North Eastern Fungus Study Group

Newsletter 62 August 2011

George , clutching his first St. George's Mushroom (*Tricholoma gambosum* = *Calocybe gambosa*) on St. George's day 2011. Panasonic Lumix, normal mode, ASA 100, Fill-in flash on. NZ36375 24124 TAK

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Compliments of the Season

At about this time of the year most arable farmers have a fairly good idea of how their fortunes have faired. It is easy to believe the stereo-type of the poor, grumbling Serf-in-a-Merc but the farming "industry" is a tricky balance between guesswork and judgement.

Even the most experienced farmer is at the complete mercy of circumstance. The big unknown is, of course, the weather.

There are some aids, proactive and reactive, which are available to ensure reasonable crops. Everything from selective weed killers, pesticides and fungicides are applied to compensate for the secondary effects of weather which may be too cold, damp, warm or dry. We don't really see the arsenal of chemicals which must, of necessity, be used to provide with our breakfast cereal, but we all can see the great fountains of water which come in to play when things get a little crisp.

From a field mycologists view, we tend to believe that whilst the *overall* weather patterns for the year to some degree affects the autumnal fungi population though the time interval between cause and effect is much longer and much less predictable than with photosynthesising plants. Lack of rain in the warm middle months can mean a very poor season for us.....and there will be no monster irrigators spraying plumes of water over prime sites to help.

So how will the season go this year? We certainly had a wet start, the wettest February for 100 years, but once things started warming up, the on-off showers (and some torrential downpours) became more off than on to the extent that there was talk of drought. May was well below average for both rainfall and temperature (April was warmer than May on average). May, June and thus far July have followed the pattern and The Met Office Statistics (http://www.metoffice.gov.uk/climate/uk/anomalygraphs) show that here in the North of the country we have had below average (1971-2010) rainfall but above average temperatures.

At the time of writing finds in grassland are few and far between but the genus Coprinus puts in an early appearance in practically all years and this year is no exception. *C. atramentarius , C. plicatilis* and *C. miser* all showed up in a sheep pasture during a short wet period in late June.

There have been recurring bursts of *Marasmius oreades,* some reaching quite a size both individually and in the diameter of their circular habit!

So here we are in the first week of August and in the middle of a veritable monsoon. Soaked to the skin after a short foray to a local copse , I am the proud possessor of two enormous *Chlorophyllum rhacodes* (=*Macrolepiota rhacodes)* and a 20cms. diameter *Calvatia gigantea*. There are many more of both but I will leave them.

Predictably, *Polyporus squamosus* has been much reported, being less prone to low rainfall due to the benevolence of its host, which in this locale tends to be *Salix. Sp g*rowing in or near streams. There has even been a case of foraging for this species, by our very own Jon Bemrose, the opportunist mycophage! We await reports on his health.

Similar in habit, but much more edible, the Sulphur Polypore, *Laetiporus sulphureus* (right) is still clinging to a large fallen log which has been its host for the last three years. The first great, bubbling, crimson-yellow folds emerged in early June and are now hard, dry and crumbling ....but less than two metres away, on the same log, it is making another attempt to take over its world. I look forward to a tasty breakfast!

The mycological season begins in earnest, for most field mycologists, in late summer....so we are about to embark on another venture into the woods, fields and forests. All seems set fair from where I sit. It is warm. It is wet. It is perfect. Compliments of the season to you all!

TAK

News of Members

A New Species of the parasitoid genus, *Torymus,* discovered by an NEFSG founder-member

Chris and Hewett Ellis are two of our founder-members who, through what used to be called the infirmities of age, are no longer able to attend our meetings and are therefore no longer familiar figures at our forays.
I first met them as fellow-members of the now sadly defunct Northern Naturalists' Union. Hewett is primarily an entomologist with a special interest in plant-galls caused by insects. His own interest in fungi was largely mediated by the knowledge that they too are important inducers of plant-galls. Species of Hymenoptera and Diptera may actually inhabit the galls that they cause. Some of these, in turn, may be parasitised by other similar organisms. One gall-inducer causes conspicuous red swellings up to about two inches long on stems of the Burnet Rose, *Rosa pimpinellifolia* . The galls contain orange larvae of the midge, *Janetiella frankumi*, which, as you might expect, has no common name. *J. frankumi* was not successfully reared and described until 2003 but is now known from sever
al counties in England, Scotland and Wales.

