



Herefordshire Fungus Survey
Group

News Sheet N° 13: Spring 2007



Thelephora terrestris (Mary Knoll Valley – 14/10/06)

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President & Recorder: Ted Blackwell

Chairman: Ted Blackwell

Secretary: Mike Stroud

Treasurer: Ray Bray

Welcome to the Spring 2007 News Sheet

Following on from the mini-series a couple of years ago, 'Small *Mycenas* et Al', in this issue Jo has written an article on field recognition of eight species from the genus *Marasmius*. She has also given us a nice account of her finding the rare *Hydropus scabripes* in the County.

Amongst other goodies, we also gain an insight into Roger's criminal past, have the latest extract from Tom's notebook 'Accessions' and, from Ted, learn about the wood that the timber trade call 'Brown Oak'. As I keep on saying, without your contributions there would be no News Sheet – please keep them coming in!

As a corollary of this, I understand that there are some (well, anyway one!) regular, online readers of these News Sheets, outside the County. If any of you would like to make a contribution to an issue at any time (say, respond to an article, or raise a new topic), you would be most welcome to e-mail the Editor.

HFSG members will have seen that, accompanying this latest issue of the News Sheet, is a draft copy of a key for the genus *Hypoxylon*, by Bryan Lack.

He would be most grateful if people were willing to try this out, to see what modifications might be required and would welcome your comments, suggestions, etc. If possible, he would also like specimens of any *Hypoxylon* finds, other than the common ones (ie *H. fragiforme*, *H. multiforme*, *H. fuscum*).

His e-mail address for comments, etc. and should you require extra copies, is renebryan@coppice34.fsnet.co.uk

Happy reading!

Mike Stroud
e-mail: mikestroud1@btinternet.com

CHANGE OF HFSG OFFICERS

As you can see from the box on the left, we have had a change of some of the HFSG officers since the Group AGM last December.

Sheila decided to stand down from her position as Chairman and Secretary, as she was finding it harder now to arrange her work schedule and also due to other pressures. We are all very grateful to her (and George) for all the hard work, time, enthusiasm and dedication she has put into running the Group, since its inauguration in April 1999.

Congratulations, Sheila and George!

Our very warm – if somewhat belated! – congratulations to Sheila and George on their award of a BMS Benefactors Medal,

'... in recognition of their tireless service to the Society, which culminated last year [2005 – Ed] in their organisation of the Herefordshire Festival of Fungi ...'

Aside from the obvious merit of their own well-deserved claim to this award, it is particularly pleasing to see the BMS publicly recognising field mycologists.

2007 FORAY PROGRAMME & HFSG MEMBERSHIP

Our 2007 foray programme is well under way now and, for those of you who are not HFSG members, you may like to know that the dates of these are:

Wed. Mar. 28 th	Sat. Sep 15 th
Wed. Apr. 25 th	Sat. Oct. 6 th
Wed. May 9 th	Wed. Oct. 17 th
Sat. May 19 th	Wed. Nov. 7 th
Wed. Jun 13 th	Sat. Nov. 17 th
Wed. Jul. 18 th	Sat. Dec. 8 th
Wed. Sep. 5 th	

If you are interested in knowing more about HFSG and/or joining us on a foray, please contact the Secretary at mikestroud1@btinternet.com

If you are thinking of joining HFSG, our annual subscription, at present, is £3 single person and £5 per couple at same address. This entitles you to insurance cover for Group forays and free, printed copies of the News Sheet.

RECORDER'S REPORT
September - December 2006.

BARNETT WOOD (SO3968) 6th September 2006

The site was rather dry despite recent rain.

Hebeloma (truncatum) theobrominum occurred again having been recorded here in 1999. The occurrence of *Boletus appendiculatus* was only the second record for VC36. There are only three previous records of *Dasyscyphus ciliaris* and few records of the uncommon milkcap, *Lactarius decipiens*, which is associated with oak and has the distinguishing odour of Pelargonium.



Lactarius decipiens – Barnett Wood (6/9/06)

A total of about 83 species identified.

BROMYARD DOWNS & BROCKHAMPTON ESTATE. 20th September 2006

At Hillside Coppice (SO6755), a conspicuous orange-coloured mould was noticed on the stroma of King Alfred's cakes *Daldinia concentrica* which was later named at Kew as *Acrostalagmus luteoalbus* (= *Verticillium tenerum*) and was a first VC36 record. It is said to be the cause of a disease of hazel-nut buds resulting in nut crop losses. It can also occur on *Scleroderma*, *Meripilus* and *Trametes*. Another first record was *Sordaria humana* on a rabbit-pellet; however this is not a rare fungus which suggests the under-recording of rabbit-pellet species. In a stand of aspen *Populus tremula* the bolete *Leccinum durisuculum* occurred and is only the third VC36 record. The Powdery Mildew *Sphaerotheca pannosa* was found on stems of dog-rose; this is sometimes called 'rose felt' due to the grey felt-like patches of the anamorph mycelium; the minute dark teleomorph cleistothecia can be found nestling in the felt, sometimes likened to "fleas in a blanket".



