Survey of the Grassland Fungi of County Clare

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October – November 2006

This project has received support from the Heritage Council under the 2006 Wildlife Grant Scheme
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Background

Waxcaps have been described as the orchids of the world of fungi. They are often startling in colour from reds, oranges and yellows to whites and browns. They can smell of honey or cedar wood or, less pleasantly, oily or nitrous. They are usually found in grasslands although they can also be found in woods. They are one of the groups of grassland fungi that are now recognised as excellent indicators of ancient unfertilised grassland. Other grassland types are the Entolomas (pink spored gill fungi), the Clavarioids (fairy clubs) and Geoglossaceae or earth tongues. They can all be found in a range of grassland types from dunes to uplands, from lowlands to gardens. Indeed some of the best species like *Hygrocybe calyptriformis* (see photo below) are more often found in gardens than other grassland types. *Hygrocybe calyptriformis* was on the list of fungal species proposed for inclusion onto the Berne Convention.

These species are sensitive to the application of artificial fertilisers, especially those containing phosphorus. It may take a considerable time for fertilised sites to be rehabilitated even if managed positively for nature conservation arguably making grassland fungi better indicators of ancient unfertilised grasslands than higher plants.

The great unknown however is just what these species are actually doing in the soil. A recent paper ((Griffith 2002)) points to some possible answers based on stable isotope analysis. Stable isotopes of Carbon (13C) and Nitrogen (13C) occur naturally and work looking at the patterns of 13C and 13C enrichment in ectomycorrhizal and saprophytic fungi have shown quite different enrichment patterns. Waxcaps, however, appear different to normal saprophytic fungi as they are more depleted in 13C and more enriched in 13N. Clavarioids and Geoglossaceae are even more different, but Entolomas are more typical of saprophytic fungi. This could mean that Hygrocybe spp., Clavarioids and Geoglossaceae could be deep humic decayers rather than normal surface litter decayers. The fact that Entolomas are more typical saprophytes supports the idea that sites good for Waxcaps are not necessarily good for Entolomas.

**Assessing site quality from fungal data**

The first recognition of grassland fungi in Ireland was a paper in 1992 (Feehan 1992) on the Curragh and since then, interest has been growing as it has been recognised that this unique community is seriously threatened across Europe.

Various systems have been proposed to rank sites for grassland sites for their fungal conservation value. Rald in Denmark (Rald 1985) proposed a system based on the number of species of *Hygrocybe* and Rotheroe proposed a system that included a weighted score for
rarer species that are restricted to species rich sites (Rotheroe 1999). This was further
developed by myself and others (McHugh 2001) when we proposed a weighted scoring
system for Ireland. In this paper we presented a list of the best sites for grassland fungi in
Ireland, but no sites in County Clare were included as they had not been surveyed. A three
year survey of grassland sites was concluded in Northern Ireland in which every 10km
square in Northern Ireland was surveyed (see www.nifg.org.uk/waxcaps.htm). This is still
being written up, but this new data will lead to a further refinement of the weighted scoring
system.

Aims of this project

The main aim of this survey was to provide a baseline of information on this potentially
mycologically rich county. This would be done by covering at least 12 sites in at least 10
different 10km squares over a two week period between 22/10/06 and 04/11/06. From
experience, this is usually the best period for fruiting for grassland fungi in Ireland as this
group always fruits later than woodland fungi. The target group of species were the
Waxcaps (genus Hygrocybe), the non-woodland Fairy Clubs (Clavariaceae), the Pink gills
(Entolomaceae), the earth tongues (Geoglossaceae) and the genera Camaraphyllopsis,
Dermoloma and Porpoloma. These species would be thoroughly searched for.

The data collected was to be compared with the Northern Ireland data, a recent Welsh
survey in which I was also involved to provide a British Isles context for the County Clare
sites. This data and interpretation would also feed into the County Clare Biodiversity
Strategy and is being provided to the Clare Biological Records Centre and their associated
website. Images collected during this survey and presented in this report have also been
provided for unlimited used on this website (www.clarebiodiversity.ie).

An additional aim was to provide more data from the Republic of Ireland to refine the Irish
scoring system which is based heavily on data from Northern Ireland.

Methodology

Local mycologists (Tom Harrington, University College Limerick, Sharon Parr of the Burren
LIFE project, Stephen Ward, Howard Fox of the National Botanic Gardens, Roland McHugh
of the Dublin Institute of Technology and Hubert Fuller of UCD) and Clare County Council
staff (Elaine Keegan and John Murray) were contacted before or during the survey for
information on known sites. The sites suggested were invaluable as it saved time searching.

The 1:50,000 maps were studied and target squares and possible sites within each
identified. The sites were chosen due to information provided by those above, personal
knowledge of the sites, likelihood of site quality and ease of access. In many squares, there
were no obvious sites as the squares were dominated by agricultural grassland, but in such
squares, churchyards are well known as refugia for grassland fungi as there is often no
requirement (or funding) to fertilise the lawns. In addition, Hygrocybe calyptriformis had not
been recorded before in County Clare and as this species in particular is well known to fruit
in churchyards, a special effort made to visit a wide range of churchyards to search for this
species.

Each site was visited for as long as was necessary. Whilst the target groups were searched
for as priority, all species of fungi encountered were recorded. However many of these latter
records were of a casual nature and many of the species maps produced for these species
are very unrepresentative as they were only recorded if seen and were often not searched
for.
When notable species were found, specimens were taken for microscopical examination. Herbarium specimens were dried on a continental fruit drier and are being passed to the National Botanic Gardens in Glasnevin as well as the Royal Botanic Gardens in Kew. The target species are listed in the Species Reports.

The literature used to identify the grassland target groups were as follows:


**Results**

**Weather**

The fruiting of fungi is particularly affected by weather. Fruiting requires moisture but too much rain can hinder fruiting. Although some species of waxcaps can fruit in July (even June), the main flush is usually in October and November. In coastal areas in Ireland, the fruiting period can continue through December even into January due to the infrequency of frosts. Entolomas are known to generally fruit earlier than waxcaps (Newton 2002) and earth tongues are probably the latest of all, often not appearing at all until November on some sites.

2006 was a warm summer and it was followed by a wet autumn. The two week survey period was marked by generally mild but often very wet weather in the first week followed by a fine settled period in the second week which featured the first frosts at the end of the week.

**Summary Results**

The original plan was to visit at least 12 10km squares and it was estimated that the mileage during the two weeks would be 400 miles. In the end, 35 10km squares were visited and 835 miles were covered. Whilst the sites visited in a number of the squares were small churchyards, this was done either because these were the only likely sites in that square and/or a particular (but unsuccessful) effort was made to find the first record of *Hygrocybe calyptriformis* for Clare.

Overall, whilst 155 species of fungi were recorded, with 23 of the 40 Irish species of *Hygrocybe* found in a two week period, the overall feeling was that of slight disappointment. The best site found was Black Head on the Burren with 16 species of *Hygrocybe* which is good and better than any site found in the Northern Ireland survey, but this was more of the exception and finding good sites was difficult.

This could be because there are either few good sites or this was not the best fruiting time. Fungi are a difficult group to survey as for most of the year, they are virtually invisible living under the soil. They are only obvious when they fruit and the conditions for this vary from year to year. In Wales, this two week period was the main fruiting season in 2006 but September had been fairly dry in southern Wales unlike western Ireland. Hence it is possible...
that the main fruiting period was missed, but two sites were visited twice during the two week period and both were better on the second visit. Hence, it is possible that the main fruiting period was still to come. Some fungi seem to need a cold period or a drop below a particular temperature to trigger fruiting and the mild autumn could have meant a delay in fruiting.

For sites outside the Burren, much of the land is intensive agriculture and is generally not suitable for waxcaps which depend on old unfertilised grassland. Even the coastal areas often have intensive agriculture right up to the cliff edge leaving the fungal interest restricted to a small strip along the cliff edge. Upland acidic grassland is often an excellent habitat for waxcaps, but the potential areas visited (Slieveecallan, Ballycroum) had coniferous plantations or improved fields adjacent to bog with no transitional acidic grassland which are so good in Northern Ireland and Wales. Slieve Bearnagh might offer more possibilities but lack of time prevented this area from being visited.

It was surprising that the best churchyard only yielded 4 species of *Hygrocybe* despite the habitat appearing good. This would suggest that this was not the main fruiting period.

However, despite this overall feeling, this survey did find 6 new Irish records as reported below and has created a solid baseline from which to make repeat visits to sites with good potential. An additional aim was awareness raising and with radio coverage on Clare FM, this report and all records and images going to the Clare Records Centre website, this hopefully will have achieved this aim.

**Notable Finds**

**New Irish Records**

There are no published records, notes as occurring in Ireland in the Checklist of the British & Irish Basidiomycota (Legon, N. & Henrici, A., 2005) or records in the Fungus Records Database for the British Isles (FRDBI) hosted by the British Mycological Society for the following species:

*Camarophyllopsis micacea* (Berk. & Broome) Arnolds. This was found in three sites; Mullagh churchyard (27/10/06 - R046730), Milton Malbay churchyard (2/11/06 - R057796) and Cross churchyard (31/10/06 - Q799511). This is uniformly brown species with distant decurrent chocolate brown gills and a cellular cap structure.

*Entoloma ochromicaceum* Noordel. & Liiv. An ochreous brown Entoloma in the Leptonia group. Marked by a jagged serrulatum like gill edge. Found on Cliffs of Moher (23/10/06 - R03029079)
Entoloma rhombisporum var. floccipes Noordel. A small species with distinctive rhomboid spores and a floccose stipe. Found on Rine Point (28/10/06 - M210101).

Cortinarius nanceiencis Maire Found on Turlough Hill (29/10/06 - M29830643) associated with Dryas octopetala. A yellow slimy capped species marked by a violet reaction on the flesh with KOH.

Cortinarius urbicus (Fr.) Fr. Found in coniferous plantation with Salix on a forest road edge at Ballycroum (27/10/06 - R52768842)

Hebeloma fragilipes Romagn. A small delicate species found in coniferous plantation with Salix on a forest road edge at Ballycroum (27/10/06 - R52988856)
Other Notable Records

**Chamaemyces fracidus** (Fr.) Donk
Found on Mullagh More, this species is rarely recorded in Ireland. It is distinguished by dark spots on the stipe.

![Chamaemyces fracidus](image1.jpg)

**Clavulinopsis umbrinella** (Sacc.) Corner
A grey brown densely branched Fairy Club that is one of the rarer species in this group. Found in the churchyard at Inagh.

![Clavulinopsis umbrinella](image2.jpg)

**Hygrocybe aurantiosplendens** R. Haller Aar.
A rarer species of waxcap that is often over-recorded. It was illustrated in David Boertmann’s book with a white pruinous apex to the stipe but the common *H.chlorophana* also shares this character but it has very different gill trama. Found on a number of Burren sites and it was this frequency of records that was most notable.

![Hygrocybe aurantiosplendens](image3.jpg)

**Hygrocybe calciphila** Arnolds
This species is usually restricted to sand dune sites and there are only a handful of Irish sites for this species. Noted by its dry scaly cap and spore size.
**Hypocreopsis lichenoides (Tode) Seaver**
A very distinctive species known as Hazel Gloves. A UK BAP species, it is usually restricted to undisturbed coastal hazel woods but on the Burren found in inland sites on colonising hazel as well as older hazel woodlands. Sharon Parr (Burren LIFE project) has found this on 17 sites making it one of the best areas in the British Isles for this species.

![Photo: Ray Woods](image1)

**Lactarius lacunarum Romagn. ex Hora**
Not an unusual species of milkcap as such, it is usually found in wet woodland. However, here it was found at Ballard Bay and Loop Head associated with *Salix repens* in coastal heath.

![Photo](image2)

**Lepista irina (Fr.) H.E. Bigelow**
This is a large white *Lepista* that could be confused for a large *Clitocybe* except that it has pink spiny spores. Rarely recorded in Ireland and found here high on Black Head on the limestone pavement.

**Lepista panaeolus (Fr.) P. Karst.**
A large *Lepista* found in a number of sites near the coast. A fairly non-descript grey-brown colour, it can have rings of watery spots near the cap margin. Rarely recorded in Ireland.
Leucoagaricus leucothites (Vittad.) M.M. Moser ex Bon
Rarely recorded in Ireland, this is more commonly found in the south of GB. A large white spored fungus with free gills and a prominent ring. Found on the dune edge at Liscannor beach.

Pluteus plautus (Weinm.) Gillet
Rarely recorded in Ireland, this large white to grey Pluteus was found on buried wood (probably Ulex europeus) near the summit of Rehy Hill.

