

**Appendix 1.** Records of macrofungi from the Maltese Islands prior to this work.

Table A1. List of macrofungi recorded from the Maltese Islands prior to this work (entries 1–299) and new records from this publication (entries 300–338) arranged in chronological order of publication. Species in bold represent presumed endemic taxa. Taxa are given as reported in their respective publication.

Taxon no.	Taxon	Publication
1	<i>Agaricus campestre</i> L.	Zerapha 1827
2	<i>Agaricus ephemerus</i> Bull	Zerapha 1831
3	<i>Boletus igniarius</i> L.	Zerapha 1831
4	<i>Phallus impudicus</i> L.	Zerapha 1831
- (?)	<i>Dermocybe helvolus</i> Pers.	Gulia 1858-1859
5	<i>Polyporus lucidus</i> (Curtis) Fr.	Gulia 1858-1859
6	<i>Daedalea unicolor</i> (Bull) Fr.	Gulia 1858-1859
7	<i>Agaricus hesperidius</i> (V. Brig.)	Gulia 1858-1859
8	<i>Fomes obliquus</i> (Ach. ex Pers.) Cooke,	Gulia 1858-1859
9	<i>Daldinia concentrica</i> (Bolton) Ces. & De Not.	Gulia 1858-1859
10	<i>Armillaria citri</i> (Inzenga) Sacc	Gulia 1858-1859
-	<i>Ozonium auriconum</i> Spreng	Gulia 1858-1859
-	<i>Himantia fulva</i> Link	Gulia 1858-1859
11	<i>Polyporus fumosus</i> (Pers.) Fr.	Borg 1901
12	<i>Tylostoma volvulatum</i> Borszcz.	Saccardo 1912
13	<i>Clitocybe geotropa</i> (Bull.) Quel.	Saccardo 1912
14	<i>Pleurotus nebrodensis</i> var. <i>eryngii</i> (Lanzi) Sacc.	Saccardo 1912
15	<i>Collybia nigrescens</i> Quel	Saccardo 1912
16	<i>Hygrophorus conicus</i> (Scop.) Fr.	Saccardo 1912
17	<i>Inocybe scabra</i> (Mull) Gill.	Saccardo 1912
18	<i>Naucoria vervacti</i> (Fr.) Quel	Saccardo 1912
Prv. rec. (vis. #1)	<i>Agaricus campestris</i> L.	Saccardo 1912
19	<i>Lenzites abietina</i> (Bull.) Fr.	Saccardo 1912
20	<i>Boletus bovinus</i> L.	Saccardo 1912
21	<i>Polyporus biennis</i> L.	Saccardo 1912
22	<i>Polyporus ceratoniae</i> Risso	Saccardo 1912
23	<i>Polyporus rheades</i> Pers.	Saccardo 1912
24	<i>Polyporus adustus</i> (Willd.) Fr.	Saccardo 1912
25	<i>Polystictus versicolor</i> (L.) Fr.	Saccardo 1912

26	<i>Fomes fulvus</i> (Fr. pro.part.) Gill	Saccardo 1912
27	<i>Fomes obliquus</i> (Pers.) Cooke	Saccardo 1912
28	<i>Thelephora palmata</i> (Scop) Fr.	Saccardo 1912
29	<i>Clavaria fragilis</i> Holms.	Saccardo 1912
30	<i>Xylaria arbuscula</i> Sacc.	Saccardo 1912
31	<i>Lepiota clypeolaria</i> (Bull.) Quel.	Saccardo 1914
32	<i>Marasmius olivetorum</i> (Mont.) Sacc.	Saccardo 1914
33	<i>Polyporus hispidus</i> (Bull.) Fr.	Saccardo 1914
34	<i>Trametes hispida</i> Baglietto	Saccardo 1914
35	<i>Ganoderma lucidum</i> (Leys.) Karst	Saccardo 1914
36	<i>Stereum hirsutum</i> (Willd.) Fr.	Saccardo 1914
37	<i>Thyridium lividum</i> (Pers.) Sacc.	Saccardo 1914
38	<i>Ciboria echinophila</i> (Bull.) Sacc.	Saccardo 1914
39	<i>Tricholoma terreum</i> (Schaff) Quel.	Saccardo 1915
40	<i>Tricholoma resplendens</i> (Fr.) Karst.	Saccardo 1915
41	<i>Omphalia pseudoandrosacea</i> (Bull.) Gill.	Saccardo 1915
42	<b><i>Pleurotus nebrodensis forma minor</i></b> (Inz.) Sacc.	Saccardo 1915
43	<i>Hygrophorus miniatus</i> Fr.	Saccardo 1915
44	<i>Pholiota praecox</i> (Pers.) Quel.	Saccardo 1915
45	<i>Psathyrella disseminata</i> (Pers.) Quel.	Saccardo 1915
46	<i>Lenzites saepiaria</i> Fr.	Saccardo 1915
47	<i>Coprinus ovatus</i> (Schaff) Fr.	Saccardo 1915
48	<i>Volvaria gloiocephala</i> (Fr.) Gill.	Saccardo 1915
49	<b><i>Trametes hispida forma resupinate</i></b> Baglietto	Saccardo 1915
50	<b><i>Fomes ribis forma tamaricis</i></b> (Schum.) Gill.	Saccardo 1915
51	<b><i>Fomes robustus forma punicae</i></b> Karst.	Saccardo 1915
52	<b><i>Fomes robustus forma amygdali</i></b> Karst.	Saccardo 1915
53	<i>Irpex canescens</i> Fr.	Saccardo 1915
54	<i>Cyphella villosa</i> (Pers.) Karst.	Saccardo 1915
55	<i>Scleroderma verrucosum</i> Bull.) Pers.	Saccardo 1915
56	<i>Acetabula calyx</i> Sacc.	Saccardo 1915
57	<i>Lachnea scutellata</i> (Linn.) Gill.	Saccardo 1915
58	<i>Sphaerospora trechispora</i> (B. et Br.) Sacc.	Saccardo 1915
59	<i>Stamnaria equiseti</i> (Pers.) Rehm	Saccardo 1915
60	<i>Pseudopeziza repanda</i> (Fr.) Karst.	Saccardo 1915
61	<i>Pseudopeziza cerastiorum</i> (Wallr.) Schrot	Saccardo 1915
62	<i>Pseudopeziza ranunculi</i> (Wallr.) Fuck.	Saccardo 1915
63	<i>Lecanidion atratum</i> (Lib.) Sacc.	Saccardo 1915
64	<i>Lepiota nympharum</i> (Kalchbr.) Bon	Sommier & C.Gatto 1915
65	<i>Armillaria mellea</i> (Vahl) P. Kumm.	Sommier & C.Gatto 1915
66	<i>Coprinus micaceus</i> (Bull.) Fr.	Sommier & C.Gatto 1915
67	<b><i>Colus hirudinosus forma minor</i></b> Caruana Gatto	Sommier & C.Gatto 1915

68	<i>Pleurotus nebrodensis</i> var. <i>ferulea</i> (Lanzi) Sacc.	Sommier & C.Gatto 1915
69	<i>Peziza vesiculosa</i> Bull.	Sommier & C.Gatto 1915
70	<i>Polyporus lividus</i> Kalchbr. ex Cooke	Borg 1922
71	<i>Polyporus frondosus</i> (Dicks.) Fr.	Borg 1922
72	<i>Morchella vulgaris</i> (Pers.) Boud.	Lanfranco 1972
73	<i>Paxillus panuoides</i> (Fr.) Fr.	Lanfranco 1972
74	<i>Schizophyllum commune</i> Fr.	Lanfranco 1972
75	<i>Tricholoma nudum</i> (Bull.) P. Kumm.	Lanfranco 1972
76	<i>Clitocybe cyathiformis</i> (Bull.) P. Kumm.	Lanfranco 1972
77	<i>Coprinus comatus</i> (O.F. Müll.) Pers.	Lanfranco 1972
78	<i>Helvella crispa</i> (Scop.) Fr.	Briffa & Lanfranco 1986
79	<i>Helvella lacunose</i> Afzel. ex Fr.	Briffa & Lanfranco 1986
80	<i>Sarcosphaera eximia</i> (Durieu & Lév.) Maire	Briffa & Lanfranco 1986
81	<i>Peziza muralis</i> Sowerby	Briffa & Lanfranco 1986
82	<i>Humaria hemisphaerica</i> (F.H. Wigg.) Fuckel	Briffa & Lanfranco 1986
83	<i>Aleuria aurantia</i> (Pers.) Fuckel	Briffa & Lanfranco 1986
84	<i>Ganoderma applanatum</i> (Pers.) Pat.	Briffa & Lanfranco 1986
85	<i>Phaeolus schweinitzii</i> (Fr.) Pat.	Briffa & Lanfranco 1986
86	<i>Cantharellus cibarius</i> Fr.	Briffa & Lanfranco 1986
87	<i>Clavulinopsis fusiformis</i> (Sowerby) Corner	Briffa & Lanfranco 1986
88	<i>Sparassis laminosa</i> Fr.	Briffa & Lanfranco 1986
89	<i>Meripilus giganteus</i> (Pers.) P. Karst.	Briffa & Lanfranco 1986
90	<i>Polyporus brumalis</i> (Pers.) Fr.	Briffa & Lanfranco 1986
91	<i>Xerocomus chrysenteron</i> (Bull.) Quél.	Briffa & Lanfranco 1986
92	<i>Xerocomus badiorufus</i> (R. Heim) Bon	Briffa & Lanfranco 1986
93	<i>Boletus pulverulentus</i> Opat.	Briffa & Lanfranco 1986
94	<i>Boletus luridellus</i> (Murrill) Murrill	Briffa & Lanfranco 1986
95	<i>Camarophyllum niveus</i> (Scop.) Wünsche	Briffa & Lanfranco 1986

96	<i>Hygrocybe ovina</i> (Bull.) Kühner	Briffa & Lanfranco 1986
97	<i>Crinipellis stipitaria</i> (Fr.) Pat.	Briffa & Lanfranco 1986
98	<i>Melanoleuca melaleuca</i> (Pers.) Murrill	Briffa & Lanfranco 1986
99	<i>Tricholoma colossus</i> (Fr.) Quél	Briffa & Lanfranco 1986
100	<i>Tricholoma sculpturatum</i> (Fr.) Quél.	Briffa & Lanfranco 1986
101	<i>Tricholomopsis platyphylla</i> (Pers.) Singer	Briffa & Lanfranco 1986
102	<i>Lyophyllum loricatum</i> (Fr.) Kühner ex Kalamees	Briffa & Lanfranco 1986
103	<i>Clitocybe infundibuliformis</i> Quél.	Briffa & Lanfranco 1986
104	<i>Pleurotus ostreatus</i> (Jacq.) P. Kumm.	Briffa & Lanfranco 1986
105	<i>Pleurotus opuntiae</i> (Durieu & Lév.) Sacc.	Briffa & Lanfranco 1986
106	<i>Arrhenia muscigena</i> (Bull.) Honrubia & Folgado	Briffa & Lanfranco 1986
107	<i>Crepidotus amygdalosporus</i> Kühner	Briffa & Lanfranco 1986
108	<i>Crepidotus haustellaris</i> (Fr.) P. Kumm.	Briffa & Lanfranco 1986
109	<i>Agrocybe aegerita</i> (V. Brig.) Singer	Briffa & Lanfranco 1986
110	<i>Stropharia coronilla</i> (Bull.) Quél.	Briffa & Lanfranco 1986
111	<i>Coprinus atramentarius</i> (Bull.) Fr.	Briffa & Lanfranco 1986
112	<i>Coprinus picaceus</i> (Bull.) Gray	Briffa & Lanfranco 1986
113	<i>Coprinus plicatilis</i> (Curtis) Fr.	Briffa & Lanfranco 1986
114	<i>Psathyrella candolleana</i> (Fr.) Maire	Briffa & Lanfranco 1986
115	<i>Psathyrella melanthina</i> (Fr.) Kits van Wav.	Briffa & Lanfranco 1986
116	<i>Lepiota naucina</i> (Fr.) P. Kumm.	Briffa & Lanfranco 1986
117	<i>Lepiota cristata</i> (Bolton) P. Kumm.	Briffa & Lanfranco 1986
118	<i>Hiatula brebissoni</i> (Godey) Locquin	Briffa & Lanfranco 1986
119	<i>Agaricus xanthodermus</i> Genev.	Briffa & Lanfranco 1986
120	<i>Amanita ovoidea</i> (Bull.) Link	Briffa & Lanfranco 1986

121	<i>Amanita verna</i> (Bull.) Lam.	Briffa & Lanfranco 1986
122	<i>Volvariella speciosa</i> (Fr.) Singer	Briffa & Lanfranco 1986
123	<i>Lactarius sanguifluus</i> (Paulet) Fr.	Briffa & Lanfranco 1986
124	<i>Russula lepida</i> Fr.	Briffa & Lanfranco 1986
125	<i>Russula xerampelina</i> (Schaeff.) Fr.	Briffa & Lanfranco 1986
126	<i>Calvatia excipuliformis</i> (Scop.) Perdeck	Briffa & Lanfranco 1986
127	<i>Cyathus olla</i> (Batsch) Pers.	Briffa & Lanfranco 1986
128	<i>Montagnea candollei</i> Fr.	Lanfranco 1989
129	<i>Phellinus rimosus</i> (Berk.) Pilát	Lanfranco 1996
130	<i>Suillus collinitus</i> (Fr.) Kuntze	Lanfranco 1996
131	<i>Agaricus bisporus</i> (J.E. Lange) Imbach	Lanfranco 1996
132	<i>Clitocybe pithyophila</i> (Secr. ex Fr.) Gillet	Lanfranco 1996
133	<i>Inonotus indicus</i> (Massee) M. Pieri & B. Rivoire	Briffa 2001
134	<i>Inonotus cuticularis</i> (Bull.) P. Karst.	Briffa 2001
135	<i>Inonotus tamaricis</i> (Pat.) Maire	Briffa 2001
136	<i>Phellinus torulosus</i> (Pers.) Bourdot & Galzin	Briffa 2001
137	<i>Coriolopsis aspera</i> (Jungh.) Teng	Briffa 2001, 2002b
138	<i>Oligoporus balsameus</i> (Peck) Gilb. & Ryvarden	Briffa 2001
139	<i>Ganoderma australe</i> (Fr.) Pat.	Briffa 2001
140	<i>Boletopsis leucomelaena</i> (Pers.) Fayod	Briffa 2001
141	<i>Paxina leucomelas</i> (Pers.) Kuntze	Briffa 2002a
142	<i>Peziza proteana forma sparassoides</i> (Boud.) Korf	Briffa 2002a
143	<i>Amanita echinocephala</i> (Vittad.) Quél.	Briffa 2002a
144	<i>Amanita gracilior</i> Bas & Honrubia	Briffa 2002a
145	<i>Volvariella murinella</i> (Quél.) M.M. Moser	Briffa 2002a
146	<i>Psathyrella spintrigera</i> (Fr.) Konrad & Maubl.	Briffa 2002a
147	<i>Pluteus thomsonii</i> (Berk. & Broome) Dennis	Briffa 2002a
148	<i>Pleurotus pulmonarius</i> (Fr.) Quél	Briffa 2002a
149	<i>Tricholoma caligatum</i> (Viv.) Ricken	Briffa 2002a
150	<i>Mycena galericulata</i> (Scop.) Gray	Briffa 2002a
151	<i>Mycena alba</i> (Bres.) Kühner	Briffa 2002a
152	<i>Lactarius atlanticus</i> Bon	Briffa 2002a
153	<i>Lactarius tesquorum</i> Malençon	Briffa 2002a
154	<i>Xerocomus dryophilus</i> (Thiers) Singer	Briffa 2002a
155	<i>Gyroporus castaneus</i> (Bull.) Quél.	Briffa 2002a
156	<i>Omphalotus olearius</i> (DC.) Singer	Briffa 2002a
157	<i>Macrotyphula juncea</i> (Alb. & Schwein.)	Briffa 2002a
158	<i>Ramariopsis kunzei</i> (Fr.) Corner	Briffa 2002a
159	<i>Phellodon niger</i> (Fr.) P. Karst.	Briffa 2002a

160	<i>Lycoperdon lividum</i> Pers.	Briffa 2002a
161	<i>Myxarium nucleatum</i> Wallr., Flora	Briffa 2002a
162	<i>Auricularia auricula-judae</i> (Bull.) J. Schröt.	Briffa 2002a
163	<i>Battarrea phalloides</i> (Dicks.) Pers.	Falzon 2004
164	<i>Phellinus pomaceus</i> (Pers.) Maire	Porta-Puglia & Mifsud 2006
165	<i>Marasmius corbariensis</i> (Roum.) Sing	Mifsud 2011
166	<i>Pithya cupressina</i> (Batsch) Fuckel	Sammut 2011
167	<i>Coprinellus radians</i> (Desm.) Vilgalys, Hopple & Jacq. Johnson	Sammut & Melzer 2012
168	<i>Coprinellus saccharinus</i> (Romagn.) P. Roux, Guy Garcia & Dumas	Sammut & Melzer 2012
169	<i>Coprinopsis lotinae</i> (Picón) Picón	Sammut & Melzer 2012
170	<i>Coprinopsis marcescibilis</i> (Britzelm.) Örstadius & E. Larss.	Sammut & Melzer 2012
171	<i>Coprinopsis pannuciooides</i> (J. E. Lange) Örstadius & E. Larss.	Sammut & Melzer 2012
172	<i>Coprinopsis xantholepis</i> (P.D. Orton) Redhead, Vilgalys & Moncalvo	Sammut & Melzer 2012
173	<i>Parasola conopilus</i> (Fr.) Örstadius & E. Larss.	Sammut & Melzer 2012
174	<i>Parasola lactea</i> (A.H. Sm.) Redhead, Vilgalys & Hopple	Sammut & Melzer 2012
175	<i>Parasola plicatilis</i> (Curtis) Redhead, Vilgalys & Moncalvo	Sammut & Melzer 2012
176	<i>Psathyrella aff. dicrani</i> (A. E. Jansen) Kits v. Wav.	Sammut & Melzer 2012
177	<i>Psathyrella bivelata</i> Contu	Sammut & Melzer 2012
178	<i>Psathyrella senex</i> (Peck) A. H. Sm.	Sammut & Melzer 2012
179	<i>Conocybe brachypodii</i> (Velen.) Hauskn. & Svrček	Sammut & Melzer 2013
180	<i>Conocybe herbarum</i> Hauskn.	Sammut & Melzer 2013
181	<i>Conocybe juniana</i> (Velen.) Hauskn. & Svrček	Sammut & Melzer 2013
182	<i>Conocybe siennophylla</i> (Berk. & Broome) Singer	Sammut & Melzer 2013
184	<i>Moellerodiscus latus</i> (Berk. & Broome) Dumont	Mifsud 2015
185	<i>Geoglossum dumense</i> M.Loizides, M.Carbone & P.Alvarado	Loizides & al. 2015
186	<i>Helvella pezizoides</i> Afzel.	Sammut, 2015-2016
187	<i>Helvella semiobruta</i> Donadini & Berthet	Sammut 2015-2016
188	<i>Morchella rufobrunnea</i> Guzmán & Tapia	Sammut 2015-2016
189	<i>Peziza cf. arvernensis</i> Roze & Boud.	Sammut 2015-2016
190	<i>Peziza michelii</i> (Boud.) Dennis	Sammut 2015-2016
191	<i>Peziza moseri</i> Aviz-Hersh. & Nemlich	Sammut 2015-2016
192	<i>Peziza muscicola</i> Donadini	Sammut 2015-2016
193	<i>Peziza tenacella</i> W.Phillips	Sammut 2015-2016
194	<i>Geopora arenicola</i> (Lév.) Kers	Sammut 2015-2016
195	<i>Geopora cervine</i> (Velen.) T. Schumach.	Sammut 2015-2016
196	<i>Geopora foliacea</i> (Scaeff.) Ahmad	Sammut 2015-2016
197	<i>Pustularia patavina</i> (Cooke & Sacc.) Boud.	Sammut 2015-2016
198	<i>Scutellinia colensoi</i> Massee ex Le Gal	Sammut 2015-2016

199	<i>Scutellinia patagonica</i> (Rehm) Gamundí	Sammut 2015-2016
200	<i>Smardaea planchonis</i> (Dunal ex Boud.) Korf & W.Y. Zhuang	Sammut 2015-2016
Revised (vis. #249)	<i>Tarzetta gaillardiana</i> (Boud.) Korf & J.K. Rogers	Sammut 2015-2016
201	<i>Tricharina striispora</i> Rifai, Chin S. Yang & Korf	Sammut 2015-2016
202	<i>Kompsoscypha chudei</i> (Pat. ex Le Gal) Pfister	Sammut 2015-2016
203	<i>Geoglossum cookeianum</i> Nannf.	Sammut 2015-2016
204	<i>Trichoglossum hirsutum</i> (Pers.) Boud.	Sammut 2015-2016
205	<i>Hymenoscyphus fructigenus</i> (Bull.) Gray	Sammut 2015-2016
Prv. rec. (vis. #184)	<i>Moellerodiscus latus</i> (Berk. & Broome) Dumont	Sammut 2015-2016
206	<i>Propolis farinosa</i> (Pers.) Fr.	Sammut 2015-2016
207	<i>Biscogniauxia mediterranea</i> (De Not.) Kuntze	Sammut 2015-2016
208	<i>Daldinia raimundi</i> M. Stadler, Venturella & Wollw.	Sammut 2015-2016
209	<i>Xylaria sicula</i> Pass. & Beltran	Sammut 2015-2016
210	<i>Stilbella fimetaria</i> (Pers.) Lindau	Mifsud 2016a
211	<i>Cheilymenia cadaverina</i> (Velen.) Svrcek	Mifsud 2016b
212	<i>Ascobolus geophilus</i> Seaver	Sammut 2017
213	<i>Cheilymenia cf granulate</i> Corda	Sammut 2017
214	<i>Scutellinia legaliae</i> Lohmeyer & Häffner	Sammut 2017
215	<i>Bisporella sulfurina</i> (Quél.) S.E. Carp.	Sammut 2017
216	<i>Hysterium angustatum</i> Pers.	Sammut 2017
217	<i>Hysterobrevium smilacis</i> (Schwein.) E.W.A. Boehm & C.L. Schoch	Sammut 2017
218	<i>Discosia lauricola</i> Nag Raj	Sammut 2017
219	<i>Melanospora brevirostris</i> (Fuckel) Höhn	Sammut 2017
220	<i>Stylolectria purtonii</i> (Grev.) Gräfenhan	Sammut 2017
221	<i>Lopadostoma insulare</i> Jaklitsch, J. Fourn. & Voglmayr	Sammut 2017
222	<i>Cosmospora flavoviridis</i> (Fuckel) Rossman & Samuels	Mifsud 2017a
223	<i>Melanoleuca cf paedida</i> (Fr.) Kühner & Maire	Mifsud 2017a
224	<i>Dermoloma cuneifolium</i> (Fr.) Singer ex Bon	Mifsud 2017a
225	<i>Terana caerulea</i> (Schrad. ex Lam.) Kuntze	Mifsud 2017a
226	<i>Xerocomus subtomentosus</i> (L.) Quél.	Mifsud 2017a
227	<i>Clitocybe rivulosa</i> (Pers.) P. Kumm.	Mifsud 2017a
228	<i>Coprinopsis cothurnata</i> (Godey) Redhead, Vilgalys & Moncalvo	Mifsud 2017a
229	<i>Pisolithus arhizus</i> (Scop.) Rauschert	Mifsud 2017a
230	<i>Coprinopsis cinerea</i> (Schaeff.) Redhead, Vilgalys & Moncalvo	Mifsud 2017a
231	<i>Coprinopsis tigrinella</i> (Boud.) Redhead, Vilgalys & Moncalvo	Mifsud 2017a
232	<i>Rectipilus cistophilus</i> Esteve-Rav. & Vila	Mifsud 2017a
233	<i>Clitopilus hobsonii</i> (Berk. & Broome) P.D. Orton	Mifsud 2017a

234	<i>Mycena olida</i> Bres.	Mifsud 2017a
235	<i>Hemimycena gracilis</i> (Quél.) Singer	Mifsud 2017a
236	<i>Agrocybe pediades</i> (Fr.) Fayod	Mifsud 2017a
237	<i>Lepista sordida</i> (Schumach.) Singer	Mifsud 2017a
238	<i>Leucoinocybe lenta</i> (Maire) Antonín	Mifsud 2017a
239	<i>Entoloma phaeocyathus</i> Noordel.	Mifsud 2017a
240	<i>Entoloma flocculosum</i> (Bres.) Pacioni	Mifsud 2017a
241	<i>Arrhenia rickenii</i> (Hora) Watling	Mifsud 2017a
242	<i>Agaricus comtulus</i> Fr.	Mifsud 2017a
243	<i>Panaeolus papilionaceus</i> var. <i>parvisporus</i> Ew. Gerhardt	Mifsud 2017a
244	<i>Peziza varia</i> (Hedw.) Alb. & Schwein.	Mifsud 2017b
245	<i>Anthracobia nitida</i> Boud.	Mifsud 2017d
246	<i>Picoa lefebvrei</i> (Pat.) Maire	Mifsud 2017d
247	<i>Morchella galilaea</i> S.Masaphy & Clowez	Mifsud 2017c, 2017d
248	<i>Lepiota cortinarius</i> J.E. Lange	Mifsud 2017d
249	<i>Schizophyllum amplum</i> (Lév.) Nakasone	Sammut & al. 2019
250	<b><i>Tarzetta melitensis</i></b> Sammut & Van Vooren	van Vooren & al. 2019
251	<i>Hebeloma quercretorum</i> Quadr.	Iannaccone & Buhagiar 2019
252	<i>Russula ochrospora</i> (Nicolaj ex Quadr. & W. Rossi) Quadr.	Iannaccone & Buhagiar 2019

Macrofungi recorded between October 2019 and October 2022 during the course of this research

253	<i>Phaeoclavulina decurrents</i>	Mifsud 2019
254	<b><i>Xylaria melitensis</i></b> J.Fourn., Lechat, Mifsud & Sammut	Fournier & al. 2021
255	<i>Coprinellus andreorum</i> Sammut & Karich	Sammut & Karich 2021
256	<i>Cortinarius ayanamii</i> A. Ortega, Vila, Bidaud & Llimona	Mifsud & Mifsud 2021
257	<i>Trichoglossum variabile</i> (E.J. Durand) Nannf.	Sammut 2021
258	<i>Agaricus langei</i> (F.H. Moller) F.H. Moller	Sammut 2021
259	<i>Agaricus moelleri</i> Wasser	Sammut 2021
260	<i>Lepiota lilacea</i> Bres.	Sammut 2021
261	<i>Lepiota hymenoderma</i> D.A. Reid	Sammut 2021
262	<i>Lepiota parvannulata</i> (Lasch) Gillet	Sammut 2021
263	<i>Leucoagaricus barssii</i> (Zeller) Vellinga	Sammut 2021
264	<i>Leucoagaricus carneifolius</i> (Gillet) Wasser	Sammut 2021
265	<i>Leucocoprinus straminellus</i> (Bagl.) Narducci & Caroti	Sammut 2021
266	<i>Tulostoma brumale</i> Pers.	Sammut 2021
267	<i>Limacellopsis guttata</i> (Pers.) Zhu L. Yang, Q. Cai & Y.Y. Cui	Sammut 2021
268	<i>Pholiotina vestita</i> (Fr.) Singer	Sammut 2021
269	<i>Cortinarius castaneus</i> (Bull.) Fr.	Sammut 2021
270	<i>Crepidotus mollis</i> (Schaeff.) Staude	Sammut 2021

