
Hygrocybe nitrata	*Neohygrocybe nitrata*	Nitrous Waxcap
Hygrocybe psittacina	*Gliophorus psittacinus*	Parrot Waxcap
Hygrocybe russocoriacea	*Cuphophyllus russocoriaceus*	Cedarwood Waxcap
Hygrocybe virginea	*Cuphophyllus virgineus*	Snowy Waxcap
Hygrocybe vitellina	*Glioxanthomyces vitellinus*	A Waxcap

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NOTES ON SOME LARGER JELLY FUNGI

Jo Weightman

Tremella aurantia* on *Stereum hirsutum

This started as a note on two jellies to look out for and, somehow, it just grew!

My two starting points were

i. Exidia recisa, found by a friend Ian Fraser last year in N. Wales, where it was hanging along willow branches like jewels and

ii. the Witches Butter look-alike, *Tremella aurantia*.

Along the way this has become a brief discussion of look-alike 'jellies', some common jellies and a reference to a few others to look out for.

All the fungi below, bar one, have conspicuous fruiting bodies; and the odd one out gives itself away. Although with their often somewhat diffuse shapeless bodies and wobbly texture, the jellies look rather out of place beside agarics (toadstools), brackets, crusts, hedgehogs, clubs and stomach fungi, they are actually all basidiomycetes ie they disperse their spores in a similar way.

Nonetheless, the basidium of the jelly fungi - the actual spore-bearing structure - is distinctive in a variety of ways. In the group including Tremella, the basidia have cross septa (walls) giving a hot-cross bun-like appearance. In the Exidia group, the septa are horizontal, with long sterigmata coming off sideways from each division and in the Dacrymyces group the

basidia divide at the top into two so that they look like tuning forks. Because of these differences, the jelly fungi have been described as a ragbag of fungi. What they have in common is the 'sensible' ability to control spore delivery.

The jelly fungi do so at will, unlike their more foolish relatives which, at maturity, shed their spores willy-nilly into the world, having only desiccation and death as a means of stopping the wasteful process. Spores require damp conditions for germination. In dry weather, jelly fungi switch off and 'hibernate `, shrinking to a dry wisp or waxy skin. When rains come they become engorged, take on whatever shape is possible with that weight of water and recommence sporing. This coming and going process can be repeated again and again. They are not seasonal – if it is wet enough for long enough, they will swell up.

PARASITES

TREMELLA species are all parasites on other fungi. Some produce a conspicuous fruitbody; others live as parasites on the mycelium of the host fungus and are invisible. Spores are globose or broadly elliptic.

The best known is witches butter ***Tremella mesenterica*** which parasitizes ***Peniophora*** spp. The bright yellow, shiny fruitbodies are found on dead, attached or fallen branches of broad-leaved trees and shrubs, with a preference for gorse and hazel. The *Peniophora* host may or may not be visible. Common.


Tremella mesenterica

Be aware however that there is look-alike yellow species, to be found in the same places. This is ***Tremella aurantia*** (see photo on previous page), which is somewhat larger, more frondose and usually less bright - indeed it is often matt or even pruinose with surface conidia. Both this species and its close relative above can be much paler or whitish, when aging or overcharged with moisture. The fungal host is ***Stereum hirsutum,*** which may still be present in recognisable form, or totally reduced by the invader. Under the microscope, hyphae of the host would be visible in the tissue of the parasite. The spores of this fungus are smaller than those of *T. mesenterica* and the basidia differ in being stalked. Just five county records so far, but I wonder how many *T. mesenterica* records are misidentifications of this species.

Tremella steidleri, like *T. aurantia* which lives in association with ***Stereum hirsutum*** and is microscopically identical (!) is similarly matt and often pruinose. However, it is totally different to look at, being brown not yellow and forms quite large lumpy not floppy mounds about 5 cms across. As the host is common on a wide variety of broad-leaved trees, one might expect this species to be widespread. In England however it is only known from four counties in the south east but there must be chance of an occurrence in Herefordshire as it has been recorded in Wales.


Tremella steidleri


Tremella foliacea

Tremella foliacea is thought to be parasitic on the mycelium of ***Stereum rugosum***, a species commonly found on hazel, which is where this jelly fungus most frequently occurs. At its best, the clump of thick, leaf-like, very flippy-floppy lobes, will fill the hand. The colour ranges from pale brown, through rich brown, to blackish. It has been reported from conifer wood – where, if found, any nearby host fungus should be noted. Fairly common in the County.