Leccinum durisuculum – Bromyard Downs (20/9/06)

In the Brockhampton parkland (SO6854), a specimen of *Fuligo septica* was collected which was atypically ochraceous in colour, at first it was thought to be *F. rufa*, but microscopically the spore size and colour ruled this out. *Ganoderma resinaceum* was recorded on oak in the Brockhampton woodland (SO6855). A total number of species identified for the three sites was about 48.

MARY KNOLL VALLEY AND HAYE PARK WOOD (SO4971-SO4972). 4th October 2006

There were colourful displays of Orange Peel Fungus, *Aleuria aurantia* at a number of places and innumerable specimens of the False Chanterelle, *Hygrophoropsis aurantiaca*, often accompanied by a satisfying quantity of true Chanterelles.



Tremiscus helvelloides – Mary Knoll Valley (4/10/06)
It was interesting to see other colourful species, such as *Tremiscus (Guepinia) helvelloides*



Melastiza chateri – Mary Knoll Valley (4/10/06)

(almost a mascot for this area, now accorded a new English name of "Salmon Salad") and Orange Cup, *Melastiza chateri* whose numerous apothecia were scattered over many square metres of bare soil. Additional finds were the Cucumber Cap, *Macrocystidea cucumis* and *Pholiota graminis* (only the third VC36 record), Ergot *Claviceps purpurea* on *Holcus* grass and an aesthetically pleasing specimen of the Earthfan, *Thelephora terrestris* – see front cover.



Macrocystidea cucumis - Mary Knoll Valley (4/10/06)

A total of about 77 species identified.

HAYWOOD AND HERGEST RIDGE COMMONS SO2756-SO2657. 18th October 2006

This is a bracken and grassland site which rises from 300m at the entrance to the summit of Hergest Ridge at about 420m. On this occasion low cloud reduced visibility to about 30m and absence of view may have redirected attention to the ground as a worthwhile number of species were recorded. A few are new to VC36 database, although this does not imply rarity. Amongst these are Agarics *Entoloma*

scabiosum and *Galerina f. atkinsoniana*. Rabbit pellets and dead bracken stems yielded an interesting harvest of Ascos and other microfungi, some new or infrequent.



Spathularia flava – Hergest Ridge (18/10/06)

A fourth VC36 record was Yellow Fan, *Spathularia flava* (= *S. flavida*) an uncommon Ascomycete, having previously occurred in September at Haye Park Wood and at Wigmore Rolls and Moccas in 2004. *Podospora decipiens* on a rabbit-pellet has been recorded only twice before, similarly *Coprotus ochraceus*, again indicating the under-recording of rabbit-pellet species. *Lichenocodium xanthoriae*, a Coelomycete infecting the apothecia of the lichen *Xanthoria parietina* is only the fourth record, but may be nearly as common as the other parasite of *X. parietina*, the black Hyphomycete mould, *Xanthoriicola physciae*. A total of about 92 species identified.

THE WEIR GARDEN (SO4341). 8th November 2006

Despite recent rains soil conditions were noticeably dry in the higher parts of this river-cliff site indicating rapid run-off. There is only one previous recent record of the Birch Webcap, *Cortinarius triumphans* in 1999 at Barnett Wood. An unusual completely white form of Rooting Shank, *Xerula radicata* (see below) was found and a literature search indicated that white forms are known to occur but are rare.





Geastrum fornicatum – The Weir (8/11/06)

Also amongst the total of about 65 species identified were the Arched Earthstar, *Geastrum fornicatum* and The Yellowing Woodwax, *Hygrophorus discoxanthus*, a beech species.

BLACK HILL, MALVERN HILLS. (SO7640) 22nd November 2006

There are only a few records of the minute *Mycena smithiana*, which occurs on decaying oak leaves (named probably in honour of Worthington G. Smith, a member of the Woolhope Club).



Mycena smithiana – Malvern Hills (2/11/06)

There is only one ancient record of *Physarum bivalve*(+), from 1902, "Hereford area". The flattened upright form of the sporocarps is distinctive, which Martin & Alexopoulos, 'The Myxomycetes', describe as "almost sporangiate fruitings which look like minute clams seated on the

hinged edge." Hence the specific epithet "bivalve". A total of about 97 species identified.