Schizophyllum commune (L.) Fr.
Not mentioned here because it is rare, but because if its potential commercial damage. Found bursting out of silage bales on 6 locations without any systematic looking. These observations were made purely when driving past hence this species will be very common on silage bales, curiously much more so in Clare than observed in Wales. This species can make the silage unpalatable to cattle (Brady 2005).

Tulostoma brumale Pers.
The Winter Stalk Puffball. Rarely recorded in Ireland with, for example, only one record from Northern Ireland. This is its first record for Clare and was found on Rine Point.
The Fungi associated with Mountain Avens, *Dryas octopetala* and *Carex* spp on the Burren

Ectomycorrhizal fungi are normally found associated with trees. These species form a sheath around the root tips and form a symbiotic relationship with the tree providing nutrients and protection against soil pathogens in return for carbon produced by photosynthesis. Occasionally, ectomycorrhizal fungi form partnerships with non tree species like Rock rose, *Helianthemum* spp or Mountain Avens, *Dryas octopetala*. Tom Harrington from University College Limerick has researched the fungi associated with *Dryas* on the Burren for some years (Harrington 2003) and has shown that this is a very distinctive community. Many of the species are normally associated with coniferous species and when Scots Pine disappeared from the Burren, it is possible these species switched host to *Dryas octopetala*. It is always fun to see the fungal part of this relationship towering over its vascular plant partner. Species forming ectomycorrhizal relationships with *Dryas octopetala* on this survey were *Cantharellus lutescens*, *Cortinarius brunneus*, *Cortinarius calochrous*, *Cortinarius cinnamomeus*, *Cortinarius infractus*, *Cortinarius nanceiensis*, *Cortinarius odorifer*, *Cortinarius venetus*, *Hebeloma sinapizans*, *Hebeloma velutipes* and *Tricholoma scalpturatum*.

Further work by Tom Harrington and Derek Mitchell of UCD (Harrington 2002), (Harrington 2002) has shown that some of the species of *Cortinarius* (here *C. cinnamomeus*) can also form mycorrhizal like associations with species of *Carex* on the Burren. One further species of *Cortinarius* that is often found in grasslands where there is no obvious mycorrhizal partner is *C. croceus*. This species is very similar to *C. cinnamomeus* but it has more yellow gills and longer paracystidia. *C. croceus* was found on three sites in this survey – Loop Head, Doomore and Carrickmacnaghten.
Notable Absentees

The most obvious notable absentees in terms of the target grassland fungi were *Hygrocybe calytriformis* and *Hygrocybe irrigata*. Extensive efforts were made to find *Hygrocybe calytriformis* with over 30 churchyards visited without success. It is very possible it is present and it could be a good species to involve the public in looking for as it is so distinctive. Quite why *Hygrocybe irrigata* was not found is a mystery as it is not an unusual fungus in Northern Ireland or Great Britain. It is a grey brown species that is very viscid.

The most notable non-waxcap absentee was the brown earth tongue, *Microglossum olivaceum*. A Biodiversity Action Plan species in the UK, this is noted by its colour (although variable from brown to blue-green), it is not black like most earth tongues and is very different under the microscope.

10km square and Site Rankings

Both the total 10km squares and individual sites were ranked according to numbers of species of *Hygrocybe* and the individual sites were also ranked according to their Irish Score. Map 1 shows the distribution of the 10km squares surveyed and the number of species of *Hygrocybe* found in each square. Appendix 1 gives full 10km and site species
lists. The map shows the importance of the Burren for grassland fungi with the other important area being the coastal grasslands to the south of the Burren.

It must be noted that varieties are not counted separately so while in the species lists, there may be more than one variety of say *Hygrocybe virginea* is listed, it was only counted once in the list.

**10km Squares Ranked by Number of species of Hygrocybe**

<table>
<thead>
<tr>
<th>Ranking</th>
<th>10km Square</th>
<th>Type</th>
<th>No. Hygrocybe</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>M11</td>
<td>Burren</td>
<td>16</td>
</tr>
<tr>
<td>1</td>
<td>M30</td>
<td>Burren</td>
<td>16</td>
</tr>
<tr>
<td>3</td>
<td>R29</td>
<td>Burren</td>
<td>14</td>
</tr>
<tr>
<td>4</td>
<td>M10</td>
<td>Burren</td>
<td>13</td>
</tr>
<tr>
<td>4</td>
<td>M20</td>
<td>Burren</td>
<td>13</td>
</tr>
<tr>
<td>6</td>
<td>Q96</td>
<td>Coastal</td>
<td>11</td>
</tr>
<tr>
<td>7</td>
<td>R08</td>
<td>Coastal</td>
<td>10</td>
</tr>
<tr>
<td>8</td>
<td>R09</td>
<td>Coastal</td>
<td>9</td>
</tr>
<tr>
<td>9</td>
<td>Q75</td>
<td>Coastal</td>
<td>6</td>
</tr>
<tr>
<td>9</td>
<td>Q86</td>
<td>Coastal</td>
<td>6</td>
</tr>
<tr>
<td>11</td>
<td>R39</td>
<td>Burren</td>
<td>5</td>
</tr>
</tbody>
</table>

The other important feature of this table is how quickly the numbers of *Hygrocybe* tail off. Anything below 10 is really quite average.
County Clare - 10km squares visited with number of species of Hygrocybe
Sites Ranked by Number of species of Hygrocybe

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Site</th>
<th>10k</th>
<th>Hygrocybe</th>
<th>IrishScore</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Black Head</td>
<td>M11</td>
<td>16</td>
<td>30</td>
</tr>
<tr>
<td>2</td>
<td>Turlough Hill</td>
<td>M20</td>
<td>13</td>
<td>23</td>
</tr>
<tr>
<td>3</td>
<td>Doomore</td>
<td>M30</td>
<td>12</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>Tullycomman, Carran</td>
<td>R29</td>
<td>11</td>
<td>19</td>
</tr>
<tr>
<td>4</td>
<td>Cliffs of Moher</td>
<td>R09</td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td>6</td>
<td>Ballard Bay</td>
<td>Q96</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>6</td>
<td>Carrickmacnaghten</td>
<td>M10</td>
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<td>15</td>
</tr>
<tr>
<td>8</td>
<td>Fahee North</td>
<td>M30</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>9</td>
<td>Rehy Hill</td>
<td>Q74</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>9</td>
<td>Caher Valley</td>
<td>M10</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>9</td>
<td>Bridge of Ross</td>
<td>Q75</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>12</td>
<td>Mullagh More</td>
<td>R39</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>12</td>
<td>George's Head</td>
<td>Q86</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>12</td>
<td>Fanore dunes</td>
<td>M10</td>
<td>5</td>
<td>8</td>
</tr>
</tbody>
</table>

It is again noticeable that the number of good sites found was disappointing. Rald estimates that any site with more than 11 species of Hygrocybe in one visit is of national importance and while this is probably on the low side for the British Isles, this would mean only 5 sites are potentially of high value for grassland fungi. The value of the Irish scoring system which includes a species quality score is that in Ireland, where there are few mycologists, it highlights sites that may have been visited outside the optimum period but which contain better indicator species. These sites in particular need to be visited again and the Caher Valley and Bridge of Ross jump out in this list. No churchyards made the top 12 sites.

Species Rankings

The grassland target species were ranked according to the number of 10km squares at which they were found and compared to their rank in Northern Ireland. The species in the Irish scoring system are ranked in three categories with 4 points given to the category A species (the best indicators), 2 points to the B species and 1 point to the C species. If a species has no score, it is not included in the present scoring.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Species</th>
<th>10km</th>
<th>Type</th>
<th>Irish Score</th>
<th>NI Rank</th>
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<td>Hygrocybe conica</td>
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<td>H</td>
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<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Hygrocybe virginea</td>
<td>20</td>
<td>H</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Hygrocybe chlorophana</td>
<td>18</td>
<td>H</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>Hygrocybe quieta</td>
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<td>H</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>Hygrocybe russocoriacea</td>
<td>12</td>
<td>H</td>
<td>1</td>
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<td>6</td>
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<td>7</td>
<td>Hygrocybe coccinea</td>
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<td>4</td>
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<td>Hygrocybe punicea</td>
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<td>8</td>
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<td>11</td>
<td>Clavulinopsis helvola</td>
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<tr>
<td>12</td>
<td>Geoglossum cookeanum</td>
<td>6</td>
<td>G</td>
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<td>Rank</td>
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<tr>
<td>12</td>
<td>Hygrocybe reidii</td>
<td>6</td>
<td>H</td>
<td>1</td>
<td>9</td>
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<tr>
<td>12</td>
<td>Trichoglossum hirsutum</td>
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<td>G</td>
<td>2</td>
<td>24</td>
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<td>15</td>
<td>Dermoloma cuneifolium</td>
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<td>O</td>
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<td>30</td>
</tr>
<tr>
<td>15</td>
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</table>

These results will be fed into the ongoing revision of the Irish scoring system. These results would question if *H.quieta* should be a category B species and if *H.punicea* should be a category A species.
Comparisons to other areas

Species
If the above table is studied looking at the comparative rankings between Northern Ireland and Clare, it is interesting to note that *H.psittacina*, *H.laeta* and *H.pratensis* are not as abundant in Clare compared to Northern Ireland and that *H.quieta* is more abundant. These observations are however very tentative due to the small amount of data from Clare.

Sites
The best site found in this survey, Black Head had 16 species of *Hygrocybe* which is better than any site found in the three year survey in Northern Ireland. The best site found in that survey was 15. In terms of other sites in the Republic of Ireland, Black Head would rank 6th according to the Irish scoring system. The Curragh (Kildare) is the top site followed by Ballyprior (Laois), Aghadachor (West Donegal), Clonmantagh Hill (Kilkenny) and Keem Machair (Mayo) (McHugh 2001). There are 13 sites in Northern Ireland that are better.

From the author’s experience, Irish sites are not as good as Welsh sites at which 20+ species of *Hygrocybe* are not uncommon (Griffith 2006). Vesterholt et al (Vesterholt 1999) however advise that sites with 22 or more species of *Hygrocybe* indicate that the site is of international importance and it is possible with further investigation that Black Head could reach this number.

Conclusions
The overall feeling after the survey was that of disappointment in that only Black Head was a really good waxcap site. The county is dominated by intensive agriculture where there are few places where these special grassland fungi can exist and the best sites may be estate house lawns which were not visited in this survey due to difficulties in arranging access. The Burren and the coastal grasslands will always be the best areas but even then the coastal grasslands are squeezed between the cliffs grasslands that are too soaked by salt spray and the intensively managed fields.

It was not easy finding good sites on the Burren either. Many of the sites are becoming a little rank due to undergrazing and the encroachment of hazel scrub is an additional threat to these grassland sites. Waxcaps and their allies do not seem to occur at higher altitudes on the Burren where *Dryas octopetala* dominates even though they are commonly found at these altitudes elsewhere in the UK. It is also noticeable that the best sites are found where there was summer grazing as well as winter grazing hence the sward height was significantly shorter. Thanks must go to Sharon Parr of the Burren LIFE project for pointing out where some of these sites were. Further changes in grazing patterns leading to more undergrazing would be worrying.

As waxcaps are so bright and colourful, they are eye catching species. Being indicators of old unfertilised grassland, they can be a very useful group to involve the public and other non-mycologists with. Plantlife organised a survey of *Hygrocybe calyptriformis* in the UK which was very successful and a similar project could be done in Clare.

Images
All images of species that were taken have been passed to Clare County Council for use on their website and images of all the species named in this report with some few exceptions are available at [www.nifg.org.uk/photos.asp](http://www.nifg.org.uk/photos.asp).
Acknowledgements
Thanks must go to Tom Harrington, University College Limerick, Sharon Parr of the Burren LIFE project, Howard Fox of the National Botanic Gardens, Roland McHugh of the Dublin Institute of Technology and Hubert Fuller of UCD and Clare County Council staff (Elaine Keegan and John Murray) all for giving local advice on sites and access.

The financial support of the Heritage Council is also gratefully acknowledged as without this, this survey would not have been possible and I can only hope that it helps to raise awareness of this wonderful group of fungi and this beautiful county.

Bibliography


Appendix 1 - 10km and Site Reports

**M00**

**Sites Searched:** Poulsallagh

**Hygrocybe:** 2  **Clavariaceae:** 0  **Entolomaceae:** 0  **Geoglossaceae:** 0  **Others:** 0

A Burren square. Although there is not much land in this square, much of it is limestone pavement and it should be more productive but it will be dependant on sufficient grazing keeping the thatch down.

