

North Eastern Fungus Study Group

Newsletter 76 January 2015



***Taphrina alni* ...** much found of late though never lost.

David Smith

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We live in exciting times...

January again, and you may call me Arnold. Though I did not expect to be back, circumstances conspire to bring about changes; and variety being the spice of life I would like to take this opportunity to thank Laura Kingston for her generous gesture in taking on the Newsletter production, voluntarily, last year. On behalf of us all, thank you...you did a great job.

The punishment for Laura's good deed is me... I'm back!

There is a whole lot of new stuff to write about in this Newsletter but a resume of 2014 is called for.

The saddest time was the passing of Keith Cunningham. Keith was a great friend of the NEFSG and the group is diminished by his absence... it is fitting that we carry on the work of recording and increasing our knowledge of the natural world, which Keith would expect.

The Keilder experience was one I am glad I did not miss out on. The whole ethos of groups such as ours shone through the days as we forayed in bright sunshine and enjoyed the company of our peers. Our German visitors refreshed the whole concept of collecting and identifying finds by their knowledge and enthusiasm. A big thank you to all involved in bringing this event to a very happy conclusion.... especially to Cath Gillie for all her hard work.

2014 passed a milestone in the Group's thinking regarding the location of forays and the need to extend our operating boundaries. The Lindisfarne foray was a fair old haul for many of us but it was a thoroughly rewarding day and a pleasure to boot. Doug McCutcheon deserves a special mention for getting this one on to the (VRSv5) recording sheets.

Microscopy workshops are proving to be a real advance in the understanding of the techniques and disciplines of identification at microscopic level. It is to be hoped that workshopping can become an annual certainty and though I missed the 2014 venue it was reportedly a great success. Thanks particularly to Val and Keith for their hard work.

The photographers in our midst excelled themselves in 2014. The bar has been set with very high quality photographs on file from David Smith and Paul Forster., Keith Tulip continues to amaze with his excellent microscopy and associated pictures. It is hoped that some of their efforts can be drip fed to members via the Newsletter and the NEFSG website (www.nefsg.co.uk). All members should be encouraged to submit their digital pictures for a planned "collage" of the years photogenic finds to be published in the November 2015 Newsletter. If there is support for the idea, the membership may be asked to "select" a set of 4 pictures for the cover page of the next year's newsletters. This will be an item in AOB at the AGM.

Gordon Beakes, some of you may remember him, really pulled one out of the bag this year. Gordon very generously contrived to drop more than 25 microscopes in to the open beaks of the NEFSG brood. They were snapped up in double-quick time. A very big thank you to Gordon for this fine gesture. Now all we have to do is START USING THEM... You know who you are!

Finally, you will find in this Newsletter an article on the *Pleurotus ostreatus* "kits, kindly supplied by the BMS. *P. ostreatus* has long been cultivated, notably in Germany as a subsistence measure in the 1940's. It is now cultivated throughout the North East on paper-back novels, wood-chips and old newspapers...ah, the unstoppable march of technology. Vursprung durch technik. If you had any doubts that these kits would produce fungi worth eating, I should advise you that we have already had a dinner-party on the first flush. More to follow...with pictures.



HAIR ICE...VERY NICE!

By now, most of us will have heard this term... if not via the email sent to notify members of the Winter Watch episode on BBC , (though scheduled for Thursday, it went out on Monday 19th. Jan!

<http://www.bbc.co.uk/iplayer/episode/b050j7fc/winterwatch-unsprung-2015-episode-1>) then by my excited reports to anyone who would listen...We were in Scotland for Christmas 2014, and enjoying the crisp ,frosty days walking in and around the Dryburgh Hotel. Close by, is Mellerstain Manor, about four miles NNW of Melrose. We decided to take a trip there, as it was off season and "right to roam" meant we could probably enjoy the grounds with impunity and without cost! So it proved.

The River Tweed had been very high in the previous fortnight indicative of prolonged wet weather which we had happily missed... but the land was still saturated.

A night time frost had left the grassy parade sloping down from the Manor white and bright in the morning sunshine, but the temperature was rising and by the time we had made our way down to the woodland on the west side of the ornamental lake, little visible frost was left.