Tremella encephala is parasitic on *Stereum sanguinolentum,* a bleeding bracket restricted to **conifers**. The fungus is forms pinkish, brain-like, lobed fruitbodies up to 3 cm across, with a hard, white core if cut open. This core is of all that remains of the host fungus, entangled with hyphae of the *Tremella*. No Herefordshire records so far: so look out for pink 'blobs' on dead conifer wood..

Tremella exigua is a very small dark olive species, occurring at the base of dead or dying **gorse**.

Tremella versicolor is probably more common than the few national records suggest, being very small (0.5 – 2mm). It forms reddish brown buttons or discs on ***Peniophora*** spp. Look at dead branches of deciduous wood for grey, or dusty mauve crusts – ie the *Peniophora*. If the crust looks spotty, look closely with a lens at the spots. Herefordshire has only one record so far - from Nupend in 2003 - when it was identified by Peter Roberts. In his paper (2001) on this genus Peter states that "it is unusual in being almost entirely conidial....These odd-looking structures make up most of the basidiome (fruitbody)."

Tremella globispora resembles the common saprophyte, *Exidia thuretiana* - ie it forms fairly firm whitish pustules - but occurs parasitically on **pyrenomycetes,** such as *Diaporthe* and *Eutypa*. There are recent records from Mains Wood, Putley and Frith Wood.

SAPROPHYTES

All the species mentioned below are saprophytic on **dead wood**

EXIDIA species have sausage-shaped spores. Two whitish ones:

Exidia nucleata is a very common jelly fungus occurring on fallen, usually decorticated **deciduous wood,** consisting of whitish, semi-translucent pustules, each of about 5mm across and perhaps 2cm when several merge together. When fully charged, the texture is very soft and watery. Within the jelly there are chalky white intrusions. These may be difficult to see when the fungus is fully charged, but a few hours of shrinkage on a windowsill will reveal them.

If no flecks are present by then, you are probably looking at the next species *E. thuretiana*. *E. nucleata* is very common in the County.

Exidia thuretiana appears to be even more common than the above and occurs on fallen **broad-leaved wood, especially ash**. The fruiting bodies are less watery than *E. nucleata*, seeming to hold their shape better. The whitish to pearly opalescent fruit-bodies seem more 'set' and have no flecks.


Exidia thuretiana

Two black species - one is cushion or top-shaped, the other is tightly rippled like astrakhan:

Exidia glandulosa is a thick flat-topped species of up to 3cm across, sometimes singly and often in close, but not coalesced groups, on dead attached or fallen wood of **deciduous trees** - most commonly on **oak**, hazel, or beech. The upper flat surface is speckled with pimples. Spores are white. (The ascomycete, *Bulgaria inquinans,* is very similar, but has no pimples and has black spores which often rub off onto ones hands). *E. glandulosa* is common in the County.


Exidia glandulosa


Exidia plana

The second black jelly is nowadays called ***Exidia plana***. The fruit-body is a confused, tightly congested mass, such that no individual button, or pustule, or flat- topped body can be made out. It is described as having brain-like folds - I like the astrakhan comparison. It grows on a wide range of **broad-leaved** hosts, but less often on oak. Common in the County.

Exidia recisa [see Ian Fraser's photo on next page] As I have never seen this species, I was green with envy when I heard about the branches bejewelled in the winter sun – this species has been given the name Amber Jelly. *E. recisa* hangs from dead attached, or fallen **willow** branches. Fruit-bodies are initially top-shaped, becoming less shapely as they enlarge and become pendent. One record – Moccas Park 2011.

Exidia saccharina occurs on dead **pine**. The fruit-body is convoluted, or brain-like, in shades of brown from pale orange through full orange to fawn and rich brown I have personally seen it, just once, in Kent but, as it has been reported from Wales, it may well be lurking in our damp pinewoods.

Exidia repanda, like *E. recisa*, is amber-coloured, but forms more distinct buttons and occurs on **birch**. No Herefordshire records.

