

North Eastern Fungus Study Group



Newsletter 26

October 2002



Merasmius erinaceus

Photo taken at Minsteracres by Keith Cunningham .

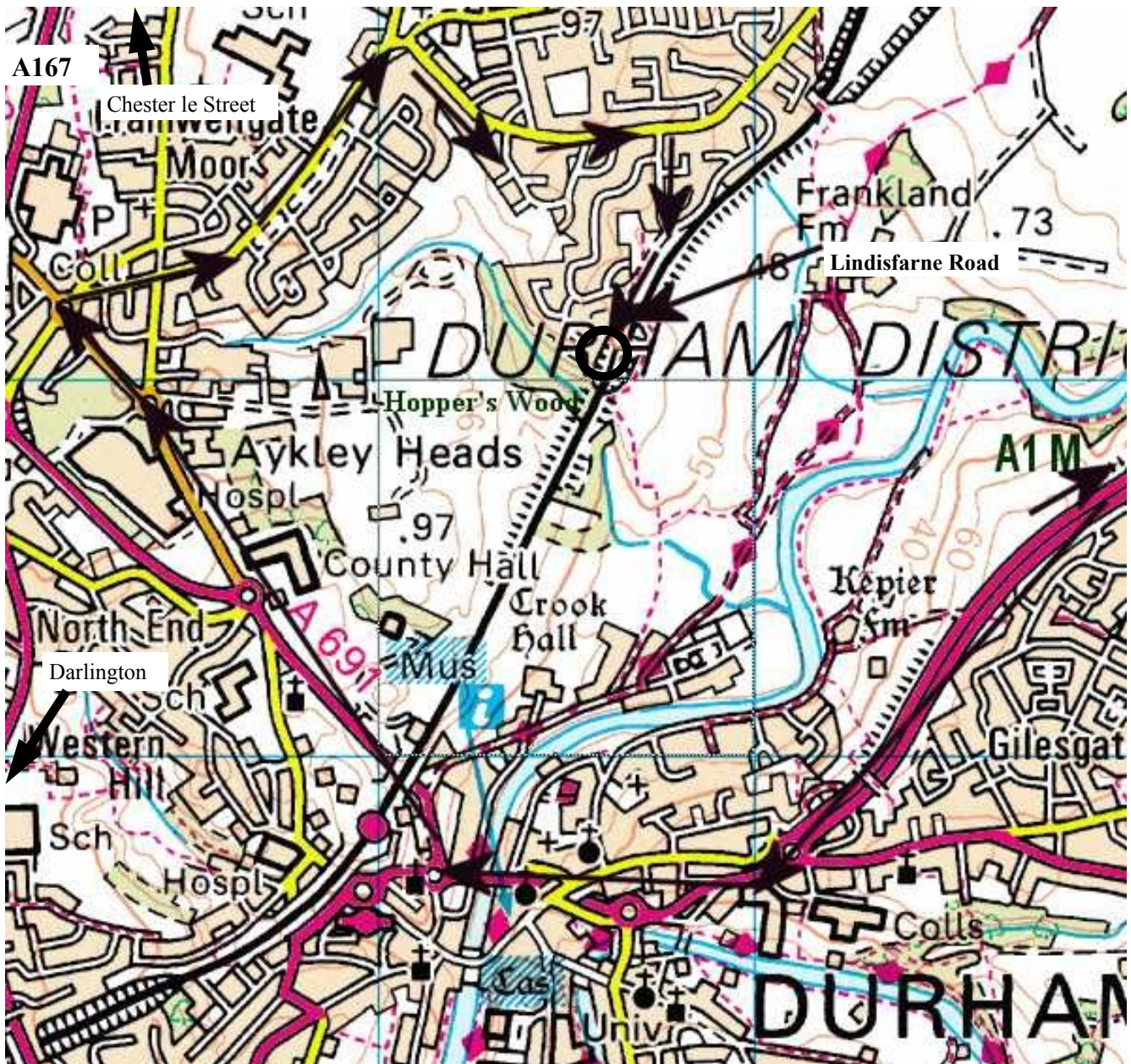