Why all these details? Well, it would appear that details are important if you want to find Hair Ice. Conditions must be JUST right. So they were. We walked through the covert on a very muddy path, fallen leaves and snapped twigs from recent winds were scattered around, but what was this? Dotted randomly but prolifically about , were "clumps" of white cotton wool adhering to twigs and broken branches over an

area the size of a tennis court. I had no idea what I was seeing but could not resist the temptation to investigate, convinced too soon that the phenomena was mycological. Well, that assumption was soon dashed. The cottony growth was ice. Ice for all the world like human hair. The stuff was erupting from barkless wood, on the ground, in the most amazing curls and waves. I wish I had taken more pictures but for reasons still not



known I was convinced that it was only my failure to keep my eyes open that had prevented me noticing what was probably a common occurrence. Wrong on two counts.

Hair Ice is not common, and research indicates that there IS a strong requirement for mycellium to be present in the substrate for Hair Ice to form. I found out more by simply reporting the find on an obscure web-site with a "Natural World" ethos . From that one report came some very interesting responses.

I am indebted to Dr. James "Jim" Carter, Emeritus Prof. Of Geography, Illinois State University who steered me in the right direction and excused my failure to observe this phenomena by kindly pointing out that he himself was 67 years old before spotting Hair Ice. You can read Jim Carters very interesting article by searching on jcarter/Ice/segregation. Particularly telling is the comment below, quoted here with Prof. Jim Carter's permission.

"What we do know is that this ice from ice segregation is not a form of frost. Frost comes about when the air becomes saturated and water vapor is deposited on a surface as an ice crystal. If the air temperatures are above freezing we get dew, but when it is below freezing moisture is deposited out of the air as frost. In most cases the conditions that are appropriate to the growth of ice flowers, needle ice, hair ice and pebble ice are also appropriate to the formation of frost. For this reason people may give the name frost to any formation of ice on anything at the surface. But, such ice is not related to frost although it make take a deposit of an ice crystal to start the Ice Segregation process."

Jim forwarded my queries to Gerhart Wagner in Switzerland, who again granted permission to quote him. Gerhart is in his 95th winter and has observed Hair Ice for over 40 years. Gerhart writes:

" It (hair ice) grows on rotten wood of deciduous trees, in Switzerland, mainly Beech. I could prove by experiments that, beside the appropriate atmospheric conditions, the presence of a fungus-mycelium (e.g. of *Tremella mesenterica*) is necessary



for the formation of Hair Ice....."

Gerhart passed the information from my initial report to the BBC. The rest, as they say, is history.

There is no doubt that the Hair Ice occurrence is well reported as I have had a good deal of correspondence from locations variously distributed around the North of England and Scotland.

If any members of the NEFSG come across Hair Ice both Jim carter and Gerhart Wagner would be interested to hear from you.



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TAK

Minutes of the NEFSG Committee meeting of 29th November 2014

1 Apologies for absence : Laura Kingston

2 Approval of previous Minutes of May 24th 2014. Minutes approved including 9a regarding Alan Legg's role

3 Matters arising from May 24th 2014 Minutes

3a) Dom Colback requested that foraying should be agreed over a wider period than at present. This was discussed at length and it was agreed to implement Dom's suggestion into the 2015 foraying season.

During discussion at the November 29th 2014 Committee meeting it was agreed that we approve a few Sunday forays in order to achieve a suitable spread of days and dates.

3b) The indoor meeting organised by Val Standen and Keith tulip was successful

4 Treasurer's report and Membership update

Tom K. Presented the Accounts which included some membership fees & a Bank –carried – over of £318-66. Membership is currently 43 names or 38 by address and does not include 5 members who have yet to pay subscriptions.

5 AGM arrangements & Committee issues

It was agreed the AGM should be on the 28th February 2015 at Rainton Meadows, Alan S. agreed to contact the Durham Wildlife Trust to confirm the date is available. Tom Kirby agreed to take over publication of the Newsletters which would be place on the Website since there were only a few members who receive their copies by Post. He expressed the view that future Newsletters should be shorter & include quality articles and News items

In order to encourage members to attend the AGM it was suggested & approved that we should ask Paul Forster to present a Powerpoint lasting approximately 20 mins. , a presentation of the ABFG video on fungi. During the course of this item Cath Gillie informed the meeting that she wished to resign from the Committee because of personal issues. Cath came on the Committee at the same time as Val Standen, Dom Colback, & John Robinson with the objective of allowing input from members who were not Committee members. Overall the input & contribution from VS, DC,CG and JR has been very useful & the objective has been achieved.