Guepinia (Tremiscus) ***helvelloides*** was listed in the provisional Red Data list, but has now been removed. It has its centre of distribution here in the Marches, with only occasional finds further afield. It is so large and pink that it cannot have been overlooked and must be genuinely uncommon to rare nationally. Imagine an erect ice cream cornet in baby pink or amber jelly, often split down one side and occurring either singly or in clusters. Look for it in **conifer debris**. In my part of the County I see it where unwanted logs have been tossed aside into gullies and where forested logs have been standing and dropped their bark.

The *Guepinia* is related to the exceedingly common Jelly Ear, ***Auricularia auricula-judae*** and to ***Auricularia mesenterica***. The first need not be described, but records of it on hosts other than elder, ***Sambucus nigra***, are particularly welcome. The second is less common now that its preferred host, **elm** stumps, have largely rotted away but it can also be found on ash and many other **broadleaved** species including gorse. It forms dense tiers of hairy grey to grey-brown brackets with a pale edge, often greenish with alga, which when fully swollen is positively chubby, (I like to say cherubic)., hence the popular name of Tripe Fungus. The underside initially has a whitish bloom but darkens to reddish-brown.

Pseudohydnum gelatinosum – the most well known of the jellies on **conifer**, this species starts as a lump and develops into an umbrella shape, a tongue or a thick bracket. The top side is pale brown or grey – the underside is more dramatic, being covered in white jelly spines. Usually found on stumps.

I had not thought to include ***Exidiopsis*** spp here but *E. effusa* has been in the news recently with headlines of ice sculpture or ice hair. It appears that when the air temperature drops below freezing point but the ground remains above zero, the mycelia of this fungus react by expelling water from the dead wood creating a phenomenon like snowy candyfloss or dense white fur or hair ice. The fungus seems to contribute a chemical causing the icy structure to survive longer than the hoar frost.

***Exidia recisa* (Photo by Ian Fraser)**

Guepina helvelloides

Pseudohydnum gelatinosum

THE PHANTOM FUNGUS (NAEPI-FALS)

Graham Park

After finding what we thought was some form of jelly fungus (Fig.1), on the banks of the Brecon canal between Taybont-on-Usk and Pencelli, we were advised that it was, in fact, more likely to be water retention gel, such as is used with pot plants and also in disposable nappies. I then decided to carry out a somewhat unscientific experiment:

Fig. 1 Original 'find' on canal bank

Fig. 2 Samples on the lawn

4th February 2016.
I placed outside on a lawn samples of disposable nappies[1] and water retention gel[2]
Figure 2 below shows layout; from left to right, Nappy which has been cut open exposing the contents, a complete nappy and a scoop of water retention gel.

5th February 2016.
The samples did not change very much, the weather while being overcast there was no rain. The opened nappy was damp to the touch as was the complete nappy. The water retention gel had grown a little and had the appearance of ice.

7th February 2016.
In the past 24 hours heavy rain fell and the samples had changed considerably (Fig. 3).

Fig. 3 After 2 days

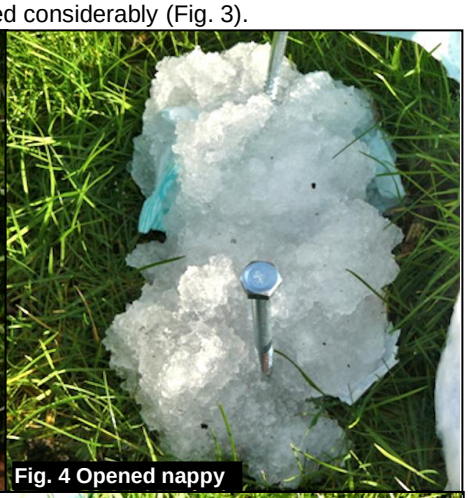

Fig. 4 Opened nappy

Fig. 5 Complete nappy (cut open)

Fig. 6 Water retention gel

Figure 4. The opened nappy had the appearance of white ice, which seemed to be due to the gel's initial crystals being coloured white and also the inclusion of the tissue material of the nappy itself.

Figure 5. The complete nappy was then cut open to reveal similar contents to the opened nappy, but moulded into the shape of the nappy's expanded liner.