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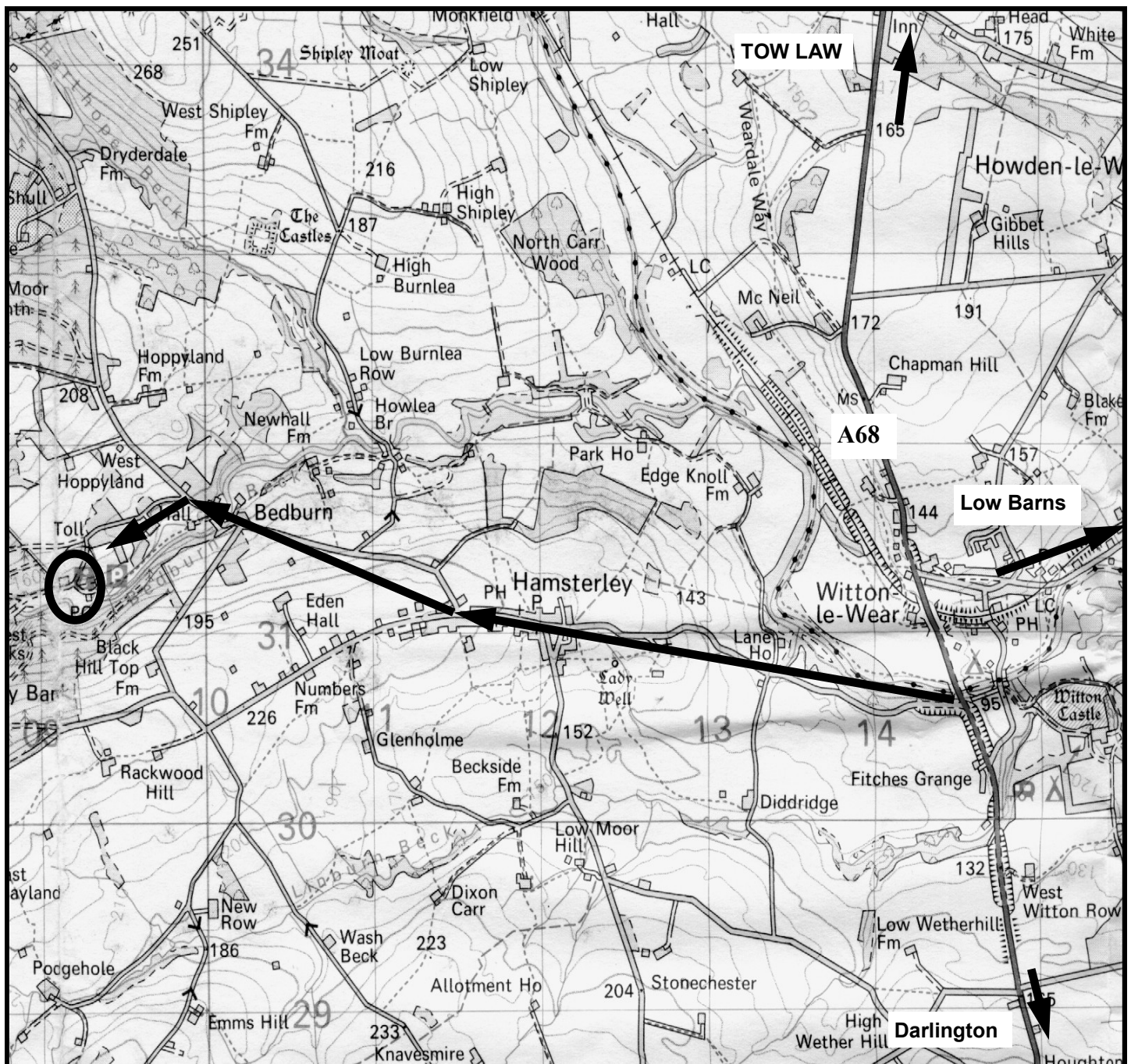
Hoppers Wood Foray Saturday October 11th at 11am NZ 276442