Since the Committee meeting Mike Cruse has agreed to replace Cath on the Committee and we look forward to his contribution in future Committee meetings.

6 Proposed 2015 Foray list an possible indoor meetings

Saturday April 25th Plankey Mill leader Ron Pattison

Saturday July 4th Silton Forest leader Alan Simkins

Saturday July 25th Social Lunch at Lord Stones (Carlton Bank) leader Tom Kirby

Saturday August 22nd Hackfall Wood (Grewelthorpe) leader Tom Kirby

Sat. September 5th Bellfield Quarry (West Tanfield) leader Christine Whitehead

Sat. 12th or Sunday 13th Sept. Milton Rigg / Talkintarn (Cumbria) leader Mike Cruse

Sat. September 19th Thrunton Woods leader Dom Colback

Sat. September 26th Pinchinthorpe Woods leaders Tom Kirby & Alan Bunn

Sun. October 4th Bedburn Wood leader Cath Gillie – popup foray with members given details by e-mail.

Sat. October 10th Low Dinsdale leader Gordon Simpson

Sat . October 17th Hadrian's Wall (part only) leader Andy McClay

Sat. October 24th Hawthorne Dene / Beacon Hill leader Alan Simkins

Sun. November 1st Hedley hope Fell (Tow Law) leader Val Standen

Sun . November 8th Cod Beck reservoir (Osmotherley) leader Alan Simkins

Sun. November 22nd Fishburn Community Woodland leader Val Standen

As readers may imagine this meeting was very busy and unfortunately the arrangements for the Indoor meetings were lost in the rush to get the Foray list completed. The indoor meetings details will be reported as soon as possible. The final foray list / indoor meetings will be placed on the Group's website as soon as it is confirmed

7 Website development.

John informed the meeting of modifications to the Website. An issue which he sought opinion upon was whether we should include a database including member's names; post codes; tel. no. ; & e-mail address.

8 Review of Kielder weekend

The Kielder weekend with German mycologists was considered to be very successful. During discussion the possibility of other weekends / 2-day events with other Mycology groups e.g. Mid-Yorks, Cumbria etc could be considered.

9 Additional AOBs from Tom K.

9a) New ABFG Videos - will be purchased when available

9b) NEFSG Exhibition boards , Alan Simkins to progress these displays

9c) Article for inclusion in various Wildlife Association's Newsletters. Val Standen and Alan Simkins progressing this item for Spring Newsletters.

Alan Bunn

Hon. Sec. NEFSG

The Annual General Meeting 2015

The AGM this year will be 28th February 2015 at Rainton Meadows, usual start time of 11.00 am.

Please make every effort to attend. The NEFSG flourishes, we have 50 members, only because of YOUR support.

In order to make your views heard, you need to be at the AGM.

There are many exciting ideas proposed for the future, including such diverse ideas as the issuing of Membership Cards, joint forays with other groups, Microscopy Workshops (now that the magnificent Gordon Beakes has equipped you with Microscopes), fund raising Public Forays, the setting up of a National Identifier Network for us all to use and be involved in and of course, the appointment of NEW committee members.

This year, we can expect to be entertained and made envious by a Paul Forster photographic presentation...always anticipated and much enjoyed.

The NEFSG needs YOU! Please make a big note in your diary.

TAK

SOILS OF WAR

Courtesy of New Scientist and mycologist Professor Lynne Boddy of Cardiff University an article, Soils of War, describes some of the hidden fungal actions underway on the woodland/grassland floor.

A lot of the article will not be news to us:

- A general description of the role of fungi in recycling nutrients from dead wood, leaves etc.
- The actions of mycorrhizal fungi in feeding nutrients into plant roots in return for sugars from the plants.

The toxins in some fungi which cause unpleasant symptoms, even death in some situations, to humans.

There are, though, some interesting [and new to me] other statements in the article:

- Fungi are territorial- a mycelium of one species will split into independent organisms, and perhaps merge again later forming a larger more effective mycelium.