Figure 6. The water retention gel resembled a fried egg, with a clear outer and an opaque centre that had the gel crystals still as they came out of the packet. This was probably because they were isolated from the water by the surrounding gel. As the water retention gel was smooth and clear on the outside, it did not resemble the original sample from the canal bank.

The conclusion I came to at this point was that this was unlikely to be the material in question. Whilst it was very similar to the original samples from the canal in colour, the consistency was somewhat different. However, I wanted to see if rain would further change the material over time.

8th February 2016.
After a very wet and windy night the samples are looking very similar to the ones found by the canal.

Figs. 7 & 8 Material blown off the opened nappies

The material in Fig 8, especially, very closely resembled the sample found by the canal.

I am now of the opinion that nappies, or some similar products, are the source of the “Phantom Fungus”. Looking at the different makes of nappy, the material does vary with different names for the absorbent gels used. This could produce variations in the consistency and colour of the final sample. It is also evident that the weather plays a large part in the final outcome too.

Notes:

1. Extract, CI 61565 *(**Quinizarine Green SS**, also called **Solvent Green 3**, **C.I. 61565**, **Oil Green G**, **D&C Green #6**,)*
2. Gardman Watergel Crystals – Polyacrylamide Gel
   http://www.bio-rad.com/en-uk/applications-technologies/introduction-polyacrylamide-gels

There is just room for a picture of this *Mycena bulbosa* that we found at Moccas Park on 7/10/2015

MISTLETOE – A NEW FUNGUS DISCOVERY

Ted Blackwell

We are aware that Mistletoe occurs abundantly in Herefordshire. No doubt this was the inspiration that led the illustrious Dr Henry Bull to write a 36 page discourse on '*The occurrence of Mistletoe in Herefordshire'* in the 1864 '*Transactions'* of the Woolhope Club. However, although famed later for 'A Foray among the Funguses', at that time he was apparently unaware that mistletoe is the host of several fungus parasites.

But there are few records of these fungi. Unless brought down by storms or by work on trees, seldom does Mistletoe come within reach of forayers to see it close-up - Christmas apart. After such events, there is an opportunity to examine it closely, when both the leaves and the woody parts should be scrutinised for signs of fungal presence. This may be indicated either by discoloured spots on leaves, or dark dot-like spots on woody parts and leaves, which are often evidence of parasitic microfungi.

For those that don't 'DO' microfungi, this is an appeal at least to look closely at Mistletoe when it comes to hand, preferably with a hand lens. If spots or dots are present, do refer the specimen to a microfungus aficionado, because these may indicate parasitic fungi that are seldom recorded. As Herefordshire could claim to be the headquarters of Mistletoe it would be fitting to have a good record of those fungi that occur on it.

The more commonly found is the leaf-spot, *Sphaeropsis visci*, for which about a dozen Herefordshire records exist on the national database (FRDBI). It occurs as a minute black leaf dot and, microscopically, has large conidia. Illustrated details may be found in News Sheet No. 7 Spring 2004 p.8 in an article by the late Ray Bray.

The perfect Ascomycete form, the teleomorph, known by the unwieldy name *Phaeobotryosphaeria visci,* had not been recorded in the UK until recently, when Mistletoe stems collected by Jo Weightman at Yatton were found to have traces of it. The material was sent to Kew and has been confirmed by Dr. Brian Spooner. It will be a first record for both Herefordshire (VC36) and the UK.

Other fungi producing leaf spots are *Plenodomus visci*. There are only two Herefordshire records, separated in time by over a 100 years. Synonymy of mistletoe parasites is a minefield and in the literature this also occurs as the synonym *Plectophomella visci*. Conidiomata are 250-320 µm diameter and conidia dimensions are 4-5 x 1.5-2 µm. Both *Sphaeropsis visci* and *Plenodomus visci* are described more fully in Sutton's *Coelomycetes* (1980).

Two further leaf-spot species, so far without Herefordshire representation, are

Septocyta visci-britannicae, which has narrow mostly 1-septate conidia 16-18 x 1-1.5 µm, and

Septocyta visci, having straight or slightly curved 1-3 septate conidia 28-40 x 1.5-2 µm.

These are more full described in "New Taxa and New Records of Coelomycetes for the UK", by E. Punithalingam and Brian M. Spooner, *Kew Bulletin,* Vol. 57, No. 3 (2002), pp. 533-563.