



▲ Deformed podetia of an Antler lichen, *Cladonia* sp., caused by an infection by *Zyzygomyces bachmanii* (photo: Jenny Seawright).

## FUNGI AND SLIME MOULDS

Mandy Dee & John Hedger

### Introduction

We made three recording visits to Lundy in 2024, in the first week of April (MD) the last week in September (MD) and the first week of November (MD and JH). In addition, there were other sightings of fungi recorded in the Logbook which extended the coverage to some of the Spring and Summer months. In total 108 species of fungi were found, of which 29 were new records and 14 were second records. These are shown in the table at the end of this report. The current list to be found on the LFS website has 833 species of fungi so once the 2024 new records have been added the total will be 862. One difference this year is that we have included five species detected by extraction of DNA from soil and root samples and identified from DNA data bases ('metabarcoding') by Ruben Mole as part of his study of the Grey Waxcap on Lundy which was funded by a grant from the LFS. This means the new records total of 'seen and found' fungi is in fact 24 for the year, not 29, still pretty impressive. No new Slime Moulds this year, so the total stays at 23.

More studies of Lundy grassland via DNA barcoding are planned for 2025, again funded by the LFS, so we will have to decide whether to accept any records they generate. A problem. Ideally finding fruit bodies of these fungi would resolve this issue but their often small size makes it a challenge. One example might be *Zyzygomyces bachmanii*, whose DNA Ruben found in Antler lichens

(*Cladonia* species) of which it is a parasite. Infected lichen can be spotted in the field by discoloured flattened plates on the 'antlers' on which the tiny fruit bodies of the fungus form. The photo shows an example from the Dorset Nature website. Surely it can be found on Lundy by someone with good eyesight, a hand lens and patience?

### Field Records

One of the earliest records was an odd one; in March Alan Rowland found a white shelf-like gill fungus sprouting out of the wood of one of the cargo boxes used on the Oldenburg. It proved to be *Pleurotus pulmonarius* the **White Oyster Mushroom**, which is common on the mainland on dead Elms but never seen before on Lundy.



▲ White Oyster Mushroom *Pleurotus pulmonarius* fruit bodies on a cargo box on the Jetty, March (photo: Alan Rowland).

April saw more records, including that by Thomas Weston of the hard black **Cramp Balls** or **King Alfred's Cakes** (*Daldinia concentrica*) on the Ashes at the bottom of Millcombe. It has been recorded here for many years and will only disappear if the Ashes themselves are killed by the **Ash Dieback** fungus (*Hymenoscyphus fraxineus*) – a new record we do not wish to have. Moving into May, Mandy Dee found a true Spring fungus: **St George's Mushroom** (*Calocybe gambosa*), an attractive chunky white gill fungus which appears around St George's Day (23<sup>rd</sup> April) and into May. It was in long grass in the Village. Other Spring records were of grassland and dung fungi which also occurred right through into late autumn on Lundy, for example the **Fairy Ring Champignon** (*Marasmius oreades*) and the **Egg Head Mottlegill** (*Panaeolus semi-ovatus*), both found by Richard Penny in grass on Ackland's Moor in April. By June the dry conditions meant few records – just two, another Egg Head Mottle Gill on dung in Middlepark by Sophie Williams and an **Ochre Britlegill** (*Russula ochroleuca*), usually a harbinger of autumn, under the Pines in Millcombe by Alan Rowland.

The main autumn crop of fungi was well under way when Mandy Dee was on the island at the end of September into the first week in October, with many of the grassland fungi, including the iconic **Waxcaps**, **Pinkgills**, **Earthtongues** and **Club Fungi** fruiting in their usual sites in turf

around the Old Hospital, Quarter Wall Cottages, the Airfield and Southwest Field, especially around the Rocket Pole. One notable Waxcap find was of the bright yellow pointed caps of the **Persistent Waxcap** (*Hygrocybe acutoconica*) which is only found occasionally on Lundy, always around the Old Hospital and Quarter Wall Cottages. Apart from the usual species of **Yellow Clubs** (*Clavulinopsis*) Mandy also found the short pink **Skinny Club** (*Clavariopsis incarnata*) in short turf at Quarter Wall Cottages, a new record bringing the Lundy total of Club Fungi to 18. Nearby was the **Beige Coral** (*Clavulinopsis umbrinella*), the third record. Although well studied these areas continue to produce exciting new finds, including a 'true' **Mushroom** (*Agaricus porphyrocephalus*) on the



▲ *Agaricus porphyrocephalus* fruiting on the Airfield, October (photo: Mandy Dee).



▲ Skinny Club *Clavariopsis incarnata* in turf at Quarter Wall Cottages, October (photo: Mandy Dee).



▲ Beige Coral *Clavulinopsis umbrinella* in short turf near Rocket Pole, October (photo: Mandy Dee).



▲ Persistent Waxcap *Hygrocybe acutoconica* in short turf at Quarter Wall Cottages, October (photo: Mandy Dee).

Airfield, a rare purple-brown capped species about the same size as a Field Mushroom. This brings the total number of Mushroom species recorded for Lundy up to 13.

Early autumn is the best time to look for the fungi associated with the stands of **Creeping Willow** (*Salix repens*) in the Punchbowl Valley and around Pondsby. In all cases they have a symbiotic, mycorrhizal association with the roots of the shrub. Mandy got a good list including fruitings of the **Cep** or **Penny Bun Mushroom** (*Boletus edulis*), dwarfing the associated willow plants, as well as the colourful orange fruit bodies of the **Marsh Webcap** (*Cortinarius uliginosus*) and the aptly named **Cinnamon Webcap** (*Cortinarius cinnamomeus*), the latter a new record for Lundy. An even more exciting find was a **Poison Pie** (*Hebeloma*), *H. theobrominum* – the species name reflects the cocoa (*Theobroma cacao*) brown colour of its chunky caps. Another new find, and nationally uncommon.



▲ Penny Bun Mushroom *Boletus edulis* among Creeping Willow, Punchbowl Valley, October (photo: Mandy Dee).

By the time Mandy was on the island for her second survey week with John Hedger in early November most of the fungi associated with the Creeping Willow had disappeared. However the grassland fungi were present in much larger numbers, especially on Southwest Field and around Rocket Pole where the short turf was covered in colourful orange red and yellow **Waxcap** species, some spectacular blue-capped **Pinkgills** and many **Apricot**, **Golden** and **Yellow Clubs**. The latter included a very odd form of the **Golden Spindles** (*Clavulinopsis fusiformis*) with a rounded cauliflower shape rather than the usual pointed clubs. Louise Tranter, an expert on these fungi, considers it may be a new variety or even species of Club and she will be carrying out a DNA based study of all Club Fungi next November funded by the LFS, seeking to determine if new varieties or species do occur on Lundy.

Another puzzling find was a group of slimy-capped orange brown **Waxcaps** which we thought at first were *Gliophorus europerplexus* – a new record for Lundy. On checking specimens though, it appears to be an undescribed variety of the **Heath Waxcap** *Gliophorus laetus*. We await DNA sequencing of dried material sent to Aberystwyth University to solve the puzzle. We also await sequence confirmation of another Waxcap which if correct will be new to Lundy: the **Dingy Waxcap** (*Neohygrocybe ingrata*) – an apt name for the single rather dull



▲ Marsh Waxcap *Cortinarius uliginosus* in Creeping Willow Punchbowl Valley, October (photo: Mandy Dee).



▲ *Hebeloma theobrominum* in Creeping Willow Punchbowl Valley, September (photo: Mandy Dee).



▲ Heath Waxcap *Gliophorus laetus* a novel form found near Rocket Pole in medium height grass, November (photo: Mandy Dee).



▲ A novel form of Golden Spindles *Clavulinopsis fusiformis* in short turf near the Punchbowl, November (photo: John Hedger).



▲ Sepia Pinkgill *Entoloma jubatum* in short grass near Rocket Pole, November (photo: Mandy Dee).



▲ Navy Pinkgill *Entoloma atrocoeruleum* in short grass Southwest Field November, (photo: Mandy Dee)..



brown and partly broken fruit body we found in the short turf near the Quarter Wall Cottage foundations which nevertheless had the right change to pink in the gills and stem when bruised. Microcopy confirmed the spore size and shape were correct. If right, this addition brings the Lundy total of Waxcap species to 40!

We also found many fruit bodies of **Pinkgills**, *Entoloma* species, at the Quarter Wall Cottages site and around the Old Hospital. Two were new records: **Clandestine Pinkgill** (*Entoloma clandestinum*) and the **Clubbed Pinkgill** (*Entoloma inusitatum*). There were second records for the flat brown caps of *Entoloma infula*, the **Chaste Pinkgill**, and the purplish brown pointed caps of *Entoloma jubatum* – the **Sepia Pinkgill**, only the second record for this fungus on Lundy; it can be confused with the commoner but larger **Lilac Pinkgill** (*Entoloma porphyrophaeum*) which we did also find on the Airfield. Blue-capped species of Pinkgill occurred here but these were even commoner on Southwest Field and around Rocket Pole, including the dark blue species like the **Crow Pinkgill** (*Entoloma corvinum*) and Navy Pinkgill (*Entoloma atrocoeruleum*) though all were less common than in the late September/October survey by Mandy.

The 2024 autumn on Lundy will stand out mycologically for the exceptional numbers of **Earthtongues** everywhere in the grassland, much greater than in all previous years. The most local was the previously known colony of **Hairy Earthtongues** (*Trichoglossum hirsutum*) in the grass between the Radio Room and Old House which was there from September to November; it was also present in new sites around the Old Hospital and Quarter Wall Cottage foundations. In a lot of other places we found colonies of five species of **Black Earthtongues** (*Geoglossum* spp.) including a new Lundy record, the **Elongate Earthtongue** (*Geoglossum elongatum*). All look identical in the field and can only be sorted out by microscopy. The colony of the **Slimy Earthtongue** (*Glutinoglossum glutinosum*)

◀ Hairy Earthtongue *Trichoglossum hirsutum* in the lawn in front of the Radio Room, November (photo: Mandy Dee).



▲ Lavender Waxcap Mould *Marquandomyces marquandii* on fruit bodies of Snowy Waxcap *Hygrocybe virginia* Lighthouse Field, November (photo: Mandy Dee)..

beside the Central Path east of Pondsbury was there as in previous years and once again was associated with the orange-brown pointed caps of the **Blackening Waxcap** (*Hygrocybe conica*): is there a relationship between the two species? However, the oddest find was a Black Earthtongue covered in a white mould collected near Old Hospital. This covering proved to be a parasite of Earthtongues, *Hypomyces papulasporae*, and a Lundy first.

The numbers of species of Clubs (9), Waxcaps (22), Pinkgills (19) Earthtongues (7) and Crazy Caps (1) found during the September/October and November visits was very impressive. Summed up they give a very high 'CHEGD' score of 58 (Clavariaceae, Hygrophoraceae, Entolomataceae, Geoglossaceae and Dermoloma) for the visits, once again underlining the high conservation status of Lundy grassland.

The annual public fungus foray led by Mandy and me once again happened, on November 5<sup>th</sup>, and was attended by 32 enthusiastic participants including Joe the Warden. The route took in the cliff top grassland from Benjamin's Chair to Rocket Pole, and then into SW Field and the Lighthouse Fields. Sixty eight species were found including two new records. The first was rather serendipitous – an undistinguished white toadstool was picked up by a forayer and initially almost discarded by us as yet another **Fool's Funnel** (*Clitocybe rivulosa*) but its somewhat odd appearance led to a microscope check and the finding that it was the **Mealy Domecap** (*Tricholomella constricta*), which had never been seen on Lundy before and is uncommon in the UK. The second new record was also almost not collected – a rather undistinguished 'brown job' plucked up by another forayer as a possible **Magic Mushroom** (*Psilocybe semilanceata*), but whose stem displayed exciting blue-green hues at the base, which placed it in another *Psilocybe* species, *P. strictipes*. A new record made on the 2022 foray was also re-found in Lighthouse Field: the **Lavender Waxcap Mould** *Marquandomyces marquandii*, showing up as a pink colour on the gills of the **Snowy Waxcap** (*Hygrocybe virginia*), which it parasitises. Finally, the oddest record of the foray was of a



▲ Orange Peel Fungus, *Aleuria aurantia* in short Sea Plantain turf above Pilot's Quay, November (photo: Mandy Dee).

sheet of minute bat-shaped fruit bodies of the **Orange Porcup** *Favolaschia claudopus*, covering the surface of some discarded plywood near to Rocket Pole Pond. This is a recent Lundy arrival (first record 2018) and up to now found only in Millcombe on twigs so its spread to Rocket Pole on manmade timber shows it is an unexpectedly opportunistic fungus.

A later visit to the cliff top above Pilot's Quay found a strange assemblage of fungi in the very short heavily grazed Sea Plantain/Red Fescue, including the **Mini Mushroom**, *Agaricus comtulus*, the young fruit bodies of the **Grey Puffball** *Bovista plumbea* and, most bizarrely, one fruit body of the **Orange Peel Fungus** *Aleuria aurantia*, a large cup fungus which has only previously been seen in disturbed soil around the Village. Perhaps the eroding soil on the cliff top offers a similar habitat.

Less time was spent collecting in the woodland and scrub on Lundy. However, Mandy Dee was able to add the **Clustered Toughshank** (*Gymnopus confluens*) growing in characteristic clumps on Pine litter in Millcombe in October. This is a common decomposer fungus in autumn in UK woodlands and it is surprising that it has taken so long to add it to the Lundy list.

Finally the collections of 'microfungi' such as Rusts and Powdery Mildews that parasitise plants once again produced some new records in November: the area next to the Beer Garden in the village that used to be occupied by the pigs proved to be a treasure trove of microfungi on the invading 'weeds' like Teasel, Wild Oats and Sow Thistles. Even the Staff Garden produced a new record of **Beet White Mould** *Ramularia beticola* on the leaves of Beetroot; we thank Rob and Sue for planting it. Finally even as we waited for the helicopter, a grey covering on the leaves of Ground Ivy proved to be a Powdery Mildew new to Lundy, **Mint Powdery Mildew** *Neoverysiphe galeopsidis*.

We end by thanking everyone who took the trouble to enter their records of fungi seen on Lundy in the Logbook. All records are very welcome: just put them in, but if you need reassurance on identities please email photographs to [johnnhedger2@gmail.com](mailto:johnnhedger2@gmail.com). Happy to help – those summer months remain stubbornly under-recorded.

▼ Table 1 New Records of Fungi on Lundy 2024

Latin Name	Common Name	Where found	Lundy Locality	Date	Found by*
<i>Agaricus porphyrocephalus</i>		Medium height grass	Airfield	09/10/2024	M.D.
<i>Botrytis cinerea</i>	Grey Mould	Dead stems of Teasel	Old Pig pen ,Village	03/11/2024	J.H. M.D.
<i>Clavariopsis incarnata</i>	Skinny Club	Very short turf	Quarter Wall cottages	11/10/2024	M.D.
<i>Coccomyces australis</i>		DNA only from heather roots	North End	07/04/2024	R.M.
<i>Coleosporium tussilaginis</i>	Coltsfoot Rust	Leaves of Sow Thistle	Old Pig pen ,Village	04/11/2024	J.H. M.D.
<i>Coleroa potentillae</i>		Living leaves of Cinquefoil	Millcombe	01/11/2024	J.H. M.D.
<i>Cortinarius cinnamomeus</i>	Cinnamon Webcap	Heath	Punchbowl Valley	30/09/2024	M.D.
<i>Entoloma clandestinum</i>	Clandestine Pinkgill	Very short turf	Near Old Hospital	04/11/2024	J.H. M.D.
<i>Entoloma inusitatum</i>	Clubbed Pinkgill	Very short turf	Quarter Wall cottages	04/11/2024	J.H. M.D.
<i>Entoloma nitidum</i>	Pine Pinkgill	Short grass & bracken	W. end of Quarter Wall	02/11/2024	J.H. M.D.
<i>Galerina pseudomniophila</i>	Cinnamon Bell	Very short Sea Plantain turf	Above Pilots Quay	07/11/2024	J.H. M.D.
<i>Geoglossum elongatum</i>	Elongated Earthtongue	Short turf	W.end Punchbowl Valley	02/11/2024	J.H. M.D.
<i>Geoglossum elongatum</i>	Elongate Earthtongue	Very short turf	Near Old Hospital	04/11/2024	J.H. M.D.
<i>Gymnopus confluens</i>	Clustered Toughshank	Pine litter	Millcombe	07/10/2024	M.D.
<i>Hebeloma theobrominum</i>		Creeping Willow	Punchbowl Valley	30/09/2024	M.D.
<i>Hyaloscypha hepaticicola</i>		DNA only from soil and heather roots	North End	07/04/2024	R.M.
<i>Hypomyces papulasporae</i>		Covering a <i>Geoglossum</i> fruit body	Near Old Hospital	07/11/2024	J.H. M.D.
<i>Monodictys levis</i>		Old pods of Sweet Pea	Staff Gardens	03/11/2024	J.H. M.D.
<i>Mycena abramsii</i>		Short turf	Near Rocket Pole	03/11/2024	J.H. M.D.
<i>Mycena galopus var leucogala</i>	Milking Bonnet	Very short turf	Near Old Hospital	04/11/2024	J.H. M.D.
<i>Neoerysiphe galeopsidis</i>	Mint Mildew	Leaves of Ground Ivy	Wall by Govt. House	08/11/2024	J.H. M.D.
<i>Neohygrocbe ingrata</i>	Dingy Waxcap	Very short turf	Near Old Hospital	04/11/2024	J.H. M.D.
<i>Pezicula rhizophila</i>		DNA only from heather roots	North End	07/04/2024	R.M.
<i>Pleurotus pulmonarius</i>	White Oyster Mushroom	Inside cargo box	Jetty	20/03/2024	A.R.
<i>Podilia humilis</i>		DNA only from soil samples	North End	07/04/2024	R.M.
<i>Psilocybe strictipes</i>		medium height grass	SW Field by Old Light	05/11/2024	Foray
<i>Puccinia ssp. graminicola</i>	Oat Rust	Leaves of Wild Oats	Old Pig pen,Village	03/11/2024	J.H. M.D.
<i>Ramularia beticola</i>	Beet White Mould	Leaves of Beetroot	Staff Gardens	03/11/2024	J.H. M.D.
<i>Tricholomella constricta</i>	Mealy Domecap	medium height grass	SW Field	05/11/2024	Foray
<i>Zyzygomycetes bachmanii</i>		DNA only from <i>Cladonia</i> lichen	North End	07/04/2024	R.M.

\*Key to finders: A.R. = Alan Rowland, R.M. = Ruben Mole, M.D. = Mandy Dee, J.H. M.D. = John Hedger & Mandy Dee