Even if of the same species of a particular genus, if genetically different, the mycelium of the one will not merge but create a boundary with the mycelium of the other - creating the dark lines on spalted wood used to make decorative bowls etc.

"Woe betide a mycelium encountering a different species of fungus". Chemical warfare between different mycelia is rife. Some species are better in attack, others in defence.

Fungi also seek out non-fungal prey. Nematodes and insects in the soil are caught by sticky hyphal surfaces, sticky spores, or hooks which trap the prey. The hyphae then consume it. [Of course we know some examples of this - notably *Cordyceps militaris* which is parasitic on lepidoptera larvae.].

Examples quoted in the article include:

Hypholoma fasciculare [Sulphur Tuft] "produces chemicals toxic to some small soil invertebrates---and volatiles---to spray competitors. Weapons known as stephanocysts attached to the gills---also capture passing nematodes by adhesion." (below)



Trametes versicolor [Turkeytails] "secretes enzymes into food sources on which competing fungus feed, killing and dissolving the other fungus from inside". (above)

Lenzites betulinus [Birch Mazegill] "kills *Trametes versicolor*, occupies its territory and exploits its food sources---it expands by killing surrounding fungi non-parasitically using volatile and diffusible chemicals". [Has anyone in NEFSG seen this process in action?]

Ophiocordyceps amazonica [a tropical fungus] "fills the body of its insect victim with hyphae and mummifies it---it erupts through the mummified wall---to produce a fruitbody with a strawberry-like head".

Alan Simkins

A short Ode to Kielder and the Great Weekend.

By Mike Cruse

Thanks to Cath for organizing our Kielder Weekend with fellow German mycologists. The excellent company, food and accommodation plus the fine weather and a good haul of fungi were greatly appreciated by all.

Ode to Kielder

Our long weekend did smoothly run;
our German friends had such great fun!
We forayed near, we forayed far
and it was all just wunderbar.
Our only mishaps were with keys.
We shall have to do more work with these.....
Please.

Anon.(sic) by Mike Cruse

(The double entendre of the penultimate line is not lost on us!)

DANBY FORAY REPORT by Alan Simkins

A very poetical record....more of a recollection.

The day dawned mild and bright at the end of a long dry spell in November. Mutterings among the early gathered few indicated a lack of confidence that there would be much mycological to be found; but I knew the foray area and was quietly confident that at least parts of the intended foray would be productive. My quiet confidence stemmed, in no small measure, from my reconnoitre the day before.



By kick off at 11 a.m. Some 25 souls had assembled, including several members of Cleveland Naturalists. Interesting finds were already being made around our parked cars. *Hygrocybe virginea*, *H. Conica* (left) and *Clavuniopsis corniculata* were noted on the sheep-grazed grass at the road edge. Strangely, a patch of *Lepista nuda* also sprouted here, with not a tree in sight.

We walked across the heather moor towards the house of our host, Peter Woods, where we discovered many specimens of *Hygrophoropsis aurantiaca*, the False Chanterelle. I had a forlorn hope of finding the var. *pallida* of this species with its alternative white cap instead of the usual orange-brown. I had found it here last year....but I was to be disappointed.

Peter welcomed us upon arrival outside his house and regaled us with tales of ice-caps and glacial overflow channels; one of which, Ewe Cragg Slack bisects his smallholding.

Then we were off, leaving some to inspect an elderly specimen of *Grifola frondosa*, Hen of the Woods, at the base of an Oak tree by the house. The very first field we entered threw up a nice assembly of *Hygrocybe pratensis*.

We entered the woodland, originally an Alder coppice now with various deciduous and coniferous species surviving in the damp surroundings....perfect fungus territory. We were in a wild-life-friendly eco-system, developed over decades, with lots of fallen and rotting wood as well as managed new plantings. We could have spent all day here!

Cont'd

Highlights of the day included:

Cordyceps militaris. (Photo Paul Forster) unsurprisingly growing on a the moss covering a fallen tree rather than its more usual grassland soil habitat. There was no sign of the moth larva to which the fungus would have been attached. (Right)

Macrotyphula fistulosa var. *Fistulosa*. This found by Mike Cruse. My eyesight is not good enough to spot even these larger of the *Macrotyphula* genus, so well done Mike! Mike also found *Taphrina alni* (see cover- Picture by Paul Forster) which was not surprising considering the number of Alders present.

