

## **A checklist of Corticioid, Polyporoid and Clavarioid fungi (Basidiomycotina) from the Emilia-Romagna region, Italy**

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The aim of this paper is to record the presence of almost 600 aphylloroid fungi in the Emilia-Romagna region of Italy. It is the result of some twenty years of research, most of which has been undertaken in the last few years. The present checklist contains some species previously described as new, such as *Ceriporia sulphuricolor* Bernicchia & Niemelä, *Fomitopsis labyrinthica* Bernicchia & Ryvardeen, and *Lindtneria panphyliensis* Bernicchia & M.J. Larsen. In addition, some very rare species have only a few records in Italy and 25 are new to the Italian mycota. Their presence is discussed.

Keywords: aphylloraceous fungi, Emilia-Romagna region, mapping programme.

During the European Mycological Congress held at Kew, England, in 1992, some European mycologists, notably Prof. E. Parmasto, convinced me that a recording and mapping research programme was needed in Italy. Mycological knowledge in Italy should equal that of other European countries. In this context, I started preparing a checklist for the Emilia-Romagna region, whilst at the same time distributional programmes were also set up for other parts of the country.

This distributional research programme for aphylloroid fungi started about twenty years ago and intensified during the last seven to eight years thanks to the financial support from Regione Emilia-Romagna and the collaboration of many mycological associations in the region.

The total number of species collected was 2394, with 85 varieties and 30 formae. Of these, 570 species and 5 varieties were aphylloroid fungi, the remainder agaricoid fungi.

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The region investigated is in the northern part of Italy (Fig. 1); it covers an area of 22,116.68 km<sup>2</sup> from the Po Valley to the Apennine Mountains with the Adriatic sea forming the eastern border.

The climate is basically continental. The Adriatic sea affects it only marginally. Summers are warm and not very different from those of south Italy, while the winters are cold. The autumn is very often rainy and foggy, particularly in the flat area.

Remnants of the original forest ecosystems of the Po Valley are very rare today with only a few forests left: Punte Alberete (Ravenna) and Panfilia Forest (Ferrara) are examples. In these patches of residual alluvial forests *Quercus robur* dominates alongside *Carpinus betulus*, *Ulmus minor*, *Fraxinus oxycarpa*, *Cornus mas*, *Corylus avellana* and *Acer campestre*.

A few forests are distributed along the Adriatic coast, such as St. Vitale Pine Forest and the Pineries of Classe and Cervia, created by the Romans who needed timber for building ships. *Pinus pinea* dominates alongside *Quercus ilex*, *Phillyrea angustifolia*, *Ruscus aculeatus* on the dunes and *Quercus robur*, *Populus alba*, and *Fraxinus oxycarpa* in the humid dunes slacks. The Mesola Forest that grows on ancient dunes represents a relict of the vegetation of the coastal northern Adriatic sea, suggesting a warmer climatic period present around 1000 A. D. which favoured the growth of *Quercus ilex* and other Mediterranean species like *Phillyrea angustifolia* and *Asparagus acutifolius*, present on dunes. *Quercus robur*, *Carpinus betulus*, *Populus alba*, *Fraxinus oxycarpa*, *Ulmus minor* and *Frangula alnus* grow on smaller dunes and on the humid dune slacks.

Chestnut forests of anthropic origin and mixed hilly forests (with *Quercus pubescens*, *Q. cerris*, *Q. petraea*, *Fraxinus ornus*, *Ostrya carpinifolia*, *Sorbus domestica* and *S. torminalis*) dominate the hilly belts. From 800-900 m upwards, *Fagus* forests take the place of *Quercus* woods and are very often accompanied by coniferous forests. Most of these have an artificial origin (*Pinus nigra*, *P. sylvestris*, *Larix decidua*, *Pseudotsuga menziesii*, *Picea abies* and *Abies alba*), with only a few restricted spontaneous forests composed of *Abies alba* and *Picea abies*.

Twenty six areas in the region are conserved in addition to the National Park of Casentinesi Forests, which includes Sasso Fratino Forest known throughout Europe for its splendid *Fagus-Abies alba* growth.

### Checklist of aphylloroid fungi

This is the first, albeit partial, checklist of Italian aphylloroid fungi. It covers a wide territory and includes both Holo- and

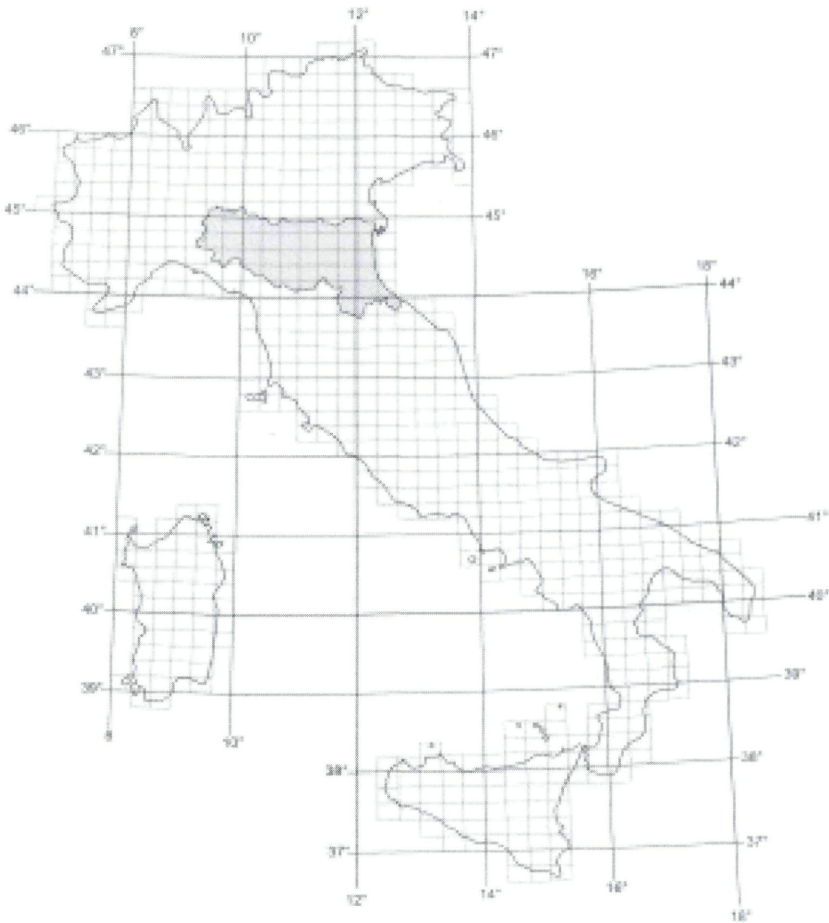


Figure 1. – Map of Italy with the Emilia-Romagna region highlighted.

Phragmobasidiomycetidae including the Coniophoraceae (Boletales), which we consider an integral part of the aphylloroid fungi. All collections are deposited in HUBO Herbarium, Plant Pathology Institute, University of Bologna. The species are alphabetically arranged. Those marked with an asterisk have not previously been recorded in Italy.