**Grassland Target Species Recorded**

- Hygrocybe conica var. conica
- Hygrocybe virginea var. virginea

**Site Details:**

<table>
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<th>E: 0</th>
<th>G: 0</th>
<th>O: 0</th>
<th>IrishScore: 2</th>
</tr>
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</table>

This area of lowland limestone pavement was disappointing for waxcaps or indeed any fungi. The vegetation was a little rank in places although there was good tight coastal turf near the sea where the only waxcaps were found. Probably no summer grazing.

- Hygrocybe conica var. conica
- Hygrocybe virginea var. virginea
- Panaeolus papilionaceus var. papilionaceus

**M10**

**Sites Searched:** Fanore dunes, Cahar Valley, Cahermacnaghten

**Hygrocybe:** 14  **Clavariaceae:** 2  **Entolomaceae:** 3  **Geoglossaceae:** 2  **Others:** 1

A Burren square. This will be a much better square with many potential sites. Other areas to aim for are more in the Caher Valley where the drift is thick especially the steep river sites near Fanore itself or other areas of limestone pavement where sufficient grazing has kept the vegetation short.

**Grassland Target Species Recorded**

- Clavaria acuta
- Clavulinopsis laeticolor
- Dermoloma cuneifolium
- Entoloma incanum
- Entoloma poliopus
- Geoglossum cookeanum
- Hygrocybe aurantiosplendens
- Hygrocybe calciphila
- Hygrocybe chlorophana
- Hygrocybe coccinea
- Hygrocybe conica var. conica
- Hygrocybe insipida
- Hygrocybe mucronella
- Hygrocybe nitrata
Hygrocybe persistens
Hygrocybe pratensis
Hygrocybe punicea
Hygrocybe quieta
Hygrocybe russocoriacea
Hygrocybe virginia var. fuscescens
Hygrocybe virginia var. ochraceopallida
Hygrocybe virginia var. virginia
Trichoglossum hirsutum

Site Details:

Site: Caher Valley
Date: 28/10/2006  GridRef: M1609
H: 6  C: 0  E: 1  G: 2  O: 1  IrishScore: 15

Enclosed fields in the Caher Valley on glacial drift below the open pavement. These fields are cattle grazed.

Cantharellus lutescens
Geoglossum cookeanum
Trichoglossum hirsutum
Cortinarius brunneus
Cortinarius calochrous
Cortinarius infractus
Cortinarius venetus
Dermoloma cuneifolium
Entoloma poliopus
Hebeloma sinapizans
Hygrocybe conica var. conica
Hygrocybe mucronella
Hygrocybe nitratia
Hygrocybe persistens
Hygrocybe russocoriacea
Hygrocybe virginia var. virginia
Mycena alcalina
Mycena pura
Phragmidium violaceum

Site: Carrickmacnaghten
Fields to the east of the cashel along the new green road. These have been grazed
in summer and are limestone pavement with short mossy turf. 10 species found
with some common ones like psittacina missing so it should be checked again.

Note this site covers two 10km squares. Species marked 1 were recorded in M10 and those
marked 2 were recorded in R09

Clavaria acuta
Rhytisma acerinum
Cortinarius croceus
Hygrocybe aurantiosplendens
Hygrocybe chlorophana
Hygrocybe cocinea
Hygrocybe conica var. conica
Hygrocybe insipida
Hygrocybe pratensis
Hygrocybe punicea
Hygrocybe quieta
Hygrocybe russocoriacea
Hygrocybe virginea var. virginea
Lepista nuda
Lepista panaeolus
Mycena pura
Panaeolus papilionaceus var. parvisporus
Psilocybe semilanceata
Phragmidium violaceum

Site: Fanore dunes

The dunes were dominated by fruiting of H.conica (as is often typical in dune
grassland) and the earth tongue, Geoglossum cookeanum. Both were abundant.
Hygrocybe calciphila was also recorded which is a rare species with only very
scattered records in Ireland and the UK.

Clavulinopsis laeticolor
Geoglossum cookeanum
Entoloma incanum
Hygrocybe calciphila
Hygrocybe cocinea
Hygrocybe conica var. conica
Hygrocybe persistens
Hygrocybe virginea var. fusescens
Hygrocybe virginea var. ochraceopallida
Hygrocybe virginea var. virginea
Panaeolus acuminatus

M11

Sites Searched: Black Head

Hygrocybe: 16 Clavariaceae 1 Entolomaceae: 3 Geoglossaceae: 3 Others: 0

A Burren square. The best grasslands are likely to continue along the base of Black Head between
the coast and the green road.
**Grassland Target Species Recorded**

Clavulinopsis fusiformis  
Entoloma poliopus  
Entoloma turci  
Geoglossum cookeanum  
Geoglossum glutinosum  
Hygrocybe aurantiosplendens  
Hygrocybe cantharellus  
Hygrocybe ceracea  
Hygrocybe chlorophana  
Hygrocybe cocineae  
Hygrocybe colemanniana  
Hygrocybe conica var. conica  
Hygrocybe fomicata  
Hygrocybe insipida  
Hygrocybe mucronella  
Hygrocybe psittacina var. psittacina  
Hygrocybe punicea  
Hygrocybe quieta  
Hygrocybe reidii  
Hygrocybe russocoriacea  
Hygrocybe virginea var. fuscescens  
Hygrocybe virginea var. virginea  
Trichoglossum hirsutum

**Site Details:**

**Site:** Black Head

---

**Date:** 24/10/2006  
**GridRef:** M1450, M1510

H: 16  C: 1  E: 3  G: 3  O: 0  IrishScore: 30

The western slopes of Black Head were searched. The waxcap interest was confined to the lower slopes between the road and the green road. Above this, the Dryas community dominated and there were no waxcaps found. The vegetation was also thicker here and there was little short turf favoured by waxcaps. The steep grassy slopes right under the summit of Dobhach Bhrainin were also searched but the vegetation was deep here and not favourable for waxcaps.
However, the lower slopes were good with a good range of waxcaps. Some of the common species like H.pratensis were missing so this square is likely to contain many more species if more visits are made. Notable finds were H.colemanniana, H.fornicata, H.mucronella and H.aurantiosplendens.

Some ectomycorrhizal species were also found associated with Dryas octopetala, namely Cortinarius odifer, Cortinarius calochrous var. coniferarum and an unidentified Cortinarius of the Dermocybe group.

Clavulinopsis fusiformis
Geoglossum cookeanum
Geoglossum glutinosum
Trichoglossum hirsutum
Collybia dryophila
Cortinarius calochrous
Cortinarius odorifer
Entoloma poliopus
Entoloma turci
Hygrocybe aurantiosplendens
Hygrocybe cantharellus
Hygrocybe ceracea
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe colemanniana
Hygrocybe conica var. conica
Hygrocybe fornicata
Hygrocybe insipida
Hygrocybe mucronella
Hygrocybe psittacina var. psittacina
Hygrocybe punicea
Hygrocybe quieta
Hygrocybe reidii
Hygrocybe russocoriacea
Hygrocybe virginea var. fusescens
Hygrocybe virginea var. virginea
Lepiota cristata
Lepista irina
Lepista nuda
Lepista panaeolus
Leucopaxillus giganteus
Marasmius oreades
Melanoleuca polioleuca
Mycena pura
Panaeolus papilionaceus var. papilionaceus
Phragmidium violaceum

Sites Searched:  Turlough Hill

Hygrocybe: 13  Clavariaceae 3  Entolomaceae: 4  Geoglossaceae: 2  Others: 0

A Burren square. Fields with summer grazing that means a tighter sward are the areas that should be searched in this square.

Grassland Target Species Recorded

Clavaria fragilis
Clavulinopsis corniculata
Clavulinopsis helvola
Entoloma bloxamii
Entoloma corvinum
Geoglossum cookeanum
Geoglossum umbratile
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe conica var. conica
Hygrocybe fornicata
Hygrocybe insipida
Hygrocybe mucronella
Hygrocybe persistens
Hygrocybe pratensis
Hygrocybe psittacina var. psittacina
Hygrocybe quieta
Hygrocybe reidii
Hygrocybe russocoriacea
Hygrocybe virginea var. ochraceopallida

Site Details:

Site: Turlough Hill

Date: 29/10/2006  GridRef: M2905
H: 13  C: 2  E: 3  G: 1  O: 0  IrishScore: 23

The fields between the Burren Outdoor Pursuits Centre and Turlough Hill were searched. The fields in the valley before the slopes were good as was the higher enclosed fields to the right of the centre on the slopes of Turlough Hill itself. The less "green" grassland above this on the spur was deeper clay and while Entoloma bloxamii and E.corvinum occurred here, there were few waxcaps.

Cantharellus lutescens
Clavaria fragilis
Clavulinopsis corniculata
Clavulinopsis helvola
Geoglossum cookeanum
Geoglossum umbratile
Trochila ilicina
Bolbitius vitellinus
Cortinarius brunneus
Cortinarius calochrous
Cortinarius cinnamomeus
Cortinarius infractus
Entoloma bloxamii
Entoloma corvinum
Hebeloma velutipes
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe conica var. conica
Hygrocybe fornicata
Hygrocybe insipida
Hygrocybe mucronella
Hygrocybe persistens
Hygrocybe pratensis
Hygrocybe psittacina var. psittacina
Hygrocybe quieta
Hygrocybe reidii
Hygrocybe russocoriacea
Hygrocybe virginea var. ochraceopallida
Leucopaxillus giganteus
Mycena pura
Panaeolus papilionaceus var. papilionaceus
Sistrum semiglobata
Tricholoma scalpturatum
Mucilago crustacea
Phragmidium violaceum

M21

Sites Searched:  Rine Point

Hygrocybe:  4  Clavariaceae  0  Entolomaceae:  2  Geoglossaceae:  1  Others:  0

The short turf of Rine Point offers excellent possibilities for waxcaps and similar areas like Aughinish, Finvarra Point and Scanlans Island all could be good.

Grassland Target Species Recorded

Entoloma incanum
Entoloma rhombisporum var. floccipes
Geoglossum cookeanum
Hygrocybe colemanii
Hygrocybe conica var. conica
Hygrocybe insipida
Hygrocybe virginea var. ochraceopallida

Site Details:

Site:  Rine Point
Date:  29/10/2006  GridRef:  M210101
H:  4  C:  0  E:  2  G  1  O:  0  IrishScore:  7

The low lying closely cropped turf of this shingle spit should be much better. The first Geoglossaceae were fruiting and this is likely to be an excellent spot for this group. Notable finds were Entoloma rhombisporum var. floccipes (only previously recorded in Scotland) and Tulostoma brumale at probably its first site for Clare.
Geoglossum cookeanum  
Trochila ilicina  
Entoloma incanum  
Entoloma rhombisporum var. flocipes  
Hygrocybe colemanii  
Hygrocybe conica var. conica  
Hygrocybe insipida  
Hygrocybe virginea var. ochraceopallida  
Lepista nuda  
Panaeolina foenisecii  
Panaeolus papilionaceus var. papilionaceus  
Panaeolus papilionaceus var. parvisporus  
Tulostoma brumale

**M30**

**Sites Searched:** Fahee North, Doomore

**Hygrocybe:** 16  **Clavariaceae** 0  **Entolomaceae:** 2  **Geoglossaceae:** 2  **Others:** 0

A Burren square. The best areas for waxcap interest will be restricted to well grazed areas of grassland on the limestone pavement. These are likely to be those areas with summer grazing and there appears to be more of these areas in this area than other parts of the Burren.

**Grassland Target Species Recorded**

Geoglossum fallax  
Hygrocybe aurantiosplendens  
Hygrocybe chlorophana  
Hygrocybe coccinea  
Hygrocybe colemanii  
Hygrocybe conica var. conica  
Hygrocybe fomicata  
Hygrocybe glutinipes var. glutinipes  
Hygrocybe insipida  
Hygrocybe mucronella  
Hygrocybe pratensis  
Hygrocybe psittacina var. psittacina  
Hygrocybe punicea  
Hygrocybe quieta  
Hygrocybe reidii  
Hygrocybe russocoriacea  
Hygrocybe virginea var. fuscescens  
Hygrocybe virginea var. ochraceopallida  
Hygrocybe virginea var. virginea  
Trichoglossum hirsutum
**Site Details:**

**Site:** Doomore

![Image of the site](image)

**Date:** 01/11/2006  **GridRef:** M312027

**H:** 12  **C:** 0  **E:** 2  **G:** 1  **O:** 0  **IrishScore:** 20

Well grazed fields (with summer grazing?) on the limestone pavement around the road in the valley sides to the east of the road on the slopes of Doomore. This site is likely to be better than was found and is worth revisiting.

