NIFG
Newsletter
2025

Chairpersons Welcome

Group Foray to Harbour Estate RSPB and Kinegar Shoreline 2024 © D/ Nelson

Hi Everyone

Welcome to another year of foraying, fumbling through the vegetation for our Fungi Friends and enjoying like-minded company.

While some more unusual smaller.. some incredibly small.. Species made themselves known.

Despite the lack of species we did get to visit some beautiful new locations and met a lot of new folks who also appreciate the world of Shrooms.

Debbie Nelson
NIFG Chairperson

2024 was a strange year in terms of fungi finds. The weather at the start of the year being so cold and with the torrential rains then the later part of the summer being so dry and hot made finding fungi specimens a challenge.

A lot of the more familiar larger species seemingly decided not to emerge at all

I would like to take this opportunity on behalf of the Group to give a huge Thankyou to Chris Stretch for all the hours he puts in both collecting, scanning through Keys, books and labouring over microscopes to produce the species lists for the forays. I think we can all agree he has done an amazing job!!

Group trip to Ballywalter Estate 2024 © D. Nelson

Melastiza cornubiensis
Kinnegar, Belfast 2024
2024© D. Nelson

FUN-gi Name Games

Just for the Brain, Not for Gain

Word Search

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I P V O R R N X Y Q O N N W M A W M V N S L G P Q V E X K V
H R F E U T S V Y U D Y W H B K W L S S B H L R B E O B A M
M V C N D Q Q R B D C F K G Z I M I F C L S D X I L G A B F
K N X F F D I D E W J H D D T Q P Z L J C Q K I C F I V N I
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S C G I L K O U J J D L O R L B O E P D B R E T W P A R Z V
H G R A F P I H Z N W W R I Z K F U Z X K Z K L E F I L E B
O B X P V O W P W D K D I A C X D L M Q X B L B L K G M D M
I D X W K S F L O V E V A U V Z U D N N I D A E D A L E A K
A U U Z F G W Q L I Z C L F J R Z I A E O K S C Q R W T R A
U O P E V G J V Q R R I M J Q R A N K L Q G A N O D E R M A
Z V V H K P M C T P S G D W N E N M X S O B S P M L C K I F
S F A A F Z E J T W P I P T O P O R U S T H E Z L M F J U G
I I N E L K W X Z F I R J Y A D C D S Y W L G V A A U O E F
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Pseudoinonotus	Chlorociboria	Biscogniauxia
Hymenochaete	Laetiporus	Piptoporus
Cudoniella	Fistulina	Armillaria
Ganoderma	Inonotus	Gymnopus
Bulgaria	Daedalea	Erysiphe
Trabutia	Grifola	Russula
Taphrina	Mycena	

A Photographers Guide to Photographing Mushrooms
By Vittorio Silvestri
Part 1

Sometimes we want a 'reference shot' for the recording and other times its nice to have that pretty, colourful, printable image. With the invention of more intricate cameras and settings getting that ideal image can seem more labour intensive. But if you learn a few tips along the way it becomes more natural to set up the camera to get the 'Perfect shot'

Thankyou to Vittorio for taking to time to put together this detailed and well explained guide to taking pics of our favourite fungi & for providing advice in the field on our forays.

A lot of work went into this and to share it all it has been split into 2 parts. Heres the first installment to set you off on the path of fun-ographey.

Introduction

The amazing world of fungus photography is an autumn winter adventure that all photographers should explore.
Due to their very nature fungi require cool, dark and damp places in order to grow, so summer months can be dedicated to other photographic adventures.
In the paragraphs below, you'll find detailed information and tips on how to best photo-

