Survey of the Grassland Fungi of the Vice County of West Mayo

David Mitchel

October – November 2008

This project has received support from the Heritage Council
under the 2008 Wildlife Grant Scheme
Grant Reference No. 15965

Contents

Background

This background is essentially the same as that written in 2007 for the West Cork Waxcap Survey as it is still relevant. It has been however updated.

Waxcaps (the genus Hygrocybe) have been described as the orchids of the fungi world (Marren 1998). 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 unfertilised grassland or "waxcap grasslands" (Arnolds 1980). This term describes sites that are not necessarily good for higher plants but that are mycologically rich. "Waxcap grasslands" can be rich in other grassland fungi and usually include the Entolomas (pink spored gill fungi), the Clavarioids (fairy clubs), Geoglossaceae or earth tongues and species from the smaller genera of Camarophyllopsis, Dermoloma and Porpoloma.

Waxcap grassland can be found in a range of grassland types from dunes to uplands, from lowlands to gardens or churchyards. Indeed gardens and churchyards have now often become the last refuge of these species, isolated areas that have been spared the addition of fertilisers and which give us a glimpse on what our natural grasslands once would have looked like. Many species are on national red lists across Europe and Hygrocybe calyptriformis was on the list of fungal species proposed for inclusion onto the Berne Convention in 2003 (Dahlberg 2003) but which did not progress for various political reasons nothing to do with the need to protect fungi.

These species are sensitive to the application of artificial fertilisers, especially those containing phosphorus. It was estimated in Northern Ireland that the cumulative surplus of phosphorus in the soil was 500,000t (Bailey 1994) meaning that most of the lowland rural landscape is eutrophicated. 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. These waxcap grasslands often have a nature conservation value beyond mycology. It was noticeable that in studies at Fair Head in Co.Antrim, the fields that were the most favoured by chough feeding on leatherjackets were also the best waxcap grasslands.

The great unknown however is just what these species are actually doing in the soil. One study (Griffith, G.W., Easton, G.L. & Jones, A.W. (2002). Ecology and Diversity of Waxcap (Hygrocybe spp.) Fungi. Bot.J.Scotl. 54(1), 7-22) 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.

Assessing site quality from fungal data

The first recognition of grassland fungi in Ireland was a paper by Feehan and McHugh (1992) on the Curragh and since the early 1990s, interest has been growing in this group 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 (1985) in Denmark proposed a system based on the number of

species of *Hygrocybe*, Nitare (1988) looked at systems in Sweden, Jordal in Norway (1997) 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 in McHugh et al (2002) 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 and two sites on Achill Island were included. These were Keem and Keel machair. Further to this, a three year survey of grassland sites was concluded in Northern Ireland in 2003 in which every 10km square in Northern Ireland was surveyed (see www.nifg.org.uk/waxcaps.htm). The surveys I have undertaken with Heritage Council grants in Clare (2006) and West Cork (2007) have identified and mapped waxcap grassland sites in these two vice counties.

All the scoring systems above base their score on species and do not include varieties in the calculation ([Rald, 1985 #24], [Nitare, 1988 #23], [Boertmann, 1995 #17], [Vesterholt, 1999 #29], [McHugh, 2001 #117]). However, some surveys have counted varieties ((Rotheroe 1999), (Newton 2002)) so it is very important to be clear about the basis of the system used when comparing data across regions. For this purpose, the definition of species used in all the Irish surveys follows the Checklist of the Basidiomycetes of the British Isles (Legon 2005) and Spooner's key for Geoglossaceae (Spooner 1998) with two exceptions to remain consistent with the continental surveys. *Hygrocybe berkeleyi* (*Hygrocybe pratensis* var. *pallida* in David Boertmann's book) as Vesterholt et al include it their review of the scoring system in Denmark (Vesterholt 1999) and although The Checklist of the Basidiomycetes of the British Isles (Legon 2005) did list *Hygrocybe conicoides* as a species rather than *Hygrocybe conica* var. *conicoides*, Boertmann's book lists it as a variety and the 1999 review of the scoring system restates this. Despite this, any good database can take these differing definitions into account and I wrote an Access database for scoring and ranking grassland sites and this has been used in all the Irish surveys.The literature listed on page 7 was that used for species identification.

Aims of this project

The main aim of this survey was to provide a baseline of information for the vice county of West Mayo. This project proposal was to locate and survey waxcap grasslands in as many different 10km squares as possible over a two week period between 26/10/08 and 09/11/08. From experience, the fortnight around the end of October and start of November 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 *Camarophyllopsis, Dermoloma* and *Porpoloma.* These species would be thoroughly searched for. Records would be made of other species but the maps generated may not necessarily be complete for these groups.

The data collected was to be compared with other Irish data as well as GB data to provide a British Isles context for the West Mayo sites. This data and interpretation would also feed into the National Biodiversity Information Centre. All images collected during this survey are available for unlimited usage for the Heritage Council or the National Biodiversity Information Centre.

The Irish scoring system for waxcap grasslands is continually evolving as our knowledge improves of these groups so and as the balance of data between the Republic of Ireland and Northern Ireland improves so an additional aim of this survey was to further input into a review of this system.

The Vice County of West Mayo

Vice counties were defined so that biological recording had fixed regional boundaries, independent of political changes, to allocate records to allowing comparisons of records over time. The boundary of the vice county of West Mayo (H27) was first defined by Babbington in 1856 and refined by Praeger in 1896 (Webb 1980). The current political county of Mayo is divided into two vice counties (east and west) with the division largely dividing the low limestone areas of east Mayo from the rugged west of Mayo. For West Mayo, the main discrepancy with the current political boundary is an area to the west of Lough Mask that is currently in Mayo used to be Galway and is hence in the vice county of North East Galway (H17). For a detailed definition, see (Webb 1980).

West Mayo contains some of the best mountain scenery in western Ireland with the peaks of Mweelrea, Ben Gorm, Croagh Patrick, Nephin and the Nephin Beg range. There are also extensive areas of blanket bog contrasting with machair and dunes on the coast. The islands of Achill, Clare and Inishturk are the largest of the offshore islands. The uplands are dominated by the Dalradian quatzites, psammites and shists with the Ordovician Sandstone massifs of Mweelrea, Ben Gorm and Maumtrasna in the south. Sandwiched in the middle are the Carboniferous sandstones and limestones of Clew Bay.

Due to the extensive areas of blanket bog and harsh climate, agriculture has always been difficult in west Mayo. The ability of the potato to grow in a wet climate on acidic soils transformed the last use of these harsh lands and led to first a population explosion and then a crash during the famine. The use of lazy beds allowed the potato to be grown extensively. The ridges of the lazy beds were dug by hand and fertilised using seaweed (Whelen 1997). These marginal areas of historic often abandoned agriculture were searched for waxcaps.

Much of the upland grassland and bog is commonage and in Mayo suffers from overgrazing although the recent headage payments are changing patterns of grazing. The key habitat to locate in this survey was the areas of thin mineral soil rather than peats. These were often on steep rocky slopes or river sides.

Machair is a habitat typical of north western coasts in Ireland. It forms in coastal sand systems where the combination of high winds and grazing means that dunes do not have the chance to form (Curtis 1991). Sand is blown sometimes almost engulfing hillsides and the resulting machair is flat, sometimes down to the water table and often floristically rich. Sometimes the machair grades into dunes of the classic variety.

In the more fertile soils, often on limestone, inland from Newport and Westport up to Castlebar, the best areas to search were churchyards as the fields have been improved with little interest for grassland fungi.

History of mycological recording in West Mayo

West Mayo has very few records in the Fungus Records Database of the British Isles (http://194.203.77.76/fieldmycology/FRDBI/FRDBI.asp) managed by the British Mycological Society. There are only 194 species recorded for the vice county as of 15/11/08. However, this dataset is missing the bulk of the most significant historical dataset for the vice county which is the Clare Island Survey. This survey was an all encompassing natural history survey in which experts from virtually all taxonomic groups visited the island over three years (1909 -1911). It was inspired by a then fascination with the natural history of islands following work by people like Charles Darwin and Alfred Russel Wallace. A series of works had been published on islands like Christmas Island, the Faroes and Krakatoa with one of

the aims being to understand the problems of dispersal of plants and animals across the sea (Praeger 1915). Carleton Rea and Sir Henry Hawley undertook a series of surveys on Clare Island (Hawley) and surrounding sites on the mainland (Rea and Hawley) ranging from Achill Island and Old Head Wood to a series of woods around Westport. On this survey, 744 species were recorded with 265 of these being from Clare Island. Visits were spread throughout the season and years with week long visits to Clare Island including a spring visit and two visits by Carleton Rea to the Westport area. Of these records, on Clare Island, 15 species of *Hygrocybe* were recorded although one was *H.obrussea* which is a nomen confusum. From the description, it could have been *H.citrinovirens.* 11 Clavarioids, 8 *Entoloma* and 2 earth tongues were found. On the mainland, even though most of the sites were described as woodland, 18 species of *Hygrocybe* were recorded, 8 Clavarioids, 21 *Entoloma* and 2 earth tongues were found (Rea 1912). These records are listed in Appendix 1. For the mainland sites, there is no information to judge if the waxcaps were found in the woods, in grassland or in lawns around the houses. The best mainland sites for *Hygrocybe* were Old Deer-Park Wood, Mount Browne (9 species), Knockranny Wood (9) and Westport Park (8).

Since this survey, mycological recording has been very sparse in West Mayo. The next significant survey was in 1992 when a Dutch mycologist, Reitze ten Cate, visited the island. In his article in In-Nuachta, he described Clare Island as a paradise for waxcaps. His list uses a older taxonomy and contains two nomen dubiums (*H.citrina* and *H.obrussea*) as well as some species that are now viewed as varieties. Translating species into the concepts of David Boertmann ((Boertmann 1995)), he recorded 14, possibly 15 species. His list is also in Appendix 1 (Ten Cate 1993).

Roland McHugh of the Dublin Institute of Technology was the next person to look at grassland fungi and he found the sites of Keem, Keel machair which were listed as the 8th and 20th best sites in Ireland in our paper of 2001. Doogort, also on Achill, also had 12 species of *Hygrocybe* (McHugh 2001). Since then, McHugh has visited the area on a number of occasions and added the site of Murrevagh machair at Mulranny to the list with 16 species of *Hygrocybe.* The mycology of this site has generated local interest and an information board containing photographs taken by myself in earlier surveys (No 15789) is now being put up.

Roy Anderson has also visited Clare Island and his records have also been included in this report.

Methodology

Mycologists and local conservation rangers were contacted before the survey asking if they knew of any good or possible sites for survey. Thanks must go to Hubert Fuller of UCD, Roland McHugh of Dublin Institute of Technology, Sean Carolan from Mulranny and Lee McDaid and Cameron Clotworthy of NPWS for ideas.

The 1:50,000 OSi maps were studied as were aerial photographs available on Google Earth and (even better) the OSi SmartMaps Viewer available at http://shop.osi.ie/shop/. Along with the geological GIS layers available on the GSI website, these were invaluable and allowed target sites to be identified and prioiritised for each 10km square in West Mayo in advance. 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.

As the Royal Irish Academy is currently organising and publishing the Clare Island Resurvey (http://www.ria.ie/projects/clare_island/index.html), I joined a group of mycologists two days

before this survey was due to begin to visit and record on Clare Island. However, the weather was ferocious and the ferry was cancelled and actually did not run for another 6 days due to wind. So, reorganising this survey, I started it two days earlier and then got out to Clare Island on November 1-2. As Clare Island is within West Mayo, this means that this survey benefited by two extra days survey and all the results from this visit are included here.

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:

- Bas et al (1990) Flora Agaracina Neerlandica Vol. 2. Leiden. (Used for *Camaropyllopsis*)
- Boertmann, D. (1995).*The Genus Hygrocybe* (Fungi of Northern Europe – I). Danish Mycological Society.
- Henrici, A. (1997) *Keys to British Clavariaceae*. Privately circulated.
- Noordeloos, M.E. (1992) *Entoloma, s.l.* (Fungi Europaei 5 and 5a). Saronno: Libreria editrice Giovanna Biella.
- Spooner, B. (1998).) *Keys to the British Geoglossaceae (draft).* Privately circulated.
- Vesterholt, J. (2002) Contribution to the knowledge of species of *Entoloma* subgenus *Leptonia*. Edizioni Candusso
- Watling, R. & Turnbull, E. (1998) 8. *Cantharellaceae, Gomphaceae and Amyloid and Xeruloid members of the Tricholomataceae: British Fungus Flora Vol.8.* Royal Botanic Gardens, Edinburgh (Used for *Dermoloma* and *Porpoloma*)

Results

Weather and Fungal Fruiting

The fruiting of fungi is particularly affected by weather. Fruiting is often best after warm summers which are followed by a damp autumn. Generalising, during the warm summer, the underground mycelia extend and then during the damp autumn, fruiting occurs and uses up a considerable amount of moisture. However, if there is too much rain and the top soil layers become waterlogged, the anaerobic conditions hinder the production of fruiting bodies (Rotheroe 1999). Containing so much moisture, fungi can be hit badly by frosts but on the other hand, early frosts in October and early November seem to quickly initiate a new batch of fruiting of waxcaps as long as the frosts do not continue for a long period of time. Although some species of waxcaps can fruit in July (even as early as May), the main flush is usually in late October and early November. In coastal areas in Ireland, the fruiting period can continue through December even into January due to the infrequency of frosts.

Met Éireann provide summary weather statistics for various parts of the country and the following statistics are for Belmullet and are quoted from http://www.met.ie/climate/monthly-data.asp?Num=76.

Total Rainfall in millimetres for Belmullet

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2008	169.5	120.2	156.1	69.0	40.2	117.0	54.4	192.3	111.3	178.6	101.7		1310.3
2007	151.0	75.8	100.9	54.7	73.7	71.5	96.9	92.7	61.6	105.6	108.4	147.8	1140.6
mean	123.7	80.4	96.3	56.9	67.9	67.2	67.5	93.5	108.6	133.8	127.4	119.3	1142.5

Mean Temperature in degrees C for Belmullet

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2008	6.9	7.2	7.2	8.6	13.9	13.2	15.1	15.0	12.9	10.4	9.3		10.9
2007	7.9	6.8	8.4	11.0	11.3	14.6	14.7	14.9	13.8	13.1	10.3	7.9	11.2
mean	5.6	5.6	6.8	8.2	10.3	12.6	14.0	14.1	12.8	10.8	7.7	6.6	9.6

These statistics show that 2008 was a significantly wetter cooler year than 2007 but the mean temperatures were still above average. The weather during the two weeks of survey was marked by a particularly cold first week with snow even falling on 28/10/08. The second week was milder but fruiting did not seem to be affected by these temperatures. Rainfall was more significant and there were three days in particular of extremely heavy rain which caused localised flooding. These were the first survey day (25/10/08) and the last two days (07/11/08 and 08/11/08). In low lying areas like the Keel machair which is very close to the water table, the flooding eliminated a lot of the fruiting. Fruiting bodies were also sodden and damaged and the colours in species like *H.chlorophana* or *H.punicea* can be washed out turning to a dirty brown. High winds were another feature of the fortnight, especially the first week but this did not affect fruiting.

Summary Results

The original plan was to visit at least twelve10km squares and it was estimated that the mileage during the two weeks would be 400 miles. In the end, including the "bonus" two survey days, 83 sites in 40x10km squares were visited and 1050 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 these were the only sites that were easily accessible. Lack of time meant that sites with difficult access that needed knocking on doors to get access permission were rarely visited.

Table 1 compares number of species found with than in West Cork and Clare in 2006. The figures quoted do not include the varieties.

	West Mayo 2008	West Cork 2007	Clare 2006	All Ireland to date
Waxcaps (*Hygrocybe)*	25	29	23	40
Clavarioid (Fairy Clubs)	8	10	10	16
Entolomaceae	7	20	12	66
Geoglossaceae (Earth tongues)	8	3	5	11
Other grassland target species[1]	1	2	2	6
Total species	177	206	155	

[1]*Camarophyllopsis, Dermoloma, Porpoloma*

Table 1 Number of Species found in West Cork and Clare

It can be seen that more species of *Hygrocybe* were found in West Mayo than in Clare but less than West Cork. The very noticeable statistics were the lack of Clavarioids and Entolomas and the diversity of *Geoglossaceae*. This would be typical of the tail end of the grassland fungi season as Entolomas tend to be early and *Geoglossaceae* late (Newton 2002).

Over the three years of these surveys, despite the survey fortnights being virtually the same dates, there appears to have been a marked difference in their coincidence with the fruiting season with West Mayo and Clare tending towards the end of the season and West Cork

appearing to be in mid season with few *Geoglossaceae* found. Such are the vagaries of mycological recording.

In terms of sites, the stand out site was Clare Island which now becomes the third best waxcap site in Ireland behind the Curragh and Binevenagh if Ten Cate's records from 1992 are included. Two species of *Hygrocybe*, *H.ovina* and possibly *H.citrinovirens* (if this is what *H.obrussea* was) were also recorded in the original Clare Island survey but not refound or confirmed in recent times. 25 species of *Hygrocybe* have now been recorded on the island which is the second highest total in Ireland but the Irish scoring system puts Binevenagh higher with more scoring Entolomas, Clavarioids and Geoglossaceae. Interestingly, Hawley recorded 12 species of Clavarioid (see Appendix 1) in the original survey. The current best site in Ireland, if only looking at records since 1990, is Binevenagh with 8 so this would indicate that there could be still a lot to be found on the island.

This survey found 9 sites with 10 or more species of *Hygrocybe* as did the West Cork survey (there were 7 such sites in the Clare survey) – see Table 4. The other good sites were Keem Bay on Achill (17), the island of Inishturk (15), Tawnamartola on the slopes of Buckoogh (14), Portacloy near Benwee Head (14), the Deserted Village on Slievemore on Achill (13), St Finian's Well at Keel on Achill (12), Murrevagh machair at Mulranny (11) and Erriff on Maumtrasna with 10. Of these, the Deserted Village is worth a mention because it is probably a much more significant site. It was surveyed in the middle of a storm and we had to leave the site before we got hypothermia. The abundance of fruiting was staggering and it is highly probable that more species were present.

It was also noticeable that the coastal sites (machair and dunes) were not particularly good. Only Murrevagh and Keel machairs had good fruiting and the dunes, as is so typical in Ireland, were limited in terms of species diversity (but not necessarily fruiting body abundance). Some of the machair sites are difficult to get onto as especially on the Mullett, they are often fenced but management also seems to be very variable with some fields have received fertilisers. It is possible that fruiting on the machair occurs at a different time and was missed so I'm reserving judgement on the machair.

Churchyards in West Mayo were particularly disappointing as they were in Clare. The best was Bunnahowen church between Bangor and Belmullet with 6 species of *Hygrocybe* which is very average but it was also very noticeable how many churchyards had no lawn at all being completely tarmaced for car parking.

The high rainfall of August, September and October could explain some of the odd findings of this survey, namely the lack of Clavarioids and Entolomas. Entolomas are known to generally fruit earlier than waxcaps and earth tongues are probably the latest of all, often not appearing at all until November on some sites. There is some speculation that Entolomas generally favour slightly drier sites (Vesterholt 1999) but equally other speculation that Entolomas prefer moist sites (Newton 2002). So the main factors affecting the paucity of these groups are probably the lateness of the season and the high rainfall but quite how these interplay is unknown. In Wales, there was a lack of Entolomas all year.

Notable Finds

New Irish Records

There are no published records or records in the Fungus Records Database for the British Isles (FRDBI) hosted by the British Mycological Society for the following species:

Arrhenia latispora (J. Favre) Bon & Courtec.
This is an Arrhenia with well developed gills, a short eccentric stipe and clamps on the hyphae. It is similar to *Arrhenia* acerosa but has broader spores. Found amongst mosses at the western end of Clare Island near to the watchtower on 01/11/08 at L653852.

Diaporthe samaricola W. Phillips & Plowr.
The *Phomopsis* state of *Diaporthe samaricola* was found at Westport House on 25/10/08 (L987845). It is not very spectacular as macroscopically it is a series of black spots on Ash keys or samara. It is likely that it is actually common in Ireland but overlooked as it is commonly recorded in Great Britain. For a photo, see
http://www.bioimages.org.uk/HTML/P6/P65691.php

Other Notable Records – Target Species

Hygrocybe calyptriformis (Berk. & Broome) Fayod
This unmistakable pink waxcap is rare across Europe but the British Isles is undoubtedly its stronghold. It is one of Northern Ireland's Priority Species (http://www.habitas.org.uk/priority/species.asp?item=39337) and was proposed as one of the 33 species of fungus to be added to the Berne List. Often found in churchyards and lawns, the three sites it occurred at were all upland grassland (Knockmore on Clare Island, Keem on Achill and the Deserted Village on Slievemore on Achill).

Hygrocybe laeta var. flava Boertm.
First record for Republic of Ireland. 2 records from Northern Ireland. *Hygrocybe laeta* var. *laeta* was common on this survey but this is the bright yellow variety. Found on Knockmore, Clare Island on 01/11/08 (L677854) and Dooghill, Bellacragher Bay on 03/11/08 (L821986).

Hygrocybe nitrata (Pers.) Wünsche
One of the rarer waxcaps, this was only found on Knockmore on Clare Island on 01/11/08 (L674854)

Clavulinopsis umbrinella (Sacc.) Corner
A notable Clavarioid first found in the British Isles in Glenarriff in County Antrim in 1948. Found at Windy Gap on 04/11/08 (G137014).

Geoglossum atropurpureum (Batsch) Pers.
A rare earth tongue that is one of Northern Ireland's Priority Species (http://www.habitas.org.uk/priority/species.asp?item=17906). One of the fungi proposed for the Berne List. Found five times on this survey at Knockmore, Clare Island on 01/11/08 at L677854, at Portacloy on 03/11/08 (F839442), Inishturk on 05/11/08 (L598752), Cloghmore on Achill on 07/11/08 (L707937) and the Deserted Village on Achill on 07/11/08 (F637073).

Microglossum olivaceum (Pers.) Gillet
An unmistakable earth tongue that is a Northern Ireland Priority Species (http://www.habitas.org.uk/priority/species.asp?item=17521). Found on Knockmore, Clare Island on 01/11/08 at L677854 and Knocknaveen on Clare Island on 02/11/08 at L698858.

Trichoglossum walteri (Berk.) E.J. Durand
Another Priority Species in Northern Ireland. This earth tongue is hardly distinguishable in the field from other earth tongues but is recognised microscopically by its jet black setae (like needles) and 7-septate spores. There are scattered records from Northern Ireland but there are no records for it from the Republic of Ireland in the FRDBI. Found at St Finian's Well, Keel on Achill on 26/10/2008 (F658031) and between Ballytoohy and the Lighthouse on Clare Island on 02/11/2008 (L698858).

Other Notable Records – non-Target Species

Amarenomyces ammophilae (Lasch) O.E. Erikss.
This ascomycete appears as black spots on Marram grass. If the leaf is gently torn apart, the fungus is seen to be larger and bean shaped on the inside the leaf and only just pierces the outer surface. Under the microscope, the spores are unmistakable with two bizarre helmet shaped structures at either end of the oval spores. Only one previous Irish record (but possibly overlooked) from Baltray Dunes in Co. Dublin in 1935. Found at Bartraw Strand on 24/10/08 (L907836).

Calocybe persicolor (Fr.) Singer
This is very similar to *Calocybe carnea* but it is larger with a more dirty pink cap colour. Found on the highest point on Inishturk beside the trig point on 05/11/2008 (L606753). The only other Irish record is from Murlough in County Down from 1954.

Clitopilus scyphoides (Fr.) P.D. Orton
A small white agaric with decurrent gills and a pink spore print. Growing here on wood chips at Belleek Castle, Ballina on 30/10/2008 (G253211). Only some old records from 1898 from Wicklow and Dublin and then from 1948 from North Bull in Ireland (recorded as *Agaricus cretatus)*. This is the first Irish record on wood chips.

Inocybe cervicolor (Pers.) Quél.
Two previous records from Mount Stewart and Rademon in Down in 1931 and one from Muckross in Kerry from 1946 although there is doubt about this record. Also found at Cloondaff churchyard on 04/11/2008 (M054998) under mixed conifers.

Cortinarius purpureus (Pers.) Fuckel
Only recorded in Ireland by Carleton Rea in the original Clare Island Survey from Achill Island. This record was described as *C.miltinus* Fr. but this is a nomen dubium and Cooke's description of *C.miltinus* actually describes *C.purpureus.* Found under mixed conifers at Cloondaff Church on 04/11/2008 (M054998).

Lactarius mammosus Fr.
A medium sized dark milk cap found under *Picea* smelling strongly of coconut. Found at Holy Family church, Ballycroy on 29/10/2008 (F804102). Only two other Irish records from Fermanagh in 2000.

Lichenomphalia hudsoniana (H.S. Jenn.) Redhead, Lutzoni, Moncalvo & Vilgalys
A small apricot covered lichenised fungus found on *Racomitrium* heaths. Found on the summit of Birreencorragh on 28/10/2008 (G025050). Scattered records from Ireland some of which may be held by lichenologists.

Naucoria subconspersa Kühner ex P.D. Orton
Also found at Holy Family church, Ballycroy on 29/10/2008 (F804102) but under Alder. A small brown species with distinctive cystidia and a non-striate cap. Known from Down (1931), Derry (1991) and Offaly (2002).

Onygena equina (Willd.) Pers.
An unmistakable ascomycete fruiting on decaying sheep horns. Known from Clare (1993), Kerry (1996), Derry (1999 & 2003), Fermanagh (2003) and Antrim (2003). Found on the Devil's Mother on 27/10/2008 (L915649), Skirragohiffern, Ben Gorm on 27/10/2008 (L875630) and near the summit of Birreencorragh on 28/10/2008 (G017048).

Phaeolepiota aurea (Matt.) Konrad & Maubl.
A dramatic large fungus with a very distinctive stipe and ring. Known from Tyrone (1980, 1999, 2004), Derry (1981), Down (1996), Fermanagh (2000), Armagh (2001, 2003) and Wexford (2006). Possibly less unusual in Ireland than in GB. Found at Westport Park on 27/10/2008 (L987845).

Russula alnetorum Romagn.
Only one other Irish record from Fermanagh in 2000. This is a small distincitive *Russula* found under Alder. The stipe yellows when wet. Found at Holy Family church, Ballycroy on 29/10/2008 (F804102).

Suillus flavidus (Fr.) J. Presl
Most commonly found under *Pinus sylvestris* in Caledonian pine forests in Scotland, this species was recently in Ireland for the first time by Stuart Dunlop in Donegal in 2004. Recorded along the roadside at Srahrevagh Forest on 28/10/2008 (F976051) under *Pinus contorta*.

Notable Absentees

The most notable absentees were the Clavarioids and Entolomas in general. For instance, the very common Clavarioid, *Clavulinopsis helvola* was found only once in this survey compared to being the 5th most commonly found target species in West Cork in 22 x 10km squares. I have speculated above about the high rainfall of 2008 being a possible cause and the other factor could be that the general fruiting pattern would indicate that this was fortnight was near the end of the fruiting season. However, whilst Entolomas were found in Scotland to predominantly fruit early, the Clavarioids had a wide fruiting period which tended to peak towards the second half of the season (Newton 2002) which would indicate that weather rather than fruiting timing would explain the lack of Clavarioids. It would be very interesting to look at large datasets over time to see if fruiting of these groups were particularly affected by high rainfall more than other groups.

Two notable species that were not found were:

- *Clavaria zollingeri* which was recorded by Henry Hawley in 1910 on Clare Island as *Clavaria amethystina.* The specimen is held in the Kew herbarium.
- *Hygrocybe ovina*. Rarely recorded in Ireland, this was also recorded in the original Clare Island survey but not refound.

New Vice County Records

116 of the 177 taxa recorded have no records for West Mayo in the Fungus Records Database for the British Isles (FRDBI). However, a number of these taxa have been recorded as part of the original Clare Island list which until now, has not been digitised. Now I have digitised this list, it will be sent to the FRDBI and the NBDC. After taking these into

account and other species listed in Muskett & Malone (1980), there are 55 taxa new to West Mayo from this survey. Table 2 lists these species. Whilst many of these are very common species, it just illustrates how under recorded this vice county is.

Table 2 – Species new to West Mayo

Species Name	Authority
Agaricus bernardii	Quél
Agaricus urinascens	(F.H. Møller & Jul. SchSff.) Singer
Amarenomyces ammophilae	(Lasch) O.E. Erikss.
Armillaria gallica	Marxm. & Romagn.
Arrhenia lobata	(Pers.) Kühner & Lamoure ex Redhead
Arrhenia retiruga	(Bull.) Redhead
Bolbitius titubans	(Bull.) Fr.
Calocybe persicolor	(Fr.) Singer
Clitocybe dealbata	(Sowerby) P. Kumm.
Clitopilus scyphoides	(Fr.) Singer
Conocybe dunensis	T.J. Wallace
Conocybe filaris	(Fr.) Kühner
Cortinarius stillatitius	Fr.
Diaporthe samaricola	W. Phillips & Plowr.
Entoloma poliopus var. poliopus	(Romagn.) Noordel.
Gamundia striatula	(Kühner) Raithelh.
Ganoderma australe	(Fr.) Pat.
Geoglossum glutinosum	Pers.
Geoglossum umbratile	Sacc.
Gymnopilus junonius	(Fr.) P.D. Orton
Hygrocybe aurantiosplendens	R. Haller Aar.
Hygrocybe flavipes	(Britzelm.) Arnolds
Hygrocybe laeta var. flava	Boertm.
Hygrophorus hypothejus	Fr.
Inocybe cervicolor	(Pers.) Quél.
Inocybe geophylla var. lilacina	(Peck) Gillet
Lactarius mammosus	Fr.
Lepista nuda	(Bull.) Cooke
Lichenomphalia hudsoniana	(H.S. Jenn.) Redhead, Lutzoni, Moncalvo & Vilgalys
Lycoperdon nigrescens	Pers.
Macrolepiota excoriata	(Schaeff.) Wasser
Melanoleuca cinereifolia	(Bon) Bon
Melanoleuca melaleuca var. melaleuca	(Pers.) Murrill
Melanoleuca polioleuca f. polioleuca	(Fr.) Kühner & Maire
Microglossum olivaceum	(Pers.) Gillet
Mucilago crustacea	P. Micheli ex F.H. Wigg.
Naucoria subconspersa	Kühner ex P.D. Orton
Omphalina pyxidata	(Bull.) Quél.
Onygena equina	(Willd.) Pers.
Peniophora incarnata	(Pers.) P. Karst.
Peziza ammophila	Durieu & Mont.

Species Name	Authority
Phaeolepiota aurea	(Matt.) Konrad & Maubl.
Pholiota gummosa	(Lasch) Singer
Psathyrella conopilus	(Fr.) A. Pearson & Dennis
Puccinia distincta	McAlpine
Puccinia poarum	E. Nielsen
Rickenella swartzii	(Fr.) Kuyper
Russula alnetorum	Romagn.
Schizophyllum commune	Fr.
Stropharia pseudocyanea	(Desm.) Morgan
Suillus flavidus	(Fr.) J. Presl
Taphrina alni	(Berk. & Broome) Gjaerum
Trichoglossum walteri	(Berk.) E.J. Durand
Tricholoma scalpturatum	(Fr.) Quél.

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 2 gives full 10km and site species lists.

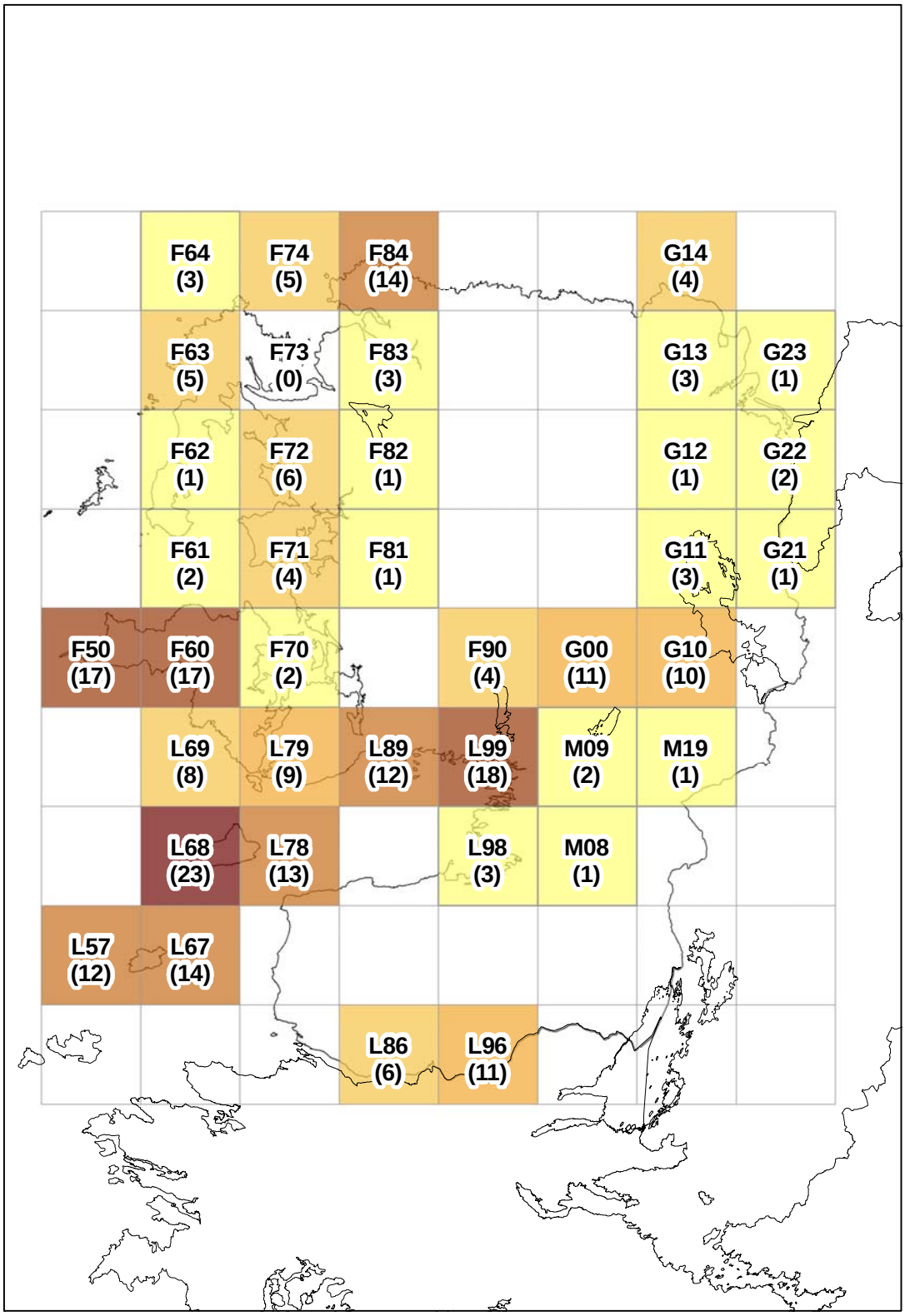
It must be noted that varieties are not counted separately so while in the species lists, there may be more than one variety of say *Hygrocybe virginea* or *Hygrocybe conica* is listed, it was only counted once in the list.

Table 3: 10km Squares Ranked by Number of species of Hygrocybe

Rank	10k	Site	Hygrocybe
1	L68	Clare Island West	23
2	L99	Tawnamartola, St Patrick's Church (Newport), Doontrusk	18
3	F50	Keem	17
3	F60	Keel Machair, St Finian's Well, Deserted Village (Slievemore)	17
5	L67	Inishturk East	14
5	F84	Portacloy Bay, Carrowteige Dunes and Machair	14
7	L78	Clare Island East	13
8	L57	Inishturk West	12
8	L89	Mulranny machair, Dooghill	12
10	L96	Erriff (Maumtrasna) and Devil's Mother	11
10	G00	Deel River Valley, Glendavoolagh, Birreencorragh	11
12	G10	Windy Gap, Lahardaun RC Church	10
13	L79	Cloghmore, Pollemanduff RC Church	9
14	L69	Ashleam Bay, Dooega RC Church	8

Map 1 shows that the best areas for waxcaps were generally the western islands and the mineral soils to the north of Clew Bay. The coastal dunes and machair were disappointing and the scattered nature of other good sites indicate the “needle in a haystack” problem of finding good sites as agricultural intensification is often random with some often older

farmers not adding fertilisers compared to their neighbours.



Map 1 – 10km squares surveyed with number of species of *Hygrocybe* recorded

Table 4: Sites Ranked by Number of species of Hygrocybe in West Mayo[1]

Rank	Site	GridRef	10k	Hygrocybe	Clavaria	Entoloma	Geogloss-aceae	Irish Score
1	Clare Island	L685855	L68	23	3	2	5	53
2	Keem Bay	F560043	F50	17	3	2	1	31
3	Inishturk	L604745	L67	15	3	2	3	30
4	Portacloy	F842440	F84	14	1	1	3	26
4	Tawnamartola	L978992	L99	14	1	2	1	23
6	Deserted Village, Slievemore, Achill	F637073	F60	13	1	1	2	28
7	St Finian's Well, Keel	F658031	F60	12	2	3	2	25
8	Mulranny machair	L840960	L89	11	1	1	1	13
9	Erriff, Maumtrasna	L977696	L96	10	1	2	1	17
10	Cloghmore	L707937	L79	9	1	1	2	13
10	Keel Machair	F645047	F60	9	1	1	1	12
10	Windy Gap	G137014	G10	9	2	1	2	18
13	Deel River Valley	G015085	G00	8	1	1	2	13
14	Ashleam Bay	L688963	L69	7	1	1	1	9
14	Doontrusk	L960970	L99	7	1	0	3	12
14	Glendavoolagh	G013070	G00	7	0	0	1	14
14	Rinnaglana Head	F793435	F74	7	1	1	0	10
18	Bunnahowen RC Church	F759286	F72	6	1	0	0	6
19	Dooghill, Bellacragher Bay	L821986	L89	5	0	0	0	5

[1]Only sites with 5 or more species of *Hygrocybe* are shown

Table 4 starkly emphasises the lack of Clavarioids and Entolomas found on this survey. When comparing to the West Cork and Clare surveys (summarised in Table 5), West Mayo can be seen as having less sites with 5 or more species than West Cork but more than Clare but that it has more sites with 11 or more than West Cork. 11 species of *Hygrocybe* is the number that Rald (1985) estimated that identified sites of national importance. Whilst this is probably on the low side for the British Isles, this would mean 8 sites of potentially of national value for grassland fungi were found in this survey in West Mayo. Vesterholt et al (1999) estimated that a total of 22 species of *Hygrocybe* indicates a site of international importance which relates to 15 species in one visit (McHugh 2001) which would mean that 3 sites of international importance were found – Clare Island, Keem Bay and Inishturk.

Newton et al (2002) in Scotland found that only 25% of species recorded on grassland sites in intensively surveyed sites were found in one visit. This is not true for *Hygrocybe* alone in Ireland taking the example of Binevenagh NNR in Co. L'Derry is the best recorded site in Ireland. A total of 23 species of *Hygrocybe* has been recorded there and the most recorded in one visit has been 16 species, but it illustrates the point that repeated surveying at differing times of year is actually required before a full picture is understood. Given this and the lack of mycologists or amateur recorders in Ireland, the Irish scoring system was proposed by McHugh et al in 2001. One of the benefits of this system is that sites which where indicator species have been recorded stand out and can be targeted for further visits compared to more average sites. Sites such as the Deserted Village and St. Finian's Well on Achill and Windy Gap are highlighted by this scoring system for targeted survey work.

The results of this survey were combined with previous records (see Appendix 1) to update the site rankings for the whole of Ireland (see Table 6). Significant records exist for Clare Island, Keem Bay and Murrevagh machair. This table shows that West Mayo has some

excellent sites for grassland fungi and with further survey, especially for sites like Inishturk which has only been visited once, these are undoubetely even better.

Table 5: Sites Ranked by Number of species of Hygrocybe in West Cork and Clare[1]

	West Cork				Clare			
Rank	**Site**	**10k**	**Hygrocybe**	**Irish Score**	**Site**	**10k**	**Hygrocybe**	**Irish Score**
1	Dursey Island	V43	18	34	Black Head	M11	16	30
2	Bantry House	V94	17	32	Turlough Hill	M20	13	23
3	Ballynacarriga	V54	17	29	Doomore	M30	12	20
4	Eyeries Coast	V65	12	23	Tullycomman, Carran	R29	11	19
4	St. Matthew's C of I, Baltimore	W02	12	23	Cliffs of Moher	R09	11	16
6	Goughane Barra	W06	11	18	Ballard Bay	Q96	10	15
7	Lackavane	V85	10	18	Carrickmacnaghten	M10	10	15
8	Drimoleague Church of Ireland	W14	10	15	Fahee North	M30	9	11
9	Lisheen Lower RC Church	W03	10	14	Rehy Hill	Q74	6	5
10	All Saints Church, Drimoleague	W14	9	17	Caher Valley	M10	6	15
11	Inchigeelagh Church	W26	9	14	Bridge of Ross	Q75	6	10
11	Kilcrohane Church	V83	9	14	Mullagh More	R39	5	7
13	Big Meadow, Glengarriff National Nature Reserve	V95	9	12	George's Head	Q86	5	8
14	Glengarriff Castle	V95	9	10	Fanore dunes	M10	5	8
15	Union Hall RC Church	W23	8	15				
16	Crow Head	V53	8	8				
17	Baltimore Beacon	W02	8	7				
18	St. Michaels Church, Rathbarry	W33	7	14				
19	Cape Clear, Clear Island	V92	7	11				
20	Enniskeen RC Church	W35	7	8				
21	Healy Pass	V75	7	7				
21	Sheep's Head	V73	7	7				
23	Ahakista Church	V84	6	13				
24	Knockgour	V64	6	10				
25	Toormore Church of Ireland	V83	5	10				
26	Inchydoney Island	W43	5	8				
26	Park, Hungry Hill	V74	5	8				
26	Pass of Keimaneigh	W16	5	8				
29	Kealkill RC Church	W05	5	6				

[1]All sites with 5 or more species of waxcap included.

Table 5: Top Irish Grassland sites as of 30/11/08

Rank	Site	County	Irish Score	No of Species	No Visits
1	The Curragh	Kildare	73	33	17
2	Binevenagh NNR	Londonderry	62	22	9
3	Clare Island	West Mayo	55	25	6
4	Crossmurrin NNR	Fermanagh	52	24	7
5	Kebble NNR	Antrim	47	22	6
5	Keem Bay	West Mayo	47	20	3
7	Barnett's Park	Antrim	46	18	25
7	Monawilkin ASSI	Fermanagh	46	20	6
9	Slievenacloy ASSI	Antrim	44	23	12
10	Ballyprior	Laois	43	18	11
11	Aghadachor	West Donegal	42	21	2
12	Agnew's Hill	Antrim	38	16	3
12	Longmore Td., 1.5km NW of The Sheddings	Antrim	38	18	1
14	Dursey Island	West Cork	34	18	1
14	Hillsborough Parish Church	Down	34	18	7
14	Murrevagh machair	West Mayo	34	17	4
17	Mount Stewart Estate	Down	33	18	10
17	Slemish Mountain	Antrim	33	15	2
19	Bantry House	West Cork	32	17	1
19	Clonmantagh Hill	Kilkenny	32	13	2
19	Inishturk	West Mayo	32	15	1
19	John McSparran Memorial Hill Farm	Antrim	32	15	3
23	Clandeboye Estate	Down	31	15	7
23	Murlough NNR	Down	31	15	15
25	Black Head	Clare	30	16	2
25	Silent Valley, Mourne Mountains	Down	30	16	6
27	Altnahinch Burn, Altnahinch Dam	Antrim	29	14	1
27	Ballynacarriga	West Cork	29	17	1
27	Knockninny ASSI	Fermanagh	29	15	3
30	Deserted Village, Slievemore	West Mayo	28	13	1
30	Drum Manor Forest Park	Tyrone	28	15	7
30	East Torr Td, nr Torr Head	Antrim	28	15	1
30	Knockiveagh Hill, 4km N of Rathfriland	Down	28	14	1

Sites marked in colour have been surveyed in the three recent surveys funded by the Heritage Council

Site Images

Knockmore, Clare Island. Fruiting was continuous on the lower slopes in the foreground and up to the saddle on the top left of the photograph. The lusher green slopes under the summit ridge were not searched but could be good.

Clare Island, western end. The steep western slopes under Knockmore were very good as were the areas of old lazy beds like in the bottom left of the photograph. Inishturk is in the distance.

Knockmore, Clare Island. The steep slopes in the background were very good and include where *H.calyptriformis* was found.

The green road under Knocknaveen, Clare Island which was a rich fruiting area.

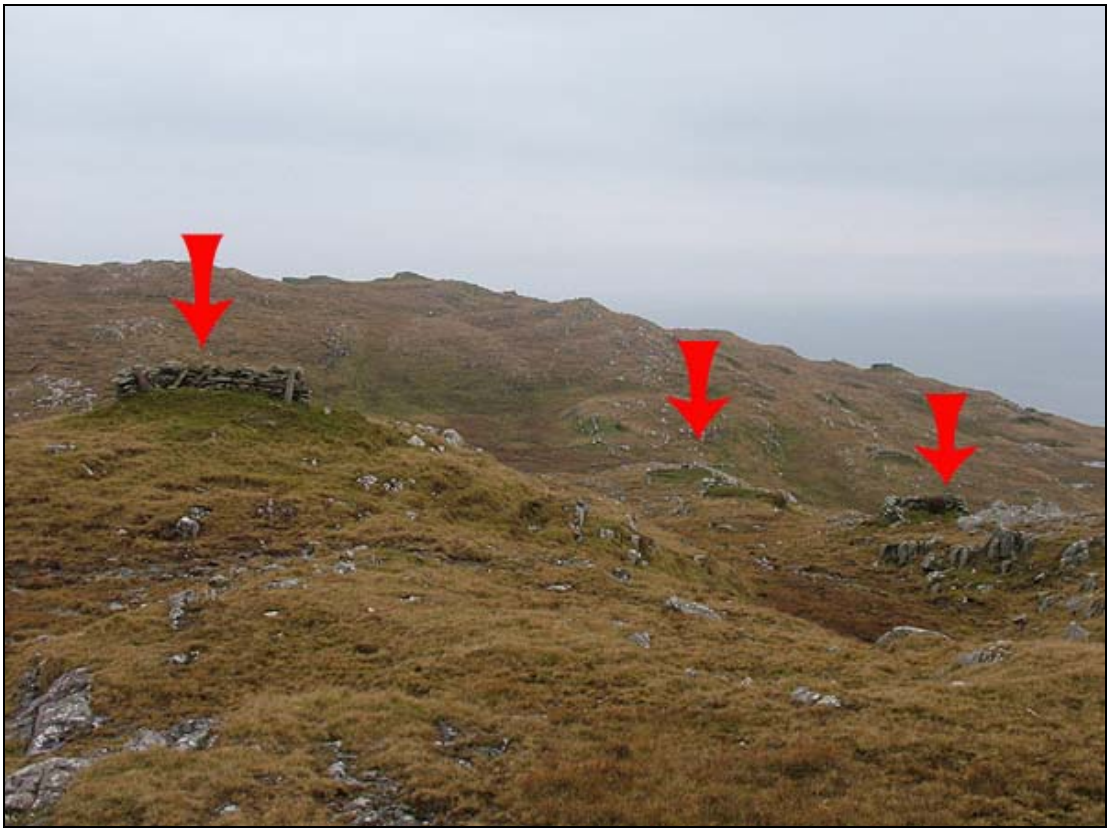
Keem Bay on Achill. This site was a mixture of steep sandy soils above the beach grading quickly into acid grassland.

Keel Machair. Typical of machair, this site is very flat and eroded almost down to the water table as shown by the flooding which could be a factor controlling fruiting.

Tawnamartola on the slopes of Buckoogh. These steep thin mineral soils are rocky distinguishing them from the more typical wet peaty slopes of the Mayo mountains which are not interesting for fungi.

Portacloy on the north Mayo coast near Benwee Head. The steep slopes around the bay were the interesting localities rather than the thin dunes of the bay. The grassed over spoil tips around the harbour on the right were also very good for waxcaps.

Inishturk island. This very island is very rocky with the best areas for waxcaps on the thin soils around the rock outcrops. Old areas of lazy beds were also good.



Inishturk with the turf reeks marked which were made for stacking and drying turf. The ground around the base of the turf reeks was often good for waxcaps being slightly better draining.

Lazy beds on Inishturk which are often important sites for waxcaps

Doontrusk near Furnace Lough. Often the sides of roads can be good for waxcaps as the hardcore on top of which the road is built becomes grassed over and remains well drained. The surrounding bog is of little interest for waxcaps.

Species Rankings

The grassland target species were ranked according to the number of 10km squares in which they were found and compared to their rank in Clare and 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.

MayoRank	Species	Type	Irish Score	No. 10km	West Cork Rank	Clare Rank	Irish Rank
1	Hygrocybe virginea var. virginea	H	1	26	3	2	1
2	Hygrocybe chlorophana	H	1	19	1	3	4
3	Hygrocybe psittacina var. psittacina	H	1	18	4	7	3
4	Hygrocybe russocoriacea	H	1	17	16	4	8
5	Hygrocybe coccinea	H	1	16	6	7	5
5	Hygrocybe laeta var. laeta	H	1	16	31	36	15
5	Hygrocybe pratensis	H	1	16	11	11	7
8	Hygrocybe conica var. conica	H	1	15	2	1	2
9	Hygrocybe insipida	H	1	13	6	6	6
9	Hygrocybe punicea	H	4	13	17	11	12
11	Entoloma conferendum	E		12	8	36	14
11	Geoglossum cookeanum	G	2	12	31	11	21
11	Geoglossum fallax	G	1	12	40	15	16
14	Hygrocybe conica var. conicoides	H	1	11	28	36	46
14	Hygrocybe virginea var. ochraceopallida	H	1	11	24	7	19
16	Clavulinopsis corniculata	C		10	31	25	17
16	Hygrocybe reidii	H	1	10	9	15	9
18	Hygrocybe quieta	H	2	9	9	5	10
18	Hygrocybe splendidissima	H	4	9	24	-	36
20	Trichoglossum hirsutum	G	2	8	31	11	18
21	Hygrocybe ceracea	H	1	7	14	36	13
22	Geoglossum atropurpureum	G		5			52
22	Geoglossum glutinosum	G		6		35	32
22	Hygrocybe cantharellus	H	1	5	20	30	26
22	Hygrocybe persistens	H	1	5	40	17	21
26	Clavulinopsis fusiformis	C	1	4	40	25	25
26	Clavulinopsis helvola	C		4	5	10	11
26	Entoloma sericeum	E		4	20	36	39
26	Hygrocybe aurantiosplendens	H	2	4	59	19	36
26	Hygrocybe calyptriformis	H	2	4	40	-	27
26	Hygrocybe glutinipes	H	2	4	28	36	30
26	Hygrocybe irrigata	H	2	4	17	-	20
26	Hygrocybe virginea var. fuscescens	H	1	4		19	34

MayoRank	Species	Type	Irish Score	No. 10km	West Cork Rank	Clare Rank	Irish Rank
34	Clavaria fragilis	C		3	31	30	39
34	Clavaria fumosa	C	2	3	49	30	28
34	Hygrocybe flavipes	H	2	3	20	36	43
34	Hygrocybe mucronella	H		3		19	34
38	Entoloma prunuloides	E	2	2	24	-	51
38	Entoloma rhombisporum	E		2		35	85
38	Trichoglossum walteri	G		2			70
38	Hygrocybe fornicata	H	2	2	40	19	24
38	Hygrocybe miniata	H	1	2	49	-	29
43	Clavulinopsis laeticolor	C		1	49	36	30
43	Clavulinopsis umbrinella	C		1		36	59
43	Entoloma papillatum	E		1			65
43	Entoloma poliopus var. poliopus	E		1	11	19	49
43	Entoloma serrulatum	E		1	24	-	43
43	Geoglossum umbratile	G		1		25	45
43	Microglossum olivaceum	G		1			55
43	Hygrocybe nitrata	H	4	1	31	30	48
43	Hygrocybe psittacina var. perplexa	H	1	1			125

Table 7: Grassland target species recorded in West Cork

The noticeable features of this list when compared to the West Cork, Clare and all Ireland data are:

- *H.russocoriacea* was more common than normal (all Irish records) showing that it was near the end of the season
- *H.laeta* var. *laeta* was particularly common indicating how acid the soils were.
- *H.conica* was not as common as normal
- The earth tongues were much more common than usual.
- As mentioned before, the Clavarioids and Entolomas were sparsely recorded.

Comparisons to other areas

There are now four sites in West Mayo (Clare Island, Keem Bay, Murrevagh machair and Inishturk) that are in the best 10 sites in the Repubic of Ireland and with more visits should be prove to be even better. Clare Island in particular would be a significant site in the European context especially given more survey work. Comparing sites across the British Isles is not easy as the numbers of CHEG scores quoted often are based on different interpretations with Scotland (Newton 2002) and England (Evans 2004) including varieties in the CHEG score. Griffith et al (2006) when reporting on the Welsh survey examined the actual species lists and compiled an overall list for the UK. On this list, Clare Island would rank at joint 17th but it is noticeable that most of the other sites have considerably more survey visits (often 20+). Data is not readily available for other European countries but a site with 18 species is quoted as the best in Slovakia (Adamík 2005).

Conclusions

It is not easy finding waxcap sites in a rapid baseline survey like this. West Mayo is a large vice county with significant areas of blanket bog, land over 1500 feet and agriculturally improved grassland, all of which are habitats that are not good for the grassland fungi suite searched for here. The dunes and machair of West Mayo were disappointing and the best sites were upland acid grassland on thin mineral soils on the lower slopes of the mountains, old areas of agriculture often abandoned long ago marked by lazy beds, some agricultural fields that have not been significantly fertilised and even roadsides where the grassed over hardcore is well drained. Churchyards were very disappointing possibly because the soils on which they are found are often peat and too acidic.

Clare Island is an exceptional site for grassland fungi and with 23 species recorded from one visit, this is possibly the most ever found in one visit in Ireland (data for the Curragh is not available to compare with). Other sites like Keem Bay, Inishturk, Murrevagh machair, Portacloy and Tawnamartola are all important sites in an Irish context. The deserted village on Slievemore on Achill is also notable and will prove to be a much better site with more survey as this visit was curtailed due to extreme weather.

In terms of these sites, only Keem Bay, Portacloy and Murrevagh are currently within protected sites (Croaghaun/Slievemore SAC, Glenamoy Bog Complex SAC and Clew Bay Complex SAC respectively. Clare Island and Inishturk are both within proposed NHAs. It is unlikely that grassland fungi are identified features in the management plans for any of these sites and integrating the site management requirements of these fungi into the management plans should be looked at. Advice on their management requirements can be obtained from the following sources:

- Natural England's Grassland Information Note No.4: Grassland Fungi: http://www.english-nature.org.uk/science/botany/pdf/FUNGI_INFO_NOTE.pdf
- The Fungus Conservation Forum's leaflet on Grassland Fungi: www.plantlife.org.uk/uk/assets/saving-species/saving-species.../management-guide-grassland-gems-managing-lawns-pastures-for-fungi.pdf
- CCW's report on Habitat Management to Conserve Fungi: http://www.ccw.gov.uk/publications--research/research--reports/habitat-management-to-conserve.aspx

I am also willing to help give advice on any issue on grassland fungi at any time.

Images

All images of species that were taken in this survey can be used by any interested organisation for conservation purposes. These images and many others are available at www.nifg.org.uk/photos.htm

Acknowledgements

Thanks must go to Hubert Fuller of UCD for his help and company on Clare Island, Roy Anderson and Graham Wilson for the first aborted attempt to get out to the island, Roland McHugh for advice and records, Sean Carolan from Mulranny and Cameron Clotworthy and Lee McDaid of NPWS for advice. Thanks also to my wife Jolanda for helping with the survey work as the more eyes there are, the more fungi are found.

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

Adamčík, S. K., I. (2005). "*Hygrocybe* species as indicators of natural value of grasslands in Slovakia." Catathelasma **6**: 24-34.

Arnolds, E. (1980). "De oecologie en Sociologie van Wasplaten (Hygrophorus subgenus Hygrocybe sensu lato)." Natura(77): 17-44.

Bailey, J. S. (1994). "Nutrient balance: the key to solving the phosphate problem." Topics, Journal of the Milk Marketing Board for Northern Ireland(November 1994): 16-17.

Boertmann, D. (1995). The Genus Hygrocybe. Copenhagen, The Danish Mycological society.

Curtis, T. G. F. (1991). The Flora and Vegetation of Sand Dunes in Ireland. A Guide to the Sand Dunes of Ireland. M. B. Quigley. Galway**:** 42-66.

Dahlberg, A. C., H. (2003). 33 threatened fungi in Europe: complementary and revised information on candidates for listing in Appendix 1 of the Bern Conventtion, European Council for the Conservation of Fungi.

Evans, S. (2004). Waxcap-grasslands - an assessment of English sites, English Nature.

Feehan, J. M., R. (1992). "The Curragh of Kildare as a Hygrocybe grassland." Ir.Nat.J. **24**(1): 13-17.

Griffith, G. W., Easton, G.L. & Jones, A.W. (2002). "Ecology and Diversity of Waxcap (Hygrocybe spp.) Fungi." Bot.J.Scotl. **54**(1): 7-22.

Jordal, J. B. (1997). Sopp i naturbeitemarker i Norge. En kunnskapsstatus over utbredelse, okologi, indikatorverdi og trusler i et europeisk perspektiv. Trondheim, Direktoratet for naturforvaltning.

Legon, N. W. H., A. (2005). Checklist of the British & Irish Basidiomycota, Royal Botanic Gardens Kew.

Marren, P. (1998). "Fungal flowers: the Waxcaps and their world." British Wildlife **9**(3): 164-172.

McHugh, R., Mitchel, D., Wright, M. & Anderson, R. (2001). "The fungi of Irish Grasslands and their value for nature conservation." Biology & Environment **101B**(3): 225-242.

Newton, A. C., Davy, L.M., Holden, E., Silverside, A., Watling, R. & Ward, S.D. (2002). "Status, distribution and definition of mycologically important grasslands in Scotland." Biological Conservation **111**(11-23).

Nitare, J. (1988). "Jordtungor, en svampgrupp pa tillbakagang i naturliga fodermarker." Svensk. Bot. Tidskr.(82): 485-489.

Praeger, R. L., Ed. (1915). 1 - General Introduction and narrative. Clare Island Survey, Royal Irish Academy.

Rald, E. (1985). “Vokshatte som indikatorarter for mykologisk vaerdifulde overdrevslokaliteter.” Svampe(11): 1-9.

Rea, C. H., H.C. (1912). 13 - Fungi. Clare Island Survey. R. L. Praeger, Royal Irish Academy. **XXXI:** 1-26.

Rotheroe, M. (1999). Mycological survey of selected semi-natural grasslands in Carmarthenshire, Countryside Council for Wales.

Spooner, B. (1998). “Keys to the British Geoglossaceae (draft).” Unpublished.

Ten Cate, R. S. (1993). “Clare Island Survey en paddestoelen in het westen van Ierland.” In-Nuachta **IX**(2): 14-20.

Vesterholt, J., Boertmann, D. & Tranberg, H. (1999). “1998 - et usaedvanlig godt ar for overdrevssvampe.” Svampe(40): 36-44.

Webb, D. A. (1980). “The Biological Vice-counties of Ireland.” Proceedings of the Royal Irish Academy **80B**: **179-196**.

Whelen, K. (1997). The Modern Landscape: From Plantation to Present. Atlas of the Irish Rural Landscape. F. H. A. Aalen, Whelen, K. & Stout, M., Cork University Press.

Appendix 1 – Historical records for Grassland fungi for West Mayo

Site	Type	Current Name	Survey
Achill Island	C	*Clavulinopsis helvola*	Clare Island Survey 1909-1911
Achill Island	E	*Entoloma pascuum*	Clare Island Survey 1909-1911
Belclare and Prospect House Woods	C	*Clavaria acuta*	Clare Island Survey 1909-1911
Belclare and Prospect House Woods	C	*Clavaria fragilis*	Clare Island Survey 1909-1911
Belclare and Prospect House Woods	C	*Clavaria fumosa*	Clare Island Survey 1909-1911
Belclare and Prospect House Woods	C	*Clavulinopsis corniculata*	Clare Island Survey 1909-1911
Belclare and Prospect House Woods	C	*Clavulinopsis fusiformis*	Clare Island Survey 1909-1911
Belclare and Prospect House Woods	C	*Clavulinopsis helvola*	Clare Island Survey 1909-1911
Belclare and Prospect House Woods	C	*Ramariopsis kunzei*	Clare Island Survey 1909-1911
Belclare and Prospect House Woods	D	*Dermoloma cuneifolium*	Clare Island Survey 1909-1911
Belclare and Prospect House Woods	E	*Entoloma exile*	Clare Island Survey 1909-1911
Belclare and Prospect House Woods	E	*Entoloma politum*	Clare Island Survey 1909-1911
Belclare and Prospect House Woods	E	*Entoloma porphyrophaeum*	Clare Island Survey 1909-1911
Belclare and Prospect House Woods	E	*Entoloma prunuloides*	Clare Island Survey 1909-1911
Belclare and Prospect House Woods	E	*Entoloma rufocarneum*	Clare Island Survey 1909-1911
Belclare and Prospect House Woods	E	*Entoloma sericellum*	Clare Island Survey 1909-1911
Belclare and Prospect House Woods	E	*Entoloma sodale*	Clare Island Survey 1909-1911
Belclare and Prospect House Woods	E	*Entoloma undatum*	Clare Island Survey 1909-1911
Belclare and Prospect House Woods	H	*Hygrocybe ceracea*	Clare Island Survey 1909-1911
Belclare and Prospect House Woods	H	*Hygrocybe chlorophana*	Clare Island Survey 1909-1911
Belclare and Prospect House Woods	H	*Hygrocybe miniata*	Clare Island Survey 1909-1911
Belclare and Prospect House Woods	H	*Hygrocybe ovina*	Clare Island Survey 1909-1911
Belclare and Prospect House Woods	H	*Hygrocybe psittacina*	Clare Island Survey 1909-1911
Belclare and Prospect House Woods	H	*Hygrocybe punicea*	Clare Island Survey 1909-1911
Belclare and Prospect House Woods	H	*Hygrocybe virginea*	Clare Island Survey 1909-1911
Brackloon Wood	C	*Clavaria fragilis*	Clare Island Survey 1909-1911
Brackloon Wood	C	*Ramariopsis kunzei*	Clare Island Survey 1909-1911
Brackloon Wood	E	*Entoloma griseorubellum*	Clare Island Survey 1909-1911

Brackloon Wood	E	*Entoloma politum*	Clare Island Survey 1909-1911
Brackloon Wood	E	*Entoloma sericatum*	Clare Island Survey 1909-1911
Brackloon Wood	E	*Entoloma sericellum*	Clare Island Survey 1909-1911
Brackloon Wood	E	*Entoloma serrulatum*	Clare Island Survey 1909-1911
Brackloon Wood	H	*Hygrocybe ceracea*	Clare Island Survey 1909-1911
Brackloon Wood	H	*Hygrocybe chlorophana*	Clare Island Survey 1909-1911
Brackloon Wood	H	*Hygrocybe coccinea*	Clare Island Survey 1909-1911
Brackloon Wood	H	*Hygrocybe miniata*	Clare Island Survey 1909-1911
Brackloon Wood	H	*Hygrocybe psittacina*	Clare Island Survey 1909-1911
Brackloon Wood	H	*Hygrocybe virginea*	Clare Island Survey 1909-1911
Clare Island	C	*Clavaria acuta*	Clare Island Survey 1909-1911
Clare Island	C	*Clavaria fragilis*	Clare Island Survey 1909-1911
Clare Island	C	*Clavaria fumosa*	Clare Island Survey 1909-1911
Clare Island	C	*Clavaria straminea*	Clare Island Survey 1909-1911
Clare Island	C	*Clavulinopsis corniculata*	Clare Island Survey 1909-1911
Clare Island	C	*Clavulinopsis fusiformis*	Clare Island Survey 1909-1911
Clare Island	C	*Clavulinopsis helvola*	Clare Island Survey 1909-1911
Clare Island	C	*Clavulinopsis laeticolor*	Clare Island Survey 1909-1911
Clare Island	C	*Clavulinopsis luteoalba*	Clare Island Survey 1909-1911
Clare Island	C	*Clavulinopsis umbrinella*	Clare Island Survey 1909-1911
Clare Island	C	*Ramariopsis kunzei*	Clare Island Survey 1909-1911
Clare Island	E	*Entoloma asprellum*	Clare Island Survey 1909-1911
Clare Island	E	*Entoloma griseorubellum*	Clare Island Survey 1909-1911
Clare Island	E	*Entoloma pascuum*	Clare Island Survey 1909-1911
Clare Island	E	*Entoloma porphyrophaeum*	Clare Island Survey 1909-1911
Clare Island	E	*Entoloma prunuloides*	Clare Island Survey 1909-1911
Clare Island	E	*Entoloma sodale*	Clare Island Survey 1909-1911
Clare Island	G	*Geoglossum atropurpureum*	Clare Island Survey 1909-1911
Clare Island	G	*Geoglossum glabrum*	Clare Island Survey 1909-1911
Clare Island	H	*Hygrocybe calyptriformis*	Clare Island Survey 1909-1911
Clare Island	H	*Hygrocybe ceracea*	Clare Island Survey 1909-1911
Clare Island	H	*Hygrocybe chlorophana*	Clare Island Survey 1909-1911
Clare Island	H	*Hygrocybe coccinea*	Clare Island Survey 1909-1911
Clare Island	H	*Hygrocybe conica*	Clare Island Survey 1909-1911
Clare Island	H	*Hygrocybe fornicata*	Clare Island Survey 1909-1911
Clare Island	H	*Hygrocybe irrigata*	Clare Island Survey 1909-1911
Clare Island	H	*Hygrocybe laeta*	Clare Island Survey 1909-1911
Clare Island	H	*Hygrocybe miniata*	Clare Island Survey 1909-1911
Clare Island	H	*Hygrocybe ovina*	Clare Island Survey 1909-1911
Clare Island	H	*Hygrocybe psittacina*	Clare Island Survey 1909-1911
Clare Island	H	*Hygrocybe punicea*	Clare Island Survey 1909-1911
Clare Island	H	*Hygrocybe virginea*	Clare Island Survey 1909-1911
Cloonagh Wood	H	*Hygrocybe virginea*	Clare Island Survey 1909-1911
Croagh Patrick	E	*Entoloma pascuum*	Clare Island Survey 1909-1911
Croagh Patrick	H	*Hygrocybe coccinea*	Clare Island Survey 1909-1911
Knockranny Wood	E	*Entoloma ameides*	Clare Island Survey 1909-1911
Knockranny Wood	E	*Entoloma chloropolium*	Clare Island Survey 1909-1911
Knockranny Wood	E	*Entoloma formosum*	Clare Island Survey 1909-1911
Knockranny Wood	E	*Entoloma griseocyaneum*	Clare Island Survey 1909-1911
Knockranny Wood	E	*Entoloma pascuum*	Clare Island Survey 1909-1911
Knockranny Wood	E	*Entoloma placenta*	Clare Island Survey 1909-1911

Knockranny Wood	E	*Entoloma politum*	Clare Island Survey 1909-1911
Knockranny Wood	E	*Entoloma porphyrophaeum*	Clare Island Survey 1909-1911
Knockranny Wood	E	*Entoloma prunuloides*	Clare Island Survey 1909-1911
Knockranny Wood	E	*Entoloma rhodopolium*	Clare Island Survey 1909-1911
Knockranny Wood	E	*Entoloma sericellum*	Clare Island Survey 1909-1911
Knockranny Wood	E	*Entoloma sodale*	Clare Island Survey 1909-1911
Knockranny Wood	H	*Hygrocybe chlorophana*	Clare Island Survey 1909-1911
Knockranny Wood	H	*Hygrocybe coccinea*	Clare Island Survey 1909-1911
Knockranny Wood	H	*Hygrocybe fornicata*	Clare Island Survey 1909-1911
Knockranny Wood	H	*Hygrocybe miniata*	Clare Island Survey 1909-1911
Knockranny Wood	H	*Hygrocybe mucronella*	Clare Island Survey 1909-1911
Knockranny Wood	H	*Hygrocybe nitrata*	Clare Island Survey 1909-1911
Knockranny Wood	H	*Hygrocybe ovina*	Clare Island Survey 1909-1911
Knockranny Wood	H	*Hygrocybe psittacina*	Clare Island Survey 1909-1911
Knockranny Wood	H	*Hygrocybe virginea*	Clare Island Survey 1909-1911
Louisburgh	E	*Entoloma chloropolium*	Clare Island Survey 1909-1911
Louisburgh	E	*Entoloma politum*	Clare Island Survey 1909-1911
Louisburgh	E	*Entoloma undatum*	Clare Island Survey 1909-1911
Louisburgh	H	*Hygrocybe chlorophana*	Clare Island Survey 1909-1911
Louisburgh	H	*Hygrocybe punicea*	Clare Island Survey 1909-1911
Louisburgh	H	*Hygrocybe virginea*	Clare Island Survey 1909-1911
Old Deer-Park Wood, Mount Browne	C	*Clavulinopsis corniculata*	Clare Island Survey 1909-1911
Old Deer-Park Wood, Mount Browne	E	*Entoloma formosum*	Clare Island Survey 1909-1911
Old Deer-Park Wood, Mount Browne	E	*Entoloma pascuum*	Clare Island Survey 1909-1911
Old Deer-Park Wood, Mount Browne	E	*Entoloma porphyrophaeum*	Clare Island Survey 1909-1911
Old Deer-Park Wood, Mount Browne	E	*Entoloma sericellum*	Clare Island Survey 1909-1911
Old Deer-Park Wood, Mount Browne	E	*Entoloma serrulatum*	Clare Island Survey 1909-1911
Old Deer-Park Wood, Mount Browne	E	*Entoloma sodale*	Clare Island Survey 1909-1911
Old Deer-Park Wood, Mount Browne	H	*Hygrocybe chlorophana*	Clare Island Survey 1909-1911
Old Deer-Park Wood, Mount Browne	H	*Hygrocybe coccinea*	Clare Island Survey 1909-1911
Old Deer-Park Wood, Mount Browne	H	*Hygrocybe conica*	Clare Island Survey 1909-1911
Old Deer-Park Wood, Mount Browne	H	*Hygrocybe irrigata*	Clare Island Survey 1909-1911
Old Deer-Park Wood, Mount Browne	H	*Hygrocybe miniata*	Clare Island Survey 1909-1911
Old Deer-Park Wood, Mount Browne	H	*Hygrocybe psittacina*	Clare Island Survey 1909-1911
Old Deer-Park Wood, Mount Browne	H	*Hygrocybe punicea*	Clare Island Survey 1909-1911
Old Deer-Park Wood, Mount Browne	H	*Hygrocybe turunda*	Clare Island Survey 1909-1911
Old Deer-Park Wood, Mount Browne	H	*Hygrocybe virginea*	Clare Island Survey 1909-1911
Westport Park	C	*Clavaria fragilis*	Clare Island Survey 1909-1911
Westport Park	C	*Clavulinopsis corniculata*	Clare Island Survey 1909-1911

Westport Park	C	*Clavulinopsis helvola*	Clare Island Survey 1909-1911
Westport Park	E	*Entoloma griseocyaneum*	Clare Island Survey 1909-1911
Westport Park	E	*Entoloma pascuum*	Clare Island Survey 1909-1911
Westport Park	E	*Entoloma porphyrophaeum*	Clare Island Survey 1909-1911
Westport Park	E	*Entoloma prunuloides*	Clare Island Survey 1909-1911
Westport Park	E	*Entoloma sericellum*	Clare Island Survey 1909-1911
Westport Park	E	*Entoloma sodale*	Clare Island Survey 1909-1911
Westport Park	H	*Hygrocybe chlorophana*	Clare Island Survey 1909-1911
Westport Park	H	*Hygrocybe conica*	Clare Island Survey 1909-1911
Westport Park	H	*Hygrocybe fornicata*	Clare Island Survey 1909-1911
Westport Park	H	*Hygrocybe irrigata*	Clare Island Survey 1909-1911
Westport Park	H	*Hygrocybe miniata*	Clare Island Survey 1909-1911
Westport Park	H	*Hygrocybe mucronella*	Clare Island Survey 1909-1911
Westport Park	H	*Hygrocybe psittacina*	Clare Island Survey 1909-1911
Westport Park	H	*Hygrocybe virginea*	Clare Island Survey 1909-1911
Clare Island	H	*Hygrocybe virginea var virginea*	Ten Cate, 1992
Clare Island	H	*Hygrocybe pratensis*	Ten Cate, 1992
Clare Island	H	*Hygrocybe ceracea*	Ten Cate, 1992
Clare Island	H	*Hygrocybe chlorophana*	Ten Cate, 1992
Clare Island	H	*Hygrocybe coccinea*	Ten Cate, 1992
Clare Island	H	*Hygrocybe conica*	Ten Cate, 1992
Clare Island	H	*Hygrocybe fornicata*	Ten Cate, 1992
Clare Island	H	*Hygrocybe glutinipes*	Ten Cate, 1992
Clare Island	H	*Hygrocybe laeta*	Ten Cate, 1992
Clare Island	H	*Hygrocybe psittacina*	Ten Cate, 1992
Clare Island	H	*Hygrocybe punicea*	Ten Cate, 1992
Clare Island	H	*Hygrocybe reidii*	Ten Cate, 1992
Clare Island	H	*Hygrocybe splendidissima*	Ten Cate, 1992
Clare Island	H	*Hygrocybe virginea var fuscescens*	Ten Cate, 1992
Clare Island	H	*Hygrocybe virginea var. ochraceopallida*	Ten Cate, 1992
Clare Island	H	*Hygrocybe vitellina*	Ten Cate, 1992

Ten Cate also recorded some other species with doubtful identifications or that are *nomen dubiums.* These are:

Site	Type	Species	Comment
Clare Island	H	*Camarophyllopsis niveus*	Now *H.virginea* which he also recorded
Clare Island	H	*Camarophyllopsis phaeophylla*	No other records for Ireland or Britain
Clare Island	H	*Hygrocybe citrina*	Nomen dubium, possibly *H.glutinipes* which he also recorded
Clare Island	H	*Hygrocybe marchii*	There is doubt about this as a valid species
Clare Island	H	*Hygrocybe nigrescens*	Now regarded as a variety of *H.conica* which he also recorded
Clare Island	H	*Hygrocybe obrussea*	Nomen dubium, possibly *H.citrinovirens* or *H.quieta*

Appendix 2 – 10km and Site Details

F50

Sites Searched: Keem

Hygrocybe: 17 ***Clavariaceae*** 3 ***Entolomaceae:*** 2 ***Geoglossaceae:*** 1 ***Others:*** 0

Waxcap interest is mainly restricted to the old fields around Keem Bay. Other possibilities are the road sides leading down to Keem Bay, the poor quality fields on the eastern flanks of Croaghaun and maybe around Lough Acorrymore. The summit of Croaghaun may have some arctic species but this is likely to be earlier in the season.

Grassland Target Species Recorded

Clavaria fumosa
Clavulinopsis corniculata
Clavulinopsis helvola
Entoloma conferendum
Entoloma prunuloides
Trichoglossum hirsutum
Hygrocybe calyptriformis
Hygrocybe ceracea
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe conica var. conica
Hygrocybe flavipes
Hygrocybe insipida
Hygrocybe irrigata
Hygrocybe laeta var. laeta
Hygrocybe pratensis
Hygrocybe psittacina var. psittacina
Hygrocybe punicea
Hygrocybe quieta
Hygrocybe reidii
Hygrocybe russocoriacea
Hygrocybe splendidissima
Hygrocybe virginea var. fuscescens
Hygrocybe virginea var. ochraceopallida
Hygrocybe virginea var. virginea

Site Details:

Site: *Keem Bay*

Date Visited: 26/10/2008 **GridRef:** F560043

H: 17 **C:** 3 **E:** 2 **G** 1 **O:** 0 **IrishScore:** 31

The steep acid grassland directly above the beach leads into some excellent grassland surrounding the building that looks like an old hotel. Above this, the grassland becomes wetter and more acidic and quickly the only species found is *Hygrocybe laeta*. Indeed this species is found on the grassland right up above Achill Head but no other species are interest are found there. The lower fields are very rich with notable species like *H.calyptriformis* (more commonly found in churchyards or lawns), *H.punicea*, *H.splendidissima* and *Clavaria fumosa* all present. Earth tongues were abundant near the beach but all those checked were *Trichoglossum hirsutum*. Others are likely to be present.

Cystoderma amianthinum
Entoloma conferendum
Entoloma prunuloides
Hygrocybe calyptriformis
Hygrocybe ceracea
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe conica var. conica
Hygrocybe flavipes
Hygrocybe insipida
Hygrocybe irrigata
Hygrocybe laeta var. laeta
Hygrocybe pratensis
Hygrocybe psittacina var. psittacina
Hygrocybe punicea
Hygrocybe quieta
Hygrocybe reidii
Hygrocybe russocoriacea
Hygrocybe splendidissima
Hygrocybe virginea var. fuscescens
Hygrocybe virginea var. ochraceopallida
Hygrocybe virginea var. virginea
Melanoleuca exscissa
Melanoleuca melaleuca var. melaleuca
Mycena epipterygia var. epipterygia
Panaeolus acuminatus
Psilocybe semilanceata
Stropharia semiglobata
Clavaria fumosa
Clavulinopsis corniculata
Clavulinopsis helvola
Bovista nigrescens
Trichoglossum hirsutum

F60

Sites Searched: Keel Machair, St Finian's Well, Deserted Village (Slievemore)

Hygrocybe: 17 ***Clavariaceae*** 3 ***Entolomaceae:*** 4 ***Geoglossaceae:*** 4 ***Others:*** 0

This is one of the richest squares in that there a number of actual and possible sites in this square. The mixture of coastal grassland and machair and good upland acid grassland areas on Slievemore give rise to these sites. Some of the churchyards around Doogort and the northern coast were not searched and could be well worth a visit.

Grassland Target Species Recorded

Clavaria fumosa
Clavulinopsis corniculata
Clavulinopsis helvola
Entoloma conferendum
Entoloma prunuloides
Entoloma rhombisporum
Entoloma sericeum
Geoglossum atropurpureum
Geoglossum cookeanum
Geoglossum glutinosum
Trichoglossum walteri
Hygrocybe calyptriformis
Hygrocybe ceracea
Hygrocybe chlorophana
Hygrocybe coccinea

Hygrocybe conica var. conica
Hygrocybe conica var. conicoides
Hygrocybe flavipes
Hygrocybe insipida
Hygrocybe irrigata
Hygrocybe laeta var. laeta
Hygrocybe pratensis
Hygrocybe psittacina var. psittacina
Hygrocybe punicea
Hygrocybe quieta
Hygrocybe reidii
Hygrocybe russocoriacea
Hygrocybe splendidissima
Hygrocybe virginea var. ochraceopallida
Hygrocybe virginea var. virginea

Site Details:

Site: *Deserted Village, Slievemore*

Date Visited: 07/11/2008 **GridRef:** F637073

H: 13 **C:** 1 **E:** 1 **G** 2 **O:** 0 **IrishScore:** 28

A very good site with huge amounts of fruiting bodies. This was the densest area of fruiting found on this survey but it was surveyed in the middle of a storm and we had to leave the site without it being fully surveyed to avoid hypothermia. It will be much better and needs to be looked at again. *H.punicea* was fruiting in enormous quantity and significant records of *H.calyptriformis* and *H.flavipes* were made.
The site consists of the old fields surrounding the deserted village. The “village” consists of abandoned stone houses built on either side of a green road traversing the lower slopes of Slievemore. It stretches for about a mile. There is evidence of habitation here from the Neolithic although the current buildings are thought to have been built in the early 18th century and then full time occupation of the houses ceased post-famine in the late 19th century. The lazy beds were particularly good for fruiting and it was the upper fields that were particularly rich.

Cortinarius croceus
Entoloma conferendum
Hygrocybe calyptriformis
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe flavipes
Hygrocybe insipida
Hygrocybe laeta var. laeta
Hygrocybe pratensis
Hygrocybe psittacina var. psittacina
Hygrocybe punicea
Hygrocybe quieta
Hygrocybe reidii
Hygrocybe splendidissima
Hygrocybe virginea var. ochraceopallida
Clavaria fumosa
Geoglossum atropurpureum
Geoglossum glutinosum

Site: *Keel Machair*

Date Visited: 26/10/200 **GridRef:** F645047

H: 9 **C:** 1 **E:** 1 **G** 1 **O:** 0 **IrishScore:** 12

Machair which is in parts is highly modified due to earth movements, a golf course and a gaelic pitch. However there are still large areas of tightly grazed sward. There appears to be the start of a flush here as the specimens found were very small and mostly immature so the number found will not be representative.

A second visit was made on 07/11/08. This was however in the middle of a storm and the species list made was not complete. Fruiting however was less than on 26/10/08 but due to the huge amount of rain, much of the machair being near to the water table was flooding. This waterlogging could be an important factor affecting fruiting.

Clitocybe dealbata
Clitocybe fragrans
Entoloma rhombisporum
Hygrocybe ceracea
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe conica var. conica
Hygrocybe conica var. conicoides
Hygrocybe insipida
Hygrocybe irrigata
Hygrocybe psittacina var. psittacina
Hygrocybe russocoriacea
Hygrocybe virginea var. ochraceopallida
Hygrocybe virginea var. virginea
Lepista nuda
Melanoleuca exscissa
Panaeolus acuminatus
Psilocybe coprophila
Bovista plumbea
Vascellum pratense
Geoglossum cookeanum
Mucilago crustacea

Site: *St Finian's Well, Keel*

Date Visited: 26/10/2008 **GridRef:** F658031

H: 12 **C:** 2 **E:** 3 **G** 2 **O:** 0 **IrishScore:** 25

The steep slopes above the gravel barrier beach were found to be a good waxcap site with abundant fruiting the length of the slopes. The notable finds were *H.punicea*, *H.splendidissima* and the rare earth tongue, *Trichoglossum walteri*. This is the first time I have found the latter species and it is noted by its small 7 septate spores.

Entoloma conferendum
Entoloma prunuloides
Entoloma sericeum
Hygrocybe ceracea
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe laeta var. laeta
Hygrocybe pratensis
Hygrocybe psittacina var. psittacina
Hygrocybe punicea
Hygrocybe quieta
Hygrocybe reidii
Hygrocybe russocoriacea
Hygrocybe splendidissima
Hygrocybe virginea var. virginea

Stropharia semiglobata
Clavulinopsis corniculata
Clavulinopsis helvola
Cordyceps militaris
Geoglossum glutinosum
Trichoglossum walteri

F61

Sites Searched: Portmore (Mullet)

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

A small area of land is in this square on the Mullet peninsula. The area of interest for waxcaps is almost confined to the commanage by Portmore. The island of Guvillaun is however likely to be the best site but was not visited.

Grassland Target Species Recorded

Hygrocybe conica var. conicoides
Hygrocybe virginea var. fuscescens
Hygrocybe virginea var. ochraceopallida
Hygrocybe virginea var. virginea

Site Details:

Site: *Portmore*

Date Visited: 06/11/2008 **GridRef:** F615185

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

A potentially interesting site of commonage. Blown sand covers much of the hill above Portmore. The higher up the hill you go, the more the vegetation tends towards heath which is of less interest in terms of waxcaps. The lower dune grassland is more interesting, but typical of such habitats in the west of Ireland, it was dominated by large amounts of fruiting of *H.virginea*, *H.conica var. conicioides* and *Geoglossum cookeanum*. It is likely to have more species and could be worth another visit earlier in the season.

Conocybe dunensis
Hygrocybe conica var. conicoides
Hygrocybe virginea var. fuscescens
Hygrocybe virginea var. ochraceopallida
Hygrocybe virginea var. virginea
Panaeolus acuminatus
Mucilago crustacea

F62

Sites Searched: Portglash dunes and machair, Barrack dunes and machair

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

There are significant areas of dunes machair in this square but the sites visited were poor in terms of fungal fruiting. The machair is intensely managed and many parcels have been fertilised. For this reason, waxcap interest is likely to be patchy and difficult to find. I will reserve judgement on the mycological interest of this habitat as it is possible that fruiting occurs at a different time to the upland acid grassland that has been so good in this survey.

Grassland Target Species Recorded

Geoglossum cookeanum
Hygrocybe conica var. conicoides

Site Details:

Site: *Barrack dunes and machair*

Date Visited: 06/11/2008 **GridRef:** F631255

H: 1 **C:** 0 **E:** 0 **G** 1 **O:** 0 **IrishScore:** 3

As for the site description of Emleybeg.

Hygrocybe conica var. conicoides
Panaeolus acuminatus
Panaeolus semiovatus var. semiovatus
Geoglossum cookeanum

Site: *Portglash dunes and machair*

Date Visited: 06/11/2008 **GridRef:** F614205

H: 1 **C:** 0 **E:** 0 **G** 1 **O:** 0 **IrishScore:** 3

As for the site description of Emleybeg.

Hygrocybe conica var. conicoides
Panaeolus acuminatus
Geoglossum cookeanum
Mucilago crustacea

F63

Sites Searched: Termoncarragh machair, Inishkea Cross RC Church, Emlybeg dunes

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

There are significant areas of dunes machair in this square but the sites visited were poor in terms of fungal fruiting. The machair is intensely managed and many parcels have been fertilised. For this reason, waxcap interest is likely to be patchy and difficult to find. I will reserve judgement on the mycological interest of this habitat as it is possible that fruiting occurs at a different time to the upland acid grassland that has been so good in this survey.

Grassland Target Species Recorded

Clavaria fragilis
Geoglossum cookeanum
Trichoglossum hirsutum
Hygrocybe conica var. conicoides
Hygrocybe persistens var. persistens
Hygrocybe psittacina var. psittacina
Hygrocybe russocoriacea
Hygrocybe virginea var. virginea

Site Details:

Site: *Emlybeg dunes and machair*

Date Visited: 06/11/2008 **GridRef:** F660324

H: 3 **C:** 0 **E:** 0 **G** 2 **O:** 0 **IrishScore:** 7

The machair and dunes on Belmullet are intensively used for grazing and silage. As the machair is intricately divided into small fields, mycological interest can

potentially differ drastically from field to field depending on the management of each land parcel. Some fields showed indications of fertilisers and generally, very few species were found at all. Access was difficult and due to the intricate division of fields, tracing ownership to get permission would have been very time consuming. Recording was limited to looking over fences and the general lack of fruiting indicated that further survey was just not worth it. The golf course however will offer a different management regime and could be the most interesting area but it was not visited.

Hygrocybe conica var. conicoides
Hygrocybe persistens var. persistens
Hygrocybe virginea var. virginea
Lepista nuda
Panaeolus acuminatus
Geoglossum cookeanum
Trichoglossum hirsutum

Site: *Inishkea Cross RC Church*

Date Visited: 31/10/2008 **GridRef:** F689344

H: 3 **C:** 1 **E:** 0 **G** 0 **O:** 0 **IrishScore:** 3

A very promising large lawn around the church. On the side of the hill, this means that the lawn is better drained and hence this has the feel of being a promising site. Only 3 species were found however but it is worth another visit.

Hygrocybe psittacina var. psittacina
Hygrocybe russocoriacea
Hygrocybe virginea var. virginea
Pholiota gummosa
Rickenella swartzii
Clavaria fragilis

Site: *Termoncarragh machair*

Date Visited: 31/10/2008 **GridRef:** F650347

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

The well grazed enclosed fields on the machair near the beach at Termoncarragh appear to be a good possible waxcap site but virtually no fungi were fruiting at all. Whether this is related to the site being actually poor for fungi or that there was no fruiting at the time of visit is the question that is difficult to answer from one visit.

Hygrocybe virginea var. virginea

F64

Sites Searched: Erris Head

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

There is hardly any land in this square but the acid grassland along the cliff tops offer a good area of possible waxcap habitat.

Grassland Target Species Recorded

Hygrocybe coccinea
Hygrocybe pratensis
Hygrocybe russocoriacea

Site Details:

Site: *Erris Head*

Date Visited: 31/10/2008 **GridRef:** F700415

H: 4 **C:** 0 **E:** 0 **G** 0 **O:** 0 **IrishScore:** 4

The coastal heath and bog of Erris Head grade into acid grassland along the cliff tops and this is the potential area for waxcaps. The most waxcaps were found right out at Erris Head itself amongst the exposed rocks. They were obviously battered by the wind as the fruiting bodies were contorted, small and often dried out. There was even one *Hygrocybe coccinea* with a bright red stipe and a black cap. The fruiting bodies were also very small in size indicating that a new flush was beginning. This could mean that the lack of fruiting generally over the last few days directly relates the wet windy and cold weather of the week.

Hygrocybe coccinea
Hygrocybe pratensis
Hygrocybe russocoriacea
Panaeolus acuminatus
Bovista plumbea
Hygrocybe laeta var. laeta
Omphalina ericetorum
Panaeolus papilionaceus var. papilionaceus

F71

Sites Searched: Tawnaboy dunes

Hygrocybe: 4 ***Clavariaceae*** 0 ***Entolomaceae:*** 0 ***Geoglossaceae:*** 3 ***Others:*** 0

This square contains a variety of dune sites (Tawnaboy, Ridge Point on Achill and near Doohooma). The other possible site would be the small hill at F794128.

Grassland Target Species Recorded

Geoglossum cookeanum
Geoglossum fallax
Trichoglossum hirsutum
Hygrocybe chlorophana
Hygrocybe conica var. conicoides
Hygrocybe persistens var. persistens
Hygrocybe virginea var. ochraceopallida
Hygrocybe virginea var. virginea

Site Details:

Site: *Tawnaboy Dunes*

Date Visited: 29/10/2008 **GridRef:** F765145

H: 4 **C:** 0 **E:** 0 **G** 3 **O:** 0 **IrishScore:** 9

A large set of dunes with moss rich dune slacks. However as is typical of so many Irish dunes, mycologically they are dominated by a restricted range of species which are abundant. *Geoglossum cookeanum* and the poisonous *Clitocybe dealbata* in particular were everywhere. There was a lot of digging in the slacks which was probably badgers looking for corms. The dunes are grazed by cattle and rabbits.

Bolbitius titubans
Clitocybe dealbata
Hygrocybe chlorophana
Hygrocybe conica var. conicoides
Hygrocybe persistens var. persistens
Hygrocybe virginea var. ochraceopallida
Hygrocybe virginea var. virginea
Lepista nuda
Lepista panaeola
Mycena pura var. pura
Omphalina pyxidata
Panaeolus acuminatus
Psathyrella ammophila
Psilocybe coprophila
Stropharia semiglobata
Geoglossum cookeanum
Geoglossum fallax
Peziza ammophila
Trichoglossum hirsutum
Puccinia distincta
Puccinia poarum

F72

Sites Searched: Bunnahowen RC Church, Corraun Point machair

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

There is a lot of bog in this square so the only possible sites are the machair of Corraun Point and Doolough with some of the slopes of Glencastle Hill also being possible.

Grassland Target Species Recorded

Clavulinopsis helvola
Geoglossum cookeanum
Hygrocybe ceracea
Hygrocybe chlorophana
Hygrocybe conica var. conica
Hygrocybe conica var. conicoides
Hygrocybe insipida
Hygrocybe psittacina var. psittacina
Hygrocybe virginea var. ochraceopallida
Hygrocybe virginea var. virginea

Site Details:

Site: *Bunnahowen RC Church*

Date Visited: 31/10/2008 **GridRef:** F759286

H: 6 **C:** 1 **E:** 0 **G** 0 **O:** 0 **IrishScore:** 6

A medium sized lawn on a slope meaning it is better drained. Six waxcaps found so this is worth another visit.

Hygrocybe ceracea
Hygrocybe chlorophana
Hygrocybe conica var. conica
Hygrocybe insipida
Hygrocybe psittacina var. psittacina
Hygrocybe virginea var. virginea
Panaeolus acuminatus
Clavulinopsis helvola

Site: *Corraun Point machair*

Date Visited: 31/10/2008 **GridRef:** F732250

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

Much of the machair between Claggan Point and Corraun Point is fenced and grazed with the quality of each field being quite variable. The best part is the large unfenced area out to Corraun Point. It is heavily rabbit grazed and the turf is short however fruiting of any sort was very sparse even though the site would look to be favourable.

Agaricus bernardii
Bolbitius titubans
Clitocybe dealbata
Hygrocybe conica var. conicoides
Hygrocybe virginea var. ochraceopallida
Lepista nuda
Schizophyllum commune
Stropharia semiglobata
Geoglossum cookeanum
Phragmidium violaceum

F73

Sites Searched: Belmullett RC Church

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

A square with significant areas of bog on the Mullet peninsula side. There are some potential coastal sites near Inver but these were not visited.

Grassland Target Species Recorded

Clavulinopsis helvola

Site Details:

Site: *Belmullet RC Church*

Date Visited: 31/10/2008 **GridRef:** F702325

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

A wet lawn surrounds the church but no waxcaps were found.
Cystoderma amianthinum
Clavulinopsis helvola
Rhytisma acerinum

F74

Sites Searched: Erris Head, Rinnaglana Head

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

There is hardly any land in this square but the coastal cliffs of Erris Head on the Mullet and Rinnaglana Head on the mainland offer the best habitats.

Grassland Target Species Recorded

Entoloma conferendum
Hygrocybe insipida
Hygrocybe laeta var. laeta
Hygrocybe pratensis
Hygrocybe psittacina var. psittacina
Hygrocybe punicea

Site Details:

Site: *Rinnaglana Head*

Date Visited: 03/11/2008 **GridRef:** F793435

H: 7 **C:** 1 **E:** 1 **G** 0 **O:** 0 **IrishScore:** 10

This site straddles two 10km squares hence more species of *Hygrocybe* are recorded for the site than for the 10km square it is listed under. The area searched was from the car park at F804433 to the unnamed (on the OSI map) headland opposite Kid Island at F792432. The habitat is mostly bog grading into heath and plantago / armeria dominated grassland at the cliff edge. It is hence very acidic and few species were found. When they were found, it was often at the very edge to the cliff. Notable species found were *H.punicea*, *Mycena adonis* and *Stropharia aeruginosa*.

Cystoderma amianthinum
Entoloma conferendum
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe insipida
Hygrocybe laeta var. laeta
Hygrocybe pratensis
Hygrocybe psittacina var. psittacina
Hygrocybe punicea
Hygrophoropsis aurantiaca
Mycena adonis var. adonis
Omphalina ericetorum
Panaeolus semiovatus var. semiovatus
Stropharia pseudocyanea
Stropharia semiglobata

Site: *Erris Head* – See Site description under F64

F81

Sites Searched: Holy Family church (Ballycroy)

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

This square is dominated by blanket bog. The only other possible site is the hill to the north east of Ballycroy and this actually could be quite good and should be visited.

Grassland Target Species Recorded

Hygrocybe conica var. conica

Site Details:

Site: *Holy Family church, Ballycroy*

Date Visited: 29/10/2008 **GridRef:** F804102

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

A large amount of grass planted up with well spaced trees surrounds the church. Only Hygrocybe conica was found in the target groups but very interesting finds were made of some ectomycorrhizal fungi. *Russula alnetorum* was found under Alder and this is its first RoI find as was *Lactarius mammosus* (Sitka Spruce) and *Naucoria subconspersa* (Alder).
Armillaria gallica

Arrhenia retiruga
Hygrocybe conica var. conica
Laccaria laccata
Lactarius mammosus
Lactarius obscuratus
Naucoria subconspersa
Russula alnetorum
Tremella mesenterica
Rhytisma acerinum
Xylaria hypoxylon

F82

Sites Searched: Bangor RC Church

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

Mostly bog, forestry or intensive agriculture with other sites unlikely.

Grassland Target Species Recorded

Hygrocybe virginea var. virginea

Site Details:

Site: *Bangor RC Church*

Date Visited: 31/10/2008 **GridRef:** F863229

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

A significant area of lawn but only one waxcap. Too wet?

Hygrocybe virginea var. virginea

F83

Sites Searched: Carrowteige Dunes, Muingnabo RC church

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

There is a significant area of bog in this square but part of the dune system at Carrowteige and the slopes of Barnacuille are possibly the most interesting area. The latter site was not visited.

Grassland Target Species Recorded

Geoglossum cookeanum
Hygrocybe conica var. conicoides
Hygrocybe psittacina var. psittacina
Hygrocybe virginea var. ochraceopallida

Site Details:

Site: *Muingnabo RC church*

Date Visited: 03/11/2008 **GridRef:** F852394

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

A small church surrounded by bog with no grass at all. No species found.

Site: *Carrowteige Dunes and Machair* - See site details under F84

F84

Sites Searched: Portacloy Bay, Carrowteige Dunes and Machair, Rinnaglana Head

Hygrocybe: 14 ***Clavariaceae*** 1 ***Entolomaceae:*** 1 ***Geoglossaceae:*** 4 ***Others:*** 0

The coastal grassland along the northern cliffs and the large dune and machair system of Carrowteige are the major sites of interest in this square. There is so much sand blown inland from this dune system that Garter Hill is partly covered in sand and would be worth visiting.

Grassland Target Species Recorded

Clavulinopsis corniculata
Entoloma sericeum
Geoglossum atropurpureum
Geoglossum cookeanum
Geoglossum fallax
Trichoglossum hirsutum
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe conica var. conica
Hygrocybe conica var. conicoides
Hygrocybe flavipes
Hygrocybe insipida
Hygrocybe laeta var. laeta
Hygrocybe miniata
Hygrocybe pratensis
Hygrocybe psittacina var. psittacina
Hygrocybe punicea
Hygrocybe reidii
Hygrocybe russocoriacea
Hygrocybe splendidissima
Hygrocybe virginea var. ochraceopallida
Hygrocybe virginea var. virginea

Site Details:

Site: *Carrowteige Dunes and Machair*

Date Visited: 03/11/2008 **GridRef:** F810402

H: 3 **C:** 0 **E:** 0 **G** 2 **O:** 0 **IrishScore:** 7

This is an enormous dune and machair system with blown sand almost covering Garter Hill. The visit to this site did not do it justice as diminishing light and mist meant that the survey was nowhere near complete. The machair was almost barren of fungi but the moss rich dune slacks amongst the larger dunes were richer in fungi. Species like *Hygrocybe calciphila* and *H.persistens* will also be present.

Clitocybe dealbata
Hygrocybe conica var. conicoides
Hygrocybe psittacina var. psittacina
Hygrocybe virginea var. ochraceopallida
Lepista nuda
Geoglossum cookeanum
Clitocybe dealbata
Gamundia striatula
Hygrocybe conica var. conicoides
Hygrocybe psittacina var. psittacina
Hygrocybe virginea var. ochraceopallida

Lepista nuda
Melanoleuca cinereifolia
Geoglossum cookeanum
Trichoglossum hirsutum
Mucilago crustacea

Site: *Portacloy*

Date Visited: 03/11/2008 **GridRef:** F842440

H: 14 **C:** 1 **E:** 1 **G** 3 **O:** 0 **IrishScore:** 26

The steep slopes on the eastern side of Portacloy Bay, the very small line of dunes and the short turf covering the rubble cleared in the building of quay on the western side of the bay at F839442 were the best spots for waxcaps. This mixture of habitats meant that a good range of species were found including *H.punicea* and *H.flavipes*. It is notable that the best area of all was the turf covered rubble heaps. These are the best drained areas but it would be very interesting to know when these were created.

Cystoderma amianthinum
Entoloma sericeum
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe conica var. conica
Hygrocybe flavipes
Hygrocybe insipida
Hygrocybe laeta var. laeta
Hygrocybe miniata
Hygrocybe pratensis
Hygrocybe psittacina var. psittacina
Hygrocybe punicea
Hygrocybe reidii
Hygrocybe russocoriacea
Hygrocybe splendidissima
Hygrocybe virginea var. virginea
Omphalina ericetorum
Panaeolus acuminatus
Stropharia semiglobata
Clavulinopsis corniculata
Bovista nigrescens
Geoglossum atropurpureum
Geoglossum cookeanum
Geoglossum fallax

Site: *Rinnaglana Head* – See description under F74

F90

Sites Searched: Srahmore, Bunaveela

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

Srahmore Church was visited but there was no grass at all in the grounds. With most of this site being upland bog and forestry, there is limited opportunity for waxcaps. Acid grassland is very restricted in this square and was disappointing at Srahmore. The two waxcaps found in this square were opportunistically found on the road verge. The notable species found however was *Suillus flavidus* under Lodgepole pine alongside the road in the forestry at Srahrevagh. This is only the second Irish record for this bolete.

Grassland Target Species Recorded

Hygrocybe chlorophana

Hygrocybe coccinea
Hygrocybe laeta var. laeta
Hygrocybe virginea var. virginea

Site Details:

Site: *Bunaveela*

Date Visited: 28/10/2008 **GridRef:** F997093

H: 2 **C:** 0 **E:** 0 **G** 0 **O:** 0 **IrishScore:** 2

H.coccinea and H.virginea were found alongside the road at Bunaveela.

Hygrocybe coccinea
Hygrocybe virginea var. virginea

Site: *Srahmore*

Date Visited: 04/11/2008 **GridRef:** F971029

H: 2 **C:** 0 **E:** 0 **G** 0 **O:** 0 **IrishScore:** 2

A very disappointing site as it looked so promising. The good waxcap grassland of Tawnamartola is nearby so this site which is steep often rocky grassland looked very hopeful. However, despite the slope, the site was very wet, probably too much so and only two species were found.

Hygrocybe chlorophana
Hygrocybe laeta var. laeta
Omphalina ericetorum
Psilocybe semilanceata
Peniophora incarnata
Tremella mesenterica
Scutellinia scutellata
Xylaria hypoxylon

G00

Sites Searched: Deel River Valley, Glendavoolagh, Birreencorragh

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

Most of this square is upland bog and forestry. The only possible habitat is where the river has cut deeply into the valley leaving steep well drained areas. The summit ridge of Birreencorragh, especially in amongst the quartzite scree could be potential habitat for some arctic species of waxcap.

Grassland Target Species Recorded

Entoloma conferendum
Geoglossum fallax
Geoglossum glutinosum
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe glutinipes var. glutinipes
Hygrocybe laeta var. laeta
Hygrocybe pratensis
Hygrocybe psittacina var. psittacina
Hygrocybe punicea
Hygrocybe reidii
Hygrocybe russocoriacea
Hygrocybe splendidissima
Hygrocybe virginea var. virginea

Site Details:

Site: *Birreencorragh*

Date Visited: 28/10/2008 **GridRef:** G025050

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

The summit ridge of Birreencorragh was searched to see if some arctic species could be found. They have been found in Northern Ireland (e.g. Cave Hill, Belfast). However with freezing temperatures and snow, species may fruit earlier in the season and only *Lichenomphalia hudsoniana* was found right at the summit cairn.

Lichenomphalia hudsoniana
Mycena epipterygia var. epipterygia
Onygena equina

Site: *Deel River Valley*

Date Visited: 28/10/2008 **GridRef:** G015085

H: 8 **C:** 1 **E:** 1 **G** 2 **O:** 0 **IrishScore:** 13

Where the river cuts deeply into the hill side, the steep sides are boulder clad and better draining. These are small areas surrounded by bog so the waxcap interest is good but restricted.

Entoloma conferendum
Hygrocybe coccinea
Hygrocybe glutinipes var. glutinipes
Hygrocybe laeta var. laeta
Hygrocybe psittacina var. psittacina
Hygrocybe punicea
Hygrocybe reidii
Hygrocybe russocoriacea
Hygrocybe virginea var. virginea
Geoglossum fallax
Geoglossum glutinosum

Site: *Glendavoolagh*

Date Visited: 28/10/2008 **GridRef:** G013070

H: 7 **C:** 0 **E:** 0 **G** 1 **O:** 0 **IrishScore:** 14

In places, the river has cut very steep sides and these, being better drained, are the places where there is waxcap interest. The area is restricted but given that *H.punicea* and *H.splendidissima* were found, more species are likely to be found.

Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe laeta var. laeta
Hygrocybe pratensis
Hygrocybe punicea
Hygrocybe reidii
Hygrocybe splendidissima
Laccaria laccata
Russula ochroleuca
Geoglossum fallax

G10

Sites Searched: Windy Gap, Lahardaun RC Church

Hygrocybe: 10 ***Clavariaceae*** 2 ***Entolomaceae:*** 1 ***Geoglossaceae:*** 3 ***Others:*** 0

Nephin offers little hope for waxcaps as there is limited dry acid grassland. The best area was at Windy Gap. Some of the steep northern slopes of Crucknaree could be worth searching.

Grassland Target Species Recorded

Clavulinopsis corniculata
Clavulinopsis umbrinella
Entoloma conferendum
Geoglossum cookeanum
Geoglossum fallax
Trichoglossum hirsutum
Hygrocybe cantharellus
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe laeta var. laeta
Hygrocybe psittacina var. psittacina
Hygrocybe punicea
Hygrocybe quieta
Hygrocybe reidii
Hygrocybe russocoriacea
Hygrocybe virginea var. virginea

Site Details:

Site: *Lahardaun RC Church*

Date Visited: 04/11/2008 **GridRef:** G135097

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

A small churchyard that is promising and that should contain more species.

Hygrocybe chlorophana
Hygrocybe psittacina var. psittacina
Tricholoma scalpturatum
Ganoderma australe
Rhytisma acerinum
Trichoglossum hirsutum

Site: *Windy Gap*

Date Visited: 04/11/2008 **GridRef:** G137014

H: 9 **C:** 2 **E:** 1 **G** 2 **O:** 0 **IrishScore:** 18

Small areas of acid grassland surrounded by bog at the pass between Castlebar and Lahardaun. The grassland up to the cross and the disturbed ground around the small quarry and roadside were searched. Due to the restricted nature of the site, it is unlikely to hold many more species although this was the only site for the notable clavaroid, *Clavulinopsis umbrinella*, during this survey.

Entoloma conferendum
Hygrocybe cantharellus
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe laeta var. laeta
Hygrocybe punicea
Hygrocybe quieta
Hygrocybe reidii
Hygrocybe russocoriacea

Hygrocybe virginea var. virginea
Lepista panaeola
Mycena pura var. pura
Stropharia semiglobata
Clavulinopsis corniculata
Clavulinopsis umbrinella
Cordyceps militaris
Geoglossum cookeanum
Geoglossum fallax

G11

Sites Searched: Enniscoe House and Gardens, Parish of St Mary's Church of Ireland

Hygrocybe: 3 ***Clavariaceae*** 0 ***Entolomaceae:*** 0 ***Geoglossaceae:*** 2 ***Others:*** 0

A square where the most interest is churchyards and estate lawns. Kilmurray church was also visited but no species of interest were found.

Grassland Target Species Recorded

Geoglossum cookeanum
Trichoglossum hirsutum
Hygrocybe chlorophana
Hygrocybe conica var. conica
Hygrocybe virginea var. virginea

Site Details:

Site: *Enniscoe House and Gardens*

Date Visited: 30/10/2008 **GridRef:** G143143

H: 3 **C:** 0 **E:** 0 **G** 2 **O:** 0 **IrishScore:** 7

This estate house is now a heritage centre with the gardens open to the public. The gardener fertilises the lawns beside the entrance but not in front of the house. However only limited specis of interest were present.

Collybia butyracea f. butyracea
Conocybe filaris
Cystoderma amianthinum
Hygrocybe chlorophana
Hygrocybe conica var. conica
Hygrocybe virginea var. virginea
Melanoleuca polioleuca f. polioleuca
Mycena pura var. pura
Panaeolus acuminatus
Psathyrella conopilus
Geoglossum cookeanum
Rhytisma acerinum
Trichoglossum hirsutum

Site: *Parish of St Mary's Church of Ireland, Crossmolina*

Date Visited: 30/10/2008 **GridRef:** G136178

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

A poorly maintained church lawn with rank grass and no species of interest.

Melanoleuca polioleuca f. polioleuca

G12

Sites Searched: Moygawnagh RC Church

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

A square where the most interest is churchyards and estate lawns.

Grassland Target Species Recorded

Geoglossum fallax
Hygrocybe conica var. conica

Site Details:

Site: *Moygawnagh RC Church*

Date Visited: 30/10/2008 **GridRef:** G123244

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

A reasonable amount of lawn surrounds the church but little was found.

Cystoderma amianthinum
Hygrocybe conica var. conica
Lepista nuda
Melanoleuca polioleuca f. polioleuca
Geoglossum fallax

G13

Sites Searched: Lackan Strand, Ballycastle Church of Ireland, Ballycastle RC Church

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

Lackan Strand and associated dunes is the most interesting site in this square. The rest is mainly farmland with churchyards the main hope for finding species of interest.

Grassland Target Species Recorded

Geoglossum cookeanum
Hygrocybe conica var. conicoides
Hygrocybe fornicata
Hygrocybe virginea var. fuscescens
Hygrocybe virginea var. virginea

Site Details:

Site: *Ballycastle Church of Ireland*

Date Visited: 30/10/2008 **GridRef:** G106377

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

Another poorly managed churchyard with rank grass and cuttings left in situ.
Nothing found at all.

Rhytisma acerinum

Site: *Ballycastle RC Church*

Date Visited: 30/10/2008 **GridRef:** G107375

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

A good amount of lawn surrounds the church but again very little was found at all.

Hygrocybe virginea var. virginea
Trochila ilicina

Site: *Lackan Strand*

Date Visited: 30/10/2008 **GridRef:** G195373

H: 3 **C:** 0 **E:** 0 **G** 1 **O:** 0 **IrishScore:** 6

A dramatic dune system. However the vegetation is quite rank and slacks are often swamped by rank grasses. Cattle grazing is ongoing but it is noticeable that the only fungal interest (which was limited) was surrounding rabbit warrens. These are restricted in extent and this lack of sufficient grazing is an important factor on this site.

Bolbitius titubans
Cystoderma amianthinum
Hygrocybe conica var. conicoides
Hygrocybe fornicata
Hygrocybe virginea var. fuscescens
Lepista nuda
Mycena pura var. pura
Psathyrella ammophila
Stropharia semiglobata
Geoglossum cookeanum
Puccinia pygmeae var. ammophilina
Puccinia violae

G14

Sites Searched: Downpatrick Head

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

Downpatrick Head is the only likely site in this square which is mostly sea. The only other possibility is Creevagh Head but this looks to be more intensively managed agriculturally.

Grassland Target Species Recorded

Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe pratensis
Hygrocybe russocoriacea

Site Details:

Site: *Downpatrick Head*

Date Visited: 30/10/2008 **GridRef:** G125428

H: 4 **C:** 0 **E:** 0 **G** 0 **O:** 0 **IrishScore:** 4

The field sloping up to the cliffs of Downpatrick Head is the area of interest. It is grazed and possibly some nutrients have been added. Waxcap fruiting was very sparse mainly near the cliff edge. Some large fairy rings of *Lepista panaeola* were present. There will probably be more species present but it is unlikely to be a site of note.

Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe pratensis
Hygrocybe russocoriacea
Lepista nuda
Lepista panaeola

Macrolepiota excoriata
Panaeolus acuminatus
Bovista plumbea

G21

Sites Searched: Ballina churches

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

A square where the most interest is churchyards and estate lawns. Falcon House Hotel is a possible site that was not visited.

Grassland Target Species Recorded

Hygrocybe conica var. conica

Site Details: **Site:** *Ballina*

Date Visited: 30/10/2008 **GridRef:** G236195

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

The main churches in Ballina are across the river in East Mayo so were not visited. The churches visited here had either no lawn or had no fungi of interest. The best church was the Roman Catholic church at G236195 but again although it looked a possible site, no species of interest were found.

Hygrocybe conica var. conica

G22

Sites Searched: Killala churches, Belleek Castle

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

A square where the most interest is churchyards and estate lawns.

Grassland Target Species Recorded

Hygrocybe conica var. conica
Hygrocybe quieta

Site Details:

Site: *Belleek Castle, Ballina*

Date Visited: 30/10/2008 **GridRef:** G253211

H: 2 **C:** 0 **E:** 0 **G** 0 **O:** 0 **IrishScore:** 3

A large lawn sweeps in front of the castle and the gardener says it never gets fertilisers. Much of the lower section is actually quite wet, probably too wet for waxcaps. It is likely that this site is a bit better but unlikely that it is a good site for waxcaps.

Armillaria gallica
Clitopilus scyphoides
Cystoderma amianthinum
Hygrocybe conica var. conica
Hygrocybe quieta
Trametes versicolor
Rhytisma acerinum

Site: *Killala*

Date Visited: 30/10/2008 **GridRef:** G204299

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

The Church of Ireland in Killala has only a very small area of grass in which no

fungi at all were found. The Roman Catholic church in Killala is actually in G23 but there was no grass around the church. Indeed the only waxcap found in Killala (*H.conica*) was found fruiting between flagstones on a pavement!!

Hygrocybe conica var. conica

G23

Sites Searched: Rinnaun Point

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

The best probable site in this square is Bartragh Island but this is not easily accessible. The dunes at Rinnaun Point were searched and proved uninteresting. Other sites may be the dunes at Ross Point or the dune grassland at Lackan Strand that extend into this square.

Grassland Target Species Recorded

Hygrocybe virginea var. virginea

Site Details:

Site: *Rinnaun Point*

Date Visited: 30/10/2008 **GridRef:** G215324

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

This small dune system is of little fungal interest. Behind the dune ridge, the system is divided into fields and some are used for horse grazing and are mainly rank grasses. Other fields are cattle grazed and have received fertilisers.

Hygrocybe virginea var. virginea

L57

Sites Searched: Inishturk

Hygrocybe: 12 ***Clavariaceae*** 2 ***Entolomaceae:*** 1 ***Geoglossaceae:*** 2 ***Others:*** 0

The western part of Inishturk. Most of this land is commonage but is not as rich as the eastern part of the island.

Grassland Target Species Recorded

Clavulinopsis corniculata
Clavulinopsis fusiformis
Entoloma conferendum
Geoglossum atropurpureum
Geoglossum glutinosum
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe glutinipes var. glutinipes
Hygrocybe insipida
Hygrocybe laeta var. laeta
Hygrocybe pratensis
Hygrocybe psittacina var. psittacina
Hygrocybe punicea
Hygrocybe quieta
Hygrocybe russocoriacea
Hygrocybe splendidissima
Hygrocybe virginea var. ochraceopallida
Hygrocybe virginea var. virginea

Site Details: See Inishturk description under L67

L67

Sites Searched: Inishturk

Hygrocybe: 14 ***Clavariaceae*** 2 ***Entolomaceae:*** 2 ***Geoglossaceae:*** 1 ***Others:*** 0

The eastern part of Inishturk. This is a particularly rich square. The enclosed fields were not searched and will undoubtedly yield a lot of species.

Grassland Target Species Recorded

Clavaria fumosa
Clavulinopsis fusiformis
Entoloma conferendum
Entoloma sericeum
Geoglossum fallax
Hygrocybe aurantiosplendens
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe conica var. conica
Hygrocybe insipida
Hygrocybe laeta var. laeta
Hygrocybe pratensis
Hygrocybe psittacina var. psittacina
Hygrocybe punicea
Hygrocybe quieta
Hygrocybe reidii
Hygrocybe russocoriacea
Hygrocybe splendidissima
Hygrocybe virginea var. virginea

Site Details:

Site: *Inishturk*

Date Visited: 05/11/2008 **GridRef:** L604745

H: 15 **C:** 3 **E:** 2 **G** 3 **O:** 0 **IrishScore:** 30

Inishturk is a very good island for waxcaps with fruiting almost continuous over the island albeit scattered. There is a significant area of grassland on the island. The enclosed fields were good especially on the old lazy beds but these were not surveyed as access was difficult. On the areas of commanage on the hills, the best places were the short dry turf surrounding rock outcrops, the short turf surrounding the turf reeks built for drying peat and any areas of abandoned lazy beds. There was also significant areas of grassland with a short sward around the cliff edges especially in the west of the island. This was not as good as the areas just described but fruiting was scattered here with good populations of *H.russocoriacea* and *Geoglossum atropurpureum*. Other notable finds include *Calocybe persicolor* and curiously *Agaricus silvaticus* (normally a woodland species) on the summit of Inishturk's highest peak.

Agaricus silvaticus
Agaricus urinascens
Calocybe persicolor
Cystoderma amianthinum
Entoloma conferendum
Entoloma sericeum
Hebeloma crustuliniforme
Hygrocybe aurantiosplendens
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe conica var. conica
Hygrocybe glutinipes var. glutinipes
Hygrocybe insipida
Hygrocybe laeta var. laeta
Hygrocybe pratensis
Hygrocybe psittacina var. psittacina
Hygrocybe punicea
Hygrocybe quieta
Hygrocybe reidii
Hygrocybe russocoriacea
Hygrocybe splendidissima
Hygrocybe virginea var. ochraceopallida
Hygrocybe virginea var. virginea
Omphalina ericetorum
Omphalina pyxidata
Panaeolus acuminatus
Psilocybe coprophila
Stropharia semiglobata
Clavaria fumosa
Clavulinopsis corniculata
Clavulinopsis fusiformis
Geoglossum atropurpureum
Geoglossum glutinosum
Geoglossum fallax
Leptosphaeria acuta
Phragmidium violaceum
Mucilago crustacea

L68

Sites Searched: Clare Island

Hygrocybe: 23 ***Clavariaceae*** 3 ***Entolomaceae:*** 2 ***Geoglossaceae:*** 5 ***Others:*** 1

The bulk of Clare Island - an exceptional square.

Grassland Target Species Recorded

Clavulinopsis corniculata
Clavulinopsis fusiformis
Clavulinopsis laeticolor
Entoloma conferendum
Entoloma papillatum
Geoglossum atropurpureum
Geoglossum fallax
Geoglossum glutinosum
Microglossum olivaceum
Trichoglossum walteri
Hygrocybe aurantiosplendens
Hygrocybe calyptriformis
Hygrocybe cantharellus
Hygrocybe ceracea
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe conica var. conica
Hygrocybe fornicata
Hygrocybe insipida
Hygrocybe irrigata
Hygrocybe laeta var. laeta
Hygrocybe miniata
Hygrocybe mucronella
Hygrocybe nitrata
Hygrocybe persistens var. persistens
Hygrocybe pratensis
Hygrocybe psittacina var. psittacina
Hygrocybe punicea
Hygrocybe quieta
Hygrocybe reidii
Hygrocybe russocoriacea
Hygrocybe splendidissima
Hygrocybe virginea var. ochraceopallida
Hygrocybe virginea var. virginea

Site Details:

Site: *Clare Island*

Date Visited: 01/11/200 **GridRef:** L685855

H: 23 **C:** 3 **E:** 2 **G** 5 **O:** 1 **IrishScore:** 53

An exceptional island for waxcaps with fruiting abundant over the whole island. Much of Knockmore and Knocknaveen is commonage with areas of abandoned lazy beds. These are exceptional areas and the abandoned lazy beds are always worth searching. Fruiting was occurring high on Knockmore and some of the drier slopes near the summit would even be worth searching. The lower enclosed fields also appeared good when looking over the fences and would be worth surveying. The very short coastal turf around the lighthouse and the coastal cliffs was however of less interest.

Agaricus arvensis
Agaricus urinascens
Arrhenia latispora
Clitocybe dealbata
Collybia butyracea f. butyracea
Cystoderma amianthinum
Dermoloma cuneifolium var. cuneifolium

Entoloma conferendum
Entoloma papillatum
Hygrocybe aurantiosplendens
Hygrocybe calyptriformis
Hygrocybe cantharellus
Hygrocybe ceracea
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe conica var. conica
Hygrocybe fornicata
Hygrocybe insipida
Hygrocybe irrigata
Hygrocybe laeta var. flava
Hygrocybe laeta var. laeta
Hygrocybe miniata
Hygrocybe mucronella
Hygrocybe nitrata
Hygrocybe persistens var. persistens
Hygrocybe pratensis
Hygrocybe psittacina var. psittacina
Hygrocybe punicea
Hygrocybe quieta
Hygrocybe reidii
Hygrocybe russocoriacea
Hygrocybe splendidissima
Hygrocybe virginea var. ochraceopallida
Hygrocybe virginea var. virginea
Lepista nuda
Lepista panaeola
Mycena epipterygia var. epipterygia
Omphalina ericetorum
Panaeolus acuminatus
Psilocybe coprophila
Psilocybe semilanceata
Stropharia pseudocyanea
Stropharia semiglobata
Tricholomopsis rutilans
Clavulinopsis corniculata
Clavulinopsis fusiformis
Clavulinopsis laeticolor
Steccherinum ochraceum
Tremella mesenterica
Bovista plumbea
Lycoperdon nigrescens
Cordyceps militaris
Geoglossum atropurpureum
Geoglossum fallax
Geoglossum glutinosum
Leptosphaeria acuta
Microglossum olivaceum
Rhopographus filicinus
Trichoglossum walteri
Trochila ilicina
Phragmidium violaceum

L69

Sites Searched: Ashleam Bay, Dooega RC Church, Sisters of Mercy Church, Achill Sound

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

Interest is restricted to drier areas of coastal grassland as much of the upland is too wet and boggy.

Grassland Target Species Recorded

Clavaria fragilis
Entoloma conferendum
Geoglossum fallax
Hygrocybe aurantiosplendens
Hygrocybe coccinea
Hygrocybe insipida
Hygrocybe laeta var. laeta
Hygrocybe pratensis
Hygrocybe psittacina var. psittacina
Hygrocybe russocoriacea
Hygrocybe virginea var. virginea

Site Details:

Site: *Ashleam Bay*

Date Visited: 07/11/2008 **GridRef:** L688963

H: 7 **C:** 1 **E:** 1 **G** 1 **O:** 0 **IrishScore:** 9

The area searched was limited to the disturbed ground around the road that steeply switchbacks down to Ashleam. Most of the surrounding habitat is bog so the possible areas of fruiting is quite restricted. As the road is built up on rubble on the coastal side, this has led to good areas of dry grassland. Likely to have some more species but unlikely to be a significant site.

Entoloma conferendum
Hygrocybe aurantiosplendens
Hygrocybe insipida
Hygrocybe laeta var. laeta
Hygrocybe pratensis
Hygrocybe psittacina var. psittacina
Hygrocybe russocoriacea
Hygrocybe virginea var. virginea
Stropharia semiglobata
Geoglossum fallax

Site: *Dooega RC Church*

Date Visited: 07/11/2008 **GridRef:** L674995

H: 4 **C:** 0 **E:** 0 **G** 0 **O:** 0 **IrishScore:** 4

A small area of lawn potentially holding a few more species of waxcap.

Hygrocybe coccinea
Hygrocybe insipida
Hygrocybe pratensis
Hygrocybe virginea var. virginea

Site Details:

Site: *Sisters of Mercy Church, Achill Sound*

Date Visited: 26/10/2008 **GridRef:** F734996

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

A small churchyard with the notable find of *Clavaria fragilis*. This indicates that more species of interest are likely to be found.

Clitocybe fragrans
Hygrocybe russocoriacea
Hygrocybe virginea var. virginea
Clavaria fragilis

L78

Sites Searched: Clare Island

Hygrocybe: 13 ***Clavariaceae*** 1 ***Entolomaceae:*** 0 ***Geoglossaceae:*** 1 ***Others:*** 0

This square consists of the eastern quarter of Clare Island. The sandhills and hill at Carrowmore on the mainland could be possible sites.

Grassland Target Species Recorded

Clavulinopsis corniculata
Geoglossum fallax
Hygrocybe calyptriformis
Hygrocybe ceracea
Hygrocybe chlorophana
Hygrocybe conica var. conica
Hygrocybe insipida
Hygrocybe laeta var. laeta
Hygrocybe persistens var. persistens
Hygrocybe pratensis
Hygrocybe psittacina var. psittacina
Hygrocybe punicea
Hygrocybe quieta
Hygrocybe russocoriacea
Hygrocybe virginea var. virginea

Site Details: See under L68

L79

Sites Searched: Cloghmore, Pollemanduff RC Church

Hygrocybe: 9 ***Clavariaceae*** 0 ***Entolomaceae:*** 1 ***Geoglossaceae:*** 2 ***Others:*** 0

The coastal grassland and slopes to the west of Cloghmore were interesting for waxcaps. Other possible sites not visited were Corraun dunes and in particular Achill Beg Island.

Grassland Target Species Recorded

Entoloma conferendum
Geoglossum atropurpureum
Geoglossum glutinosum
Hygrocybe cantharellus
Hygrocybe chlorophana
Hygrocybe coccinea

Hygrocybe conica var. conica
Hygrocybe insipida
Hygrocybe pratensis
Hygrocybe psittacina var. psittacina
Hygrocybe russocoriacea
Hygrocybe virginea var. virginea

Site Details:

Site: *Cloghmore*

Date Visited: 07/11/2008 **GridRef:** L707937

H: 9 **C:** 1 **E:** 1 **G** 2 **O:** 0 **IrishScore:** 13

An interesting area of acid grassland on the steep rocky slopes above the road. The short turf on the coastal strip below the road was also good so this mixture leads to a site that is worth another visit. Likely to hold a number more species.

Entoloma conferendum
Hygrocybe cantharellus
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe conica var. conica
Hygrocybe insipida
Hygrocybe pratensis
Hygrocybe psittacina var. psittacina
Hygrocybe russocoriacea
Hygrocybe virginea var. virginea
Panaeolus acuminatus
Stropharia semiglobata
Cordyceps militaris
Geoglossum atropurpureum
Geoglossum glutinosum

Site: *Pollemanduff RC Church*

Date Visited: 07/11/2008 **GridRef:** L726960

H: 2 **C:** 0 **E:** 0 **G** 0 **O:** 0 **IrishScore:** 2

A small area of lawn potentially holding a few more species of waxcap.

Hygrocybe conica var. conica
Hygrocybe russocoriacea
Panaeolus acuminatus

L86

Sites Searched: Skirragohiffern (Ben Gorm), Delphi Lodge and Ben Creggan

Hygrocybe: 6 ***Clavariaceae*** 0 ***Entolomaceae:*** 0 ***Geoglossaceae:*** 0 ***Others:*** 0

Mostly high peaks, bog or forestry. The difficult task is to find drier mineral soils and the river sides where boulders and stones at the river sides mean the turf is freely draining.

Grassland Target Species Recorded

Hygrocybe chlorophana
Hygrocybe glutinipes var. glutinipes
Hygrocybe laeta var. laeta
Hygrocybe punicea

Hygrocybe reidii
Hygrocybe virginea var. virginea

Site Details:

Site: *Ben Creggan*

Date Visited: 27/10/2008 **GridRef:** L863676

H: 3 **C:** 0 **E:** 0 **G** 0 **O:** 0 **IrishScore:** 6

The sides of a river descending from Ben Creggan were searched. Again the turf was freer draining as it covered boulders and stones washed down by the stream. The presence of *H.punicea* indicated that these slopes may hold more species but it is unlikely to be a significant site.

Hygrocybe chlorophana
Hygrocybe laeta var. laeta
Hygrocybe punicea

Site: *Delphi Lodge*

Date Visited: 27/10/2008 **GridRef:** L845661

H: 2 **C:** 0 **E:** 0 **G** 0 **O:** 0 **IrishScore:** 2

This grand fishing lodge has a large lawn stretching down to Fin Lough. However, the lawn is very wet and looks reseeded. No waxcaps were found on the lawn but *H.reidii* and *H.virginea* were found in the wood fruiting amongst mosses.

Clitocybe nebularis
Collybia butyracea f. butyracea
Cortinarius obtusus
Cortinarius umbrinolens
Gymnopilus junonius
Hygrocybe reidii
Hygrocybe virginea var. virginea
Laccaria amethystina
Laccaria laccata
Russula fellea
Russula fragilis
Russula nigricans
Russula silvestris
Stropharia semiglobata
Clavulina coralloides
Clavulina rugosa
Hydnum repandum
Piptoporus betulinus
Trametes versicolor
Rhytisma acerinum
Xylaria hypoxylon
Phragmidium violaceum

Site: *Skirragohiffern, Ben Gorm*

Date Visited: 27/10/2008 **GridRef:** L875630

H: 3 **C:** 0 **E:** 0 **G** 0 **O:** 0 **IrishScore:** 2

The steep slopes to the right of the road directly above Killary Harbour were searched. Scattered bracken indicated that these slopes were not as wet but the waxcap interest was still only minimal. The notable ascomycete, *Onygena equina*, fruiting on a sheep horn was found at its second site on this survey.

Hygrocybe glutinipes var. glutinipes
Hygrocybe laeta var. laeta
Hygrocybe virginea var. virginea
Mycena epipterygia var. epipterygia
Omphalina ericetorum
Onygena equina
Rhopographus filicinus

L89

Sites Searched: Mulranny machair, Dooghill

Hygrocybe: 12 ***Clavariaceae*** 1 ***Entolomaceae:*** 1 ***Geoglossaceae:*** 1 ***Others:*** 0

Mulranny machair is likely to be the best site in this square. The church in Mulranny was visited but had no grass at all. The small fields at Dooghill were of moderate interest and are unlikely to be much better. Some of the steeper slopes of Claggan Mountain may be of interest but these were not searched.

Grassland Target Species Recorded

Clavulinopsis corniculata
Entoloma rhombisporum
Geoglossum cookeanum
Hygrocybe cantharellus
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe conica var. conicoides
Hygrocybe insipida
Hygrocybe laeta var. laeta
Hygrocybe mucronella
Hygrocybe persistens var. persistens
Hygrocybe pratensis
Hygrocybe psittacina var. perplexa
Hygrocybe psittacina var. psittacina
Hygrocybe russocoriacea
Hygrocybe virginea var. fuscescens
Hygrocybe virginea var. ochraceopallida
Hygrocybe virginea var. virginea

Site Details:

Site: *Dooghill, Bellacragher Bay*

Date Visited: 03/11/2008 **GridRef:** L821986

H: 5 **C:** 0 **E:** 0 **G** 0 **O:** 0 **IrishScore:** 5

A small rocky bit of land projecting out into Bellacragher Bay grazed by sheep and partially covered by bracken. Huge amounts of *Hygrocybe laeta* indicating high acidity. *H.laeta var flava* was also present. Other species were only occasional.

Hygrocybe laeta var. flava
Hygrocybe laeta var. laeta
Hygrocybe pratensis
Hygrocybe psittacina var. psittacina
Hygrocybe russocoriacea
Hygrocybe virginea var. virginea
Mycena epipterygia var. epipterygia

Site: *Mulranny machair*

Date Visited: 29/10/200 **GridRef:** L840960

H: 11 **C:** 1 **E:** 1 **G** 1 **O:** 0 **IrishScore:** 13

The golf links and adjacent enclosed dune grassland are consistently good for waxcaps with fruiting all over the site. Of note was the dominance of *Hygrocybe virginea* with all its varieties. 14 species of Hygrocybe have been recorded by Roland McHugh here in the past along with 10 species of Entoloma. Only *Entoloma rhombisporum* was found but then they tend to fruit earlier in the season. One extra species (*H.mucronella*) were added to the lists generated from earlier visits.

Clitocybe dealbata
Entoloma rhombisporum
Hygrocybe cantharellus
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe conica var. conicoides
Hygrocybe insipida
Hygrocybe mucronella
Hygrocybe persistens var. persistens
Hygrocybe pratensis
Hygrocybe psittacina var. perplexa
Hygrocybe psittacina var. psittacina
Hygrocybe russocoriacea
Hygrocybe virginea var. fuscescens
Hygrocybe virginea var. ochraceopallida
Hygrocybe virginea var. virginea
Lepista nuda
Melanoleuca polioleuca f. polioleuca
Panaeolus acuminatus
Clavulinopsis corniculata
Bovista nigrescens
Handkea utriformis
Geoglossum cookeanum
Mucilago crustacea

L96

Sites Searched: Erriff (Maumtrasna) and Devil's Mother

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

The upland slopes of Maumtrasna and Devil's Mother are likely to be the best sites but are so wet that finding areas of drier mineral soils that have not be agriculturally improved is difficult. Initially I thought the steep slopes above Lough Glenawough could be interesting but the steep slopes of Ailebaun proved so fruitless that these were not searched.

Grassland Target Species Recorded

Clavaria fragilis
Entoloma conferendum
Entoloma sericeum
Geoglossum fallax
Hygrocybe cantharellus
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe conica var. conica
Hygrocybe laeta var. laeta
Hygrocybe pratensis
Hygrocybe psittacina var. psittacina
Hygrocybe punicea

Hygrocybe reidii
Hygrocybe splendidissima
Hygrocybe virginea var. virginea

Site Details:

Site: *Devil's Mother*

Date Visited: 27/10/2008 **GridRef:** L915649

H: 4 **C:** 0 **E:** 0 **G** 0 **O:** 0 **IrishScore:** 4

The north western face of the Devil's Mother is very steep and grassy. The grassy slopes themselves had no species of interest at all probably because they are too wet. Sphagnum is a major component of the sward. The only place that the waxcaps were found was on the lusher green turf flanking the rivers coming down off the face. The sward here covers the stones and boulders washed down by the rivers and hence is more free draining and it is this habitat that is likely to be of most interest in these mountains. The species found include *H.laeta* and *H.cantharellus* which are typical of very acid ground. The notable species found was *Onygena equina*, an ascomycete fruiting on a the horns of a sheep skull.

Hygrocybe cantharellus
Hygrocybe chlorophana
Hygrocybe laeta var. laeta
Hygrocybe pratensis
Mycena epipterygia var. epipterygia
Mycena flavoalba
Onygena equina
Rhopographus filicinus

Site: *Erriff, Maumtrasna*

Date Visited: 27/10/2008 **GridRef:** L977696

H: 10 **C:** 1 **E:** 2 **G** 1 **O:** 0 **IrishScore:** 17

Initially, the steep slopes surrounding Lough Glenawough were the target for this day. However, it soon turned out that the highest fields before the bog started on the slopes leading up to the corrie in which Lough Glenawough sits were the most interesting areas. The lower field had received fertiliser and was not interesting but the upper field was a mixture of grassland and bog with some attempts made at drainage. As this was marginal land, no fertiliser appears to have been added so the waxcap interest was good. *Clavaria fragilis* was particularly abundant. It is however restricted in area due to the mosaic with bog. Above this field, the slopes are mainly blanket bog or very wet acid grassland in which sphagnum is a major constituent of the sward. When the acid grassland is so wet, waxcap interest is marginal and it was only on areas of grassy boulder fields where drainage is better that any waxcaps were found. The high slopes of Ailebaun were searched but nothing was found and it was decided not to continue over difficult bog to Lough Glenawough.

Cystoderma amianthinum
Entoloma conferendum
Entoloma sericeum
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe conica var. conica
Hygrocybe laeta var. laeta
Hygrocybe pratensis
Hygrocybe psittacina var. psittacina
Hygrocybe punicea

Hygrocybe reidii
Hygrocybe splendidissima
Hygrocybe virginea var. virginea
Mycena epipterygia var. epipterygia
Mycena pura var. pura
Paxillus involutus
Tricholomopsis rutilans
Clavaria cf argillacea
Clavaria fragilis
Stereum hirsutum
Trametes versicolor
Geoglossum fallax

L97

Sites Searched: Cushlough Church (Derryilra)

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

Mostly bog, forestry or intensive agriculture. Unlikely to have good sites with the best possible area (not visited) being the upper fields above Rooghaun.

Grassland Target Species Recorded

Geoglossum glutinosum

Site Details:

Site: *Cushlough Church, Derryilra*

Date Visited: 27/10/2008 **GridRef:** L967723

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

Very well kept, well wooded church grounds surrounded by blanket bog. Waxcaps should be present but none were found. The soils are maybe too acid.

Armillaria gallica
Lactarius torminosus
Paxillus involutus
Russula exalbicans
Tricholoma fulvum
Clavulina coralloides
Geoglossum glutinosum
Xylaria hypoxylon

L98

Sites Searched: Bartraw Strand, Westport House, Killameena Church

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

It was thought that Westport House would be the prime site in this square but unfortunately the terraces surrounding the house were gravel and the lower lawns had been reseeded so there were no species of interest. Neither of the Westport churches had any associated lawn and this left natural sites of which Bartraw Strand was the best. Sruffanbaun Strand is another possibility but was not visited.

Grassland Target Species Recorded

Entoloma serrulatum
Geoglossum cookeanum
Trichoglossum hirsutum
Hygrocybe conica var. conicoides
Hygrocybe virginea var. ochraceopallida

Site Details:

Site: *Bartraw Strand*

Date Visited: 24/10/2008 **GridRef:** L907835

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

A tombolo linking Bartraw Island to the mainland. A very thin line of marram dominated dunes is built on a shingle beach with no room for significant dune grassland on most of the tombolo. The best areas are a small area of fixed grassland at the car park and Bartraw Island itself. Unfortunately time restrictions (going for the Clare ferry which was cancelled) meant that the island itself was not significantly searched. It is dominated by marram with little fixed grassland so is unlikely to be a significant site. The interesting record was that of *Amarenomyces ammophilae* which was found on Marram.

Entoloma serrulatum
Hygrocybe conica var. conicoides
Hygrocybe virginea var. ochraceopallida
Melanoleuca cinereifolia
Panaeolina foenisecii
Amarenomyces ammophilae
Geoglossum cookeanum
Puccinia poarum

Site: *Killameena Church*

Date Visited: 08/11/2008 **GridRef:** L964893

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

A small area of lawn of marginal interest

Hygrocybe chlorophana

Geoglossum fallax

Site: *Westport House*

Date Visited: 25/10/2008 **GridRef:** L987945

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

A very disappointing site in that the terraces around the house are gravel and the lower lawn appears to be reseeded and contained no species of interest. The notable species in the woodland were that of *Phaeolepiota aurea* and of the ascomycete *Diaporthe samaricola* on fallen ash keys.

Armillaria mellea
Coprinus atramentarius
Coprinus comatus
Coprinus micaceus
Hebeloma mesophaeum
Hypholoma fasciculare
Laccaria laccata
Lacrymaria lacrymabunda
Mycena vitilis
Phaeolepiota aurea
Tricholoma scalpturatum
Piptoporus betulinus
Stereum hirsutum
Trametes versicolor
Lycoperdon pyriforme
Diaporthe samaricola

Helvella crispa
Rhytisma acerinum
Rhytisma salicinum
Taphrina alni
Trichoglossum hirsutum

L99

Sites Searched: St Patrick's Church (Newport), Doontrusk, Tawnamartola

Hygrocybe: 18 ***Clavariaceae*** 2 ***Entolomaceae:*** 2 ***Geoglossaceae:*** 3 ***Others:*** 0

The best areas in this square are in the upland north especially on the steep grass covered scree slopes on the south west of Buckoogh. Grassy edges to roads is unnatural habitat but being well drained, they also offer waxcap habitat as the roads cross the bogs. The rest of the square is predominantly a lowland square with little semi-natural grassland. Churches and estate lawns are likely to be the best sites.

Grassland Target Species Recorded

Clavulinopsis corniculata
Clavulinopsis fusiformis
Entoloma conferendum
Entoloma poliopus var. poliopus
Geoglossum fallax
Geoglossum umbratile
Trichoglossum hirsutum
Hygrocybe aurantiosplendens
Hygrocybe ceracea
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe conica var. conica
Hygrocybe glutinipes var. glutinipes
Hygrocybe insipida
Hygrocybe irrigata
Hygrocybe laeta var. laeta
Hygrocybe mucronella
Hygrocybe pratensis
Hygrocybe psittacina var. psittacina
Hygrocybe punicea
Hygrocybe quieta
Hygrocybe reidii
Hygrocybe russocoriacea
Hygrocybe splendidissima
Hygrocybe virginea var. virginea

Site Details:

Site: *Doontrusk*

Date Visited: 28/10/2008 **GridRef:** L960970

H: 7 **C:** 1 **E:** 0 **G** 3 **O:** 0 **IrishScore:** 12

As the small road winds between Furnance Lough and associated adjacent loughs, the road sides are grassy and well drained. Surrounding spots where the ground is covered in natural stone that is grassed over, can be reasonably good for waxcaps and are indeed almost the only site as the surrounding bog is too wet. The habitat is obviously restricted in extent and patchy in waxcap interest. Despite this, the more rarely recorded (possibly overlooked) *H.mucronella* was found along with three different earth tongues.

Cystoderma amianthinum
Hygrocybe conica var. conica
Hygrocybe insipida
Hygrocybe mucronella
Hygrocybe pratensis
Hygrocybe psittacina var. psittacina
Hygrocybe russocoriacea
Hygrocybe virginea var. virginea
Stropharia semiglobata
Clavulinopsis corniculata
Geoglossum fallax
Geoglossum umbratile
Trichoglossum hirsutum

Site: *St Patrick's Church, Newport*

Date Visited: 25/10/2008 **GridRef:** L985940

H: 4 **C:** 0 **E:** 0 **G** 0 **O:** 0 **IrishScore:** 6

A very restricted area of lawn of marginal interest.

Hygrocybe coccinea
Hygrocybe irrigata
Hygrocybe quieta
Hygrocybe virginea var. virginea
Rhytisma acerinum

Site: *Tawnamartola*

Date Visited: 28/10/2008 **GridRef:** L978992

H: 14 **C:** 1 **E:** 2 **G** 1 **O:** 0 **IrishScore:** 23

The south western slopes of Buckoogh are dry and grassy with significant areas of grassed over scree. The fact that they are well drained means that if the area is unfertilised, the waxcap interest is good and the extent of this site means that this site is likely to a significant waxcap site and well worth more visits.

Cystoderma amianthinum
Entoloma conferendum
Entoloma poliopus var. poliopus
Hygrocybe aurantiosplendens
Hygrocybe ceracea
Hygrocybe chlorophana
Hygrocybe coccinea
Hygrocybe glutinipes var. glutinipes
Hygrocybe laeta var. laeta
Hygrocybe pratensis
Hygrocybe psittacina var. psittacina
Hygrocybe punicea
Hygrocybe quieta
Hygrocybe reidii
Hygrocybe russocoriacea
Hygrocybe splendidissima
Hygrocybe virginea var. virginea
Mycena epipterygia var. epipterygia
Panaeolus acuminatus
Psilocybe semilanceata
Stropharia semiglobata
Clavulinopsis fusiformis
Cordyceps militaris

Geoglossum fallax
Melampsoridium betulinum

M08

Sites Searched: Fahy Church

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

This square is unlikely to be of interest being dominated agriculture.

Grassland Target Species Recorded

Hygrocybe virginea var. virginea

Site Details:

Site: *Fahy Church*

Date Visited: 08/11/2008 **GridRef:** M017897

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

A small area of lawn of marginal interest

Hygrocybe virginea var. virginea

M09

Sites Searched: Cloondaff RC Church

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

Much of this square is dominated by agriculture and forestry but the steep western slopes of Croaghmoyle would be worth searching.

Grassland Target Species Recorded

Clavulinopsis corniculata
Geoglossum fallax
Hygrocybe ceracea
Hygrocybe virginea var. virginea

Site Details:

Site: *Cloondaff RC Church*

Date Visited: 04/11/2008 **GridRef:** M054998

H: 2 **C:** 1 **E:** 0 **G** 1 **O:** 0 **IrishScore:** 3

A very well maintained church lawn set in mature planted trees. The very notable feature of this site was not grassland species but the hugely rich range of ectomycorrhizal species found for such a small site including the notable (in Irish terms) *Cortinarius purpureus* and *Inocybe cervicolor* .

Amanita rubescens var. rubescens
Clitocybe fragrans
Cortinarius purpureus
Cortinarius stillatitius
Cystoderma amianthinum
Hygrocybe ceracea
Hygrocybe virginea var. virginea

Hygrophorus hypothejus
Inocybe cervicolor
Inocybe geophylla var. lilacina
Laccaria laccata
Lactarius deliciosus
Lactarius mitissimus
Russula sanguinea
Russula xerampelina
Suillus luteus
Clavulina rugosa
Clavulinopsis corniculata
Hydnum repandum
Geoglossum fallax
Puccinia violae

M19

Sites Searched: Castelbar RC Church

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

While much of this square is dominated by agriculture, the hills between Croaghmoyle and Burren could be interesting. The northern slopes of Burren in particular are steep and rocky.

Grassland Target Species Recorded

Hygrocybe virginea var. virginea

Site Details:

Site: *Castelbar RC Church*

Date Visited: 08/11/2008 **GridRef:** M145906

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

A good sized area of grass surrounds the chapel and a bit surprisingly *H.virginea* was the only species of interest found.

Hygrocybe virginea var. virginea

Appendix 3 – Species Atlas

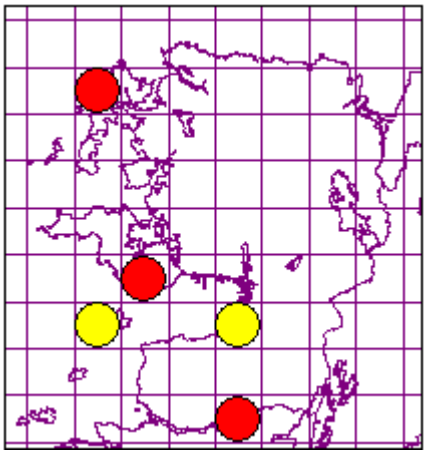
The all Ireland species maps contain records from this survey, the West Cork and Clare Waxcap Surveys, the NI Waxcap Survey, historic Mayo records and other miscellaneous records made by myself or other Northern Ireland Fungus Group members. They are not all inclusive.

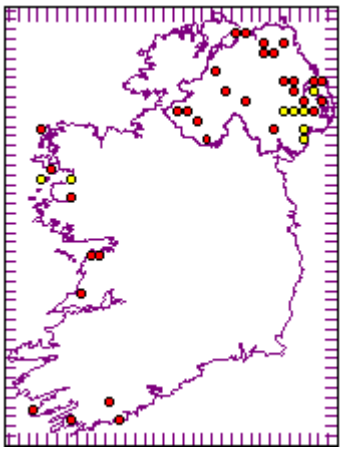
The red dots on the Mayo maps relate to records from this survey. The green dots relate to other recent records since 1990 and yellow dots to records from before 1990. On the Ireland maps, red dots refer to records since 1990 and yellow to records before this.

Grassland Target Species

Clavaria fragilis Holmsk.

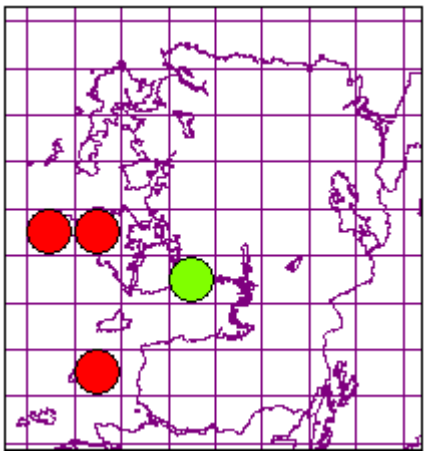
A white Fairy Club often growing in clumps

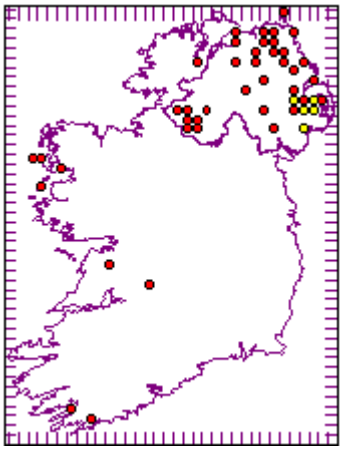




Clavaria fumosa Fr.

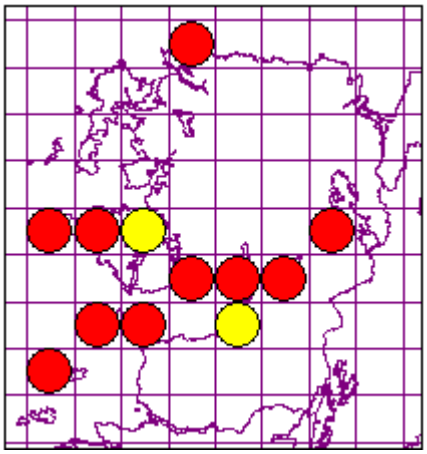
A smoky grey Fairy Club

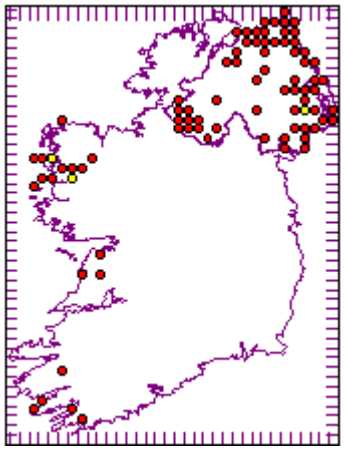




Clavulinopsis corniculata (Fr.) Corner

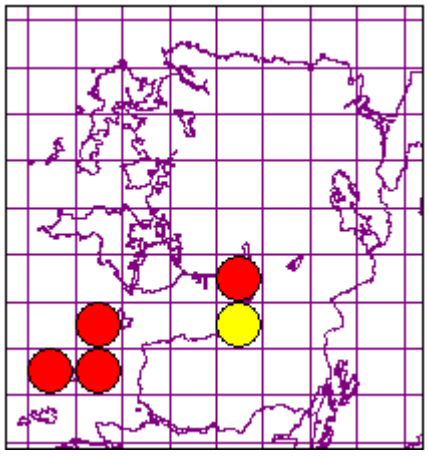
A common coralloid Fairy Club

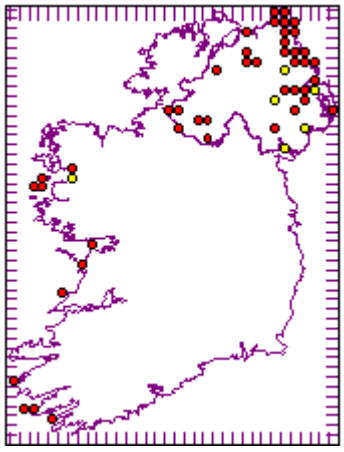




Clavulinopsis fusiformis (Sowerby) Corner

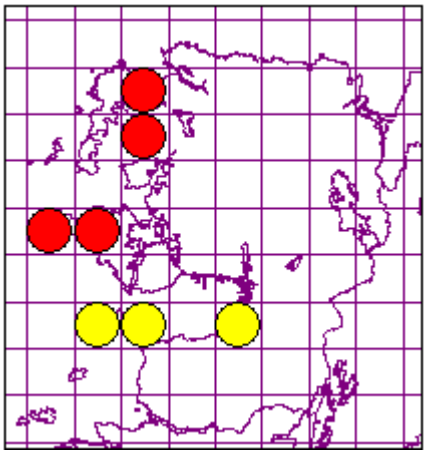
A yellow clumped Fairy Club that is most common in acid grassland

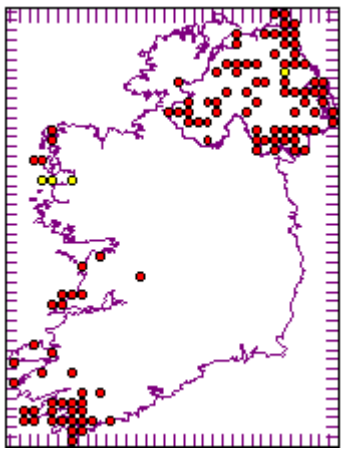




Clavulinopsis helvola (Pers.) Corner

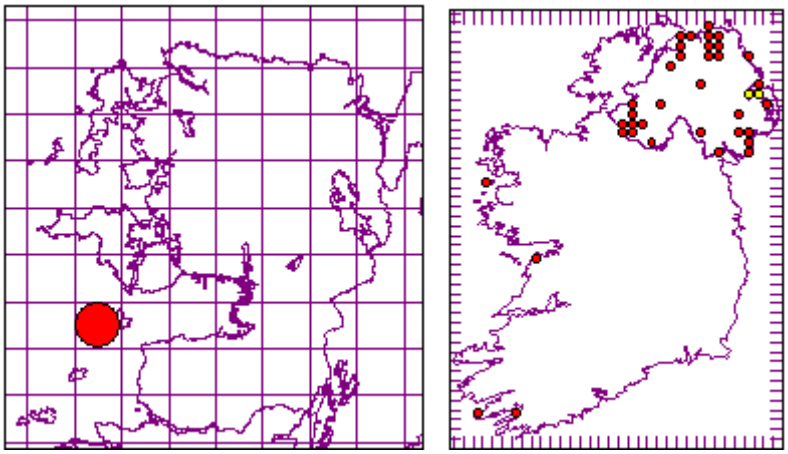
Normally, the most common Fairy Club





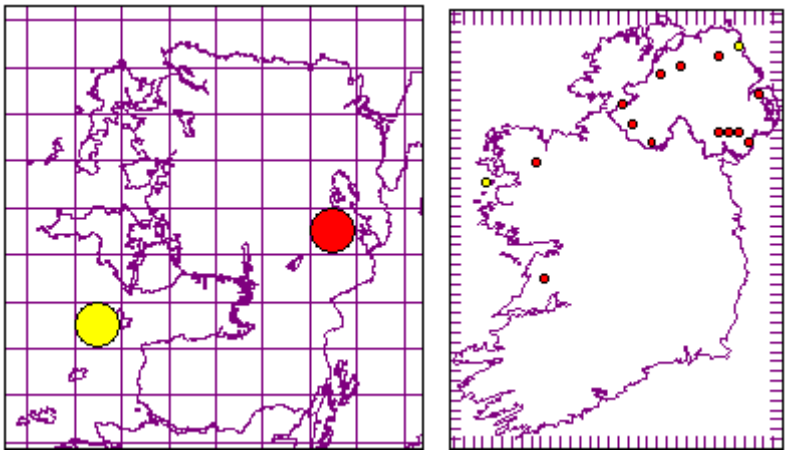
Clavulinopsis laeticolor (Berk. & M.A. Curtis) R.H.

A Fairy Club that needs to be microscopically checked to distinguish from C.luteoalba



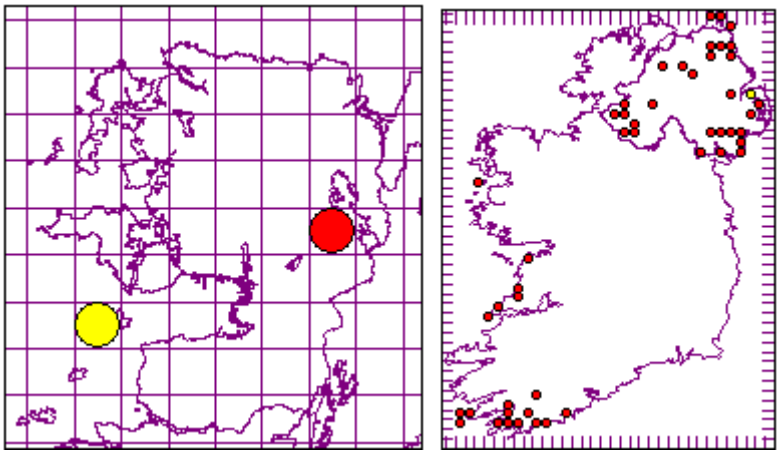
Clavulinopsis umbrinella (Sacc.) Corner

A rarer Fairy Club that appears to be a good indicator of high quality grasslands



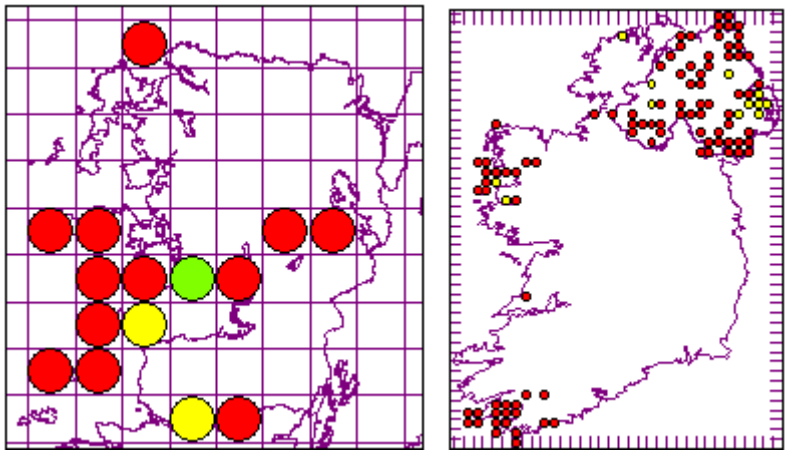
Dermoloma cuneifolium var. cuneifolium (Fr.) Bon

A species found in unfertilised grasslands



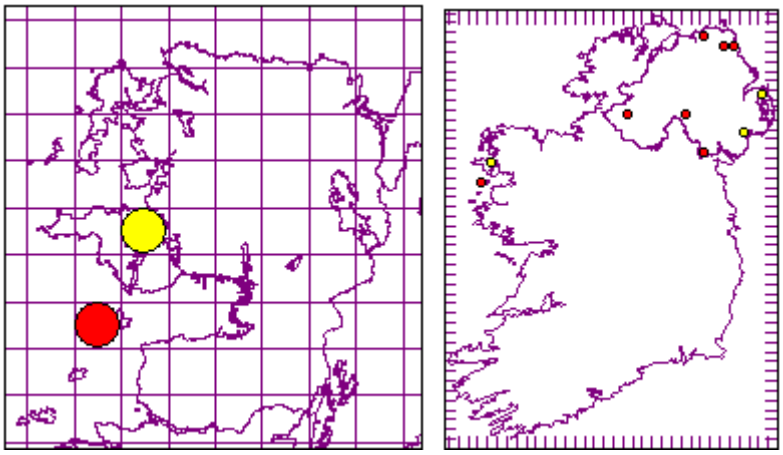
Entoloma conferendum (Britzelm.) Noordel.

A common Entoloma



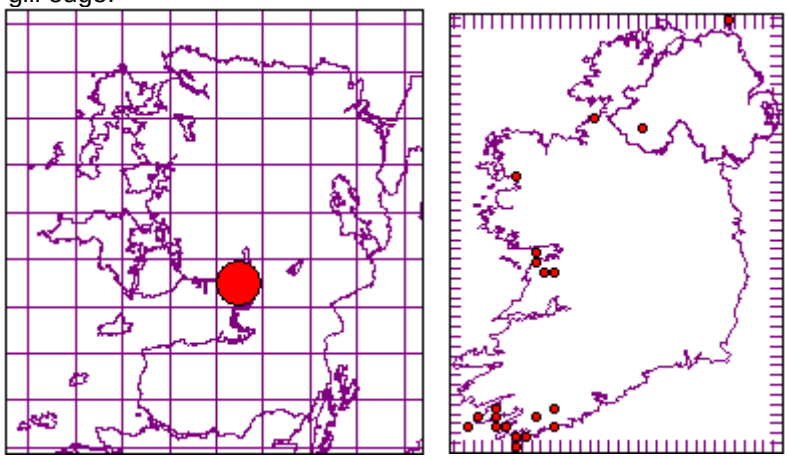
Entoloma papillatum (Bres.) Dennis

One of the difficult Nolanea group



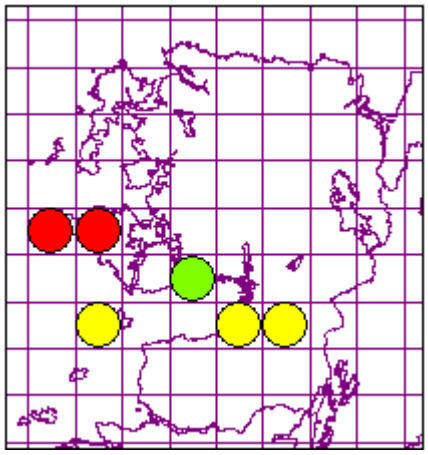
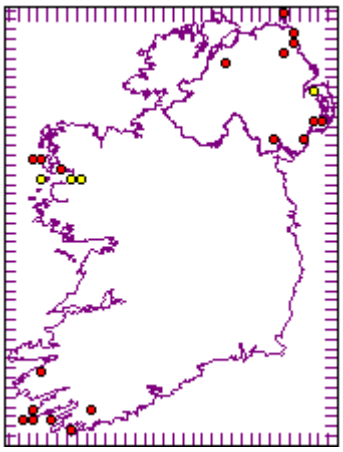
Entoloma poliopus var. poliopus (Romagn.) Noordel.

A relatively common Leptonia in unfertilised grasslands. With a brown cap, blue stipe and sterile gill edge.



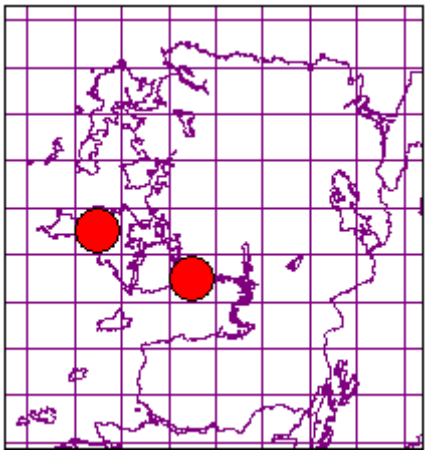
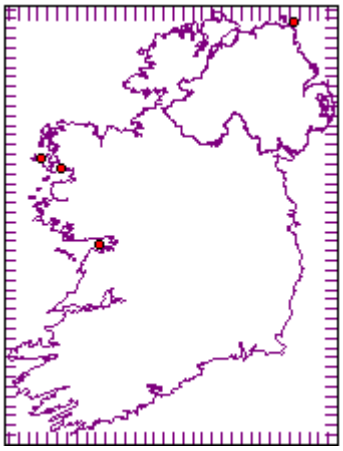
Entoloma prunuloides (Fr.) Quél.

A chunky Entoloma often quite common in grasslands. Can be quite variable but tastes and smells of flour.

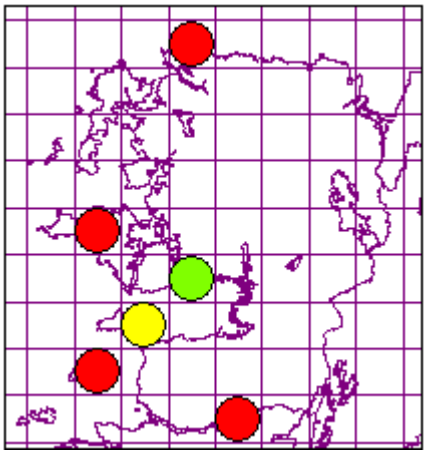
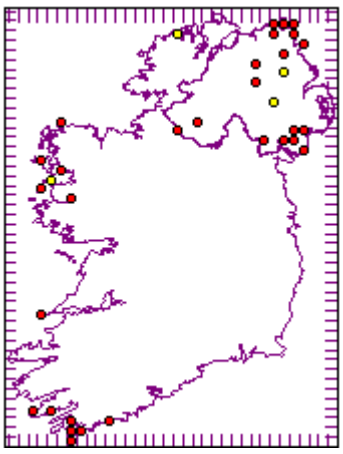
Entoloma rhombisporum (Kühner & Boursier) E. Horak

This species has very distinctive spores

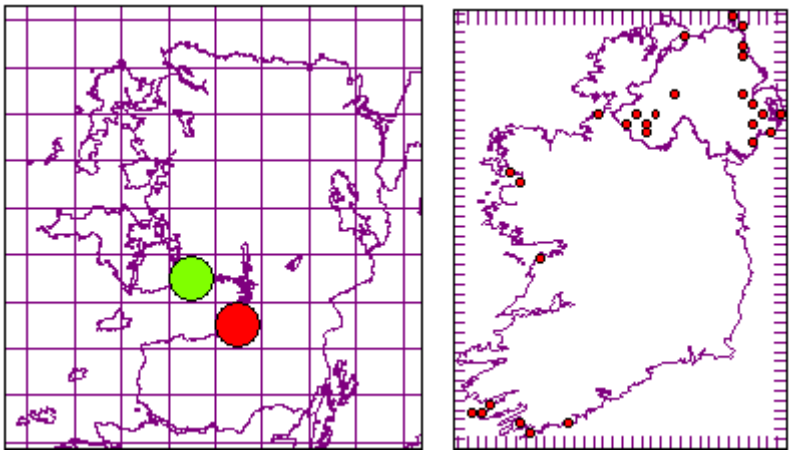
Entoloma sericeum (Bull.) Fr.

A common brown Nolanea

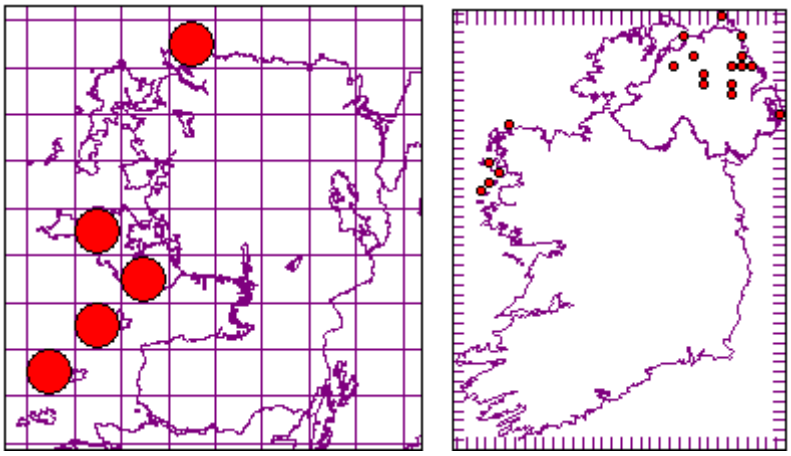
Entoloma serrulatum (Fr.) Hesler

A blue black Leptonia with a black gill margin. Not uncommon.



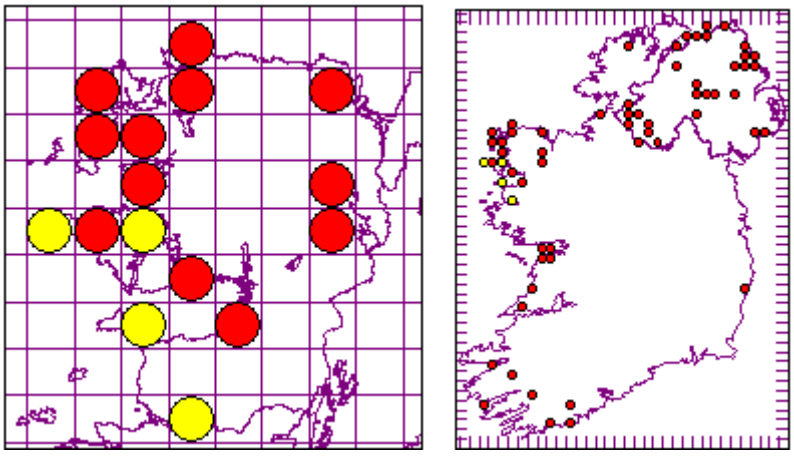
Geoglossum atropurpureum (Batsch) Pers.

A notable species



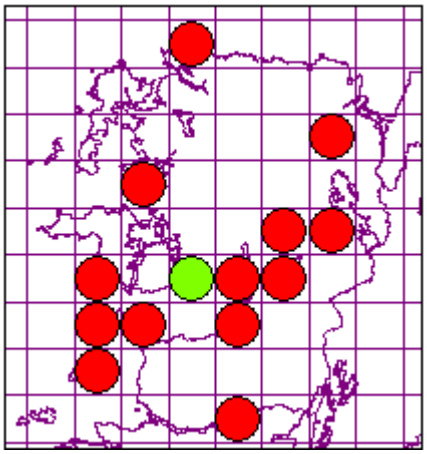
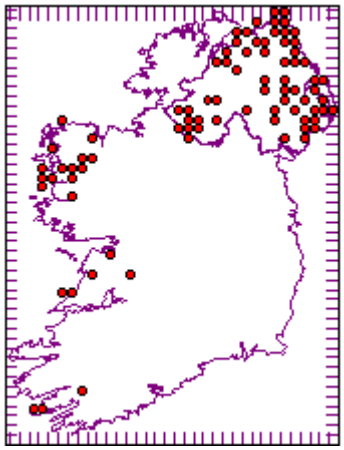
Geoglossum cookeanum Nannf.

Can be the largest species of earth tongue growing to several centimetres tall



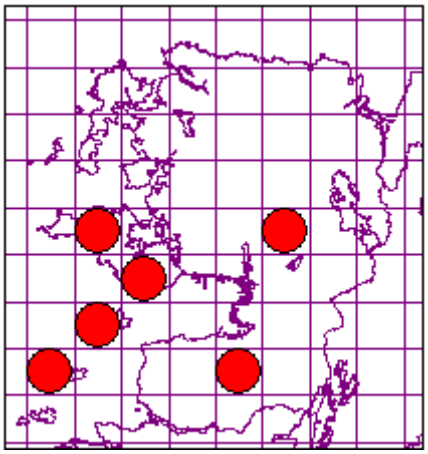
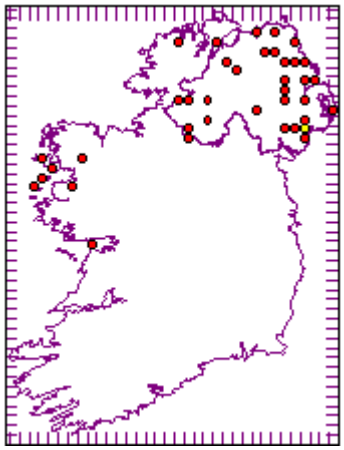
Geoglossum fallax E.J. Durand

The most common earth tongue on acid grassland

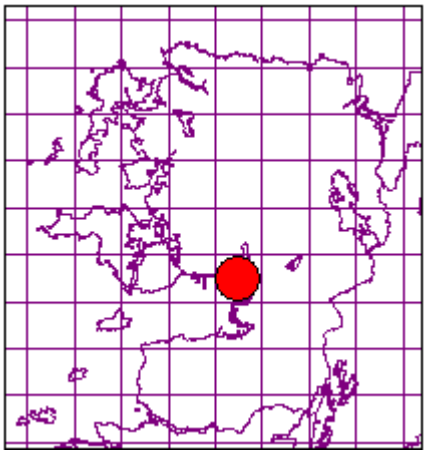
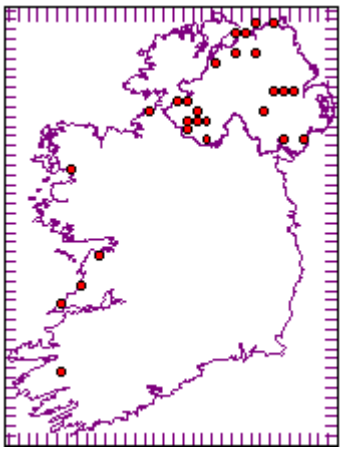
Geoglossum glutinosum Pers.

An earth tongue that is very viscid

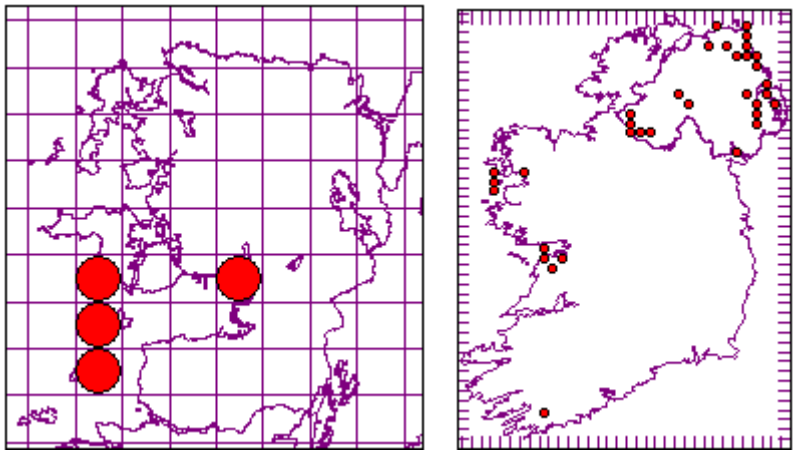
Geoglossum umbratile Sacc.

An earth tongue that can only be identified microscopically

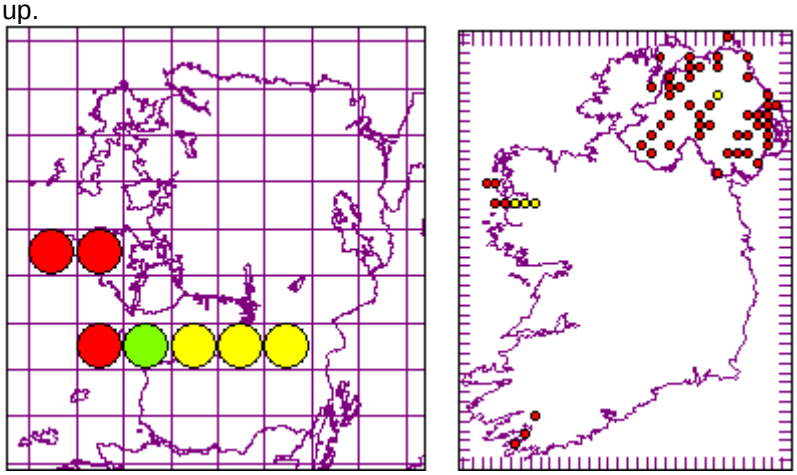
Hygrocybe aurantiosplendens R. Haller Aar.

A rarer waxcap that is often over-recorded. Gill trama should always be checked



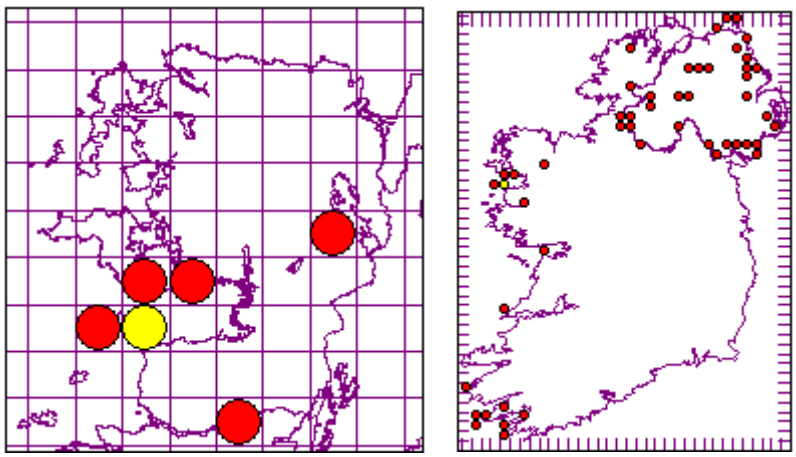
Hygrocybe calyptriformis (Berk. & Broome) Fayod

The flagship species of waxcap. Unmistakable with its pink, conical cap that often splits and curls up.



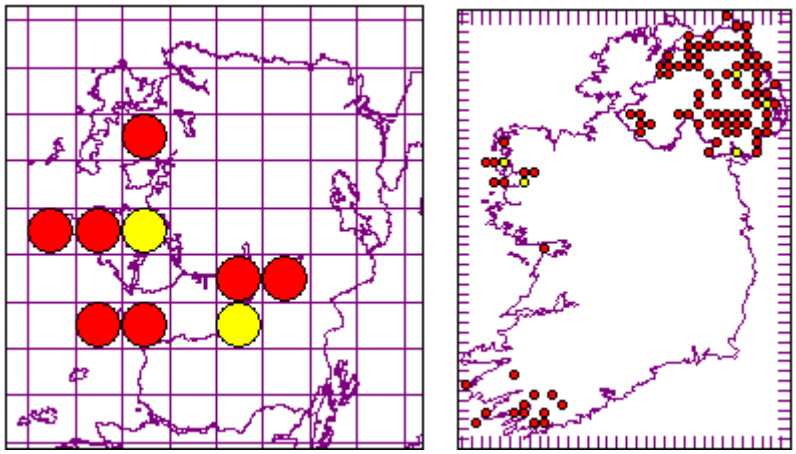
Hygrocybe cantharellus (Schwein.) Murrill

A waxcap usually found in acid grassland. Noted by its dry, red scurfy cap and decurrent gills.



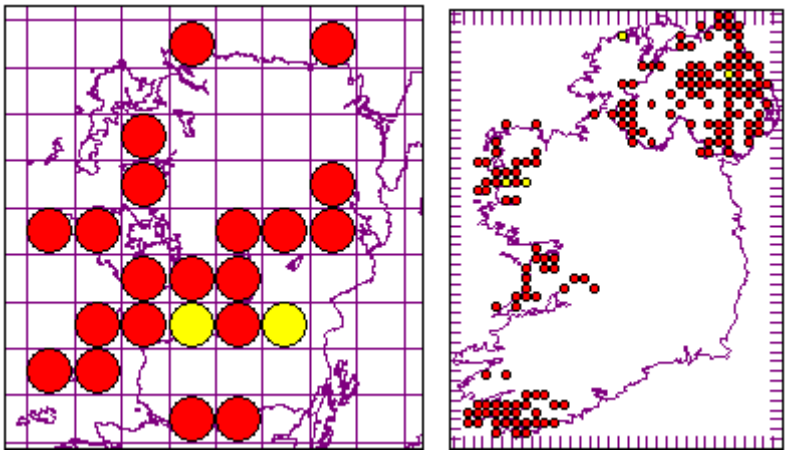
Hygrocybe ceracea (Wulfen) P. Kumm.

A yellow waxcap - not uncommon



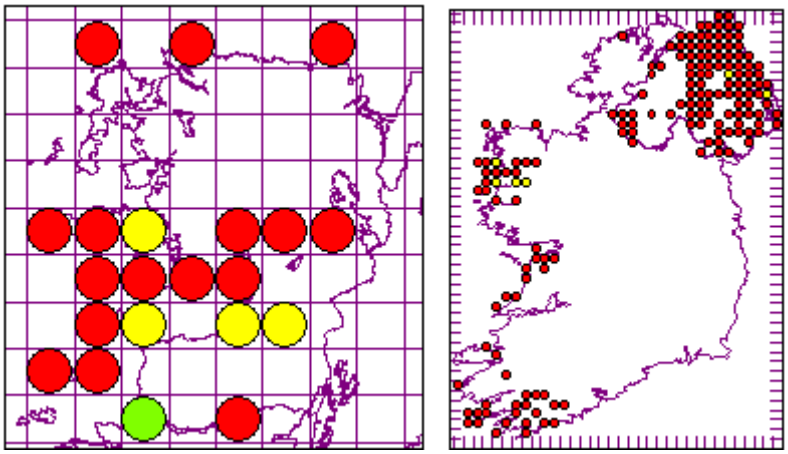
Hygrocybe chlorophana (Fr.) Wünsche

One of the most common waxcaps



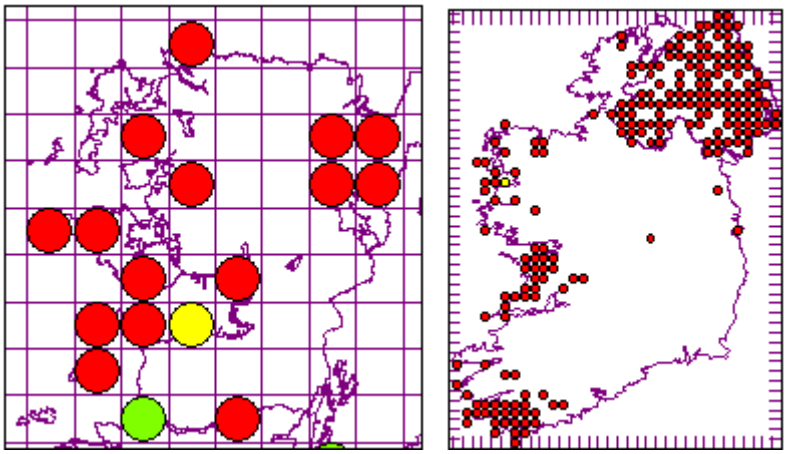
Hygrocybe coccinea (Schaeff.) P. Kumm.

One of the most common red waxcaps



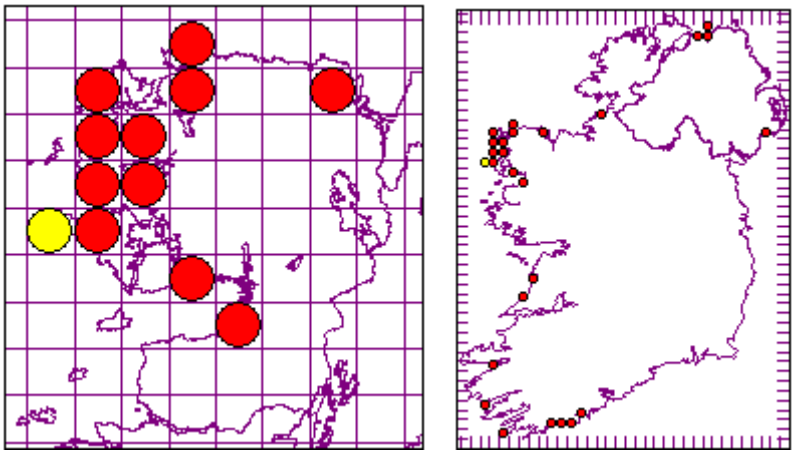
Hygrocybe conica var. conica (Schaeff.) P. Kumm.

Very common blackening waxcap. Very variable but may be more than one species in this group.



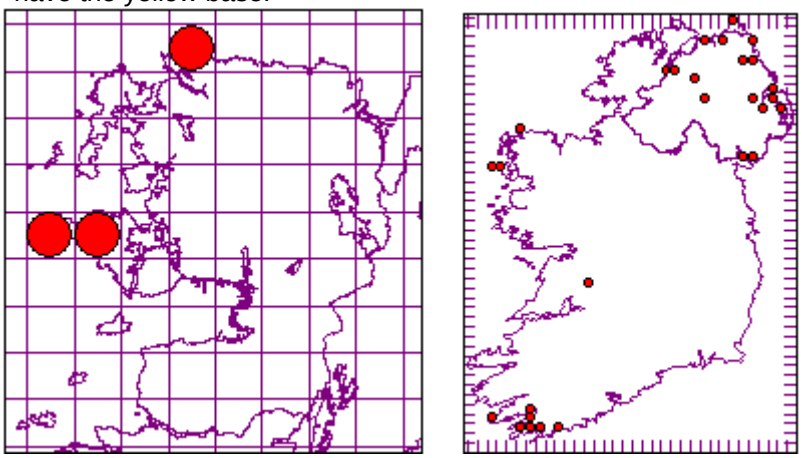
Hygrocybe conica var. conicoides (P.D. Orton) Boertm.

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



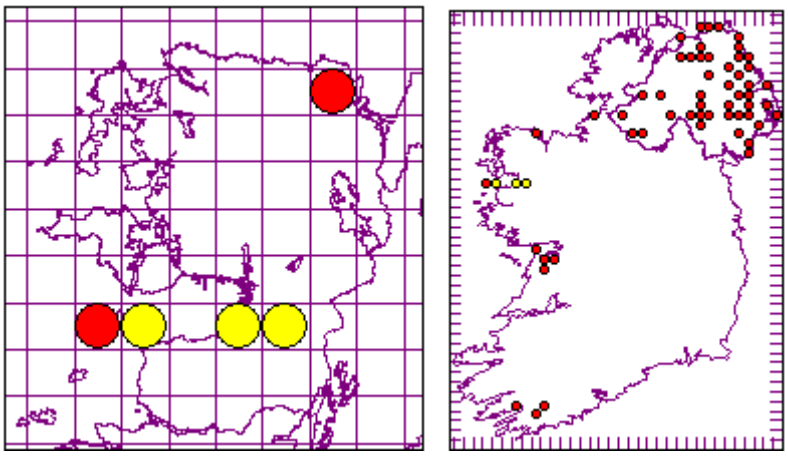
Hygrocybe flavipes (Britzelm.) Arnolds

Grey waxcap with a pale stipe with a yellow base. Look out for the similar H.lacmus that does not have the yellow base.



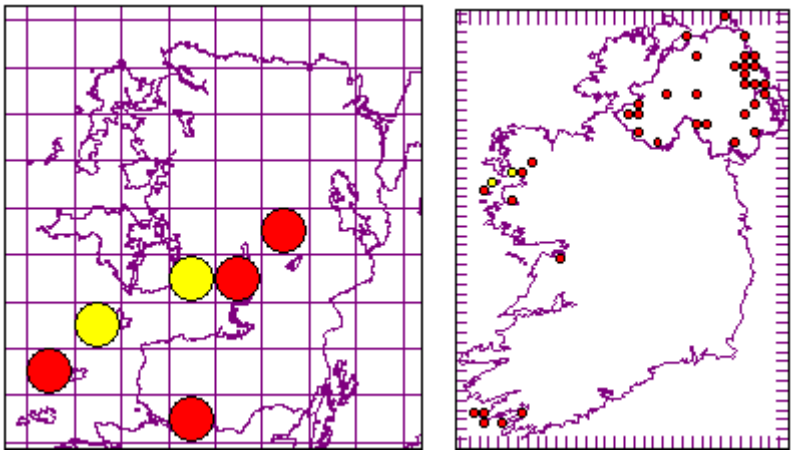
Hygrocybe fornicata (Fr.) Singer

A grey to brown species with ascending gills



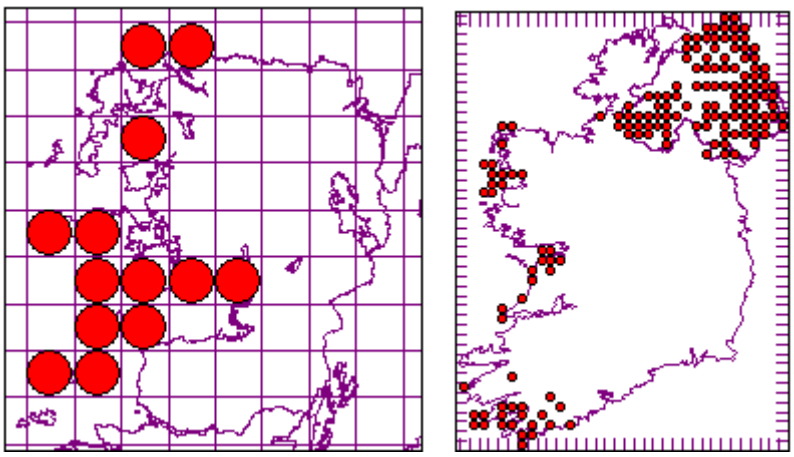
Hygrocybe glutinipes var. glutinipes (J.E. Lange) R. Haller

Very viscid and smaller than H.chlorophana



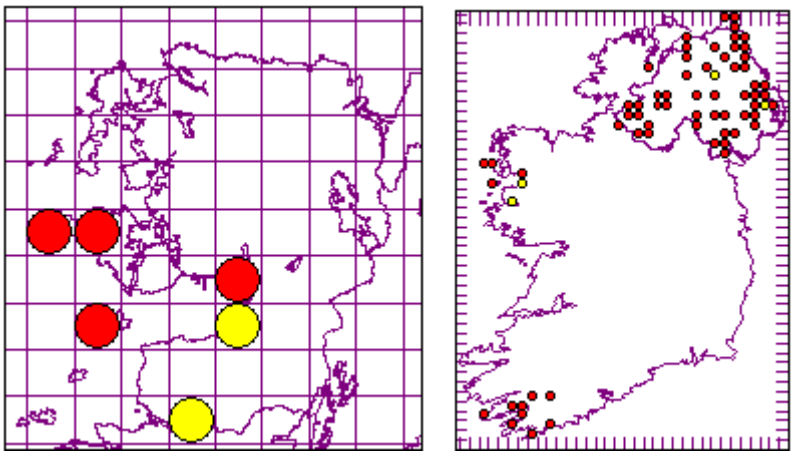
Hygrocybe insipida (Lange ex S. Lundell) M.M. Moser

Very common small viscid waxcap. Often with very red stipe at apex contrasting with yellow gills.



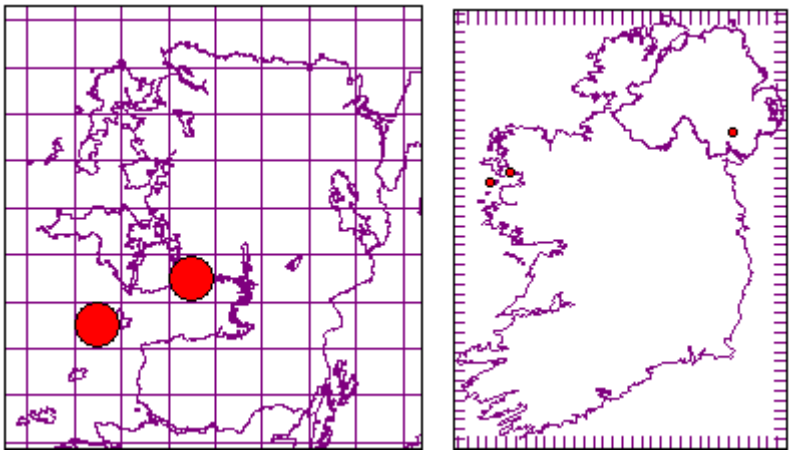
Hygrocybe irrigata (Pers.) M.M. Moser

Grey viscid waxcap surprisingly not found on the Clare survey



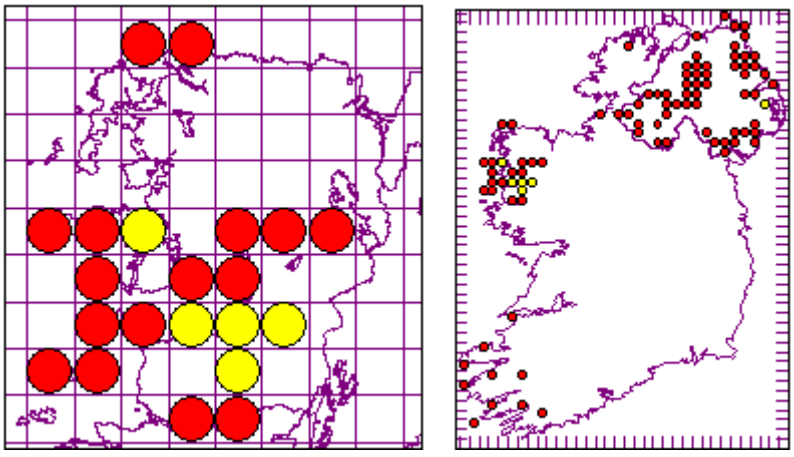
Hygrocybe laeta var. flava Boertm.

A yellow capped variety. Very rarely recorded in Ireland.



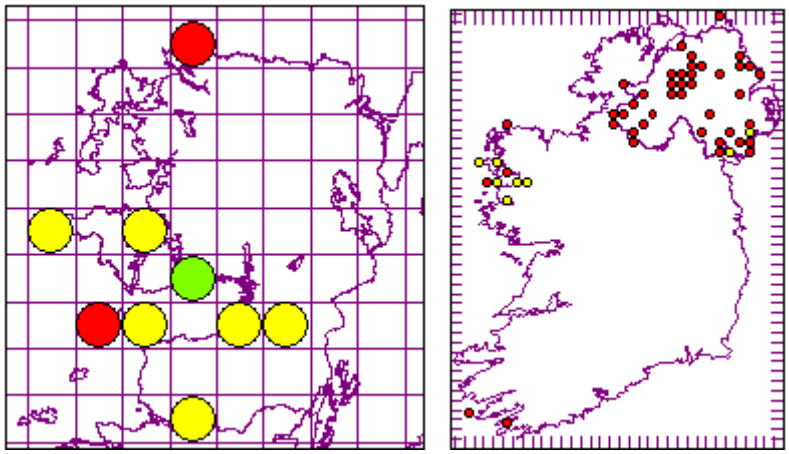
Hygrocybe laeta var. laeta (Pers.) P. Kumm.

Common especially in acid grassland



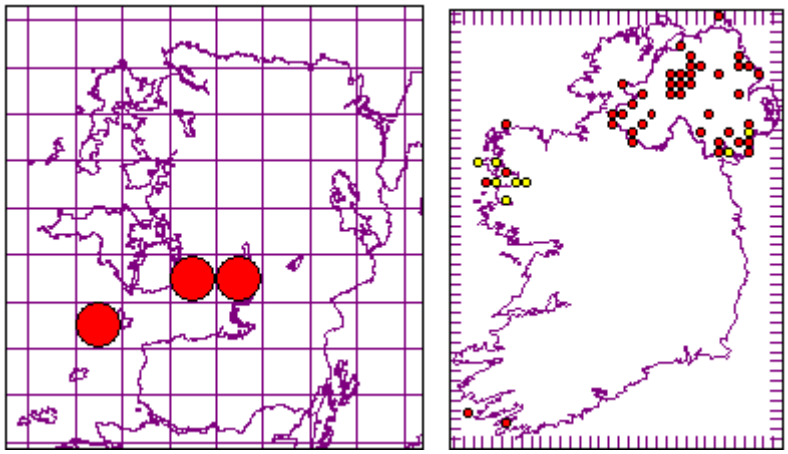
Hygrocybe miniata (Fr.) P. Kumm.

Red, dry, scurfy waxcap with distinctive spores



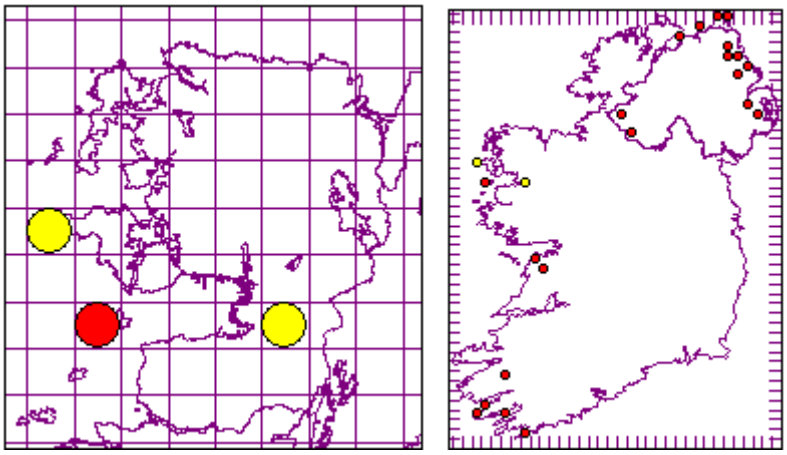
Hygrocybe mucronella (Fr.) P. Karst.

Often overlooked but with a very bitter taste



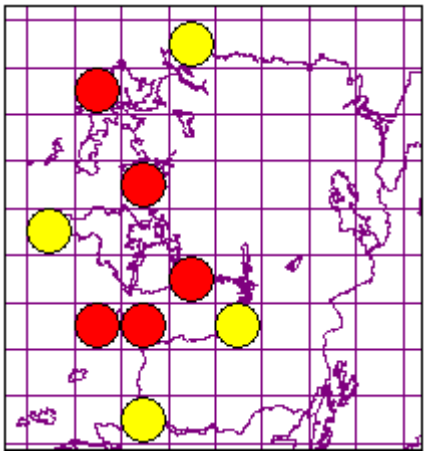
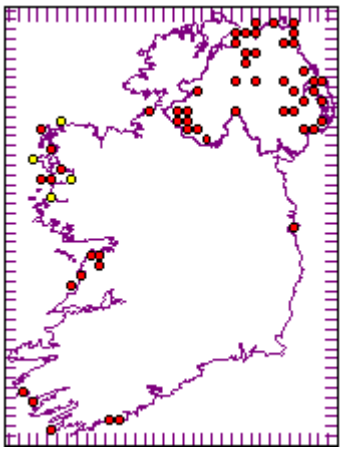
Hygrocybe nitrata (Pers.) Wünsche

One of the more unusual species with a strong nitrous smell



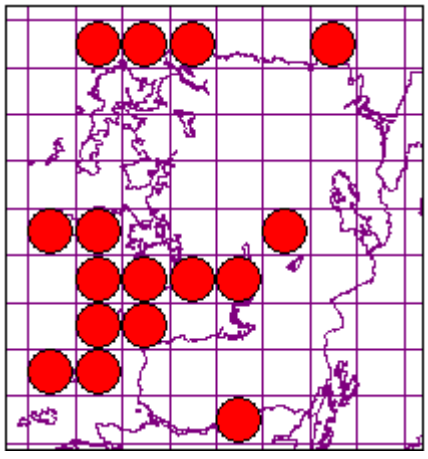
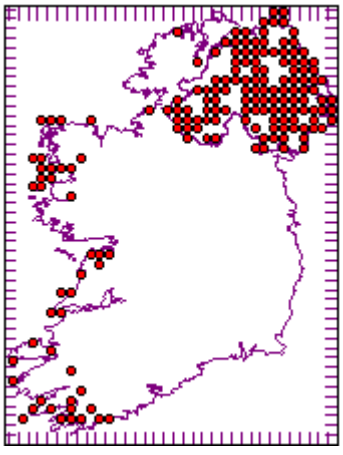
Hygrocybe persistens var. persistens (Britzelm.) Singer

Often confused with H.conica but does not blacken. One of the earlier waxcaps to fruit. Often found in dunes.

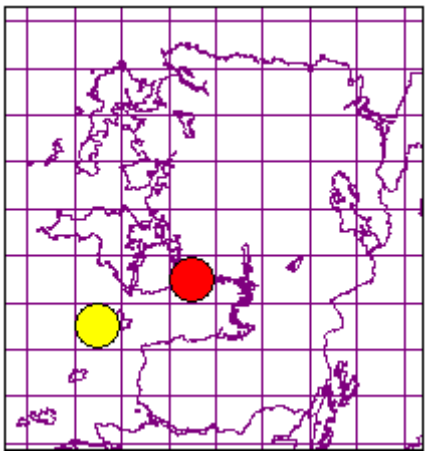
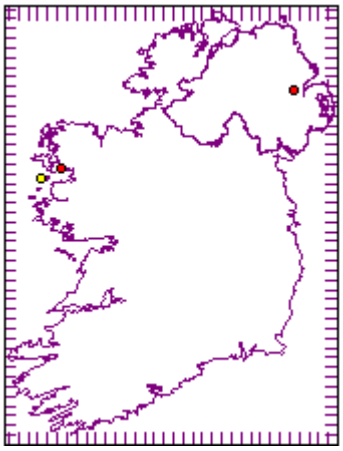
Hygrocybe pratensis (Pers.) Fr.

One of the largest waxcaps that can be very abundant

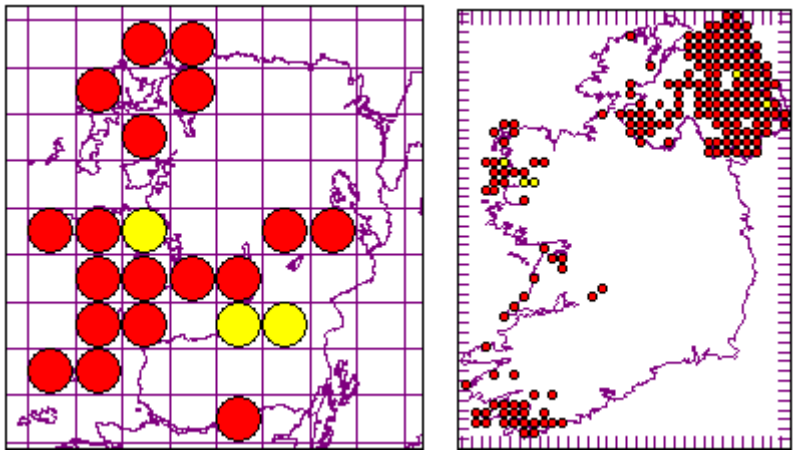
Hygrocybe psittacina var. perplexa (A.H. Sm. & Hesler) Boertm.

A brown capped variety of this common waxcap

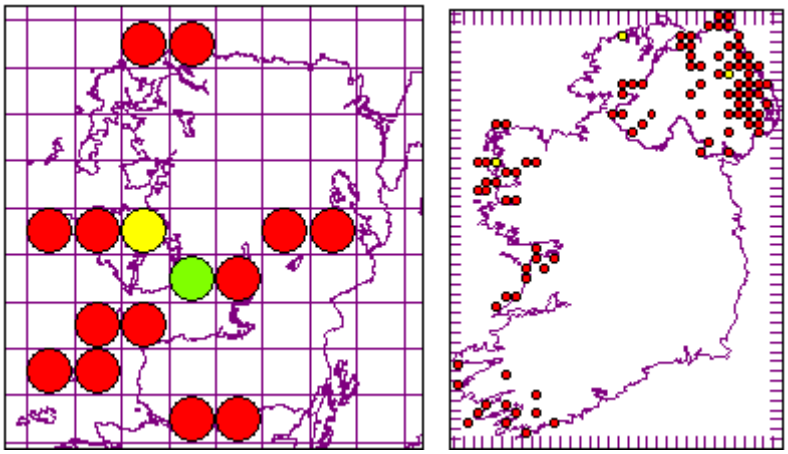
Hygrocybe psittacina var. psittacina (Schaeff.) P. Kumm.

Usually very common and distinguised by its green colours



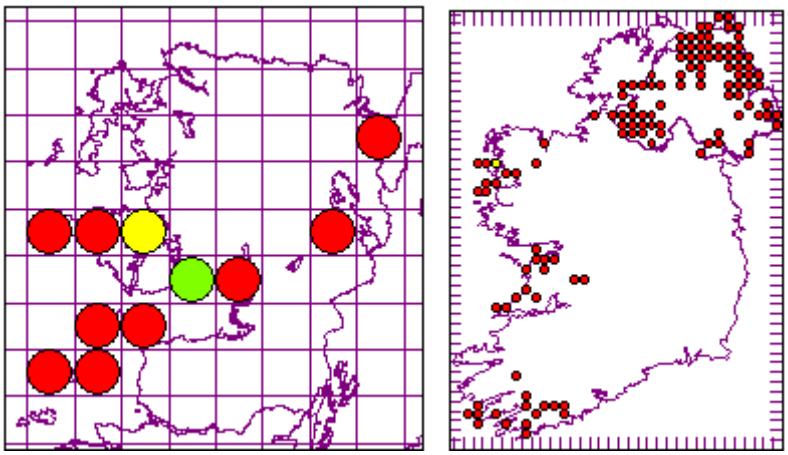
Hygrocybe punicea (Fr.) P. Kumm.

Large and notable with a dull crimson colour and fibrous stipe



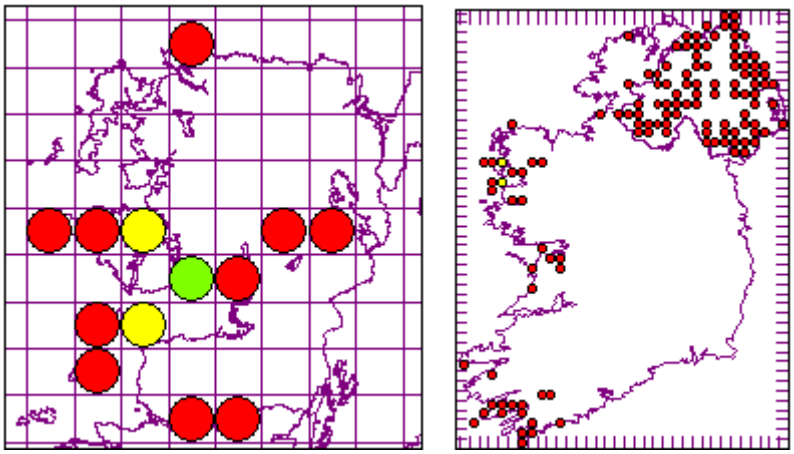
Hygrocybe quieta (Kühner) Singer

Noted for its oily smell



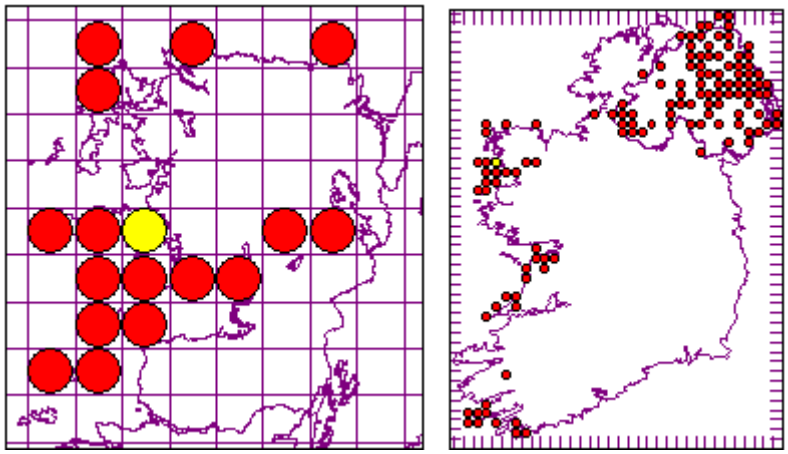
Hygrocybe reidii Kühner

Recognised by its honey smell especially if rubbed. Not uncommon



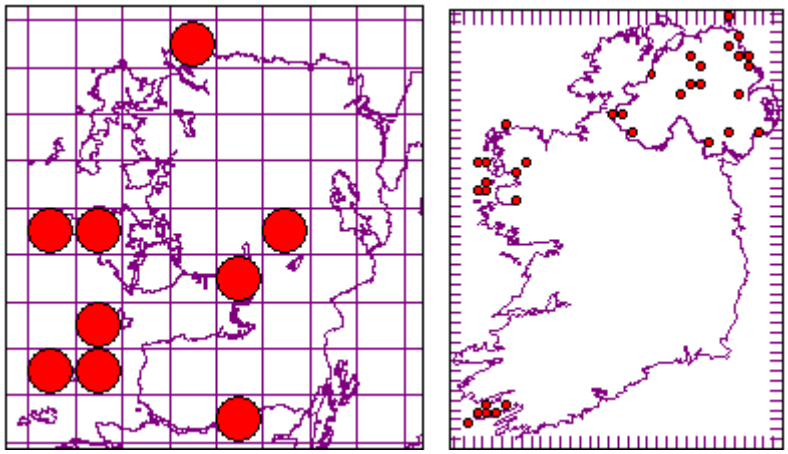
Hygrocybe russocoriacea (Berk. & Mill.) P.D. Orton &

Noted by its amazing smell of cedar wood



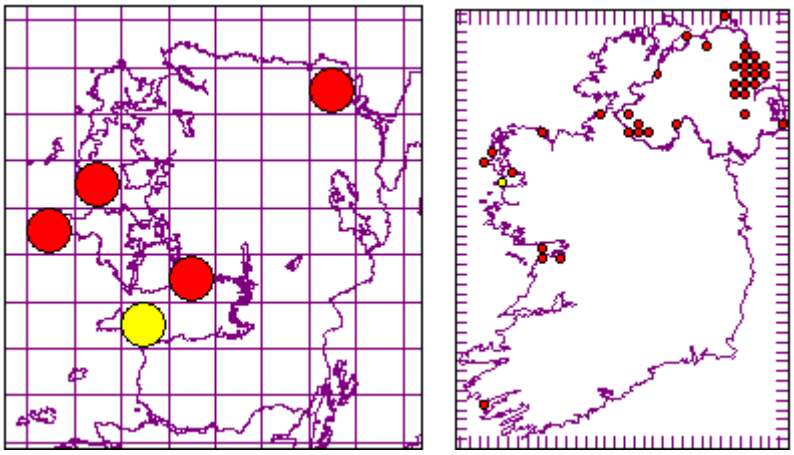
Hygrocybe splendidissima (P.D. Orton) P.D. Orton & Watling

Large scarlet waxcap smelling of honey if the stipe is rubbed. Usually found in acid grassland



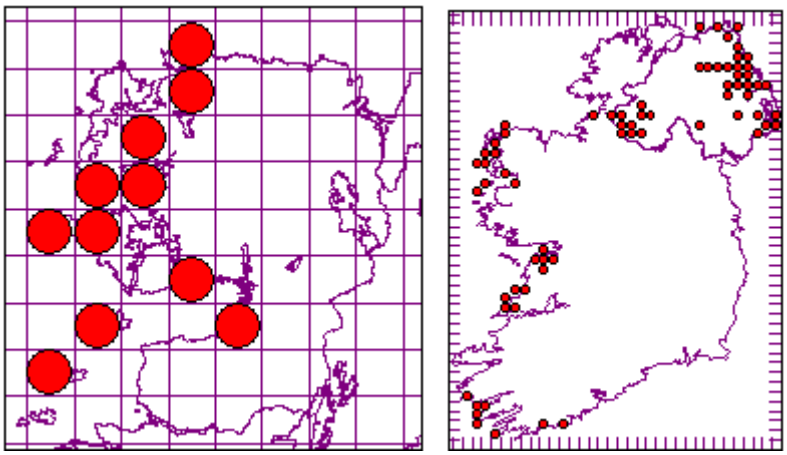
Hygrocybe virginea var. fuscescens (Bres.) Arnolds

A variety with a brown centre to the cap



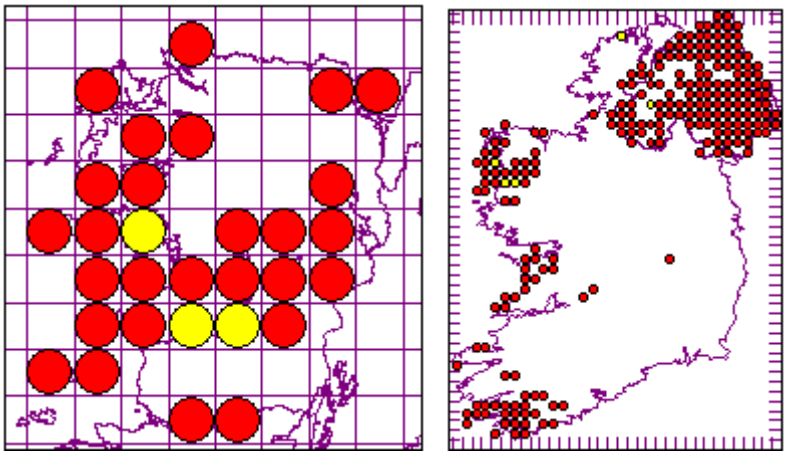
Hygrocybe virginea var. ochraceopallida (P.D. Orton)

This variety is usually found in calcareous grassland



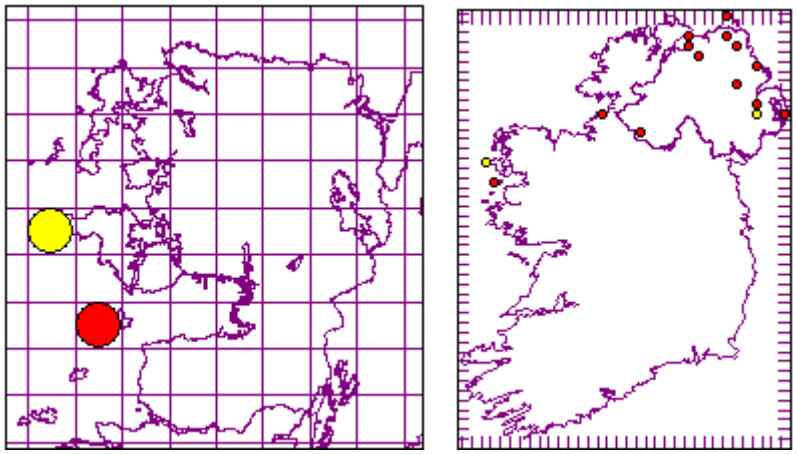
Hygrocybe virginea var. virginea (Wulfen) P.D. Orton &

Very common species



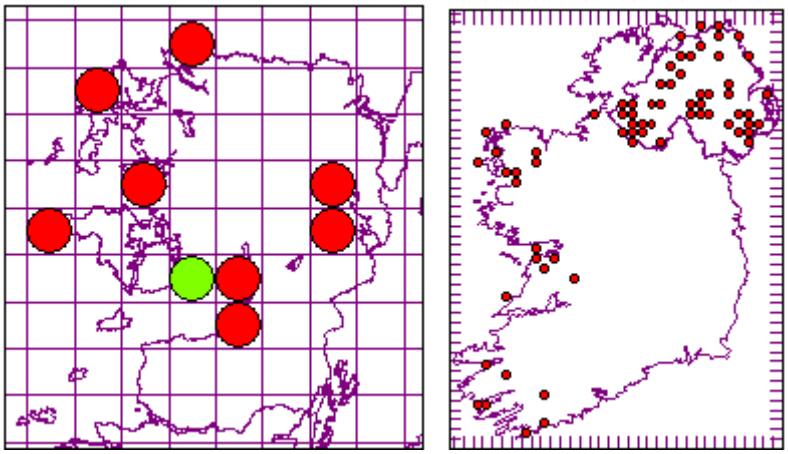
Microglossum olivaceum (Pers.) Gillet

The olive green earth tongue that does have a number of colour variants



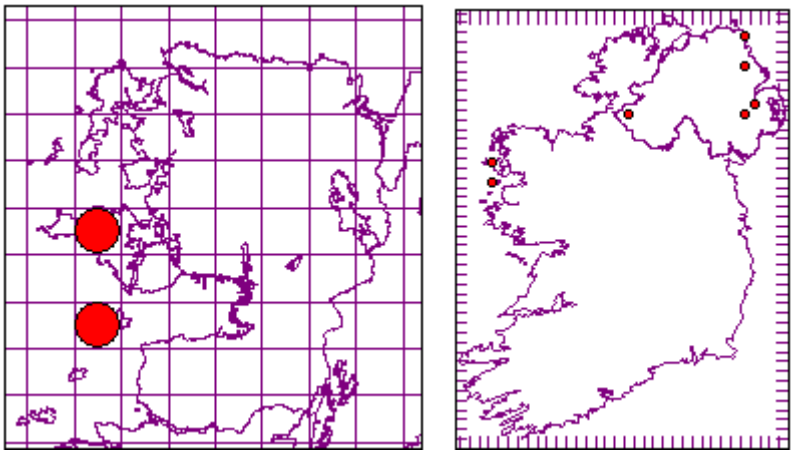
Trichoglossum hirsutum (Pers.) Boud.

An earth tongue with noticeable setae (especially on the stipe) like hairs



Trichoglossum walteri (Berk.) E.J. Durand

A notable earth tongue

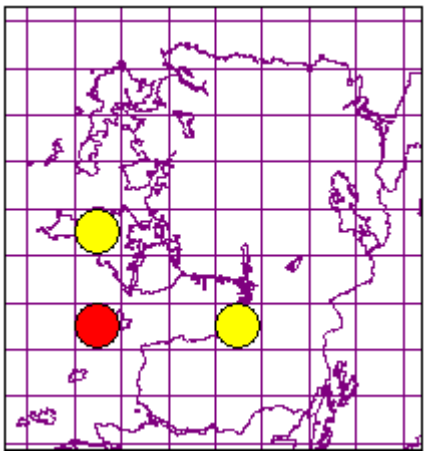


Other Species

Boletes and Agarics

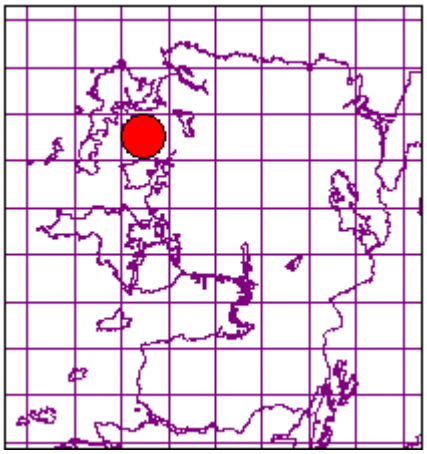
Agaricus arvensis Schaeff.

A common agaric with an aniseed smell.



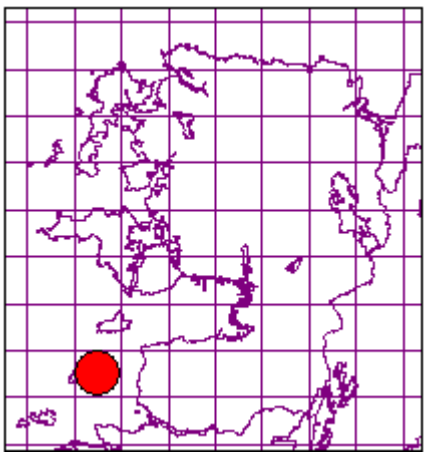
Agaricus bernardii Quél.

A white, later dirty brown Agaric more commonly found in coastal grasslands in Ireland.



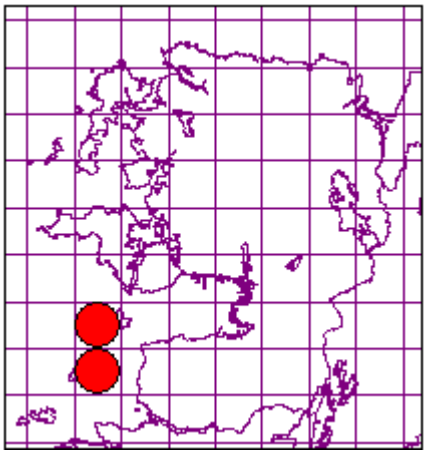
Agaricus silvaticus Schaeff.

A strongly reddening agaric usually found in woodland but also in grassland



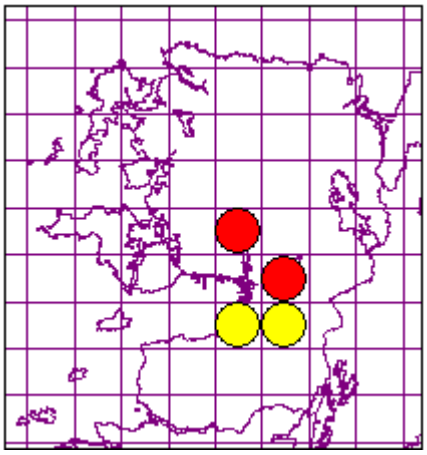
Agaricus urinascens (F.H. Møller & Jul. Schäff.) Singer

More commonly known as Agaricus macrosporus that can grow to very large sizes



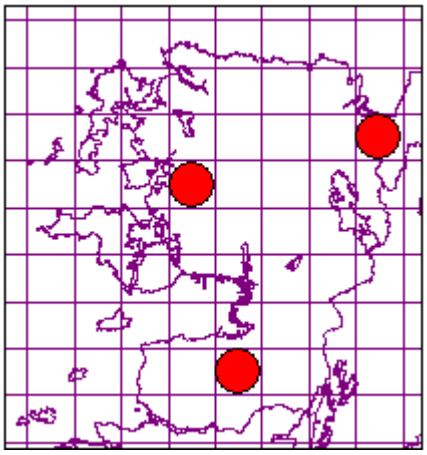
Amanita rubescens var. rubescens Pers.

The most common Amanita



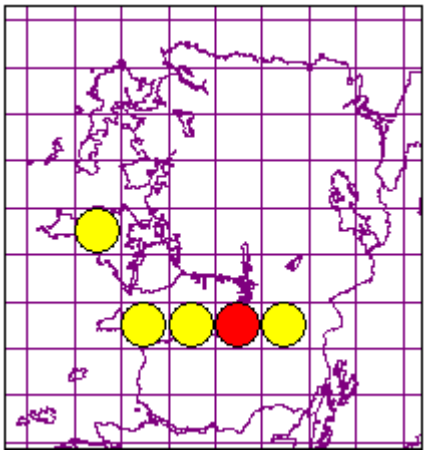
Armillaria gallica Merxm. & Romagn.

The most common Honey Fungus in much of Ireland with a bulbous base. Not as pathogenic as *A.mellea*.



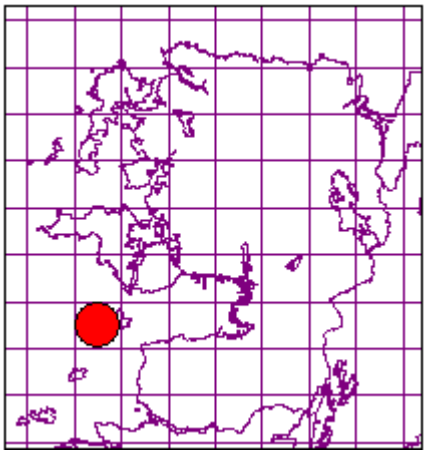
Armillaria mellea (Vahl) P. Kumm.

The pathogenic species with a slender cylindrical stipe



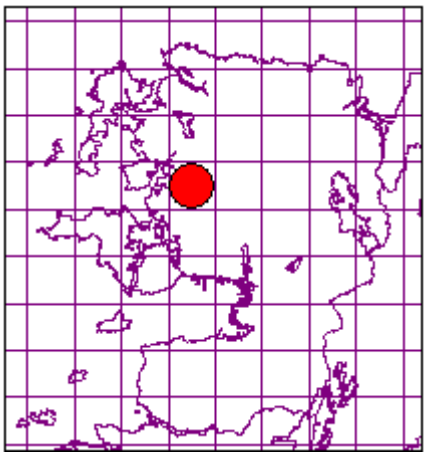
Arrhenia latispora (J. Favre) Bon & Courtec.

Grows on mosses



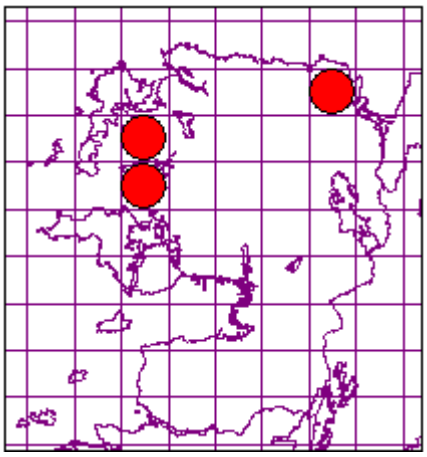
Arrhenia retiruga (Bull.) Redhead

Grows on mosses



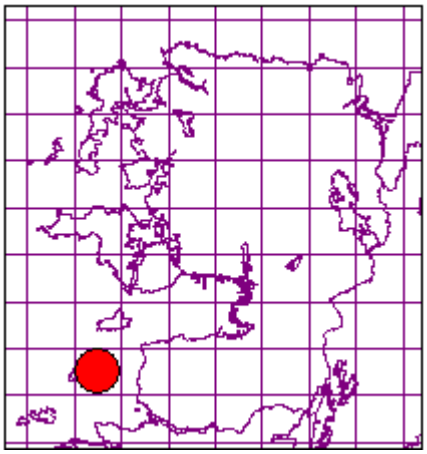
Bolbitius titubans (Bull.) Fr.

A common species found on decaying grass or dung. More commonly known as *B.vitellinus*



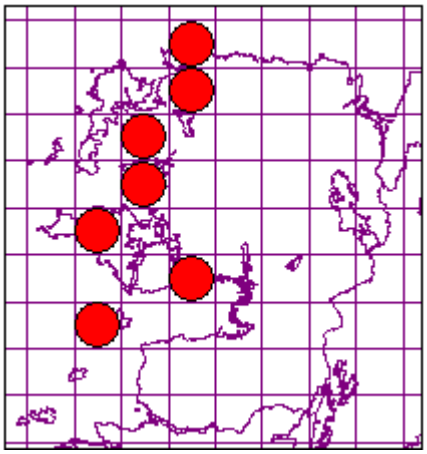
Calocybe persicolor (Fr.) Singer

Similar to *C.carnea* but larger and more dirty pink



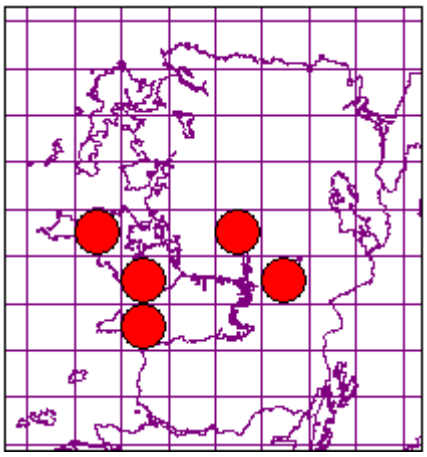
Clitocybe dealbata Sowerby

A very poisonous small white fungus often with a frosted cap found in grasslands



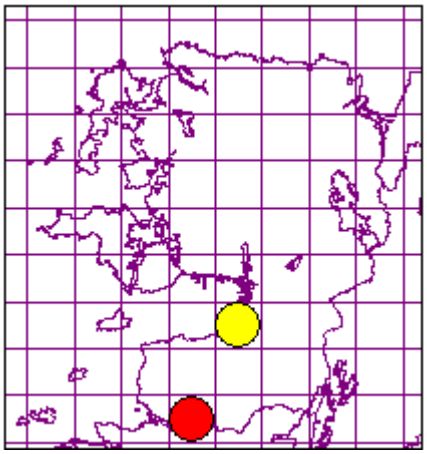
Clitocybe fragrans Sowerby

Not uncommon in grasslands



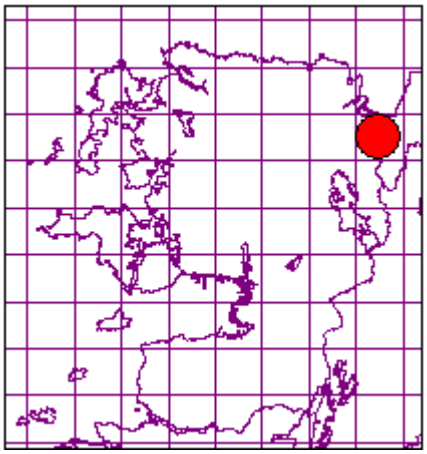
Clitocybe nebularis (Batsch) Quél.

A common saprophyte in leaf litter. Often appearing late in the season.



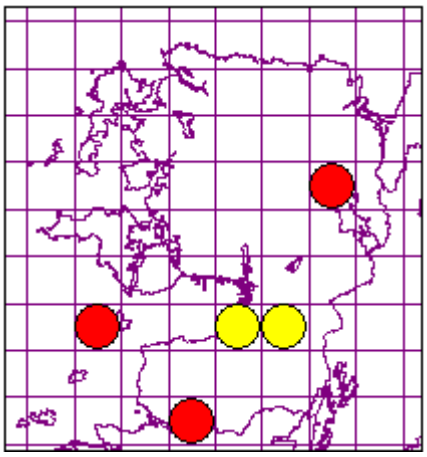
Clitopilus scyphoides (Fr.) Singer

White thin fleshed fungus sometimes found on wood chips



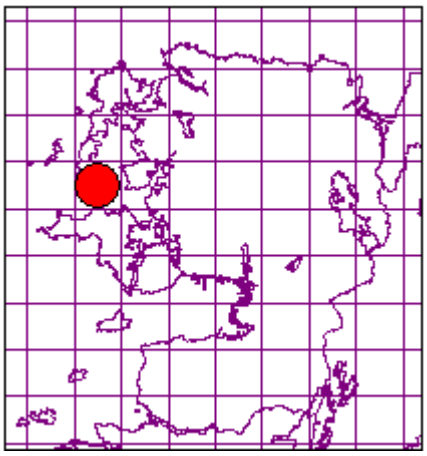
Collybia butyracea f. butyracea (Bull.) P. Kumm.

A common saprophyte in leaf litter



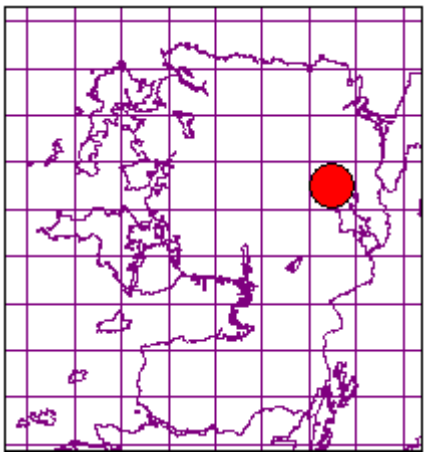
Conocybe dunensis T.J. Wallace

Supposedly common in dunes in GB but rarely recorded in Ireland and probably overlooked



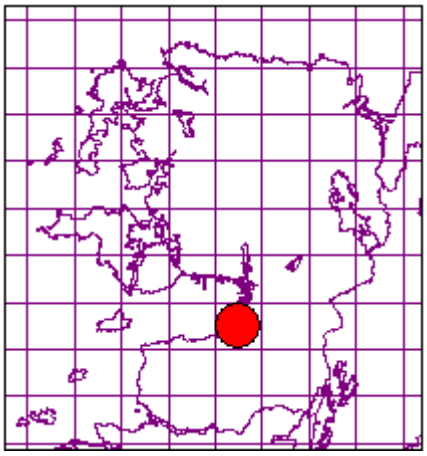
Conocybe filaris (Fr.) Kühner

One of the Conocybes with a ring



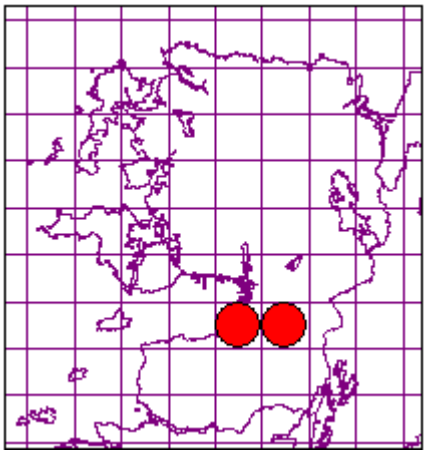
Coprinus atramentarius (Bull.) Fr.

Should never to eaten along with alcohol



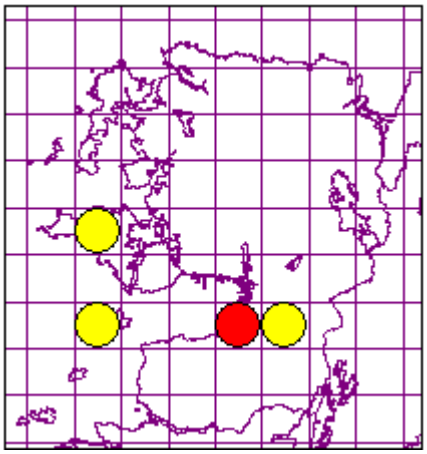
Coprinus comatus (O.F. Müll.) Gray

The Shaggy Inkcap



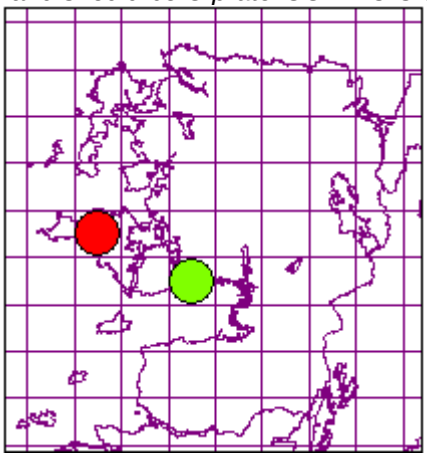
Coprinus micaceus (Bull.) Fr.

Grows in clumps on dead wood. With a glistening, miceceus like cap.



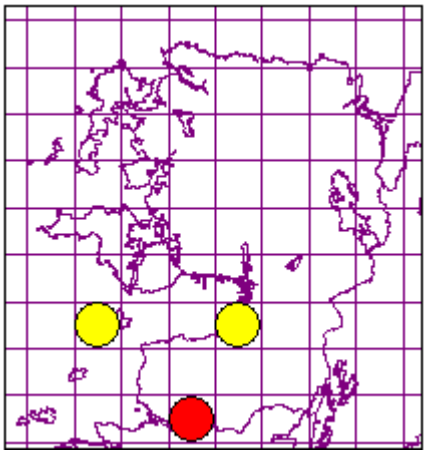
Cortinarius croceus Fr.

An ectomycorrhizal species often found in open grassland with no "usual" ectomycorrhizal species nearby. Possibly mycorrhizal with Carex species. Very similar to *C.cinnamomeus.* This species is possibly misidentified and should be *C.pratensis*. This is being looked into.



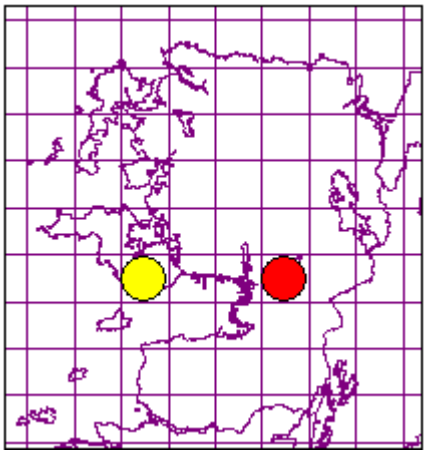
Cortinarius obtusus Fr.

With a striking odour of iodoform



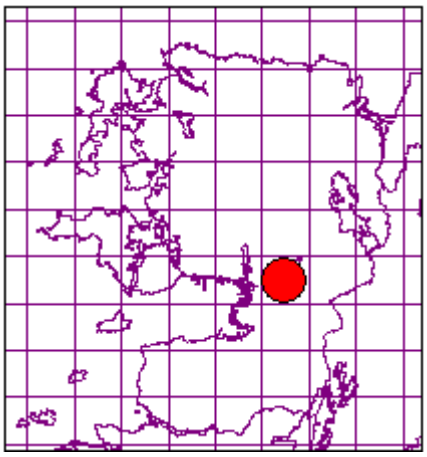
Cortinarius purpureus (Pers.) Fuckel

A Dermocybe with red gills under conifers



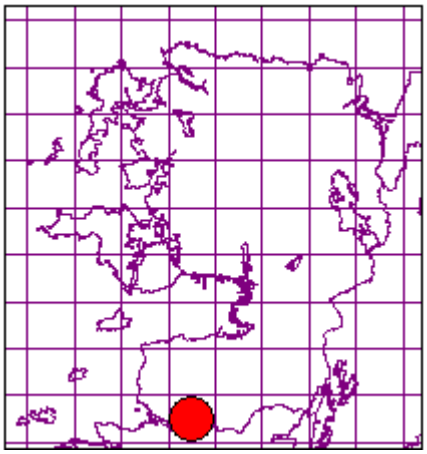
Cortinarius stillatitius Fr.

A slimy Cortinarius with purple on the stipe



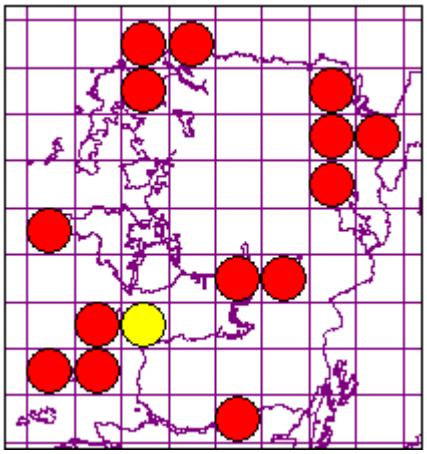
Cortinarius umbrinolens P.D. Orton

Noted by its earthy smell



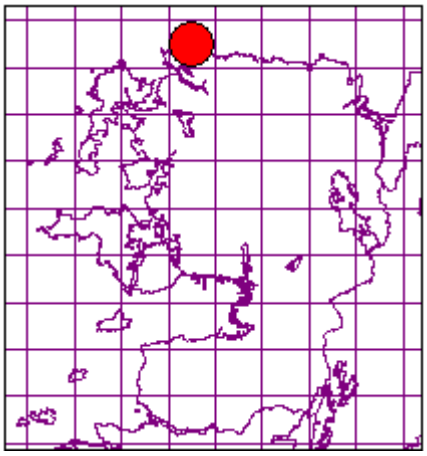
Cystoderma amianthinum (Scop.) Fr.

A common grassland species



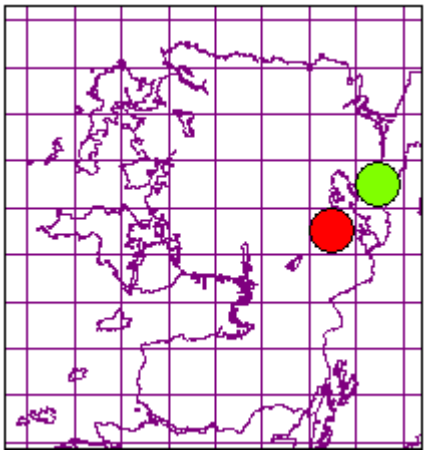
Gamundia striatula (Kühner) Raithelh.

A small fungus with a striate cap and verrucose spores



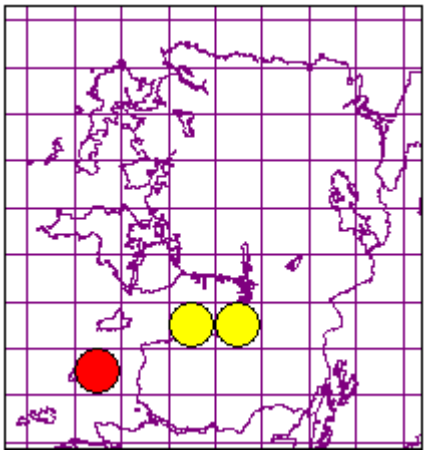
Gymnopilus junonius (Fr.) P.D. Orton

Large orange fungus growing on trees



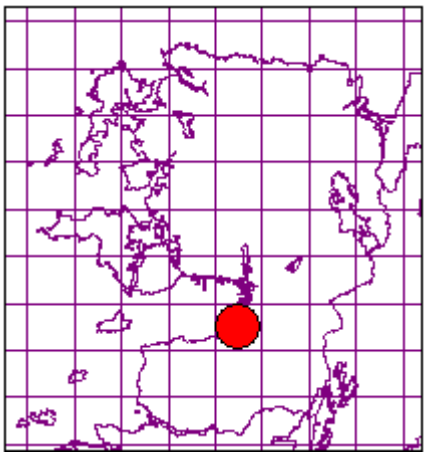
Hebeloma crustuliniforme (Bull.) Quél.

Often over-recorded with a strong radish smell. Spores are non-dextrinoid unlike some of the more common Hebelomas.



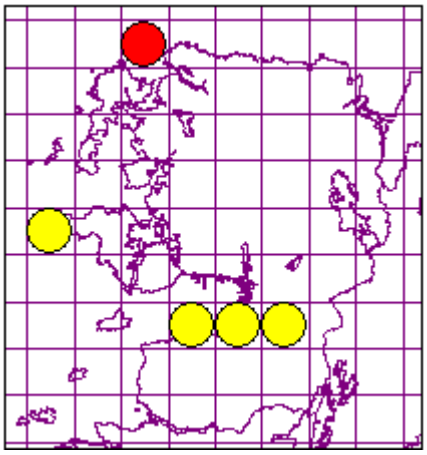
Hebeloma mesophaeum (Fr.) Fr.

A variable species with velar remnants on the cap.



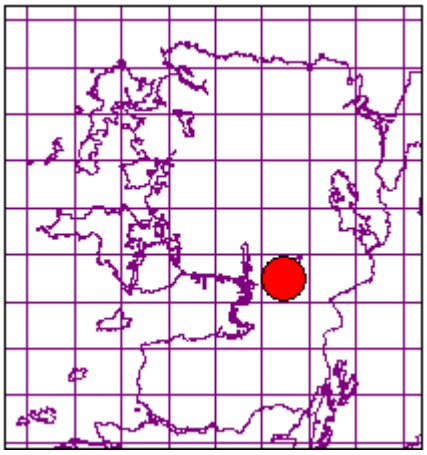
Hygrophoropsis aurantiaca (Wulfen) Maire

The False Chanterelle with orange gills like tuning forks. Usually found in woods but not unusual associated with Calluna on heaths.



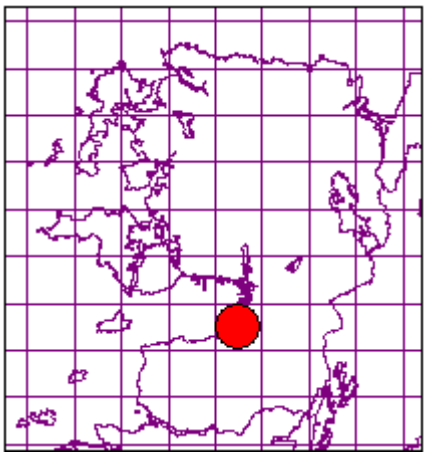
Hygrophorus hypothejus Fr.

The Herald of Winter



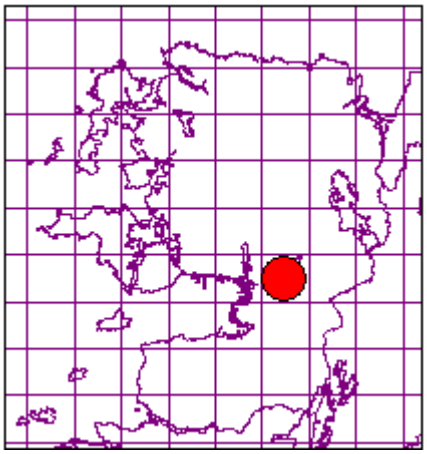
Hypholoma fasciculare (Huds.) P. Kumm.

Very common saprophyte



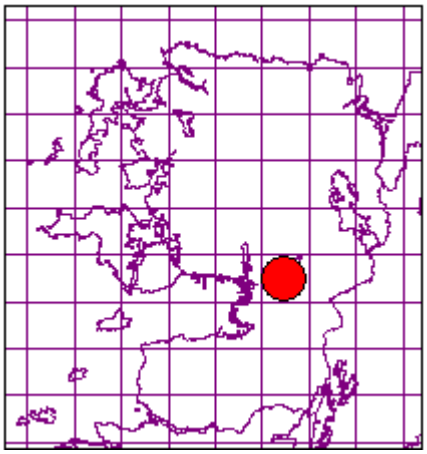
Inocybe cervicolor (Pers.) Quél.

An earthy smelling Inocybe with reddening flesh



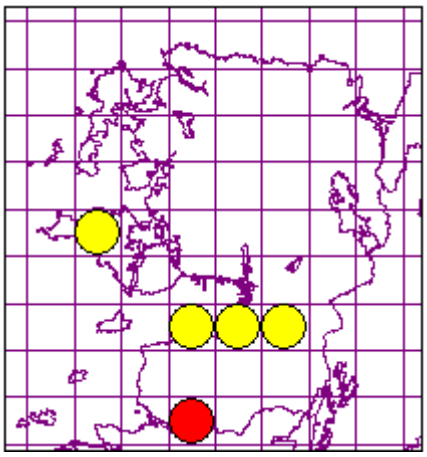
Inocybe geophylla var. lilacina Gillet

Common purple ectomycorrhizal species with brown spore print



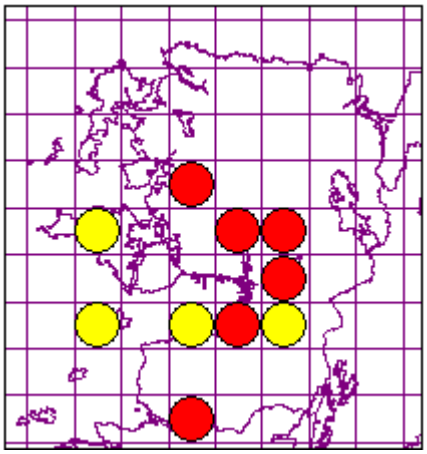
Laccaria amethystina Cooke

Totally purple in colour and very attractive



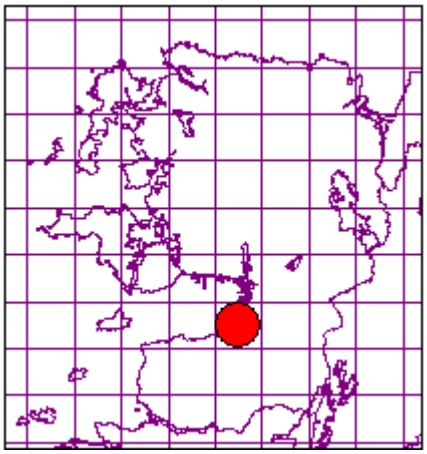
Laccaria laccata (Scop.) Fr.

The Deceiver which as its name suggests is very variable



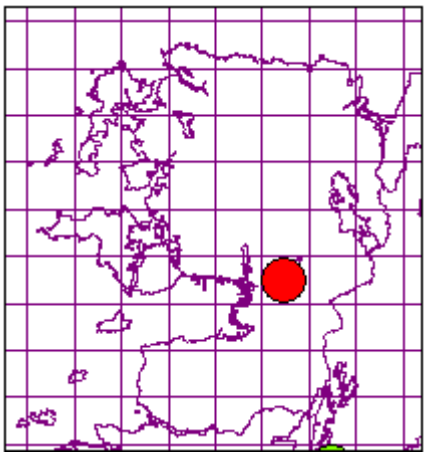
Lacrymaria lacrymabunda (Bull.) Pat.

The Weeping Widow with dark drops on the gills



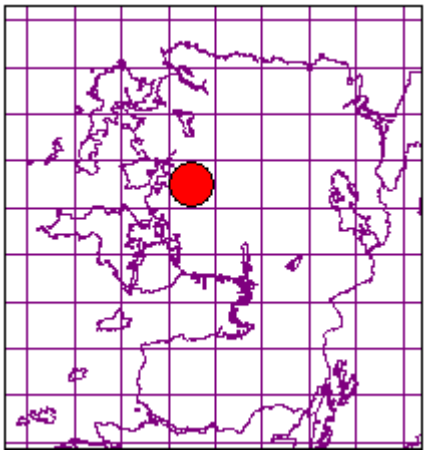
Lactarius deliciosus (L.) Fr.

Found under pine - with carrot coloured milk



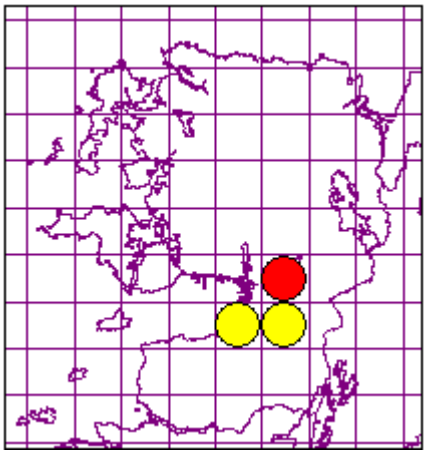
Lactarius mammosus Fr.

A brown milkcap smelling of coconuts



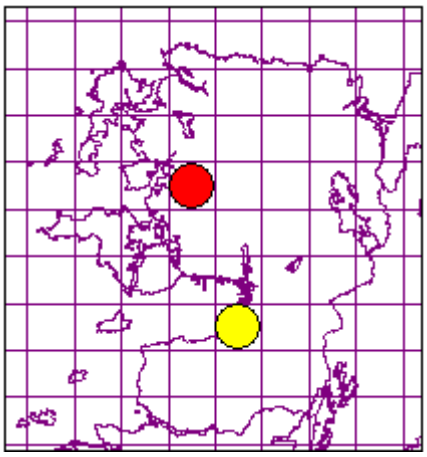
Lactarius mitissimus Fr.

A bright orange milkcap with adnate gills



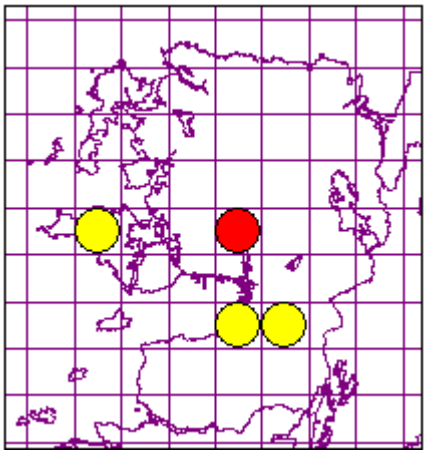
Lactarius obscuratus (Lasch) Fr.

A small milkcap found under alder



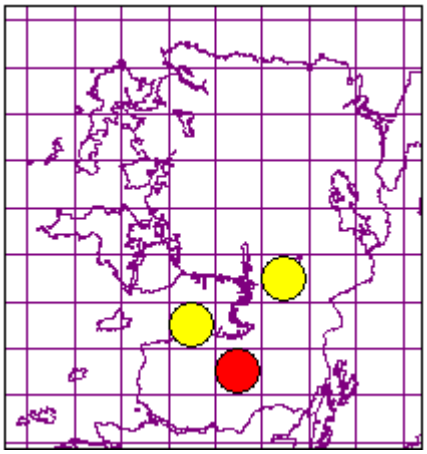
Lactarius pubescens Fr.

Commonly associated with young Betula



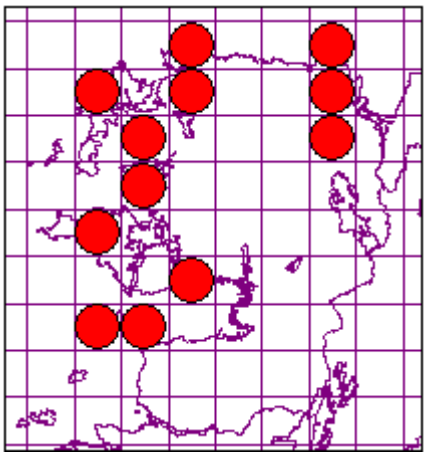
Lactarius torminosus (Schaeff.) Pers.

A distinctive pink hairy zoned milkcap



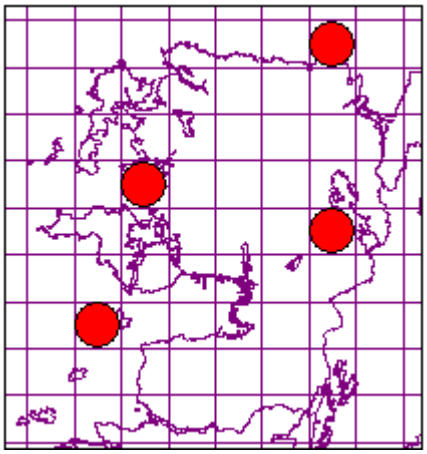
Lepista nuda (Bull.) Cooke

Wood Blewit - very common in grassland as well as woods and gardens



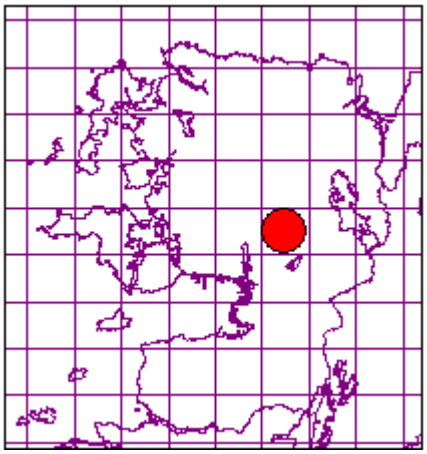
Lepista panaeola (Fr.) P. Karst.

Unusual species of Lepista with grey brown colours



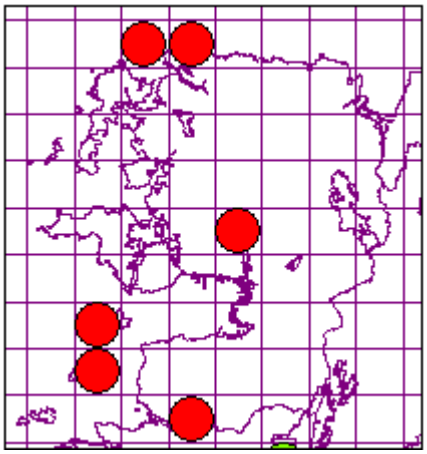
Lichenomphalia hudsoniana (H.S. Jenn.) Redhead, Lutz., Moncalvo & Vilgalys

A small lichenised fungus found in Racomitrium heath



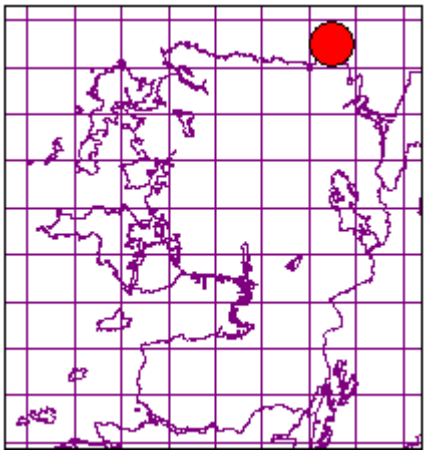
Lichenomphalia umbellifera (L.) Redhead, Lutzoni, Moncalvo & Vilgalys

Often found in peat habitats



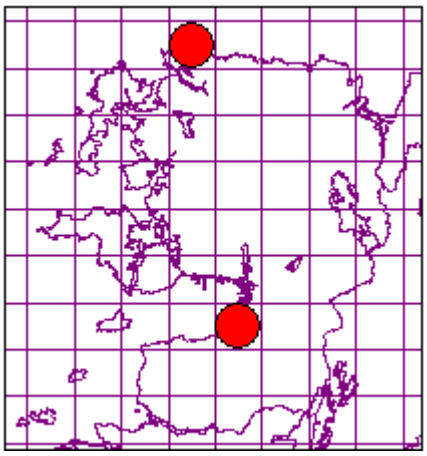
Macrolepiota excoriata (Schaeff.) M.M. Moser

Large species with a short stipe, thin ring and with stipe covering same colour as background



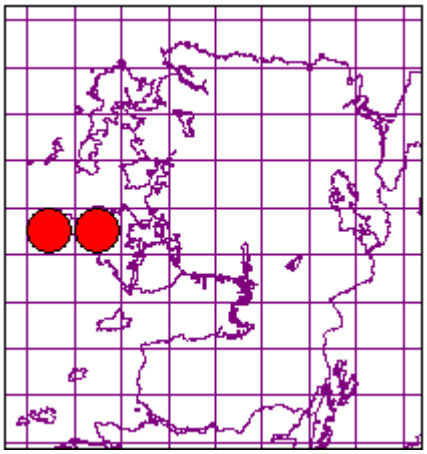
Melanoleuca cinereifolia (Bon) Bon

A grey Melanoleuca with grey gills found in embryo dunes



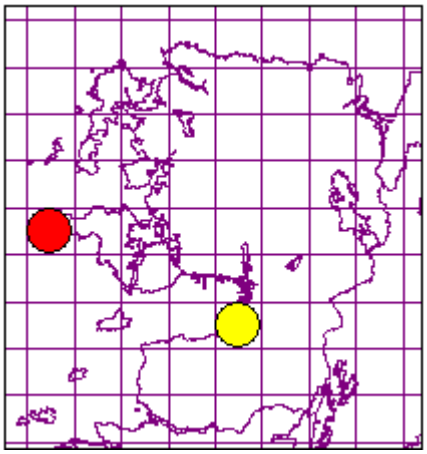
Melanoleuca exscissa (Fr.) Singer

A grey Melanoleuca with cystidia that are often septate



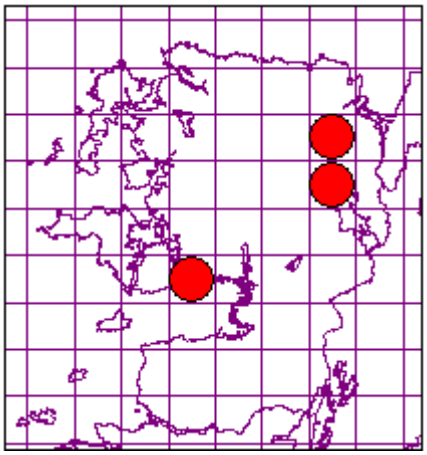
Melanoleuca melaleuca var. melaleuca (Pers.) Murrill

Commonly recorded but often mistakenly as this has no cystidia



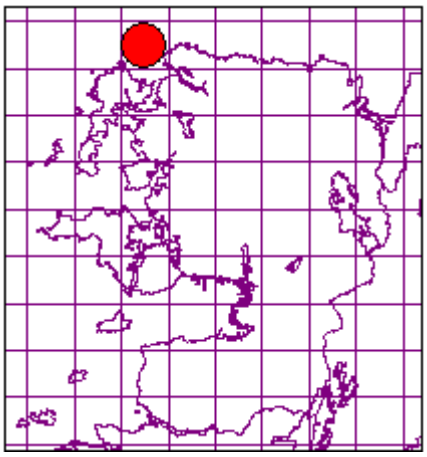
Melanoleuca polioleuca f. polioleuca (Fr.) Kühner & Maire

Often recorded as M. melaleuca in the past but the latter lacks cystidia



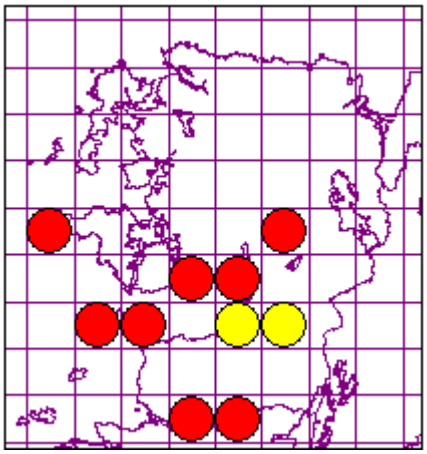
Mycena adonis var. adonis (Bull.) Fr.

A striking pink Mycena



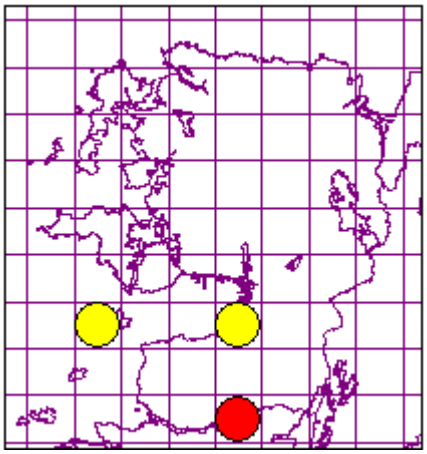
Mycena epipterygia var. epipterygia (Scop.) Gray

Has a cap with a viscid layer that can peel off.



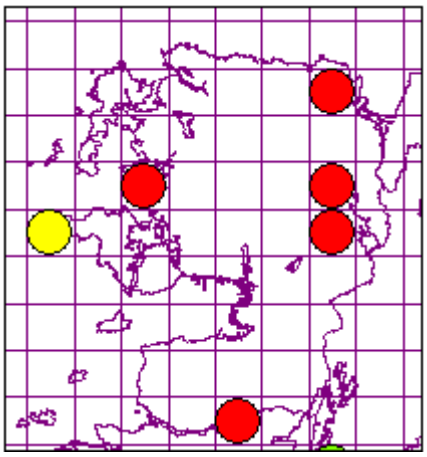
Mycena flavoalba (Fr.) Quél.

A small common white species in grassland



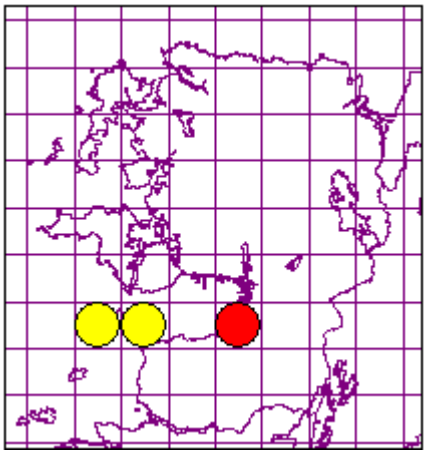
Mycena pura var. pura (Pers.) P. Kumm.

Common species of woodland and grassland with strong radish smell



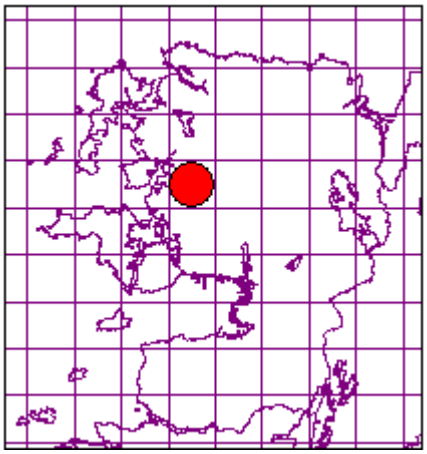
Mycena vitilis (Fr.) Quél.

A common Mycena



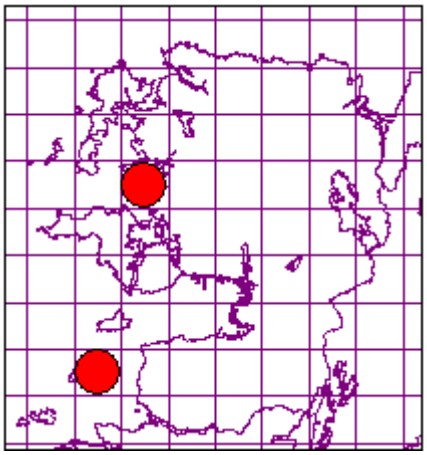
Naucoria subconspersa Kühner ex P.D. Orton

Noted by its non striate cap



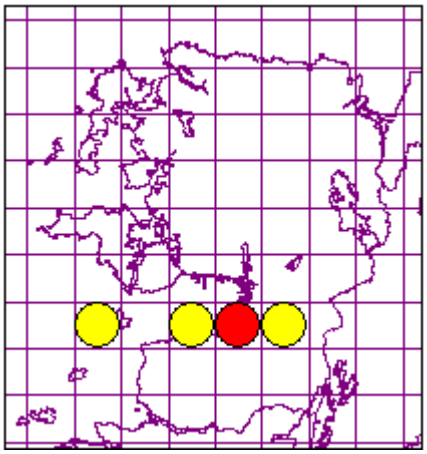
Omphalina pyxidata (Bull.) Quél.

A small Omphalina with strongly decurrent gills



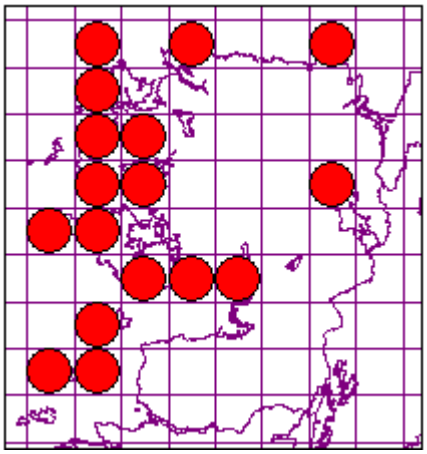
Panaeolina foenisecii (Pers.) Maire

Very common in domestic lawns



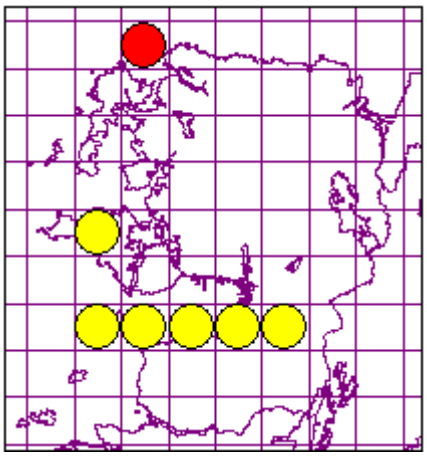
Panaeolus acuminatus (Schaeff.) Gillet

Very common "little brown job" with mottled gills



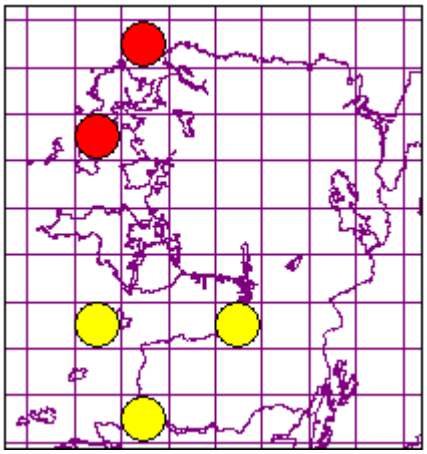
Panaeolus papilionaceus var. papilionaceus (Bull.) Quél.

Common - includes *P.sphinctrinus*



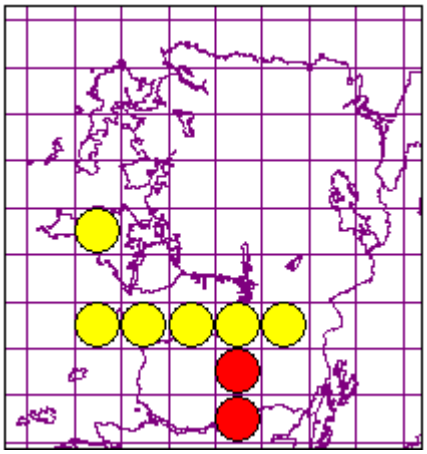
Panaeolus semiovatus var. semiovatus (Sowerby) S. Lundell

A Panaeolus with a ring on the stipe usually on dung



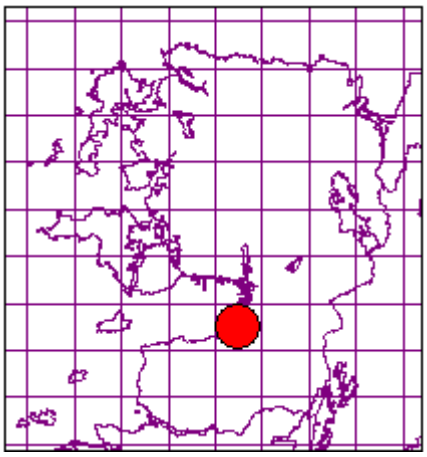
Paxillus involutus (Batsch) Fr.

The brown roll-rim. Usually found under Betula but here with Picea



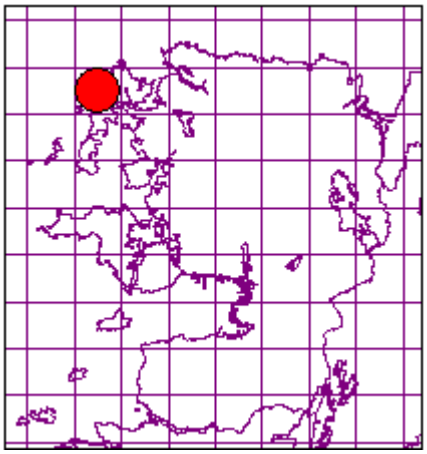
Phaeolepiota aurea (Matt.) Konrad & Maubl.

A large dramatic fungus with a very distinctive stipe



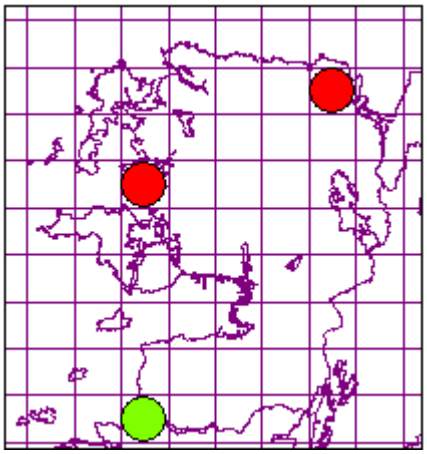
Pholiota gummosa (Lasch) Singer

A pale Pholiota often on buried wood



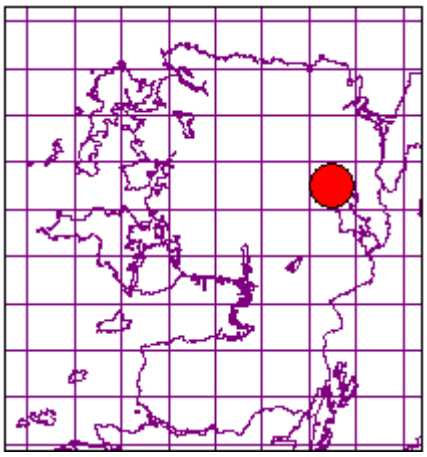
Psathyrella ammophila (Durieu & Lév.) P.D. Orton

Found in embryo dunes



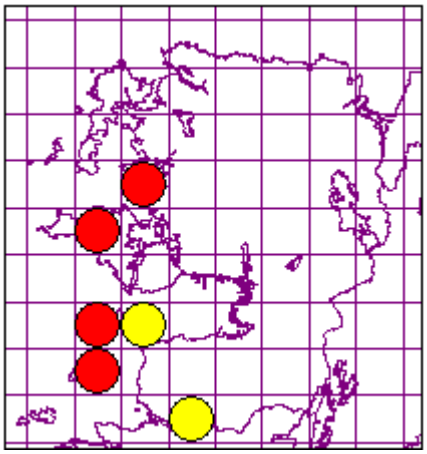
Psathyrella conopilus (Fr.) A. Pearson & Dennis

A psathyrella with very distinctive cap cells



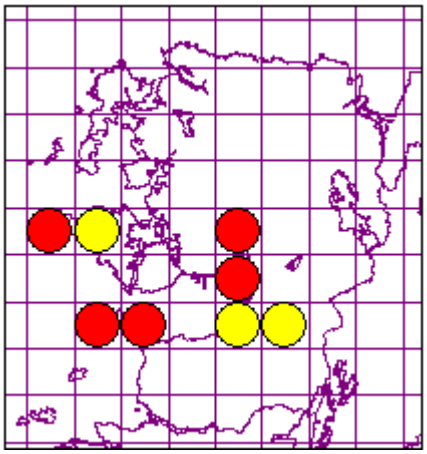
Psilocybe coprophila (Bull.) P. Kumm.

Small fungus on dung



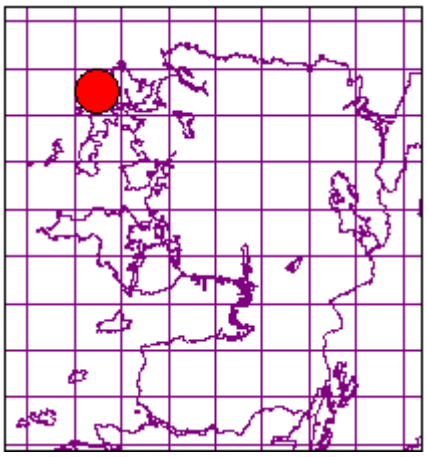
Psilocybe semilanceata (Fr.) P. Kumm.

The Magic Mushroom – a common species with a distinctive nipple



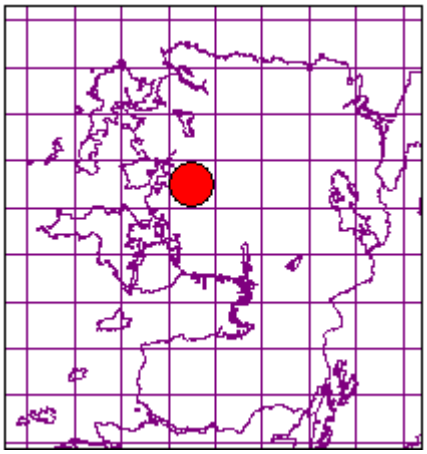
Rickenella swartzii (Fr.) Kuyper

Small fungus with a distinct black spot in centre of cap and decurrent gills.



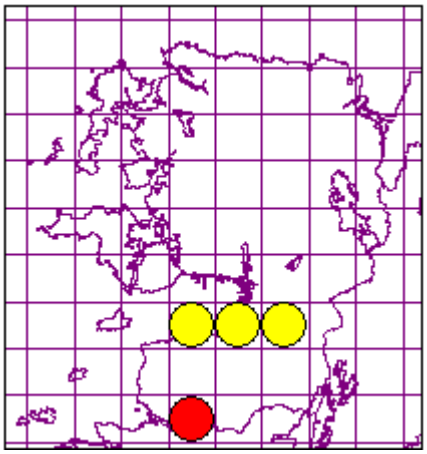
Russula alnetorum Romagn.

A small distinctive Russula found under alders



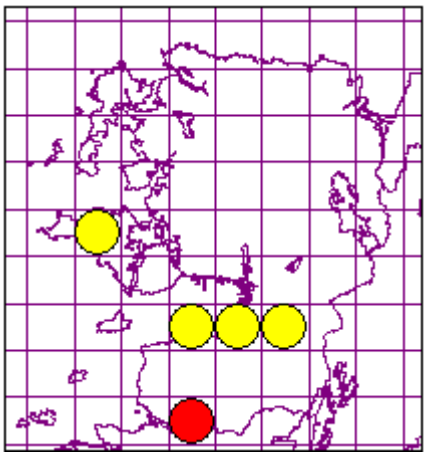
Russula fellea Fr.

Yellow Russula smelling of apples



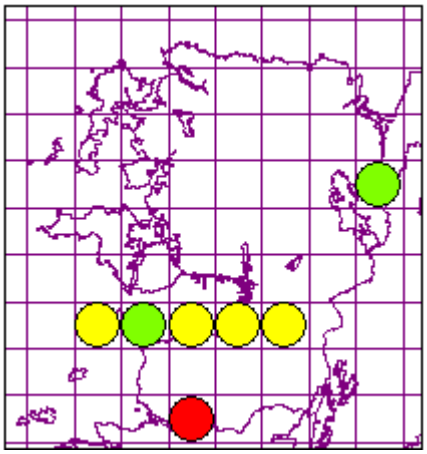
Russula fragilis (Pers.) Fr.

Common under Oak and Beech



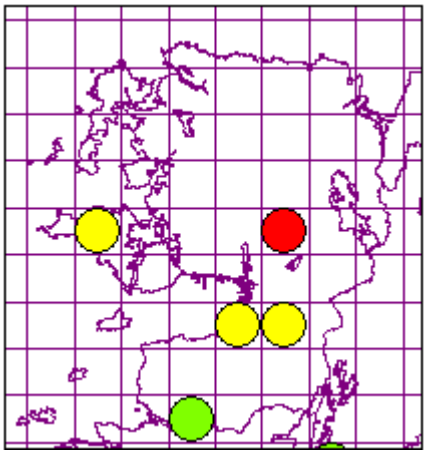
Russula nigricans (Bull.) Fr.

Large blackening Russula with very distant gills. Very common



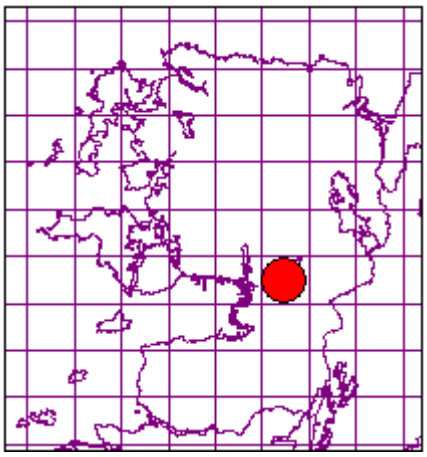
Russula ochroleuca (Pers.) Fr.

Very common yellow Russula found under a range of trees



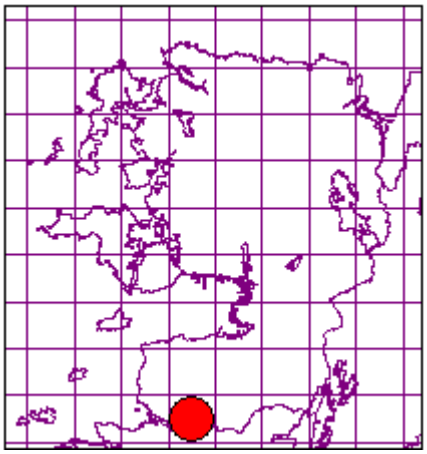
Russula sanguinea (Bull.) Fr.

Dry red Russula with a cap that hardly peels under Pine



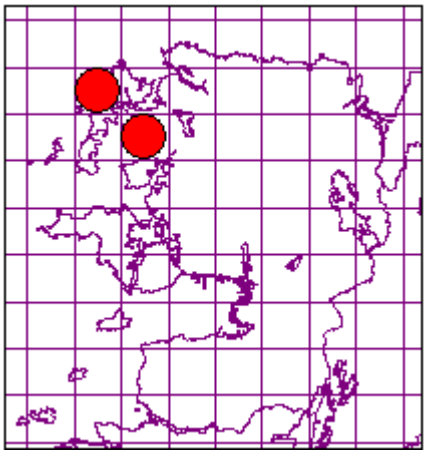
Russula silvestris (Singer) Reumaux

Also known as *R.emeticella.* Found under Oak



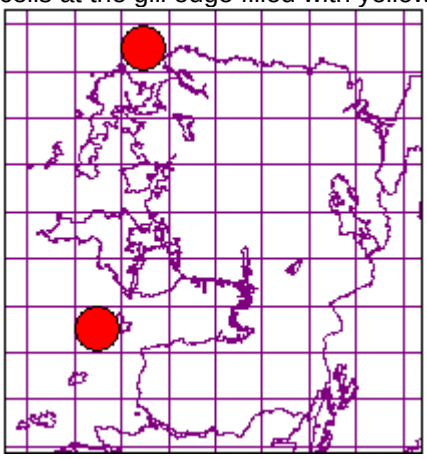
Schizophyllum commune (L.) Fr.

Found on silage bales. Can badly affect the quality of the silage but good management practice can prevent it from occurring.



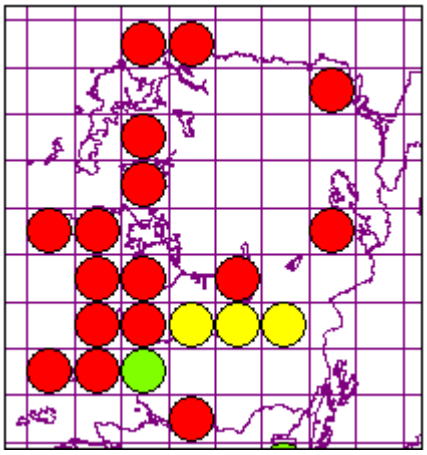
Stropharia pseudocyanea (Desm.) Morgan

An interesting grassland species often with blue and yellow colours. Has to be checked against *S.caerula* which has numerous cells at the gill edge filled with yellow material (chrysocystidia)



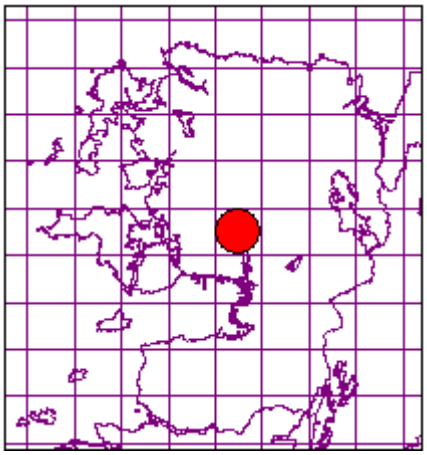
Stropharia semiglobata (Batsch) Quél.

Very common on dung



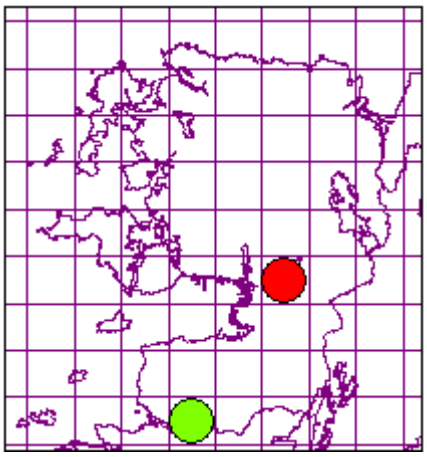
Suillus flavidus (Fr.) J. Presl

A bolete more usually recorded in Caledonian pine forests



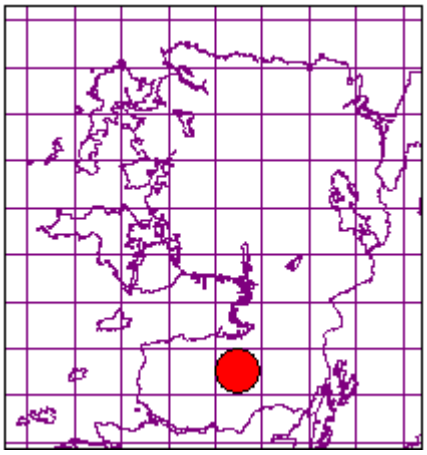
Suillus luteus (L.) Roussel

Slippery Jack - found under Pine



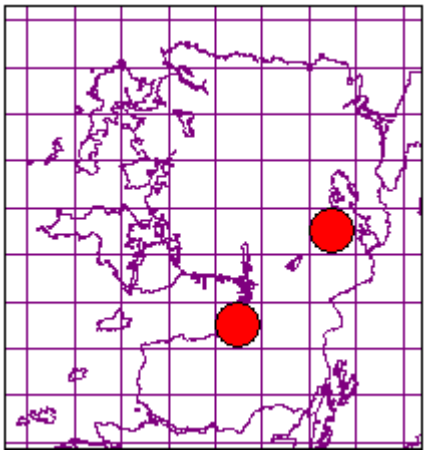
Tricholoma fulvum (Bull.) Bigeard & H. Guill.

Common species under Birch



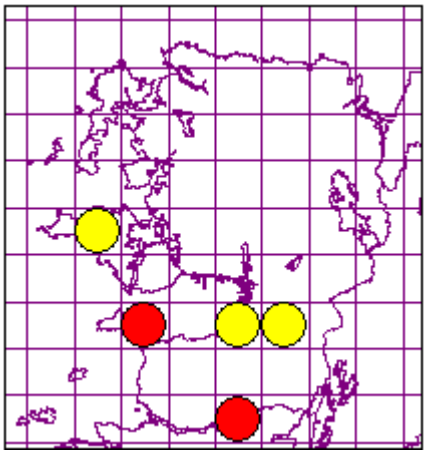
Tricholoma scalpturatum (Fr.) Quél.

A grey capped ectomycorrhizal species with yellowing gills



Tricholomopsis rutilans (Schaeff.) Singer

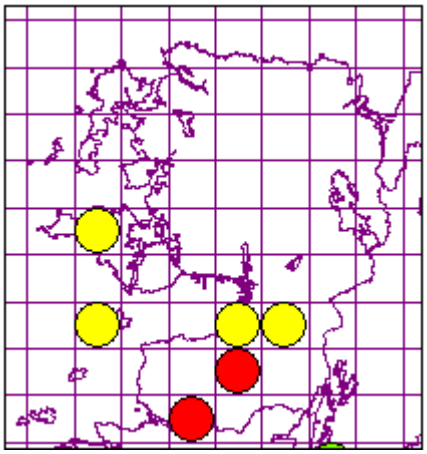
Distinctive species with a plum coloured cap and custard coloured gills. Always associated with wood although it may be buried.



Aphyllophoroid Species (Brackets, chanterelles, etc)

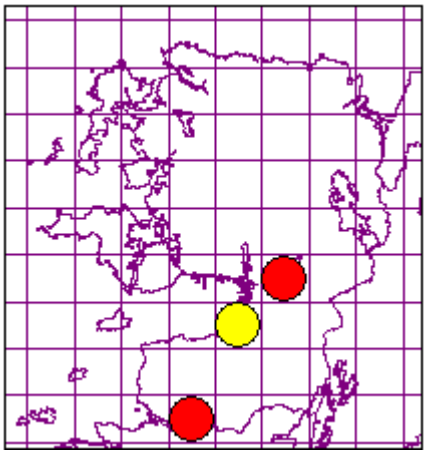
Clavulina coralloides (L.) J. Schröt.

A white, common, woodland Fairy Club



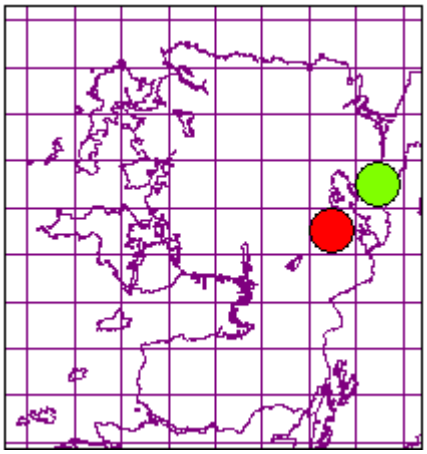
Clavulina rugosa (Bull.) J. Schröt.

A woodland species of Fairy Club



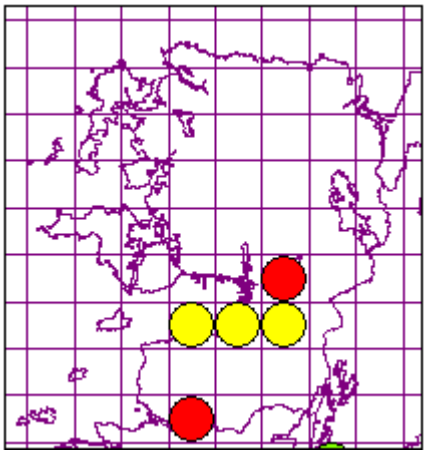
Ganoderma australe (Fr.) Pat.

A large perennial bracket fungus. Often confused with *G.applanatum* but the spore sizes are quite different.



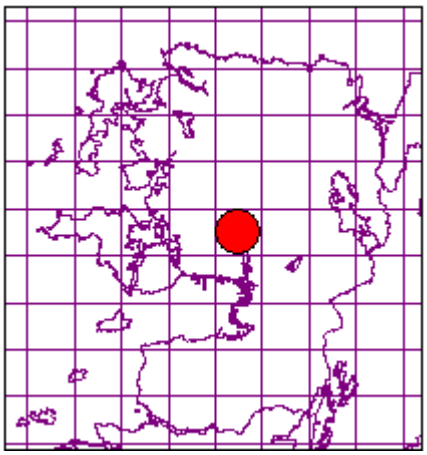
Hydnum repandum L.

The Hedgehog Fungus. A common ectomycorrhizal species with spines



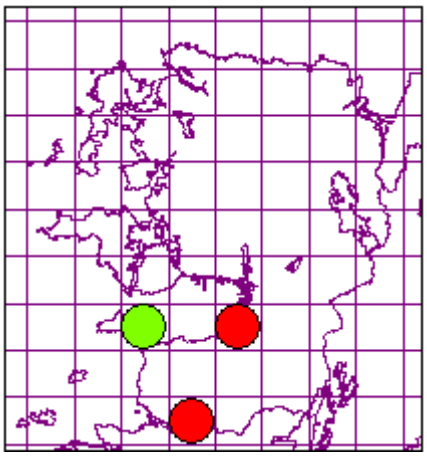
Peniophora incarnata (Pers.) P. Karst.

A pink crust on Gorse



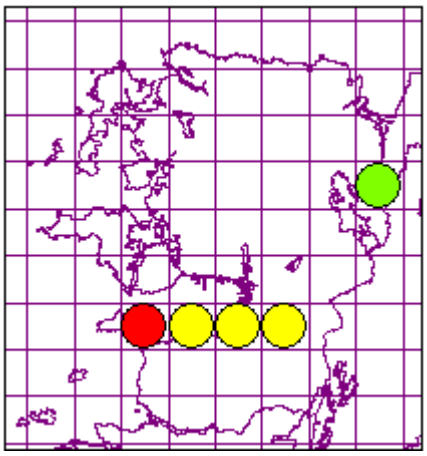
Piptoporus betulinus (Bull.) P. Karst.

The razor strop fungus found on Birch



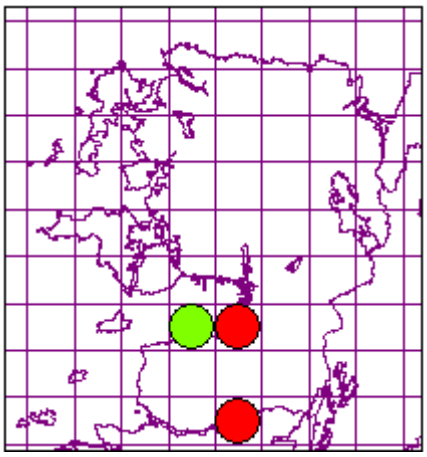
Steccherinum ochraceum (Pers.) Gray

A crust fungus with spines



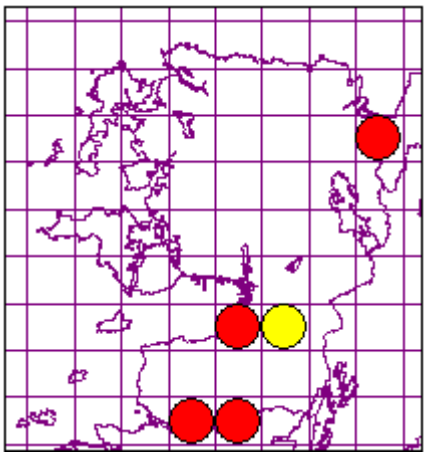
Stereum hirsutum (Willd.) Gray

Small hairy bracket. Very common



Trametes versicolor (L.) Pilát

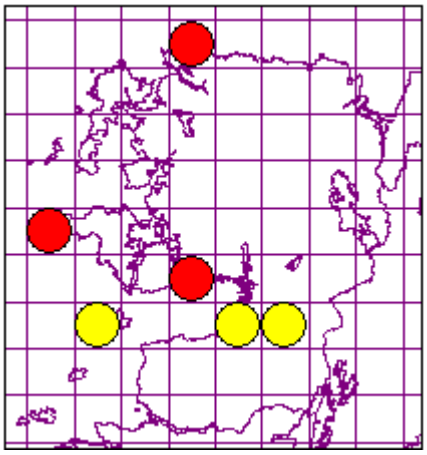
Common bracket fungus with concentric rings on the cap



Gasteroid species (puffballs, earth stars etc)

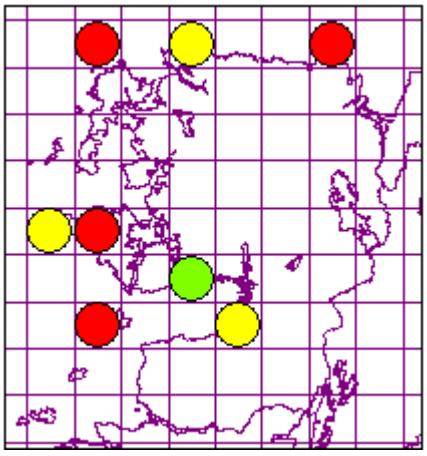
Bovista nigrescens Pers.

Subglobose fruitbody that can persist in dried state for months. Unlike puffballs, whole fruiting body breaks up to release spores.



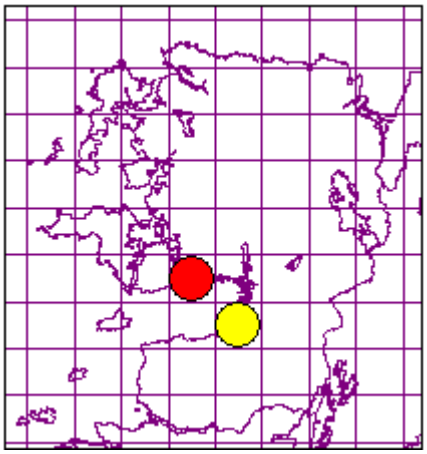
Bovista plumbea Pers.

Common on grasslands. Smaller than *B.nigrescens*



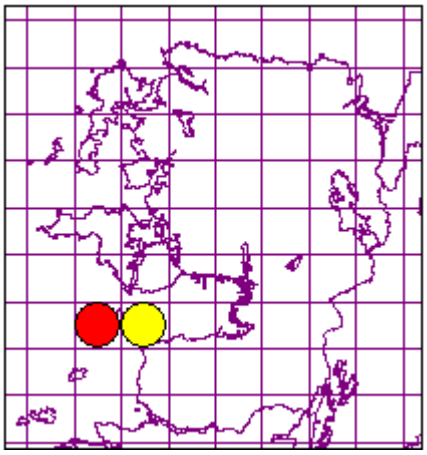
Handkea utriformis (Bull.) Pers.

Large puffball found in grasslands



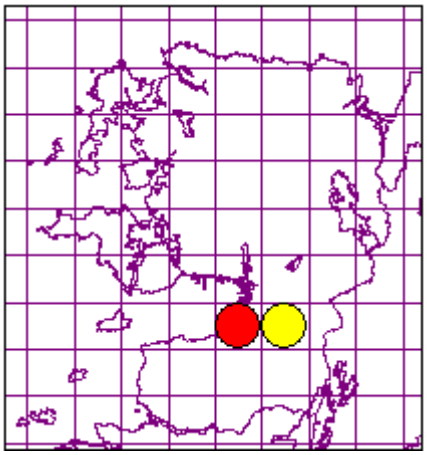
Lycoperdon nigrescens Wahlenb.

A puffball with black scales found in grassland



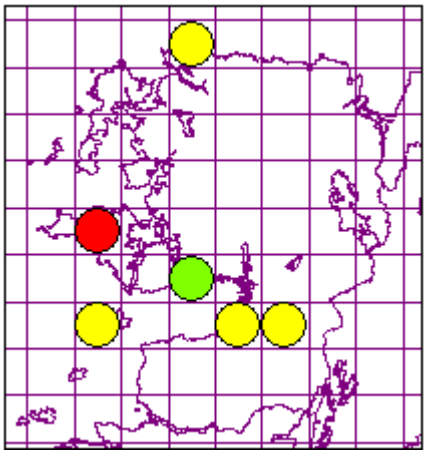
Lycoperdon pyriforme (Schaeff.) Pers.

Puffball always found on wood



Vascellum pratense (Pers.) Kreisel

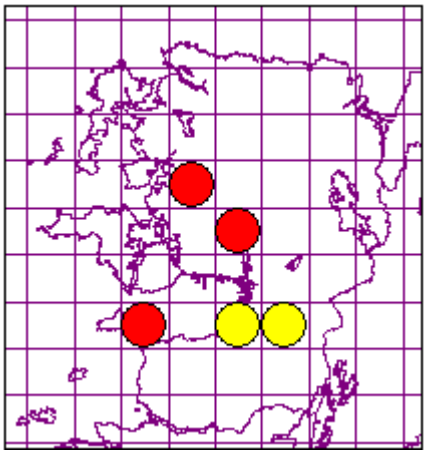
A common grassland puffball noted by a distinct line between the stipe and main body of the fungus if sliced.



Jelly Fungi

Tremella mesenterica Retz.

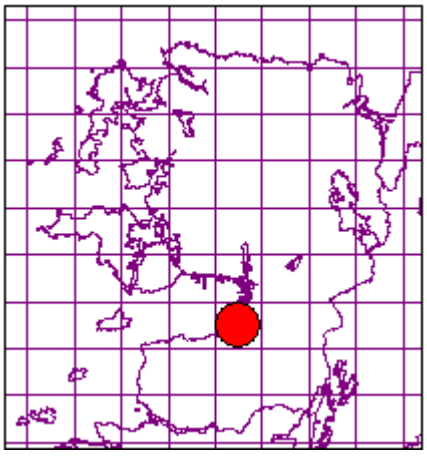
Yellow brain fungus parasitic on hyphae of *Peniophora* species



Ascomycetes

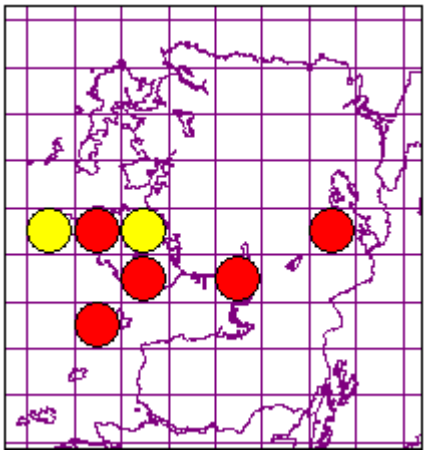
Amarenomyces ammophilae (Lasch) O.E. Erikss.

Black spots on Marram grass with very distinctive spores



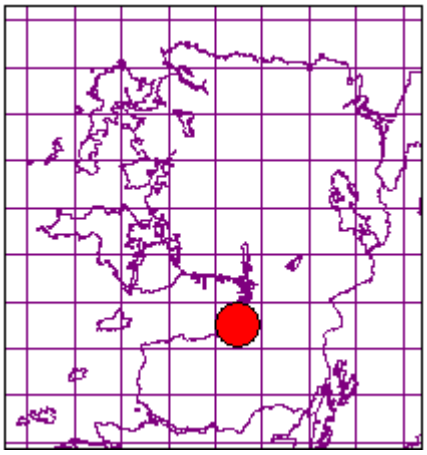
Cordyceps militaris (L.) Link

The Caterpillar Killer which parasitises moth pupae in grassland



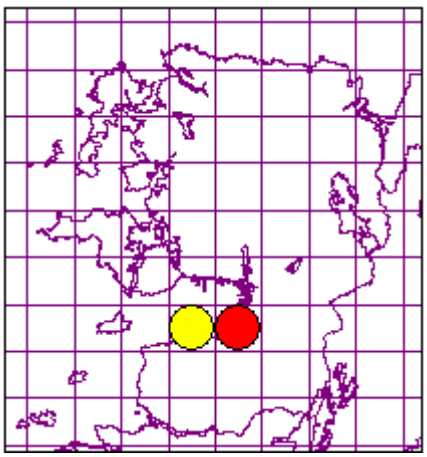
Diaporthe samaricola W. Phillips & Plowr.

Black spots on ash keys. Should be much more common in Ireland and probably overlooked.



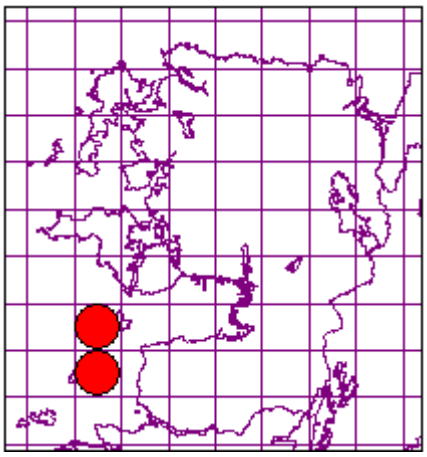
Helvella crispa (Scop.) Fr.

White bone fungus



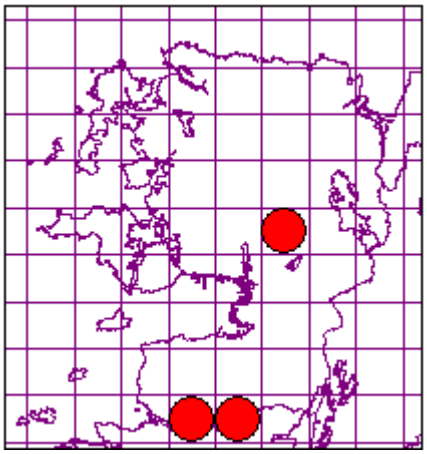
Leptosphaeria acuta (Moug. & Nestl.) P. Karst.

Pointy black spots on dead nettle stems. Very common



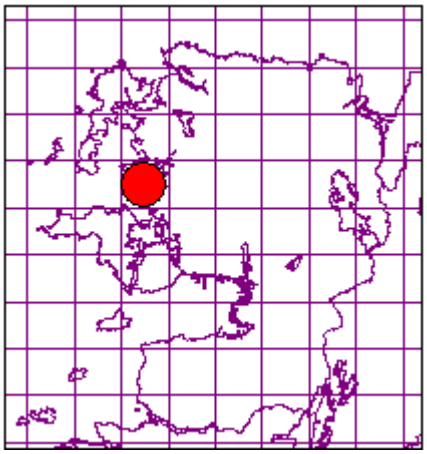
Onygena equina (Willd.) Pers.

An ascomycete found on freshly decaying sheep horns



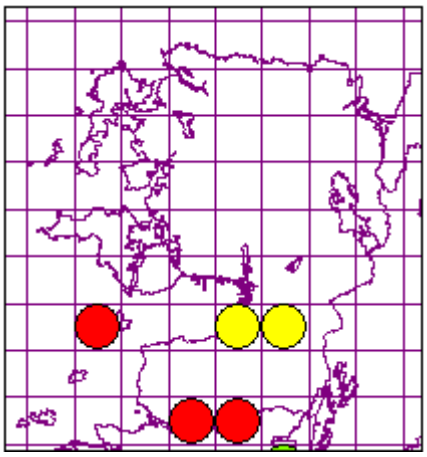
Peziza ammophila Durieu & Mont.

A cup fungus found in embryo dunes with a buried stem in the sand



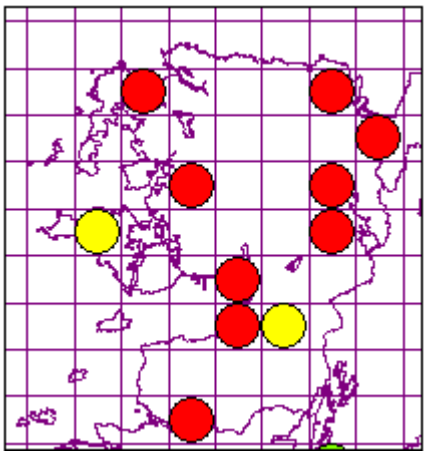
Rhopographus filicinus (Fr.) Nitschke ex Fuckel

A ubiquitous species on Bracken. Will be much more common as not systematically looked for



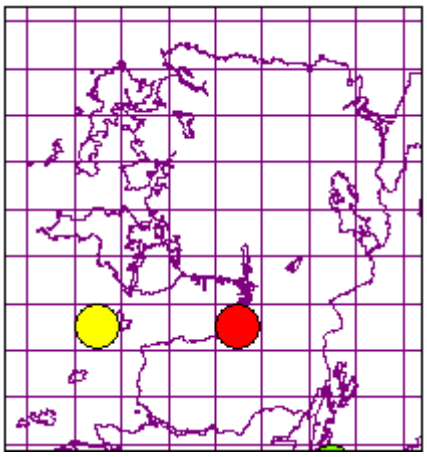
Rhytisma acerinum (Pers.) Fr.

Tar spot fungus found on Sycamore leaves



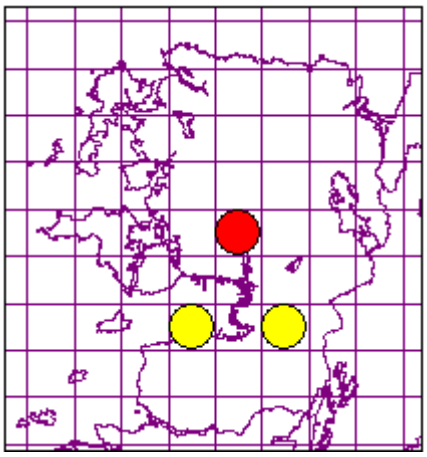
Rhytisma salicinum (Pers.) Fr.

Found on Salix leaves



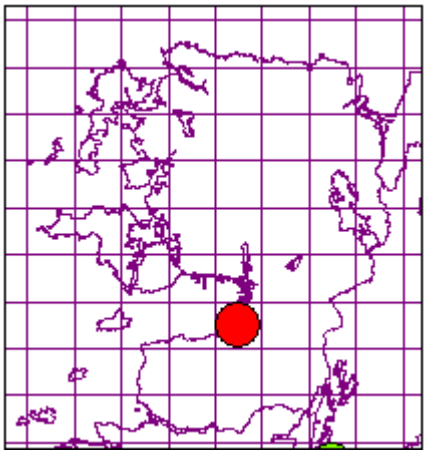
Scutellinia scutellata (L.) Lambotte

The common eyelash fungus



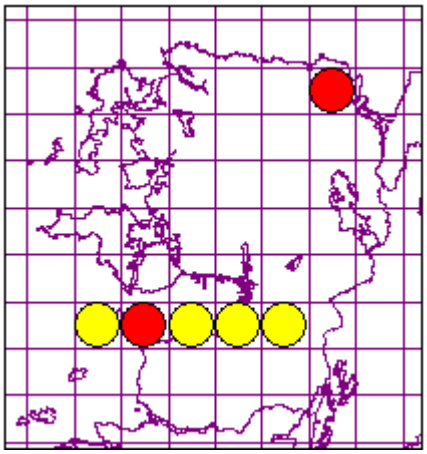
Taphrina alni (Berk. & Broome) Gjaerum

The tongues found on Alder cupules



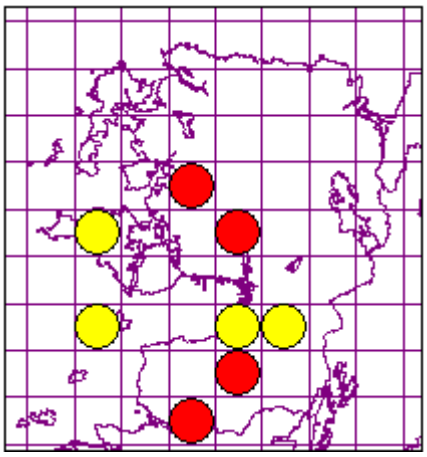
Trochila ilicina (Nees) Greenh. & Morgan-Jones

Very common on Holly leaves



Xylaria hypoxylon (L.) Grev.

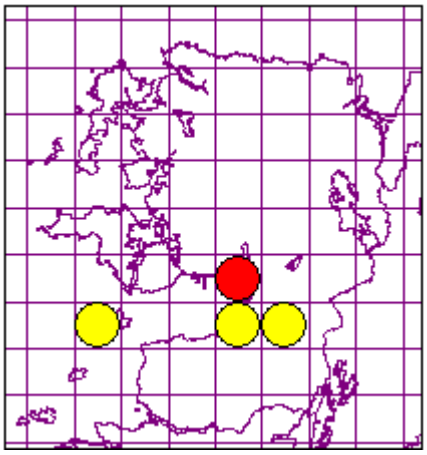
Very common on wood



Rusts and Smuts

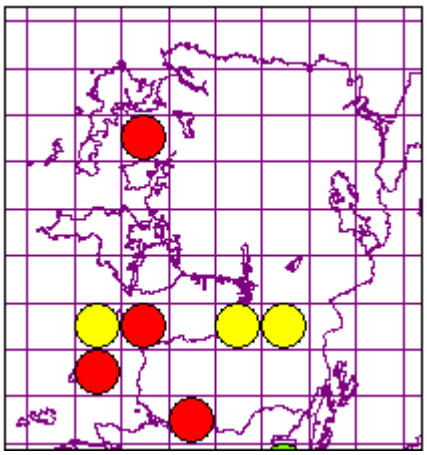
Melampsoridium betulinum (Pers.) Kleb.

A common rust on Birch leaves



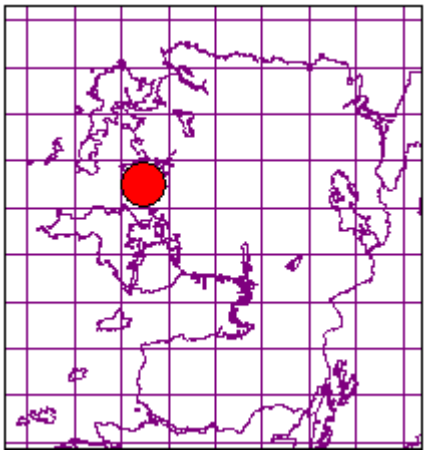
Phragmidium violaceum (Schultz) G. Winter

Very common rust on Bramble. Will be more common as not systematically looked for



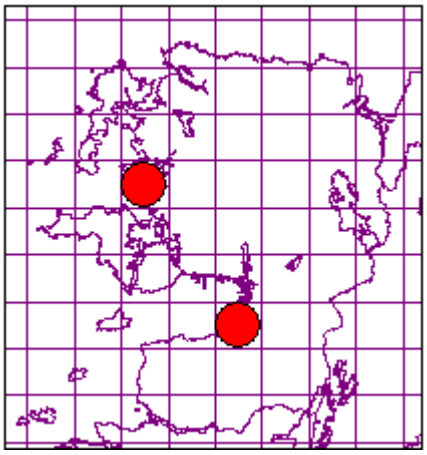
Puccinia distincta McAlpine

A recent invader on Daisies



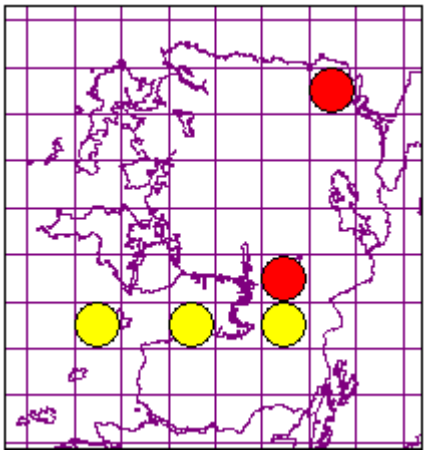
Puccinia poarum E. Nielsen

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



Puccinia violae (Schumach.) DC.

A rust on Violets



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.