Physarum bivalve – Malvern Hills (22/11/06)

NOTES OF UNUSUAL RECORDS

Interesting records from Herefordshire and neighbouring counties have been reported in addition to those from programmed forays. Inevitably, a number are seldom recorded, or have not been recorded before in VC36, of which the following are representative.

+ = First VC36 record;
(+) = not recorded for more than 100 years, last recorded in Woolhope Club times circa 1870s-1890s.

Pyronema omphalodes. Clifford churchyard SO2545. 26/8/06. Shelly Stroud. A fire site/burnt ground species, seldom recorded.

Hydropus scabripes+. Aymestrey riverside. SO4265. 15/9/06. Jo Weightman, confirmed by Alick Hebrici. See also p 12.

Aureoboletus gentilis. Dinmore Hill. SO505515. 16/10/2006. Stephanie Thomson. Specimen sent to Kew, accessioned as K(M)145665

Tricholoma viridilutescens+. Great Doward. SO553153. 21/10/2006. Stephanie Thomson.

Crepidotus cinnabarinus. Ast Wood. SO6738. 25/9/2006. Roy Mantle.

Cheilymenia fibrillosa+. Ewyas Harold Common. SO385295. Sheila Spence. Sent to Kew, accessioned as K(M)143112.

Poronia punctata (+), on horse dung. Cefn Hill Common. SO272390. 12/11/06. Sheila Spence. Confirmed by Dr. Spooner, Kew, accessioned as K(M)143113. Occurs mainly in the New Forest, seldom recorded elsewhere; last VC36 record in 1877 at Lyonshall Park wood.

Spathularia flavida. Haye Park Wood. SO495717. 9/06. Recorded during foray of the 2006 Preston Montford fungus course.

Ramaria flaccida. Clifford churchyard. SO2545. 18/10/06. Mike Stroud.

Tephrocye anthracophila. Clifford churchyard. SO2445. 7/11/06. Shelly Stroud. A fire site/burnt ground species, seldom recorded.

Geoglossum umbratile; and ***Microglossum olivaceum***. Hardwicke churchyard. SO271438. 1/12/06 Shelly Stroud

OUT OF COUNTY

Battarraea phalloides. Bewdley, Worcs. 24/9/06 and 6/11/06. Cherry Greenway.

Geastrum schmidelii. Bewdley, Worcs, 9/06. Cherry Greenway. Specimen sent to Kew, accessioned as K(M)145631.

Helminthosphaeria clavariarum on *Clavulina cinerea*. Eyemore Wood SO7779. 4/11/06. J. Bingham.



Microglossum olivaceum - Hardwicke Churchyard (1/12/06)

Hygrophorus nemoreus. Craven Arms. SO4283. 28/12/06. Bryan Lack.

A teratological form (also known as a 'monstrosity', due to its deformed or abnormal pattern of growth) of ***Hydnum rufescens*** with curious outgrowths of spines on the upper cap surface. Radnor Hill wood, Clunton. SO3181. Mr. Leif Galtress. 7/1/07. Specimens sent to Kew, accessioned as K(M)143966. Dr. Peter Roberts commented: "I have not come across teratological *Hydnum* before, nor (I think) has Brian [Dr. Brian Spooner]".

As usual, my thanks to collectors and recorders for lists and reports and the results of home-work, whose contribution continues to expand Herefordshire fungus records.

Ted Blackwell, Recorder.



Hydnum rufescens – Radnor Hill, Clunton (7/1/07)



Tephrocye anthracophila - Clifford churchyard (7/11/06)

FUNGAL FRAGMENTS

- *From a Midlands newspaper (we cannot remember which one!)*
Rare mushrooms have stopped developers building houses on the banks of two former reservoirs.

A High Court judge has ruled that the Countryside Council for Wales (CCW) was right to designate the land near Cardiff as a Site of Special Scientific Interest (SSSI).

The decision of Mr Justice Andrew Collins could block plans by the landowners. Western Power Distribution Investments, to develop the site.

The reservoirs, built between 1860 and 1880, are no longer needed and the owners want to build houses there. The CCW designated the site on the banks of the Lisvane and Llanishen reservoirs to protect what it claims

is an internationally important population of Waxcap fungi. Western Power said that the CCW acted in a way that was "premature, arbitrary and unfair."

But in his decision today backing the CCW, Mr Justice Collins said: "The decision was, in the end based on the acceptance that the number of species found in Llanishen justified the notification. Whether or not it was the best site

was not the issue. I have no doubt that the CWW was entitled to conclude as it did. There was ample evidence before it that the number of species made this an important site."

He said the site was of international importance because of the large number of species of fungi on it. CCW identified 28 species of *Hygrocybe* - the Waxcap - on the site.