Naucoria escharoides. Another Alder specialist, was also recorded, along with *Paxillus rubicundulus* adjacent to an excellent display of *Fomes fomentarius*, found by Gwen humble on a fallen Birch trunk (the fungus, that is) at our sandwich-munching spot by the stream.

Coprinopsis stercorea a rare dung fungus.



Taking pity on Andy McClay we left the woodland behind and returned to the heather-moor where we recorded amongst other species, and under tutelage of Andy, nine Hygrocybe species, three Entolomas and one Dermaloma.

Finally, we wound our way back to the small-holding fields which had oddly proven to be much less productive than last year My much-told tale from 2013 tells of a single field in which we recorded twenty *Hygrocybe calyptriformis* as against zero for 2014. Similarly, under an Oak last year we found seven or eight fine specimens of *A.ceciliae* whilst this year, only one.

Nonetheless, this was a great day with a taxus of about 100 species recorded.

AS

The best laid plans....

Due to highly technical issues which I don't want to bother you all with, this Newsletter is produced somewhat in haste. I apologise for this situation but can now report that all is as it should be and that things should be back to normal, or as normal as possible, from now on.

So I will continue where I often leave off with an appeal to all members to make every effort to get to the AGM.

The minutes of the last committee meeting are within these hallowed pages and give some indication of the subjects which we need to discuss....the views of ALL members are important.

The AGM will proceed in the usual fashion but this year there are many items which are to be included in the agenda, some not recorded in the last committee meeting minutes but which surfaced subsequently.

Here are a few items which will require some discussion....advance notice always helps!

- **ABFG videos**
- **Member contact details?**
Members often require contact details for other group members. John Robinson has suggested a "database" of members contact details in the "private" membership area of the Web-site.
- **Foray Leader duties**
First a clarification. When members volunteer to "lead" a foray they will receive an incentive.- a one year subscription to the ABFG. This will secure their copies of "The Forayer" Journal from the date of confirmation. It is a one-off gesture per member which is unashamedly designed to encourage participation in the organisation of forays and the "recording" of finds on the VRS recording sheet.
We need to discuss the difficulties of logistics in getting records confirmed and on to the two national databases.
- **Committee structure.**
There will be changes in the structure of the committee this year, with more emphasis being placed on the contribution/involvement of member's committee representatives. Though the minimum requirement of Chair, Secretary and Treasurer will remain, it is felt that we all benefited from the input of those members who participated in committee meetings and more, during the past year.
- **More weekend -long forays.**
The Lindisfarne foray was excellent. Some made a "weekend" of the event and this may be an idea to consider for other "distant" forays.
- **Joint forays with other fungi groups.**
The self-imposed ethos of the NEFSG is to increase the knowledge, awareness and interest in all things mycological....nothing unusual in these laudable aims. Many other groups have much the same raison d'être.... It would then, seem logical to combine forces occasionally. All opinions welcome.
- **Foray programme 2015**
- **Network of i.d. experts.**
Open discussion with intro by Tom.
- **Public Participating Forays.**
- **Recording Principles**
Are we doing it right?

TAK

Oh ye of little faith!

Well, here's the proof! The Mushroom kits work!

The photographs here are from Kate Murphy, who took the instructions literally and soaked a book. (right) After an initial period of dormancy the

spawn-seeded pages of the water-logged paperback began to show signs of creeping life.

Kate, my niece, tells me that the paperback was kept in an out-house, in a polythene wrapping, until the mycelium began to form "structure" (left).

After a few days the sure signs of fruiting bodies appeared and the kind Kate took pity

on the tiny fungi. The whole experiment was moved indoors, kept in a dark cupboard, and allowed to do its thing. (right).



In the meantime, yours truly, who had stolen a march on the paperback method, was detecting stirrings in a large polythene bag full of soaked wood chips, supplied by Dom. Within a week there were enough good sized *P.ostreatus* for a breakfast feast...but

sadly, due to an incredibly cold snap, things slowed down to a halt....but as I have just observed, there appears to be another "flush" on the way...watch this space.

I wish I had taken pictures of my efforts but without the evidence I can tell you anything!

Nonetheless, as you can see from the picture (left) quite reasonable sized specimens were produced. TAK