Phil Sanderson will be guiding us around Hopper's Wood a remnant semi-natural woodland just North of Durham City near the River Wear. To get there just follow the arrows on the map and park on the left at the end of Lindisfarne Road.



November Foray Hamsterley Forest & Low Barns, Saturday 9th at 10.30 am NZ093313

Gordon Simpson will be leading us and, because of his contacts with Forest Enterprise, there is no need to pay the parking toll. Fungi will be collected in the morning and taken for Identification and Microscopy in the afternoon at Low Barns, where we will also have lunch. Bring your Microscopes please.



NEFSG COMMITTEE MEETING

Held at Low Barns, Sunday 4th August 2002

Present: Alan Legg, Keith Cunningham, Tom Kirby and Babs Walton.

1. **Apologies:** None
2. **Minutes of last meeting:** Accepted as accurate.
3. **Matters arising:** Item 9: Meeting set for 8/6/02 held today, 4/8/02
4. **October & November Meetings:**
 - (a) The October meeting at Hoppers Wood follows public footpaths, so no difficulties are expected. Phil Sanderson, who suggested this walk, is hoping to be there.
 - (b) The November meeting will be split into two halves with the morning meeting starting at 10.30 am at Hamsterley Forest and the afternoon session at Low Barns. In the Newsletter, Keith will give additional information with maps, requesting that people who have microscopes bring them along to examine the mornings finds at Low Barns.
5. **DWT Journal article – publication & response :**

If the response to Alan's article in the August edition of the Durham Wildlife Trust Journal receives a positive response, a follow up article could be submitted.
6. **Publication of Committee meeting minutes:**

It was discussed and agreed to publish the minutes of committee meetings in the newsletter after the agreement of all committee members.
7. **Revision of Recording Sheet:**

An example of a Y.N.U sheet and sheets previously produced for the NEFSG were examined and discussed. Keith to liaise with Tom & Gordon to produce an improved one for the NEFSG.
8. **Membership/Financial position**

Because of increased costs for insurance and colour printing, it was discussed whether the current outgoings were sustainable. At present the bank balance is stable, but the situation will be reviewed again at the next meeting in mid November.
9. **Insurance:**

As the cost of insuring members on forays has almost doubled and the conditions of the policy increased in complexity, Keith will explore the possibility of insuring through the Durham Wildlife Trust. Furthermore, it was decided that we will need to produce a disclaimer form which visitors who turn up for forays must sign before the foray commences. A copy of the form should be taken by ALL committee members to each foray, as there is no guarantee that every committee member will be there. Alan is also going to write an article concerning insurance in the next newsletter. There is now a greater need for more foray leaders in the group, but all must be fully paid up ABFG members in addition.
10. **Date of next meeting:** Saturday 16.11.02 @ Stodhoe Farm
11. **A.O.B.**
 - [a] **Alan's relinquishment of Chairmanship:** - After the next committee meeting Alan no longer wishes to chair the Committee as he has now done this for five years. He will however remain as Leader of the Group and representative to the BMS and ABFG. He will also continue to write his reports for the newsletter. A notice for the newsletter, requesting people to put themselves forward as nominees for Chairman in January will be drafted by Babs.
 - [b] **Babs' relinquishment of Treasurership:** - Tom has agreed to take over as treasurer, whilst Babs now merges input of records, membership and minutes responsibilities.
 - [c] **MycoRec:** - Keith pointed out that the merging of both of the recording systems, one done mainly by Alan and inputted by Babs and the other consisting of numerous large recordings of Gordon Simpson, was proving less than easy! He is continuing to work on this problem. Alan suggested that a sub-committee, which included Gordon, might be formed. Keith will report again at the November meeting.
 - [d] **Andy McLay:** - Alan will write to Andy expressing the committee's sadness about the loss of his invaluable contribution.

Seeing Red

Tom Kirby

In 1995 the covert south of my home was “harvested”. Lord Eldon had planted the five acres of mixed woodland some sixty years previously and the time had come to reap the reward of foresight. The woodland had become the source of much pleasure for me over the past twenty years. It was close at hand and rarely visited apart from a few amateur poachers who got caught with greater regularity than the rabbits in their own snares. Deer had taken up residence, probably having strayed from Wynyard or Raby, and wildlife in general was thriving. A well established (and listed) badger-set in the south-west corner had reached enormous proportions, having been left largely undisturbed since our local hunt members had decided to spend most of their time in one pub or another debating the reason for their collective existence. You can imagine that I was not best pleased when the bull-dozers and chain-saw gangs moved in... but that’s country life. For over four months the air was filled with the irritable arguing of the saws, the cracking of felled timber and, as autumn approached, the cold smoke from the many small fires which were lit to get rid of off-cuts. I was glad when it was all over and relieved to note that a border avenue of tall Ash, Cedar and Willow had been left around the site perimeter, probably as a wind-break for the new saplings, which had been planted as a condition of the harvesting.