271	<i>Crepidotus neotrichocystis</i> Consiglio & Setti	Sammut 2021
272	<i>Entoloma clandestinum</i> (Fr.) Noordel.	Sammut 2021
273	<i>Entoloma graphitipes</i> E. Ludw.	Sammut 2021
274	<i>Entoloma rusticoides</i> (Gillet) Noordel.	Sammut 2021
275	<i>Arrhenia griseopallida</i> (Desm.) Watling	Sammut 2021
276	<i>Hygrocybe acutoconica</i> (Clem.) Singer	Sammut 2021
277	<i>Hygrocybe aff. ingrata</i> J.P. Jensen & F.H. Moller	Sammut 2021
278	<i>Pseudosperma squamatum</i> (J.E. Lange) Matheny & Esteve-Rav.	Sammut 2021
279	<i>Lyophyllum littorale</i> (Ballero & Contu) Contu	Sammut 2021
280	<i>Hemimycena mairei</i> (E.-J. Gilbert) Singer	Sammut 2021
281	<i>Mycena olivaceomarginata</i> (Massee) Massee	Sammut 2021
282	<i>Mycena polyadelpha</i> (Lasch) Kuhner	Sammut 2021
283	<i>Mycena pura</i> (Pers.) P. Kumm.	Sammut 2021
284	<i>Hymenopellis xeruloides</i> (Bon) R.H. Petersen	Sammut 2021
285	<i>Volvariella taylorii</i> (Berk. & Broome) Singer	Sammut 2021
286	<i>Coprinellus xanthothrix</i> (Romagn.) Vilgalys, Hopple & Jacq. Johnson	Sammut 2021
287	<i>Coprinopsis mitrispora</i> (Bohus) L. Nagy, Vagvolgyi & Papp	Sammut 2021
288	<i>Coprinopsis phlyctidospora</i> (Romagn.) Redhead, Vilgalys & Moncalvo	Sammut 2021
289	<i>Parasola auricoma</i> (Pat.) Redhead, Vilgalys & Hopple	Sammut 2021
290	<i>Tulodesmus sabulicola</i> (L. Nagy, Hazi, Papp & Vagvolgyi) Wachter & A. Melzer	Sammut 2021
291	<i>Tulodesmus subdisseminatus</i> (M. Lange) Wachter & A. Melzer	Sammut 2021
292	<i>Tulodesmus subimpatiens</i> (M. Lange & A.H. Sm.) Wachter & A. Melzer	Sammut 2021
293	<i>Tricholoma batschii</i> Gulden ex Mort. Chr. & Noordel.	Sammut 2021
294	<i>Panaeolus guttulatus</i> Bres.	Sammut 2021
295	<i>Cantharellus alborufescens</i> (Malencon) Papetti & S. Alberti	Sammut 2021
296	<i>Thelephora caryophyllea</i> (Schaeff.) Pers.	Sammut 2021
297	<i>Skeletocutis amorphula</i> (Fr.) Kotl. & Pouzar	Iannaccone & Buhagiar 2022
298	<i>Pisolithus albus</i> (Cooke & Massee) Priest	Mifsud & Mifsud 2022
299	<i>Pisolithus marmoratus</i> (Berk.) E. Fisch.	Mifsud & Mifsud 2022
Macrofungi reported in this publication		
300	<i>Patellaria atrata</i> (Hedw.) Fr.	Mifsud & Mifsud (this work)
301	<i>Cyathicula cacaliae</i> (Pers.) Dennis	Mifsud & Mifsud (this work)

302	<i>Calycellina populina</i> (Fuckel) Höhn.	Mifsud & Mifsud (this work)
303	<i>Sclerotinia sclerotiorum</i> (Lib.) de Bary	Mifsud & Mifsud (this work)
304	<i>Helvella sublicia</i> Holmsk.	Mifsud & Mifsud (this work)
305	<i>Cheilymenia thelebolooides</i> (Alb. & Schwein.) Boud.	Mifsud & Mifsud (this work)
306	<i>Scutellinia barlae</i> (Boud.) Maire	Mifsud & Mifsud (this work)
307	<i>Sepultariella semiimmersa</i> (P.Karst.) Van Vooren, U.Lindem. & Healy	Mifsud & Mifsud (this work)
308	<i>Hypoxyton crocopeplum</i> Berk. & M.A. Curtis	Mifsud & Mifsud (this work)
309	<i>Hypoxyton petriniae</i> M. Stadler & J. Fourn.	Mifsud & Mifsud (this work)
310	<i>Agaricus iodosmus</i> Heinem.	Mifsud & Mifsud (this work)
311	<i>Agaricus subrufescens</i> Peck	Mifsud & Mifsud (this work)
312	<i>Lepiota farinolens</i> Bon & G. Riousset	Mifsud & Mifsud (this work)
313	<i>Lepiota griseovirens</i> Maire	Mifsud & Mifsud (this work)
314	<i>Lepiota nigrescentipes</i> G. Riousset	Mifsud & Mifsud (this work)
315	<i>Leucoagaricus littoralis</i> (Menier) Bon & Boiffard	Mifsud & Mifsud (this work)
316	<i>Xerocoprinus arenarius</i> (Pat.) Maire	Mifsud & Mifsud (this work)
317	<i>Limacella subfurnacea</i> Contu	Mifsud & Mifsud (this work)
318	<i>Xerophorus donadinii</i> (Bon) Vizzini, Consiglio & M.Marchetti	Mifsud & Mifsud (this work)
319	<i>Simocybe reducta</i> (Fr.) P. Karst.	Mifsud & Mifsud (this work)
320	<i>Entoloma poliopus</i> var. <i>discolor</i> Noordel.	Mifsud & Mifsud (this work)
321	<i>Inocybe mecoana</i> Fachada, Bandini & Mifsud	Bandini & al. (2022).
322	<i>Ossicaulis lachnopus</i> (Fr.) Contu	Mifsud & Mifsud (this work)
323	<i>Mycena</i> cf. <i>roseoquercina</i> M. Villarreal & Esteve-Rav.	Mifsud & Mifsud (this work)
324	<i>Lachnella alboviolascens</i> (Alb. & Schwein.) Fr.	Mifsud & Mifsud (this work)
325	<i>Hohenbuehelia cyphelliformis</i> (Berk.) O.K. Mill.	Mifsud & Mifsud (this work)
326	<i>Pluteus nanus</i> (Pers.) P. Kumm.	Mifsud & Mifsud (this work)

327	<i>Phloeomana hiemalis</i> (Osbeck) Redhead	Mifsud & Mifsud (this work)
328	<i>Coprinopsis cf. kubickae</i> (Pilát & Svrček) Redhead, Vilgalys & Moncalvo	Mifsud & Mifsud (this work)
329	<i>Coprinopsis lilacina</i> (Berk. & Broome) Redhead	Mifsud & Mifsud (this work)
330	<i>Coprinopsis pseudomarcescibilis</i> Heykoop, G.Moreno & P.Alvarado	Mifsud & Mifsud (this work)
331	<i>Tubaria furfuracea</i> (Pers.) Gillet	Mifsud & Mifsud (this work)
332	<i>Xerocomellus redeuilhii</i> A.F.S.Taylor, U.Eberh., Simonini, Gelardi & Vizzini	Mifsud & Mifsud (this work)
333	<i>Scleroderma albidum</i> Pat. et Trab.	Mifsud & Mifsud (this work)
334	<i>Fomitiporia rosmarini</i> (Bernicchia) Ghobad-Nejhad & Y.C. Dai	Mifsud & Mifsud (this work)
335	<i>Emmia latemarginata</i> (Durieu & Mont.) Zmitr., Spirin & Malysheva	Mifsud & Mifsud (this work)
336	<i>Coriolopsis trogii</i> (Berk.) Domanski	Mifsud & Mifsud (this work)
337	<i>Polyporus meridionalis</i> (A. David) H. Jahn	Mifsud & Mifsud (this work)
338	<i>Duportella malençonii</i> (Bpoidin & Lanq.) Hjortstam	Mifsud & Mifsud (this work)

## Appendix 2. Material examined.

Table A2. Details of all the 147 samples collected from Gozo (including the island of Comino) including date and locality of collection and population size.

Coll. Code	Date	Locality	Toponym	Species	Notes
SM409	16/10/2019	Xaghra	Il-Mithna	<i>Laetiporus sulphureus</i> (Bull.) Murrill	2 large specimens attached to the trunk about 1.5 m above ground level
SM412	25/10/2019	Kerċem	Wied il-Lunzjata	<i>Coprinopsis melanthina</i> (Fr.) Örstadius & E. Larss.	Four specimens
SM413	25/10/2019	Kerċem	Wied il-Lunzjata	<i>Coprinellus radians</i> (Desm.) Vilgalys, Hopple & Jacq.	Two specimens very close to each other
SM417	31/10/2019	Xaghra	Wied tal-Eghžien	<i>Xylaria melitensis</i> J.Fourn., Lechat, Mifsud & Sammut	Difficult to count since stromata coalesce into each other. It spread over the substrate for about 20 cm
SM419	07/11/2019	Xaghra	Wied tal-Eghžien	Unidentified 1 (anamorph)	Widespread on several branches as a crust or stroma
SM420	07/11/2019	Xaghra	Wied tal-Eghžien	<i>Daldinia concentrica</i> (Bolton) Ces. & De Not.	1 small specimen
SM421	07/11/2019	Xaghra	Wied tal-Eghžien	<i>Candolleomyces candolleanus</i> (Fr.) D. Wächt. & A. Melzer	6 specimens in an area of about 1 m <sup>2</sup>
SM422	07/11/2019	Xaghra	Wied tal-Eghžien	<i>Limacella subfurnacea</i> Contu 1990	30 specimens, gregarious, widespread in an area of about 5 × 10 m
SM428	10/11/2019	Xaghra	Wied tal-Eghžien	<i>Daldinia concentrica</i> (Bolton) Ces. & De Not.	9 specimens, many small (less than 3 cm across)
SM429	17/11/2019	Xaghra	Wied tal-Eghžien	<i>Coprinopsis melanthina</i> (Fr.) Örstadius & E. Larss	6 specimens, gregarious, scattered
SM430	17/11/2019	Xaghra	Wied tal-Eghžien	<i>Suillus collinitus</i> (Fr.) Kuntze	4 specimens
SM431	17/11/2019	Xaghra	Wied tal-Eghžien	<i>Simocybe reducta</i> (Fr.) P. Karst.	6 specimens often in pairs about 2 cm away
SM432	17/11/2019	Xaghra	Wied tal-Eghžien	<i>Pluteus nanus</i> (Pers.) P. Kumm.	15 specimens
SM433	01/12/2019	Xewkija	Wied Mgarr ix-Xini	<i>Phaeoclavulina decurrens</i> (Pers.) J.H. Petersen	5 specimens within an area of about 2 × 5 m
SM436	01/12/2019	Xewkija	Wied Mgarr ix-Xini	<i>Pluteus</i> sp. 1	Two specimens close to each other
SM437	01/12/2019	Xewkija	Wied Mgarr ix-Xini	<i>Phloeomana hiemalis</i> (Osbeck) Redhead	22 specimens, gregarious or in small clumps
SM438	01/12/2019	Xewkija	Wied Mgarr ix-Xini	<i>Coprinopsis melanthina</i> (Fr.) Örstadius & E. Larss	8 scattered specimens
SM439	01/12/2019	Xewkija	Wied Mgarr ix-Xini	<i>Ganoderma austral</i> (Fr.) Pat.	1 specimen
SM440	01/12/2019	Xewkija	Wied Mgarr ix-Xini	<i>Crepidotus</i> sp. 1	3 specimens
SM442	01/12/2019	Xewkija	Wied Mgarr ix-Xini	<i>Calycina sulfurina</i> (Quél.) Boud.	Few hundreds of specimens observed, gregarious on several branches
SM443	01/12/2019	Xewkija	Wied Mgarr ix-Xini	<i>Pluteus</i> sp. 2	9 specimens, isolated and fairly separated from each other
SM445	01/12/2019	Xewkija	Wied Mgarr ix-Xini	<i>Leucoagaricus littoralis</i> (Menier) Bon & Boiffard	4 basidiocarps
SM446	01/12/2019	Xewkija	Wied Mgarr ix-Xini	<i>Moellerodiscus latus</i> (Berk. & Broome) Dumont	40–50 specimens on fallen leaves and legumes
SM447	01/12/2019	Xewkija	Wied Mgarr ix-Xini	<i>Lepiota</i> sp.	1 specimen
SM448	01/12/2019	Xewkija	Wied Mgarr ix-Xini	<i>Clitocybe</i> sp.	8 specimens, gregarious, rather close to each other
SM449	01/12/2019	Xewkija	Wied Mgarr ix-Xini	<i>Volvopluteus gloiocephalus</i> (DC.) Vizzini, Contu & Justo	1 specimen

SM450	07/12/2019	Xewkija	Wied Mgarr ix-Xini	<i>Ossicaulis lachnopus</i> (Fr.) Contu <i>Pisolithus albus</i> (Cooke & Massee) Priest <i>Phaeoclavulina decurrents</i> (Pers.) J.H. Petersen <i>Pluteus nanus</i> (Pers.) P. Kumm. <i>Cosmospora</i> sp. 1	6 fruiting bodies at different maturity stages specimens 17 fruiting bodies within an area of about 5 × 10 m 18 specimens Large and dense population (thousands of tiny pycnidia) on the bark covering an area about 10 × 40 cm 1 specimen 18 specimens, scattered on the ground, 10 × 5 m 40 fruiting bodies 10-15 stromata, each with a surface area of about 2–3 × 1–2 cm, 1 clump Difficult to count but covering an area of some 18 × 2 cm 23 fruiting bodies of various sizes 10 distinct fruiting bodies on the same host A large cluster of some 150 specimens 17 fruiting bodies Some 10 fruiting bodies scattered in two different sites about 100 m away from each other Several fruiting bodies were observed but only six were still alive 5 fruiting bodies. 2 fruiting bodies 2 fruiting bodies 11 specimens well eroded but evident from the mustard-yellow spore mass 12 specimens, some very mature and eroded 8 specimens within an area of 3 × 2 m About 40 individuals in a small pocket (1 × 0.5 m) A large cluster of some 70 specimens mostly deliquesced and dead, but a second cluster of 10 younger individuals was suitable for morphological examination 3 fruiting bodies Eight isolated individuals in a loose clump (area 1 m <sup>2</sup> )
SM454	15/12/2019	Xewkija	Tal-Gruwa	<i>Pisolithus albus</i> (Cooke & Massee) Priest	
SM455	28/01/2020	Kerċem	Wied il-Lunzjata	<i>Phaeoclavulina decurrents</i> (Pers.) J.H. Petersen	
SM456	28/01/2020	Kerċem	Wied il-Lunzjata	<i>Pluteus nanus</i> (Pers.) P. Kumm.	
SM457	28/01/2020	Kerċem	Wied il-Lunzjata	<i>Cosmospora</i> sp. 1	
SM459	05/02/2020	Xaghra	Wied ta' Xhajma	<i>Ciborinia</i> sp.	
SM460	05/02/2020	Xaghra	Wied ta' Xhajma	<i>Scutellinia barlae</i> (Boud.) Maire	
SM461	05/02/2020	Xaghra	Wied ta' Xhajma	<i>Cyathicula cacaliae</i> (Pers.) Dennis	
SM465	10/03/2020	Nadur	Wied ta' Bingemma	<i>Hypoxyton petriniae</i> M. Stadler & J. Fourn.	
SM466	29/03/2020	Nadur	Wied ta' Bingemma	<i>Coprinellus micaceus</i> (Bull.) Vilgalys, Hopple & Jacq. Johnson	
SM467	29/03/2020	Nadur	Wied ta' Bingemma	<i>Xylaria melitensis</i> J.Fourn., Lechat, Mifsud & Sammut	
SM470	01/04/2020	Nadur	Wied Rihħan	<i>Auricularia auricula-judae</i> (Bull.) Quél.	
SM472	01/04/2020	Nadur	Wied Rihħan	<i>Polypore</i> sp. 1	
SM474	05/04/2020	Xewkija	Wied Mgarr ix-Xini	<i>Candolleomyces candolleanus</i> (Fr.) D. Wächt. & A. Melzer	
SM475	05/04/2020	Xewkija	Wied Mgarr ix-Xini	<i>Parasola auricoma</i> (Pat.) Redhead, Vilgalys & Hopple	
SM477	29/08/2020	Xaghra	Wied tal-Egħżien	<i>Pisolithus albus</i> (Cooke & Massee) Priest	
SM482	27/09/2020	Xaghra	Id-dahla tal-Bullara	<i>Coriolopsis gallica</i> (Fr.) Ryvarden	
SM483	27/09/2020	Xaghra	Wied tal-Egħżien	<i>Pisolithus albus</i> (Cooke & Massee) Priest	
SM484	27/09/2020	Xaghra	Id-dahla tal-Bullara	<i>Pisolithus albus</i> (Cooke & Massee) Priest	
SM485	27/09/2020	Żebbug	Wied ta' Marsalforn	<i>Pisolithus albus</i> (Cooke & Massee) Priest	
SM488	01/10/2020	Santa Luċija	Is-Sidir Area	<i>Pisolithus albus</i> (Cooke & Massee) Priest	
SM489	01/10/2020	Kerċem	Ta' Kercem Area	<i>Pisolithus albus</i> (Cooke & Massee) Priest	
SM490	09/10/2020	Kerċem	Wied il-Lunzjata	<i>Limacella subfurnacea</i> Contu 1990	
SM492	09/10/2020	Kerċem	Wied il-Lunzjata	<i>Moellerodiscus latus</i> (Berk. & Broome) Dumont	
SM496	09/10/2020	Kerċem	Wied il-Lunzjata	<i>Coprinellus saccharinus</i> (Romagn.) P. Roux, Guy Garcia & Dumas	
SM497	09/10/2020	Kerċem	Wied il-Lunzjata	<i>Coriolopsis gallica</i> (Fr.) Ryvarden	
SM499	15/10/2020	Nadur	Wied ta' Bingemma	<i>Crinipellis scabella</i> (Alb. & Schwein.) Murrill	

SM500	29/10/2020	Kerċem	Wied il-Lunzjata	<i>Coprinopsis lilacina</i> (Berk. & Broome) Redhead <i>Cryptomarasmius corbariensis</i> (Roum.) T. S. Jenkinson & Desjardin <i>Coriolopsis gallica</i> (Fr.) Ryvarden	One fruiting body
SM501	15/10/2020	Nadur	Wied ta' Bingemma	<i>Pisolithus albus</i> (Cooke & Massee) Priest <i>Polypore</i> sp. 2	8 gregarious individuals within a small pocket of 50 × 50 cm
SM503	19/10/2020	Xaghra	In-Nuffara	<i>Coprinopsis melanthina</i> (Fr.) Örstadius & E. Larss	Some 20 fruiting bodies close to each other and sometimes merging into each other
SM504	23/10/2020	Xaghra	Ta' Sruġ	<i>Coprinellus radians</i> (Desm.) Vilgalys, Hopple & Jacq.	8 specimens, very eroded
SM507	29/10/2020	Kerċem	Wied il-Lunzjata	<i>Xylaria melitensis</i> J.Fourn., Lechat, Mifsud & Sammut	7 small specimens on a trunk
SM508	29/10/2020	Kerċem	Wied il-Lunzjata	<i>Duportella malençonii</i> (Boidin & Lanq.) Hjortstam	1 individual
SM509	29/10/2020	Kerċem	Wied il-Lunzjata	<i>Hypoxyylon petriniae</i> M. Stadler & J. Fourn.	2 individuals
SM510	29/10/2020	Kerċem	Wied il-Lunzjata	<i>Inonotus euphoriae</i> (Pat.) Ryvarden	Extensive population, at least three branches had stromata widespread up to 30 cm long
SM511	29/10/2020	Kerċem	Wied il-Lunzjata	<i>Parasola conopilus</i> (Pat.) Redhead, Vilgalys & Hopple	About 100–150 crusts.
SM512	29/10/2020	Kerċem	Wied il-Lunzjata	<i>Agaricus xanthodermus</i> Genev.	At least 22 stromata.
SM513	29/10/2020	Kerċem	Wied il-Lunzjata	<i>Xerophorus donadinii</i> (Bon) Vizzini, Consiglio & M. Marchetti	1 individual
SM514	29/10/2020	Kerċem	Wied il-Lunzjata	<i>Hohenbuehelia cyphelliformis</i> (Berk.) O.K. Mill.	A clump of eight basidiocarps, gregarious and very close to each other
SM515	01/11/2020	Comino	Art Hażina	<i>Cosmospora</i> sp. 2	3 fruiting bodies about 20 cm apart from each other.
SM516	01/11/2020	Comino	It-Taġen	<i>Coprinopsis melanthina</i> (Fr.) Örstadius & E. Larss	19 fruiting bodies in two clusters
SM523	11/11/2020	Għajnsielem	Fields aside Triq Bengħazi	<i>Suillus collinitus</i> (Fr.) Kuntze	30 fruiting bodies
SM524	11/11/2020	Għajnsielem	Fields aside Triq Bengħazi	<i>Lepiota nigrescentipes</i> G. Riousset	Thousands of tiny pycnidia, ca an area of 10 × 50 cm
SM525	14/11/2020	Nadur	Wied Rihħan	<i>Hemimycena</i> sp.	1 specimen
SM526	14/11/2020	Nadur	Wied Rihħan	<i>Lachnella alboviolascens</i> (Alb. & Schwein.) Fr.	2 specimens close to each other
SM527	15/11/2020	Xewkija	Wied Mgarr ix-Xini	<i>Cheilymenia theleboloides</i> (Alb. & Schwein.) Boud.	7 individuals within a small pocket of 50 × 50 cm
SM528	15/11/2020	Xewkija	Wied Mgarr ix-Xini	<i>Coprinellus radians</i> (Desm.) Vilgalys, Hopple & Jacq.	Some 14 individuals were observed, but possibly much more under the vegetation or close by.
SM531	15/11/2020	Xewkija	Wied Mgarr ix-Xini	<i>Rectipilus cistophilus</i> Esteve-Rav. & Vila	About 80 specimens
SM532	18/11/2020	iż-Żebbuġ	Wied ta' Marsalforn	<i>Coprinopsis cf. kubickae</i> (Pilát & Svrček) Redhead, Vilgalys & Moncalvo	A dense population of about 800–1000 fruiting bodies covering an area of about 60 × 40 cm
SM533	24/11/2020	Nadur	Wied ta' Bingemma	<i>Coriolopsis trogii</i> (Berk.) Domanski	1 individual
SM534	24/11/2020	Nadur	Wied ta' Bingemma	<i>Hohenbuehelia cyphelliformis</i> (Berk.) O.K. Mill.	Some 50 specimens in a small patch, 4 × 2 cm
SM535	24/11/2020	Nadur	Wied ta' Bingemma	<i>Volvopluteus gloiocephalus</i>	3 specimens
SM536	24/11/2020	Nadur	Wied ta' Bingemma	23 individuals, some very young and regenerating	16 fruiting bodies, gregarious, close to each other
SM537	24/11/2020	Nadur	Wied ta' Bingemma	1 fruiting body	

SM542	26/11/2020	Kerċem	Wied il-Lunzjata (Sellum area)	(DC.) Vizzini, Contu & Justo <i>Emmia latemarginata</i> (Durieu & Mont.) Zmitr., Spirin & Malysheva <i>Crepidotus</i> sp.2 <i>Limacella subfurnacea</i> Contu 1990 <i>Tubaria furfuracea</i> (Pers.) Gillet <i>Daldinia concentrica</i> (Bolton) Ces. & De Not. <i>Xylaria sicula</i> Pass. & Beltrani <i>Mycena cf. roseoquercina</i> M. Villarreal & Esteve-Rav. <i>Coprinellus radians</i> (Bull.) Vilgalys, Hopple & Jacq. Johnson <i>Orbilia</i> sp.	At least 24 specimens
SM543	26/11/2020	Kerċem	Wied il-Lunzjata	<i>Crepidotus</i> sp.2	18 fruiting bodies of various sizes
SM544	26/11/2020	Kerċem	Wied il-Lunzjata	<i>Limacella subfurnacea</i> Contu 1990	1 individual
SM545	26/11/2020	Kerċem	Wied il-Lunzjata	<i>Tubaria furfuracea</i> (Pers.) Gillet	4 isolated individuals close to each other
SM546	26/11/2020	Kerċem	Wied il-Lunzjata	<i>Daldinia concentrica</i> (Bolton) Ces. & De Not.	2 individuals
SM547	26/11/2020	Kerċem	Wied il-Lunzjata	<i>Xylaria sicula</i> Pass. & Beltrani	Large population, several thousand ascomata spread on a large area.
SM548	26/11/2020	Kerċem	Wied il-Lunzjata	<i>Mycena cf. roseoquercina</i> M. Villarreal & Esteve-Rav.	Several hundred basidiomata in an extensive area of about 5 × 8 m.
SM549	26/11/2020	Kerċem	Wied il-Lunzjata	<i>Coprinellus radians</i> (Bull.) Vilgalys, Hopple & Jacq. Johnson	3 specimens
SM550	26/11/2020	Kerċem	Wied il-Lunzjata	<i>Orbilia</i> sp.	30 apothecia, very close to each other
SM551	26/11/2020	Kerċem	Wied il-Lunzjata	<i>Calycellina populina</i> (Fuckel) Höhn.	Cluster of 150–200 tiny fruiting bodies
SM552	26/11/2020	Kerċem	Wied il-Lunzjata	<i>Leucoagaricus leucothites</i> (Vittad.) Wasser	1 individual
SM553	26/11/2020	Kerċem	Wied il-Lunzjata	Unidentified sp. 2	3 specimens
SM554	26/11/2020	Kerċem	Wied il-Lunzjata	<i>Clitopilus hobsonii</i> (Berk. & Broome) P.D. Orton	2 mature fruiting bodies
SM555	26/11/2020	Fontana	Għajn Tuta	<i>Auricularia auricula-judae</i> (Bull.) Quél.	1 individual
SM556	04/12/2020	Nadur	Qortin tal-Magun	<i>Polyporus meridionalis</i> (A. David) H. Jahn	Some 18 individuals were observed, singular or rarely in pairs, scattered in a surveyed area of (50 × 50 m)
SM557	04/12/2020	Nadur	Qortin tal-Magun	<i>Suillellus luridus</i> (Schaeff.) Murrill	8 specimens observed
SM558	04/12/2020	Nadur	Qortin tal-Magun	<i>Mycena olivaceomarginata</i> (Massee) Massee	Some 30 fruiting bodies have been observed in a small area of about 1 × 1 m
SM559	04/12/2020	Nadur	Qortin tal-Magun	Unidentified sp. 3 (Clitocyboid)	Two fruiting bodies joined at the base
SM560	04/12/2020	Nadur	Qortin tal-Magun	<i>Lepiota farinolens</i> Bon & G. Riousset	Two fruiting bodies ca. 40 m apart, solitary
SM561	04/12/2020	Nadur	Qortin tal-Magun	<i>Entoloma poliopus</i> var. <i>discolor</i> Noordel.	2 individuals
SM562	04/12/2020	Nadur	Qortin tal-Magun	<i>Xerocomellus redeuilhii</i> A.F.S. Taylor, U. Eberh., Simonini, Gelardi & Vizzini	1 individual
SM563	04/12/2020	Nadur	Qortin tal-Magun	<i>Lepiota griseovirens</i> Maire	1 basidiocarp
SM564	05/12/2020	Nadur	Qortin tal-Magun	<i>Fomitiporia rosmarini</i> (Bernicchia) Ghobad-Nejjad & Y.C. Dai	2 fruiting bodies
SM565	05/12/2020	Nadur	Qortin tal-Magun	<i>Conocybe brachypodii</i> (Velen.) Hauskn. & Svrcek	1 individual
SM566	05/12/2020	Nadur	Qortin tal-Magun	<i>Xerocoprinus arenarius</i> (Pat.) Maire	1 individual
SM567	05/12/2020	Nadur	Qortin tal-Magun	<i>Agaricus</i> sp.	2 fruiting bodies
SM568	05/12/2020	Nadur	Qortin tal-Magun	<i>Agaricus subreflexans</i> Peck	5 basidiocarps rather distanced from each other
SM572	16/12/2020	Xaghra	Wied tal-Eghżien	<i>Agaricus iodosmus</i> Heinem.	1 basidiocarp

SM573	16/12/2020	Xagħra	Wied tal-Egħżien	<i>Pholiotina dasypus</i> (Romagn.) P.-A. Moreau	2 basidiocarps
SM574	16/12/2020	Xagħra	Wied tal-Egħżien	<i>Pluteus nanus</i> (Pers.) P. Kumm.	At least 11 specimens were observed, gregarious, scattered over an area of $4 \times 2$ m
SM575	16/12/2020	Xagħra	Wied tal-Egħżien	<i>Coprinopsis melanthina</i> (Fr.) Örstadius & E. Larss	8 individuals, gregarious, in an area of $3 \times 1$ m
SM576	22/12/2020	Qala	Tal-Mintuff (l/o wied tal-Halq)	<i>Coprinopsis melanthina</i> (Fr.) Örstadius & E. Larss	18 individuals scattered in an area of $5 \times 10$ m
SM577	22/12/2020	Qala	Tal-Mintuff (l/o wied tal-Halq)	<i>Coprinopsis pseudomarcescibilis</i> Heykoop, G. Moreno & P. Alvarado	4 individuals, three in a clump
SM578	22/12/2020	Qala	Tal-Mintuff (l/o wied tal-Halq)	<i>Cheilymenia theleboloides</i> f. <i>glabra</i> J. Moravec	500 fruiting bodies clustered and tightly packed in an area of $3 \times 30$ cm
SM579	24/12/2020	Għajnsielem	Chambray pinetum	<i>Anthracobia nitida</i> Boud.	Few hundreds of fruiting bodies packed in an area of $20 \times 20$ cm
SM580	24/12/2020	Għajnsielem	Chambray pinetum	<i>Sepultariella semiimmersa</i> (P. Karst.) Van Vooren, U. Lindem. & Healy	About 200 fruiting bodies in an area about $100 \times 80$ cm
SM581	24/12/2020	Għajnsielem	Chambray pinetum	<i>Daldinia concentrica</i> (Bolton) Ces. & De Not.	8 specimens quite close to each other
SM582	24/12/2020	Għajnsielem	Chambray pinetum	<i>Leucoagaricus leucothites</i> (Vittad.) Wasser	4 scattered specimens rather far away from each other rather ( 10m )
SM583	24/12/2020	Għajnsielem	Chambray pinetum	<i>Limacella subfurnacea</i> Contu 1990	13 specimens rather close to each other
SM584	24/12/2020	Għajnsielem	Chambray pinetum	<i>Suillus collinitus</i> (Fr.) Kuntze	30-40 specimens scattered throughout the pinetum
SM585	24/12/2020	Għajnsielem	Chambray pinetum	<i>Pluteus nanus</i> (Pers.) P. Kumm.	20 fruiting bodies scattered in an area of about $5 \times 2$ m
SM586	24/12/2020	Għajnsielem	Chambray pinetum	<i>Mycena</i> sp.	A clump of 15 fruiting bodies in a small area ( $1\text{m}^2$ )
SM587	24/12/2020	Għajnsielem	Chambray pinetum	<i>Emmia latemarginata</i> (Durieu & Mont.) Zmitr., Spirin & Malysheva	1 large individual at the base of a trunk
SM588	24/12/2020	Għajnsielem	Chambray pinetum	<i>Inocybe mecoana</i>	At least three populations of 10–15 gregarious specimens each, about 20-50 m from each other
SM593	02/01/2021	Xagħra	Wied tal-Egħżien	<i>Auricularia auricula-judae</i> (Bull.) Quél.	5 fruiting bodies along the same branch
SM594	02/01/2021	Xagħra	Wied tal-Egħżien	<i>Stereum</i> sp.	Some 25 polypores on the same trunk
SM595	05/01/2021	Nadur	Wied ta' Bingemma	<i>Hypoxyylon crocopeplum</i> Berk. & M.A. Curtis	Two stromata about $4 \times 2$ cm each
SM596	08/01/2021	Qala	Wied tal-Margħ	<i>Volvopluteus gloiocephalus</i> (DC.) Vizzini, Contu & Justo	1 fruiting body
SM597	15/01/2021	Victoria	Wied Sara	<i>Sclerotinia sclerotiorum</i> (Lib.) de Bary	Some 20 ascocarps close to each other
SM598	16/01/2021	Xewkija	Wied Mgarr ix-Xini	<i>Pluteus</i> sp. 3	Two individuals under different trees
SM599	16/01/2021	Xewkija	Wied Mgarr ix-Xini	<i>Ganoderma australe</i> (Fr.) Pat.	One specimen at the base of the trunk
SM601	16/01/2021	Xewkija	Wied Mgarr ix-Xini	<i>Coprinellus radians</i> (Desm.) Vilgalys, Hopple & Jacq.	One specimen
SM602	16/01/2021	Xewkija	Wied Mgarr ix-Xini	<i>Candolleomyces candolleanus</i> (Fr.) D. Wächt. & A. Melzer	A clump of 5 mature fruiting bodies
SM609	19/01/2021	Nadur	Qortin tal-Magħun	<i>Moellerodiscus latus</i> (Berk. & Broome) Dumont	8 fruiting bodies were observed, possibly more
SM610	19/01/2021	Nadur	Wied Riħħan	<i>Helvella sublicia</i> Holmsk.	Numerous clumps of fruiting bodies (up to ten per clump), +/- 100-120 fruiting bodies
SM611	19/01/2021	Nadur	Qortin tal-Magħun	<i>Corticarius ayanamii</i>	3 fruiting bodies close to each other

SM612	19/01/2021	Nadur	Qortin tal-Magun	A. Ortega, Vila, Bidaud & Llimona <i>Coprinopsis pseudomarcescibilis</i> Heykoop, G. Moreno & P. Alvarado	1 individual
SM614	29/01/2021	Nadur	Wied ta' Bingemma	<i>Calycina sulfurina</i> (Quél.) Boud.	200–300 fruiting bodies on bark
SM615	09/02/2021	Nadur	Wied San Blas	<i>Coprinopsis melanthina</i> (Fr.) Örstadius & E. Larss	4 specimens
SM616	09/02/2021	Nadur	Wied San Blas	<i>Parasola conopilus</i> (Pat.) Redhead, Vilgalys & Hopple	1 specimen
SM618	09/02/2021	Nadur	Wied San Blas	<i>Cosmospora</i> sp. 3	Large population (1000s) on bark over an area of about 80 × 20 cm
SM619	10/02/2021	Qala	Ta' Mejxu area, near quarries	<i>Volvopluteus gloiocephalus</i> (DC.) Vizzini, Contu & Justo	About 60 scattered fruiting bodies along a large field
SM621	17/02/2021	Victoria	Ta' Cianti area	<i>Pisolithus albus</i> (Cooke & Massee) Priest	1 mature fruiting body
SM623	20/03/2021	Comino	Art Hažina	<i>Pisolithus albus</i> (Cooke & Massee) Priest	10 fruiting bodies
SM624	20/03/2021	Comino	Art Hažina	<i>Scleroderma albidum</i> Pat. & Trab.	8 specimens in two groups about 30 cm away
SM672	30/04/2021	Qala	Wied Biljun	<i>Patellaria atrata</i> (Hedw.) Fr.	About 60 fruiting bodies in a small patch of about 3 × 2 cm

### Appendix 3. Morphological descriptions of new records of macrofungi to the Maltese Islands collected from Gozo.

#### *Patellaria atrata*

**Ascocarps** (Fig. A1a) apothecia gregarious or sometimes in pairs, 0.4–0.8 mm in diameter, ca. 0.3 mm high, sessile, round and discoid when mature but emerging from fissures in bark as elongated, folded bodies; margin with a regular circular to broadly elliptic outline forming a raised rim, otherwise hymenium flat and even, glabrous and smooth; colour entirely charcoal black. **Paraphyses (interascal tissue)** dense strands of septate, hyaline, filaments, 1–2 µm wide, upper portion  $\times 2$ – $\times 4$ (– $\times 6$ ) branched, with expanded heads (up to 4 µm wide) forming a net-like epithecium with a dull green colour (when viewed under the light microscope), but not lichenised; more or less 140–180 µm long. **Asci** octosporous with the spores arranged longitudinally in two (sometimes three) rows and packed about 10–12 µm below the tips hence forming an empty apical space or chamber, cylindrical to subclavate in shape, slightly flexuous, with bitunicate walls, rounded, J-ve tips and attenuated, kinked bases but without croziers; 110–140 × 17–24 µm in size; dehiscence characteristically fissitunicate. **Ascospores** (Fig. A1b) narrowly clavate, slightly curved (30–)34–38(–44) × (6–)7–8(–9) µm, Q-factor = (4.7–)4.9–5.6(–6.2) [n=27], 7–11 septa including a few transverse septa, without constrictions at the septa, hyaline; surface smooth. **Ectal excipulum** made of textura angularis characterised by thick-walled, dark brown cells, about 22–38 µm wide. **Medullary excipulum** similar tissue, narrower but with a less pigmented, semi-hyaline, cells.

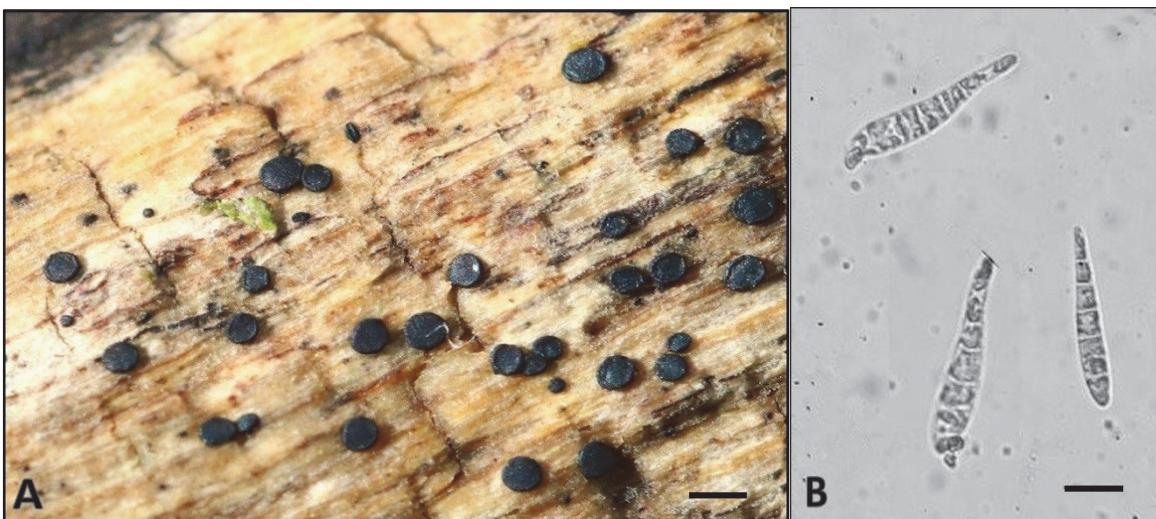


Fig. A1. *Patellaria atrata*. A. Black apothecia scattered on substrate (scale bar: 1 mm); B. Ascospores (scale bar: 10 µm).

#### *Cyathicula cacaliae*

**Ascocarps** (Fig. A2a) apothecia gregarious, 0.4–1.5 mm in diameter, ca. 0.5 mm high, discoid or shallowly cupulate when young or dry, shortly stipitate (ca. 0.2 mm high) to subsessile; margin with a regular circular outline, involuted when dry, hairless or very fine hair-like, protruding hyphae or crystals giving it a finely eroded appearance; colour beige to light greyish- or olive-brown, somewhat hygrophanous and paler when moist; ectal surface slightly darker, light olive-brown darkening to olive brown towards the base, sprinkled with whitish contrasting isolated crystals (Fig. A2b). **Paraphyses** frequent, cylindrical with slightly inflated heads, 2 or 3-septate, more or less the same length or as the asci and about 2.5 µm wide (up to 4 µm at the

apex); contents hyaline below but with contrasting dull green refractive bodies in the terminal cell (ca. 25 µm long); dextrinoid in IKI, does not stain well in Congo red. **Asci** octosporous, subclavate, uniform and straight throughout; base without croziers; apex obtuse;  $60\text{--}74 \times 6\text{--}6.5$  µm in size; pore J +ve, square-shaped. **Ascospores** narrowly cylindrical to ellipsoid, straight to slightly curved with rounded ends,  $(6.5\text{--})6.9\text{--}8.8(9.4) \times (1.9\text{--})2.0\text{--}2.4(2.6)$  µm, Q-factor =  $(3.0\text{--})3.3\text{--}3.8(5.0)$  [n=23], aseptate, hyaline, with 2 (–4) small, vague oil bodies near the poles; surface smooth and mildly cyanophilous. **Ectal excipulum** with polymorphic hyphae, the outer layers being *textura prismatica* with pigmented incrustations at their walls. **Medullary excipulum** light brown, non-gelatinised *textura intricata*.



Fig. A2. *Cyathicula cacaliae* A. Black apothecia scattered on the substrate (scale bar: 1 mm); B. Crystals on the apothecium surface (scale bar: 200 µm).

### *Calycellina populina*

**Ascocarps** (Fig. A3a) 1.0–2.5 mm wide, about 1 mm high, gregarious, subsessile, cupulate with a flattened or slightly sunken surface, tapering down to a narrow and sometimes a shortly stipitate base, outline circular, regular and with a slightly raised entire smooth rim, hymenium and external surface smooth, concolorous, pale yellow-ochre hygrophanous and becoming beige when wet. **Paraphyses** (Fig. A3b) numerous, filiform, multiseptate (3–6 septa) up to the distal third, straight, 180–200 µm long and about 3 µm wide at the bottom, unpigmented, smooth throughout, apex not swollen. **Asci** cylindrical-fusoid, somewhat looking as inflated tubes, wide at the central part than tapering at the base and rounded-obtuse at the apex,  $40\text{--}55 \times 5\text{--}8$  µm, tip J +ve with a trapezoid and wide pore, base slightly bent, some having a bulging end (croziers?), each holding 8 elongated ascospores arranged in two overlapping rows. **Ascospores** linear-ellipsoid,  $(8.5\text{--})8.9\text{--}9.9(10.4) \times (3.2\text{--})3.5\text{--}3.9(4.2)$  µm, Q-factor =  $(1.0)1.1\text{--}1.6 (1.7)$  [n=13], with two small oil bodies situated at opposite poles, surface smooth, contents appearing not fully hyaline but with faintly pigmented. **Ectal excipulum** composed of compact subglobose to ellipsoid cells 15–25 µm in diameter, unspecialised and without pigmentation.

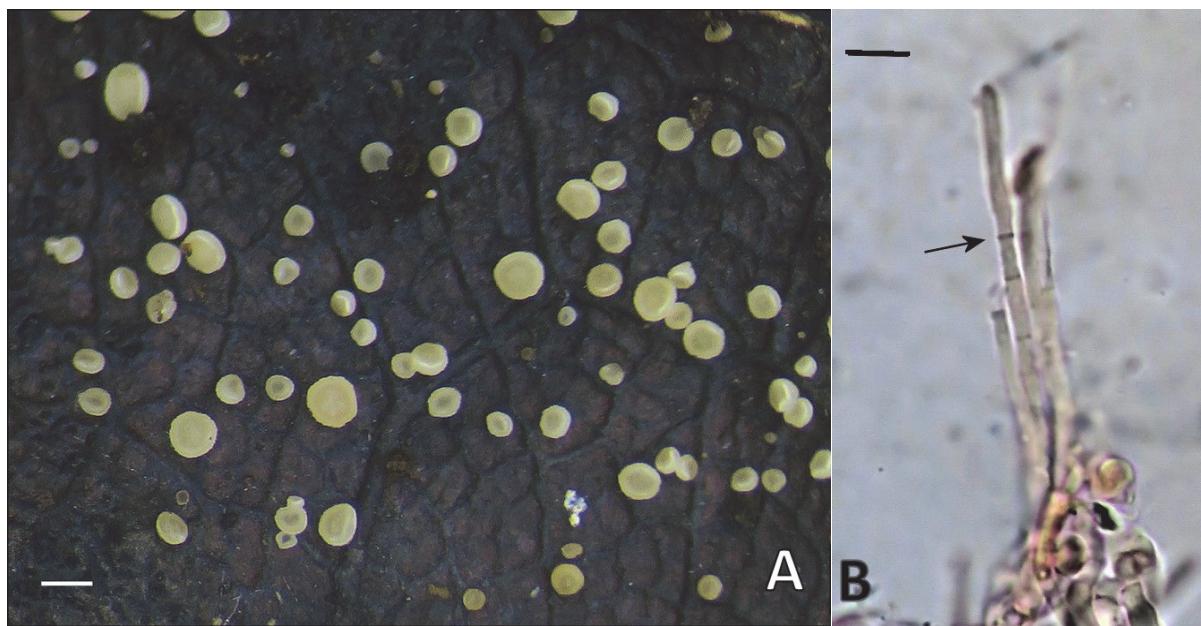


Fig. A3. *Calycellina populina* A. Apothecia (scale bar: 1 mm); B. Bundle of paraphyses showing septa indicated by arrow (scale bar: 10  $\mu$ m).

#### *Sclerotinia sclerotiorum*

**Sclerotium** blackish-brown, glabrous, 18×8 mm, elongated and irregular in shape with numerous rounded humps and sessile lobes, giving rise to cluster of tightly packed apothecia. **Ascocarps** (Fig. 4a) 2.0–9.0 mm wide and about 1.5 mm high, shallowly cupulate, stipitate; outline circular, regular or slightly compressed, pale peach-beige, semi-translucent; margin smooth and slightly darker or vivid; external surface same colour above, then gradually darkens to light brown towards the stipe, texture smooth but finely bullate; stipe 0.5–0.8 mm long, light brown and also with a finely bullate texture. **Paraphyses** not abundant, filiform, aseptate, slightly longer than the asci, uniform shape throughout with an undifferentiated to slightly expanded apex, 100–140  $\mu$ m long and about 2.5  $\mu$ m wide; contents generally hyaline but with some fine granular contents making it appear greyish or slightly opaque. **Asci** with 8 spores, cylindrical, uniform and straight throughout or gently flexuous; base often with one or two kinks, but without croziers; apex truncate; 90–120 × 7–10  $\mu$ m in size; pore J +ve, hat-shaped. **Ascospores** (Fig. 4b) broadly ovoid and somewhat laterally asymmetrical, (9.3–)10.2–14.4(–15.9) × (5.0–)6.0–7.1(–7.6)  $\mu$ m, Q-factor = (1.4–)1.7–1.9(–2.1) [n=33], with two small dark oil bodies near the poles; surface finely rough and cyanophilous. **Ectal excipulum** composed of angular to ovoid cells with their longest axis 15–25  $\mu$ m long; surface with few hair-like projections. **Medullary excipulum** composed of interwoven branched filamentous, septate hyphae.

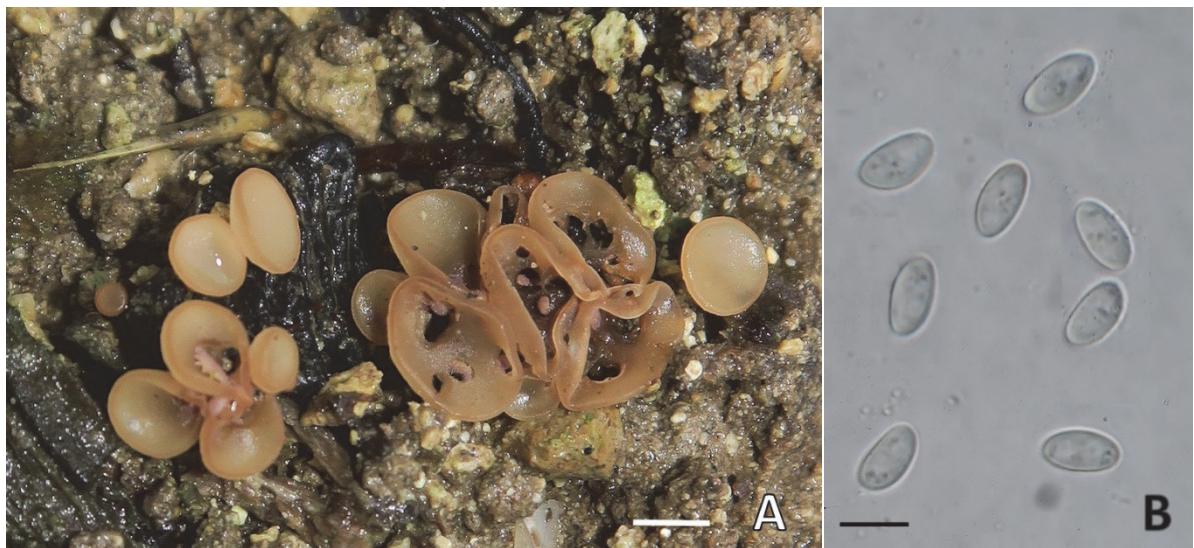


Fig. A4. *Sclerotinia sclerotiorum*. A. Apothecia growing from subterranean organic matter, likely on roots or rhizomes of *Chlorophytum* plants found nearby (scale bar: 5 mm); B. Broadly ovoid ascospores (scale bar: 10 µm).

### *Helvella sublicia*

**Ascocarps** (Fig. A5a) 1.0–3.0 cm broad, 3.0–7.0 cm high, saddle-shaped with two (rarely three) lobes deflexed down or occasionally irregularly cupulate or applanate, upper surface (adaxial surface) light to medium grey (mouse grey) often with a light tinge of beige especially when seen against light; hymenium (abaxial surface) same colour but may look paler due to a dense villose coating of white, short bristles (about 0.2 mm long). **Stipe** 2.5–6.0 cm long, 0.5–2.5 cm broad, ash-white, beige or rarely light grey, always covered with the same villose indumentum as in the hymenium, down almost till to its base; more or less cylindrical in shape, irregularly compressed along its length. **Paraphyses** filiform, 2–3 µm wide, with a short round-clavate tip broadening to 5–6 µm superseding the asci by 15–30 µm, generally up to 300 µm long. **Asci** cylindrical, straight or almost, 250–280 × 13–17 µm; tip rounded, J -ve; contents stain strongly with Iodine solution. **Ascospores** (Fig. 5b) broadly ellipsoid to subglobular, (16.0–)16.2–17.2(–18.2) × (10.3–)11.4–12.5(–13.8) µm , Q-factor = (1.2)1.3–1.4 (1.6) [n=31], with one large guttula occupying most of the spores, cyanophilous, smooth and hyaline. **Ectal excipulum** made of *textura angularis* with cells measuring 25–40 µm along the longest axis, from where bundles of hyphae each composed of four to six hyphae, chained, elongated, sac-shaped hyphae (approx. 25 µm long) protrudes out and represent the dense villous bristles covering the lower surface of the hymenium and the stipe. **Medullary excipulum** consists of a *textura intricata* with hyphae measuring 3.5–5.0 µm wide.



Fig. A5. *Helvella sublicia*. A. Cluster of fruiting bodies growing under *Carya illinoiensis*; B. Ascospores (scale bar: 10 µm).

### *Cheilymenia theleboloides forma theleboloides*

**Ascocarps** (Fig. A6a) 2.0–5.0 mm wide and about 1.5 mm high, cupulate when young then expanding to flattened or shallowly umbonate discoid shape; outline circular, regular, rarely slightly undulate or compressed, glabrous to the naked eye, lined with an opaque rim finely eroded and appearing granulated in older specimens; colour of hymenium amber to bright light orange and rather vivid, lower external surface almost concolor. **Hairs** scanty, sometimes lacking in old specimens, present on the sides of the apothecium and rarely present (lacking?) on the rim; 80–200 µm long and 7–11 µm wide at the base, straight and turgid to slightly curved and a rounded apex, hyaline but with a pale brown colour, one septum at the base separating the hair from a bulbous and sometimes emarginate base, 20–32 µm wide, sometimes with another septum dividing the hair at its lower half. **Paraphyses** numerous, filiform with a slightly broad apex, multiseptate (4–5 septa, evenly spaced), straight, 180–240 µm long and about 3 µm wide at the base widening slightly to 5 µm at the apex, hyaline but with yellowish pigments at the lower part, smooth throughout. **Asci** cylindrical and rather uniform in thickness gently tapering towards the base, 190–230 × 12–15 µm in size, apex truncated or obtuse, J –ve, base conspicuously bent or kinked, rarely sigmoid, bearing eight mature spores. **Ascospores** broadly ellipsoid with obtuse poles, equilateral, (14.9–)16.1–17.7(–18.9) µm × (8.2–)8.4–10.0 (–10.5) µm, Q-factor = (1.6)1.7–2(2.1) [n= 28], without distinct oil bodies, surface smooth. **Ectal excipulum** composed of angular to subglobose cells 25–45 µm in diameter, slightly shorter towards the external surface. The forma *theleboloides* is similar to *Cheilymenia theleboloides* s. str. but hairs are sparse, hyphoid, hyaline, with rounded non-acuminate tips, never stiff or thick-walled, lacking anchoring basal roots, measuring 40–80 × 6–10 µm. Apothecia (Fig. 6b), asci and ascospores similar to the type form.

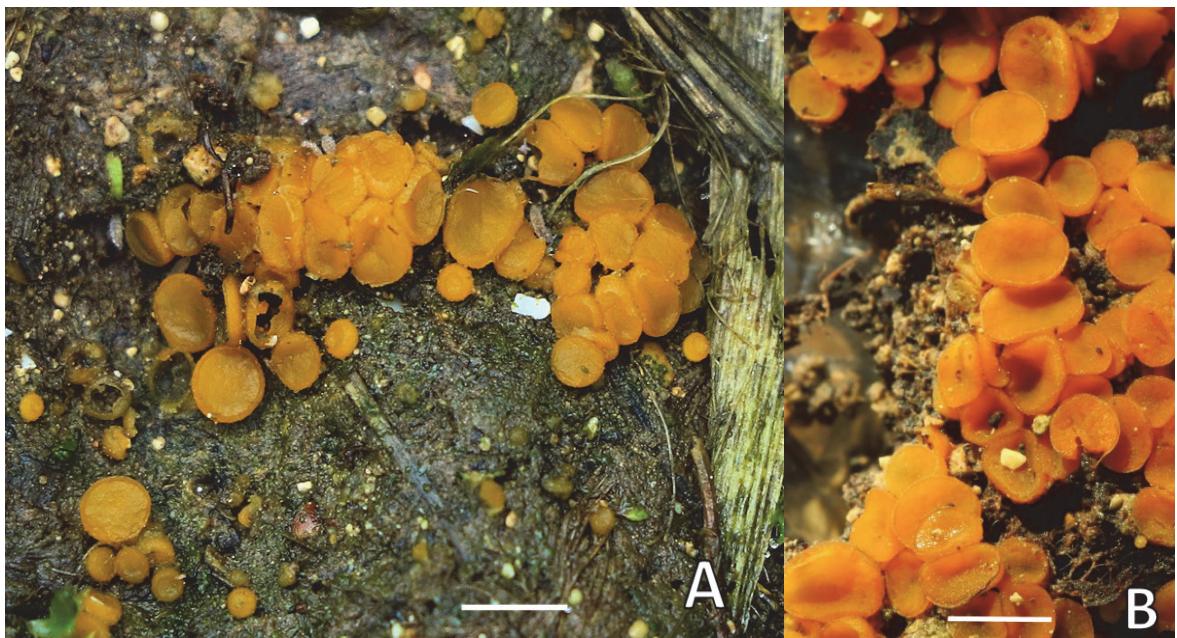


Fig. A6. *Cheilymenia theleboloides* (scale bar: 10 mm). A. forma *theleboloides*; B. forma *glabra*.

### *Scutellinia barlae*

**Ascocarps** (Fig. 7a) 4–7 mm in diameter, up to 2.5 mm high, disc-shaped, circular outline, sometimes slightly irregular, hymenium amber-red then orange to light brown at the exterior side. Margin and side bearing dense dark-brown hairs, those at the margin being the longest **Hairs** more or less fusiform, 1–2 (–3) septate thick-walled, broadest at the lower third, then tapering to an acute tip, up to 310 µm long (221–303 µm) and 30 µm in diameter (23.7–33 µm) and with a simple, unbranched, usually truncate base. **Paraphyses** numerous, slender, straight, 240–280 µm long and about 4 µm wide at the bottom, widening very gradually to about 8–9 µm and then expanding into a swollen flattened ovoid or club shape about 18–24 µm long and 9–14 µm wide. Cellular content in the head of paraphyses stains readily dark brown with iodine's solution, less so throughout the rest below. **Asci** cylindrical with a truncated tip and weak croziers at the base, sides straight and almost parallel, but attenuating slightly at the lowest half or third, 8-spored, 210–260 µm long and 18–23 µm wide. **Ascospores** (Fig. 7b) globose, (15.6–)16.4–19.7(–21.3) µm in diameter [n=31], with one large oil body and few smaller and peripheral bodies, the ornamentation of apically-truncate rounded warts (sometimes irregularly shaped) unequal in size, about 1.2 µm high and ranging between 1.0–2.0 µm wide, unevenly distributed on the spore surface. **Ectal excipulum** composed of angular to subglobose cells of various sizes ranging between 22–60 µm in diameter.

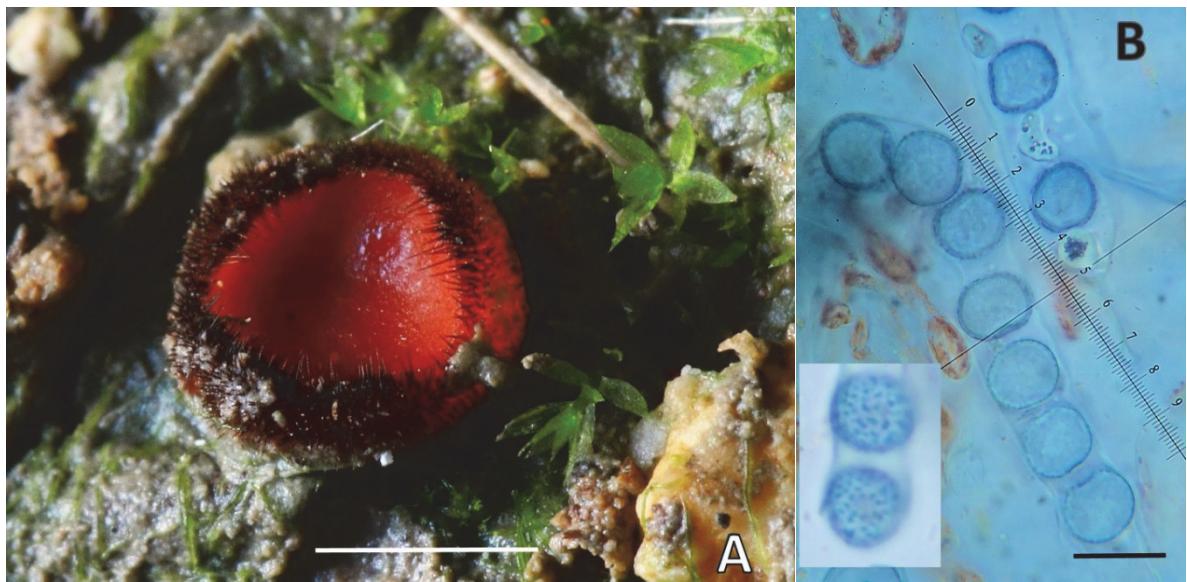


Fig. A7. *Scutellinia barlae*. A. Red apothecium on moist clayey surrounded with mosses (scale bar: 10 mm); B. Globose ornamented ascospores (scale bar: 20  $\mu\text{m}$ ).

### *Sepultariella semiimmersa*

**Ascocarps** (Fig. 8a) 2.0–5.5 mm wide, up to 2 mm high, shallowly cupulate sometimes more flattened and disk-shaped, outline circular, regular to slightly irregular in older specimens, hymenium and external surface concolorous, ochre to light orange, not vivid and rather dull. Margin and inner wall of rim minutely tomentose with very short hyaline or white hairs (seen by hand lens), then lacking on the outer surface, rim ornamented by blunt or hump-like teeth, widely spaced, paler from the ascocarp's colour and almost white. **Hairs** (Fig. 8b) of two types: a brush of short oblong elements, 40–70  $\mu\text{m}$  long composed of two to four oval-elongated cells the terminal usually the longest and sometimes nipple-shaped; and a tuft of 10–25 longer and more filiform hairs, 110–160  $\mu\text{m}$  long, 2–3 septate, the basal cell swollen while the terminal is the longest and ends with a pointed tip, contents opaque or greyish. **Paraphyses** numerous, filiform, multiseptate (6–8 septa), straight, 200–250  $\mu\text{m}$  long and about 3  $\mu\text{m}$  wide at the bottom widening slightly to 4  $\mu\text{m}$  at the apex, unpigmented, smooth throughout. **Asci** cylindrical to slightly clavate, 190–215  $\times$  11–14  $\mu\text{m}$ , more or less straight but usually constricted between the ascospores forming a wavy outline, apex truncated or obtuse, J –ve, basal croziers absent. **Ascospores** broadly ellipsoid to navicular, (19.5–)20.4–23.8(–25.1)  $\times$  (10.8–)11.5–12.6 (–14.7)  $\mu\text{m}$ , Q-factor = (1.0)1.1–1.6 (1.7) [n=33], with one or often two large oil bodies (usually of different sizes) situated at the poles, cyanophilous, surface smooth. **Ectal excipulum** composed of angular to subglobose cells 25–45  $\mu\text{m}$  in diameter, slightly shorter towards the external surface.

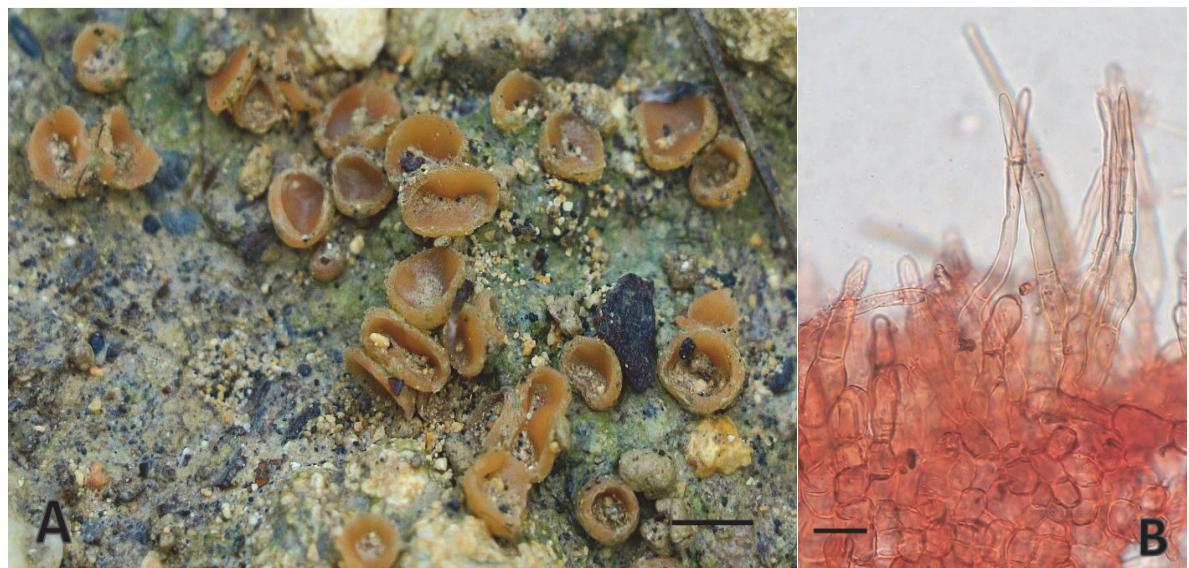


Fig. A8. *Sepultariella semiimmersa*. A. Apothecia scattered on substrate (scale bar: 5 mm); B. Two types of hairs, short and hyphoid (left) and long and robust (right) (scale bar: 20  $\mu$ m).

### *Hypoxylon crocopeplum*

**Stromata** (Fig. 9a) rather small, measuring 1–3  $\times$  0.5–1.0 cm, elongated, shallowly lobed and irregular in outline, 0.7–0.9 mm high, golden amber to apricot with a light yellow border; effuse to flattened-pulvinate possessing inconspicuous perithecial mounds; matrix sulphur-yellow beneath the surface, then greyish-brown where the perithecial bodies are embedded; perithecia quite spaced apart sitting on a thin black layer over the surface of the substrate; KOH-extractable pigments (Fig. 9b) rust-brown with a faint reddish-brown hue. **Perithecia** broadly ovoid, 200–320  $\mu$ m diameter, 500–600  $\mu$ m high, dark lead-grey with paler areas towards the inner wall and ostiole. **Ostiole** 95–125  $\mu$ m wide, slightly sunken or same level of stromatal surface, lead-grey with a darker ring at the centre. **Asci** cylindrical, straight, without croziers at the base, 170–200  $\times$  8–13  $\mu$ m with 8 ascospores situated at the upper half; rim trapezoid, up to 1.5  $\mu$ m high and almost 3.0  $\mu$ m wide, IKI positive. **Ascospores** ellipsoid, inequilateral with acute or blunt ends, (11.5–)13.2(–15.1)  $\times$  (6.2–)6.9(–7.5)  $\mu$ m, Q-factor = (1.4–)1.6(–1.8) [n=31], dark brown, with one large oil body at the centre and a distinct, broad gently-sigmoid split along the spore length; perispore smooth, dehiscent in 10 % KOH.

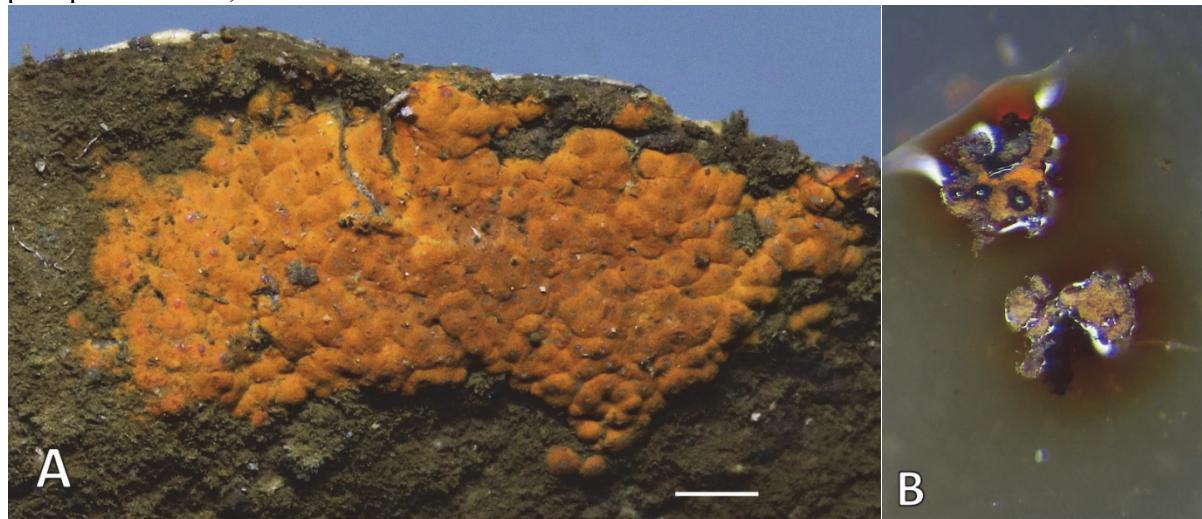


Fig. A9. *Hypoxylon crocopeplum*. A. Golden-honey stroma sessile on bark (scale bar: 1 mm); B. Rust-brown colour exuded from the extractable pigments in the stroma in 10 % KOH.

### *Hypoxyton petriniae*

**Stromata** (Fig. A10a) rather small, variable in size  $1\text{--}5 \times 0.5\text{--}1.5$  cm, unlobed but moderately irregular in outline, rarely more uneven with shallow lobes, 0.3–0.7 mm high, copper to brick brown darkening with age forming a blackish-brown border; flat or with inconspicuous perithecial mounds (undetectable in young stroma) usually with somewhat concentric wrinkles; matrix blackish-brown with conspicuous golden-brown to amber granules, perithecia closely packed sitting on a thin and inconspicuous layer; KOH-extractable pigments (Fig. A10b) rust-brown with a faint violaceous-scarlet hue, alike a tincture of Iodine. **Perithecia** globose, often laterally compressed, 300–420  $\mu\text{m}$  diameter, 400–500  $\mu\text{m}$  high, black with a shiny cavity wall. **Ostiole** 60–75  $\mu\text{m}$  wide, depressed and sunken in the stromal surface, ash-white with a black centre. **Asci** cylindrical, straight to gently flexuous, without croziers at the base, 90–140  $\times$  6–9  $\mu\text{m}$  with 8 ascospores situated at the upper half; rim annular-discoid, almost 1  $\mu\text{m}$  high, IKI positive but rather weakly so. **Ascospores** ellipsoid, inequilateral with blunt to rounded ends looking like mandarin slices in profile, (9.5–)10.7(–12.3)  $\times$  (4.5–)5.23(–5.9)  $\mu\text{m}$ , Q-factor = (1.7–)2.1(–2.5) [n=31], dark brown, with one or two distinct oil bodies at the centre and a narrowly-sigmoid split along the spore length; perispore smooth, dehiscent in 10 % KOH.

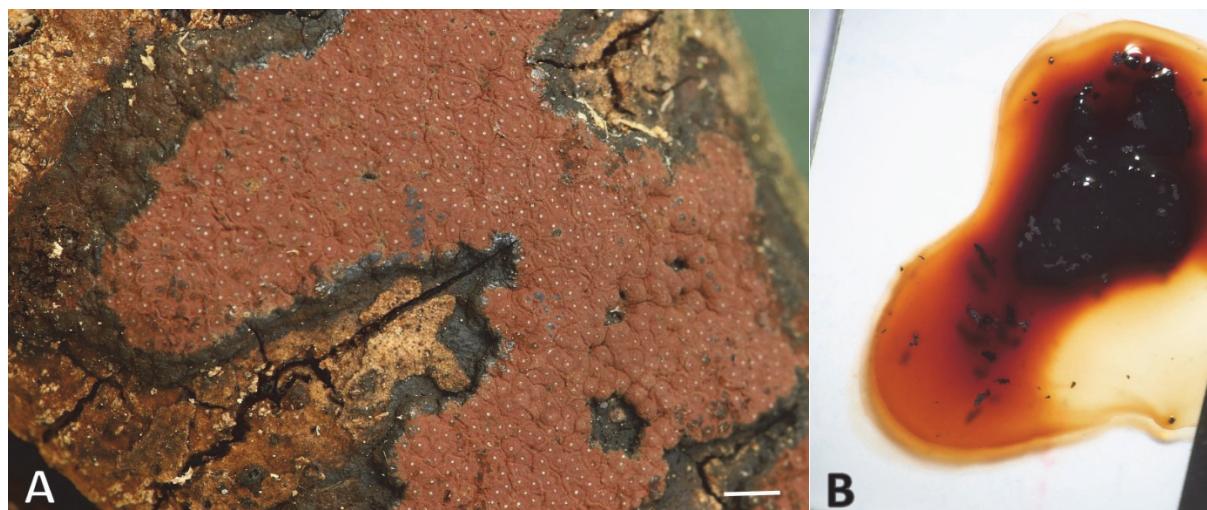


Fig. A10. *Hypoxyton petriniae*. A. Copper-brown stroma on bark (scale bar: 1 mm); B. Reddish-brown colour exuded from the extractable pigments in 10 % KOH.

### *Agaricus iodosmus*

**Basidiocarp** (Fig. A11a) 100 mm high, solitary, agaricoid in shape. **Pileus** 75 mm wide; initially hemispherical when young then expanding into a plano-convex shape when fully mature, centre slightly depressed, umbo absent; colour ash-white when young easily bruising bright yellow, later developing light greyish-brown appressed scales, merged as a single body at the centre then arranged concentrically and becoming scattered and spaced away towards the margin, darkening to a dingy brown when fully mature; margin circular, regular, smooth; texture smooth to velutinous, dry, soft. **Stipe** (Fig. A11b) 70 mm long, 13 mm across, cylindrical, slightly curved longitudinally, expanding below the pileus and tapering abruptly at the base; white with faint beige or yellowish tones towards the base; texture finely fibrillose and almost smooth; flesh solid to spongiform, white which becomes chrome yellow when exposed to air then changing to light brown after 30 minutes, somewhat more intense yellow at the base and margins; base with few thin rhizomorphs. **Ring** white, thick, complex, composed of two furrows forming three rims; the upper rim compactly lanose and the most protruding, with an adaxial surface that is finely striate in beige; the abaxial surface of lowest rim is smooth and short; the

margin of the middle rim tends to become yellow with age or touch. **Volva** absent. **Lamellae** (5–)7(–10) mm broad, free, broadly convex, thin, numerous and crowded; pinkish-tan when immature then chocolate brown and finally dark brown when fully mature, concolorous throughout including the margin; edge smooth and regular. **Scent** strongly phenolic or of iodine especially at the stipe, sliced flesh or under the gills. **Spore print** chocolate brown, copious. **Macrochemical reactions:** 3 % KOH on pileus and flesh of stipe; pileus forms a vivid yellow colour which turns light brown after standing. **Basidia** (19–)24.5(–30) × (6.0–)7.5(–9.8) µm [n=11], tetrasporous or rarely bisporous, oblong-clavate with a truncate base and apex, widest below the apex; sterigmata horn-shaped 3–4 µm long. **Cystidia:** Cheilocystidia infrequent, variable, mostly short clavate-oblong to quadrangular with a truncate or shallowly rounded apex and one or two septa at the base, the terminal element measuring 15–24 µm long, sometimes cheilocystidia are aseptate and larger, pyriform or lageniform up to 38 µm long; pleurocystidia absent. Caulocystidia not examined. **Spores** (Fig. A11c) (4.8–)5.8(–6.2) × (4.0–)4.5(–5.0) µm, Q-factor = (1.1–)1.3(–1.4) [n=33]; subglobose to broadly ellipsoid; apiculum and germ pore indistinct; oil bodies one or two, large, central; wall thick, smooth, not ornamented, brown, inamyloid. **Pileipellis** composed of a multi-layered cutis of cylindrical to sausage shaped hyphae, about 5–18 µm wide of varying sizes sometimes narrower and more filamentous, the outermost elements with intracellular pigment. Ring tissue not examined.

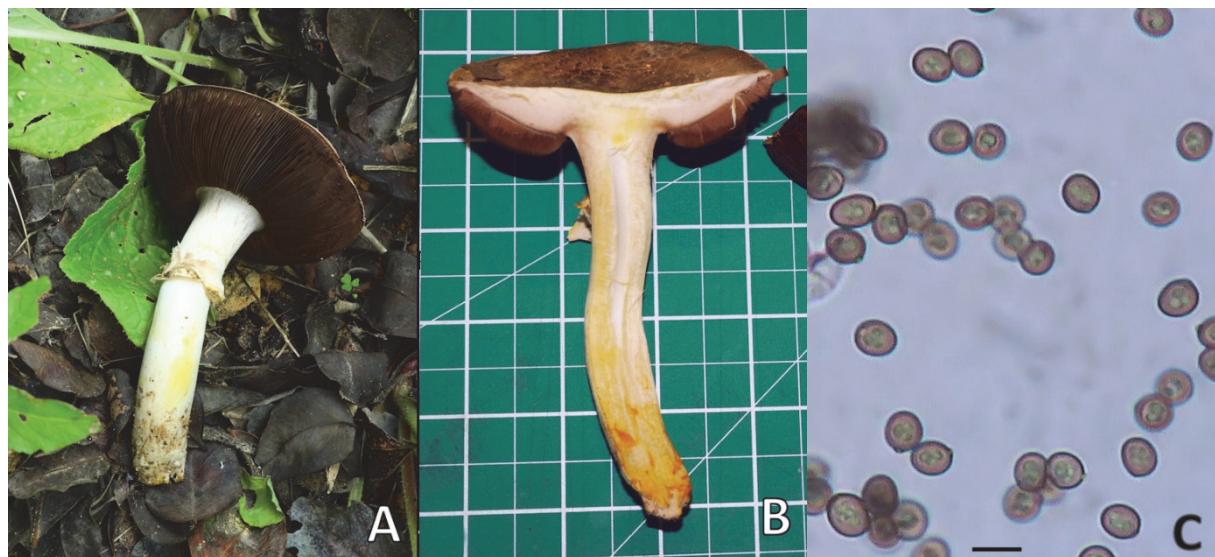


Fig. A11. *Agaricus iodosmus*. A. Fruiting body in situ with stipe turning bright yellow on bruising; B. longitudinal section of fruiting body (grid box: 1 cm); C. Basidiospores (scale bar: 10 µm).

### *Agaricus subrufescens*

**Basidiocarps** (Fig. A12a) 32–42 mm high, solitary or gregarious, agaricoid in shape. **Pileus** 38–56 mm in diameter; hemispherical when young then expanding into a plano-convex shape when fully mature, umbo absent or very shallow and indistinct; colour whitish to pale mouse-grey with a subtle yellow hue becoming more pronounced when rubbed, later turning light tawny brown when mature due to the presence of brownish radiating appressed tufts that darkens with age; margin nearly circular often fissured or shallowly emarginate; texture finely fibrillose-squamous sometimes grouped and forming imbricated radiating flattened tufts that are slightly pointed upwards at their tip. **Stipe** 30–50 mm long, 7–12 mm wide, cylindrical, slightly curved, tapering below the pileus; usually whitish-ochre or beige with a pale yellow zone at the base, deepens to chrome yellow when bruised; texture finely velutinous, becoming pruinose or subglabrous and smooth with age; flesh white which becomes faintly yellow when exposed to air, somewhat more intense at the margins towards the base, solid to spongiform at the centre;

base with one or few thin rhizoids. **Ring** white, somewhat finely lanose to sericeous, rapidly fugacious. **Volva** absent. **Lamellae** (5–)8(–11) mm broad, adnexed with the stipe or free, broadly convex, thin, numerous and crowded; pinkish-tan when immature then chocolate brown, not very dark when mature, concolorous throughout including the margin; edge smooth and regular, often notched or fissured by physical damage in old specimens. **Scent** of sweet almonds or anise reminiscent of liquorice. **Spore print** dark brown, copious. **Macrochemical reactions:** 3 % KOH on pileus and flesh formed a vivid yellow colour which stays unchanged.

**Basidia** (19–)25.5(–29) × (6.0–)7.4(–8.8) µm [n=9], bi- or trisporous less often tetrasporous, subclavate-rhombic gradually narrowing from the lower half, widest at upper third, basidioles almost subcylindrical; sterigmata horn-shaped about 3 µm long. **Cystidia:** Cheilocystidia and Pleurocystidia absent or not observed in the examined material although the hyaline cylindrical-clavate basidioles might represent short cheilocystidia. Caulocystidia and ring tissue not examined. **Spores** (Fig. A12b) measuring (5.2–)6.2(–6.9) × (3.6–)4.5(–5.0) µm, Q-factor = (1.3–)1.4(–1.6) [n=34]; broadly ellipsoid, sometimes subglobose rather variable in shape and size; apiculum tiny, eccentric and bent sideways; germ pore absent; oil bodies one or two, large; smooth but thick-walled, brown, inamyloid. **Pileipellis** composed of a cutis of cylindrical to sausage-shaped hyphae, about 10–15 µm wide of varying lengths and sometimes narrower and more filamentous, possibly located at the outermost hairy tufts.



Fig. A12. *Agaricus subrufescens*. A. Two fruiting bodies in situ; B. Basidiospores (scale bar: 10 µm).

### *Lepiota farinolens*

**Basidiocarps** (Fig. A13a) small, 15–25 mm high, solitary, agaricoid habit. **Pileus** 10–25 mm in diameter, dry and somewhat rough from the hard appressed tiny scales, broadly convex to plano-convex when mature, with a flattened shiny disc at the centre; surface colour beige-cream or light sand brown with pale salmon tones, covered with numerous contrasting caramel-cocoa brown scales, dense and aggregated at the centre and becoming more spaced apart towards the border; margin finely crenate and with one or few short radial fissures. **Stipe** 13–15 mm long and 1.5–2.0 mm wide, cylindrical and uniformly straight; ochreous-cream then becoming pale brown below the ring which darkens with age; texture strongly fibrillose with fibres running longitudinally; flesh white to cream, narrowly fistulose, breaking rapidly with a rough cut. **Ring** present, thick, lanose to strongly fibrillose, sometimes with a double rim, white to tan-brown easily detaching from the stipe and falls down leaving a light brown annular zone, brown above (spore deposit ?) and white below. **Volva** absent. **Lamellae** 1–2 mm broad, free but very close

to the stipe, moderately crowded, white then becoming cream to pale ochre when fully mature, convex shape with a smooth or gently notched edge. **Scent** faintly farinose. **Spore print** medium brown, not copious. **Macrochemical reactions:** not observed with 3 % KOH on pileus or flesh.

**Basidia** (27.8–)30.3(–32.0) × (8.0–)8.9(–10.5) µm [n=7], bisporous or less often tetrasporous, oblong to slightly clavate, edges parallel and broadest above the centre; sterigmata slender and straight 3–4 µm long. **Cystidia:** Cheilocystidia numerous and often in clusters, short, often septate at the base or sitting on one or two short basal elements attached with a clamp junction; (21.1–)24.0(–27.1) × (6.5–)7.3(–7.9) µm in size [n=11]; round-clavate to subclavate-cylindrical, broadest below the apex; wall thin, smooth, hyaline. Pleurocystidia absent. Caulocystidia not examined. **Spores** (Fig. A13b) quite variable in size (5.9–)7.4(–9.3) × (3.8–)5.0(–5.8) µm, Q-factor = (1.2–)1.5(–1.7) [n=41]; broadly ellipsoid-ovate; apiculum tiny and indistinct, but detectable, eccentric; germ pore absent; oil bodies normally one, large and central; wall slightly thick, without ornamentation, hyaline, dextrinoid. **Pileipellis** (Fig. A13c) a trichoderm of elongated and flexuous cylindrical hyphae with the terminal elements irregularly sinusoidal or with jagged angled sides, 80–150 × 10–14 µm, without subtending basal hyphae or septa, hyaline, light sepia brown, walls thick but without obvious pigmented incrustations, contents faintly pigmented, clamp junctions frequently present. **Clamp connections** observed in various tissue.

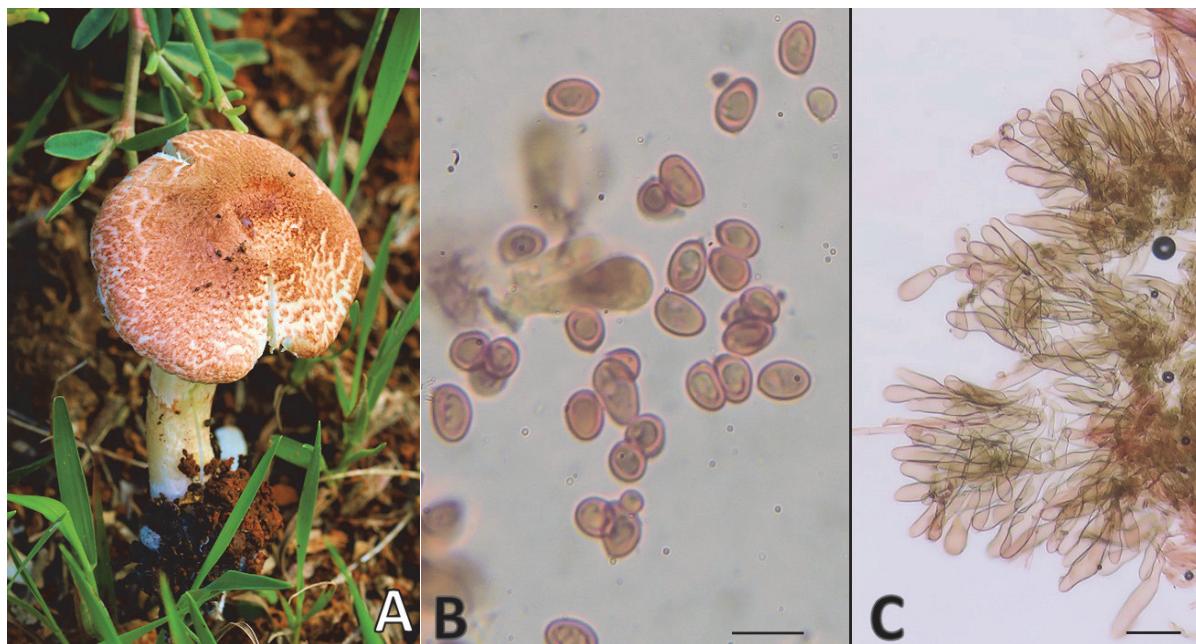


Fig. A13. *Agaricus subrufescens*. A. Fruiting body in situ; B. basidiospores (scale bar: 10 µm); C. trichoderm tissue of the Pileipellis (scale bar: 100 µm).

### *Lepiota griseovirens*

**Basidiocarp** 30 mm high, found solitary, agaricoid habit. **Pileus** (Fig. A14a) 18 mm in diameter, dry and slightly rough from the hard, appressed scales, convex then plano-convex when mature, with a gently raised umbo covered with coalescent flattened greyish olive-grey scales that gradually becomes dispersed and isolated radially towards the margin; surface colour beige-cream; margin smooth, rather regular, showing one or few short radial fissures. **Stipe** (Fig. A14b) 23 mm long and 3 mm wide, cylindrical and straight to slightly flexuous, with a swollen base; ochreous-cream throughout except at the base which abruptly becomes reddish-orange to rust brown, the lower two thirds or so covered with numerous, small dark olive green, linear or

oblong tufts, most dense and conspicuous towards the central part of the stipe and somewhat becoming less evident down to the base; texture strongly fibrillose with sub-tomentose fibres running longitudinally; context orange brown, narrowly fistulose. **Ring** thin, white and tomentose above, dark green below, evanescent, becoming like a lacerated strap and degrading to a faint annular zone. **Volva** absent. **Lamellae** 2 mm broad, free moderately crowded, cream then becoming pale yellow, convex in shape with a minutely crenate-eroded edge, slightly paler from the lamella face. **Scent** faintly fungoid-farinose. **Spore print** cream, sporulation poor. **Macrochemical reactions:** not observed with 3 % KOH on pileus or stipe flesh.

**Basidia** (28.9–)31.9(–35.0) × (8.5–)9.5(–10.3) µm [n=9], tetrasporous oblong-clavate, widest about one third from the apex; sterigmata straight to slightly curved 3–4 µm long. **Cystidia:** Cheilocystidia numerous, in short interrupted rows, attached with a clamp junction; (30.6)38.0(–43.5) × (7.5–)7.9(–8.5) µm in size [n=9]; variable in shape, mostly clavate or subfusiform (widest at the central part); wall thin, smooth, hyaline. Pleurocystidia not observed and likely absent. Caulocystidia not examined. **Spores** (Fig. A15c) (6.4–)7.8(–9.2) × (3.2–)3.8(–4.3) µm, Q-factor = (1.8–)2.1(–2.4) [n=41]; oblong-trapezoid to bullet shape, with one end truncate and the other obtuse to sub-acute; apiculum eccentric and distinct; germ pore absent; oil bodies not observed; wall slightly thick, without ornamentation, hyaline, dextrinoid. **Pileipellis** a trichoderm of elongated, cylindrical or subclavate hyphae, gradually narrowing towards the base, slightly to moderately wavy in outline, 60–100 × 10–15 µm, sometimes branched and with clamp connections; walls moderately thick without or with faint pigmented incrustations. **Clamp connections** observed in various tissue.

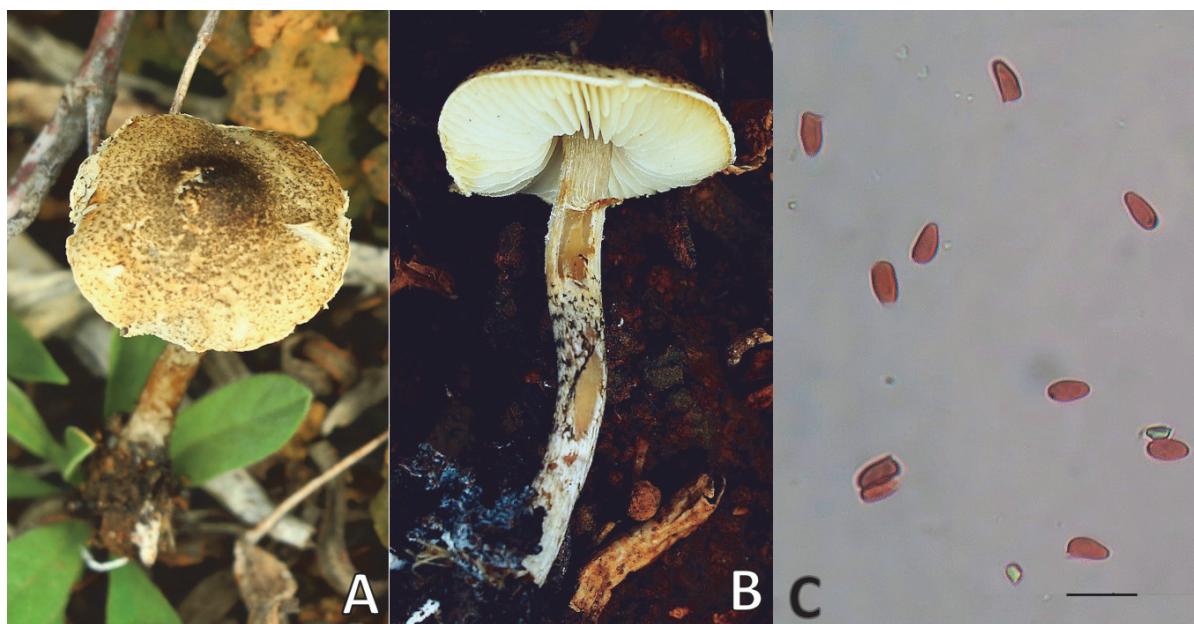


Fig. A14. *Lepiota griseovirens*. A. pileus of fruiting body; B. stipe of fruiting body; C. Basidiospores (scale bar: 10 µm).

### *Lepiota nigrescentipes*

**Basidiocarps** (Fig. A15a) 12–25 mm high, found solitary, agaricoid habit. **Pileus** 7–12 mm in diameter, convex then plano-convex when mature with a wide and raised umbo, waxy white with faint ochre or light brown tones especially where the flesh is exposed by physical damage, or also ochre scars are formed when old; texture silky then more striate-fibrillose towards the margin, rather dense viscous when moist, friable and crumbly at the margin when dry; scales not distinct, white and same colour of pileus; margin entire and regular easily eroded when old. **Stipe** ± 10–20 mm long and 2 mm wide, cylindrical and straight to slightly curved, not bulbous;

same colour as the cap but easily becomes ochre-apricot colour with age, physical damage or bruising, often further becoming dark grey at the lower part (below the ring) after long exposure or cutting; texture longitudinally fibrillose rather compact and close to the stipe. **Ring** thin, ascending, white membranous, becoming flimsy when mature but remains attached to the stipe. **Volva** absent. **Lamellae** 3–4 mm broad, free but close to the stipe, whitish-cream then pale ochre when mature, moderately crowded, shallowly convex; edge smooth, same colour as lamellae. **Scent** unpleasant. **Taste** acrid, unpalatable. **Spore print** white, sporulation poor. **Macrochemical reactions:** not observed with 3 % KOH on pileus or stipe flesh.

**Basidia** (14.5–)18.2(–20.7) × (5.2–)6.3(–7.4) µm [n=9], tetrasporous, clavate, widest about one third from the apex; sterigmata slightly curved 3–4 µm long. **Cystidia:** Cheilocystidia not observed or indistinct from basidioles. Pleurocystidia not observed and likely absent. Caulocystidia not examined. **Spores** (2.9–)3.5(–4.7) × (1.8–)2.5(–3.1) µm, Q-factor = (1.3–)1.4(–1.5) [n=31]; ovate and slightly curved tapering end; apiculum eccentric; germ pore absent; with few small oil bodies; wall smooth and without ornamentation, hyaline, inamyloid. **Pileipellis** (Fig. A15b) a trichoderm of elongated, slender cylindrical to almost filiform hyphae, septate, flexuous, simple or rarely forked in two branches, 50–110 × 3–8 µm; walls moderately thick with pigmented incrustations at the upper parts. **Clamp connections** observed in various tissue, easily seen in the pileipellis.

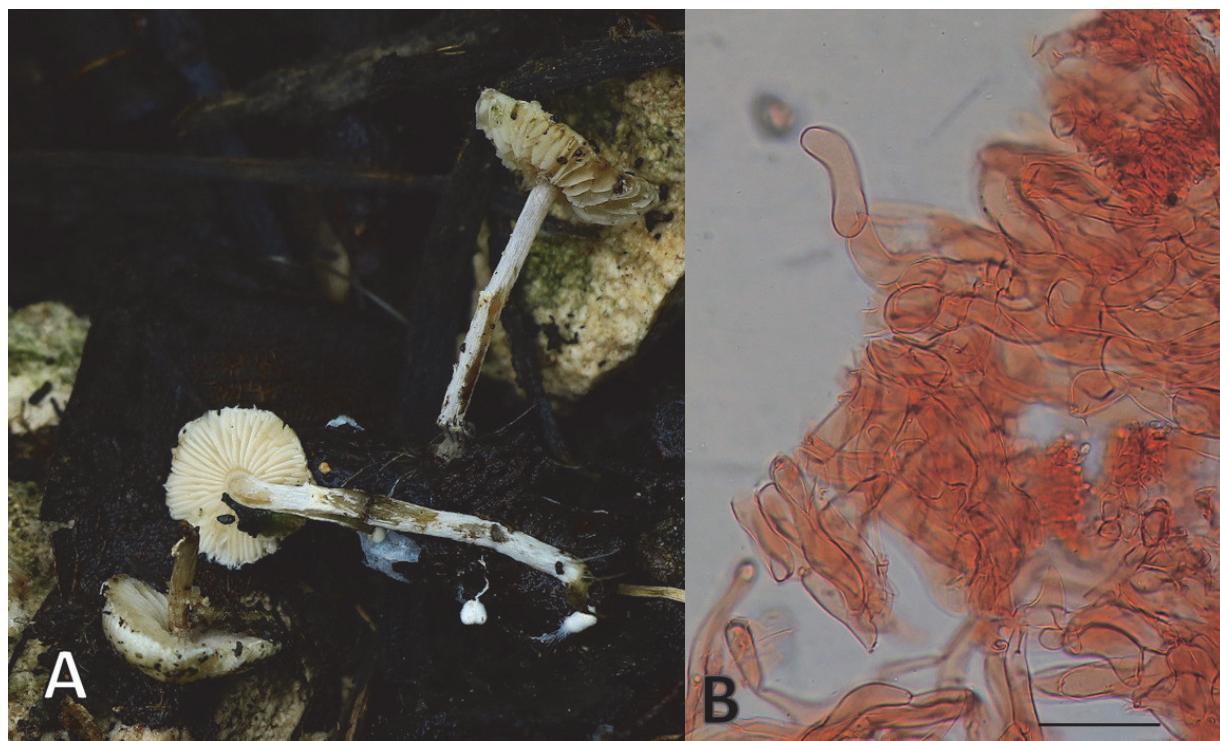


Fig. A15. *Lepiota nigrescentipes*. A. Basidiocarps in situ; B. Sausage-shaped hypha of the pileipellis (scale bar: 50 µm).

#### *Leucoagaricus littoralis*

**Basidiocarps** (Fig. A16a) 60–68 mm high, solitary, rather robust and fleshy, agaricoid habit. **Pileus** 50–55 mm in diameter; broadly convex then expanding to a plano-convex shape and depressed centre when fully mature, if present, umbo broad and shallow rather indistinct; colour cream to beige, light brown with pinkish tones at the central region; margin entire, crenate then smooth, undulated when mature, slightly involute; texture radially fibrillose to felted. **Stipe** 45–60 mm long, 8–11 mm wide, cylindrical, straight to slightly curved, expanding at the base but not forming a bulb; white to whitish-beige slowly becoming light brown at the lower half with age, no change in colour when bruised or damaged; texture generally silky or felt-like due to a

fine fibrillose indumentum running longitudinally; flesh fistulose white in young specimens but pale brown in older ones, colour unchangeable when cut or bruised. **Ring** cream coloured with a rather conspicuous pink rim or/and at the point of attachment with stipe, smooth, margin raised up, persistent but diminishing with age and sometimes disappearing. **Volva** absent. **Lamellae** (4–)5(–6) mm broad, free, broadly convex, thin, numerous and moderately crowded; cream then light beige-brown when fully mature, concolorous throughout or paler when lamella face gets colour; edge finely flocculose sometimes segmented by fine cracks. **Scent** fungoid with slight foetid odour. **Spore print** cream to light pinkish-brown, not abundant. **Macrochemical reactions:** 3 % KOH on pileus and flesh gave no colour change.

**Basidia** 20–25 × 6–8 µm [n=7], clavate, tetrasporous, infrequent **Cystidia**: Cheilocystidia abundant, (22–)40(–62) × (7–)10(–13) µm [n=15]; narrowly clavate or utriform sometimes with a subcapitate apex, hyaline, walls smooth. Pleurocystidia absent or not observed in the examined material. Caulocystidia not examined. **Spores** (Fig. A16b) (6.1–)7.1(–8.1) × (4.2)4.5(–5.0) µm, Q-factor = (1.4–)1.6(–2.0) [n=33]; ellipsoid-amygdaliform, with one end subacute the other obtuse, apiculum rather distinct and stout, central to slightly eccentric; germ pore absent; oil body singular (rarely two), large, distinct, centrally placed within the spore; wall smooth, unornamented, rather thick, dextrinoid in iodine solution. **Pileipellis** a cutis of parallel, thick-walled, cylindrical hyphae, sometimes with intra-parietal encrusted pigment, 9–14 µm wide. **Clamp junctions** not observed. Ring tissue not examined.



Fig. A16. *Leucoagaricus littoralis*. A. Basidiocarps in situ; B. Basidiospores stained in Iodine solution and attaining the dextrinose reddish-brown colour (scale bar: 10 µm).

### *Xerocoprinus arenarius*

**Basidiocarp** (Fig. A17a) 90 mm high, solitary, agaricoid-coprinoid in shape. **Pileus** 25 mm wide (partly eroded when measured); plano-convex with a raised umbo; ash-white with a cream tinge eroding radially inwards and exposing the black hymenophore underneath forming a whitish, net-like pattern overlying a dark-grey surface that gradually becomes finer towards a blackish margin; umbo dark grey with a reddish-brown centre, ornamented with conspicuous cottony scales with a brownish centre often with soil debris adhered to (likely development of the fruiting body); margin regular, conspicuously eroded and exposing the blackish hymenophore, involuted and lacerated when fully mature; texture tomentose-velutinous. **Stipe** 80 mm long, 13 mm across, slender and uniformly cylindrical, narrowest just below the pileus, rather fragile and easily breaking off from the pileus; colour white but becomes silvery brown-

beige with the spore deposit; texture smooth to finely fibrillose; flesh narrowly fistulose, white; base with few a distinct thick root about 1.5 cm long with few branched rhizoids. **Ring** absent but an indistinct annular scar is present at the lower part of the stipe. **Volva** absent. **Lamellae** 5–8 mm broad, shallowly convex, thin, numerous and crowded; free and distant from the stipe forming a shallow columnarium close to the stipe; beige-tan when immature then turning rapidly to dark brown and finally black and slightly deliquescent when fully mature, concolorous throughout with the edge being more black than the face. **Scent** slightly sweet-scented, but mostly fungoid. **Spore print** black, copious. **Macrochemical reactions:** 3 % KOH on pileus and flesh of stipe and pileus results in no colour change.

**Basidia** (26.5–)28.5(–31.2) × (7.0–)8.5(–10.8) µm [n=9], tetrasporous, oblong-clavate with a truncate base and apex, widest below the apex; sterigmata needle-shaped hyaline. **Cystidia:** not observed, likely because the gill edges have already dissolved when examined. **Spores** (Fig. A17b) (13.8–)16.3(–18.7) × (8.2–)9.8(–11.4) µm, Q-factor = (1.6–)1.7(–1.8) [n=31]; broadly ellipsoid to slightly ovoid; apiculum absent, germ pore large, 2–4 µm wide, central; oil bodies not observed; wall smooth, not ornamented, blackish-brown. **Pileipellis** composed of a multi-layered cutis of cylindrical to sausage shaped hyphae, 12–18 µm wide, hyaline, thin-walled, rather straight. Veilar residues on the pileus were not examined since specimen deteriorated during transport from the field to the lab.

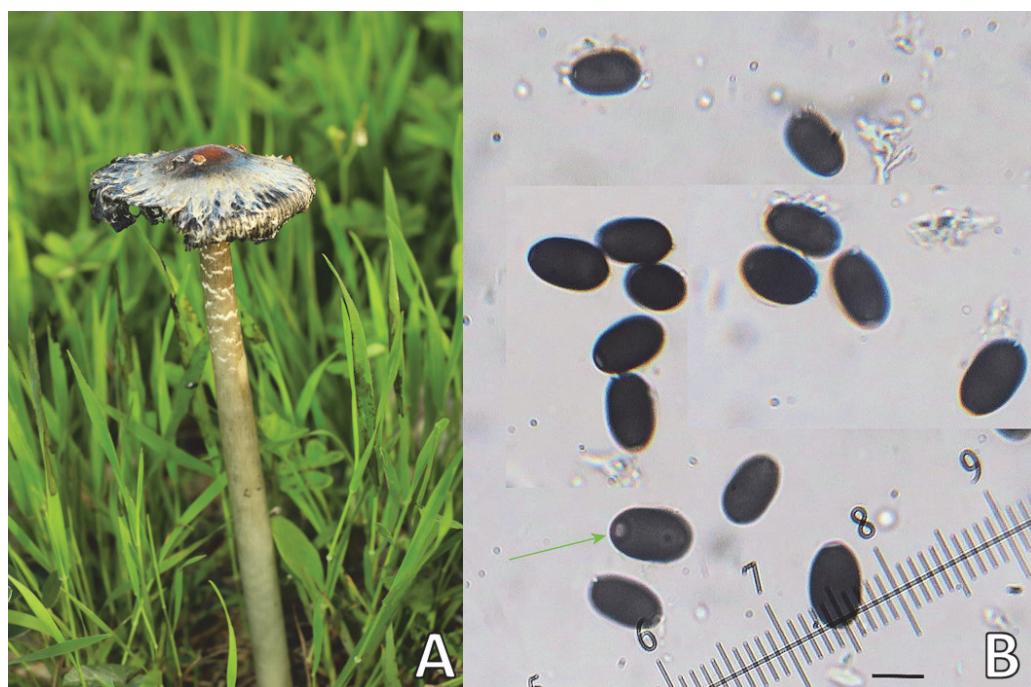


Fig. A17. *Xerocoprinus arenarius*. A. Fruiting body in situ; B. Basidiospores in 3% KOH possessing a wide germ pore indicated by the arrow (scale bar: 10 µm).

#### *Limacella subfurnacea*

**Basidiocarps** (Fig. A18a) 70–120 mm high, gregarious, usually in large numbers **Pileus** (60–)78(–105) mm in diameter; plano-convex without an umbo, flattening and slightly depressed at the centre with age often forming wide irregular cracks and pockets in the cuticle; colour variable from pale brown to walnut brown, sometimes with a glossy-metallic sheen; margin regular or with an irregular outline or unsymmetrical (e.g. flattened at one side); texture smooth, viscid when wet but membranous or silky when dry, often splitting and exposing the white flesh

below. **Stipe** 5–10 mm wide, cylindrical, usually flexuous or bent at the lower part, broad at the base; colour ash-grey to cream or almost white (always white above the ring); texture fibrillose usually with flocculose or squarrose patches, peeling down when dry and sometimes tinged with caramel deposits of the veil just below the ring; flesh white, solid, breaking easily with a clean cut. Ring white with a beige outline, rim pointing up then becoming flaccid, eroding and browning with age, initially large and well developed but the outer half soon folds beneath the robust part of the ring and sometimes adheres to it. **Lamellae** (5–)7(–9) mm broad, free, broadly convex, rather crowded; colour white or off-white cream with edges at the distal part becoming beige or caramel-brown in old specimens; edge smooth often longitudinally fissured. **Scent** farinose and somewhat aromatic in young fruiting bodies but disagreeable, turning rancid or putrid and nauseous when fully mature and old. **Spore print** white, copious. **Macrochemical reactions:** no reaction with aqueous KOH on pileus.

**Basidia** (27.8–)31.2(–33.8) × (6.9–)7.3(–8.0) µm [n=7], bisporous or more often tetrasporous, clavate, rounded at the top then gradually tapering down usually with flexuous margin, widest at the upper third; sterigmata almost straight up to 3.5 µm long. **Cystidia:** Cheilocystidia, pleurocystidia and caulocystidia absent. **Spores** (Fig. A18b) measuring (5.0–)6.7(–7.7) × (4.8–)6.1(–6.9) µm, Q-factor = (1.0–)1.1(–1.3) [n=27]; subglobose; apiculum small but distinct, central; germ pore absent; oil bodies absent or sometimes amorphous or scattered small droplets; ornamentation finely verrucose which practically appears as smooth under the light microscope; inamyloid, stains well with cotton blue. **Pileipellis** a hymeniderm of slightly interwoven hyphae, regular and smooth apparently layers with the upper layer having more slender hyphae (10–16 µm in diameter) from the lowermost one (25–30 µm wide). **Clamp junctions** absent.



Fig. A18. *Limacella subfurnacea*. A. Fruiting bodies in situ; B. Basidiospores (scale bar: 10 µm).

### *Pholiota dasypus*

**Basidiocarps** (Fig. A32a) small and slender, 35–50 mm high, gregarious, but closely packed to each other. **Pileus** 16–23 mm in diameter, glabrous, glossy when moist, pale fulvous when dry; convex, then plano-convex when mature with a small, shallow umbo; caramel brown with a darker cinnamon-brown colour at the centre and pale-brown striated and faintly pellucid border; margin with a crenulate outline. **Stipe** (Fig. A32b) 30–35 mm long, 2 mm wide, narrowly cylindrical, flexuous to almost straight; whitish or beige in colour with a pruinose coating especially at the upper part, smoother below; flesh whitish-beige, hollowed, breaking easily, no

exudate produced. **Ring** absent. **Volva** absent. **Lamellae** 2–3 mm broad, adnexed or almost free, convex, not crowded often regularly separated by 1–3 lamellulae; pale tan brown with a whitish-cream margin. Scent indistinct.. **Spore print** light rust-brown, copious. **Macrochemical reactions:** no reaction with 3 % KOH on pileus or flesh.

**Basidia** (14.0–)16.5(–20.4) × (7.6–)8.1(–8.5) µm [n=5], tetrasporous, broadly clavate to oblong, somewhat flexuous, rounded-truncate and widest at the top; sterigmata 2–3 µm long, clamp junctions sometimes present at the base. **Cystidia:** Cheilocystidia numerous often in clusters lining the lamella edge (22.1–)28.4(–33.8) × (6.2–)8.5(–10.2) µm [n=15]; variable in shape generally clavate with a broad swollen apex, sometimes appearing as subcapitate, slightly flexuous; thin-walled, hyaline, apex stains stronger in congo red. Pleurocystidia absent or not observed. Caulocystidia not examined. **Spores** (Fig. A32c) measuring (7.1–)8.5(–9.6) × (4.1–)4.4(–5.1) µm, Q-factor = (1.5–)1.7(–1.9) [n=33]; broadly ellipsoid-amgdaliform (flattened dorsally); apiculum distinct, eccentric and bent sideways; germ pore present, small (ca. 0.8 µm wide) not always distinct; oil body normally one, large and central, rarely more; wall thick and without visible ornamentation, inamyloid. **Pileipellis** Pileipellis a hymeniform composed of spheropedunculate cells 15–25 µm broad. **Clamp connections** observed.

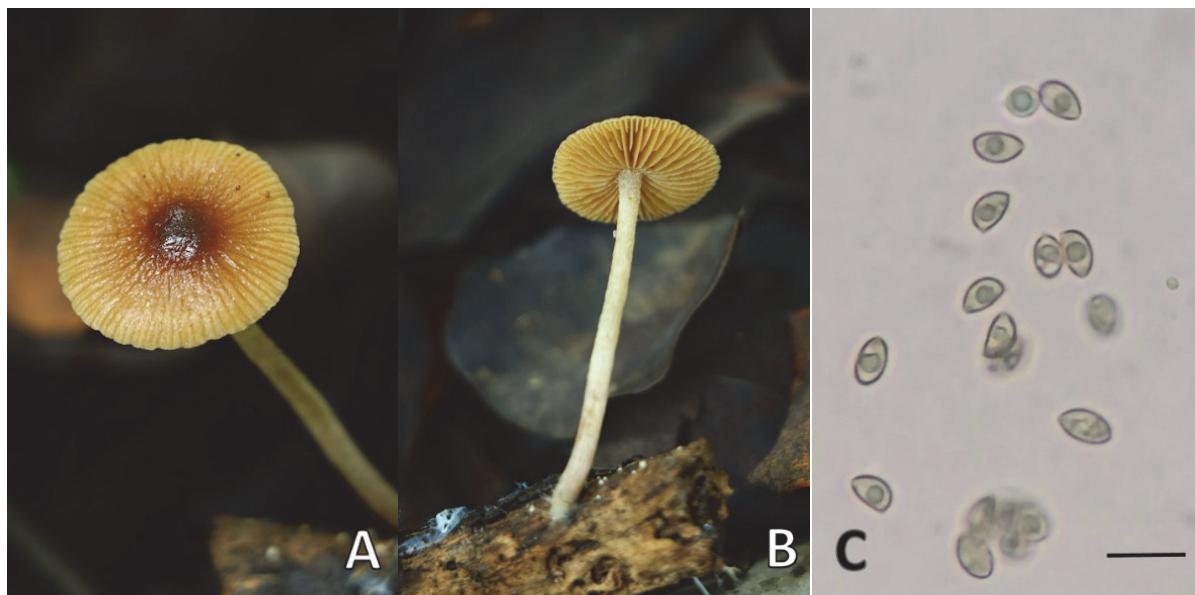


Fig. A19. *Pholiota dasypus*. A. Pileus of fruiting body; B. Stipe and the adnexed or almost free lamellae of fruiting body; C. Subamygdaloid spores (scale bar: 10 µm).

### *Xerophorus donadinii*

**Basidiocarps** (Fig. A20a) 20–30 mm high in loose clusters. **Pileus** (10–)16(–22) mm in diameter; convex without a distinct umbo, flattening with age, sometimes fissured; colour light to cork brown with a faint apricot-purplish hue and a pruinose appearance; margin regular to shallowly undulate, overhanging the lamellae, often paler in colour; texture smooth, dry, silky. **Stipe** (19–)26(–36) × 2–5 mm, cylindrical but curved or gently bent at the lower part, broadening irregularly at the top; colour light apricot to pale cinnamon-brown, paler and almost white above; texture finely fibrillose to smooth, sometimes longitudinally striated or grooved, pruinose especially above; flesh cream, fistulose, breaking easily but without a snap. **Ring** absent. **Volva** absent. **Lamellae** (3–)3.8(–5) mm broad, adnate-subdecurrent, sinusoidal and

distinctly ventricose with a depression near the stipe (falsely appearing as free), not crowded and rather spaced, moderately thick and rubbery; colour light yellowish-brown (beech) to cream somewhat darker (cinnamon-fawn colour) at the distal part in mature specimens; edge uneven and irregular with a paler ochre lining. **Scent** faintly aromatic and minty. **Spore print** white. **Macrochemical reactions:** 3 % KOH on pileus turns dull bluish-green on fresh specimens, almost black and olivaceous-green on dry specimens.

**Basidia** (35–)37.6(–41.2) × (7–)8.1(–10.5) µm [n=7], tetrasporous (occasionally bisporous), broadly clavate-cylindrical, widest at the apex then gradually attenuated downwards; sterigmata large, curved to horn-shaped, up to 6 µm long. **Cystidia:** Cheilocystidia numerous but poorly differentiated from basidioles, (29.3–)34.3(–38.9) × (8.1–)10.2(–12) µm [n=11], irregularly cylindrical, flexuous or sinusoidal, sometimes with an attenuated curved apex, hyaline. Pleurocystidia same as cheilocystidia but less numerous. **Spores** (Fig. 20b) (7.0–)8.6(–9.6) × (4.4–)5.3(–5.9) µm, Q-factor = (1.3–)1.6(–1.9) [n=31]; broadly ellipsoid-ovoid to amygdaliform; apiculum distinct and eccentric, germ pore absent; oil body singular (sometimes two or three), large, usually central, greenish-grey; ornamentation smooth; inamyloid, stains strongly in cotton blue. **Pileipellis** a dense cutis of highly interwoven hyphae, regular and smooth, 3–9 µm wide with intra-parietal incrustations that stain bluish-green in alkaline mounts; terminal hyphae sometimes slightly swollen into clavate to elongated-fusiform shape. **Clamp junctions** absent.



Fig. A20. *Xerophorus donadinii*. A. Fruiting bodies in situ; B. Basidiospores (scale bar: 10 µm).

### *Simocybe reducta*

**Basidiocarps** (Fig. A21a) 13–35 mm high, solitary or gregarious, pluteoid habit. **Pileus** convex in young specimens then applanate and 6–18 mm across when mature; light caramel brown darkening to a medium chocolate brown at the centre when moist or uniformly beige with a slightly darker centre when dry or old; border hygrophanous, radially striated and semi-translucent when moist, ochre and opaque when dry, margin smooth and regular, slightly incurved; umbo distinct, wide usually darker from the rest of the pileus; texture smooth and velvety, without partial veil; flesh olive-brown, not thick. **Stipe** 10–28 mm long, slender (3 mm across), straight or curved from the base, not widening throughout its length; sepia to greyish-brown fading beige towards the apex, pruinose-glabrous above, becoming covered in white flocks scattered and then denser towards the base which diminish with age; flesh with a narrow pore in mature specimens, marbled tobacco brown and white, with no sap given when cut.

**Lamellae** 2–4 mm wide, shortly adnate to adnexed with the stipe, broadly convex, moderately crowded; initially cream turning to ochre and finally tobacco-brown when mature; edge eroded and fringed, lighter in colour from the lamella sides; lamellulae abundant. **Scent** mild, fungoid to slightly unpleasant. **Taste** indistinct. **Spore print** olive to rust brown, copious. **Macrochemical reactions:** pileus darkens to reddish brown with 3 % KOH

**Basidia** (24.6–)29.0(–32.9) × (7.1–)8.2(–9.6) µm, [n=11], bisporous and less often tetrasporous, clavate with a rounded-truncate apex widest about one third from the top, often narrow and not distinctly swollen; sterigmata slender, horn-shaped, ca. 3 µm long. **Cystidia:** Cheilocystidia abundant, often in clusters (27.5–)35.0(–42.0) × (8.0–)10.5(–12.5) µm [n=9] narrowly lageniform to clavate-cylindrical, sometimes sub-capitate or rarely utriform, thin-walled, hyaline. Pleurocystidia rare or absent, same as cheilocystidia. Pileocystidia present, lageniform and sub-capitate same as the cheilocystidia. **Spores** (Fig. A21b) (6.8–)8.6(–9.8) × (4.5–)5.1(–5.5) µm, Q-factor = (1.6–)1.8(–2.1) [n=41]; amygdaliform to ovate, flattened, sometimes slightly curved laterally and hence phaseoliform; apiculum indistinct; germ pore, small central, quite distinct; one central oil body, sometimes missing or amorphous; surface smooth, inamyloid; bright yellow in KOH. **Pileipellis** epithelioid hymeniderm composed of spherical cells with a very short peduncle, sitting over or intermixed with a cutis of elements up to 11 µm thick, sometimes with parietal intracellular pigments. **Clamp junctions** observed in the pileipellis.

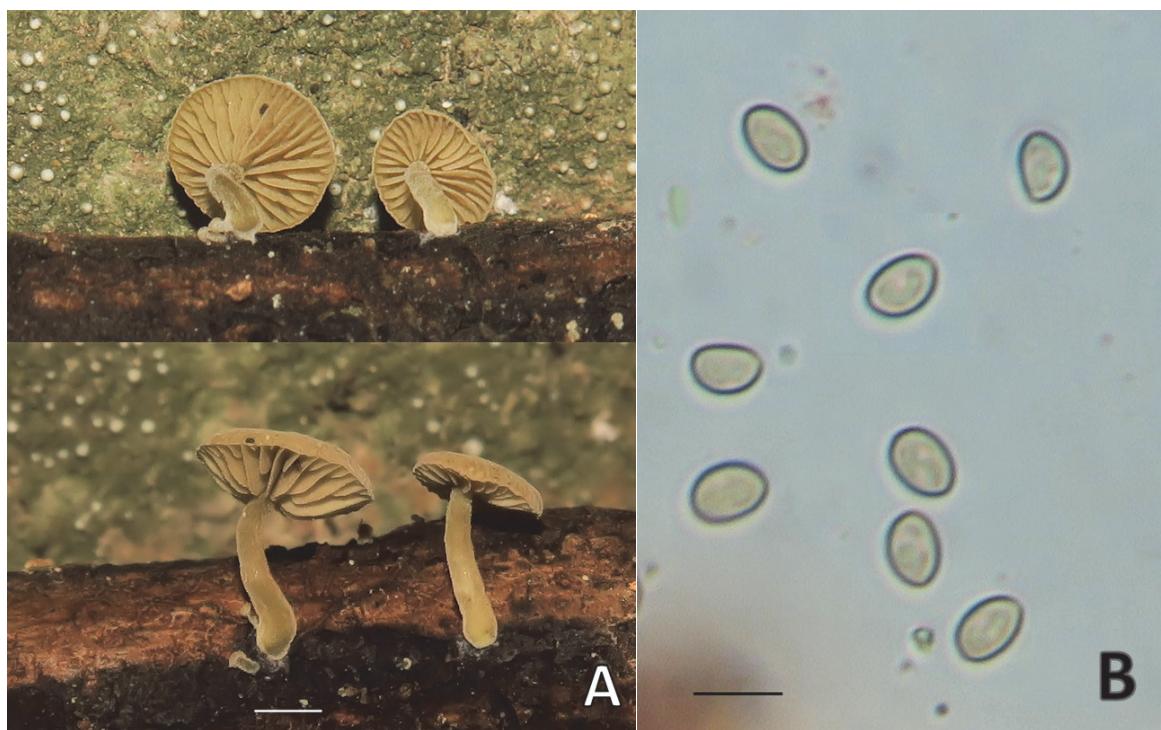


Fig. A21. *Simocybe reducta*. A. Two basidiocarps in situ showing the lamellae and stipe (scale bar: 10 mm); B. Basidiospores (scale bar: 10 µm).

#### *Entoloma poliopus* var. *discolour*

**Basidiocarps** (Fig. A22a) 40–45 mm high, gregarious growth habit. **Pileus** 35–40 mm in diameter; plano-convex with a depressed centre and raised edges; colour walnut brown slightly fading towards the margin and darker (almost black) at the centre, slightly translucently striate up to third of the radius, shiny; margin irregularly undulate, raised, with few radial fissures; texture glabrescent with fine, minute appressed fibrillose hairs denser towards the margin, but not very distinct and appearing silky and smooth when moist. **Stipe** 3 mm wide, cylindrical,

slightly compressed with a short longitudinal groove at the base, straight and rather uniform throughout; colour steel-grey with bluish tinge; texture smooth, shiny, without veilar remains or ring scars, slightly pruinose at the apex and tiny white rhizoids at the base; flesh concolorous to slightly paler than surface colour, solid. **Lamellae** 4–5 mm broad, adnate to subdecurrent and distinctly emarginate (notched near the stipe), broadly convex, moderately crowded; colour salmon-beige with edges sometimes becoming caramel-brown when mature; edge rather smooth to slightly eroded. **Scent** mildly fungoid, not distinct. **Spore print** pinkish light brown, abundant. **Macrochemical reactions:** no reaction with aqueous KOH on pileus.

**Basidia** (33.5)–37.0(–41.5) × (7.1)–7.3(–7.5) µm [n=5], tetrasporous, cylindrical-oblong to subclavate, sometimes slightly constricted at the centre, broadly rounded to subtruncate at the top then tapering down only at the base, widest at below the apex; sterigmata almost straight and slender, about 3 µm long. **Cystidia:** Cheilocystidia often in short fascicles (septate), the terminal cell being the longest 28–45 µm long, cylindrical to subclavate, thick-walled, contents not entirely hyaline. Pleurocystidia and caulocystidia absent. **Spores** (Fig. A22b) (9.1)–10.5(–12.0) × (6.5)–7.6(–8.7) µm, Q-factor = (1.2)–1.4(–1.6) [n=31]; ellipsoid-angular with six to eight angles; apiculum present at one of the angles; germ pore absent; one oil body (rarely two or amorphous), large, central; surface not ornamented; inamyloid. **Pileipellis** a hymeniderm to trichoderm of regular hyphae of various thickness (trichoderm 9–14µm; hymeniderm up to 22 µm wide) transitional becoming more hymeniderm at the centre. **Clamp junctions** absent.

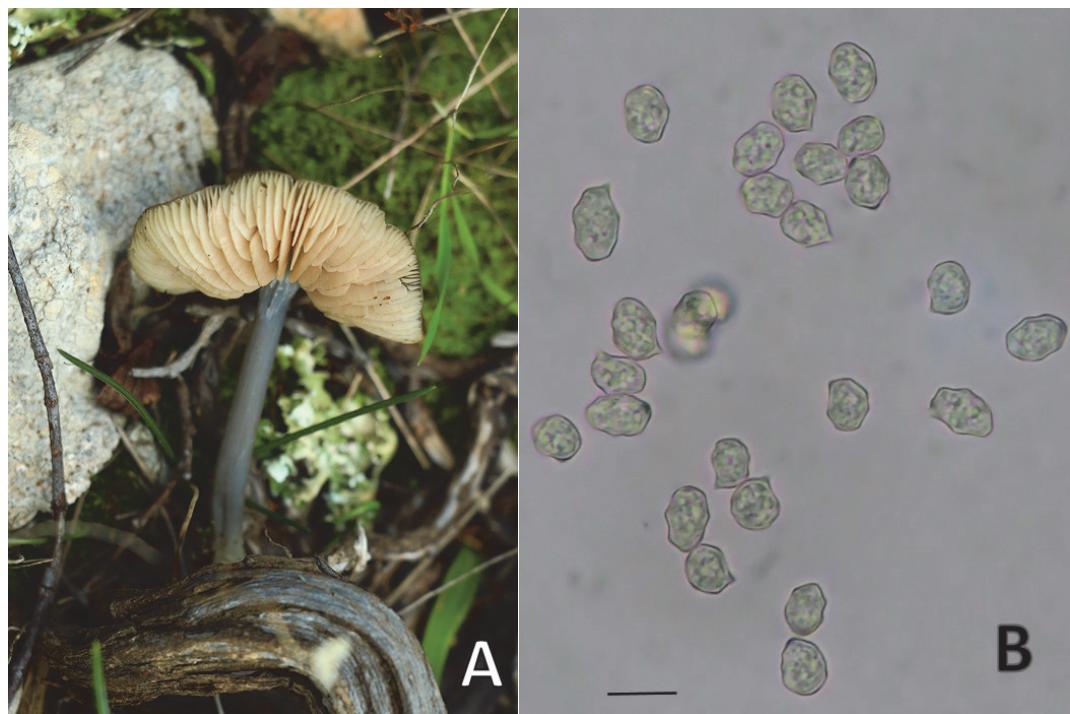


Fig. A22. *Entoloma poliopus* var. *discolor*. A. Fruiting body in situ showing the lamellae and grey stipe; B. Basidiospores (scale bar: 10 µm).

### *Inocybe mecoana* Fachada, Bandini & Mifsud

**Basidiocarps** (Fig. A23a) 25–40 mm high, gregarious in small clusters but all individuals growing free from each other. **Pileus** 20–28 mm across; conical when young then broadly convex to almost applanate with a shallow wide umbo; chestnut brown with short, pale ochre-grey striations at the border and usually mottled randomly with ash-white or beige patches but normally, more frequent towards the centre; margin regular to shallowly lobed and undulate, outline crenate sometimes eroded; cap sometimes radially cracked, partially or till the centre; texture radially fibrillose with short streaks of dark-brown tufts especially towards the border,

smooth or finely pubescent at the paler patches. **Stipe** 4–6 mm wide, robust, cylindrical and uniform sometimes slightly bent at the lower part; base slightly swollen but not distinctly bulbous; colour cream when young turning to ash-grey at the base and the upper part below the pileus, then becoming ochre and light cinnamon brown with age, sometimes reddish light brown; smooth but dotted entirely with minute pruinose white tufts, densest below the pileus, sometimes patchy in distribution; flesh solid, ash-grey to white. **Lamellae** 3–5 mm broad, adnate and often with a short decurrent tooth, convex to shallowly concave, somewhat not uniform; moderately crowded; colour initially light grey or beige then becoming cinnamon brown with age from spore deposit, sometimes with a salmon tonality in sunlight, edge paler whitish-cream even in mature individuals. **Scent** mildly fungoid, not distinct. **Spore print** light brown, copious. **Macrochemical reactions**: no reaction with aqueous KOH on pileus, stipe or context.

**Basidia** (18.0–)27.4(–31.0) × (9.5–)10.5(–11.5) µm [n=7], tetrasporous, clavate with a rounded head, widest just below the apex, gradually tapering below; sterigmata straight, slender, not horn-shaped and up to 4 µm long. **Cystidia**: Cheilocystidia numerous (59.3–)64.5(–69.8) × (13.7–)16.2(–18.0) µm; spindle-shaped widest at the centre or slightly below, apex rounded-obtuse to slightly capitate surmounted with elongated crystals attaining a green colour when stained with Congo red; walls hyaline, smooth and moderately thick, not more than 2 µm, thickest near the neck. Pleurocystidia present, less frequent than the cheilocystidia and solitary not in clumps, not different much from the cheilocystidia. Caulocystidia grouped in tufts near the pileus, the solitary further down the stipe, with a fusiform or urtiform shapes bearing less apical crystals (or bare) compared to the cheilocystidia and slightly shorter at about 40–48 µm long. **Spores** (Fig. A23b) measuring (10.2–)11.7(–13.3) × (5.4–)6.7(–7.7) µm, Q-factor = (1.6–)1.8(–2.1) [n=37]; ellipsoid-navicular (front view) and amygdaliform (lateral view); apiculum small, eccentric; germ pore absent; oil body one or rarely two, large and central; surface smooth; inamyloid. **Pileipellis** cylindrical to sausage-shaped hyphae of various widths, apparently two types: slender cylindrical hyphae 4–6 µm wide, variable in length and irregularly curved and rather intricate, hyaline; and larger and broader sausage-shaped hyphae, 11–14 µm wide, with pigmented incrustations on the walls. **Clamp junctions** present.



Fig. A23. *Inocybe* n. sp. A. Fruiting bodies showing pruinose stipe; B. Basidiospores (scale bar: 10 µm).

### *Ossicaulis lachnopus*

**Basidiocarps** (Fig. A24a) 25–48 mm high, gregarious or in small groups, pleurotoid habit. **Pileus** convex when young then shallowly convex to applanate, mature specimens 20–32 mm across; ivory white to ash-grey with a hint of beige, not hygrophanous; umbo indistinct; margin incurved and slightly ribbed, regular and concolorous with the rest of the pileus; texture finely velutinous without evident partial veil, sometimes with light brown spots. **Stipe** 3–4 mm wide, cylindrical, robust, straight or slightly curved at the base, width uniform, attachment with the pileus sometimes slightly eccentric, base with a tomentose disc of short dense white hair; ash-grey with beige tones towards the base; texture same as pileus; flesh solid, white. **Lamellae** 3–4 mm wide in mature specimens, adnate, shallowly convex, crowded, edge smooth to minutely eroded; whitish-cream turning to beige when mature. **Scent** farinose with reminiscences of cucumber. **Taste** slightly farinose, quite indistinct. **Spore print** white, poorly developed. **Macrochemical reactions**: inert to KOH.

**Basidia** (11.6–)13.0(–15.1) × (3.5–)4.0(–4.5) µm [n=7], tetrasporous, clavate with a rounded-subtruncate apex and flexuous lower half; sterigmata short (ca. 1.5 µm), horn-shaped. **Cystidia**: Cheilocystidia scarce (12–)25(–37) × (3–)5(–7) µm [n=11]; flexuous-cylindrical to subclavate often with projecting knobs or short lobes especially at the base, same height of basidioles and sometimes difficult to tell apart, hyaline and with a smooth wall. Pleurocystidia rare more or less similar to the cheilocystidia. Caulocystidia not observed. **Spores** (3.2–)4.0(–4.4) × (2.1–)2.3(–2.8) µm, Q-factor = (1.4–)1.6(–1.8) [n=33]; ellipsoid to pip-shaped; apiculum tiny; germ pore not visible; oil bodies one or two, small, central; surface smooth inamyloid. **Pileipellis** (Fig. A24b) a cutis of dense hyphae, 3–8 µm wide, usually entangled at the upper layer. **Clamp junctions** not scarce easily spotted in the pileipellis and hymenium.



Fig. A24. *Ossicaulis lachnopus* A. Basidiocarp attached with a decaying branch; B. Intricate hyphal elements of the pileipellis (scale bar: 10 µm).

### *Mycena cf. roseoquercina*

**Basidiocarps** (Fig. A25a) 20–36 mm high, gregarious and numerous, mycenoid habit. **Pileus** hemispherical at first then opening to conical-campanulate, 3–8 mm across when mature; light greyish brown, beige-pale yellow at the centre sometimes with a subtle pinkish tone, distal two-thirds radially striated with light caramel-brown tones, hygrophanous, becoming cream-beige when dry; umbo shallow lighter in colour; margin minutely crenated, sometimes with a pinkish tone; texture pruinose-glabrescent at first then completely glabrous, moist. **Stipe** 0.5–1.0 mm across, slender, slightly curved, cylindrical-filiform even throughout its length, base with scanty

long white rhizoids reaching more or less one-fourth of the stipe's length (sometimes more); sepia to olive-brown, somewhat darker towards the basal third and translucent pale yellow towards the apex, but sometimes same colour throughout, glabrous to glabrescent by minute caulocystidia; flesh fistulose, pale brown, giving a colourless sap. **Lamellae** (Fig. A25b) 1 mm broad, adnexed to subdecurrent by a small tooth, shallowly convex, not crowded; initially cream turning to beige when mature; edge smooth and distinct lilac-pink which darkens to rose-pink with age (Fig R33b). **Scent** negligible. **Taste** not distinct. **Spore print** white, not copious. **Macrochemical reactions**: not tested.

**Basidia** (20.5–)24.0(–28.9) × (7.0–)7.6(–8.2) µm [n=7], tetrasporous, clavate with a rounded apex; sterigmata slender, relatively long ca. 5 µm. **Cystidia**: Cheilocystidia abundant (25–)34(–46) × (8–)10(–13) µm [n=17]; utriform, ellipsoid-fusiform and sometimes sublageniform, with flexuous, irregular margins; contents hyaline but with reddish intrahyphal pigments; wall smooth. Pleurocystidia rare or absent. Caulocystidia cylindrical-clavate, elongated, slightly flexuous margins, 5–7 µm wide, with teat-shaped or broadly cylindrical excrescences, somewhat more abundant in the upper portion, mostly unbranched. **Spores** (7.1–)8.1(–9.1) × (4.1–)5.0(–5.9) µm, Q-factor = (1.4–)1.6(–1.8) [n=19]; ovate-ellipsoid to pip-shaped; apiculum tiny at the attenuation of one of the poles; germ pore not visible; oil body one or two, central; surface smooth; amyloid. **Pileipellis** uppermost layer a hymeniderm of shortly cylindrical cells with tapering ends, 3–7 µm wide, compact with simple short cylindrical projections (excrescences). **Stipitipellis** slender hyphae 3–6 µm wide, covered with simple (rarely branched) cylindrical or teat-shaped excrescences 2–10 × 2 µm. **Clamp junctions** scarce but easily spotted in the pileipellis.

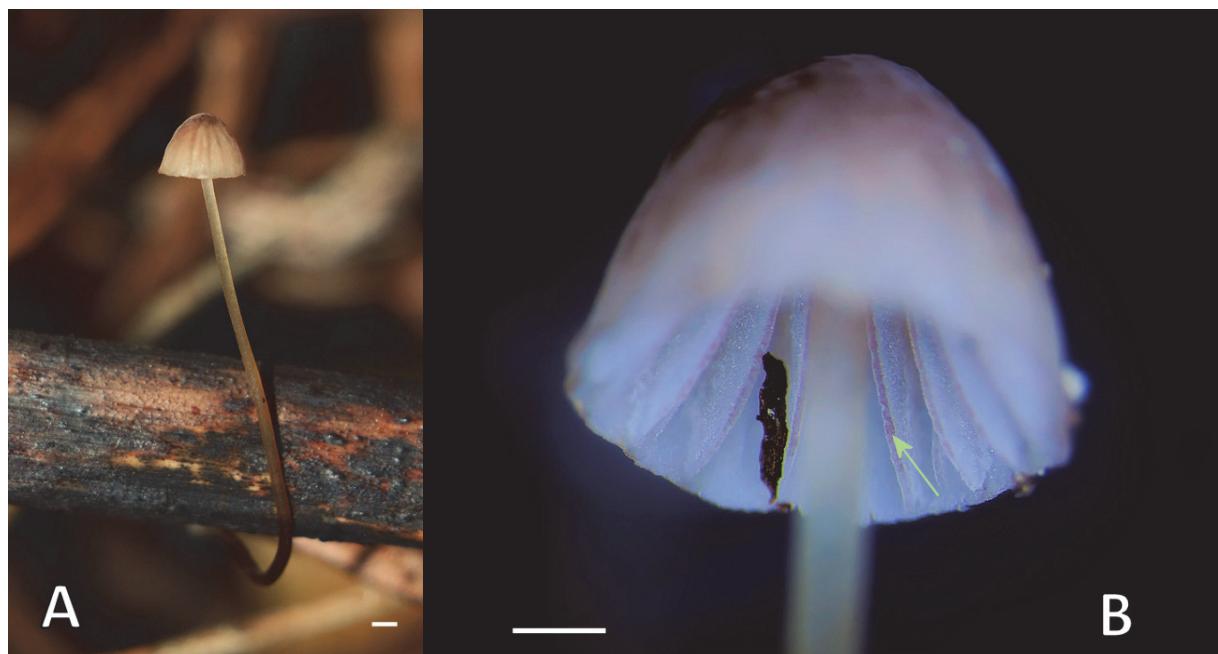


Fig. A25. *Mycena* cf. *roseoquercina* A. Fruiting bodies in situ (scale bar: 1 mm); B. Pink margin of the lamellae (see arrow) which is characteristic for the (scale bar: 1 mm).

### *Lachnella alboviolascens*

**Basidiocarps** (Fig. A26a) discoid, sessile, tiny, 1–1.5 mm wide, ± 0.5 mm high (excluding hairs), medium grey but mostly covered with dense, white, tomentose hairs arising from the border and shorter inconspicuous hairs from most of the surface of the fruiting body. **Peripheral hairs** (Fig. A26b) white, dense 150–320 µm long, 5–7 µm wide, hyaline, with many minute

punctations or small warts, thick-walled, aseptate, straight, cylindrical with rounded unspecialised tip. Hairs from surface of fruiting body similar but shorter.

**Basidia** not observed in collected specimens but what looked to be basidioles were clavate, about 70 µm long, with clamp junctions at the base. **Basidiospores** (Fig. A26b) few, 10.5–14.5 × 9–10 µm (n=11), amygdaliform-ellipsoid (with one side almost flattened), hyaline, smooth-walled with granular contents but without a distinct oil body, apiculum eccentric, germ pore not observed. A few **cystidia-like elements** have been observed, ± 38 µm long with swollen apices and somewhat flexuous margins, firmly attached to hymenium. **Hymenial elements** closely packed, septate, hyaline, 40–60 µm long, 5–7 µm wide, looking like cystidia.

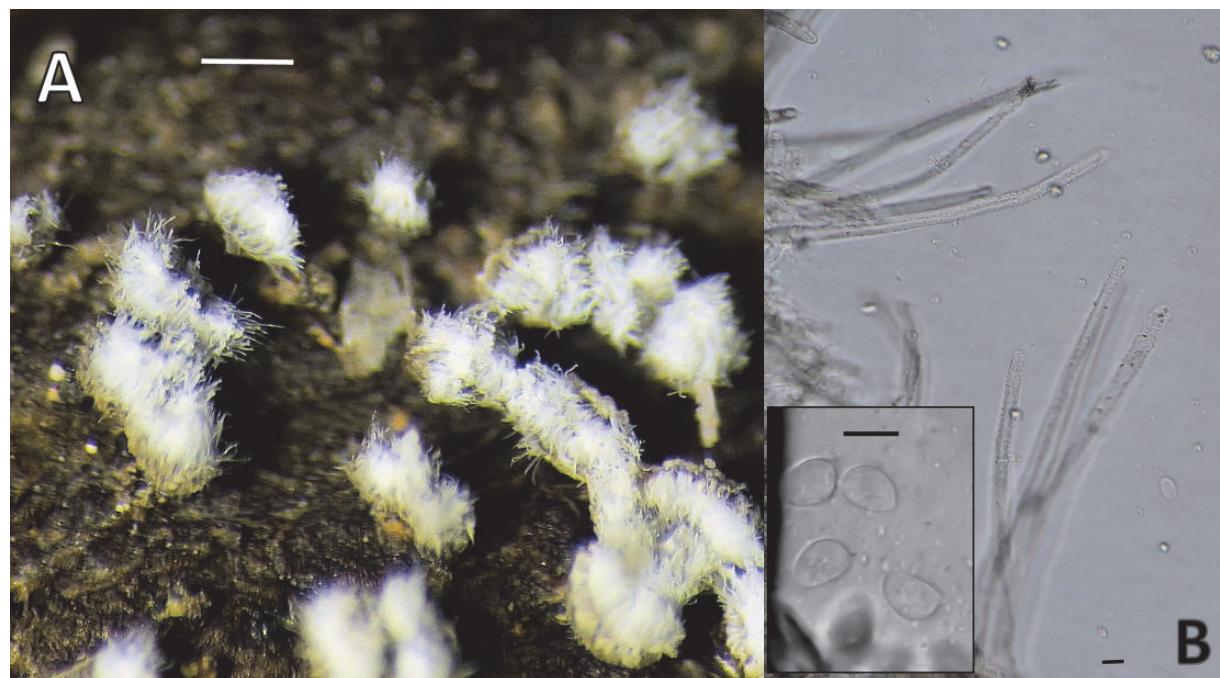


Fig. A26. *Lachnella alboviolascens* A. Fruiting bodies on bark (scale bar: 1 mm); B. Peripheral hairs and spores (inset) mounted in water (scale bar: 10 µm).

#### *Hohenbuehelia cyphelliformis*

**Basidiocarps** (Fig. A27a) 4–11 mm high, gregarious, pleurotoid habit. **Pileus** 6–16 mm in diameter, cupulate then expanding to fan-shaped when mature, dull chestnut brown, polished, slightly and gradually fading towards the margin, often striated; texture shortly tomentose when young then glabrous and viscous or moist when mature; margin entire, shallowly crenate, initially involute when young. **Stipe** absent or inconspicuous and reversed when carpophore is attached from the upper surface of the pileus. **Lamellae** 4–7 mm broad, waxy-white then turning cream with age, wet and shiny, distant, shallowly convex; edge smooth and same colour as lamellae sides. **Scent** indistinct. **Taste** not tested. **Spore print** white, sporulation poor. **Macrochemical reactions:** no particular reaction with 3 % KOH on pileus or lamellae.

**Basidia** (20.5–)25.6(–30.2) × (7.0–)7.5(–8.0) µm [n=11], tetrasporous, clavate, widest below the apex; sterigmata short, horn-shaped or curved, 2–4 µm long. **Cystidia:** Cheilocystidia shorter than basidia, infrequent but easy to spot, (18–)22(–28) × 4–8 µm clavate or fusiform with irregular (slightly lobed?) projections at the apex, thin-walled, without crystals at the apex, irregularly flexuous. Pleurocystidia not observed and likely absent. Caulocystidia not examined. **Spores** (Fig. A27b) measuring (8.8–)9.5(–10.6) × (3.6–)4.2(–4.6) µm, Q-factor = (2.2–)2.4(–2.6) [n=27]; curved, sausage-shaped with rounded ends; apiculum present, central; germ pore

absent; with few amorphous or small oil bodies; wall smooth and without ornamentation, hyaline, inamyloid, thin-walled. **Pileipellis** gelatinous and slimy, made up of a cutis of very thin and long hyphae, about 4 µm wide, cylindrical to filiform, flexuous, and septate; walls not very thick often with pigmented incrustations. **Clamp connections** easily seen in the pileipellis.



Fig. A27. *Hohenbuehelia cyphelliformis*. A. Fruiting bodies on bark; B. Basidiospores (2.5 µm / division).

### *Pluteus nanus*

**Basidiocarp** (Fig. A28a) 40–70 mm high, gregarious. **Pileus** 20–45 mm broad; hemispherical when young then broadly convex sometimes with a rather indistinct umbo; colour variable, mostly chocolate brown or dull brown fading irregularly to medium brown towards the distal third of its radius, often having irregular light-brown or beige patches, not or weakly hygrophanous; margin smooth and regular, with few radial fissures; texture glabrescent or venose at the centre. **Stipe** 3–8 mm wide, cylindrical, slightly bulbous at the base, straight and rather uniform throughout; ash-white to light grey sometimes with a cream or pale yellow tinge at the middle or upper half, colour darkening to a lead grey at the base, sometimes completely medium grey; minutely longitudinally striated with a fine flocculose texture throughout (lens needed) usually white or cream, never dark, lower fourth tomentose with scanty white hair; veilar remains or ring scars absent; flesh fistulose, shiny grey to gradually becoming opaque lead grey and solid at the base. **Lamellae** 5–7 mm broad, free, broadly convex, moderately crowded; colour pale grey or beige when young then attaining a light rosy-brown hue, edges distinctly paler, almost white, sometimes flocculose. **Scent** mildly fungoid, not distinct. **Spore print** rosy light brown to pinkish brown, abundant. **Macrochemical reactions**: no reaction with aqueous KOH on pileus, stipe or context.

**Basidia** (20.5–)28.5(–35.8) × (7.1–)8.9(–10.9) µm [n=7], tetrasporous, cylindrical-oblong, sometimes slightly flexuous, broadly rounded at the top and truncate at the base, widest just below the apex; sterigmata short and close to each other, quite indistinct, slender, up to 2 µm long. **Cystidia**: Cheilocystidia (Fig. A28b) numerous (35–)48(–75) × (12–)22(–33) µm, variable in width but generally utriform, fusiform or subclavate, without an apical mucro or appendage, hyaline but occasionally contents not entirely clear but with brownish intracellular pigment, outline smooth. Pleurocystidia less abundant, similar in shape to cheilocystidia but larger, (32–)60(–100) × (12–)25(–33) µm, hyaline or partly opaque with intracellular brown pigment. **Spores** (6.0–)7.6(–8.9) × (5.1–)6.2(–7.4) µm, Q-factor = (1.05–)1.2(–1.4) [n=31]; broadly ellipsoid to subglobose; apiculum small, eccentric; germ pore absent; oil bodies one or rarely two, large and central; surface smooth; inamyloid. **Pileipellis** a single-layer hymeniderm composed of sphaeropedunculate to broadly cylindrical hyphae 15–50 µm wide, often with intracellular brownish pigment. **Clamp junctions** absent.



Fig. A28. *Pluteus nanus*. A. Fruiting bodies in situ; B. Cheilocystidia (marked in arrows) (scale bar: 20 µm).

### *Phloeomana hiemalis*

**Basidiocarp** (Fig. A29a) 10–28 mm high, gregarious or in pairs or small groups, mycenoid habit, delicate. **Pileus** hemispherical-campanulate at first then broadly convex, 3–9 mm across when mature; cinnamon brown at the centre (colour intensity variable between individuals with some being fuscous and others pale) abruptly fading towards the margin to a buff or greyish-beige or whitish-cream, semi-translucent colour; distal half or third radially striated, each striation undermarking the lamella or lamellulae below; not particularly hygrophanous; umbo indistinct; margin smooth to minutely crenated, sometimes cracking radially; texture smooth and glabrous, wet, without elements of the partial veil, sometimes minutely pruinose and glabrescent. **Stipe** 0.5–1.0 mm thick, slender, straight or slightly curved, hollow, cylindrical-filiform not widening throughout its length, base with dense, long white rhizomorphs or fibrils; white to cream, translucent, pruinose-puberulent especially at the upper half; flesh hyaline-white giving a colourless sap when cut. **Lamellae** 1–2 mm wide, adnexed and ascending, a few free (= long lamellulae); profile sinusoidal or shallowly concave or straight with a shallow convex crest near the stipe, not crowded, smooth-edged; initially white then becoming cream and light beige when mature, edge always white. **Scent** indistinct. **Taste** indistinct. **Spore print** white, very scanty. **Macrochemical reactions:** inert.

**Basidia** (25.0–)29.5(–35.0) × (6.2–)7.0(–7.4) µm [n=7], predominantly bisporous, clavate-oblong with a rounded apex; sterigmata robust, about 5 µm long. **Cystidia:** Cheilocystidia abundant (30.0–)41.5(–52.0) × (9–)12.0(–15.5) µm [n=15], mostly utriform of variable widths, but also ellipsoid or fusiform; hyaline; wall smooth. Pleurocystidia rare or absent. Caulocystidia (Fig. A29b) singular or in tufts, variable, normally elongated, slender, irregularly curved or wavy margins, often swollen at the lower part (especially when singular), up to 50 µm long, 4–6 µm wide (but up to 22 µm when swollen), seldom diverticulate, but with several rounded, short, knobby excrescences at the basal part. **Spores** (7.2–)8.5(–9.5) × (5.1–)6.0(–7.0) µm, Q-factor = (1.2–)1.4(–1.6) [n=31]; broadly ellipsoid to pip-shaped (one pole narrower from the other); apiculum tiny, eccentric; germ pore absent; oil body one, central or amorphous and indistinct; surface smooth; inamyloid. **Pileipellis** a cutis of shortly cylindrical cells with rounded

ends, sometimes short and hence ellipsoid, 8–25 µm wide, terminal hyphae slender and linear 2–4 µm wide with several projections (excrescences) varying in length (3–12 µm long), cylindrical-clavate, straight, sometimes irregularly swollen at the upper part, simple or seldom branched in two parts. **Clamp junctions** not observed.



Fig. A29. *Phloeomana hiemalis*. A. Fruiting bodies in situ; B. Caulocystidia (marked in arrows) (scale bar: 10 µm).

#### *Coprinopsis cf. kubickae*

**Basidiocarp** (Fig. A30a) 12–26 mm high, solitary. **Pileus** elongated-conical or ellipsoid, 5–8 mm across when immature then opening to convex shape, breaking into radial lobes when senescent, 10–15 mm wide; off-white in colour then mouse-grey and finally mid brown when fully mature, umbo indistinct; margin crenated, deflexed; texture thinly flocculose when young, then evanescent and pileus is generally smooth except at the central region where remnant veil elements may remain as light brown scales. **Stipe** 8–24 × 2 mm when pileus is expanded, cylindrical and widening gently towards the base which is usually attached to the substrate by a ring of dense white mycelium; white and floccose becoming subglabrous when mature; flesh fistulose, whitish-cream. **Lamellae** 2–5 mm broad, adnate, convex, moderately crowded, smooth-edged; colour initially whitish-cream turning to beige, dark greyish brown and finally black and semi-deliquescent when mature; **Scent** mildly fungoid, not distinct. **Spore print** black, quite copious. **Macrochemical reactions**: no reaction with aqueous KOH on pileus, stipe or context.

**Basidia** (18.2–)23.2(–30.1) × (8.2–)9.8(–10.9) µm [n=9], tetrasporous, clavate with a rounded apex; sterigmata slender, horn-shaped up to 4 µm long. **Cystidia**: Cheilocystidia not abundant (45–)65(–90) × (12–)18(–29) µm [n=13]; utriform to subcylindrical sometimes narrow, hyaline. Pleurocystidia same but larger 100–200 µm long. **Spores** (Fig. A30b) (7.4–)8.1(–9.5) × (5.3–)6.6(–7.8) µm, Q-factor = (1.1–)1.2(–1.3) [n=37]; subglobose to broadly ellipsoid slightly ventrally compressed; apiculum tiny, eccentric, mucronate; germ pore central, about 1.2 µm wide, rather obscure; oil bodies indistinct; surface smooth; inamyloid. **Pileipellis** a cuticular cellular layer of tightly packed cylindrical, hyaline cells with tapering ends, about 20 µm wide. **Veil tufts** composed of light brown, few to moderately diverticulate hyphae, irregularly shaped best described as vermiciform to colon-shaped (but with sharp bends or kinks), usually 5–7 µm wide but sometimes swollen and twice as much wide. **Clamp junctions** scarce in the partial veil elements.



Fig. A30. *Coprinopsis* cf. *kubickae*. A. Fruiting bodies in situ (scale bar: 10 mm); B. Basidiospores (scale bar: 10  $\mu\text{m}$ ).

### *Coprinopsis lilacina*

**Basidiocarp** (Fig. A31a) 30 mm high, solitary. **Pileus** cylindrical-conical for a long period of time then opens rapidly to a convex shape, about 18 mm across, and breaking radially into linear lobes or segments when fully mature; mauve-pink in colour, coated greyish-white when young by floccose squamulous veil which slowly disappears and becomes vivid mauve and semi-translucent when mature; umbo indistinct or very small over the stipe; margin smooth to minutely crenated; texture thinly flocculose when young, then evanescent and glabrous when mature. **Stipe** 3 mm when pileus is expanded, white to ash-grey, cylindrical and widening gently towards the base which is usually attached to the substrate by a disc of dense white tomentose mycelium; then glabrescent, smooth but with fine longitudinal striations; flesh fistulose, whitish-ivory. **Lamellae** 2 mm broad, adnexed, later free, rather crowded, composed of compact subglobose compartments called lysomeres (Fig. A31b) which contain one loculospore each and are regarded as asexual propagules. **Lamellar lysomeres** 100–200  $\mu\text{m}$  across the longest axis (Fig. 58c), soft, fluid-filled, mauve-purple. Hymeniderm, basidia and basidioles not produced. **Scent** mildly fungoid, not distinct. **Spore print** not applicable since basidiospores are not formed. **Macrochemical reactions**: no reaction with aqueous KOH on pileus, stipe or context.

**Basidia** absent; reproductive units are loculospores. **Cystidia** absent or not observed. **Loculospores** (6.6–)10.2(–14.9)  $\times$  (4.5–)7.3(–8.8)  $\mu\text{m}$ , Q-factor = (1.3–)1.6(–1.8) [n=13]; polyhedral, but usually with six sides, thin walled with a dark area in the centre. **Pileipellis** a poorly defined cutis with elongated hyphae about 4–8  $\mu\text{m}$  wide. **Veil** not examined, evanescent. **Clamp junctions** scarce in stipe context hyphae.

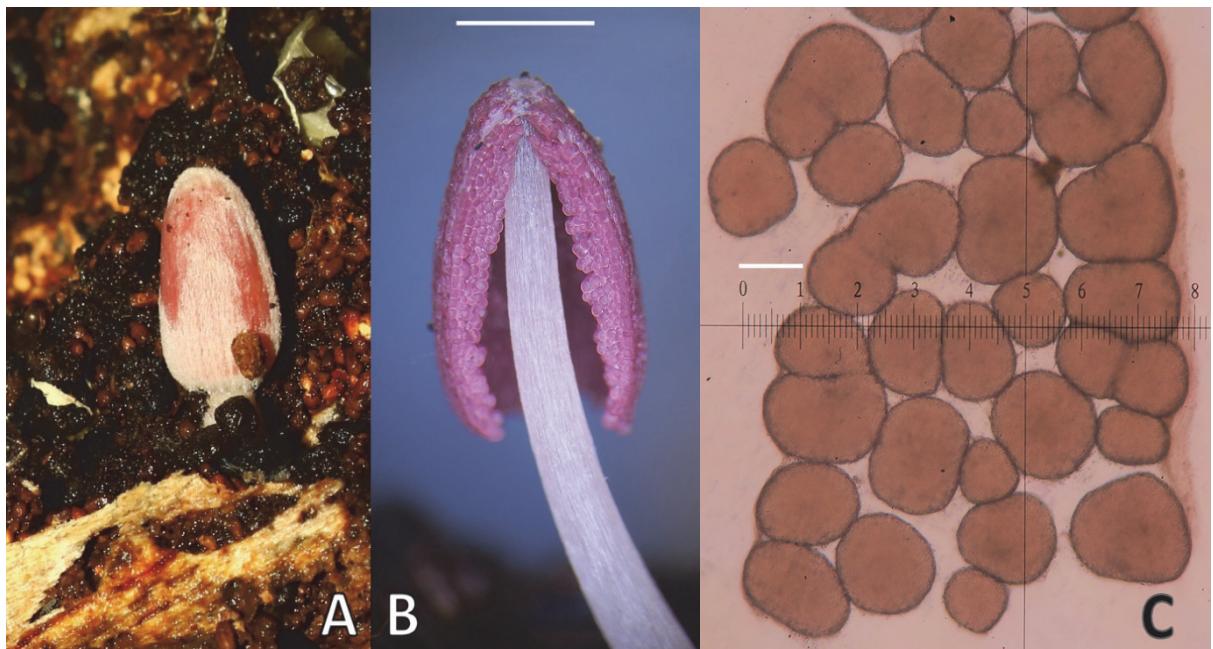


Fig. A31. *Coprinopsis lilacina*. A. Young fruiting body in situ; B. longitudinal section of fruiting body showing the distinct rows or clusters of globular lysomeres (scale bar: 10 mm); C. Lysomeres under light microscope (scale bar: 100  $\mu$ m).

### *Coprinopsis pseudomarcescibilis*

**Basidiocarp** (Fig. A32a) 30 mm high, solitary. **Pileus** 23 mm across; hemispherical when young then broadly convex, with a shallow umbo; hygrophanous, peach-coloured to light brown when moist, sepia to oak brown when dry at the border and beige at the centre (driest part); margin regular, deflexed, finely appendiculate with a white partial veil; texture smooth at the centre and finely pubescent towards the margin, quickly evanescent. **Stipe** 4 mm wide, cylindrical and tapering gently towards the base, slightly flexuous but rather uniform throughout; ash-white to cream covered with minute white tufts, dense below the pileus, decreasing towards the base, somewhat on longitudinal ribs; flesh fistulose, cream. **Lamellae** 5–6 mm broad, adnate, convex, moderately crowded; colour initially cream to beige then darkens to medium brown with spore deposit. **Scent** mildly fungoid, not distinct. **Spore print** dark chocolate brown, copious. **Macrochemical reactions**: no reaction with aqueous KOH on pileus, stipe or context.

**Basidia** (22.5–)25.1(–29.0)  $\times$  (9.2–)10.0(–10.9)  $\mu$ m [n=9], tetrasporous, clavate with a globose apex, straight, truncate at the base, widest just below the apex; sterigmata slender, horn-shaped up to 2.5  $\mu$ m long. **Cystidia**: Cheilocystidia (Fig. A32b) numerous (28–)37(–45)  $\times$  (9–)11.6(–15)  $\mu$ m, utriform, often narrow occasionally utriform-cylindrical, hyaline. Pleurocystidia absent. Caulocystidia similar to the cheilocystidia but narrower and subcylindrical, swollen close to the base. **Spores** (Fig. A32c) measuring (13.6–)14.8(–16.9)  $\times$  (7.5–)8.6(–10.2)  $\mu$ m, Q-factor = (1.4–)1.6(–1.8) [n=45]; broadly ellipsoid to subglobose; apiculum small, eccentric; germ pore absent; oil body one or rarely two, large and central; surface smooth; inamyloid. **Pileipellis** a cellular layer of tightly packed subglobose hyaline cells about 30–60  $\mu$ m wide, over which is a scanty layer of short cylindrical hyphae up to 20  $\mu$ m thick. **Veil tufts** composed of elongated hyphae 8–10  $\mu$ m wide terminating into cylindrical to narrowly utriform cystidia similar to the caulocystidia. **Clamp junctions** not observed.

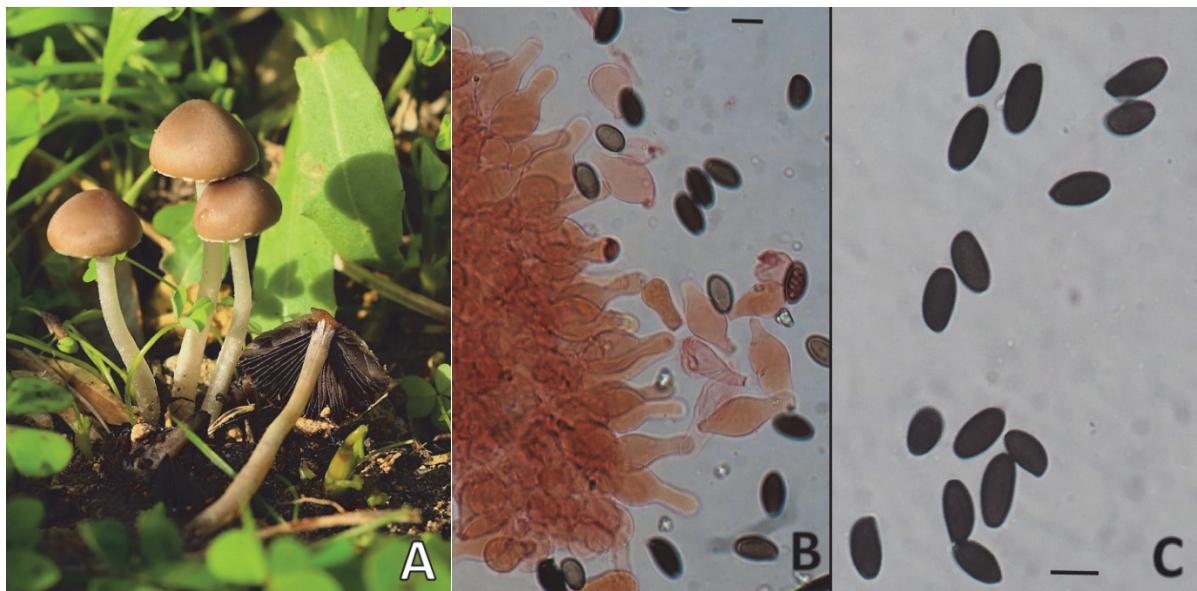


Fig. A32. *Coprinopsis pseudomarcescibilis*. A. Fruiting bodies in situ; B. Bottle-shaped cheilocystidia (scale bar: 10 mm); C. Basidiospores (scale bar: 10 µm).