Meanwhile, in 1994, Hewett Ellis had encountered the stem-galls not then known to be induced by *J. frankumi* at Druridge Bay in S. Northumberland. He also encountered these in 1999 at Warkworth in N. Northumberland and as far south as Hartley Links, Seaton Sluice in VC67. Hewett later found larvae of a *Torymus* species of midge also inhabiting the galls of *J. frankumi* from which adult midges were reared. These were not, as first thought, *Torymus chloremus* but another *Torymus* species not then described.

After much later work this organism has recently been described as *Torymus pimpinellifoliae* and a description published in the *Entomologists' Monthly Magazine* Vol. 146 which appeared ion January 2011.
We offer our congratulations to Hewett and his associate, R. R. Askew, for their persistence in doing the donkey work on a previously unknown British organism from our own area of North Eastern England. Thus has been demonstrated yet again that it is not essential to explore obscure regions of the tropics to do something entirely new for science.

Dichomitus campestris – newly recorded for County Durham

Not many years ago it was a routine matter for me to record new County Durham records of fungi at the rate of one or two per week. Most such records were published at roughly two-year intervals in ***The Vasculum***, a journal published by the now defunct Northern Naturalists' Union. The last such list, for the years 2004 and 2005, appeared in ***The Naturalist*** (Vol. 131: 1058) in 2006.

On April 2, 2011, my wife, Ros, and I were taking a favourite walk by the north bank of the Tees at Whorlton. At one point I picked up a thin fallen branch of oak lying amongst thin pathside vegetation, noting that it bore a poroid resupinate fungus that looked familiar to me. It was about seven centimetres long and two wide, raised at the centre to present a pulvinate appearance. It was not until I examined it further at home that I realised that I had not actually collected it before. It had looked familiar to me because I had seen, over and over again, a photograph taken by Roger Phillips and published in the first edition of his now celebrated ***Mushrooms and other fungi of Great Britain and Europe*** in 1981. If you have a copy of this work you will find the photograph on page 234. The accompanying description characterises the fungus, *Dichomitus campestris* as rare and found only in Scotland.

Since those days, thirty years ago, considerably more records seem to have been made. The BMS database gives 139 records for the British Isles most of which were made in southern England and a significant number for Scotland. The British Basidiomycete Checklist (2005) describes the fungus as "rarely reported but widespread". This kind of apparent distribution is not uncommon but is an artefact of recording patterns, not a true reflection of actual national distribution. It is only a very rough guide to our local picture but better than nothing at all.

Of interest is the fact that only a single Yorkshire record is cited, made at York Golf Club from an oak log on May 1 2008, with fresh specimens seen the following August. I could find no records for County Durham or Northumberland and have been forced to conclude that my collection must be the first for VC66, The old County of Durham. AWL

Train Wrecker

Below is the actual extract from the BMS database referring to a find of *Neolentinus lepideus.*

Neolentinus lepideus (as *Lentinus lepideus*), wood, worked, telegraph_pole, damag, --/--/1960, England, North-east Yorkshire (**VC:** 62), Thornton Dale area, SE88, **coll.:** W.G. Bramley, **id:** anon, **Notes:** about 8 feet up a damaged telegraph pole' [in manuscript notes]; '23m up damaged telephone pole' in Bramley (1985) - [this is a rather tall pole! - CSVY], **FRDBI Record No.:** 808846, **Origin of Record:** Chris Yeates (Yorkshire Records) (full record data).

The difficulty in obtaining this specimen is obvious if a little dubious! Nonetheless, determination to procure an identifiable sample paid off....no doubt with the help of ladders and safety harnesses.
I have to say from bitter experience that the effort involved in procurement pales into insignificance compared to the effort involved in identification!
In late June this year I noticed a stubby and insignificant puffball-like fungus beginning its spore-producing life in the ash and cinders beside the rail track near my home. I took some steps to protect it in order to see what developed and was rewarded some several days later when the specimen reached some 8cms. in diameter, only to be knocked over by persons unknown. It looked just a little wonky when I found it so disturbed, although still seemingly rooted to its substrate. The time seemed right to investigate further and so I carefully removed the whole thing and was a little surprised to find that it was far from being a puff-ball....and even further from an immediate identification!
I won't go into details of the sleepless nights as I lay abed, red-eyed and restless. Nor will I trouble you with the epic journeys I made through the Keys of Funga Nordica's blurred and tear stained pages. I will not inflict upon you the many heart rending disappointments as cul-de-sac after cul-de-sac filled my sentient moments.
Nor will I share with you the deep despair when, forced by circumstance, I placed the damnable object of my angst into a brown paper bag and dropped it without note or ceremony outside the door of the oracle, Alan Legg.
I will, though, share with you my elation when, after a timely interval during which I had recuperated to some degree, the phone rang and I was delivered of the information which had so eluded me. This story is becoming Dickensian so I will cut to the chase.
What I had found was a new VC66 record. It is just a pity that I failed to pin it down.