The judge pointed out that the SSSI notification did not preclude development on at least part of the site.

Mary Hunt

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

- We have noticed a peculiar effect, when examining some specimens of *Hygrocybe laeta*. These were the normal, distinctly yellow, colour in daylight:



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

However, under a 20w long life, low wattage fluorescent bulb (Mazda 20W-S 6L BC) they took on a distinctly greenish hue (simulated below), making us wonder if we had been misled by some *H. psittacina*.



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

Cherry Greenway

Under ordinary tungsten light bulbs the specimens reverted to their yellow colour, but under a 40w fluorescent strip light they again had a greenish hue, although not nearly to the same extent as with the low wattage bulb.

One wonders whether there is the possible basis of a diagnostic tool here, for these (and other?) fungi. Has anyone else had a similar experience with lighting and fungi?

Shelly & Mike Stroud

FIELD RECOGNITION OF SOME *MARASMIUS* SPECIES

Marasmius species are essentially thin-fleshed and tough. The caps are often flatter at maturity than those of *Mycenas* and the majority have a stipe which is white above and increasingly red-brown, perhaps black below. Many will revive if placed in water: a number are host specific.

Two included here are now *Marasmiellus* and not *Marasmius*. They are distinguished microscopically by cuticle characters, but in the field one would never know. Just remember, when recording, to use the longer name for the two very common species with which I am starting.

It so falls out that we have four pairs of species and one extra.

Small, pale and trooping

Marasmiellus ramealis



One of our commonest and best-known species; usually in large troops. On BRAMBLE, especially, but also on broad-leaved twigs and sometimes on larger pieces of wood. Also occurs on conifer brush.

- Cap creamy white with a pale brown centre; can be brownish all over, matt and rather like kid leather; 4-15mm across, thin fleshed, convex becoming flat when old; may be a little striate when moist.
- Stipe pale above and darkening from the base upwards; white pubescent to finely scaly below; quite short – ABOUT AS LONG AS THE CAP IS WIDE - cylindric and tough.
- Gills creamy white, with a hint of pink, adnate.
- Smell none worth mentioning.
- Taste slightly bitter.

Responds quickly to the first rains - perhaps because the host wood is small and exposed on the surface of the woodland floor.

Marasmiellus vaillantii

This species is easily mistaken for *M. ramealis* in the field - similar appearance, similar colour; also tends to be gregarious. But be aware of the HOST: if you see something that looks like *M. ramealis*, but it is

growing on grass (dead or living), sedges or rushes, it is likely to be *Marasmiellus vaillantii*.

On closer inspection the similarities dissolve and differences can be detected.



- Cap creamy, but may have flesh tones when young; matt, often WRINKLED and with long STRIATIONS; soon flat or even funnel-shaped, much the same diameter range ie 4-15mm.
- Gills pale cream, less close than *M. ramealis*, broadly adnate and may appear decurrent on account of the flatness of the cap.
- Stipe very similar, pale above, red-brown below, finely tomentose or powdered, may be a little SWOLLEN at the apex, RATHER LONGER THAN THE CAP DIAMETER, cylindric and tough.
- Smell none.
- Taste mild.

Two with a collar

Marasmius rotula

Probably one of the first you ever learnt and one which never loses its appeal. Appears (?revives) after rain, from August onwards.

A mini-parachute balanced delicately on small woody debris, clustering, or as if in a chorus line. Look under the chute if in doubt and observe how the gills are joined, not to the stipe, but to a collar or

ring encircling the stipe, hence the name rotula = little wheel.

Reviving if moistened.



- Cap initially white becoming brownish ochre in age; matt, thin-fleshed, deeply convex, with a central dimple (umbilicate) and a few deep furrows creating that parachute look; edge scalloped, 5-15mm diameter.
- Gills white discolouring like the cap; distant, broad, adnate; normally all joined to a collar around the stipe.
- Stipe black to dark red-brown; apex white, shiny, tough, horsehair-like; long and very slender.
- Smell none.
- Taste mild.

***Marasmius curreyi* (=graminum)**



Differs from *M. rotula* in size, colour and habitat

- Cap RED-BROWN, centre darker; 3-10mm diameter; similarly grooved and umbilicate.
- Gills white, so CONTRASTING WITH THE CAP; distant, broad, adnate; normally all joined to a collar around the stipe.
- Stipe black, shiny, tough, horsehair-like; long.

Habitat on dry, dead GRASS.

Other *Marasmius* spp with a collar and horsehair stipe include the seldom recorded, tiny, whitish *M. limosus*, which occurs on dead Phragmites and the whitish black-eyed *M. bulliardii*, which grows in broad-leaf leaf litter and is characterised by having a blackish brown spot or pimple in the umbilicus and may have black thread-like outgrowths from the stipe.