Of course, as soon as the workforce had vacated the area I was off to see what destruction had been wrought, though I was sympathetic to the landowner in his need to be pragmatic. I was not unpleasantly surprised. The new planting was extensive. Mostly Oak but with a judicious spattering of assorted pines and mixed broadleaf. The badger-set had been left entirely alone with its associated mounds, runs and buried tree trunks.

The following year, I visited the site several times. Most of the grassland which had poked like fingers into the original woodland was lush and luxuriant, benefiting from the increased light and plentiful surface water. The site had originally been poorly drained and not suitable for arable use. Due to the much reduced water uptake from the extensive network of roots, now rotting beneath the surface, crescent pools had formed in the deep tracks of the heavy plant. Ragwort and Willow herb, Ground Elder and Cranesbill, all were in the real-estate business. That first Autumn was a bonanza for the Russulas which seemed to sense hard times ahead. Old branches which had fallen naturally over the years were still lying beneath a surface carpet of rotted Cleavers and rampant Bramble. The Russulas vanished as quickly as they appeared and those soggy, buried logs came to life. Still clinging to grubbed out stumps were the remains of old tenacious polypores, dried and hard. Some had contorted as they continued to grow in their new gravitational environment, then died transfixed. The increased dampness of the site was a great accelerator in the decay of the recently felled off-cut timber which had, for whatever reason, been left unburnt.... and so a whole new eco-system appeared. Particularly prominent were the frills of *Coriolus versicolor*, which adorned every cut branch end and could, with a little imagination, be seen from my attic window, with the aid of binoculars!

Due to other pressures I did not visit the area for a year, but in September 1997, after a particularly vigorous rain-storm, followed by a brilliant Autumn sun, I decided to take a quick constitutional over the fields to check on progress. The saplings were just poking through the tops of their protective plastic tubes, but the Elders had taken off and were sprouting everywhere, with new saplings well established in the widespread mounds of badger droppings. The whole area had a surreal spaciousness which was disconcerting after the years of dense foliage and dark woods. The prevailing west wind had helped

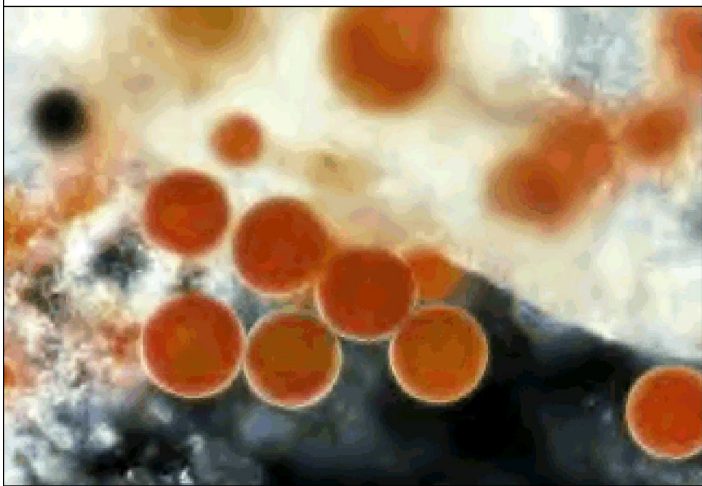
to dry out the land but most of the now well-rotted logs showed signs of terminal structural decay. One or two were still sporting trophies of desiccated polypores, and others were bursting with *Coriolus versicolor*, which glistened with the recent rain. It was whilst heading up the mound to the badger-set that I noticed a particularly colourful out-cropping from a trunk, partially buried in the spoil thrown up by the resident Brock. Although normal in all respects, this *Coriolus* had a vivid scarlet colouration on its dished upper surfaces. The variation was remarkable but not at all what it seemed. I can recall phoning Alan to report and enquire and he confidently predicted that this would most likely be due to some external agent, like algae or a mould. I thought no more about it, and in fact, have not been back since.