Neolentinus lepideus (= *Lentinus lepideus*) appears 192 times in the last 100 years or so in the BMS database, on two occasions, including the Thornton Dale find above,close to our regular foray patch. Mulgrave woods also lays claim to a find in 1912.
N. Lentineus is known as "The Train Wrecker" due to its propensity to favour, as a substrate, creosote soaked wood. Much commoner on railway sleepers in the late 19th century than today (concrete is a far less appetising material) this species gained some slight notoriety as a cause of train derailments. Although records of

this species continue to accumulate, telegraph poles and the like still offer a meal with a tarry condiment thrown in, this is no regularly recorded species.

So why was it difficult to identify? Well, all the usual reasons, really. The spores were quite difficult to see being hyaline, but once stained they showed a distinctive cylindrical form with

size range 10-14 X 3.5-4.5. No, the main difficulty was in correctly assessing the macro features. The Keys rely upon accurate observation and though the route to a successful identification is labyrinthian there is an element of latitude which is to me is a little paradoxical! The species SHOULD have an obvious ring, my find did not; it should be on wood, my find was (apparently) growing in what we indiscriminately call "soil"; it should be...well, you get the idea!

Suffice to say that a bell rang almost immediately on lifting the find from the ground . I had found *Lentinus tigrinus* in France a few years ago and there was a similarity of form that I should have locked on to. When I asked Alan how he identified this species his answer was erudite. "Oh, I've seen it before"....now I have, too!

TAK

Forays & Events

Foray SEPTEMBER 10th. Milkwellburn Wood, South of Tyne

Meet at NZ11685683 (NE17 7TQ) on River View. Park on the right near the bus stop. Parking limited so please car share where possible.

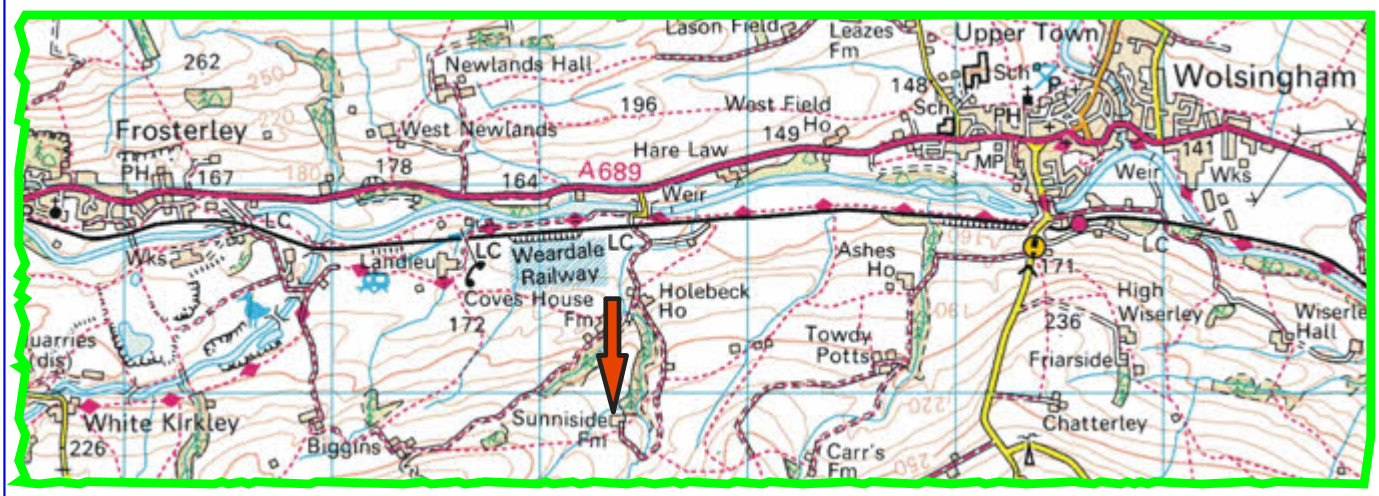
Foray SEPTEMBER 24th. Raven Gill, Commondale