***Marasmius cohaerens* and *Marasmius torquescens* (may be *M. lupuletorum* in older books)**



Marasmius cohaerens



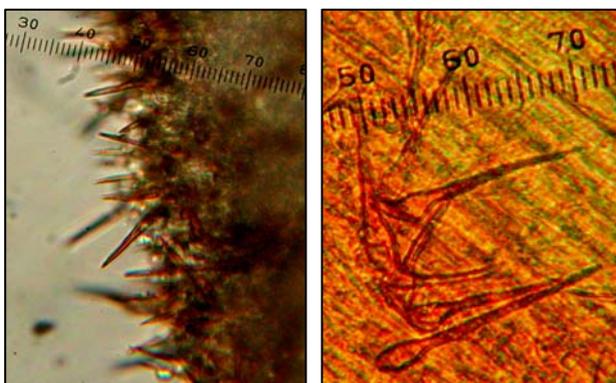
Marasmius torquescens

To shine or not to shine - two very similar fungi macroscopically; most easily distinguished by stipe character in the field.

- Cap yellow-brownish in both species when moist, becoming creamy with a brownish centre when dry; matt, convex, becoming more or less flat; both spp may be striate, *M. torquescens* more so; the size range covers 20-30mm diameter, but *M. torquescens* may be smaller or larger than this.
- Gills cream, broad, almost free. Gill edges BROWN and FLOCCOSE in *Marasmius cohaerens*, but SMOOTH in *Marasmius torquescens*.
- Stipe in both species red-brown, with a white apex and blackening to the base. However, the stipe of *M. cohaerens* is SHINY, whilst that of *M. torquescens* is VELVETY/PRUINOSE.

Taste and smell insignificant.

Habitat: both occur in broadleaved or mixed woodland on litter or debris.



M. cohaerens spinulae on gills (left); *M. torquescens caulocystidia* (right); scale: 1 division = 2.5 μm

Marasmius hudsonii



Both this species and the next one (*M. epiphylloides*) are host specific.

M. hudsonii has been dealt with before in these pages (see News Sheet No. 8), but is included in brief in case you have mislaid this or prefer the *Marasmius* notes all on the same page. I have yet to find this species anywhere, excusable in the South East where there are no known records for it but I blush for my Herefordshire failure.

A very diminutive pinkish-cream species, easily identified by the combination of a punk hairstyle and occurrence on rotting HOLLY leaves. The erect hairs on the cap are easy to see with a hand lens, being 0.7mm long.

M. epiphylloides



Cap white, thin-fleshed, shallowly convex to almost flat; only 2-5mm in diameter, but nonetheless conspicuous because it is so white.

Gills white, distant, broadly adnate.

Stipe red-brown below; apex white, slender.

Taste and smell insignificant.

Habitat: solitary or several on dead or dying IVY LEAVES - usually on the veins and midrib.

The specific name tells us that this species looks like *M. epiphyllus*, which is also white and occurs on leaves. This species, however, grows on leaves of broadleaved trees generally so is not host specific and also occurs on small woody debris on the woodland floor. The gills are usually rudimentary and often fork or anastomose.

***Marasmius setosus* (=recubans)**

This is one of those PINHEAD-SIZED fungi found while rummaging through damp leaves. Many are Mycenas and a different ballgame. Look for the telltale red-brown colour towards the base at least of the stipe, feel the relative toughness of the stipe and go for *Marasmius*.