I have been to Chobham, though, in Surrey this year. There I found, in the extensive garden of my B & B, an old collapsed solar-panel, used to heat a long gone green-house. The panels were of corrugated black plastic and had been sited to get the best of the noon-day sun. They were now flat on the ground, with pooled rainwater collected on their dished surfaces. The water was scarlet. Same in Marton, near Middlesbrough. Only this time it was an upturned plastic toy fort, left out in the back garden. The rainwater had collected in embossed shallow rectangles moulded into the structure and had become a deep, blood red. Then, of course, there was the watering ring at Stodhoe farm. Again, the rainwater had gathered.... and turned bright red. I began finding the red colouration everywhere. A PVC garden seat, the top of a water butt, on an old *Polyporus squamosus*, inside a crumpled polythene sheet. My wife's forehead. The stuff was everywhere. Now I spend a great deal of time out of doors and I *must have seen this before*..... but no. My only recollection was that *C. versicolor* way back in 1996. Was it the same phenomenon? Well, yes, it probably was. I took a peek at the red precipitate under a microscope. What

I found was fascinating. (To me, dear reader, to me!). The red colouring was the result of a dense agglomeration of small (8-20 microns) perfectly spherical “cysts”, which I originally and incorrectly called “spores”. My thanks to Prof. Brian Whitton of Durham University Biological Sciences Department for putting me right.

I feel slightly ashamed of not having spotted this phenomenon before. At least not in the last 30 years. Apparently it is as common as muck. It is called the “Bird-bath Alga” or if you wish the precision of the Latin name, *Haematococcus pluvialis*. Or *H. lacustrum*. Or *Sphaerella lacustris*. Take your pick. In any event, this alga is well known all round the world and has a number of interesting features. The alga exists in a red form (microzooids), which particularly favours small pools of water which are prone to drying out. This eliminates most competing species and allows the *H. pluvialis* to live in peace. In this form it can exist for a considerable time as a red skin-like crust beneath the water surface, clinging to the substrate. This is known as a “resting” stage. When conditions are right, which is often when unfavourable to the original state, the alga converts itself into a free-swimming organism, green this time, and hurtles about using a little twin in-board motor (flagella) until, presumably, exhausted. Now here's the good bit. The green “macrozooids” settle down into a quiet, sedentary life but with a trick or two left. When nutrients become scarce they begin to look to the future. Bad signs are no food, no water and hot sunshine. So what do you do? Obviously, you go into a coma and turn red. You are now a haematocyst to your friends. This is where we came in. These haematocysts are tough, non-toxic, long-living and possessed of a commercially valuable colorant called Astaxanthine. This is a ubiquitous carotenoid pigment which exists right through the food chain making salmon red and shrimps pink, should they eat the algae. Which they do. We, of course, find other uses for Astaxanthine. We put it into lipstick.

It is big business in Israel (particularly) where the algae can be induced to produce large quantities of the red stuff by threatening it with exposure... to U.V. that is. I am puzzled still as to why I should have noticed the appearance of so much of this algae this year and so little previously. I would like to think that I have spotted early signs that the red weed will take over the world, due to increased UV radiation streaming in through the ozone layer because mankind has left the door open.... but no. I will content myself with that warm glow which comes from the solving of each of life's mysteries. Even though Alan said it was algae in the first place. !



The very common alga *Haematococcus pluvialis* (the circles are red)

Summer Foray at Minsteracres July 20th 2002

Alan Legg

I had long been intrigued by signs to Minsteracres Monastery on journeys along the A68, so when last year Gordon Simpson suggested that permission for a foray there could easily be obtained, I eagerly took the idea on board. When it was mooted at a later Committee Meeting, Keith Cunningham, who also knew the site, was just as enthusiastic.

So it was that Group members approached by way of the long entrance drive with its avenues of magnificent Wellingtonias to be welcomed by Father Mark, present custodian of the former private estate, now run as a Retreat by the Roman Catholic Church.