### **Auriculariales**

Auriculariaceae Fr.

*Auricularia auricula-judae* (Bull.: Fr.) Wettst., *Alnus glutinosa*, *Acer negundo*, *A. campestre*, *Carpinus betulus*, *C. orientalis*, *Castan-*

*nea sativa*, *Ficus carica*, *Hedera helix*, *Populus alba*, *Pinus nigra*, *Quercus cerris*, *Q. ilex*, *Salix*, *Sambucus*, *Tilia*.

***Auricularia mesenterica*** Dicks. : Fr., *Acer campestre*, *Alnus glutinosa*, *Carpinus orientalis*, *Fagus sylvatica*, *Fraxinus oxycarpa*, *Pinus nigra*, *P. pinea*, *Populus alba*, *Salix*.

## Boletales

Coniophoraceae Ulbr.

***Coniophora arida*** (Fr.) P. Karst., *Pinus nigra*, *P. pinea*, *Juniperus communis*, *Picea abies*, *Quercus ilex*.

***Coniophora olivacea*** (Fr. : Fr.) P. Karst., *Pinus pinea*, *Fagus sylvatica*, *Quercus robur*.

***Coniophora puteana*** (Schumach. : Fr.) P. Karst., *Abies alba*, *Carpinus betulus*, *Cupressus sempervirens*, *Prunus*, *Pinus pinea*, *P. nigra*, *Fagus sylvatica*, *Castanea sativa*, *Libocedrus*, *Quercus ilex*, *Ulmus minor*, *U. glabra*.

***Jaapia ochroleuca*** (Bres.) Nannf. & J. Erikss., a rare species in Italy, on *Abies alba*.

***Leucogyrophana mollusca*** (Fr.) Pouzar, *Abies alba*, *Pinus pinea*, *P. sylvestris*, *Ulmus glabra*.

***Leucogyrophana romellii*** Ginns, *Juniperus communis*, *Pinus pinea*.

***Leucogyrophana sororia*** (Burt) Ginns, *Pinus nigra*, *P. pinea*.

***Pseudomerulius aureus*** (Fr.) Jülich, *Abies alba*, *Juniperus communis*.

***Serpula lacrimans*** (Wulfen : Fr.) J. Schröt., coniferous wood.

## Bondarzewiales

Bondarzewiaceae Kotl. & Pouzar

***Bondarzewia mesenterica*** (Schaeff.) Kreisel, uncommon species, at the base of *Abies alba*.

## Cantharellales

Cantharellaceae J. Schröt.

***Cantharellus cibarius*** var. *cibarius* Fr.

***Cantharellus cibarius*** var. *alborufescens* Malençon

***Cantharellus cibarius*** var. *amethysteus* Quéf.

***Cantharellus cibarius*** var. *ferruginascens* (P. D. Orton) Courtec.

***Cantharellus cinereus*** (Pers. : Fr.) Fr.

***Cantharellus friesii*** Quéf.

***Cantharellus ianthinoxanthus*** ( Maire) Kühner

***Cantharellus lutescens*** Fr.

***Cantharellus melanoxeros*** Desm. : Fr.

***Cantharellus tubaeformis*** Fr.

Clavariaceae Chevall.

***Clavaria acuta*** Fr.

***Clavaria vermicularis*** Fr.

***Clavulinopsis candida*** (Weinm.) Corner

***Clavulinopsis corniculata*** (Fr.) Corner

***Clavulinopsis fusiformis*** (Fr.) Corner

***Clavulinopsis helvola*** (Fr.) Corner

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

***Clavulinopsis luteoalba*** (Rea) Corner

***Macrotyphula filiformis*** (Bull. : Fr.) Paechn., litter of *Quercus ilex*.

***Macrotyphula fistulosa*** (Holmsk.) R. H. Petersen, *Fagus sylvatica*.

***Ramariopsis pulchella*** (Boud.) Corner

Clavariadelphaceae Corner

***Ceratellopsis acuminata*** (Fuckel) Corner, coniferous wood.

***Clavariadelphus flavoimmaturus*** R. H. Petersen

***Clavariadelphus pistillaris*** (Fr.) Donk

***Clavariadelphus truncatus*** (Quél.) Donk

Clavulinaceae (Donk) Donk

***Clavulicium delectabile*** (H. S. Jacks.) Hjortstam, a rare species, on *Pinus nigra*, *Polystichum setigerum*.

***Clavulina amethystina*** (Fr.) Donk

***Clavulina cinerea*** (Fr.) J. Schröt.

***Clavulina cristata*** (Fr.) J. Schröt.

***Clavulina rugosa*** (Fr.) J. Schröt.

Craterellaceae Herter

***Craterellus cornucopioides*** L. : Fr.

***Pseudocraterellus undulatus*** (Pers. : Fr.) Rauschert

Hydnaceae Chevall.

***Hydnum albidum*** Peck

***Hydnum repandum*** L. : Fr.

***Hydnum rufescens*** Pers.

Pterulaceae Corner

***Pterula densissima*** Bourdot & Galzin, litter.

***Pterula multifida*** Fr. : Fr., litter.

Scutigeraceae Bondartsev & Singer

***Albatrellus confluens*** (Alb. & Schwein. : Fr.) Kotl. & Pouzar

***Albatrellus cristatus*** (Pers. : Fr.) Kotl. & Pouzar

***Albatrellus pes-caprae*** (Pers. : Fr.) Pouzar

Sparassidaceae Herter

***Sparassis crispa*** Fr., *Abies alba*.

***Sparassis laminosa*** Fr., uncommon species, on litter in *Abies+*  
*Fagus* forest.

Typhulaceae Jülich

***Typhula erythropus*** Pers. : Fr., litter.

***Typhula incarnata*** Fr., debris of Gramineae.

***Typhula quisquiliaris*** (Fr.) Corner, stems and rootstocks of  
herbaceous plants.

***Typhula setipes*** (Grev.) Berthier, leaves of *Populus*.

**Ceratobasidiales**

Ceratobasidiaceae G. W. Martin

***Ceratobasidium cornigerum*** (Bourdot) D. P. Rogers, a rare  
species, on *Ulmus minor*.

***Thanatephorus fusisporus*** (J. Schröt.) Hauerslev & P. Roberts,  
not a common species, on *Abies alba*.

**Dacrymycetales**

Dacrymycetaceae J. Schröt.

***Calocera cornea*** (Batsch : Fr.) Fr., *Fagus sylvatica*, *Quercus robur*,  
*Ulmus glabra*.

***Calocera viscosa*** (Pers. : Fr) Fr., *Abies alba*, *Pinus nigra*.

***Dacrymyces stillatus*** (Fr.) Nees, *Abies alba*, *Cedrus deodara*,  
*Pinus pinea*, undetermined timber.

**Fistulinales**

Fistulinaceae Lotsy

***Fistulina hepatica*** (Schaeff. : Fr.) With., *Castanea sativa*, *Quercus*  
spp.

## Ganodermatales

### Ganodermataceae (Donk) Donk

**Ganoderma applanatum** (Pers.) Pat., *Alnus glutinosa*, *Carpinus betulus*, *C. orientalis*, *Celtis australis*, *Fagus sylvatica*, *Populus alba*, *Prunus* sp., *Quercus ilex*, *Q. pubescens*, *Q. robur*, *Robinia pseudoacacia*, *Salix*, *Ulmus glabra*, *U. minor*.