- *Hymenochaete corrugata*
- *Geoglossum fallax*
- *Trichoglossum hirsutum*
- *Agaricus arvensis*
- *Cortinarius croceus*
- *Cystoderma amianthinum*
- *Hygrocybe aurantiosplendens*
- *Hygrocybe chlorophana*
- *Hygrocybe coccinea*
- *Hygrocybe colemanniana*
- *Hygrocybe conica var. conica*
- *Hygrocybe insipida*
- *Hygrocybe pratensis*
- *Hygrocybe psittacina var. psittacina*
- *Hygrocybe punicea*
- *Hygrocybe reidii*
- *Hygrocybe russocoriacea*
- *Hygrocybe virginiae var. fuscescens*
- *Hygrocybe virginiae var. ochraceopallida*
- *Hygrocybe virginiae var. virginiae*
- *Inocybe geophylla var. lilacina*
- *Leucopaxillus giganteus*
- *Melanoleuca polioleuca*
- *Mycena galericulata*
- *Panaeolus acuminatus*
Well grazed fields (with summer grazing?) on the limestone pavement around the road in the valley floor to the west of the hill in Fahee North. This site is likely to be better than was found and is worth revisiting. Notable record of Hygrocybe glutinipes var. glutinipes at its first site in this survey.

Collybia butyracea
Hygrocybe colemaniana
Hygrocybe conica var. conica
Hygrocybe fornicata
Hygrocybe glutinipes var. glutinipes
Hygrocybe insipida
Hygrocybe mucronella
Hygrocybe quieta
Hygrocybe russocoriacea
Hygrocybe virginea var. fuscescens
Hygrocybe virginea var. ochraceopallida
Hygrocybe virginea var. virginea
Leucopaxillus giganteus
Mycena pura
Panaeolus acuminatus
Panaeolus papilionaceus var. papilionaceus
Stropharia semiglobata
Phragmidium violaceum

Q64

Sites Searched: Loop Head

Hygrocybe: 2 Clavariaceae 0 Entolomaceae: 1 Geoglossaceae: 0 Others: 0

The only land within this square was around Loop Head.

Grassland Target Species Recorded

Entoloma sericeum
Hygrocybe conica var. conica
Hygrocybe russocoriacea

Site Details:

Site: Loop Head

Date 2006-01-11  GridRef: M304007
H: 9  C: 0  E: 0  G: 0  O: 0  IrishScore: 11

The grassland and coastal heath around Loop Head was disappointing and is likely to be better than today's results. However, it is often either too rank or soaked by salt spray and dominated by Thrift to be good but still large areas of grassland are potentially good for waxcaps.

Lepus timidus subsp. hibernicus
Agaricus arvensis
Collybia butyracea
Cortinarius croceus
Entoloma sericeum
Hygrocybe conica var. conica

28
Hygrocybe russocoriacea
Lepista panaeolus
Mycena pura
Mucilago crustacea

Q74

Sites Searched: Kilbaha Bay, Kilbaha Church, Rehy Hill (west)

Hygrocybe: 3  Clavariaceae 0  Entolomaceae: 0  Geoglossaceae: 0  Others: 1

Much of this square is intensive agriculture and any good areas might be field edges or individual fields that haven't been fertilised and that are well grazed. The west end of Rehy Hill was the best spot but it consisted mainly of agricultural fields or gorse heath with waxcap interest very scattered.

Grassland Target Species Recorded

Dermoloma cuneifolium var. cuneifolium
Hygrocybe insipida
Hygrocybe pratensis
Hygrocybe psittacina var. psittacina

Site Details:

Site: Kilbaha Church
Date: 31/10/2006  GridRef: Q734491
H: 1  C: 0  E: 0  G: 0  O: 0  IrishScore: 1

A small moss rich churchyard with good potential for more waxcaps. The only species found was Dermoloma cuneifolium so this site is likely to yield some waxcaps as well.

Dermoloma cuneifolium var. cuneifolium

Site: Kilbaha Bay
Date: 31/10/2006  GridRef: Q7648
H: 0  C: 0  E: 0  G: 0  O: 0  IrishScore: 0

Very disappointing. The strip between the fields and the coast is largely taken up by the road with the grassland being very disturbed or rank. Nothing found at all bar some rusts on flowers.

Erysiphe sordida
Miyagia pseudosphaeria
One of the only high areas on the peninsula. Much of the hill is intensive agriculture with the seaward site having occasional gorse heath. The waxcap interest was restricted to a few patches amongst the gorse heath especially on rock outcrops and a few field edges.

Note this site covers two 10km squares. Species marked ¹ were recorded in Q74 and those marked ² were recorded in Q84.

Xylaria hypoxylon¹
Agaricus moelleri²
Hygrocybe conica var. conica²
Hygrocybe insipida¹
Hygrocybe laeta var. laeta²
Hygrocybe pratensis¹ ²
Hygrocybe psittacina var. psittacina¹
Lepista flaccida²
Lycoperdon nigrescens²
Macrolepiota procera²
Omphalina ericetorum¹
Panaeolus acuminatus¹
Panaeolus semiovatus²
Pluteus plautus²
Stropharia semiglobata¹ ²
Phragmidium violaceum¹ ²

Q75

Sites Searched: Bridge of Ross, Cross Church

Hygrocybe: 8 Clavariaceae 1 Entolomaceae: 1 Geoglossaceae: 0 Others: 1

The coastal strip between the fields and the cliffs is likely to the best spot for waxcaps in this square. Cross Church was the only church in the square.
**Grassland Target Species Recorded**

- Camarophyllopsis micacea
- Clavulinopsis helvola
- Hygrocybe cantharellus
- Hygrocybe chlorophana
- Hygrocybe coccinea
- Hygrocybe insipida
- Hygrocybe punicea
- Hygrocybe quieta
- Hygrocybe russocoriacea
- Hygrocybe virginea var. virginea

**Site Details:**

**Site:** Bridge of Ross  
**Date:** 31/10/2006  
**GridRef:** Q734505  
**H:** 7  
**C:** 0  
**E:** 1  
**G:** 0  
**O:** 0  
**IrishScore:** 10

A narrow coastal strip between the fields and cliffs. There were some patches of heath with Salix repens. Lactarius lacunarum was found again on the S.repens.

- Agaricus arvensis
- Hygrocybe cantharellus
- Hygrocybe chlorophana
- Hygrocybe coccinea
- Hygrocybe insipida
- Hygrocybe punicea
- Hygrocybe russocoriacea
- Hygrocybe virginea var. virginea
- Lactarius lacunarum
- Marasmius oreades
- Panaeolus acuminatus

**Site:** Cross Church

**Date:** 31/10/2006  
**GridRef:** Q799511  
**H:** 3  
**C:** 1  
**E:** 0  
**G:** 0  
**O:** 1  
**IrishScore:** 4

A small moss rich churchyard with good potential for more waxcaps. The species of most interest was the rare Camarophyllopsis micacea at its second Clare (and Irish) site.

- Clavulinopsis helvola
- Camarophyllopsis micacea
- Hygrocybe chlorophana
- Hygrocybe quieta
- Hygrocybe virginea var. virginea

**Q84**

**Sites Searched:** Rehy Hill (east), Kilcredaun Point

**Hygrocybe:** 3  
**Clavariaceae:** 0  
**Entolomaceae:** 0  
**Geoglossaceae:** 0  
**Others:** 0

Rinevella Bay is not suitable for waxcaps and much of the rest of the square is intensive agriculture. The east end of Rehy Hill was the best part with some waxcaps scattered in the gorse heath. Kilcredaun Point could be good but it was not possible to organise access at this point in time.
Grassland Target Species Recorded

Hygrocybe conica var. conica
Hygrocybe laeta var. laeta
Hygrocybe pratensis

Site Details:

Site: Kilcredaun Point
Date: 31/10/2006  GridRef: Q845495
H: 0  C: 0  E: 0  G: 0  O: 0  IrishScore: 0

Signs everywhere for private land (including that belonging to the Commissioner for Irish Lights whose land has the most potential)

Bolbitius vitellinus

Site: Rehy Hill (east). See Q74

Sites Searched: Kilkee Churches, Carrigaholt Church, Bishop's Island to Castle Point

Hygrocybe: 4  Clavariaceae: 2  Entolomaceae: 1  Geoglossaceae: 1  Others: 1

Much of this square is intensive agriculture and the best places for waxcaps are the northern coastal strip and churchyards. The Kilkee churches were particularly disappointed with either no lawns, unmanaged rank lawns or lawns that were too wet. Only the Catholic church had any interest with two waxcaps. The coastal strip was also very restricted with fertilised fields right up to the cliff edge and the remaining grassland a thick mat of grass soaked by salt spray. The patches of coastal heath might have a few waxcaps.

Grassland Target Species Recorded

Clavaria acuta
Clavulinopsis helvola
Dermoloma cuneifolium
Entoloma tenellum
Geoglossum umbratile
Hygrocybe conica var. conica
Hygrocybe psittacina var. psittacina
Hygrocybe quieta
Hygrocybe virginea var. ochraceopallida
Hygrocybe virginea var. virginea

Site Details:

Site: Bishop's Island to Castle Point Cliffs
Date: 03/11/2006  GridRef: Q850582
H: 1  C: 0  E: 1  G: 0  O: 0  IrishScore: 1

The coastal strip is very restricted with fertilised fields right up to the cliff edge and the remaining grassland is a thick mat of grass soaked by salt spray. The patches of coastal heath might have a few waxcaps, but none were found on this visit.

Entoloma tenellum
Hygrocybe virginea var. ochraceopallida
Panaeolus acuminatus
Panaeolus semiovatus

Site: Carrigaholt Church
Date: 31/10/2006  GridRef: Q842516
H: 3  C: 2  E: 0  G: 1  O: 1  IrishScore: 8
A small moss rich churchyard with good potential for more waxcaps. This is the first churchyard where Clavaria acuta has been recorded from.

Clavaria acuta
Clavulinopsis helvola
Geoglossum umbratile
Rhytisma acerinum
Dermoloma cuneiformium
Hygrocybe psittacina var. psittacina
Hygrocybe quieta
Hygrocybe virginia var. virginia

Site: Kilkee RC Church
Date: 30/10/2006  GridRef: Q887597
H: 2  C: 0  E: 0  G: 0  O: 0  IrishScore: 2
A moss rich churchyard that is probably too wet for much waxcap interest.

Hygrocybe conica var. conica
Hygrocybe virginia var. virginia

Q86

Sites Searched: George's Head, Knockroe Point

Hygrocybe: 6  Clavariaceae: 2  Entolomaceae: 1  Geoglossaceae: 2  Others: 0

The only waxcap interest is coastal grassland along the cliff edges.

Grassland Target Species Recorded

Clavulinopsis fusiformis
Clavulinopsis helvola
Geoglossum fallax
Hygrocybe coccinea
Hygrocybe conica var. conica
Hygrocybe pratensis
Hygrocybe punicea
Hygrocybe russocoriacea
Hygrocybe virginia var. ochraceopallida
Hygrocybe virginia var. virginia
Trichoglossum hirsutum

Site Details:

Site: George's Head
Date: 30/10/2006  GridRef: Q887614
H: 5  C: 1  E: 0  G: 1  O: 0  IrishScore: 8
Coastal grassland restricted to a small strip on the head between the golf course and the cliffs.

Clavulinopsis helvola
Geoglossum fallax
Trichoglossum hirsutum
Agaricus arvensis
Agaricus urinascens
Clitocybe rivulosa
Coprinus comatus
Hygrocybe coccinea
Hygrocybe conica var. conica
Hygrocybe pratensis
Hygrocybe russocoriacea
Hygrocybe virginea var. virginea
Lepista nuda

Site: Knockroe Point
Date: 30/10/2006  GridRef: Q870602
H: 3  C: 2  E: 1  G: 1  O: 0  IrishScore: 8

Coastal grassland restricted to a small strip on the head between improved fields and the cliffs.

Clavulinopsis fusiformis
Clavulinopsis helvolus
Geoglossum fallax
Agaricus arvensis
Bolbitius vitellinus
Collybia dryophila
Hygrocybe punicea
Hygrocybe russocoriacea
Hygrocybe virginea var. ochraceopallida
Hygrocybe virginea var. virginea
Lepista nuda
Lepista panaeolus
Marasmius oradeae
Panaeolus acuminatus
Vascellum pratense

Q95

Sites Searched: Corlis Point, Moanmore Church

Hygrocybe: 3  Clavariaceae: 0  Entolomaceae: 0  Geoglossaceae: 1  Others: 0

Much of the square is intensive agriculture and the only semi-natural habitat that is of interest for grassland fungi is Corlis Point. Churchyards are the other potential habitat.