The main collecting session was spent in what the 19th century map describes as "The Shrubbery" but which now might better be called an intriguingly neglected arboretum. There are certainly some very interesting mature exotic trees, pointed out and described by our Group expert, Gordon Simpson. Otherwise the dominant trees are mature oaks interspersed with a wide variety of others. Most mycological interest, however, lay in damp areas, presumably where original drainage had failed and allowed the intruding growth of willows. Welcome recent rain had ensured the development of a range of fungal fruiting-bodies. There were some puzzling absentees from the final list, no boletes for instance and I can recall very few forays which failed to produce records of either *Coriolus versicolor* or *Bjerkandera adusta*! The few mycorrhizal toadstools were predictable early fruiters, the Charcoal Burner, *Russula cyanoxantha*, found several times, with single specimens of the Blusher, *Amanita rubescens*, and the Grisette, *Amanita vaginata*,



Royal Fern *Osmunda regalis* at Minsteracres, showing its fertile pinnules (flowering stalks) Photo Keith Cunningham

also turning up. A large compost heap near the House added a few more records, including *Melanoleuca cognata* (see Newsletter 25, p. 5), and the Park grassland yielded some common, dung-loving species. In the afternoon, a short visit to the attractive lake produced some more records but was most memorable for a row of the Royal Fern, *Osmunda regalis*, rare throughout most of Britain, and some beautiful Marsh Cinquefoil, *Potentilla palustris*.

It was, however, the morning session which produced the most exciting finds - including two toadstools I had never seen before! The first of these was *Phaeomarasmium erinaceus*, discovered on Grey Willow, *Salix cinerea*, by Alan Dickson. You will find a detailed description of this species in Newsletter 19 by Christine and Hewett Ellis who found it, also in Northumberland, two years ago. There are still no County Durham records though. The other toadstool was handed to me as a row of 4 specimens attached to a thin dead twig by a dense bulbous basal tomentum. The fungi had pale buff caps about half an inch across and stems pale at the apex but a rich red-brown below. There is a picture on page 215 of Courtecuisse & Duhem (1995) but it does not do justice to the stem colour of the fresh specimens. I confess that I cannot remember who handed me these fungi but I would very much like to know for our records' sake. I first suspected a *Collybia* but the expected white spore-print yielded rather large spores each with a single central guttule so I tried *Marasmius* instead and found a helpful spore-drawing on page 174 of Bon (1987). One look through the microscope at the gill-edge provided me with the final clinching character as it was lined with spine-like cystidia each with brown contents at the tip. Rarely is the process of identification so straightforward. The toadstools were unambiguously specimens of *Marasmius cohaerens*, never before seen by me, described as Scarce - Rare in Courtecuisse & Duhem and with records absent from most of the fungus floras in my possession. A cause for great excitement and rejoicing!

The third exciting fungus was actually found twice and, if it hadn't been, would certainly have escaped recognition.

At one point during the morning, Babs handed me a tiny whitish thing with a roughly egg-shaped top and a long, pale, skinny stem, whilst expressing the hope that it might be a certain *Mycena*. There wasn't much light just there, so I didn't look as carefully as I should have done and was inclined to dismiss it as an immature something else. Babs very wisely hung on to the specimen. Later on, the visiting lichenologist, Dougie McCutcheon, handed me a similar, slightly bigger fungus with some accompanying moss, in better lighting conditions. This time something clicked in my ageing brain and I took a more careful look at the "cap" which was clearly studded with regularly-spaced, darker "dots". Immediately the memory returned of a very similar experience I'd had several years before, on a YNU foray to the Hackfall Woods in North Yorkshire, when Archie McAdam had handed me just such a specimen, complete with moss, but arising from a mummified fly. This was identified by me as *Cordyceps forquinonii* and sent to Kew where the determination was confirmed. I checked the base of Dougie's specimen but, alas, could find no dead dipteran. Back therefore to Babs' specimen which was now found to arise from the hoped-for dead fly! Back home, a few minutes' work with the microscope confirmed both fruiting-bodies to be of *Cordyceps forquinonii*, newly recorded for Northumberland.

A small packet was sent to Alick Henrici who rang back to confirm the material of *Phaeomarasmium erinaceus*, *Marasmius cohaerens* and *Cordyceps forquinonii*. The *Marasmius* was considered to be probably the most northerly collection so far in Britain and Alick confessed to being glad not to have to sort out the *Cordyceps* himself as he had never seen it before!

Our total species count for the day was 67 of which only 23 were toadstools. We are hoping to visit the site again, probably in September next year, when a much wider range of species is to be expected. As it is, the rarities we discovered on our July visit helped to make an enjoyable outing truly memorable.

INSURANCE

Alan Legg

I have no intention of analysing the causes, but it is an unfortunate fact that insurance premiums of all kinds have recently reached unprecedented heights. Most forayers don't stop to think about such matters, being naturally concerned only with enjoyment of the outing. Each member of the NEFSG should, however, be aware that a high proportion of their annual subscription goes towards insurance.

Briefly, through our membership of the Association of British Fungus Groups, we participate in a Cornhill Public Liability Insurance Scheme at favourable rates. Until this year we have been able to claim Group rates for ordinary members of the NEFSG. Unfortunately this is no longer possible.

At the moment Full ABFG Members pay an annual fee of £9.00 for which they get quarterly copies of the ABFG Journal. Till now I have been the only Full Member but we have been able to claim Group Membership for everyone else on payment from the kitty of a further £9.00 with the accruing journals being kept at Rainton Meadows for borrowing at any time by interested NEFSG Members.

From August of this year Group Membership ceased to exist and Full Members of the ABFG will, in future, pay their contributions to insurance directly when submitting their membership fee. All other NEFSG members are now registered annually as Temporary Members of the ABFG and have to pay £1.80 p.a. from the kitty as their contribution, much higher than the rate hitherto. This naturally puts a strain on our resources but we are glad to reassure you that we shall not yet have to raise our subscription rate.

In the meantime, pressure on our capital would be considerably eased if more of you

were to become Full Members of the ABFG and receive your personal copies of the ABFG Journal every three months. If you have not already done so, why not tell Keith Cunningham you would like to borrow a back copy from Rainton Meadows to help you make up your mind? The journal has a strong conservation bias and is generally written in a much more accessible style than any of the BMS publications. Its editor, Michael Jordan, is always ready to consider articles and letters from ordinary members of Fungus Groups, so this is a real opportunity to have your own voice heard at a national level. Moreover, about a third of your subscription goes towards fungal conservation. If you decide you would like to join, I have some copies of the application form together with leaflets explaining the ABFG in more detail than is possible here. Please write, ring or ask when you see me and I will provide you with both form and leaflet.

It is of course essential that you tell one of the NEFSG Committee members if you thus become a full ABFG subscriber so that Babs will know to collect a smaller NEFSG subscription from you next year! By doing this you will save the NEFSG a small sum annually. It won't be much but it will put off the day when we have to raise our own subscription rates.

It is also a condition of participation in the Insurance Scheme that our advertised Foray Programme state clearly that the Group is a member of the ABFG and that advertised Foray Leaders are Full Members of the ABFG. You will find statements to this effect in future NEFSG Newsletters.

VOLVARIELLA BOMBYCINA

Tom Kirby

I have taken to riding my bike. It is not a pretty sight as I have not invested in skin-tight black pantaloons and plastic “teardrop” crash-hat in shocking pink. I wear a “Blue-Circle Cement” safety helmet, backwards, yellow and pair of baggy shorts with my chunky blue-flash trainers. But I get about. Today, Friday the 12th July, I decided to take a trip down to the old ash-tree featured in Newsletter 19 to take a photograph of the now collapsed stump. The whole tree is down. Rotting branches pushed up into the hedge-back and off the road. A craggy ten feet high edifice which is sprouting still. I approached from the south-side from the A66 and photographed the shrivelled remains of last years *Volvariella bombycina* still visible in the rough bark. I took two or three shots and then moved to the other side of the stump which has decayed right down to within a foot or two of ground level. The decay is well advanced and the heartwood is just damp orange cellulose, very crumbly and friable. Ooops! An accidental nudge on the fragile chunks within and off fell a pretty large piece..... but beneath lay the most beautiful example of *V. bombycina* I have ever seen. Two, actually. Together they had succeeded in pushing out from the very core of the tree. When the chunk of rotted wood fell off, the largest specimen kind of “flopped” into my cupped hands. It was a full 150mm across the cap and 272mm from base of sac to umbo. It weighed 424gms. Boy! Did it smell good! Of course, I had to photograph it (them) but as luck would have it, as I pressed the focus button, the film ran out!!! Scanned image below. Lying in state.



Volvariella bombycina

Photo taken with flatbed scanner by Tom Kirby
(Article just missed July newsletter)