**Ganoderma australe** (Fr.) Pat., *Carpinus*, *Cercis siliquastrum*, *Abies alba*, *Quercus cerris*, *Q. robur*, *Tilia*.

**Ganoderma carnosum** Pat., restricted to *Abies alba* forests.

**Ganoderma lucidum** (W. Curtis : Fr.) P. Karst., *Aesculus hippocastanum*, *Carpinus betulus*, *Castanea sativa*, *Platanus*, *Quercus ilex*, *Q. robur*, *Q. cerris*, *Tilia*.

**Ganoderma resinaceum** Boud., *Acer negundo*, *Tilia* spp., *Quercus ilex*, *Platanus*, *Aesculus hippocastanum*, *Q. robur*, *Cercis siliquastrum*, *Populus nigra*, *Celtis australis*.

## Gomphales

### Gomphaceae Donk

**Gomphus clavatus** (Pers. : Fr.) Gray

### Lentariaceae Jülich

**Lentaria mucida** (Fr.) Corner

### Ramariaceae Corner

**Kavinia himantia** (Schwein.) J. Erikss., uncommon species, on *Juniperus nana* and *Fagus sylvatica*.

**Ramaria abietina** Quél., litter.

**Ramaria aurea** (Fr.) Quél.

**Ramaria botrytis** (Fr.) Ricken

**Ramaria bourdotiana** Maire

**Ramaria condensata** (Fr.) Quél., very close to broadleaved stumps.

**Ramaria crispula** (Fr.) Quél., litter.

**Ramaria fennica** (P. Karst.) Ricken

**Ramaria flaccida** (Fr.) Ricken, litter.

**Ramaria flava** (Fr.) Quél., litter.

**Ramaria flavescens** (Schaeff.) R. H. Petersen

**Ramaria flavoides** ss. Schild

**Ramaria formosa** (Fr.) Quél.

**Ramaria fumigata** (Peck) Corner

**Ramaria gracilis** (Fr.) Quél.

**Ramaria ignicolor** Bres.

- Ramaria myceliosa** (Peck) Corner, litter.  
**Ramaria neoformosa** R. H. Petersen  
**Ramaria pallida** (Schaeff.) Ricken  
**Ramaria rufescens** (Fr.) Corner  
**Ramaria sanguinea** (Coker) Corner  
**Ramaria spinulosa** (Fr.) Quél.  
**Ramaria stricta** var. **stricta** (Fr.) Quél., *Fagus sylvatica*, litter.  
**Ramaria stricta** var. **violaceo-tincta** Bourdot & Galzin, litter.  
**Ramaria testaceo-flava** (Bres.) Corner

### Hericiales

Auriscalpiaceae Maas Geest.

- Auriscalpium vulgare** Gray, cones of *Pinus radiata* and *P. nigra*.  
**\*Dentipellis fragilis** (Pers. : Fr.) Donk, a very rare species with only two collections at Sasso Fratino Forest on *Fagus sylvatica* and *Ulmus glabra*.

Clavicornaceae Corner

- Clavicornia pyxidata** (Pers. : Fr.) Doty, a rare species, collected only at Sasso Fratino Forest on *Acer*, *Fagus sylvatica*, *Quercus*.

Gloeocystidiellaceae (Parmasto) Jülich

- Gloeocystidiellum furfuraceum** (Bres.) Donk, *Abies alba*, *Pinus pinea*.

**Gloeocystidiellum leucoxanthum** (Bres.) Boidin, *Abies alba*.

**Gloeocystidiellum luridum** (Bres.) Boidin, *Castanea sativa*, *Fagus sylvatica*, *Juniperus communis*, *Quercus ilex*, *Q. robur*.

**Gloeocystidiellum porosum** (Berk. & M. A. Curtis) Donk, *Carpinus betulus*, *Quercus cerris*, *Corylus avellana*, *Fagus sylvatica*, *Populus alba*.

**Gloiothele lactescens** (Berk.) Hjortstam, *Abies alba*, *Alnus* sp., *Juglans regia*, *Populus alba*, *Quercus ilex*, *Q. robur*, *Sambucus* sp.

**Laxitextum bicolor** (Pers. : Fr.) Lentz, *Quercus*, *Alnus*, *Populus*.

**Vesiculomyces citrinus** (Pers.) E. Hagstr., *Abies alba*, *Fagus sylvatica*, *Picea abies*, *Pinus nigra*, *P. pinea*, *Populus alba*, *Ulmus glabra*.

Hericiaceae Donk

**Creolophus cirrhatus** (Pers. : Fr.) P. Karst., uncommon species, on *Quercus*.

**Hericium alpestre** Pers., *Abies alba*.

**Hericium coralloides** Scop. : Pers., *Castanea sativa*, *Fagus sylvatica*, *Populus alba*, *Quercus robur*.



**Hericium erinaceus** (Bull.) Pers., uncommon species, on *Fagus sylvatica* and *Quercus ilex*.

\***Mucronella bresadolae** (Quél.) Corner, uncommon species, collected at La Martina Park (Bologna) on *Pinus nigra*.

\***Mucronella calva** (Alb. & Schwein.) Fr., the only two known localities in Italy are La Martina Park (Bologna) and Sasso Fratino Forest (Forlì), both on *Abies alba*.

#### Lentinellaceae Locq.

**Lentinellus cochleatus** var. **cochleatus** (Pers. : Fr.) P. Karst., *Fagus sylvatica*.

**Lentinellus cochleatus** var. **inolens** Konrad & Maubl., broadleaved wood.

**Lentinellus omphalodes** (Fr.) P. Karst., *Fagus sylvatica*.

**Lentinellus vulpinus** (Sowerby) Kühner & Maire, a rare species with few collections in the region, on broadleaved wood.

### Hymenochaetales

#### Asterostromataceae (Donk) Pouzar

**Asterostroma cervicolor** (Berk. & M. A. Curtis) Masee, a rare species with only a few records in Italy, on *Juniperus nana*.

**Asterostroma laxum** Bres., broadleaved wood.

#### Hymenochaetaceae Imazeki & Toki

**Coltricia cinnamomea** (Jacq.) Murrill, on ground close to *Pinus nigra*, *Fagus sylvatica*.

**Coltricia perennis** (L. : Fr.) Murrill, on ground with burnt wood.

**Hymenochaete rubiginosa** (Dicks. : Fr.) Lév., *Castanea sativa*, *Quercus ilex*, *Q. pubescens*, *Q. robur*.

**Hymenochaete tabacina** (Sowerby : Fr.) Lév., *Quercus ilex*, *Q. robur*.

\***Inonotus andersonii** (Ellis & Everh.) Cerny, a very rare species in Europe; in Italy collected only once at Mesola Forest (Ferrara) on *Quercus robur*.