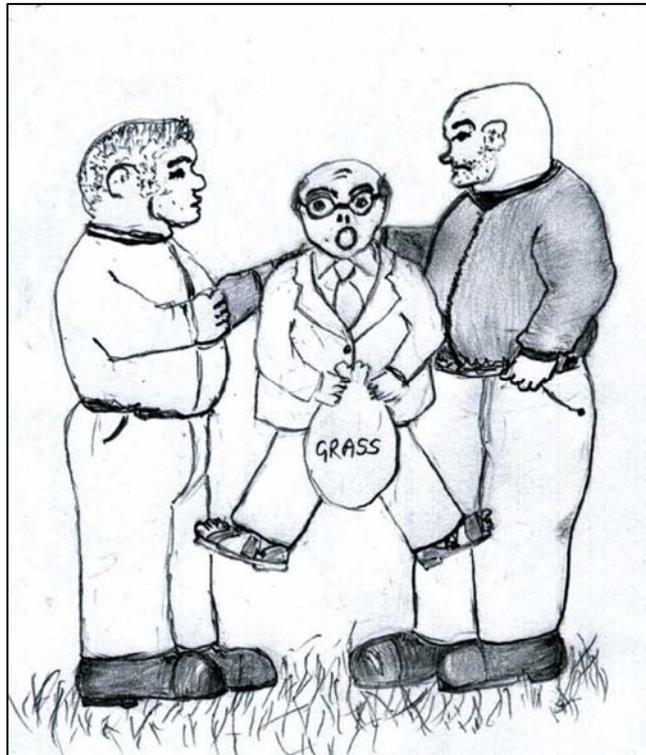
Marasmius setosus

Cap whitish, matt, thin-fleshed, convex, furrowed, 1-4mm.
 Gills white, distant, adnate.
 Stipe red-brown below, white at apex, BASE WITH A FEW SHAGGY HAIRS.
 Habitat on BEECH leaves, usually on the ribs or petioles, more rarely (according to Checklist of the British & Irish Basidiomycota) on oak, hazel and willow.

Jo Weightman

BEWARE THE GRASS!

It all happened a long time ago when I was teaching plant pathology and mycology at Westfield College in the University of London. Westfield was situated in Hampstead, a ten-minute walk from Hampstead Heath. In my plant pathology course for final year students one of the practical classes was on rust diseases. Although rusts dry well and we would examine some diseases from dried specimens, I was always keen that students should examine as much fresh material as possible so usually arranged for colleagues at the Rothamsted Experimental Station to supply me with brown rust on barley and yellow rust and stem rust on wheat. Crown rust on oats was more difficult, for there was not much oats grown in the south-east, yet I felt it was a nice rust to examine, particularly since locally there was plenty of the alternate host, the buckthorn (*Rhamnus catharticus*), with the aecial phase of the disease. Although there was no oats, I knew I could always find some crown rust on *Holcus* sps. on Hampstead Heath. Thus one lunch time I strolled up onto the Heath with my dog at my side and a plastic bag in my pocket.



carrier with infected leaves for a little while, when suddenly the dog began to growl and I looked up and saw that there were two burly men in leather jackets standing in front of me and a burly woman behind me. "What have you got in that bag," one asked. After careful thought that lasted approximately 3 milliseconds I decided that, "b****r off and mind your own business," would not be an appropriate reply. So I mumbled, "grass." A very heavy hand descended on my collar and I was yanked to my feet, the bag was snatched from my hand. Then one exclaimed "it's not our sort of grass but bloody green grass." "What kind of nutter comes here and

collects grass, you breed rabbits mate," said another. I then explained to them that the grass carried an interesting disease and that I was collecting it for a teaching session at the nearby university that afternoon. The woman then explained that they were plain clothes police officers and that the site where I was kneeling and collecting my grass was a favourite venue for burglars to sort through their loot after robbing one of the nearby, large houses in Hampstead. They stomped off muttering that all academics were right weirdoes and complaining about how many forms they were going to have to fill in as a result of my questioning. So the moral is, take care where you collect your grass!!

The spot where I knew the rust to be most abundant was in a clearing amongst some birch trees a little way off a main path. I had been kneeling filling my

Roger Evans

HYDROPUS SCABRIPES



I was without hope. My walk beside the River Lugg at Aymestrey, 13th September 2006 could be for no more than 100m and drought conditions prevailed.

A miracle: I could make out yellow fungi clustering on mossy logs well down a steep bank and just above the waterline. Difficulty was compounded with disappointment and resignation when the quarry proved to be nothing more than *Armillaria mellea* ss, albeit in fine fettle.

Not to wanting to waste my tumble down the bank, I looked about me. A few *Mycenas* were dotted about on the same logs and, had I not been desperate, there they would have remained. But fortune smiled and I gathered first one - twitched - and, with more interest, a few more.

My notebook entry reads:

?*Mycena* or something like one. Cap up to 2cms diameter, grey, centre darker, hygrophanous, very radially wrinkled. Gills slightly decurrent, whitish-pale grey, faces pruinose, not interveined, edge white. Stipe grey with appressed hairs/flocci/pruina. Dense cluster of slightly yellowish hairs at base where attached. Growing singly in moss on fallen larch and possibly also on hardwoods eg ash/alder.

Added later: Flesh not blackening.

Most of the stipe pruina was rubbed off by careless handling, but the photograph taken subsequently does show this important character at the apex.

It was, I think, the markedly plane cap which had caused that twitch. This character reminded me of the "queer *Mycena*", subsequently identified as *Hydropus floccipes*, that a friend and I had collected in 1999 at a reserve in Kent. While my new collection was not the same in all respects, *Hydropus* seemed a good line to follow.

Keying in Nordic Macromycetes led me to *H. scabripes* and this ID was subsequently confirmed by Alick Henrici and the collection deposited at Kew.