Use the A171 bypassing Guisborough in the direction of Whitby. Just past the Lockwood Beck reservoir turn right (watch out for oncoming traffic) towards Castleton on Smeathorn Road for about 3Kms. Then turn right and down into Commondale Village. Go 30 metres past the pub then turn right onto a "private" access track, past the first house on the right then through a gate signed Raven Gill Scout Campsite. Park in the roadside carport just beyond. (NZ 663 105) . Note that there are no dogs allowed.

The foray is through a mixture of mainly broadleaved open woodland, grassland and, for the more adventurous, moorland in the valley of Raven Gill. Depending upon conditions there should be many Russulas, Lactarius and Hygrocybe. Last year several recordings of *Cordyceps militaris* were made in the grassland areas. We may be granted access to a classroom and toilets on the day.

Foray October 8th. Sunniside Farm, Weardale.

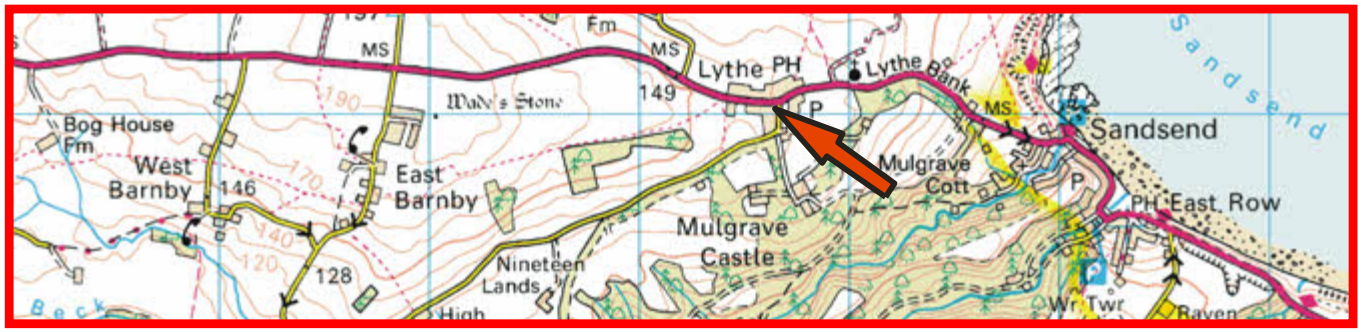
This foray is much anticipated by our hosts, Robert and Anne Sentence. Sunniside Farm is located south of the River Wear, just west of Wolsingham on the A689. Entrance is via the sign-



posted Caravan Park, by the bridge over the river. Immediately on crossing the bridge follow

the road right then take the track left over the railway crossing and head up the bank. This is a rough but negotiable track which winds its way up to the farm. Our hosts are unusually hospitable and have provided us with a room and refreshments. Weather will be a factor in how long we foray and how long we refresh ourselves. This is fell country. NZ 05418 35865

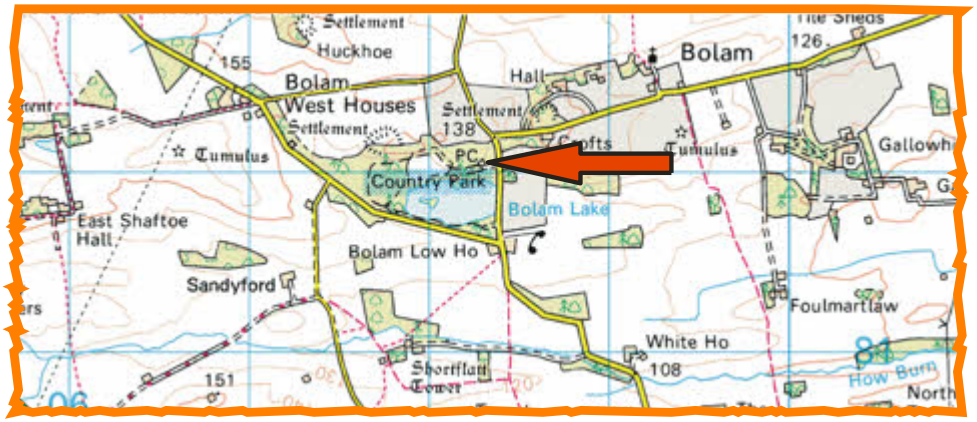
Foray October 22nd. Mulgrave Woods, Whitby.