**Inonotus cuticularis** (Bull. : Fr.) P. Karst., *Fagus sylvatica*, *Quercus ilex*, *Q. robur*, *Q. pubescens*.

**Inonotus dryadeus** (Pers. : Fr.) Murrill, *Abies alba*, *Quercus cerris*, *Q. robur*.

**Inonotus hastifer** Pouzar, *Clematis vitalba*, *Fagus sylvatica*, *Populus alba*.

**Inonotus hispidus** (Bull. : Fr.) P. Karst., *Platanus hybrida*, *Prunus*, *Malus*, *Aesculus hippocastanum*, *Acer negundo*, *Sophora japonica*.

**Inonotus nodulosus** (Fr.) P. Karst., *Fagus sylvatica*.

**Inonotus obliquus** (Fr.) Pilát, uncommon species, on *Aesculus hippocastanum*.

**Inonotus radiatus** (Sowerby : Fr.) P. Karst., *Alnus*, *Quercus*.

**Inonotus rheades** (Pers.) P. Karst., *Quercus*.

**Inonotus ulmicola** Corfixen, at San Marino di Bentivoglio (Bologna), only known from *Ulmus*, rare throughout Europe, on *Ulmus minor*.

**Phellinus conchatus** (Pers. : Fr.) Quél., *Quercus ilex*, *Q. robur*, *Salix*.

**Phellinus contiguus** (Pers. : Fr.) Pat., *Carpinus betulus*, *Corylus avellana*, *Populus alba*, *Quercus ilex*, *Q. cerris*.

**Phellinus ferreus** (Pers.) Bourdot & Galzin, *Alnus*.

**Phellinus ferruginosus** (Schard. : Fr.) Bourdot & Galzin, *Arbutus unedo*, *Carpinus betulus*, *Fagus sylvatica*, *Fraxinus*, *Crataegus*, *Juniperus communis*, *Quercus ilex*, *Q. robur*, *Clematis vitalba*, *Sambucus*.

**Phellinus hartigii** (Allesch. & Schnabl) Bondartsev, *Abies alba*.

**Phellinus igniarius** (L. : Fr.) Quél., *Populus*, *Salix*.

**Phellinus nigricans** (Fr.) P. Karst., broadleaved wood.

**Phellinus pilatii** Cerny, rare species in Europe, collected only at Mesola Forest (Ferrara) on *Populus alba*.

**Phellinus pini** (Brot. : Fr.) A. Ames, *Pinus pinea*.

**Phellinus punctatus** (Fr.) Pilát, *Acer negundo*, *Carpinus betulus*, *Alnus glutinosa*, *Malus*, *Prunus*, *Cercis siliquastrum*, *Platanus*, *Quercus ilex*, *Q. robur*, *Robinia pseudoacacia*, *Vitis vinifera*.

**Phellinus robustus** (P. Karst.) Bourdot & Galzin, *Tamarix gallica*, *Castanea sativa*, *Quercus*.

**Phellinus torulosus** (Pers.) Bourdot & Galzin, *Castanea sativa*, *Carpinus betulus*, *Ostrya carpinifolia*, *Pinus pinea*, *Quercus ilex*, *Q. robur*, *Populus alba*, *Ulmus*.

**Phellinus tuberculosus** (Baumg.) Niemelä, *Arbutus unedo*, *Crataegus*, *Prunus* spp.

**Phylloporia ribis** (Schumach. : Fr.) Ryvarden, *Euonymus europaeus*, *Ligustrum vulgare*, *Robinia pseudoacacia*.

## Lachnocladiales

### Lachnocladiaceae D.A. Reid

**Scytinostroma aluta** Lanq., *Quercus pubescens*.

**Scytinostroma portentosum** (Berk. & M. A. Curtis) Donk, *Fagus sylvatica*, *Platanus acerifolia*, *Populus*, *Salix*, *Ulmus glabra*.

**Vararia investiens** (Schwein.) P. Karst., *Corylus avellana*, *Fagus sylvatica*, *Quercus ilex*.

**Vararia ochroleuca** (Bourdot & Galzin) Donk, *Juniperus communis*, litter of *Pinus* + *Juniperus*, *Pinus nigra*, *P. pinea*, *Quercus ilex*, *Ulmus minor*.

### Platyglouales

Platyglouaceae Racib.

**Helicobasidium brebissonii** (Desm.) Donk, *Fagus sylvatica*.

**Helicogloea farinacea** (Höhn.) D. P. Rogers, *Fagus sylvatica*.

### Poriales

Corioloraceae (Imazeki) Singer

**Abortiporus biennis** (Bull. : Fr.) Singer, *Abies alba*, *Platanus hybrida*, *Pinus pinea*, *Quercus ilex*.

**Antrodia albida** (Fr. : Fr.) Donk, *Fagus sylvatica*.

**Antrodia gossypia** (Speg.) Ryvarden, *Abies alba*, *Pinus pinea*, *P. nigra*.

**Antrodia malicola** (Berk. & M. A. Curtis) Donk, uncommon species, on broadleaved wood.

**Antrodia ramentacea** (Berk. & Broome) Donk, *Abies alba*, *Pinus nigra*, *P. sylvestris*.

**Antrodia serialis** (Fr.) Donk, coniferous wood.

**Antrodia xantha** (Fr.) Ryvarden, *Populus alba*, *Pseudotsuga mensiesii*, *Abies alba*.

**Antrodiella fissiliformis** (Pilát) Gilb. & Ryvarden, with only two collecting areas in Italy, both in the Emilia-Romagna region: Parco Ducale di Parma on *Carpinus betulus*, and Sasso Fratino Forest on *Fagus sylvatica*, where it is locally not rare.

**Antrodiella genistae** (Bourdot & Galzin) A. David, uncommon species, on *Ostrya carpinifolia*, *Quercus ilex*, *Q. cerris*, *Q. robur*.

**Antrodiella onychoides** (J. Egeland) Niemelä, Mesola Forest (Ferrara) on *Carpinus betulus*, *Quercus ilex* (five collections in HUBO).

**Antrodiella romellii** (Donk) Niemelä, *Alnus*, *Castanea sativa*, *Fagus sylvatica*.

**Antrodiella semisupina** (Berk. & M. A. Curtis) Ryvarden, *Fagus sylvatica*, *Quercus cerris*, *Q. robur*, *Q. ilex*, *Pinus sylvestris*.

**Bjerkandera adusta** (Wild. : Fr.) P. Karst., *Aesculus hippocastanum*, *Carpinus*, *Fagus sylvatica*, *Hedera helix*, *Platanus acerifolia*, *Acer*, *Populus*, *Prunus*, *Quercus cerris*, *Q. ilex*, *Salix*, *Ulmus*.

**Bjerkandera fumosa** (Pers. : Fr.) P. Karst., *Pinus pinea*, *Quercus robur*, *Salix*, *Populus*, *Ulmus minor*.

**Ceriporia alachuana** (Murrill) Hallenb., only found once at Sasso Fratino Forest on *Hedera helix*.

**Ceriporia excelsa** (S. Lundell) Parmasto, uncommon species, on *Alnus cordata* and *Fagus sylvatica* (five collections in HUBO), all from the Emilia-Romagna region.