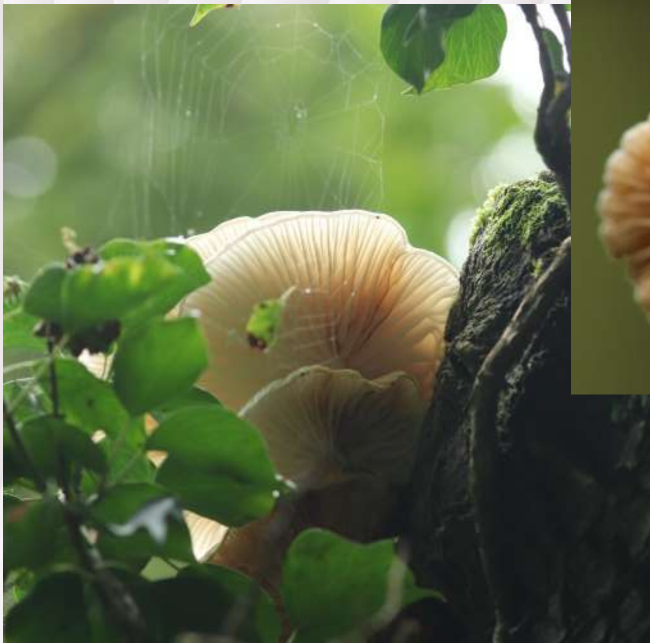
Gear

While fungi can be photographed with any compact camera, even your smartphone, to get the best possible images you really need to use some dedicated equipment. A good start is to use a Digital Single Lens Reflex (DSLR) or Digital Mirrorless camera. Using this with a standard zoom lens will work just fine, but you will eventually realize that it has its limitations. This is due to the fact that shots with real impact are usually ones that are close with tight framing.
With most compact cameras you should have a macro mode but with a DSLR you'll need a macro lens. These give results that are life-size, getting you closer, helping fill the frame. They also usually have wider aperture allowing you to better isolate sharpness on a specific part of a fungi or keep to whole scene in focus (more about this later in "Depth of Field"). A cheaper alternative is a set of close-up filters, though these can reduce quality and particularly sharpness around the edge of the image. A much better alternative is a set of extension tubes and a prime 50mm lens, both a much cheaper solution than a macro lens.

A few other things that could be considered essential pieces of kit are as follows:
1. A tripod that allows you to get low or a beanbag which will allow you to work almost at ground level.
2. A Cable release or electronic trigger to fire the camera without touching it. The camera self-timer can also be used.
3. As you will be on your knees on damp soil or grass, something to kneel on to keep you dry is always useful.

Angle

Perhaps the most difficult part about photographing fungi, is deciding the best angle to shoot them from. It's all very well getting a macro lens and getting close, filling the frame, but deciding on the angle and what to include is all about experience. Some will need photographed from the top, but many are best when photographed from underneath. This allows you to examine the gills, structures, textures, shapes and beautiful colours that are not immediately visible from the top. Being down this low will also give a more dramatic effect, giving the fungus presence and height. Many species grow on tree stumps allowing easier



Preparation (Grooming)

You will always find that fungi are covered with some sort of dirt and bits of twigs, which while very natural, are often distracting in an otherwise perfectly executed shot. Spend a little time clearing this debris away; time spent here will save time later while editing. Check the image after your first shot as the camera always picks up things we've missed, re-groom and re-shoot.

Lighting

In order to accentuate the interesting shapes and structures of fungi, whether it's the top or the underneath, you will need light. Because of their very nature, fungi grow in dark woodland places where light does not usually penetrate.
Therefore you will have to work with some artificial light or reflected light from the sun. A few different techniques to try are as follows:
1. **Flash**: Most cameras have a build in flash or a hot-shoe to take a flash. The problem with this is that it is directional and can be very harsh. You can deal with the harshness by reducing the power of the flash, but the light will still be directional, coming from the same angle as you are shooting. If you are using an external flash mounted on the hot-shoe, it will be much better to remove the flash from the camera (off camera flash). This can be triggered by the camera using a lead or fired manually during the usually long shutter speeds need to expose the shot correctly (more about this later in "Shutter Speeds"). Remember you are not using the flash to expose the image, just to provide a bit of fill light. You will need to experiment with this. You can always try bouncing the flash off a tree or a reflector.

2. **Torch**: While a flash can be very unpredictable and will require experimenting to get the results you want, using a torch will be much easier. As this is a constant source of light, what you see is what you get. As you look through the viewfinder, move the torch and watch the effect it has. Small torches are powerful enough and easily carried.

3. **Reflectors**: As mentioned before, reflectors can be used to bounce light back onto or underneath the fungi, either using natural light from the sun, for a soft look or artificial light from a flash or torch

Pic 1 Sulphurtuft with out light

Pic 2 Lit with torch creating shadows and highlighting detail

Part 2 will follow at a later

Stabilize your camera

Probably the most important thing to get right is to keep your camera still. As mentioned before a tripod is a must and most good fungus photos will have been captured using one. The low light conditions will result in slow shutter speeds which can't be increased with a higher ISO as this will impact on overall quality.
Using a tripod will also help you compose the image better, holding the camera in the correct position. This will give you one less thing to worry about and let you concentrate on the other settings and the lighting.