### *Tubaria furfuracea*

**Basidiocarps** (Fig. A33a) small, 30–42 mm high, solitary or gregarious, quite distanced apart collybioid-marasmoid in structure. **Pileus** 15–28 mm in diameter, convex-hemispherical, then flattening into a plano-convex shape, minutely pubescent then glabrescent with age; hazel brown with orangish tones, slightly darker (chocolate brown) at the centre which fades away with age to caramel-brown colour, hygrophanous becoming paler, beige to sand-brown when dry; margin entire, sometimes faintly striated at the border when moist, lined by evanescent white tufts of partial veil; umbo indistinct or absent **Stipe** 35–47 mm long, 3–4 mm wide, cylindrical, evenly straight or sometimes bent at the lower part; hazel brown, more or less the same colour of the pileus but with scanty white fibrous tufts; flesh orange-salmon, narrowly hollowed. **Ring** absent or vestigial (whitish line close to the pileus). **Lamellae** 3–4 mm broad, adnate to slightly decurrent, arcuate or more often slightly ventricose; edge smooth, concolorous, rather distant and separated by (1–)3 lamellulae; colour peach-cinnamon. Scent indistinct, faintly fungoid. **Spore print** light rusty brown, not copious. **Macrochemical reactions:** not observed with 3 % KOH on pileus or flesh.

**Basidia** (20.0–)23.5(–26.8) × (8.1–)8.6(–9.0) µm [n=7], tetrasporous or less often bisporous, broadly clavate, rounded and widest at the top; sterigmata thick, 2–3 µm long, clamp junctions sometimes present at the base. **Cystidia:** Cheilocystidia not abundant (30.2–)35.4(–41.0) × (8.2–)9.0(–10.0) µm [n=7]; generally clavate with a broad swollen apex flexuous; thin-walled, hyaline. Pleurocystidia not observed, caulocystidia not examined. **Spores** (Fig. A33c) measuring (6.9–)8.1(–9.2) × (5.0–)5.7(–6.2) µm, Q-factor = (1.5–)1.7(–1.9) [n=37]; broadly ovate-amylgdaliform (flattened dorsally); apiculum indistinct; germ pore absent; oil body normally one, large and central, rarely two or none; sporewall thick and without ornamentation, inamyloid. **Pileipellis** a cutis of thick-walled cylindrical hyphae, 10–20 µm wide and up to 50 µm long, some with brown-pigmented incrustations in the walls. **Lamellar trama hyphae** 5–15 µm wide, compact. **Clamp connections** observed.

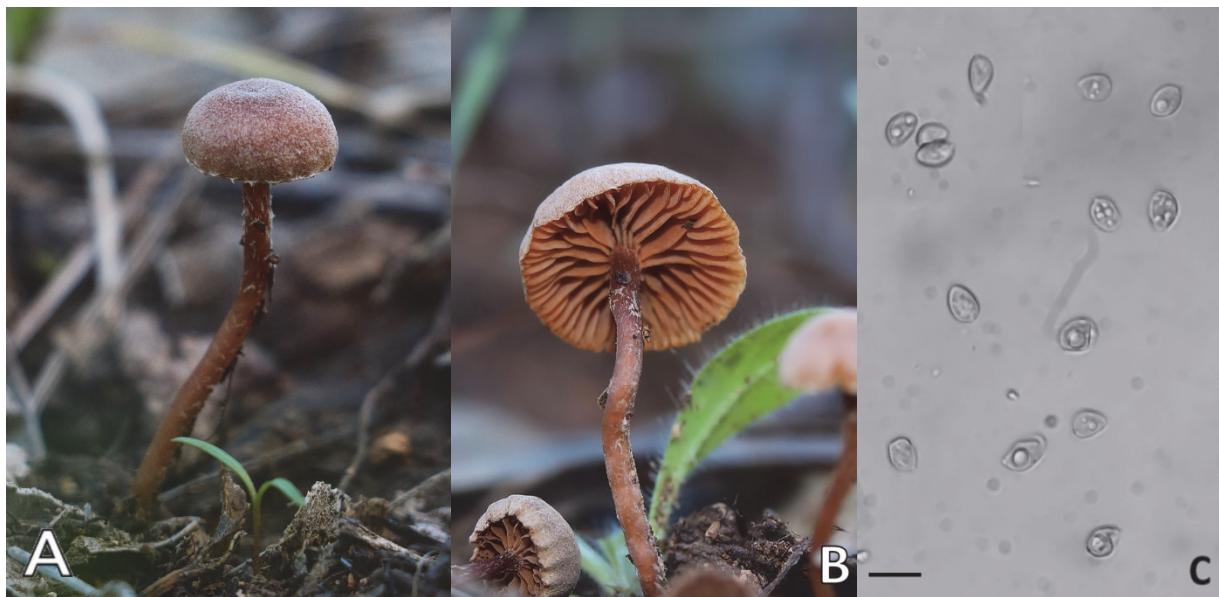


Fig. A33. *Tubaria furfuracea*. A. Pileus of fruiting body; B. Stipe and lamellae of fruiting body; C. Spores (scale bar: 10 µm).

### *Xerocomellus redeuilhii*

**Basidiocarp** (Fig. A34a) 45 mm high, solitary. **Pileus** 35 mm in diameter; hemispherical without an umbo, flattening with age but remaining; reddish-brown, more vivid when wet, somewhat discoloured towards the margin, with a pruinose appearance when dry; margin slightly irregular to shallowly undulate; texture smooth, dry, leathery skin, often with small cracks or holes, and generally uneven surface. **Stipe** (Fig. A34b) 34 × 10 mm, cylindrical, thick and robust, straight or gently curved, tapering towards the base; bright yellow under the pileus then changes to apple-red or reddish brown from about half its length, sometimes with faded areas, ending in deep red to dark reddish brown at the base, unaltered when bruised; texture smooth to finely fibrillose; flesh yellow and brown same as outer surface, remaining the same when exposed to air, solid, quite flexible. **Hymenium** made of tubes which are 8–10 mm long, bright lemon yellow when young then becoming mustard to olive-brown when old, unchanged or darkening slightly when exposed to air or bruised. **Pores** 1–1.5 mm wide, decurrent, irregularly circular or polygonal in outline. **Scent** strongly fungoid and faintly aromatic. **Spore print** light olive brown. **Macrochemical reactions** pileus and stipe turns darker with 4 % KOH but no distinct colour change.

**Basidia** (28.8–)33.6(–38.2) × (9.9–)11.7(–13.5) µm [n=11], tetrasporous (occasionally bisporous), broadly clavate, widest just below the apex, with straight and long sterigmata. **Cystidia** Cheilocystidia and pleurocystidia undifferentiated, rather numerous (49–)64(–80) × (13–)16(–19) µm [n=13]; fusiform, widest at the central part, tapering to an acute apex, hyaline and smooth surface. **Spores** (Fig. A34c) measuring (10.4–)12.3(–14.3) × (5.0–)5.4(–6.0) µm, Q-factor = (1.9–)2.2(–2.5) [n=35]; narrowly ellipsoid often with one side flexuous or notched near one pole; apiculum tiny, indistinct, eccentric; germ pore absent; oil bodies sometimes seen, two or three, large and usually central, surface smooth, unornamented; inamyloid, stains weakly in cotton blue. **Pileipellis** a dense trichoderm of lightly interwoven cylindrical, parallel-running hyphae, 5–13 µm wide; terminal cells with an acute ending and minutely encrusted. **Clamp junctions** absent.

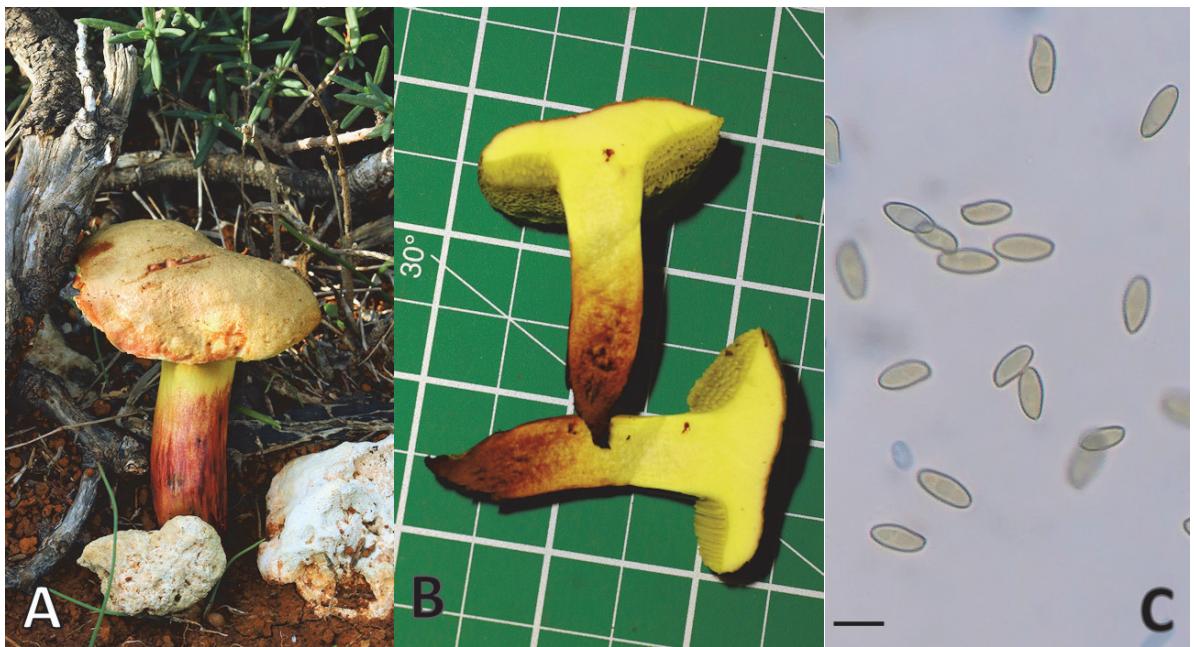


Fig. A34. *Xerocomellus redeuilhii*. A. Basidiocarp in situ; B. Longitudinal section of basidiocarp showing the chrome-yellow context and the deep reddish colour at the basal third of the stipe ; C. Basidiospores (scale bar: 10 µm).

### *Scleroderma albhidum*

**Basidiomata** (Fig. A35a) epigeous, globose to slightly pyriform, 2–4 cm in diameter, sessile or with a short stipe branching profusely below ground in an aggregate of light yellow rhizomorphs as long or slightly longer from the basidiome. **Peridium** moderately robust and leathery, 1.5–2.0 mm thick, two-layered, surface smooth below than finely cracked at the equator becoming coarsely cracked at the top forming irregular fissures and scales about 5–7 mm wide when fully mature; old specimens yellowish sandy brown (young specimens not observed). Dehiscence apical, either restricted at the upper third as irregular perforations or less often fully open forming stellate dehiscence. **Stipe** short when present, smooth and concolorous. **Gleba** violaceous dark grey or dark brown when fully mature.

**Basidia** not observed. **Basidiospores** (Fig. A35b) globular, dull brown, 9.9–16.6 µm in diameter (average 13.5 µm) excluding ornamentation which consisting of 1.5 µm long spines with a thick base attenuated to an obtuse tip, straight or recurved, sometimes appearing to be arranged in small tufts, without interconnecting ridges or rarely they appear as shallow connections (possibly confluent bases of rows of spines). Spores subtended on fine interconnecting hypha 1–2 µm wide with irregular pigmentation when stained in Congo red. **Clamp connections** not observed.

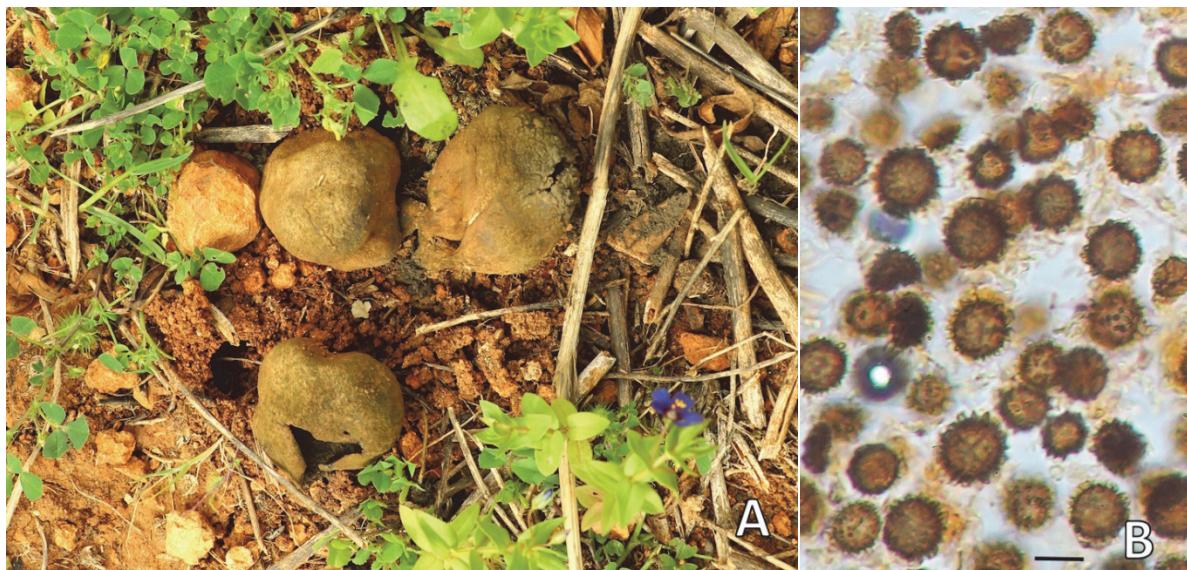


Fig. A35. *Scleroderma albidum*. A. Fruiting bodies in situ; B. Basidiospores (scale bar: 10 µm).

### *Fomitiporia rosmarini*

**Basidiome** (Fig. A36a) solitary, sessile, pileate, robust and rounded, 2–5 cm in diameter and 1–3 cm high, outline roughly circular a bit eroded and indented in the older specimen (B363b); sterile surface covering most of the basidiome, shortly tomentose and tuberculate, uneven and pitted in the older specimen, chocolate to dark brown becoming blackish close to the attachment with the host substrate, and yellowish-mustard to light leather brown towards the outer border, measuring 5–12 mm in height; hymenium surface greyish-beige with faint ochre tones somewhat pruinose, becoming paler with age and darkening to brown when pressed or scratched. **Hymenium** made of tubes which are 4–7 mm long, reddish brown. **Pores** (Fig. A36b) rounded and slightly elongated, cavernicular, about 0.2 mm wide (six pores per mm), somewhat sitting in rows. **Context** yellowish cork-brown, darkening to blackish vinaceous brown with KOH.

**Basidia** mostly tetrasporous, shortly oblong with a rounded apex, single-septate at the base, 12–15 × 7–8 µm; sterigmata needle-shaped. **Cystidia** frequent, hyaline, ellipsoid, slightly longer than basidia, 20–32 µm long. **Hymenial setae** scarce, robust, thick-walled, ventricose with a pointed acute apex, 25–45 µm long. **Basidiospores** subglobose 4.5–6.5 × 4–5.8 µm, smooth and hyaline, thick-walled, with a large central oil drop and tiny but rather distinct apiculum, dextrinose in IKI and stain deeply in Cotton blue. **Hyphal system** dimitic (generative and skeletal). **Generative hyphae** hyaline, 2–4 µm wide, regularly septate, profusely branched and anastomosed, clamp junctions regularly present. **Skeletal hyphae** aseptate, thick-walled, infrequently branched, 3–5 µm wide, unbranched (or rarely so), without clamp junctions.



Fig. A36. *Fomitiporia rosmarini*. A. Fruiting body attached to host; B. Pores of hymenium (scale bar: 1 mm).

### *Emmia latemarginata*

**Basidiome** (Fig. A37a) annual, sessile, mostly resupinate, 3–10 mm thick, soft and corky, fresh in younger portions at the margin, white to pale cream, specimen located at base of trunk reaching 27 cm wide, irregularly lobed with many parallel flanks gently sloping and widening to form horizontal planed surfaces, entirely covered with longitudinal tubules that are sometimes reticulate, and ending in pores at the flank edges (shelves). **Hymenium** (Fig. A37b) made of tubes which are about 8–12 mm long, concolorous with the context. **Pores** irregularly angular to sinusoidal with crenate to roughly jagged edges, variable in size, 0.3–1.5 mm in diameter. **Context** white.

**Basidia** clavate with a shallow medial constriction, single septum at the base,  $15–20 \times 4–5 \mu\text{m}$  in size, with two, or more frequently four slender, horned sterigmata up to  $4 \mu\text{m}$  long. **Cystidia** clavate to fusiform with apical part encrusted with granules, smooth and thin walled below;  $20–28 \times 4–6 \mu\text{m}$  in size. **Basidiospores** ellipsoid-subcylindrical  $(4.8–) 5.4(–6.2) \times 3.2–3.4 \mu\text{m}$ , thin-walled, smooth and hyaline, poorly staining in 1 % Congo red, numerous and forming a white spore print when hymenophore is young. **Hyphal system** monomitic (generative hyphae only). **Generative hyphae** hyaline, thin-walled,  $3–5 \mu\text{m}$  wide close to the hymenium, then thick walled, more intricate and wider further down in the subiculum; without clamp junctions.

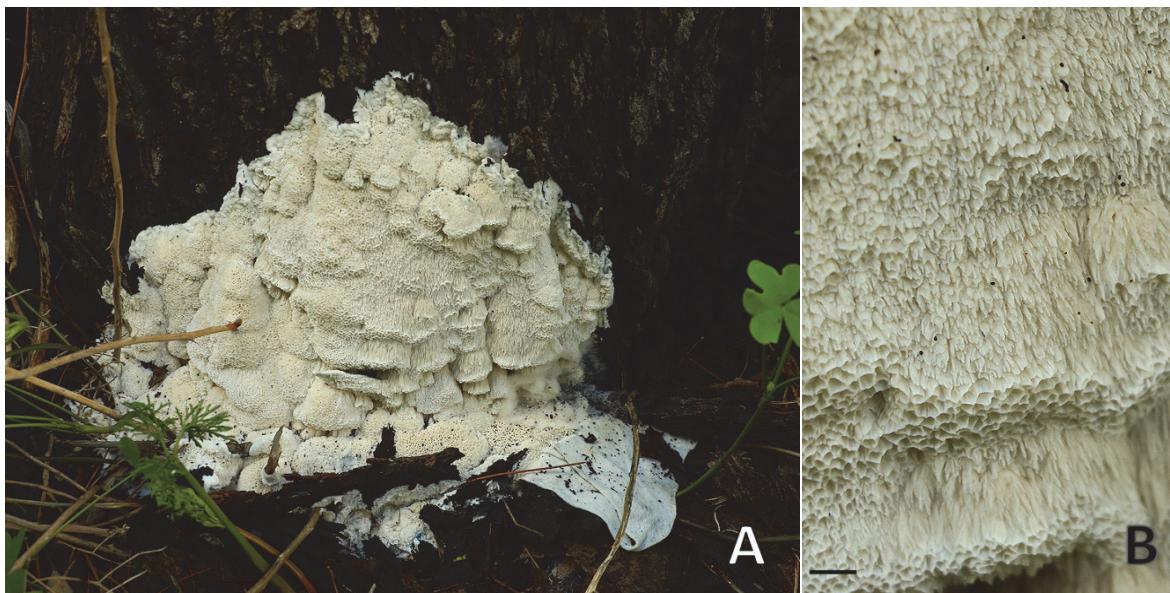


Fig. A37. *Emmia latemarginata*. A. Fruiting body attached to base of trunk; B. Pores of hymenium (scale bar: 1 mm).

### *Coriolopsis trogii*

**Basidiomes** (Fig. A38a) sessile, some resupinate or almost, variable in shape, mostly elongated along the branch length, some examples more rounded, up to 10 cm long and 3 cm wide, outline irregular; sterile surface reduced to a border of 8–12 mm projecting out from the substrate, cinnamon to golden brown, densely hispid; hymenium surface greyish-beige with faint pinkish hue becoming pale brown with age. **Hymenium** (Fig. A38b) made of tubes which are about 10–12 mm long, concolorous with the context. **Pores** angular or almost round (at the central area of the basidiocarp), crenate to irregular rim, 0.5–1.0 mm wide. **Context** greyish-beige to straw coloured, darkening slightly into cinnamon brown with KOH.

**Basidia** clavate, with a clamp junction at the base, 18–24 × 6–9 µm. **Cystidia** absent. **Basidiospores** cylindrical 8–10(–11.5) × 3–4 µm, thin-walled, smooth and hyaline, easily lost and not present in old fruiting bodies. **Hyphal system** trimitic (generative, skeletal and binding hyphae). **Generative hyphae** hyaline, 2–4 µm wide, with clamp junctions. **Skeletal hyphae** with thick walls and almost solid, 4–5 µm wide, unbranched (or rarely so), without clamp junctions. **Binding hyphae** twisted and contorted, with thick walls, profusely branched, 2–3 µm wide, without clamp junctions.



Fig. A38. *Coriolopsis trogii*. A. Fruiting body attached to a dead branch; B. Hymenium showing angular pores (Scale bar: 5m mm).

### *Polyporus meridionalis*

**Basidiomes** (Fig. A39a) solitary or in pairs, annual, pileate with a central stipe, rough and robust (almost corky), not more than 5 cm high (usually much less), pileus about 1.5–3.5 cm in diameter and about 5 mm thick, applanate or shallowly convex when mature; outline roughly circular, hairy, involute; sterile (adaxial) surface light chestnut brown at the border darkening to a dull brown colour towards the centre; fertile (abaxial) surface cream or whitish made up of tiny pores. **Stipe** (Fig. A39b) 2–3 mm wide, central, cylindrical, straight or slightly bent at the base, pale greyish-brown, tomentose when young but less so when old, base felt-like and white. **Hymenium** made of tubes which are about 3–4 mm long, white, spreading and decurrent into the upper part of the stipe. **Pores** rounded and slightly elongated radially, uniform, about 0.5–1.0 mm wide (three pores per 2 mm). **Context** white or cream.

**Basidia** tetrasporous, clavate-oblong, clamp-junction at the base and a rounded apex, 28–40 × 5–8 µm; sterigmata horn-shaped, about 5 µm long. **Cystidia** not observed. **Basidiospores** ellipsoid, 7.2–8.5 × 2.9–4.8 µm [n=23], smooth, hyaline and thin-walled, with few small oil bodies and J -ve. **Hyphal system** dimitic (generative and skeletal). **Generative hyphae** hyaline, clamped, 2–5 µm wide and thin-walled under the hymenium then expanding to more robust hyphae up to 16 µm wide further above (hence in the context), often inflated and with large clamp-connections. **Skeletal hyphae** aseptate, thick-walled, profusely branched and interwoven, 3–6 µm wide.

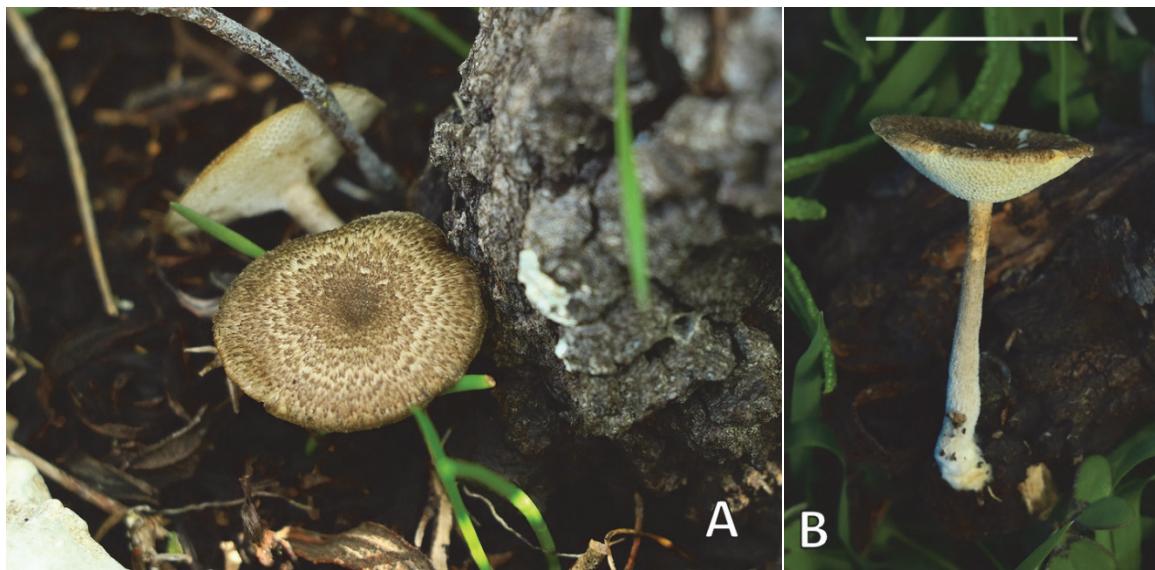


Fig. A39. *Polyporus meridionalis*. A. Scaly pileus of fruiting body in situ; B. lateral view of fruiting body showing the pores of the hymenium and stipe (scale bar: 2 cm).

### *Duportella malençonii*

**Basidiocarps** (Fig. A40) crust-like, resupinate, coriaceous, 5–40 mm across, 1 mm thick, circular or ellipsoid, with an irregular to shallowly lobed outline, usually numerous and merging into each other forming attractive patchy patterns on the substrate; chocolate to chestnut brown often with purplish hues in young crusts, bordered with a white felty mycelium; texture, shortly pubescent-strigose or felty, diminishing to tuberculate towards the margin. **Taste and scent** indistinct, unpalatable.

**Basidia** narrowly clavate, 25–45 × 4–6 µm in size. **Cystidia:** Gloeocystidia fusiform and thin-walled. Lamprocystidia conical, 25–45 × 7–14 µm, walls thick and encrusted with dark brown crystalline pigment.. **Basidiospores** suballantoid (7.5–)8.9(–10.4) × (2.9–) 3.5 (–4.0) µm [n=11], thin-walled, smooth and hyaline, inamyloid, infrequent in the examined specimens. **Hyphal system** dimitic - generative and skeletoid (in old crusts). Generative hyphae hyaline or light brown, 2–5 µm wide with frequent, broad clamp junctions. Skeletoid hyphae rather rare in the examined specimens, thick-walled and diffuse into the hymenium.



Fig. A40. Crustose fruiting bodies of *Duportella malençonii* on bark of fallen branch of *Ceratonia siliqua* (scale bar: 1 cm); Inset: allantoid spores (scale bar: 10 µm ).