

## DNA Sequencing Results

### Update December 2025

After a bit of a break sequencing finds from the summits of Scottish mountains, I've returned to the Irish backlog of finds. I'm going to write the Scottish finds up for Field Mycology as so far that has produced 4-5 new British records but that is for another time. I've changed the method of DNA extraction to what is known as the Direct method using a strong alkali, PEG400 and the results have been really good so fingers crossed that it will continue. I'm still looking at old finds passed to me as well as some new ones from the last month's survey work. As I am getting good results now, I may try some old ones that have defeated me. Some still won't work. I tried Roy's *Chromosera xanthochroa* and another unidentified *Hygrocybe* from Collin Mountain from 1997 but with no success. Also tried one of Mark's Russulas from the summit of Slieve Donard that had defeated me before but just got back a sequence of *Alternaria*, a mould contaminant so someone is just going to have to go back to the summit of Donard....

- ***Clavaria asperulospora***. A new Irish record from the Curragh. This one has really warty spores and being very dark brown is hard to see. It was only because I was photographing something else that I noticed it. Due to the warty spores, it has yo-yoed between Clavaria and Ramariopsis but the current placement is in Clavaria on the Kew checklist. Only known from 3 sites in GB.



- ***Cortinarius subporphyropus***: Found by Roy Anderson at Minnowburn Beeches in October 2025. This is the second Irish record with the previous one found by Lisa Maddox at Reilly Wood in Fermanagh in 2024. There are only two other known records from GB – see the current issue of Field Mycology. It is a small Phlegmacium with a basal bulb and lilac colours. Very similar to *C. porphyropus*, it has slightly larger spores than this species with spores 9.5-12 $\mu$ m long rather than 8.5-9.5 $\mu$ m.



Photo Roy Anderson

- ***Entoloma argillaceum***: A new British record. Found by Roy Anderson at Linford Barrows on an NIFG foray in 2024. Roy thought at the time it was *E. fuscomarginatum* due to its red gill edge but it would appear this was a red herring and due to variable maturation of spores. *E. argillaceum* is a fairly non-descript *Entoloma* to be fair and I wonder if we've been coming across it on other sites this year as well. The key features are said to be a uniform beige cap colour with a persistent umbo on wide expanded non striate caps and broadly heterodiametrical spores meaning a Q value of 1.2 or greater. Its average spore Q value is 1.30-1.36. This would set it apart from *E. sericeum* which has spores with an average Q value of 1.15.



Photo Roy Anderson

- ***Entoloma cf resutum*:** This one was ambitious as I found this specimen was found at Renvyle in Galway in 2010. It has long bugged me. I keyed it at the time to *Entoloma resutum* which has no British records and only a few in central Europe. I got a good sequence from it but it is near to nothing on GenBank or UNITE. One to keep an eye on and when the next Entoloma volume comes out in the Spring, there will hopefully be a flood of new sequences uploaded....



- ***Hodophilus anatinus*:** Another find from the Curragh in November. This is one of the yellow stiped group and this is the third Irish site. No other records for GB have made it onto the FRDBI so it is difficult to say if it is common or not. There may be another record in the pipeline from Linford Barrows. Found right beside the *Clavaria asperulospora*.



- ***Hydnellum spongiosipes***. One of the stipitate tooth fungi found under broadleaf trees. This is only the third Irish record with one from Donard Park in Down from 2002 and an older record from Killarney in 1946. Found in Glengarriff NNR in West Cork by Phoebe O'Brien. Initially a different tooth fungus, probably a *Phellodon*, was found and then this one was spotted when collecting some fresh specimens. This group often fruit together so if you see one, look for more! Unfortunately, I have not succeeded with the *Phellodon* which was one with a fenugreek smell.



Photo Phoebe O'Brien

- ***Mycopan scabripes***: This one was a surprise as I had never heard of it before. It has been a *Mycena* before as well as a *Hydropus* but now it is the only species in the genus of *Mycopan*. I thought at the time that I may have had *Camarophyllopsis atrovelutina* but that was not to be. I think I may have had it from Linford Barrows as well. The books say it is a woodland species but on both sites, there was not a tree to be seen. Found at Cushleake Sluggan Burn. A first Irish record. There are about 29 records on the FRDBI for GB but this is the most northerly record.



- ***Tuber maculatum***: Truffles are rarely recorded in Ireland but not often looked for in a methodical fashion. I still have a bad memory of finding one at Ballyward in Down when I was first starting out, not knowing what it was and discarding it... This truffle is reasonably common in GB but this is the first Irish record. Found by Denise Kelly in Roscommon while digging up potatoes.



Photos Denise Kelly