Shutter Speeds

Slow shutter speeds, often many seconds are inevitable and often welcome. Don't be afraid of these as long as you have your camera on a sturdy well positioned tripod. As I said before the long shutter speed allows you to fire some carefully position fill flash during the exposure.
One thing to remember is that you can't touch the camera to fire the shutter; this movement is enough to cause blurry/out of focus images. Use a cable release or trigger or if you have neither of these, set your camera on self timer.
If your DSLR has a mirror lock up feature, use this as the tripping of the mirror can cause vibrations introduction unwanted movement. While using live view on DSLRs the mirror is in lock up mode so this eliminates the need to do this. It also has the advantage of giving you a view of your composed image and lighting from a distance, without having to get down to the level of your viewfinder.

Depth of Field and Focus Point

Depth of field (DOF) is a tricky one. This can be used to effectively isolate the fungi from distracting backgrounds/environments. A large aperture such as f2.8 will do this, but do experiment with different f-stops as different lens will give different results. If you want to include more of the surrounding environment and get more focus deeper into the image, use a smaller DOF, such as f-16 or more.
At close working distances larger apertures of F2.8 and F4 will probably not render the whole mushroom in focus. This obviously depends on the size of the mushroom.
On the other hand, smaller apertures like F16 or F22 will introduce distracting backgrounds which we want to avoid in most cases.
The answer to this is Focus or Depth Stacking.

Focus or Depth Stacking

The concept of stacking refers to the capturing of many images at a wide aperture and combing them to make one image, either in camera or afterwards in post processing using special software.

Focus Stacking

The images in this sequence are captured by shifting the focus point, usually further away from the camera. Many modern cameras will do this automatically and even stack images in camera.

Depth Stacking

The images in this sequence are captured by shifting the camera, usually forward, while maintaining the same focus point. This is the technique usually used with manual focus lens. Stacking in this usually done in post processing using special software.

Settings for either method are much the same:

1. Camera with a macro lens
2. Sturdy tripod
3. Camera trigger release
4. Exposure settings: Wide aperture - F2.8 or F4 Low ISO - 100 Shutter Speed - This is your variable, depending on light, but can be low as you are on a tripod

Here are some examples of images captured on last year's forays, left single shot and right stacked image.

I hope this short guide helps you with some of the tips and techniques to better capture the wonderful world of mycology.

DNA Sequencing – The Process from fungus to a possible identification

David Mitchell

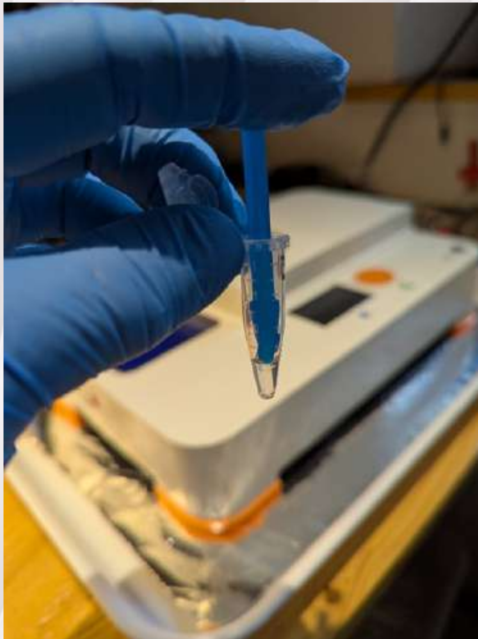
Recently I have been posting some sequencing results on the NIFG forum and added some reports onto the NIFG website downloads page (https://www.nifg.org.uk/nifg-downloads/) so I thought I'd give a bit of background what the process involves. We have been very lucky to have received funding from the CEDaR Environmental Recorders Group for a Bento Lab and supplies. A Bento Lab is a mini lab which provides the tools to allow the extraction and amplification of DNA that can then be sequenced by a large laboratory. They send me back a sequence which is a series of letters which I can then check against online databases to see if I can get an answer as to what the fungus is. So how does this actually work?

The Bento Lab with the gel tray on the left, mini centrifuge in the middle and the thermocycler for the PCR process in the middle

The whole process is very fiddly and there are so many things that can go wrong and contamination is the major concern. The fungus you are sampling from might be contaminated by a mould growing on it or you may cross contaminate your samples so everything has to be done very carefully. I have to change gloves with every sample so go through boxes very quickly. Each razor blade used in taking a sample is chucked out immediately. I am cleaning and cleaning and cleaning!

I usually take samples one day, leave them in the extraction buffer overnight and do the amplification stage the next day. This also helps keep the two stages separate reducing the risk of contaminating later stages with spores from handling the fungi. The equipment largely restricts you to 16 samples at a go but the extraction stage takes a couple of hours on day 1 and the amplification stage on day 2 takes 5-6 hours so it is not a small undertaking. Finally, the identification of the sequence can take anything from minutes to years…..

DNA is concentrated in spores so the best place to get a sample for DNA extraction is from the gills or pores if a basidiomycete. I only need about 2 square millimetres of sample so it is a delicate operation transferring such a small piece into a tube full of extraction buffer. Once the sample is in the extraction buffer, I mash it with a small pestle breaking the cells up so that the DNA is now floating in the extraction buffer.



Mashing the sample in Extraction Buffer

At the start of day 2, I prepare the PCR mix. The PCR process consists of three stages – the two stands of DNA in the double helix are split apart by heating, reagents called primers mark the target locus or section of DNA that contains the part of the genome that tells you most about which species it is (with fungi it is mostly the ITS locus although there are other loci that can also be useful) and then this section is copied or amplified so making it easier to get a sequence when you send it away. There are some fungi like some species of Hebeloma which cannot be identified by the ITS region alone but I only have access to ITS primers at the moment. A primer mix for plants would be different as they need different primers marking different sections of the genome added to the other reagents.

Once the primer mix is ready, I have to transfer the DNA in the extraction buffer to the primer mix and I use dipsticks for these. The dipsticks have cellulose ends and the DNA sticks to this. I dip the dipstick in the tube of extraction buffer and sample, then a couple of times in a wash buffer and then dip it in the PCR mix. This transfers sufficient DNA if I'm lucky. I then repeat for all 16 samples. Once done, I load the 16 samples into the thermocycler on the Bento Lab to run the PCR process. This takes about 2 hours to run.

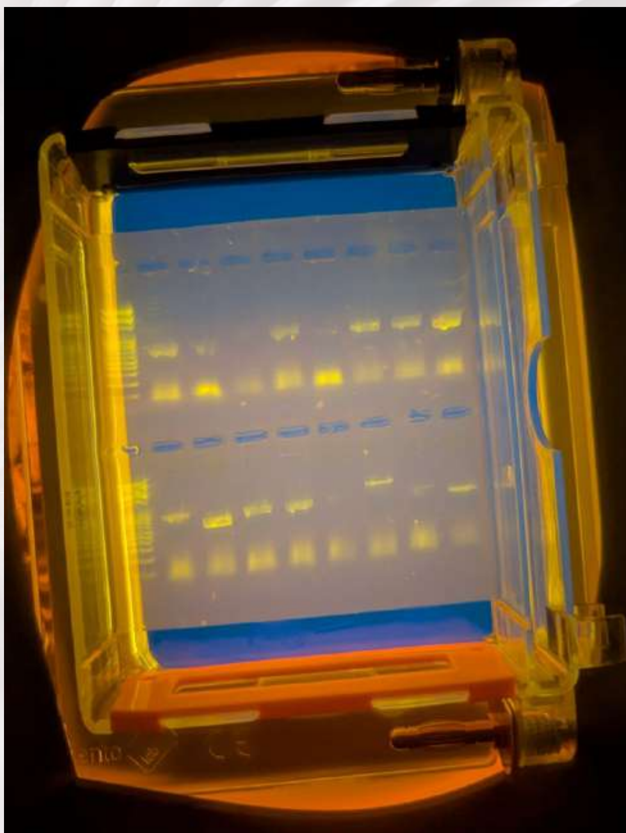
A dipstick to transfer DNA to the PCR mix

PCR tubes loaded into the Bento Lab thermocycler

Next is the most fiddly part. By running an electrophoresis gel, you can see if each sample has successfully had DNA extracted. Firstly, you dissolve an agarose tablet in some buffer and let the gel set into a jelly like form in the gel tray. Combs leave little slots into which tiny amounts of the PCR sample mix can be added. Using micropipettes this takes some practice!!

The gel tray ready for adding 3µl of PCR sample into each slot

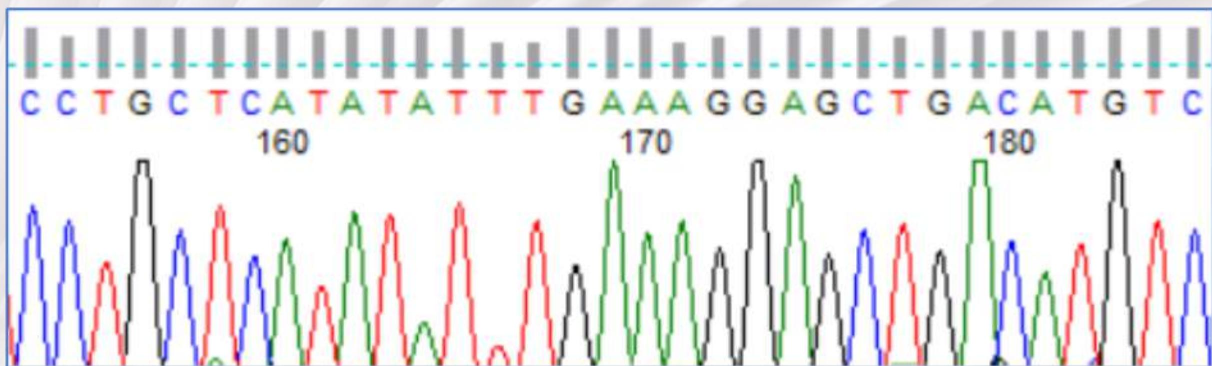
You then link the gel tray into the Bento Lab and run the electric current across it for 45 minutes. Then the moment of suspense as you then can see if you have any DNA (and there are times I have had complete failures for various reasons).



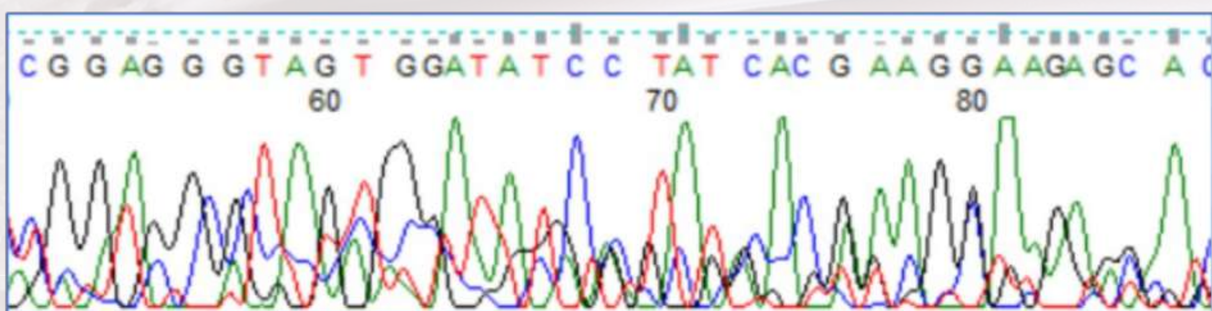
A Gel Result!!!

So, in this example result, looking at the upper row of the two sections, samples 3, 5, 13 and 15 have either nothing or very faint amounts. The others are not too bad. This helps determine how much sample I send to the University of Aberystwyth for sequencing as although too little DNA is obviously a problem, so is too much and I need to send amounts based on the strength of these bands. A blank row does not necessarily mean there will be no sequence as I may have made an error in loading the sample into the gel tray but it does give a good indication. Likewise, a strong result may not give you a good sequence as it may be contaminated! Or the sequencing process could fail.

I post them express delivery and wait for the results. They are usually sequenced over the weekend and on the Monday, I get the results back. You get two files back by email for each sample. One the sequence file containing a long (hopefully) string of letters and the other is the chromatograph file from which the sequence file has been generated. DNA consists of just four bases, Adenine, Cytosine, Guanine and Thymine (A, C, G and T). In the double helix, A will only bind with a T on the other strand and C will only bind with G. As they don't bind with themselves, when the two strands are "unzipped" in the PCR process, the two strands are not identical. When the University of Aberystwyth sequence my samples, I have to decide if I want them done as a forward or reverse sequence. Imagine it as the forward sequence from left to right and a reverse sequence as the bottom strand from right to left. As when a sequence is run, the primers slowly run out and the quality decreases as length increases. Hence, to get a better quality sequence, you can get two sequences in the opposite directions done, combine them and get better quality and longer sequences at both ends. However as sequencing costs almost £5 a go, I only do this for key or difficult specimens.



The chromatograph of a nice clean sequence with strong clean peaks



A very messy sequence with contamination

So the first step in interpretation is to determine the section of the chromatograph that is of good quality and clean and from that, the sequence file can be generated. I do get one from Aberystwyth but may alter the start and end of the sequence myself. The end result is a file that looks like this:

CAGGCAAGTTCCCAATGGTAGGACAATTGGTAGCCGACATTCAACTATATCCAG-
CAACAACACAGATAACTACTTATCAAATTGGAGCTGGTTACATGCTGTCCTGCTCAT
ATATTTGAAAGGAGCTGACATGTCTTTTGCCAGCATACCTTCAACATCCAAGCACAA
CTTAAATTATTAGAACTTAGTTGTGTTGAGGAATAAATGACACTCAAACAGGCATA
CCCTCCTGTGTCAAGAGGGTGCAATATGCGTTCAAAGATTCGATGATTCACTGAATT
CTGCAATTCACATTACATATCGCAATTCGCTGCGTTCTTCATCGATGCGAGAACCAA
GAGATCCATTGTTGAAAGTTGTTTTAAATATTTTTATTACATTCTTCAACTTGTACTT
TGGGGTATGTTAAAATCATAGGCAACAAGCAGGGGACAGTAAAGCCCCTTCCTTGC
TTTCTTGCCTACAGAGTGTGCACAGGTGGATGGATATTAGGTTAGAGTGCACATGCA
ATGAAGCCAGCACATCCTTATTTTCTTTAATGATCCTTCCGCAGGTTCACCTACGGA
AACCTTGTTACGACTTTTACTTCCTC

This is a good length sequence of 600 base pairs. Ideally you sequences of more than 500 but shorter sequences can still tell you things. Now I go to the internet and compare this sequence with sequences on global online databases. The best ones for fungi are GenBank and Unite. GenBank has many more sequences but is messy with many incorrectly labelled sequences. Unite is a managed databases but has less sequences. My first stop is GenBank and I run a BLAST on my sequence. I can paste the sequence into the box at the search page and run the BLAST. It comes back with a lot of hits. The sequence above has the nearest sequence with a 99.66% match as *Clavaria calabrica*, a fairy club and the nearest sequence is of the type speci-

Most sequences are not as clear cut. The target is a match of 98.5% to a type (original) specimen. 95% is miles away. At 90%, you could be in a different genus. The next thing to work out is if the things your sequence is near to really what they say they are. So, then you have to go hunting in the literature looking for the most recent research in that group. A good paper will list the GenBank IDs of the sequences that they looked at which means you can take those sequences and build up what I call a library file of known sequences. You can then draw a phylogenetic tree placing your sequences in with the latest research and be more confident of the results.

Of course there are times, you get no sequences near to what you have. In these cases, I have been contacting researchers to discuss them. In this way, we have a *Hodophilus* found on an NIFG foray at Divis away in Slovakia to be included in the description of a new species and have a mystery *Pseudoomphalina* from Rathlin that has provoked discussions with researchers in Newfoundland and Estonia that could well be new to science….

Our mystery *Pseudoomphalina*

All in all, so far, 7, possibly 9 species have been new to Britain, 33 species new to Ireland so it has been very successful. The whole process is exciting but is very costly (thank you CEDaR), time consuming and can be very frustrating when it goes wrong. But it is certainly changing our knowledge of what is out there.

Microglossum clavatum, new to Britain. Found by and photo by Maia Taylor at Ballyquintin Point

Foray report for 2024, Sites, Number of species and Notable Finds
Report by Chris Stretch.

Reports from Forays 2024

Drumlamph 4/5/2024 22 Species
A Woodland Trust property near Maghera. Some ancient woodland with hazel and a few large oaks.
Some recent plantations including oak and alder.

Interesting finds:
Paraisaria gracilis (was Ophiocordyceps gracilis), a large Cordyceps on buried moth larva. Now found three times in Drumlamph, but nowhwere else in NI.
Tubaria dispersa, a small tubaria with yellow gills that grows under hawthorn, possibly on the old seeds.
Verpa conica, Thimble Morel, a morel-like ascomycete with a smooth thimble-shaped cap that is only attached to the top of the stem.

Hollymount Forest 15/6/2024 27 Species
Wooded drumlins surrounding marshland.

Interesting finds:
Bolbitius reticulatus, Netted Fieldcap, a woodland relative of the common yellow grassland Bolbitius titubans.
Mycena pelianthina, Blackedge Bonnet, a large Mycena with dark purple gill edges, under beech.
Russula praetervisa, a brown sticky Russula with rusty spots at the base of the stem. Under lime.
Entomophthora muscae, a parasite of flies. Identification requires identifying the fly. Ours was on Scathophaga stercoraria.
Erysiphe symphoricarpi, a powdery mildew on snowberry, although not often recorded here this seems to be very common, we found it on almost every snowberry bush we looked at this year.

Glenmore 6/7/2024 17 Species
A steep gorge with mixed deciduous woods.

Interesting finds:
Lasiosphaeria ovina, a small ascomycete with a white felty covering, looking like a minature flock of sheep.
Ophiocordyceps forquignonii, a small cordyceps on a fly.

Grangemore 27/7/2024 18 Species
Sand dunes on the south bank of the Bann estuary.

Interesting finds:
Epichloe baconii, grows round grass stems, there are a number of species, so the grass needs to be identified. Ours was on Agrostis.
Microscypha grisella, a tiny cup fungus in large numbers on the underside of dead fronds of bracken.
Microdiscula phragmitis, another tiny cup fungus on dead stems of phragmites reeds.
Pilobolus kleinii, a dung cannon on cow dung, uses water pressure to fire a capsule containg spores in the direction of the light.

Killynether Forest Park 10/8/2024 36 Species
Steep woodlands, mainly beech and hazel.

Interesting finds:
Russula violeipes, Velvet Brittlegill, an attractive Russula with yellow velvety cap and violet tinted stem. Under beech.
Ramularia lactea, a white mould on violet leaves.

Castle Ward 24/8/2024 60 Species
A National Trust house with formal gardens and mixed woodlands.

Interesting finds:
Hortiboletus bubalinus, a small bolete with flesh colouring distinctively.
Lepiota boudieri, Girdled Dapperling, a medium sized orange brown Lepiota.
Hydnotrya sp., a truffle under spruce. Immature, so not possible to identify to species. Probably H. cubispora.

Iniscarn Forest 31/8/2024 48 Species
Dixon Park 7/9/2024 56 Species

Interesting finds:
Daldinia concentrica, Cramp Balls, a large hard black ascomycete with concentric layer's, on ash. The most common of a number of similar species known collectively as King Alfred's cakes.
Dennisiella babingtonii, a black ascomycete growing on shiny leaves, under the microscope showing dark hairs with a transparent coating. On cherry laurel.

Iniscarn Forest 31/8/2024 48 Species
A hillside forest, mainly conifer plantations, but with some beech and oak.

Interesting finds:
Craterellus lutescens, Golden Chanterelle, a chanterelle with a golden yellow stem and brown cap. Under beech.
Gloeocystidiellum porosum, a white crust on birch.
Mycena amicta, a mycena with blue traces at the cap margin and stem base. Under beech.
Cortinarius rubellus (= C. orellanoides), Deadly Webcap, a very poisonous red cortinarius.

Dixon Park 7/9/2024 56 Species

Interesting finds:
Daldinia concentrica, Cramp Balls, a large hard black ascomycete with concentric layer's, on ash. The most common of a number of similar species known collectively as King Alfred's cakes.
Dennisiella babingtonii, a black ascomycete growing on shiny leaves, under the microscope showing dark hairs with a transparent coating. On cherry laurel.
Hydropus subalpinus, an anonymous looking pale brown mushroom on a fallen branch.

Ballywalter Estate 14/9/2024 60 Species
A private house with gardens and woodlands on the Ards peninsula.

Interesting finds:
Cyathus striatus, Fluted Bird's Nest, a bird's nest fungus, the "eggs" that contain the spores are thrown out by raindrops.
Golovinomyces cynoglossi, a powdery mildew on forget-me-not.
Lacrymaria pyrotricha, an orange version of the Weeping Widow.
Sphaerellopsis filum, an ascomycete that lives on a rust that lives on a sedge.
Sistotrema muscicola, a soft corticoid polypore found on mosses.

Ravensdale Forest 21/09/2024 79 Species
A large mixed forest in County Louth. Some large douglas fir, but also beech.

Interesting finds:
Lophiostoma viridarium, an ascomycete that stains the wood it grows on green. On hazel.
Ombrophila violacea, Violet Jellydisc, a pale purple cup fungus on very rotten wood.
Polycephalomyces tomentosus, a cordyceps like fungus infecting myxomycetes. On Cribraria argillacea.
Coltricia perennis, Tiger's Eye, a tough brown polypore on soil. Found in large quantity under beech.
Stypella vermiformis, a jelly fungus with teeth, on rotten wood.

Slieve Gullion Forest Park 22/09/2024 50 Species
Mixed deciduous and coniferous plantations.

Interesting finds:
Hydnotrya cubispora, a truffle under spruce, on the surface, probably dug up by animals. Most likely imported with the spruce plantation.
Inocybe stellatospora, Wooly Fibercap, with star-shaped spores, under spruce.
Tylospora fibrillosa, a corticoid like a spider's web, can coat large areas of forest floor, with warted triangular spores, under spruce.

Drum Manor 5/10/2024 85 Species
Was a private estate, now a park surrounded by conifer plantations.

Interesting finds:
Cyphella ferruginea, a small rusty brown fungus without gills, looking like an upside-down cup fungus.
Lanzia luteovirescens, a yellowish cup fungus on sycamore petioles.
Ripartites tricholoma, Bearded Seamine, a smallish pale mushroom with small pale brown ornamented spores.
Scutellinia setosa, an eyelash fungus.
Seifertia azaleae, Rhododendron bud blast, covers Rhododendron buds with hundreds of tiny pins.

Glenarm Forest 19/10/2024 57 Species
Mixed conifer and deciduous forest.

Interesting finds:
Hodophilus atropunctus, Dotted Fanvault,
Mycena pterigena, Ferny Bonnet, a tiny white mycena with orange gill edges an cap margin, on dead fern stems.

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Ramariopsis kunzei, Ivory Coral, a small white clavaroid on soil in forests.

Killylane Reservoir 26/10/2024 62 Species
An upland mixture of conifer plantations, grass banks and scrub.

Interesting finds:
Illosporiopsis christiansenii, pink blobs that parasitize lichen(Physcia).
Metarhizium marquandii, Waxcap Facepainter, a lavender coloured mould on the gills of waxcaps.
Lichenomphalia velutina, a basidiomycete lichen, looking like a small agaric, but with granular green algae at the base of the stem.
Cystoderma jasonis, Pine Powdercap, similar to the common grassland Cystoderma amianthinum but with the cap surface breaking up into small cubical spores. Under spruce.
Gamundia striatula, Lined Meadowcap, a small brown agaric, on spruce litter.

Belfast Harbour Reserve 2/11/2024 60 Species
Mixed costal habitat inlcuding a raised beach full of shells, broad grass verges and a wetland reserve with willow stands.

Interesting finds:
Entoloma rusticoides, a small brown omphalinoid entoloma, has previous records from Donegal but not NI. On the raised beach.
Melastiza cornubiensis, Orange Cup, an orange cup fungus with dark hairs on the outside, in large numbers on the raised beach.
Russula laccata, Willow Brittlegill, a purple-red russula under willow.
Tricholoma cingulatum, Girdled Knight, a grey tricholoma with a ring, yellowing on the stem, under willow.

Linford Barrows 9/11/2024 49 Species

Interesting finds:
Gloioxanthomyces vitellinus, a small bright yellow sticky waxcap.
Porpolomopsis calyptriformis, The Ballerina, a pink waxcap.
Clavaria incarnata, Skinny Club, a pinkish club fungus.
Clavaria zollingeri, Violet Coral, a large purple coral fungus.
Microglossum truncatum, one of the Microglossum group, an olive-brown earthtonge.

Overall Statistics

My overall impression was that the year was slow to start, the weather seemed uniformly dull, with no extremes of hot, cold, wet or dry.
This resulted in no major fruiting flushes. The numbers recorded were quite good, but this is possibly because we are recording a greater range of small fungi than we used to, the records for the larger fungi seem to be down.

The figures below give an indication of the numbers for which I have records.

Year	Sites	Total R	Total S
2008	10	495	265
2009	12	405	255
2010	14	794	368
2011	14	625	336
2012	7	364	243
2013	14	603	330
2014	12	652	317
2015	14	602	334
2016	14	632	330
2017	16	920	436
2018	17	898	467
2019	15	638	429
2022	13	517	355
2023	17	753	443
2024	17	841	457