Grassland Target Species Recorded

Clavaria fumosa
Hygrocybe chlorophana
Hygrocybe psittacina var. psittacina
Hygrocybe virginea var. ochraceopallida
Hygrocybe virginea var. virginea

Site Details:

Site: Corlis Point
Date: 03/11/2006  GridRef: Q920534
H: 1  C: 0  E: 0  G: 0  O: 0  IrishScore: 1
An interesting sand and shingle point stretching over a kilometre in length. The vegetation is however quite deep but there are good areas of shorter turf especially at the far end and this site should really be better for waxcaps than was found on this visit.

Calocera cornea
Hygrocybe virginea var. ochraceopallida
Muclago crustacean
Panaeolus acuminatus
Panaeolus semiovatus

Site:  Moanmore Church
Date:  03/11/2006  GridRef:  Q977597
H:  2  C:  0  E:  0  G:  1  O:  0  IrishScore:  4

A small moss rich churchyard. Should yield some more species. A potential site for H.calyptriformis.

Clavaria fumosa
Hygrocybe chlorophana
Hygrocybe psittacina var. psittacina
Hygrocybe virginea var. virginea

Q96

Sites Searched:  White Strand, Doonbeg RC Church, Ballard Bay

Hygrocybe:  11  Clavariaceae:  1  Entolomaceae:  2  Geoglossaceae:  1  Others:  0

A mix of coastal sand dunes, cliff top coastal grassland and churchyards.

Grassland Target Species Recorded
Clavulinopsis helvolus
Entoloma anatinum
Geoglossum fallax
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe conica var. conica
Hygrocybe insipida
Hygrocybe persistens
Hygrocybe pratensis
Hygrocybe psittacina var. psittacina
Hygrocybe punicea
Hygrocybe quieta
Hygrocybe russocoriacea
Hygrocybe virginea var. virginea
Site Details:

Site: Ballard Bay

Date: 30/10/2006  GridRef: Q910658
H: 10  C: 2  E: 1  G: 1  O: 0  IrishScore: 15

The area between the end of the road at Ballard Bay and Leim Chaite was searched. The waxcap interest is restricted to a very strip along the field edge or in the coastal heath beside the cliffs. The best area was the first field running up to the old signal tower but the interest was very much only along the earth bank marking the field boundary. Out at Leim Chaite itself, the flora was almost pure Thrift and was not so interesting for waxcaps. One interesting record in the coastal heath was of Lactarius associated with Salix repens.

Clavulinopsis helvola
Cordyceps militaris
Geoglossum fallax
Bolbitius vitellinus
Entoloma anatinum
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe conica var. conica
Hygrocybe insipida
Hygrocybe pratensis
Hygrocybe psittacina var. psittacina
Hygrocybe punicea
Hygrocybe quieta
Hygrocybe russocoriacea
Hygrocybe virginea var. virginea
Hypholoma fasciculare
Lactarius lacunarum
Panaeolus acuminatus
Panaeolus papilionaceus var. papilionaceus
Site: Bealaha RC Church

Date: 30/10/2006  GridRef: Q927637
H: 4  C: 0  E: 0  G: 0  O: 0  IrishScore: 5

A good moss rich churchyard. It should yield some more species of waxcap. A potential site for H.calyptriformis.

Rhytisma acerinum
Hygrocybe conica var. conica
Hygrocybe quieta
Hygrocybe russocoriacea
Hygrocybe virginea var. virginea

Site: Doonbeg RC Church

Date: 30/10/2006  GridRef: Q967655
H: 3  C: 0  E: 0  G: 0  O: 0  IrishScore: 3

A good moss rich churchyard. It should yield some more species of waxcap. A potential site for H.calyptriformis.

Cystoderma amianthinum
Hygrocybe chlorophana
Hygrocybe conica var. conica
Hygrocybe virginea var. virginea
Panaeolus fimicola
Mucilago crustacea

Site: White Strand

Date: 22/10/2006  GridRef: Q9968
H: 2  C: 0  E: 0  G: 0  O: 0  IrishScore: 2

Area of visit: From the carpark at the Golf club hotel north in the dunes. This site was disappointing. Appeared more hopeful, but there was virtually no fruiting in the dunes. The dune slacks are quite rank and overall, there are very few places with open turf. No rabbit grazing? Some cattle were present but generally the grass was too deep and thick for fruiting.

Lepus timidus subsp. hibernicus
Coprinus niveus
Hygrocybe conica var. conica
Hygrocybe persistens
Stropharia semiglobata
Puccinia pygmaea var. ammophilina

Q97

Sites Searched: Seafield Strand

Hygrocybe: 2  Clavariaceae 0  Entolomaceae: 0  Geoglossaceae: 0  Others: 0

Mutton Island is likely to be the best site but it is not readily accessible. The only bit of mainland within this square is Seafield Strand.

Grassland Target Species Recorded

Hygrocybe persistens
Hygrocybe virginea var. ochraceopallida

Site Details:

Site: Seafield

Date: 22/10/2006  GridRef: Q9973
H: 3  C: 0  E: 0  G: 2  O: 0  IrishScore: 7

Area visited: From rough car park at Lurga Point south along beach edge and the grassland to the east behind the beach stretching towards Quilty. This latter area has the most potential. The grassland behind the beach stretching south was not mycologically interesting - either virtually totally sand and Marram or fertilised grassland.

Note this site covers two 10km squares. Species marked ¹ were recorded in Q97 and those marked ² were recorded in R07

- Geoglossum cookeanum ²
- Geoglossum umbratile ²
- Clitocybe fragrans ¹ ²
- Hygrocybe conica var. conica ²
- Hygrocybe persistens ¹
- Hygrocybe virginea var. ochraceopallida ¹ ²
- Lepista nuda
- Panaeolus acuminatus ¹
- Volvariella gloiocephala ¹
- Puccinia poarum ⁴

R06

Sites Searched: Cooraclare RC Church

Hygrocybe: 2  Clavariaceae 2  Entolomaceae: 1  Geoglossaceae: 0  Others: 1

This square is predominantly intensive agriculture and the only sites are likely to be churchyards and lawns.

Grassland Target Species Recorded

- Clavaria fragilis
- Clavulinopsis helvola
- Dermoloma cuneifolium
- Entoloma conferendum
- Hygrocybe chlorophana
- Hygrocybe conica var. conica

Site Details:

Site: Corraclare RC Church

Date: 25/10/2006  GridRef: R041622
H: 2  C: 2  E: 1  G: 0  O: 1  IrishScore: 4


- Clavaria fragilis
- Clavulinopsis helvola
- Rhytisma acerinum
- Armillaria gallica
- Dermoloma cuneifolium
Entoloma conferendum
Hygrocybe chlorophana
Hygrocybe conica var. conica

R07

Sites Searched: Milton Malbay RC Church, Knockdarragh RC Church, Seafield (east),

Hygrocybe: 5  Clavariaceae 0  Entolomaceae: 1  Geoglossaceae: 2  Others: 2

This square is predominantly intensive agriculture. The east end of the grassland at Seafield is most likely to the best site, but a number of the churchyards offer good potential.

Grassland Target Species Recorded

Camarophyllopsis micacea
Dermoloma cuneifolium
Entoloma sericellum
Geoglossum cookeanum
Geoglossum umbratile
Hygrocybe chlorophana
Hygrocybe conica var. conica
Hygrocybe quieta
Hygrocybe reidii
Hygrocybe virginea var. virginea
Hygrocybe virginea var. ochraceopallida

Site Details:

Site: Knockdarragh RC Church
Date: 24/10/2006  GridRef: R093736
H: 1  C: 0  E: 1  G: 0  O: 0  IrishScore: 1

A small moss rich churchyard. Should yield some more species. A potential site for H. calypttriformis.

Coprinus comatus
Entoloma sericellum
Hygrocybe conica var. conica

Site: Milton Malbay RC Church
Date: 23/10/2006  GridRef: R057796
H: 3  C: 0  E: 0  G: 0  O: 2  IrishScore: 5

A small mossy lawn surrounding the church. The notable species was Camarophyllopsis micacea.

Camarophyllopsis micacea
Dermoloma cuneifolium
Hygrocybe conica var. conica
Hygrocybe reidii
Hygrocybe virginea var. virginea
Melanoleuca polioleuca

Site: Mullagh RC Church
Date: 27/10/2006  GridRef: R046730
H: 4  C: 0  E: 0  G: 0  O: 0  IrishScore: 5
A good moss rich churchyard. It should yield some more species of waxcap. A potential site for H. calyptiformis.

Camarophyllopsis micacea
Hygrocybe chlorophana
Hygrocybe conica var. conica
Hygrocybe quieta
Hygrocybe virginea var. virginea

Site: Seafield (east) See Q97

R08

Sites Searched: Liscannor Strand, Cliffs of Moher south

Hygrocybe: 10 Clavariaceae 2 Entolomaceae: 2 Geoglossaceae: 0 Others: 0

Lehinch Golf Course is also a potential site but access difficulties prevented this site from being searched.

Grassland Target Species Recorded

Clavulinopsis corniculata
Clavulinopsis luteoalba
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe conica var. conicoides
Hygrocybe insipida
Hygrocybe persistens
Hygrocybe pratensis
Hygrocybe psittacina var. psittacina
Hygrocybe punicea
Hygrocybe russocoriacea
Hygrocybe virginea var. virginea

Site Details:

Site: Cliffs of Moher South

Date 23/10/2006  GridRef: R015897
H: 8  C: 2  E: 1  G: 0  O: 0  IrishScore:

The stretch of coastal path from the northern part of this 10km square to Hag's Head is good for waxcaps with H. punicea fruiting in large quantities. See R09 for site details.

Site: Liscannor Strand

Date 23/10/2006  GridRef: R080889
H: 2  C: 0  E: 0  G: 0  O: 0  IrishScore: 1

Dunes have been developed as pitch and putt course or with fertilised fields to dune edge. The only species of interest were found in the very narrow strip of dune edge between the fence and the beach. The ruined church and graveyard was also searched with nothing found.

Bolbitius vitellinus
Hygrocybe conica var. conicoides
Hygrocybe persistens
Leucoagaricus leucothites
Panaeolus acuminatus
Phragmidium violaceum
Sites Searched: Cliffs of Moher north

Hygrocybe: 9  Clavariaceae 4  Entolomaceae: 2  Geoglossaceae: 0  Others: 0

This square is a mixture of acidic grassland on the shale and limestone grassland but is largely intensive agriculture.

Grassland Target Species Recorded
- Clavaria acuta
- Clavulinopsis fusiformis
- Clavulinopsis helvola
- Clavulinopsis luteoalba
- Entoloma ochromicaceum
- Hygrocybe chlorophana
- Hygrocybe coccinea
- Hygrocybe conica var. conica
- Hygrocybe insipida
- Hygrocybe pratensis
- Hygrocybe psittacina var. psittacina
- Hygrocybe punicea
- Hygrocybe quieta
- Hygrocybe reidii
- Hygrocybe russocoriacea
- Hygrocybe virginea var. virginea

Site Details:

Site: Cliffs of Moher

Date: 23/10/2006  GridRef: R033910
H: 11  C: 5  E: 3  G: 0  O: 0  IrishScore: 16

The strip of grassland along the cliff edge immediately south of the Visitor Centre is of little interest as it is too narrow and heavily used. There were scattered finds along this part but most finds were in the quarries or wider stretches of grassland some distance from the Visitor Centre.
Note this site covers two 10km squares. Species marked \(^1\) were recorded in R09 and those marked \(^2\) were recorded in R08.

<table>
<thead>
<tr>
<th>Species</th>
<th>R09</th>
<th>R08</th>
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<tbody>
<tr>
<td><em>Agaricus silvaticus</em></td>
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<td><em>Bolbitius vitellinus</em></td>
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<td><em>Calocybe caerulea</em></td>
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<td><em>Clavaria acuta</em></td>
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<td><em>Clavulinopsis corniculata</em></td>
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<td><em>Clavulinopsis fusiformis</em></td>
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<td><em>Clavulinopsis helvola</em></td>
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<td><em>Clavulinopsis luteola</em></td>
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<td><em>Entoloma ochromicaeum</em></td>
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<td><em>Erysiphe sordida</em></td>
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<td><em>Hygrocybe chlorophana</em></td>
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<td><em>Hygrocybe coccinea</em></td>
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<td><em>Hygrocybe conica var. conica</em></td>
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<td><em>Hygrocybe punicea</em></td>
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<td><em>Hygrocybe quieta</em></td>
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<td><em>Hygrocybe reidi</em></td>
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<td><em>Hygrocybe russocoriacea</em></td>
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<td><em>Hygrocybe virginea var. virginea</em></td>
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<td><em>Hygrophoropsis aurantiaca</em></td>
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<td><em>Lepista nuda</em></td>
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<td><em>Lycoperdon nigrescens</em></td>
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<tr>
<td><em>Mucilago crustacea</em></td>
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<tr>
<td><em>Mycena flavoalba</em></td>
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<td><em>Mycena pura</em></td>
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<tr>
<td><em>Paecilomyces marquandii</em></td>
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<tr>
<td><em>Panaeolus acuminatus</em></td>
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<td><em>Puccinia behenis</em></td>
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<tr>
<td><em>Stropharia semiglobata</em></td>
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</tbody>
</table>

**R16**

**Sites Searched:** Kilmihil RC Church

**Hygrocybe:** 3  **Clavariaceae** 0  **Entolomaceae:** 0  **Geoglossaceae:** 0  **Others:** 0

This square is predominantly intensive agriculture and the only sites are likely to be churchyards and lawns.