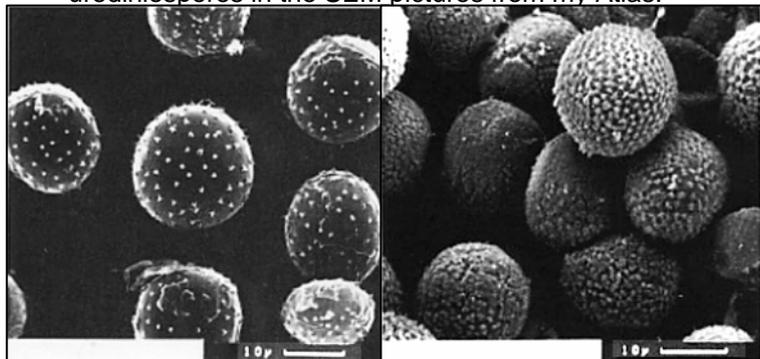
The Checklist of British and Irish Basidiomycota states the species is known from Herefordshire (an error at the time of printing, but now correct because of this collection), North Hampshire and Surrey and reported from Yorkshire, but unsubstantiated with voucher material.

Shelly and Mike Stroud have twice recorded *Hydropus subalpinus* (see Newsheet 10), but this species has inamyloid spores, whereas those of *H. scabripes* are amyloid, as well as being larger (8.5-11.5 x 4.5-6.5 μ m). Alick assures me, by the way, that the omission of *H. subalpinus* from CBIB will be corrected.

Jo Weightman (Text & Photographs)

RECENT NOTES FROM MY ACCESSIONS BOOK

Debbie Evans sent me the pictures of Primrose Rust, *Puccinia primulae*, which she found on Anglesey in May. Plentiful in Devon, but very rare in Wales, this rust is a mystery to me. The last Shropshire record was in 1917. You can see the urediniospores in the SEM pictures from my Atlas.



Urediniospores of *P. primulae* (left) & *C. tussilaginis* (right)*

No less than four Downy Mildews have been of much interest since the last News Sheet. At last, the labour of producing the 2002 Check List seems worthwhile. Two were new to Britain:

- In a field of *Chenopodium quinoa*, being grown for sale in bird seed, *Peronospora quinoa* was found in Warwickshire by the farmer, Mike Poulton.
- In the same County, Gill Brand collected *Peronospora crispula* on Weld, *Reseda luteola*.

Gill also found *Peronospora arvensis* on *Veronica hederifolia*, which is not common here.

In the summer, flowering tobacco in a garden opposite our house - cv. "Fragrant Cloud" - had the lower surfaces of the leaves white with *Peronospora tabacina*. Richard Shattock wrote from Bangor to say that he has it in his garden there every year.

There are few compensations for getting older, but some experiences add to fungal finds. In 1958 there was drama at Harpenden when *Peronospora tabacina* was seen for the first time in Europe. Mr. W.C. Moore told me I was in the first half a dozen people to see it. Embarrassingly, it was seen on tobacco plants being used as virus test plants in glasshouses. In four years it spread all over Europe, North Africa and the Near East. With a vast literature, this Downy Mildew had always been the most dreaded disease of tobacco growing - probably first recorded in Australia in 1885.

Turning to a Powdery Mildew: an ash tree on Llynclys Hill had leaves almost covered with *Phyllactinia fraxini*. As with the common *Phyllactinia*

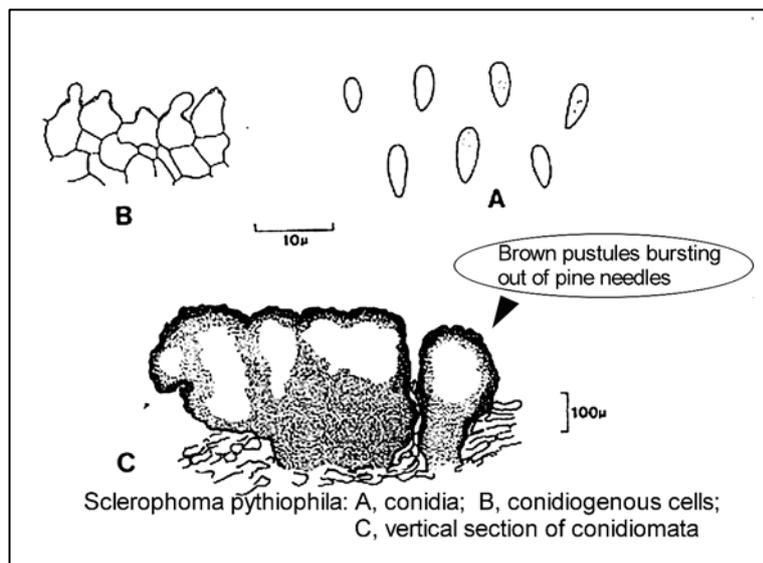
guttata, on Hazel leaves, the striking feature is the mass of cleistocarps - like round balls with pointed, bulbous-based appendages sticking out of their surfaces.