**Ceriporia purpurea** (Fr.) Donk, *Crataegus*, *Fagus sylvatica*, *Fraxinus*, *Populus alba*, *Quercus robur*, *Salix*.

**Ceriporia reticulata** (Nees : Fr.) Domański, *Castanea sativa*, *Fagus sylvatica*, *Pinus pinea*, *Ulmus glabra*.

**Ceriporia sulphuricolor** Bernicchia & Niemelä, at Mesola Forest (Ferrara), inside a hollow stump of *Pinus pinea*. This is one of the new species collected during our mapping programme.

**Ceriporia viridans** (Berk. & Broome) Donk, *Fagus sylvatica*, *Ostrya carpinifolia*, *Populus alba*, *Quercus ilex*, *Q. robur*.

**Ceriporiopsis aneirina** (Sommerf. : Fr.) Domański, rare species, on unidentified timber.

**Ceriporiopsis gilvescens** (Bres.) Domański, *Carpinus betulus*, *Fagus sylvatica*, *Fraxinus*, *Populus alba*, *Quercus robur*.

**Ceriporiopsis mucida** (Pers. : Fr.) Gilb. & Ryvar den, *Castanea sativa*, *Fagus sylvatica*.

**Ceriporiopsis pannocincta** (Romell) Gilb. & Ryvar den, only from two collecting areas in Italy, Sasso Fratino Forest (Forlì) on *Fagus sylvatica* and Torre Lapillo (Lecce) on *Quercus ilex*.

**Ceriporiopsis resinascens** (Romell) Domański, uncommon species, on *Populus alba*.

**Cerrena unicolor** (Bull. : Fr.) Murrill, *Carpinus betulus*, *Castanea sativa*, *Populus*, *Quercus ilex*, *Alnus*, *Acer negundo*, *A. pseudo-platanus*.

**Climacocystis borealis** (Fr.) Kotl. & Pouzar, *Populus*.

**Corioloopsis gallica** (Fr.) Ryvar den, *Carpinus betulus*, *Juniperus communis*, *Populus alba*, *Salix*.

**Corioloopsis trogii** (Berk.) Domański, *Aesculus hippocastanum*, *Populus*, *Quercus robur*, *Q. ilex*, *Salix*.

**Daedalea quercina** L. : Fr., *Alnus*, *Castanea sativa*, *Fagus sylvatica*, *Populus alba*, *Quercus ilex*.

**Daedaleopsis confragosa** (Bolton : Fr.) J. Schröt., *Alnus*, *Salix*, *Populus*.

**Daedaleopsis tricolor** (Pers.) Bondartsev & Singer, *Salix*.

**Datronia mollis** (Sommerf. : Fr.) Donk, *Fagus sylvatica*, *Carpinus betulus*, *Ulmus glabra*, *U. minor*.

**Datronia stereoides** (Fr. : Fr.) Ryvar den, with two collecting areas in Italy. In Emilia-Romagna it has been collected at Corno alle Scale Park (Bologna) on *Fagus sylvatica*.

**Diplomitoporus flavescens** (Bres.) Domański, uncommon species with only a few records in Italy, on *Pinus pinea*, *P. sylvestris*.

**Diplomitoporus lindbladii** (Berk.) Gilb. & Ryvarden, *Abies alba*, *Pinus nigra*, *P. pinea*, *P. sylvestris*.

**Fomes fomentarius** (L. : Fr.) Kickx, *Alnus*, *Acer*, *Aesculus hippocastanum*, *Betula*, *Carpinus*, *Fagus sylvatica*, *Juglans regia*, *Platanus*, *Populus alba*, *Quercus ilex*, *Tilia*, *Ulmus glabra*.

**Fomitopsis iberica** Melo & Ryvarden, a rare species throughout Europe. Collected at the Botanical Garden of Bologna University, on a stump of *Quercus robur*, and in the Calabria National Park (Reggio Calabria).

**Fomitopsis labyrinthica** Bernicchia & Ryvarden, at Sasso Fratino Forest on an *Abies alba* log lying on the ground. This is one of the new species collected during the mapping programme. It grew for two years and has now apparently disappeared from the collecting area.

**Fomitopsis pinicola** (Sw. : Fr.) P. Karst., *Abies alba*, *Fagus sylvatica*, *Picea abies*, *Pinus nigra*.

**Fomitopsis spraguei** (Berk. & M. A. Curtis) Gilb. & Ryvarden, a very rare species in Italy with only a few records in Europe. Collected twice in Italy, once at Tarsogno (Parma) on burnt *Castanea sativa* and once at Circeo National Park (Latina).

**Gloeophyllum abietinum** (Bull. : Fr.) P. Karst., *Abies alba*, *Pinus* spp.

**Gloeophyllum odoratum** (Wulf. : Fr.) Imazeki, *Abies alba*.

**Gloeophyllum sepiarium** (Wulf. : Fr.) P. Karst., timber of fences.

**Gloeophyllum trabeum** (Pers. : Fr.) Murrill, timber.

**Grifola frondosa** (Dicks. : Fr.) Gray, *Castanea sativa*, *Fagus sylvatica*, *Quercus*.

**Hapalopilus nidulans** (Fr.) P. Karst., *Populus*, *Quercus cerris*, *Q. robur*, *Q. pubescens*, *Ulmus glabra*.

**Hapalopilus salmonicolor** (Berk. & M. A. Curtis) Pouzar, uncommon species, with only a few records, on *Picea abies*, *Pinus nigra*.

**Heterobasidion annosum** (Fr.) Bref., *Abies alba*, *Crataegus*, *Picea abies*, *Pinus pinea*, *P. nigra*, *P. sylvestris*.

**Hexagonia nitida** Dur. & Mont., *Quercus ilex*, *Q. robur*, *Q. pubescens*.

**Ischnoderma benzoinum** (Wahlenb. : Fr.) P. Karst., *Abies alba*.

**Ischnoderma resinatum** (Fr.) P. Karst., *Acer* sp., *Fagus sylvatica*.

**Laetiporus sulphureus** (Bull. : Fr.) Murrill, *Castanea sativa*, *Fagus sylvatica*, *Picea abies*, *Populus alba*, *Robinia pseudoacacia*.

**Lenzites betulinus** (L. : Fr.) Fr., *Castanea sativa*, *Fagus sylvatica*, *Quercus*.

**Lenzites warnieri** Dur. & Mont., *Populus alba*.

**Meripilus giganteus** (Pers. : Fr.) P. Karst., *Fagus sylvatica*, *Prunus cerasus*.

**Oligoporus balsameus** (Peck) Gilb. & Ryvar den, rare species, on *Populus alba*, *Pinus pinea*.

**Oligoporus caesius** (Schrad. : Fr.) Gilb. & Ryvar den, *Abies alba*, *Larix decidua*, *Picea abies*, *Pinus pinea*, *Tilia*.

**Oligoporus cerifluus** (Berk. & M. A. Curtis) Ryvar den & Gilb., a rare species, on *Abies alba*, *Populus alba*.

**Oligoporus floriformis** (Quel.) Gilb. & Ryvar den, *Abies alba*, *Larix decidua*, *Pinus pinea*.

**Oligoporus fragilis** (Fr.) Gilb. & Ryvar den, *Abies alba*, *Picea abies*, *Pinus nigra*, *P. pinea*.

**Oligoporus guttulatus** (Peck) Gilb. & Ryvar den, rare species, on *Abies alba*.

**Oligoporus hibernicus** (Berk. & Broome) Gilb. & Ryvar den, *Pinus nigra*, *P. pinea*.

**Oligoporus leucomallellus** (Murrill) Gilb. & Ryvar den, *Juniperus communis*, *Pinus nigra*, *P. sylvestris*, *P. pinea*, *Cupressus sempervirens*, *Quercus robur*, *Q. pubescens*, *Abies alba*.

**Oligoporus rennyi** (Berk. & Broome) Donk, *Abies alba*, *Juniperus communis*, *Pinus nigra*, *P. pinea*.

**Oligoporus septentrionalis** Vampola, *Pinus nigra*.

**Oligoporus sericeomollis** (Romell) M. Bondartseva, *Cedrus*, *Pinus pinea*.

**Oligoporus simanii** (Pilát) Bernicchia, in the Corno alle Scale Park (Bologna) on trunk of *Abies alba*, a rare species throughout Europe.

**Oligoporus stipticus** (Pers. : Fr.) Gilb. & Ryvar den, *Abies alba*, *Pinus pinea*, *P. sylvestris*, *P. nigra*.

**Oligoporus subcaesius** (A. David) Ryvar den & Gilb., *Carpinus orientalis*, *Fagus sylvatica*, *Quercus ilex*, *Q. robur*, *Ulmus*.

**Oligoporus tephroleucus** (Fr.) Gilb. & Ryvar den, *Abies alba*, *Acer campestre*, *Carpinus betulus*, *Castanea sativa*, *Corylus avellana*, *Fagus sylvatica*, *Pinus sylvestris*, *P. pinea*, *Populus alba*, *Quercus robur*, *Quercus*, *Ulmus*.

**Oxyporus corticola** (Fr.) Ryvar den, *Acer*, *Aesculus hippocastanum*, *Populus alba*.

**Oxyporus latemarginatus** (Dur. & Mont.) Donk, *Carpinus betulus*, *Juglans regia*, *Populus alba*, *Quercus ilex*, *Q. robur*, *Robinia pseudoacacia*, *Ulmus glabra*, *U. minor*.

**Oxyporus obducens** (Pers.) Donk, *Populus alba*.

**Oxyporus populinus** (Schumach. : Fr.) Donk, *Populus alba*, *Quercus ilex*.

**Parmastomyces mollissimus** (Maize) Pouzar, uncommon species, on *Pinus nigra*, *P. pinea*.

**Perenniporia fraxinea** (Bull. : Fr.) Ryvar den, *Aesculus hippocastanum*, *Carpinus betulus*, *Cercis siliquastrum*, *Fraxinus*, *Platanus*, *Populus alba*.

**Perenniporia medulla-panis** (Jacq. : Fr.) Donk, *Pinus pinea*, *Prunus*, fence.

**Perenniporia ochroleuca** (Berk.) Ryvarden, at Mesola Forest (Ferrara) on *Quercus ilex*. It is the northernmost collecting area in Italy for this species.

**Perenniporia subacida** (Peck) Donk, a rare species, on *Pinus nigra*.

**Phaeolus schweinitzii** (Fr.) Pat., *Abies alba*, *Cedrus atlantica*, *Larix decidua*, *Pinus nigra*.

**Physisporinus sanguinolentus** (Alb. & Schwein.) Pilát, *Abies alba*.

**Physisporinus vitreus** (Pers. : Fr.) P. Karst., *Abies alba*, *Castanea sativa*.

**Piptoporus betulinus** (Bull. : Fr.) P. Karst., *Betula*.

**Podofomes trogii** (Fr.) Pouzar, a rare species with only a few collecting areas, at the base of *Abies alba*.

**Pycnoporellus fulgens** (Fr.) Donk, only collecting area in Sasso Fratino Forest on *Abies alba*, where its frequency is clearly decreasing in recent years.

**Pycnoporus cinnabarinus** (Jacq. : Fr.) P. Karst., *Fagus sylvatica*, *Quercus*.

**Rigidoporus ulmarius** (Sowerby. : Fr.) Imazeki, *Platanus acerifolia*, *Populus nigra*.

**Rigidoporus undatus** (Pers. : Fr.) Donk, *Abies alba*.

**Skeletocutis alutacea** (J. Lowe) Jean Keller, uncommon species, on *Fagus sylvatica*.

**Skeletocutis amorpha** (Fr.) Kotl. Pouzar, *Abies alba*, *Pinus nigra*, *P. pinea*.

**Skeletocutis carneogrisea** A. David, a very uncommon species, on *Abies alba*, *Pinus*.

**Skeletocutis kuehneri** A. David, collected only in the Casentinesi Forests National Park where it is locally frequent on *Abies alba*.

**Skeletocutis lenis** (P. Karst.) Niemelä, *Abies alba*, *Castanea sativa*, *Pinus nigra*, *P. pinea*, *Populus alba*.

**Skeletocutis nivea** (Jungh.) Jean Keller, *Carpinus betulus*, *C. orientalis*, *Fagus sylvatica*, *Fraxinus oxycarpa*, *Populus alba*, *Quercus ilex*, *Q. robur*, *Q. pubescens*, *Salix*.

**Skeletocutis percandida** (Malençon & Bertault) Jean Keller, broadleaved wood.

**Spongipellis pachyodon** (Pers.) Kotl. & Pouzar, *Quercus ilex*, *Q. robur*.

**Spongipellis spumeus** (Sowerby : Fr.) Pat., *Aesculus hippocastanum*, *Ulmus*, *Quercus ilex*.

**Trametes gibbosa** (Pers.) Fr., *Aesculus hippocastanum*, *Fagus sylvatica*, *Populus alba*, *Prunus*, *Quercus*.

**Trametes hirsuta** (Fr.) Pilát, *Fagus sylvatica*, *Populus alba*, *Prunus*, *Quercus*.

**Trametes ljubarskyi** Pilát, a rare species in Italy, not found outside the Emilia-Romagna region, on *Populus*, *Quercus*.

**Trametes ochracea** (Pers.) Gilb. & Ryvarden, *Prunus*, *Quercus*.

**Trametes pubescens** (Schumach. : Fr.) Pilát, *Populus alba*, *Quercus robur*, *Q. ilex*.

**Trametes suaveolens** L. : Fr., *Salix*, coniferous wood.

**Trametes versicolor** (L. : Fr.) Pilát, *Acer negundo*, *Castanea sativa*, *Corylus avellana*, *Fagus sylvatica*, *Ostrya carpinifolia*, *Pinus nigra*, *Prunus*, *Quercus cerris*, *Q. ilex*, *Q. robur*.

**Trichaptum abietinum** (Dicks. : Fr.) Ryvarden, *Abies alba*, *Pinus nigra*, *P. sylvestris*.

**Trichaptum biforme** (Fr.) Ryvarden, *Quercus ilex*.

**Trichaptum fuscoviolaceum** (Ehrenb. : Fr.) Ryvarden, *Pinus nigra*, *P. pinea*, *P. sylvestris*.

**Tyromyces chioneus** (Fr.) P. Karst., *Fagus sylvatica*, *Salix*.

**Tyromyces fissilis** (Berk. & M. A. Curtis) Donk, *Carpinus betulus*, *Pinus pinea*, *Salix*, *Populus alba*, *Quercus robur*, *Prunus*.

#### Lentinaceae Jülich

**Faerberia carbonaria** (Alb. & Schwein.) Pouzar, on burnt debris.

**Lentinus adhaerens** (Alb. & Schwein.) Fr., *Abies alba*.

**Lentinus conchatus** (Bull. : Fr.) Schroet., broadleaved wood.

**Lentinus cyathiformis** (Schaeff.) Bres., *Populus alba*.

**Lentinus strigosus** (Schwein.) Fr., broadleaved wood.

**Lentinus tigrinus** (Bull. : Fr.) Fr., *Populus*, *Salix*.

**Phyllotopsis nidulans** (Pers. : Fr.) Singer, *Fagus sylvatica*, *Quercus ilex*.

**Pleurotus cornucopiae** (Paulet) Rolland, *Acer*, *Salix*, *Ulmus minor*, *Populus alba*.

**Pleurotus dryinus** (Pers. : Fr.) P. Kumm., *Abies alba*, *Populus*, *Quercus ilex*, *Q. robur*.

**Pleurotus eryngii** (DC. : Fr.) Quél., straw.

**Pleurotus ostreatus** (Jacq. : Fr.) P. Kumm., *Abies alba*, *Aesculus hippocastanum*, *Populus alba*, *Fagus sylvatica*, *Quercus ilex*, *Robinia pseudoacacia*, *Sambucus*, *Salix*.

**Pleurotus pulmonarius** (Fr. : Fr.) Quél., broadleaved wood.

#### Polyporaceae Fr. ex Corda

**Dichomitus campestris** (Quél.) Domański & Orlicz, *Carpinus*, *Corylus avellana*, *Ostrya carpinifolia*, *Quercus ilex*, *Q. pubescens*.

**Dichomitus squalens** (P. Karst.) D. A. Reid, a rare species, on *Pinus*.



**Polyporus arcularius** Batsch : Fr., *Fagus sylvatica*, *Quercus cerris*.

**Polyporus badius** (Pers.) Schwein., *Abies alba*, *Salix*, *Fraxinus*, *Ulmus glabra*.

**Polyporus brumalis** Pers. : Fr., *Fagus sylvatica*, *Prunus*.

**Polyporus ciliatus** Fr., *Alnus*, *Fagus sylvatica*, *Quercus cerris*.

**Polyporus melanopus** Sw. : Fr., *Abies alba*, *Fagus sylvatica*, *Ulmus glabra*.

**Polyporus squamosus** Huds. : Fr., *Acer*, *Platanus*, *Celtis australis*, *Ulmus minor*.

**Polyporus tuberaster** Jacq. : Fr., *Fagus sylvatica*, *Ostrya carpinifolia*.

**Polyporus umbellatus** Fr., *Fagus sylvatica*.

**Polyporus varius** Fr., *Fagus sylvatica*.

### Schizophyllales

Schizophyllaceae Quél.

**Henningsomyces candidus** (Pers. : Fr.) Kuntze, *Castanea sativa*.

**Schizophyllum commune** Fr., *Aesculus hippocastanum*, *Castanea sativa*, *Fagus sylvatica*, *Juniperus communis*, *Pinus pinea*, *Populus alba*, *Quercus ilex*, *Tilia*.

Stromatoscyphaceae Jülich

**Stromatoscypha fimbriata** (Pers. : Fr.) Donk, *Abies alba*, *Fagus sylvatica*, *Populus alba*.

### Stereales

Aleurodiscaceae Jülich

**Aleurodiscus amorphus** (Pers. : Fr.) J. Schröt., *Picea abies*.

**Aleurodiscus disciformis** (DC. : Fr.) Pat., *Castanea sativa*.

Amylocorticiaceae Jülich

**Amylocorticium cebennense** (Bourdot) Pouzar, uncommon species, on *Pinus nigra*.

**Amylocorticium subsulphureum** (P. Karst.) Pouzar, a rare species, on *Pinus nigra*.

**Hypochniciellum ovoideum** (Jülich) Hjortstam, *Abies alba*, *Castanea sativa*, *Clematis vitalba*, *Juniperus communis*, *Picea abies*, *Pinus nigra*, *Quercus ilex*, *Ulmus glabra*.

**Hypochniciellum subillaqueatum** (Litsch.) Hjortstam, *Abies alba*.

**Plicatura crispa** (Pers. : Fr.) Rea, *Fagus sylvatica*.

Atheliaceae Jülich

**Amphinema byssoides** (Pers. : Fr.) J. Erikss., *Abies alba*, *Juniperus communis*, *Pinus pinea*, *P. nigra*, *Polystichum setiferum*.

**Athelia acrospora** Jülich, *Castanea sativa*, *Fagus sylvatica*, *Hedera helix*, *Clematis vitalba*.

**Athelia arachnoidea** (Berk.) Jülich, *Ulmus minor*.

**Athelia decipiens** (Höhn. & Litsch.) J. Erikss., *Abies alba*, *Ulmus glabra*, *Castanea sativa*.

**Athelia epiphylla** Pers., *Abies alba*, *Picea abies*, broadleaved wood.

**Athelia fibulata** M. P. Christ., *Abies alba*.

**Athelia salicum** Pers., Bedonia (Parma) on *Castanea sativa*, leg. et det. U. Peintener and S. Mayehofer.

**Athelopsis glaucina** (Bourdot & Galzin) Oberw. ex Parmasto, *Abies alba*, *Fagus sylvatica*, *Picea abies*.

**Byssocorticium atrovirens** (Fr.) Bondartsev & Singer, *Abies alba*, *Erica arborea*, *Fagus sylvatica*, *Juniperus communis*, *Quercus robur*.

**Byssocorticium terrestre** (DC. : Fr.) Bondartsev & Singer, Corno alle Scale Park (Bologna), on litter, in chestnut forest, leg. et det. M. Tortic. This is one of the two collecting areas for this species in Italy; in both cases the specimens are very scanty.

**Leptosporomyces fuscostratus** (Burt) Hjortstam, *Abies alba*.

**Leptosporomyces fusioideus** (Jülich) L. G. Krieglst., *Abies alba*.

**Leptosporomyces mutabilis** (Bres.) L. G. Krieglst., *Abies alba*, *Carpinus*, *Pinus nigra*.

**Leptosporomyces septentrionalis** (J. Erikss.) L. G. Krieglst., *Abies alba*.

**Lobulicium occultum** K. H. Larss. & Hjortstam, at Sasso Fratino Forest on *Abies alba*; a rare species in Europe, with only two collecting areas in Italy.

**Piloderma bicolor** (Peck) Jülich, *Abies alba*, *Pinus nigra*.

**Piloderma byssinum** (P. Karst.) Jülich, *Laburnum anagyroides*, *Pinus nigra*.

**Piloderma lanatum** (Jülich) J. Erikss. & Hjortstam, *Abies alba*.

Botryobasidiaceae (Parmasto) Jülich

**Botryobasidium aureum** Parmasto, broadleaved wood, *Pinus pinea*.

**Botryobasidium botryoideum** (Overh.) Parmasto, *Abies alba*.

**Botryobasidium candicans** J. Erikss., *Abies alba*, *Fagus sylvatica*.

**Botryobasidium intertextum** (Schwein.) Jülich & Stalpers, *Abies alba*.

**Botryobasidium laeve** (J. Erikss.) Parmasto, *Abies alba*, *Quercus*.

**Botryobasidium subcoronatum** (Höhn. & Litsch.) Donk, *Abies alba*, *Castanea sativa*, *Pinus pinea*.

**Botryobasidium vagum** (Berk. & M. A. Curtis) D. P. Rogers, *Quercus robur*.

**Botryohypochnus isabellinus** (Fr.) J. Erikss., *Populus alba*, *Quercus robur*.

#### Corticaceae Herter

**Corticium roseum** Pers., broadleaved wood, *Ulmus glabra*.

**Crustomyces expallens** (Bres.) Hjortstam, a very rare species with only a few collections in Europe; the only find in the Emilia-Romagna is at Sasso Fratino Forest on *Ulmus glabra*.

\***Crustomyces subabruptus** (Bourdot & Galzin) Jülich, at Sasso Fratino Forest on *Fagus sylvatica*; the only find in Italy has been made by the author.

\***Cystostereum murrayi** (Berk. & M. A. Curtis) Pouzar, with only one collection at Sasso Fratino Forest on a very old trunk of *Abies alba* lying on the ground.

**Cytidia flocculenta** (Fr.) Höhn. & Litsch., broadleaved wood.

**Cytidia salicina** (Fr.) Burt, *Salix*.

**Dendrothele acerina** (Pers. : Fr.) P. A. Lemke, *Acer campestre*.

**Dendrothele commixta** (Höhn. & Litsch.) J. Erikss. & Ryvarden, *Quercus robur*.

**Dendrothele dryina** (Pers.) P. A. Lemke, a North American species, collected at Piella Mountain (Bologna) on bark of *Castanea sativa*. There are two more collecting areas for this species in Italy (Calabria and Sardinia).

**Parvobasidium cretatum** (Bourdot & Galzin) Jülich, has not been collected in Italy, outside Sasso Fratino Forest, on *Polystichum setiferum*.

**Pulcherriicum caeruleum** (Schrad. : Fr.) Parmasto, *Alnus*, *Clematis vitalba*, *Fagus sylvatica*, *Tilia*, *Ulmus glabra*, *U. minor*.

**Punctularia strigosozonata** (Schwein.) Talbot, at Mesola Forest on *Quercus robur*, with three additional records from Sardinia.

\***Vuilleminia alni** Boidin, Lanq. & Gilles, a rare species, collected only at Mesola Forest on *Alnus glutinosa*.

**Vuilleminia comedens** (Nees : Fr.) Maire, *Acer campestre*, *Aesculus hippocastanum*, *Carpinus betulus*, *Corylus avellana*, *Crataegus*, *Fagus sylvatica*, *Fraxinus oxycarpa*, *Morus alba*, *Populus alba*, *Quercus ilex*, *Q. robur*, *Q. cerris*, *Robinia pseudoacacia*, *Salix*.

**Vuilleminia coryli** Boidin, Lanq. & Gilles, uncommon species, on *Corylus avellana*, *Ostrya carpinifolia*.

\***Vuilleminia cystidiata** Parmasto, in the Casentinesi Forests National Park on *Cornus mas*, *Crataegus oxyacantha*, *Pirus*, as well as a Sardinian collection.

\***Vuilleminia pseudocystidiata** Boidin Lanq. & Gilles, a rare species, at Sasso Fratino Forest on *Crataegus*.

#### Hyphodermataceae Jülich

**Basidioradulum radula** (Fr. : Fr.) Nobles, *Abies alba*, *Alnus*, *Pinus nigra*, *P. pinea*, *Prunus avium*, *Quercus ilex*.

**Basidioradulum tuberculatum** (Berk. & M. A. Curtis) Hjortstam, *Juniperus communis*.

**Cylindrobasidium laeve** (Pers. : Fr.) Chamuris, *Acer pseudo-platanus*, *Alnus incana*, *Carpinus orientalis*, *Fagus sylvatica*, *Salix*, *Populus alba*, *Quercus ilex*, *Quercus robur*, *Ulmus glabra*.

**Globulicium hiemale** (Laurilia) Hjortstam, uncommon species, on *Helichrysum* sp.

**Hyphoderma albocremeum** (Höhn. & Litsch.) J. Erikss. & Å. Strid, *Abies alba*.

**Hyphoderma argillaceum** (Bres.) Donk, *Abies alba*, *Pinus nigra*.

**Hyphoderma cremeoalbum** (Höhn. & Litsch.) Jülich, *Abies alba*.

**Hyphoderma litschaueri** (Burt) J. Erikss. & Å. Strid, Bedonia (Parma) on *Castanea sativa*, leg. et det. U. Peintner and S. Mayrhofer.

**Hyphoderma mutatum** (Peck) Donk, *Fagus sylvatica*, *Quercus ilex*, *Q. robur*, *Robinia pseudoacacia*, *Ulmus glabra*, *Populus alba*.

**Hyphoderma obtusifforme** J. Erikss. & Å. Strid, rare species, on broadleaved wood.

**Hyphoderma obtusum** J. Erikss., *Larix decidua*.

**Hyphoderma pallidum** (Bres.) Donk, *Abies alba*, *Juniperus communis*.

**Hyphoderma praetermissum** (P. Karst.) J. Erikss. & Å. Strid, *Abies alba*, *Juniperus communis*, *Castanea sativa*, *Clematis vitalba*, *Helichrysum*, *Carpinus orientalis*, *Cedrus*, *Populus alba*, *Pinus pinea*, *P. nigra*, *Quercus ilex*, *Q. cerris*, *Rubus*.

**Hyphoderma puberum** (Fr.) Wallr., *Abies alba*, *Betula*, *Castanea sativa*, *Fagus sylvatica*, *Pinus pinea*, *Quercus pubescens*, *Q. robur*, *Salix*, *Ulmus glabra*, *U. minor*.

**Hyphoderma roseocremeum** (Bres.) