

AUTUMN SURVEYS OF FUNGI ON LUNDY

by

John Hedger
9 Durnamuck, Dundonnell, Garve, Wester Ross IV23 2QZ
johnhedger2@gmail.com

INTRODUCTION

A party consisting of John Hedger, André & Marie-Jo Coutanche and Alan & Sandra Rowland visited Lundy on 6–13 November 2015 to carry out a survey of the fungi. This latest autumnal effort was a continuation of yearly surveys by the LFS carried out since October 2003, when I first visited Lundy with Jenny & David George, who correctly suggested that the ‘mushrooms and toadstools’ on Lundy were worth studying.

The visits both by myself and the Georges, usually staying at Big St Johns, and with the Rowlands and Coutanches, based in Government House, have now yielded a list of 517 species, of which around 95 were recorded by LFS members prior to 1995. Accurate identification of many fungi needs a microscope, so visits have always needed temporary conversion of part of the properties to *ad hoc* laboratories, an eccentricity tolerated, even perhaps enjoyed, by the Lundy staff. In addition over the past few years, the Wardens, latterly especially Beccy MacDonald, have encouraged a ‘Foray’, open to visitors to the island, most of which have been successful, in spite of occasional awful weather, and have become an item on the Lundy events calendar. In 2015 a party of 21, which included visitors, LFS members and some of the island staff, spent an enjoyable morning on 11 November exploring the delights of the multitude of fungi around Quarter Wall Pond and the Old Hospital, accompanied by the best weather of the week.

SPECIES OF FUNGI RECORDED

An entry in the LFS Logbook for the week previous to our arrival had indeed recorded the presence of this ‘Myriad of Fungi’ on Lundy – an accurate observation, probably due to the dry warm September and October, the weather only really breaking down as we arrived, so the sudden moisture and relatively high soil temperature allowed the ‘myriads’ to suddenly appear all over the island. From the south to the north we recorded species in many places where they had been absent in previous autumn surveys. Such is the hazard of field studies on fungi. They may be present in the soil or wood, but only visible and identifiable when they form their fruit bodies, the ‘mushrooms and toadstools’.

Inevitably we concentrated on the main interest on Lundy: the fungi of its unimproved, and thus very special, grassland and heathland. Most of the species listed in Table 1 come from these areas of Lundy. However, Lundy woodland, although very small, never ceases to surprise and yielded two new records: the rather beautiful Snowy slime mould *Ceratiomyxa fruticulosa* (shown on colour plate 2) which was found by Alan Rowland in Quarter Wall Copse; and a large, but new to Lundy, ‘shelf fungus’ called *Postia subcaesia*, the ‘Broadleaf blueing bracket’, which was discovered by LFS member Linda Bolwell on an Ash stump in Lower Millcombe and did indeed bruise a faint blue colour on handling.

Linda also got another Lundy ‘first’ by somehow spotting a very tiny, but perfectly formed, gill fungus, growing in the moss at the side of the road by Brambles. The cap is only 2 mm across

and it has beautiful translucent gills. It was eventually identified as a species, and indeed genus, never before seen on Lundy, *Leptoglossum griseopallidum*. Other gill fungi new to Lundy were found, all in grassland. Most notable were three waxcap species. The beautiful bright orange *Hygrocybe marchii* was found growing on the Airfield. A rather duller grey species may be *Hygrocybe ?canescens* (? denotes the degree of uncertainty), a rarity (shown on colour plate 3) which was found in very short pony-grazed turf around the Old Hospital, along with many other colourful Waxcaps like *H. coccinea* (Scarlet waxcap), *H. insipida* (Spangle waxcap) and *H. chlorophana* (Butter waxcap). Finally an orange waxcap, possibly related to the Honey waxcap *H. reidii* but with many points of difference, was found on the Airfield. We await determinations by DNA homology to sort out its identity and that of *H. ?canescens*. In all, 20 certain waxcap species were found on the survey. Nine species previously recorded were not found but will re-occur, so the running waxcap total is now 29 species; possibly 31 once the DNA work is done.

As well as the waxcaps, another group of grassland fungi that are indicators of the high conservation value of the Lundy grasslands are the pinkgills (*Entoloma* species). Many are brown-capped, for example the Star pinkgill *Entoloma conferendum* (see colour plate 2). However, those attending the Foray were delighted to find the very beautiful 'Azure' pinkgill, *Entoloma chalybdaeum* var *lazulinum* (called *E. lazulinum* in many books) – a small gill fungus with the most extraordinary deep blue cap and stem, plus pink gills (colour plate 4). Although a first record for Lundy, it was not rare as we found it all over the island. In total we found 12 species of pinkgill, of which two are new records, the 'Azure' pinkgill and the much larger blue species *Entoloma corvinum* which we found bravely growing in the centre of the path to Tibbetts (colour plate 3). The Lundy total for pinkgill species is now 31.

Numbers of species of pinkgills and waxcaps can be combined with numbers of club fungi (Clavariaceae family) and earth tongues (Geoglossaceae family) to give a 'CHEG' score (see below) of the conservation value of a grassland. Species of both families were common all over Lundy, with short turf in some places covered with the black tongue-like fruit bodies of Black earthtongues (mostly *Geoglossum fallax*), together with the white, yellow or orange 'spindles' of species of the club fungi *Clavaria* and *Clavulinopsis*. Total numbers of species of Clavariaceae, Hygrocybe, Entolomataceae and Geoglossaceae (the CHEG score) for the November 2015 survey was 42, an impressive figure.

One of the strangest records was of the large and colourful gill fungus 'Plums & Custard' *Tricholomopsis rutilans*. This has a purple cap and custard-yellow gills (see colour plate 4). We found it in two places, in turf near Gannets' Combe and on the West Side above Jenny's Cove. The latter is an odd situation since this is a wood-rotting fungus, with only one previous record on Lundy (in October 2013) on the wood used to construct the Jacob's ladder path up from the Lower East Side Path to Millcombe. On Lundy it seems to rot grass litter – we could find no buried wood.

Overall, the survey turned up ten new records of species of fungi, bringing the current total to 527.

SURVEYS OF NUMBERS OF FUNGI ON THE AIRFIELD AND AT THE NORTH END

Apart from recording species of fungi over Lundy, we surveyed the numbers of fruit bodies (mushrooms and toadstools) of fungi on three approximately 30-m wide transects of the western end of the Airfield. This survey has now been carried out by the LFS in most autumns since 2004, some ten years of data and sufficient for publication hopefully as a short note in the next

LFS Journal. In 2015 we recorded 40 species of fungi and 388 fruit bodies. Some had not been found in previous surveys, including the very colourful Blue roundhead *Stropharia caerulea* which was also common all over the island.

Another ongoing LFS autumn survey is of the Heather waxcap *Hygrocybe lacmus*, first found near John O'Groat's House in 2003. We have found that the grey fruit bodies are restricted to the North End, although this time we established them in a 'furthest south' location in the heather on the West Side just north of St James's Stream. The count of fruit bodies this year for the North End was a record 2,017. As with the Airfield transect data, we now have enough to publish a short account of the distribution and fruit body numbers of this intriguing waxcap.

ACKNOWLEDGEMENTS

We thank the LFS members on Lundy during our visit and the island staff and Lundy Warden Beccy MacDonald for their help and interest in the project. We thank Derek Green for the financial assistance from the Lundy Company for transport of microscopes and books to the island. Hopefully this will be unnecessary in the future thanks to the new and excellent secure cupboard for LFS field equipment in Jack's Store, organised by Roger Chapple.



Table 1. Fungi recorded on Lundy, 6–13 November 2015.

Fungi	Popular name	Where found / Site
MACROFUNGI		
Ascomycota	Sac fungi or Ascus	
Discomycetes	Cup fungi	
<i>Coprobria (=Cheilymenia) granulata</i>	Yellow dung disco	on Highland Cattle Dung / Brick Field
<i>Geoglossum fallax</i>	Black earth tongue	short turf / by Quarter Wall Pond
<i>Geoglossum glutinosum</i>	Slimy earthtongue	in short turf / side of main track nr Pondsburly
Pyrenomycetes	Flask fungi	
<i>Daldinia concentrica</i>	King Alfred's cakes	on dead <i>Fraxinus excelsior</i> (Ash) / by gas store, Lower Millcombe
<i>Epichloe typhina</i>	Choke	on <i>Holcus mollis</i> (Yorkshire Fog) / nr Middle Park Pond
<i>Sordaria superba</i> *	–	on old Rabbit dung / Gannets' Combe
Basidiomycota	Mushrooms or Basidios	
Aphylophorales	Shelf and Club fungi	
Clavariaceae	Club fungi	
<i>Clavaria acuta</i>	Pointed club	in short turf / side of main track nr Pondsburly
<i>Clavaria fragilis</i>	White spindles	very short turf / Old Hospital foundations
<i>Clavulinopsis corniculata</i>	Meadow coral	very short turf / Old Hospital foundations
<i>Clavulinopsis fusiformis</i>	Golden spindles	in short grass and heather / above North Light
<i>Clavulinopsis helvola</i>	Yellow club	in short turf on path / nr Widow's Tenement
<i>Clavulinopsis luteoalba</i>	Apricot club	short grass / nr Ackland's Moor Pond
Polyporaceae	Shelf fungi	
<i>Inonotus radiatus</i>	Alder bracket	on living <i>Alnus glutinosa</i> (Alder) / Quarter Wall Copse
<i>Phellinus ferruginosus</i>	–	on cut Rhododendron branches / Lower East Side path nr QW Copse
<i>Postia subcaesia</i> *	Broadleaf blueing bracket	on dead wood <i>Fraxinus excelsior</i> (Ash) / by gas store, Lower Millcombe
<i>Spongipellis spumeus</i>	–	on dead tree <i>Salix</i> sp (Willow) / Walled Garden on west of track

Table 1, continued		
Fungi	Popular name	Where found / Site
<i>Stereum hirsutum</i>	Hairy curtain crust	on dead trunk <i>Quercus cerris</i> (Turkey Oak) / upper path, Millcombe
<i>Stereum rugosum</i>	Bleeding broadleaf crust	on dead Rhododendron stump / Lower East Side Path nr Sugar Loaf
<i>Trametes versicolor</i>	Turkey tail	on dead wood <i>Fraxinus excelsior</i> (Ash) / by gas store, Lower Millcombe
<i>Trechispora farinacea</i>	–	on dead Sycamore branch / nr Casbah, Millcombe
Agaricales	Gill fungi	
<i>Agaricus arvensis</i>	Horse mushroom	in short grass / Airfield
<i>Agaricus campestris</i>	Field mushroom	on rotted dung, silage etc / Tillage Field dump
<i>Agaricus impudicus</i>	Tufted wood mushroom	Bracken and grass / by Lower East Side Path at Quarries
<i>Agaricus pseudovillaticus</i>	Clustered mushroom	short grass / cliff path on South West Field by small reservoir dam
<i>Agaricus urinascens</i> var <i>excellens</i> *	–	in short grass / Lighthouse Field
<i>Agrocybe paludosa</i>	Field cap	short turf / Lower East Side Path at Quarries
<i>Clitocybe dealbata</i>	Ivory funnel	short turf / Quarter Wall Cottages
<i>Clitocybe rivulosa</i>	Fools funnel	short turf / Airfield
<i>Clitocybe nebularis</i>	Clouded funnel	in tall grass & bracken / nr Government House
<i>Clitocybe fragrans</i>	Fragrant funnel	in tall grass & bracken / by Farm track
<i>Clitocybe vibecina</i>	Mealy funnel	medium height grass / Lower East Side Path nr Quarries
<i>Collybia butyracea</i>	Butter cap	bracken and grass / by grass track up to Tibbets
<i>Collybia butyracea</i> var <i>asema</i>	White butter cap	under bracken / Lower East Side Path nr Sugar Loaf
<i>Collybia dryophila</i>	Russet toughshank	Bracken and grass / by grass track up to Tibbets
<i>Conocybe tenera</i>	Common conecap	old pony apples / by Quarter Wall Cottages
<i>Conocybe subovalis</i>	Dung conecap	pony apples / by Quarter Wall Cottages
<i>Coprinus</i> (= <i>Coprinellus</i>) <i>heptemerus</i>	–	pony apples / by Quarter Wall Cottages
<i>Coprinus</i> (= <i>Parasola</i>) <i>plicatilis</i>	Pleated inkcap	mown grass / lawn by Quarters

Table 1, continued		
Fungi	Popular name	Where found / Site
<i>Cystoderma amianthinum</i>	Earthy powdercap	tall grass with heather / nr Ackland's Moor Pond
<i>Dermoloma cuneifolium</i>	–	in short turf / West Side Path above Jenny's Cove
<i>Entoloma caesiocincta</i>	–	in short turf / side of main track nr Pondsburry
<i>Entoloma chalybdaeum</i> var <i>lazulinum</i> *	Azure pinkgill	short turf / nr Middle Park Pond
<i>Entoloma conferendum</i>	Star pinkgill	tall grass / nr Middle Park Pond
<i>Entoloma corvinum</i> *	Blue pinkgill	in short turf / path up to Tibbets
<i>Entoloma lampropus</i>	–	in short turf / side of main track nr Pondsburry
<i>Entoloma longistriatum</i>	–	in short turf / Lower East Side Path nr Quarries
<i>Entoloma papillatum</i>	–	grass and bracken / Lower Millcombe
<i>Entoloma sericella</i>	–	in short turf / side of main track nr Pondsburry
<i>Entoloma sericellum</i>	Cream pinkgill	short turf / by Lower East Side Path at Quarries
<i>Entoloma sericeum</i>	–	in short turf / by West Side Path at North End
<i>Entoloma serrulatum</i>	Blue edge pinkgill	in short turf / side of main track nr Pondsburry
<i>Entoloma turbidum</i>	–	in heather / Upper Gannets' Combe
<i>Fayodia pseudoclusilis</i>	–	in bracken and grass / Ackland's Moor
<i>Galerina laevis</i>	–	in short turf / West Side path nr Quarter Wall
<i>Galerina pseudomycenopsis</i>	–	in short turf / by West Side Path at North End
<i>Hygrocybe aurantiosplendens</i>	Orange waxcap	medium height grass / east end of Airfield
<i>Hygrocybe cantharellus</i>	Goblet waxcap	in deep moss in turf / side of main track nr Pondsburry
<i>Hygrocybe ceracea</i>	Small butter waxcap	very short turf / Old Hospital foundations
<i>Hygrocybe chlorophana</i>	Butter waxcap	short turf / Quarter Wall Cottages
<i>Hygrocybe coccinea</i>	Scarlet waxcap	short turf / Quarter Wall Cottages
<i>Hygrocybe conica</i>	Blackening waxcap	mown grass / lawn in front of Millcombe House
<i>Hygrocybe conica</i> (= <i>H.olivaceonigra</i>)	Green blackening waxcap	in short turf / nr Square Cottage
<i>Hygrocybe insipida</i>	Spangle waxcap	short turf / Quarter Wall Cottages

Table 1, continued		
Fungi	Popular name	Where found / Site
<i>Hygrocybe irrigata</i>	Slimy waxcap	in short turf / above west side of Quarry Pond
<i>Hygrocybe lacmus</i>	Heather waxcap	in heather with <i>Cladonia</i> lichen / south side of Gannets' Combe
<i>Hygrocybe laeta</i>	Heath waxcap	medium height grass / east end of Airfield
<i>Hygrocybe laeta</i> (green form)	–	in grass with bracken / main track nr Halfway Wall gate
<i>Hygrocybe marchii</i> *	–	in short grass / east end of Airfield
<i>Hygrocybe miniata</i>	Vermilion waxcap	in short turf / side of main track nr Pondsburly
<i>Hygrocybe persistens</i>	Persistent waxcap	very short turf / Old Hospital foundations
<i>Hygrocybe pratensis</i>	Meadow waxcap	short turf / Quarter Wall Cottages
<i>Hygrocybe psittacina</i>	Parrot waxcap	very short turf / Old Hospital foundations
<i>Hygrocybe punicea</i>	Crimson waxcap	medium height grass / nr Ackland's Moor Pond
<i>Hygrocybe russocoriacea</i>	Cedarwood waxcap	very short turf / Old Hospital foundations
<i>Hygrocybe splendidissima</i>	Splendid waxcap	
<i>Hygrocybe</i> sp ? <i>canescens</i> *	–	in short turf / west end of Quarter Wall
<i>Hygrocybe</i> sp ? <i>reidii</i> *	–	in short grass / Airfield
<i>Hygrocybe substrangulata</i>	–	in short grass / Lighthouse Field
<i>Hygrocybe virginea</i> var <i>virginea</i>	Snowy waxcap	in short turf / nr Square Cottage
<i>Hygrocybe vitellina</i>	–	in short heather & grass / south side of Gannets' Combe
<i>Hygrophoropsis aurantiacus</i>	False chanterelle	grass with bracken / nr Old Hospital
<i>Hypholoma fasciculare</i>	Sulphur tuft	rotten stump / Millcombe
<i>Lepista nuda</i>	Wood blewitt	in tall grass & bracken / nr Government House
<i>Leptoglossum griseopallidum</i> *	–	in moss on bare soil / side of road by Brambles
<i>Lichenomphalia umbelliferae</i>	Heath navel	on wet bare peat by path / nr Widow's Tenement
<i>Macrolepiota procera</i>	Parasol mushroom	in litter under <i>Prunus spinosa</i> (Blackthorn) / upper path, Millcombe
<i>Marasmius oreades</i>	Fairy ring champignon	mown grass / lawn in front of Millcombe House
<i>Mycena aetites</i>	Drab bonnet	short turf / on grass path north of Halfway Wall

Table 1, continued		
Fungi	Popular name	Where found / Site
<i>Mycena epipterygia</i>	Yellowleg bonnet	tall grass with heather / nr Ackland's Moor Pond
<i>Mycena flavoalba</i>	Ivory bonnet	in short turf / nr Square Cottage
<i>Mycena haematopus</i> *	Burgundy drop bonnet	on dead wood <i>Quercus cerris</i> (Turkey Oak) / Quarter Wall Copse
<i>Mycena olivaceomarginata</i>	Brown edge bonnet	medium height grass / nr Ackland's Moor Pond
<i>Mycena vitilis</i>	Snapping bonnet	in short turf / West Side path above Jenny's Cove
<i>Omphalina pyxidata</i>	–	short turf / by Lower East Side Path at Quarries
<i>Omphalina velutipes</i> *	–	in short turf / West Side path nr Jenny's Cove
<i>Oudemansiella mucida</i>	–	on dead branch <i>Quercus cerris</i> (Turkey Oak) / upper path, Millcombe
<i>Panaeolous acuminatus</i>	–	short grass / side of track at Battlements
<i>Panaeolus fimicola</i>	Turf mottlegill	short grass / Brick Field
<i>Panaeolus foenisecii</i>	Brown mottlegill	in short turf / nr Square Cottage
<i>Panaeolus papilionaceus</i> var <i>parvisporus</i>	Bell-shaped mottlegill	old pony apples / by Quarter Wall Cottages
<i>Panaeolus semiovatus</i>	Egg-head mottlegill	pony apples / Quarter Wall Cottages
<i>Pholiota tuberculosa</i>	–	on Rhododendron stumps / Lower East Side Path nr St Helen's Copse
<i>Psilocybe semilanceata</i>	Liberty cap	in short turf / nr Square Cottage
<i>Psilocybe coprophila</i>	Meadow muffin mushroom	on Soay Sheep dung / north of Halfway Wall gate
<i>Rickenella fibula</i>	Orange mosscap	in short turf / West Side path nr St James' Stream
<i>Russula ochroleuca</i>	Ochre brittlegill	in litter under <i>Pinus corsica</i> (Corsican Pine) / upper path, Millcombe
<i>Stropharia caerulea</i>	Blue roundhead	in tall grass / nr Tibbetts
<i>Stropharia semiglobata</i>	Dung roundhead	pony apples / Quarter Wall Cottages
<i>Tricholomopsis rutilans</i>	Plums and custard	in deep turf / Upper Gannets' Combe
Gasteromycetales	Puffballs & Stinkhorns	
<i>Bovista plumbea</i>	Grey puffball	medium height grass / Quarter Wall Cottages

Table 1, continued		
Fungi	Popular name	Where found / Site
<i>Bovista nigrescens</i>	Black puffball	in short grass / Brick Field
<i>Handkea utriformis</i>	Mosaic puffball	tall grass / SW Field by gate nr Old Light
<i>Lycoperdon nigrescens</i>	Dusky puffball	grass with bracken / Ackland's Moor
<i>Vascellum depressum</i>	Meadow puffball	in short grass / south side of Gannets' Combe
<i>Lycoperdon spadiceum</i>	Grassland puffball	mown grass / Old Light lawn
Heterobasidiomycetes	Jelly fungi	
<i>Auricularia auricula-judae</i>	Jelly ear	on living <i>Sambucus nigra</i> (Elder) / Walled garden, Millcombe
<i>Tremella mesenterica</i>	Jelly fungus	on dead branch of <i>Ulex europaeus</i> (Gorse) / near Rocket Pole
<i>Dacrymyces stillatus</i>	Common jellyspot	on decorticated tree trunk / upper path, Millcombe
Myxomycetes	Slime moulds	
<i>Ceratiomyxa fruticulosa*</i>	Snowy slime mould	on rotted Rhododendron branches / Quarter Wall Copse
<i>Leocarpus fragilis</i>	Eggshell slime mould	fruiting on heather / nr Widow's Tenement
<i>Mucilago crustacea</i>	Dog's vomit slime mould	fruiting on grass leaves / nr Middle Park Pond
MICROFUNGI		
Uredinales	Rusts	
<i>Puccinia arenariae</i>	Campion rust	
<i>Puccinia obscura</i>	Daisy rust	on leaves of <i>Silene rubra</i> (Red Campion) / Lower Millcombe
Erysiphales	Powdery mildews	
<i>Erysiphe sordida</i>	Plantain powdery mildew	on leaves of <i>Bellis perennis</i> (Daisy) / Battlements (Beach Road)
<i>Sphaerotheca erigerontiscanadensis</i>	Dandelion powdery mildew	on <i>Plantago lanceolata</i> (Ribwort Plantain) / by the Barn
<i>Sphaerotheca fugax</i>	Mallow powdery mildew	on <i>Taraxacum officinale</i> (Dandelion) / paving back of Marisco Tavern
<i>Sphaerotheca fugax</i>	Mallow powdery mildew	on <i>Geranium molle</i> (Dove's Foot Cranesbill) / base of wall of the Barn