**Grassland Target Species Recorded**

*Hygrocybe chlorophana*
*Hygrocybe conica var. conica*
*Hygrocybe quieta*

**Site Details:**

**Site:** Kilmihil RC Church

<table>
<thead>
<tr>
<th>Date</th>
<th>GridRef:</th>
<th>IrishScore</th>
</tr>
</thead>
<tbody>
<tr>
<td>25/10/2006</td>
<td>R108643</td>
<td>4</td>
</tr>
</tbody>
</table>

A tiny moss rich churchyard. Should yield some more species but not many more.

A potential site for *H.calyptroformis*. 

---

42
**Hygrocybe chlorophana**  
**Hygrocybe conica var. conica**  
**Hygrocybe quieta**

**R17**

**Sites Searched:** Slievecallan

**Hygrocybe:** 1  **Clavariaceae:** 0  **Entolomaceae:** 0  **Geoglossaceae:** 0  **Others:** 0

This square consists mostly of improved grassland or the upland areas of Slievecallan. The latter areas are too boggy or covered in forestry and any good areas in the improved grassland are likely to be small and difficult to find being a result of a farm using less fertiliser.

**Grassland Target Species Recorded**  
**Hygrocybe conica var. conica**

**Site Details:**

**Site:** Slievecallan  
**Date:** 25/10/2006  
**GridRef:** R142760

- **H:** 1  
- **C:** 0  
- **E:** 0  
- **G:** 0  
- **O:** 0  
- **IrishScore:** 1

The southern slopes of Slievecallan were searched and bad weather prevented further searching. It was however not promising as the land is extremely boggy with Molinia dominating which is not favourable for waxcaps. The only waxcap found, *H.* conica, was found along a forest track.

- *Clavulina rugosa*  
- *Rhytisma salicinum*  
- *Cystoderma amianthinum*  
- *Hygrocybe conica var. conica*  
- *Laccaria proxima*  
- *Lactarius rufus*  
- *Mycena epipterygia var. epipterygia*  
- *Phragmidium violaceum*

**R18**

**Sites Searched:** Ennistymon RC Church

**Hygrocybe:** 2  **Clavariaceae:** 0  **Entolomaceae:** 0  **Geoglossaceae:** 1  **Others:** 0

This square is predominantly intensive agriculture or urban development and the only sites are likely to be churchyards and lawns.

**Grassland Target Species Recorded**

- *Geoglossum fallax*  
- *Hygrocybe conica var. conica*  
- *Hygrocybe virginea var. virginea*

**Site Details:**

**Site:** Ennistymon Church  
**Date:** 01/11/2006  
**GridRef:** R128883

- **H:** 2  
- **C:** 0  
- **E:** 0  
- **G:** 1  
- **O:** 0  
- **IrishScore:** 3
A small moss rich churchyard with good potential for more waxcaps. A possible site for Hygrocybe calyptriformis.

Geoglossum fallax
Hygrocybe conica var. conica
Hygrocybe virginea var. virginea

**R19**

**Sites Searched:** Kilfenora C of I

**Hygrocybe:** 1  **Clavariaceae** 0  **Entolomaceae:** 0  **Geoglossaceae:** 0  **Others:** 0

Churchyards and fields with summer grazing on the limestone pavement are the areas to search for in this square.

**Grassland Target Species Recorded**

Hygrocybe conica var. conica

**Site Details:**

**Site:** Kilfenora Churches  
**Date:** 29/10/2006  **GridRef:** R182939  
**H:** 0  **C:** 0  **E:** 0  **G:** 0  **O:** 0  **IrishScore:** 0

The churchyard in the old church is unlikely to be good and there is no grassland around the other church.

**Site:** Lisdoonvarna Church  
**Date:** 02/11/2006  **GridRef:** R131984  
**H:** 1  **C:** 0  **E:** 0  **G:** 0  **O:** 0  **IrishScore:** 1

A small moss rich church lawn. Good potential for more waxcap species.

Hygrocybe conica var. conica

**R28**

**Sites Searched:** Inagh RC Church, Clare Heritage Centre (Corofin)

**Hygrocybe:** 1  **Clavariaceae** 2  **Entolomaceae:** 0  **Geoglossaceae:** 0  **Others:** 0

This square is predominantly intensive agriculture and the only sites are likely to be churchyards and lawns.

**Grassland Target Species Recorded**

Clavulinopsis corniculata  
Clavulinopsis umbrinella  
Hygrocybe conica var. conica

**Site Details:**

44
Site: Clare Heritage Centre, Corofin
Date: 26/10/2006  GridRef: R286887
H: 0  C: 0  E: 0  G: 0  O: 0  IrishScore: 0
A tiny moss rich churchyard that is now a Heritage Centre. It should yield some species of waxcap but will not be a good site. A potential site for H.calyptriformis.

Rhytisma acerinum
Coprinus atramentarius

Site: Inagh RC Church
Date: 26/10/2006  GridRef: R208812
H: 1  C: 2  E: 0  G: 0  O: 0  IrishScore: 3
A moss rich churchyard of reasonable size. The notable record, Clavulinopsis umbrinella was found. It should yield some more species but not many more. A potential site for H.calyptriformis.

Clavulinopsis corniculata
Clavulinopsis umbrinella
Rhytisma acerinum
Hygrocybe conica var. conica
Lepiota cristata
Melanoleuca polioleuca

R29

Sites Searched: Tullycomman (Carran), Cahermacnaghten, Carran Field Centre

Hygrocybe: 15  Clavariaceae 0  Entolomaceae: 2  Geoglossaceae: 1  Others: 0
A Burren square. The best areas for waxcaps are likely to be those areas which have summer grazing and are therefore more closely grazed. The vegetation is just too deep and thick in large areas of what should be good limestone pavement.

Grassland Target Species Recorded

Entoloma poliopus
Hygrocybe aurantiocrepellens
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe colemaniana
Hygrocybe conica var. conica
Hygrocybe fomicata
Hygrocybe insipida
Hygrocybe intermedia
Hygrocybe nitrate
Hygrocybe persistens
Hygrocybe pratensis
Hygrocybe punicea
Hygrocybe quieta
Hygrocybe russocoriacea
Hygrocybe virginia var. ochraceopallida
Hygrocybe virginia var. virginia
Trichoglossum hirsutum

Site Details:
These records were made by Ray Woods on an Aberystwyth University fieldtrip and are included as they include a record of Hygrocybe intermedia which is a species that fruits early in the season, usually before the dates of this survey.

*Hygrocybe intermedia*

*Hygrocybe persisens*

**Site:** Cahermacnaghten. See M10

**Site:** Tullycomman, Carran

The area searched included the fields on the turlough side of the road and the hillside above the road to the hilltop. The best area by far were the fields below the road as these were well grazed limestone pavement whereas the fields above the road were not well grazed and the vegetation was, by in large, too thick to be of interest for waxcaps. Notable species include Hygrocybe aurantiosplendens, Hygrocybe nitrata and the first site for Hygrocybe glutinipes for the first time in this survey. Strangely however, there were no fairy clubs found at all.

*Trichoglossum hirsutum*
*Trochila ilicina*
*Clitocybe nebularis*
*Collybia dryophila*
*Entoloma polipus*
*Hygrocybe aurantiosplendens*
*Hygrocybe coccinea*
*Hygrocybe colemanniana*
*Hygrocybe conica var. conica*
Hygrocybe fornicata
Hygrocybe insipida
Hygrocybe nitrata
Hygrocybe quieta
Hygrocybe russocoriacea
Hygrocybe virginia var. ochraceopallida
Hygrocybe virginia var. virginia
Melanoleuca polioleuca
Mycena epipterygia var. epipterygia
Mycena pura
Stropharia semiglobata
Phragmidium violaceum

R37
Sites Searched: Ennis Friary, Ennis Church of Ireland, Ennis Cathedral

Hygrocybe: 0  Clavariaceae 0  Entolomaceae: 0  Geoglossaceae: 0  Others: 0
This square is predominantly intensive agriculture or urban development and the only sites are likely to be churchyards and lawns.

Grassland Target Species Recorded
None

Site Details:

Site: Ennis Friary
Date: 27/10/2006  GridRef: R339776
H: 0  C: 0  E: 0  G: 0  O: 0  IrishScore: 0

A tiny moss rich churchyard. It should yield some species of waxcap but will not be a good site. A potential site for H.calytriformis.

Rhytisma acerinum
Galerina vittiformis
Hebeloma mesophaeum

R39
Sites Searched: Mullagh More, Gortlecka

Hygrocybe: 5  Clavariaceae 1  Entolomaceae: 4  Geoglossaceae: 0  Others: 0
A Burren square. Larger areas of grassland amongst the limestone pavement were searched as well as the eastern flanks of Mullagh More to the summit. The vegetation was too thick on much of the area and the best waxcap areas are likely to be those that have summer grazing as well.

Grassland Target Species Recorded
Clavaria fumosa
Entoloma corvinum
Entoloma polipous
Hygrocybe chlorophana
Hygrocybe conica var. conica
Hygrocybe psittacina var. psittacina
Hygrocybe reidii
Hygrocybe virginia var. virginia

47
Site Details:

Site: Gortlecka

Date: 26/10/2006  GridRef: R306945

This was a small field within the limestone pavement. Only H. conica and H. virginea were found.

Coprinus comatus
Hygrocybe conica var. conica
Hygrocybe virginea var. virginea
Lacrymaria lacrymabunda
Lepiota aspera
Phragmidium violaceum

Site: Mullagh More

Date: 26/10/2006  GridRef: R3395

The eastern flanks of the mountain were searched from the road up to the summit. The site was disappointing in terms of waxcaps as there was only scattered finds of H. conica and H. virginea on the slopes and summit. There were more waxcaps along with Clavaria fumosa however in the reclaimed field below the summit. It must be noted that these were the five most common species of waxcap and no good indicator species were found here. Three species of Entoloma were found in the summit grassland.

In terms of ectomycorrhizal species associated with the Dryas, again only the summit proved to be fruitful. Four ectomycorrhizal species were found along with large numbers of Leucopaxillus gigantea and Melanoleuca polioleuca. Mycena pura was the most common mushroom by far all over the mountain.

Lepus timidus subsp. hibernicus
Cantharellus futescens
Clavaria fumosa
Helvella atra
Hypoxylon fuscum
Rhopographus filicinus
Chamaemyces fracidus
Collybia dryophila
Cortinarius calochrous
Cortinarius cinnamomeus
Entoloma corvinum
Entoloma poliopus
Hebeloma velutipes
Hygrocybe chlorophana
Hygrocybe conica var. conica
Hygrocybe psittacina var. psittacina
Hygrocybe reidii
Hygrocybe virginea var. virginea
Leucopaxillus giganteus
Melanoleuca polioleuca
Mycena pura
Panaeolus papilionaceus var. papilionaceus
Stropharia semiglobata
Lycoperdon nigrescens
Phragmidium violaceum
**R46**

**Sites Searched:** Kilmurray RC Church, Sixmilebridge RC Church

**Hygrocybe:** 0  **Clavariaceae:** 0  **Entolomaceae:** 0  **Geoglossaceae:** 0  **Others:** 0

This square is predominantly intensive agriculture and the only sites are likely to be churchyards and lawns.

**Grassland Target Species Recorded**

None

**Site Details:**

**Site:** Sixmilebridge RC Church  
**Date:** 04/11/2006  
**GridRef:** R479657  
**H:** 0  **C:** 0  **E:** 0  **G:** 0  **O:** 0  **IrishScore:** 0

A tiny moss rich churchyard. Might yield a few waxcaps but not many.  
*Rhytisma acerinum*

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**R47**

**Sites Searched:** Clooney RC Church, Tulla RC Church, Quin RC Church

**Hygrocybe:** 2  **Clavariaceae:** 0  **Entolomaceae:** 0  **Geoglossaceae:** 0  **Others:** 0

This square is predominantly intensive agriculture and the only sites are likely to be churchyards and lawns.

