

# DNA Sequencing Results

Update January 2026

## Waxcaps

- *Cuphophyllus radiatus*: Two records, one from Tievebulliagh found by Mark Wright on 03/11/2025 and the second from the Giant's Causeway the following day. These are the first Northern Irish records (it has been found on the Curragh). *C. radiatus* was in the first edition of David Boertmann's book but was reduced to a synonym of *C. flavipes* in the second edition. That was not universally accepted and it remained as a distinct species on the Kew Basidio checklist and, molecularly, they are distinct. The lack of yellow at the base distinguishes from *flavipes* and the thin fibrillose stipe and the cap having no rancid taste or smell distinguishes from *lacmus*. The sequence illustrates one of the problems of interpreting sequences as the blast comes out as *flavipes* but sequences were often named based on the latest edition of Boertmann's book. However, when a phylogenetic tree is drawn from similar sequences, the sequence of *radiatus* is quite distinct from *flavipes*.



*Cuphophyllus radiatus* at Tievebulliagh. Photo by Mark Wright

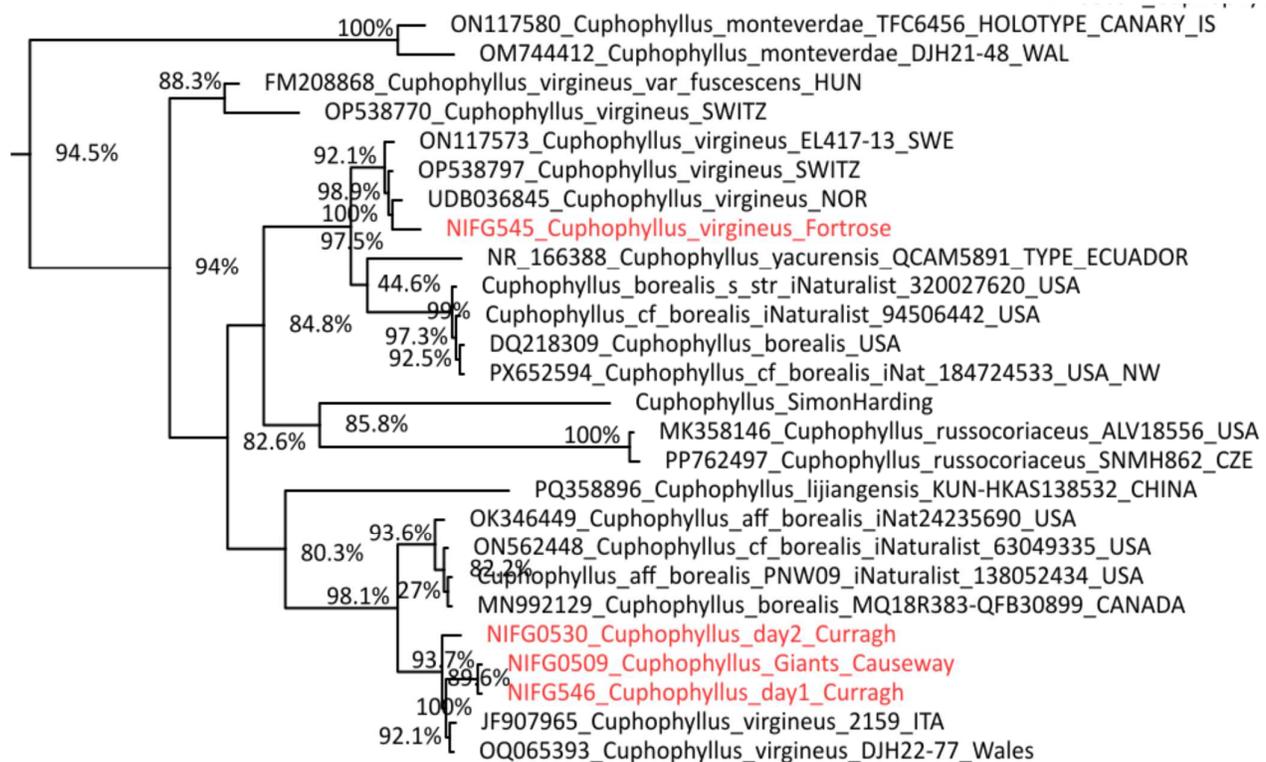


*Cuphophyllus radiatus* at Giant's Causeway

- ***Cuphophyllus aff. virgineus***: Back to these largish snowy waxcaps that look a little like *C. pratensis* var. *pallidus*. The caps were a bit greasy (after lots of discussion and confirmed under the microscope) but I was wondering if it could be *C. angustifolius*. However, the sequences take it to near to *C. virgineus*. A second find from the Curragh from the first day there has now also come out in this area. I found a batch more sequences of this area on iNaturalist from the US but when I draw a phylogenetic tree, the two sequences from the Curragh and the one from the Giant's Causeway cluster with a Welsh and Italian sequence and appear a bit different to an American cluster labelled "*aff. borealis*" or the Pacific North West Clade 9. This website - <https://www.alpental.com/psms/ddd/Hygrophoraceae/index.htm> is very interesting as they think they have a number of clades in this group. Unsure as to where the actual Snowy Waxcap sits in the tree, I collected a "typical" Snowy from the Black Isle and sequenced that and that comes out in a very different group. It is interesting that this cluster is all European and the near by American ones are grouped differently. So not *virgineus*, not *borealis* and not var. *pallidus*. Hence, a potential undescribed taxa. Hopefully David Boertmann's new book later this year will shed light on this.



*C. aff. virgineus* from the Curragh. This one I find easier to believe. Found by Maria Long.



## Fairy Clubs

- Clavaria aff. greletii***: This one, reported in the first December update, has got more complicated. The Blast came out right beside a sequence from a specimen held at Kew that was labelled *Clavaria asperulospora*. This is a species with distinctly warty subglobose spores. However, when I got my microscope back from repair, it was clear this was not *asperulospora* as the spores were large, ellipsoid and smooth. I queried the sequence at Kew and Martin Bidartondo who uploaded the sequence had a look at the specimen. Subsequently to Martin uploading the sequence to GenBank, it was re-determined by Peter Roberts as *Clavaria atroumbrina*. However, the Curragh specimen is not that either. The spores are too large and I found a loop clamp at the base of a basidia which places it in the *greletii* group. However, the spores do not match either *greletii* or *greletoides* and the sequence is a long distance from either of those. David Harries in Wales has very kindly sent me some LSU primers as this locus is often preferred for Fairy Clubs so I am currently trying to get some LSU sequences for this species to see if that helps. I am in correspondence with Ivona Kautmanova in Slovakia who wrote a paper on the dark European Clavarias and she will look at the LSU sequence if it is successful.



*Clavaria aff. greletii*, The Curragh



Loop clamp at base of basidia

- ***Clavulinopsis spp.*** Another continuing saga. I got sequences in the other direction for the slipping sequences and pasted them together at the point they slipped but it is still not clear what they are. They appear different to *Clavulinopsis trigonospora*. I am trying to get LSU sequences for these to try and resolve them.

## Pink Gills

- ***Entoloma argillaceum***: Roy Anderson's find from Linford Barrows on an NIFG foray last year has turned out to be a new British record as reported last time. I now have a second sequence of it from Luriegethan above Waterfoot and beginning to wonder if finds I have from Rathlin and Cushleake are also this. If so, this is a species that has been quite overlooked!! It is a very large *sericeum* like species with an umbo but with heterodiametrical spores (elongate rather than equal sided).



*Entoloma argillaceum*, Luriegethan

- ***Entoloma coracis***: The first British record of this was found at Little Deer Park ASSI in 2022 and I have found it a few times since. We used to record the black *Entoloma corvinum* quite a lot but this has been split into a number of species and it is unsure if *corvinum* itself actually occurs in the British Isles. Of this group, I have only found *Entoloma coracis* and it is turning out to be common. This was found on Roonivoolin on Rathlin.



The dark gill edge is not always present and is different under the microscope in structure to *serrulatum*

- ***Entoloma infula***: Found on Little Deer Park, this is in section *Nolanea*. Not an uncommon species, it is good to have this confirmed.



*Entoloma infula*, Little Deer Park

- ***Entoloma viiduense***: A second Irish record, first found on Ballygalley Head in 2023. This was found at Binevenagh on the first training course right near the entrance gate. It is a noticeably scaly capped species that browns with age and with a polished blue stipe. I think that I have misidentified this in the past and it may not be uncommon. I think this is an older specimen with the scales less pronounced and the cap browner than illustrated in *Field Mycology* in Feb 2022.



## Dermolomas

- ***Dermoloma cuneifolium***: With the recent paper on *Dermoloma* describing many new species, I have made a number of collections of this genus to try and work out what species we have in Ireland. This is the first sequence from the 2025 survey and it turned out to be the common *Dermoloma cuneifolium*. Found at Gortnagory by Ruan McCreedy. With the browner cap, I thought that this might be *D. intermedium* but it wasn't.



## Others

- ***Gamundia striatula***: This is a lovely little species that has scattered record in Ireland that some have said that it should be a CHEGD species in the D group. It is a small brown species with a striate, slightly gelatinous, cap, amyloid verrucose spores and large flexuous cheilocystidia. Found in Dungiven Church of Ireland.