In November, a Wolverhampton resident sent a Groundsel-like plant, which he correctly identified as *Senecio inaequidans*, with a rust, *Coleosporium tussilaginis*. This was a new host record and you can see the urediniospores in the SEM plate.

An exciting discovery of the year was the finding by Arthur Chater, of Aberystwyth, of a brown agaric with a cap 12-20mm across, growing on ergots of *Claviceps purpurea*. How he happened to make this find of *Melanotus phillipsii* is interesting. He was attempting to produce the perfect ascigerous stage of *Claviceps*, which few people have ever seen (read all about it in Preece, Chater & Shattock (2006) *Field Mycology*, 7(2)54-56). On the surface of his ergots grew *Melanotus* (Preece & Chater (2006) *Field Mycology*, 7(3)77-78). This is the second example of a fungus growing on the ergots of *Claviceps*.

David Biggs found masses of bright pink *Fusarium* growing on ergots on *Spartina*, in the Isle of Wight (Preece, Pettit & Biggs (1994) *Mycologist*, 8(1)9-11).

Ted Blackwell identified a fungus producing dark brown pustules on needles of Scots Pine, brought to me by Jackie Pedlow from her home on Llynclys Hill. This was *Sclerophoma pithyophila*, recorded from a few scattered places over the years, but there is no Shropshire record. It seems that this is an endophyte - ie it is like the Choke fungus of grasses, *Epichloe typhina*, living invisibly inside leaves and suddenly producing spores when it decides to! See what the spores look like in the drawing by Sutton below.



Sclerophoma pithyophila: A, conidia; B, conidiogenous cells; C, vertical section of conidiomata

Tom Preece

* from 'An Introductory Scanning Electron Microscope Atlas of Rust Fungi', Preece T.F. & Hick A.J. (1990) Farrand Press

BROWN OAK AND BEEFSTEAK

I was invited to explain a slight mystery concerning "brown oak". Brown oak is the timber-trade name for oak wood which is stained brown due to colonisation of the living oak tree by the Beefsteak Fungus, *Fistulina hepatica*. The brown-stained timber is valuable for decorative veneers and furniture but the question raised was how could the wood be of any commercial value if it resulted from a wood-rotting fungus.

Brown oak is mentioned briefly in a few popular fungus books when describing *F. hepatica*, but without much explanation. More detailed references have to be sought in scattered technical literature, which reveal several interesting features of its occurrence and use.

The fungus commonly occurs on old oak trees (and also sweet chestnut) and the name 'beefsteak' arises because of its raw-meat colour, soft texture and habit of oozing blood-red liquid in damp weather. It is also considered to be edible by some. It is one of the wood rotting fungi and is a heartwood specialist, helping to hollow-out old oaks and thus prolonging their lives. (Spooner & Roberts, 2006).

In the early or incipient stage of infection, parasitic wood rotting fungi often cause a discoloration in the wood and may produce some striking colour effects, although there is little disorganisation of the cell walls at this stage and little decrease in the strength properties. Brown oak (or chestnut) is wood bearing the incipient stage of infection of *F. hepatica* and the enhanced colour of the heartwood is due to the action of this fungus. Under natural tree growth conditions the rot would develop to the advanced or characteristic stage, which is a cubical brown rot. When the tree is cut down and the wood undergoes drying and seasoning, the activity of the fungus is arrested and its action does not progress further. It is true that the richly coloured wood has strength properties somewhat inferior to that of normal oak, but since such wood is used for ornamental purposes such as veneers and paneling, where the strength is less important, this is acceptable (Jane. F.W, 1956).

Suitable trees colonised by beef-steak fungus are sought by timber buyers for the veneer and cabinet-making industries. The wood is very valuable when skilfully converted into decorative veneer and high



Fistulina hepatica

prices can reasonably be asked. In all its main characters, brown oak resembles ordinary oak, but the natural staining gives attractively varied colours that cannot be matched by an artificial process (Edlin 1969).

It seems therefore somewhat paradoxical that the disease-stained timber may be worth, to the timber merchant, tenfold the value of uncolonised heartwood. This increased value depends on the

fact that, although *F. hepatica* is a brown-rot fungus, the decay is very slow to develop so that the wood becomes stained long before losing its mechanical strength (Rayner & Boddy. 1980).

Ted Blackwell

References:

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- Jane, F.W, 1956. *The Structure of Wood*, Black. p212.
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