

DNA Sequencing Results

Update August 2025

- ***Alnicola spectabilis***: I've reported this earlier as a possible new British record. *Alnicola* is also known as *Naucoria* but this species was described as an *Alnicola* and has never been given a *Naucoria* name so *Alnicola spectabilis* it is. Chris had a find from Coleraine in 2023 and I found it in Mullynacoagh Wood in Crom estate last year.



Mullynacoagh specimen

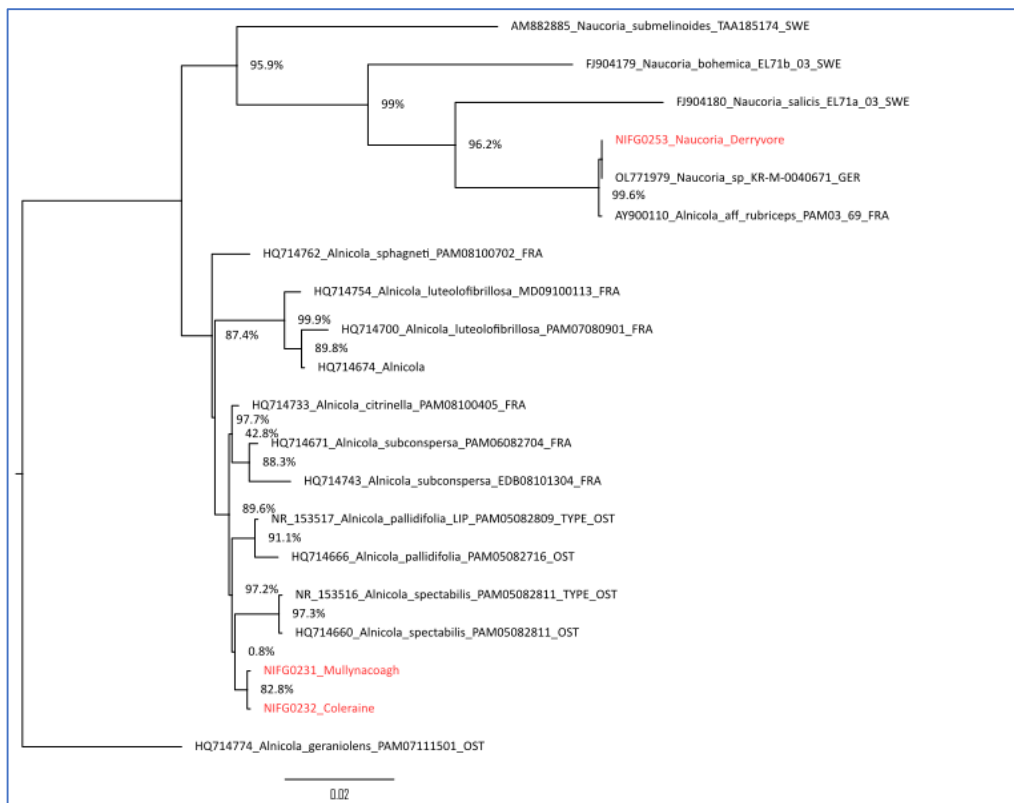


Coleraine specimen looking chunkier



You can see the caulocystidia at the top of the stipe

Our sequences are identical but not quite long enough. A sequence with 500 base pairs is the target. The Mullynacoagh one has been improved but is 463 base pairs and the Coleraine one is 425. The problem with smaller lengths is we may be missing key areas but over 400 base pairs is not bad, just not ideal. If I draw a phylogenetic tree with the sequences comparing against those listed in Moreau's paper (*Cryptogamie, Mycologie, 2013, 34 (2)*), our sequences cluster slightly apart from *A. spectabilis* but with more sequences, it may look quite different.



Next step microscopy. The published cap colours are a bit different to ours and are:

“first dark ferruginous brown, dark red brown (M 5YR2/2) with a distinctly lighter margin, pale ± flesh-coloured on 2-3 mm, minutely furfuraceous at disc and gradually more distinctly towards margin, hygrophanous slowly fading from disc to pale foxy-ochre”

So, as our specimens are quite pale, have they dried out a little? No idea. The presence of caulocystidia at the top of the stipe is important and fits *A. spectabilis* and our spore shape fits exactly with a pointed acute apex and only slightly roughened.



Coleraine specimen spores

So, do we have *Alnicola spectabilis*? Ideally, I would have liked a longer sequence and have tried on a number of occasions to get a sequence in the other direction but have repeatedly failed. I have passed the sequences and photos to Pierre-Arthur Moreau in France who is writing another paper on the group next year so we may have to wait a while for this to be resolved.