**Grassland Target Species Recorded**

*Hygrocybe chlorophana*
*Hygrocybe conica var. conica*

**Site Details:**

**Site:** Clooney RC Church  
**Date:** 27/10/2006  
**GridRef:** R416795  
**H:** 1  **C:** 0  **E:** 0  **G:** 0  **O:** 0  **IrishScore:** 1

A moss rich churchyard with very good potential. It should yield some more species of waxcap and could be a potential site for *H. calyptiformis*.  
*Hygrocybe chlorophana*  
*Lactarius pubescens*  
*Lepiota cristata*  
*Melanoleuca polioleuca*

**Site:** Quin RC Church  
**Date:** 04/11/2006  
**GridRef:** R418744  
**H:** 1  **C:** 0  **E:** 0  **G:** 0  **O:** 0  **IrishScore:** 1

Potentially a rich churchyard but only *Hygrocybe conica* found.  
*Hygrocybe conica var. conica*
**Mucilago crustacea**

**Site:**  
*Tulla RC Church*  
**Date:** 27/10/2006  
**GridRef:** R492797  
**H:** 0  
**C:** 0  
**E:** 0  
**G:** 0  
**O:** 0  
**IrishScore:** 0

A tiny moss rich churchyard. It should yield some species of waxcap and could be a potential site for *H.calyptiformis*, but is unlikely to be a good site.

*Coprinus comatus*

**R48**

**Sites Searched:** Derryulk RC Church

**Hygrocybe:** 0  
**Clavariaceae:** 0  
**Entolomaceae:** 0  
**Geoglossaceae:** 0  
**Others:** 0

This square is predominantly intensive agriculture but there are some hills over 200m in the north west of the square. These are very boggy and dominated by heather which is not good habitat for waxcaps and there is little transition between the fertilised fields and the bog. There may be some low quality grasslands in this upland margin, but these are difficult to find and have access difficulties. Hence the churchyards and lawns are likely to be important sites.

**Grassland Target Species Recorded**

None

**Site Details:**

**Site:** Derryulk RC Church  
**Date:** 27/10/2006  
**GridRef:** R482843  
**H:** 0  
**C:** 0  
**E:** 0  
**G:** 0  
**O:** 0  
**IrishScore:** 0

A tiny moss rich churchyard but a bit overgrown. It could yield some species of waxcap but is unlikely to be a good site.

*Rhytisma acerinum*

**R56**

**Sites Searched:** Cloghera RC Church

**Hygrocybe:** 0  
**Clavariaceae:** 0  
**Entolomaceae:** 0  
**Geoglossaceae:** 0  
**Others:** 0

This square is a mix of intensive agriculture and marginal upland to the south of Slieve Bearnagh. The marginal upland is likely to be the best area but time restrictions meant these were not searched. Coniferous plantations and intensive agriculture have affected waxcap interest and areas of interest will need a detailed search.

**Grassland Target Species Recorded**

None

**Site Details:**
Site:  Cloghera RC Church

Date  04/11/2006  GridRef:  R587659

H: 0  C: 0  E: 0  G: 0  O: 0  IrishScore: 0

A reasonable area of grassland that should have some waxcaps but unlikely to have many species.

*Phragmidium violaceum*
*Rhytisma acerinum*

R58

Sites Searched:  Lough Nacally hills, Feakle RC Church, Bodyke RC Church

**Hygrocybe:** 4  **Clavariaceae:** 0  **Entolomaceae:** 0  **Geoglossaceae:** 2  **Others:** 0

This square is predominantly intensive agriculture with significant areas over 200m in the north of the square. These are very boggy and dominated by heather or covered by coniferous plantations which are not good habitat for waxcaps. There is little transition between the fertilised fields and the bog. There may be some low quality grasslands in this upland margin, but these are difficult to find and have access difficulties. Hence the churchyards and lawns are likely to be important sites.

Grassland Target Species Recorded

- **Clavaria argillacea**
- **Geoglossum fallax**
- **Hygrocybe chlorophana**
- **Hygrocybe conica var. conica**
- **Hygrocybe flavipes**
- **Hygrocybe quieta**
- **Trichoglossum hirsutum**

Site Details:

Site:  Ballycroum hills

Date  27/10/2006  GridRef:  R5288, R5388

H: 2  C: 1  E: 0  G: 1  O: 0  IrishScore: 4

Areas east and west of the road on the East Clare way were searched for pockets of acid grassland amongst the bog or coniferous forestry. These were hardly found and Hygrocybe conica and Geoglossum were both found in mosses alongside forestry tracks. The best possible areas are low quality fields that have not been heavily fertilised but those looked at were heavily poached and had no fruiting bodies. It is like looking for a needle in a haystack and any fields are unlikely to be very good due to restricted size.

- **Clavaria argillacea**
- **Geoglossum fallax**
- **Peziza badia**
- **Rhytisma salicinum**
- **Xylaria hypoxylon**
- **Cortinarius urbicus**
- **Cystoderma amianthinum**
- **Hebeloma crustuliniforme**
- **Hebeloma fragilipes**
- **Hebeloma mesophaeum**
- **Hygrocybe conica var. conica**
- **Hygrocybe flavipes**
Hypholoma fasciculare
Laccaria laccata
Omphalina ericetorum
Paxillus involutus
Tricholomopsis rutilans
Lycoperdon nigrescens
Phragmidium violaceum

Site: Bodyke RC Church
Date 27/10/2006  GridRef: R597816
H: 2  C: 0  E: 0  G 1  O: 0  IrishScore: 4
A moss rich churchyard with good potential. It should yield some more species of waxcap and could be a potential site for H.calyptriformis.

Trichoglossum hirsutum
Hygrocybe chlorophana
Hygrocybe conica var. conica
Panaeolus fimicola
Lycoperdon pyriforme

Site: Feakle RC Church
Date 27/10/2006  GridRef: R656864
H: 1  C: 0  E: 0  G 1  O: 0  IrishScore: 4
A tiny moss rich churchyard. It should yield some more species of waxcap and could be a potential site for H.calyptriformis, but is unlikely to be a good site.

Trichoglossum hirsutum
Hygrocybe quieta

R66

Sites Searched: Bridgetown RC Church

Hygrocybe: 2  Clavariaceae: 0  Entolomaceae: 0  Geoglossaceae: 0  Others: 0
This square is predominantly intensive agriculture and the only sites are likely to be churchyards and lawns.

Grassland Target Species Recorded
Hygrocybe psittacina var. psittacina
Hygrocybe virginea var. virginea

Site Details:
Site: Bridgetown RC Church
Date 04/11/2006  GridRef: R645679
H: 2  C: 0  E: 0  G 0  O: 0  IrishScore: 2
A large area of grassland that is potentially rich in waxcaps and worth another visit. A potential Hygrocybe calyptriformis site.

Hygrocybe psittacina var. psittacina
Hygrocybe virginea var. virginea
R68

Sites Searched: Tuamgraney RC church

Hygrocybe: 3 Clavariaceae 1 Entolomaceae: 0 Geoglossaceae: 0 Others: 0

This square is predominantly intensive agriculture but with significant areas over 200m in the north and south of the square. These are very boggy and dominated by heather or covered by coniferous plantations which are not good habitat for waxcaps. There is little transition between the fertilised fields and the bog. There may be some low quality grasslands in this upland margin, but these are difficult to find and have access difficulties. Hence the churchyards and lawns are likely to be important sites.

Grassland Target Species Recorded

Clavulinopsis helvola
Hygrocybe chlorophana
Hygrocybe conica var. conica
Hygrocybe quieta

Site Details:

Site: Tuamgraney RC Church
Date: 27/10/2006  GridRef: R635830
H: 3  C: 1  E: 0  G: 0  O: 0  IrishScore: 4

A tiny moss rich churchyard. It should yield some more species of waxcap and could be a potential site for *H.calyptriformis*, but is unlikely to be a good site.

Clavulinopsis helvola
Hygrocybe chlorophana
Hygrocybe conica var. conica
Hygrocybe quieta
Melanoleuca polioleuca
Panaeolus acuminatus

R77

Sites Searched: Killaloe RC Church

Hygrocybe: 3 Clavariaceae 1 Entolomaceae: 0 Geoglossaceae: 0 Others: 0

There is only a very small area of County Clare in this square and churchyards and lawns will be the only areas of interest.

Grassland Target Species Recorded

Clavaria fumosa
Hygrocybe chlorophana
Hygrocybe psittacina var. psittacina
Hygrocybe virginea var. virginea

Site Details:

Site: Killaloe RC Church
Date: 04/11/2006  GridRef: R701729
H: 3  C: 1  E: 0  G: 0  O: 0  IrishScore: 5

Not a large area of grassland but the presence of Clavaria fumosa suggests that it A potential *Hygrocybe calyptriformis* site.
Clavaria fumosa
Hygrocybe chlorophana
Hygrocybe psittacina var. psittacina
Hygrocybe virginea var. virginea
Appendix 2 – Species Distribution Maps

Grassland Target Species

Camarophyllopsis micacea (Berk. & Broome) Arnolds
First record for Ireland found in three churchyards in this survey

Clavaria acuta Fr.
A Fairy Club

Clavaria argillacea Fr.
A Fairy Club but one usually found on bogs
Clavaria fragilis Holmsk.
A Fairy Club

Clavaria fumosa Fr.
A Fairy Club

Clavulinopsis corniculata (Fr.) Corner
A common Fairy Club
Clavulinopsis fusiformis (Sowerby) Corner
A Fairy Club that is most common in acid grassland

Clavulinopsis helvola (Pers.) Corner
A common Fairy Club

Clavulinopsis laeticolor (Berk. & M.A. Curtis) R.H.
A Fairy Club that needs to be microscopically checked to distinguish from C.luteoalba
Clavulinopsis luteoalba (Rea) Corner
A common Fairy Club

Clavulinopsis umbrinella (Sacc.) Corner
A rarer Fairy Club that appears to be a good indicator of high quality grasslands

Dermoloma cuneifolium var. cuneifolium (Fr.) Bon
A species found in unfertilised grasslands
Entoloma anatinum (Lasch) Donk
No other published records for Republic of Ireland or on FRDBI.

Entoloma bloxamii (Berk.) Sacc.
A large fleshy blue Entoloma

Entoloma conferendum (Britzelm.) Noordel.
A common Entoloma
Entoloma corvinum (Kühner) Noordel.
A dark blue Entoloma with a sterile gill edge

Entoloma incanum (Fr.) Hesler
A very distinctive Entoloma with a yellow green stipe that turns blue green with handling. Smells of mouse droppings

Entoloma ochromicaceum Noordel. & Liiv
No other published records for Republic of Ireland or on FRDBI.
Entoloma poliopus var. poliopus (Romagn.) Noordel.
A relatively common Leptonia in unfertilised grasslands

Entoloma rhombisporum var. floccipes Noordel.
No other published records for Ireland or on FRDBI. All other records from the British Isles are from Scotland

Entoloma sericellum Fr.
A white Leptonia
Entoloma sericeum (Bull.) Fr.
A common brown Nolanea

Entoloma tenellum (J. Favre) Noordel.
A brown Nolanea with only scattered Irish records (but possibly under-recorded)

Entoloma turci (Bres.) M.M. Moser
A brown Leptonia with reddening gills
**Geoglossum cookeanum Nannf.**
Can be the largest species of earth tongue growing to several centimetres tall

**Geoglossum fallax E.J. Durand**
An earth tongue

**Geoglossum glutinosum Pers.**
An earth tongue that is very viscid
**Geoglossum umbratile Sacc.**

An earth tongue

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**Hygrocybe aurantiosplendens R. Haller Aar.**

A rarer waxcap that is often over-recorded.

---

**Hygrocybe calciphila Arnolds**

A rare waxcap usually found in dune systems. Only a few Irish records
Hygrocybe cantharellus (Schwein.) Murrill
A waxcap usually found in acid grassland

Hygrocybe ceracea (Wulfen) P. Kumm.
A yellow waxcap - not uncommon

Hygrocybe chlorophana (Fr.) Wünsche
One of the most common waxcaps
Hygrocybe coccinea (Schaeff.) P. Kumm.
One of the most common waxcaps

Hygrocybe colemaniana (A. Bloxam) P.D. Orton & Watling
Usually restricted to calcareous grassland

Hygrocybe conica var. conica (Schaeff.) P. Kumm.
Very common
**Hygrocybe conica var. conicoides (P.D. Orton) Boertm.**

Some authors give this variety species rank. Usually found in sand dunes.

**Hygrocybe flavipes (Britzelm.) Arnolds**

Found in this survey on bare peat.

**Hygrocybe fornicata (Fr.) Singer**

A grey to brown species with ascending gills.
**Hygrocybe glutinipes var. glutinipes (J.E. Lange) R. Haller**

Very viscid and smaller than H. chlorophana

---

**Hygrocybe intermedia (Pass.) Fayod**

An early fruiting waxcap with a distinctive dry fibrous red cap

---

**Hygrocybe insipida (Lange ex S. Lundell) M.M. Moser**

Very common
Hygrocybe laeta var. laeta (Pers.) P. Kumm.
Common in acid grassland but surprisingly only found once

Hygrocybe mucronella (Fr.) P. Karst.
Often overlooked but with a very bitter taste

Hygrocybe nitrata (Pers.) Wünsche
One of the more unusual species of waxcap with a strong nitrous smell
Hygrocybe persistens var. persistens (Britzelm.) Singer
Often confused with H.conica but does not blacken. One of the earlier waxcaps to fruit.

Hygrocybe pratensis (Pers.) Fr.
One of the largest waxcaps that can be very abundant

Hygrocybe psittacina var. psittacina (Schaeff.) P. Kumm.
Usually very common and distinguished by its green colours
**Hygrocybe punicea (Fr.) P. Kumm.**
Large and notable with a dull crimson colour and fibrous stipe

**Hygrocybe quieta (Kühner) Singer**
Noted for its oily smell

**Hygrocybe reidii Kühner**
Recognised by its honey smell especially if rubbed. Not uncommon
Hygrocybe russocoriacea (Berk. & Mill.) P.D. Orton &
Noted by its amazing smell of cedar wood

Hygrocybe virginea var. fuscescens (Bres.) Arnolds
A variety with a brown centre to the cap

Hygrocybe virginea var. ochraceopallida (P.D. Orton)
This variety is usually found in calcareous grassland
Hygrocybe virginea var. virginea (Wulfen) P.D. Orton &

Very common species

Trichoglossum hirsutum (Pers.) Boud.

An earth tongue with noticeable setae (especially on the stipe) like hairs
Non-Grassland Target Species

Anamorphic Fungi

Paecilomyces marquandii (Massee) S. Hughes
An infection of Hygrocybe virginea that turns the gills lilac. Rarely recorded in Ireland

Aphyllophoroid Fungi - Brackets Chanterelles etc

Clavulina rugosa (Bull.) J. Schröt.
A woodland species of Fairy Club

Hymenochaete corrugata (Fr.) Lév.
Glues branches of hazel together in the canopy to capture the wood before it falls to the forest floor
Ascomycetes

**Cordyceps militaris (L.) Link**
The Caterpillar Killer which parasitises moth pupae

**Helvella atra J. König**
A very distinctive ascomycete found here in hazel scrub

**Hypocreopsis lichenoides (Tode) Seaver**
A very distinctive species known as Hazel Gloves. A UK BAP species, it is usually restricted to undisturbed coastal hazel woods but on the Burren found in inland sites on colonising hazel as well as older hazel woodlands.
**Hypoxylon fuscum (Pers.) Fr.**
Very common on Hazel and will be ubiquitous on any site with Hazel.

**Peziza badia Pers.**
A dark cup fungus found in profusion on the gravel on a forest road

**Rhopographus filicinus (Fr.) Nitschke ex Fuckel**
A ubiquitous species on Bracken. Will be much more common as not systematically looked for.
**Rhytisma acerinum (Pers.) Fr.**
Tar spot fungus found on Sycamore leaves

**Rhytisma salicinum (Pers.) Fr.**
Found on Salix leaves

**Trochila ilicina (Nees) Greenh. & Morgan-Jones**
Very common on Holly leaves
Xylaria hypoxylon (L.) Grev.
Candle Snuff Fungus. Very common on wood

Boletes and Agarics

Agaricus arvensis Schaeff.
A common agaric with an aniseed smell. Possibly over-recorded mistaken for similar species, like A. macrocarpus

Agaricus moelleri Wasser
A more unusual (in Ireland) yellowing agaric with a strong unpleasant smell. Only published records for Ireland are from Northern Ireland. In Britain, it has a strong southern bias in distribution.
Agaricus silvaticus Schaeff.
A strongly reddening agaric usually found in woodland but also in grassland

Agaricus urinascens (F.H. Møller & Jul. Schäff.) Singer
More commonly known as Agaricus macrosporus that can grow to very large sizes

Armillaria gallica Merxm. & Romagn.
The most common Honey Fungus with a bulbous base. Not as pathogenic as A.mellea.
Bolbitius vitellinus (Pers.) Fr.
A common species found on decaying grass or dung

Calocybe carnea (Bull.) Donk
Not uncommon in grasslands

Chamaemyces fracidus (Fr.) Donk
Rarely recorded in Ireland - a notable record
Clitocybe fragrans Sowerby
Not uncommon in grasslands

Clitocybe nebularis (Batsch) Quél.
The Clouded Agaric

Clitocybe rivulosa (Pers.) Fr.
A poisonous species more commonly known as C.dealbata
Collybia dryophila (Bull.) P. Kumm.
A very common species

Coprinus atramentarius (Bull.) Fr.
The Common Inkcap

Coprinus comatus (O.F. Müll.) Gray
The Shaggy Inkcap
**Coprinus niveus (Pers.) Fr.**
A snowy white inkcap on dung

**Cortinarius brunneus (Pers.) Fr.**
An ectomycorrhizal species associated here with *Dryas octopetala*. Normally a pine associate

**Cortinarius calochrous var. coniferarum (Pers.) Fr.**
An ectomycorrhizal species associated here with *Dryas octopetala*. Normally a pine associate. Found with *Helianthemum nummularium* in Britain.
Cortinarius cinnamomeus (L.) Fr.
An ectomycorrhizal species associated here with Dryas octopetala. Normally associated with a variety of softwood and hardwood trees.

Cortinarius croceus Fr.
An ectomycorrhizal species often found in open grassland with no "usual" ectomycorrhizal species nearby. Possibly mycorrhizal with Carex species. Very similar to C. cinnamomeus.

Cortinarius infractus Berk.
An ectomycorrhizal species associated here with Dryas octopetala.
**Cortinarius nanceiensis Maire**

No other published records for Ireland or on FRDBI. Normally with Pine but found in England on *Helianthemum*. Goes purple with KOH on the flesh.

**Cortinarius odorifer Britzelm.**

An ectomycorrhizal species associated here with *Dryas octopetala*. Normally a pine associate. Smells strongly of aniseed.

**Cortinarius urbicus (Fr.) Fr.**

Associated with Salix in conifer woodland. First record for Ireland but unfortunately, the dried specimen rehydrated and was lost.
Cortinarius venetus (Fr.) Fr.
An ectomycorrhizal species associated here with Dryas octopetala.

Cystoderma amianthinum (Scop.) Fr.
A common grassland species

Galerina vittiformis (Fr.) Singer
Will be more common as it was not systematically looked for.
Hebeloma crustuliniforme (Bull.) Quél.
Often over-recorded with a strong radish smell. Spores are non-dextrinoid.

Hebeloma fragilipes Romagn.
A small delicate species. No other published records for Ireland or on FRDBI and found here in coniferous woodland with Betula.

Hebeloma mesophaeum (Fr.) Fr.
A variable species with velar remnants on the cap.
Hebeloma sinapizans (Fr.) Sacc.
One of the largest Hebelomas here found associated with Dryas octopetala

Hebeloma velutipes Bruchet
One of the most common species of Hebeloma with spores that are strongly dextrinoid. Found here with Dryas octopetala

Hygrophoropsis aurantiaca (Wulfen) Maire
The False Chanterelle with orange gills like tuning forks
Hypholoma fasciculare (Huds.) P. Kumm.
The Sulphur Tuft. Very common

Inocybe geophylla var. lilacina Gillet
Common purple ectomycorrhizal species with brown spore print

Laccaria laccata (Scop.) Fr.
The Deceiver which as its name suggests is very variable
Laccaria proxima (Boud.) Pat.
Similar to the Deceiver but with a long fibrous stipe and different spores

Lacrymaria lacrymobunda (Bull.) Pat.
The Weeping Widow with dark drops on the gills

Lactarius glyciusmus (Fr.) Fr.
A coconut smelling milk cap usually found with Betula
**Lactarius lacunarum Romagn. ex Hora**
Notably found on the *Salix repens* in coastal heath in this survey. Usually in damp woodland.

**Lactarius pubescens Fr.**
Commonly associated with young *Betula*.

**Lactarius rufus (Scop.) Fr.**
A dark red milk cap with fiery tasting milk under conifers.
**Lactarius tabidus Fr.**
Usually with Betula. Milk is white turning yellow on a handkerchief

**Lepiota aspera (Pers.) Quél.**
A large unusual species with a very scaly cap

**Lepiota cristata (Alb. & Schwein.) Quél.**
A small species with a brown scaly cap and a very strong distinctive smell
Lepista flaccida (Sowerby) Pat.
Common in woodland

Lepista irina (Fr.) H.E. Bigelow
Large pale species with a pink spore print. A notable record for Ireland

Lepista nuda (Bull.) Cooke
Wood Blewit - very common
**Lepista panaeolus (Fr.) P. Karst.**
Unusual species of Lepista with grey brown colours

**Leucoagaricus leucothites (Vittad.) M.M. Moser ex Bon**
A notable record for Ireland of a large distinctive species

**Leucopaxillus giganteus (Sowerby) Singer**
A large species occasionally found in grassland but usually in woodland
**Macrolepiota procera (Scop.) Singer**
Large species with a scaly cap and stipe

**Marasmius oreades (Bolton) Fr.**
The Fairy Ring Champignon with a very tough stipe

**Mycena alcalina (Fr.) P. Kumm.**
With a strong nitrous smell
Mycena epipterygia var. epipterygia (Scop.) Gray
Has a cap with a viscid layer that can peel off.

Mycena flavoalba (Fr.) Quél.
A small common white species in grassland

Mycena galericulata (Scop.) Schaeff.
Common on wood
Omphalina ericetorum (Bull.) M. Lange
Often found in peat habitats

Panaeolina foenisecii (Pers.) Maire
Very common in domestic lawns

Panaeolus acuminatus (Schaeff.) Gillet
Very common
**Panaeolus fimbicola (Pers.) Gillet**

A dark species of Panaeolus with distinctive spores

**Panaeolus papilionaceus var. papilionaceus (Bull.) Quél.**

Very common – includes what was known as *P. sphinctrinus*

**Panaeolus papilionaceus var. parvisporus Ew. Gerhardt**

Very common - more commonly known as *P. campanulatus*
Paxillus involutus (Batsch) Fr.
The brown roll-rim. Usually found under Betula but here with Picea

Pluteus plautus (Weinm.) Gillet
First record for Republic of Ireland and only recorded once in Northern Ireland. Found on buried wood on Rehy Hill

Psilocybe semilanceata (Fr.) P. Kumm.
The Magic Mushroom.
Schizophyllum commune (L.) Fr.
Found on silage bales. Appears to be very common in Clare as these records were made whilst driving and it was not systematically looked for. Can badly affect the quality of the silage

Stropharia semiglobata (Batsch) Quél.
Very common on dung

Tricholoma scalpturatum (Fr.) Quél.
An ectomycorrhizal species found here with Dryas octopetala
Tricholomopsis rutilans (Schaeff.) Singer
Plums and Custard. Found on wood

Volvariella gloiocephala (DC.) Fr.
Large pink spored species with a volva. Often in fertilised places

Gasteroid Fungi (Puffballs, earthballs, earthstars etc)

Lycoperdon nigrescens Wahlenb.
A puffball with black scales found in grassland
**Lycoperdon pyriforme (Schaeff.) Pers.**

Always found on wood

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**Tulostoma brumale Pers.**

The Winter Stalked puffball. Rarely recorded in Ireland and the first record for Clare

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**Vascellum pratense (Pers.) Kreisel**

A common grassland puffball
Heterobasidiomycetes (jelly fungi)

Calocera cornea (Batsch) Fr.
A common jelly fungus on decaying wood

Myxomycetes (Slime Moulds)

Mucilago crustacea Mich.
A slime mould in grass that looks like vomit. Normally lives in the soil digesting bacteria and moves up onto grass to fruit.

Powdery Mildews

Erysiphe sordida L. Junell
A powdery mildew on Plantago. Will be more common as it was not systematically looked for.
Rusts and Smuts

*Miyagia pseudosphaeria* (Mont.) Jørst.
A common rust on Sonchus. Will be more common as not systematically looked for

*Phragmidium violaceum* (Schultz) G. Winter
Very common rust on Bramble. Will be more common as not systematically looked for

*Puccinia behenis* J. Schröt.
A more unusual rust on Sea campion
**Puccinia poarum E. Nielsen**

A common rust on Coltsfoot. Will be more common as not systematically looked for

**Puccinia pygmaea var. ammophilina (Mains) Cummins & Greene**

A common rust on Marram grass. Will be more common as not systematically looked for