Head towards Whitby on the Sandsend Road into Lythe Village. A public car park will appear on your right. Park here. Details of the foray route may change until the day but there are good paths and some meadow-land. NZ 84711 13033

Foray November 5th. Bolam Lake , Ponteland.

Meet in the public car park at NZ083821. This is the north car park where the toilets are situated.
The site includes mixed woodland, grassland and a lake with surrounding marshland.



All forays commence 11:00 prompt. Please try to attend as many forays as you can, particularly those which are close to you. Every effort has been made to accommodate those who live on the fringes of our area.....so please take advantage of local forays.

Just before you turn over the page and enter into the spirit of enquiry in a questioning article by our Chairman Alan Simkins, take a look a this and see if you can aid in its identificatrion. Found growing in recently disturbed soil in a muddy hollow beside a stream, I have now given up on ever pinning it down.
The specimen is gelatinous but with form and is growing in tiered layers. The picture shows the main body of the fungus at a diameter of 5cms. TAK

Why are ~~Flowers~~ Fungi a certain colour?

Roses are red. Violet are blue.

We all know that, but not many people know why this is so.
Even fewer purport to know why why fungi have various colours. In fact, in my admittedly limited investigations to date, I have noticed a complete absence of comment on the subject. The most that is said is that Russulas or Hygrocybes are often brightly coloured – but not a word on why this is so.
Now it may be that I haven't managed to focus on the right book or article, in which case no doubt more erudite NEFSG members will enlighten me.
There may also be some clues from the more researched, and therefore less silent world, of flowering plants. For example,

- light & pigments - different pigments absorb certain wavelengths of light and reflect others. Colour is the by-product of this. In flowers, red, blue, purple & pink are the result of pigments called ANTHOCYANINS in the chemical class called FLAVANOIDS. Another pigment group contains the CAROTENOIDS found in tomatoes and carrots, producing yellow, red, orange colours. CHLOROPHYLL is the best known pigment providing all that is green in leaves.
- Flowers in bright colours are assumed to attract pollinators.
- Plants with more than one pigment may change flower colour as temperature rises or falls.
- Soil PH, water saturation and the amount and type of nutrients affects flower colour.

Well, this is all very good stuff but is it safe to apply it "parrot fashion" to fungi?

From the floral facts above it would appear that the mix of pigments in a plant is influenced by soil and temperature and humidity; but is this in any sense true of fungi? I just don't know!
It would seem to me that that brighter colours in some fungi have evolved to attract additional pollinators, like slugs, mice and herbivores, to more wildly distribute fungal spores. Do duller coloured fungi not need as much help to distribute spores? This seems unlikely.
Does someone out there know the answer?
And while I am on the subject of why fungi have different colours, why do fungi have different smells? Is it a mix of attracting pollinators and repelling attackers? I know that

Just to get the ball rolling, published below is an extract from an article in "MYCOLOGIST" 1994.
The article was attributed to Susan Isaac of the Department of Genetics & Microbiology , University of Liverpool. Though the questions raised by AS are not definitively answered in the article, there are some points made which go a little way to relieving his distress.
"Under natural conditions, once the growth of a fungal colony is well established.....parts of the mycelium may switch biochemical activity to pathways of secondary metabolism.....this gives rise to other compounds (secondary metabolytes). Fungal pigments are produced in this way and one species may contain a mix of several different pigments."
That's how. Now Why? TAK

Phallus impudicus smells as it does to attract flies to aid spore distribution but what is the benefit of the sandalwood smell of *Hygrocybe russocoriacea* or the geranium smell of *Russula fellea*?
Why are some fungi poisonous and not others?
Why do some fungi have different gill connections to the stype?
Why do some fungi associate with certain trees and not others?
Why ? Why ? Why ?

Alan Simkins

Not an apology..