- ***Amanita coryli***. Another reasonable but not fantastic sequence but they all say *A. coryli*. I placed these sequences in the tree published in Varga et al Mycological Progress (2024) 23:38 (A recent paper on the section *Vaginatae* group) and they cluster with *A. coryli*. However, the curious thing about this paper is that there is no sequence of *A. vaginata* itself used in the paper. This is because *A. vaginata* was first described way back in 1793 and it is not always possible to get DNA from type specimens so old (if they still exist). It is possible that *A. coryli* may become redesignated as the epitype of *A. vaginata* to clear the confusion up and it so the *A. vaginata* name would take precedence and we would go round in a complete circle with this one! Found in Cavehill by Mark Wright.



- ***Cortinarius saniosus***. This one was found on the NIFG foray at Belfast Harbour last year under the Salix scrub. We found a few *Cortinarius* in there and one I had already sequenced as *C. decipiens*. *C. saniosus* is typically found under Birch and Willow in wet places. This photo was taken from Craigmacagan on Rathlin Island. There are scattered records from Northern Ireland.



- ***Dermoloma intermedium***: Now that the new *Dermoloma* paper is out (<https://imafungus.pensoft.net/article/157337/>), what had been reported before as *D. alexandri* now becomes *D. intermedium* but this is turning out to be not uncommon. A sample from Galboly is the first outside Fermanagh and with this species now known to be very variable in terms of cap colour from brown to brownish grey, it is likely to be found a lot more. It will be interesting if we find it using keys as well as sequencing. With inamyloid spores, a hygrophanous cap and longer spores than *D. cuneifolium*. Note the brownish colours on the specimen.



- ***Hygrophoropsis aurantiaca***: Two specimens of possible *Hygrophoropsis macrospora* from NIFG forays both turned out to be the normal *H. aurantiaca*. I often think that I must have something different to *aurantiaca* but it is a very variable species....
- ***Inocybe freyae*??** This one is driving me mad. I keep getting short tantalising bits of sequence that suggest *I. freyae* which could be a new British record but the sequences are nowhere near good enough. I keep trying different methods but may not get to an answer. So, if anyone goes to Mullynacoagh on the other side of the lough from Crom, do collect some *Inocybe* specimens. It does not really help however that I don't have a photo for this one....
- ***Laccaria bicolor***: From Mark Wright from the summit of Slieve Donard on 30/08/2021. Mark and I have both recorded *L. bicolor* from the summit before but felt a bit uncomfortable with the ID but they were right! I think this was the specimen:



While on the subject of montane fungi, I was Munro bagging on Friday and had a bumper day on top. It included two different *Laccaria* finds both of which could be new to Britain. *Laccaria montana* is one (although it could be *pseudomontana*) which is a small *Laccaria* with ellipsoid spores (Q values of up to 1.9).



The other was a very large bright orange specimen. First thoughts were *L. proxima* but the spores are globose. It could be something called *L. nobilis* but both will need sequencing. So do look at other *Laccarias* with *Salix* on the tops as well.



There were lots of other things up on the top that we have never found in Ireland – *Cortinarius alpinus* which is very distinctive, masses of *Amanita nivalis*, *Inocybes* and a couple of *Russulas* yet to be identified. I have failed on a couple of *Russulas* from Mark and have tried them a few times. So, if anyone is up to it, now is exactly the time to collect some fresh specimens on the summits of Donard and Commedagh....

- ***Melanoleuca fontenlae***: *Melanoleucas* are not usually exciting but this find from Portstewart Dunes by Chris Stretch looks to be a first British record. It is a small grey *Melanoleuca* with a dark stipe and dark brown context in the stipe base. With urticoid cystidia. Only known from sand dunes or very sandy soil.



- ***Microglossum fuscorubens***: From Galboly. I've had a couple of sequences of *M. fuscorubens* now and this was to be sure that the obvious field character of a pink stipe was dependable and it was. I very good match to *fuscorubens*. I've seen photos on the web of things labelled as *M. rufescens* with a pink stipe but these are maybe doubtful identifications.



- ***Mycena pura* Clade VIII:** I am often surprised at the large variation of *Mycena pura* especially in grasslands. We have been occasionally recording the yellow variety, *Mycena luteovariegata* but I found this collection that was partly yellowish, partly lilac so where does this fit in? A paper in 2013 on the complex by Harder & Laessle et al (Fungal Biology 117 p764-775) looked at the complex to try and work it out and identified a number of distinct genetic clades within the complex but could not find consistent field characteristics to distinguish them all. This one comes out within Clade VIII and it looks like that is far as I can go with this for now. Found near Legland in West Fermanagh Scarplands.