Although the front cover is a departure from the high quality imagery we are used to, it was felt that a change was as good as a rest. The cover picture also illustrates and reminds us the immense joy which finding something new can bring.

Nonetheless, to compensate for the loss to those who prefer to see fungi in a mycology newsletter, this excellent example of *Hycrocybe conica* from David Smith should suffice.

There is always storage available for good quality images for use in the Newsletter but please note that submission to the NEFSG presumes that there are no copyright claims on the material.

If you have unusually good digital photographs which you would like to share with the readership pleas submit them for consideration with as much detail of the subject and the photographic settings as possible. Images of 300-400Kb are ideal but whatever the size they can still be used.

Hygrocybe conica, Hob Hole, September 2008
Olympus E510 with 35mm macro lens, aperture priority, f11, 1/30sec. David Smith

ABFG, Insurance and the state of the Nation

Recently notified changes to the financial structure of the ABFG, essentially revolving around the cost and cover of insurance, prompted the NEFSG to contact Michael Jordan . The insurance "package" which the NEFSG is covered by is essentially Public Liability and is conditional upon there being ABFG members within the NEFSG.

Whilst this arrangement has been the *status quo* since the inception of the ABFG, financial pressures and the inherent unfairness of the scheme has prompted the changes. The condition means that within the NEFSG one or two members pay membership to the ABFG for the benefit of all; that in itself is not an major issue, but the situation is greatly amplified when nationally members of Mycology Groups are also "paying" to cover non-members on "open" forays. To mitigate this effect the ABFG have offered an option whereby groups can charge a "per member" levy to cover the costs of insurance and the administration of the same. The NEFSG has a membership of over 50 but only a small percentage of members who attend forays regularly and so there would be an unfair burden placed upon the non-participants.

For this reason, the NEFSG has opted to remain with the PL free insurance option.

There is, however, still the issue of funding, not just for the ABFG but for many groups such as ours. It is a regrettable fact that many such groups throw in the towel due to lack of support. This trend MUST be reversed. We owe it to ourselves and to those who would come after us to retain interest in the natural world. The NEFSG membership fee has remained static and is subject to the scrutiny of the members on a planned basis. To further the aims and achievements of of Field Mycology you are urged to support the NEFSG and the ABFG by both your interest and your membership fee.

Michael Jordan, founder of the ABFG writes:

There are two mycological organisations in the UK, closely mirroring those in North America and in France – one is essentially scholarly, the other focused on the needs of amateur field mycologists. The latter, the ABFG, is a not-for-profit charity, run by volunteers.

So why should anyone want to support the Association of British Fungus Groups? What's it got to do with me?

Those are fair questions, because it's easy to assume that such voluntary organisations run themselves. In reality the ABFG is heavily dependent on the support of its members, without which it would simply not survive. It receives limited sponsorship from the National Trust in return for work done, but otherwise it has to be self-sufficient.

You may hear the argument that having two mycological organisations is a waste of resources. The plain truth is that healthy competition has immeasurably advanced the cause of UK field mycology. Fifteen years ago many of the benefits now taken for granted by forayers did not exist. The ABFG initiated Public Liability insurance, without which we could not legitimately foray these days; it launched the first field magazine specifically to help amateur mycologists broaden their understanding; it developed the first stains and reagents service; the first Internet forum with a team of experts on hand to help amateur enthusiasts with their identifications.

In CATE2 the Association has designed what is arguably the most advanced online UK data management system for fungus records, relied on by ERCs, conservation bodies, and local field enthusiasts to better understand how fungal populations are changing in their own woodlands. In just over three years the CATE team has processed more than half a million records.

But these things do not 'run on air'. The ABFG team works willingly, for free, but it needs more support from you, the field community, if it is to continue with the work it is doing for conservation and education.

What do you get for £30? The subscription includes a full colour quarterly magazine, the *Forayer*; a stains and reagents service and other 'members only' equipment and IT supply; an identification service; an Internet forum; an online recording system; the CATE2 fungus records database; Public Liability insurance to £5 million.

How does the Association benefit from your subscription? It provides the vital means to continue investing in the mycological conservation programme, to which the Association is committed. The Association has achieved a lot. It is now possible, for example, because of the technological advances of CATE, for UK environmentalists to monitor fungal populations in ways that were not possible before.

Michael Jordan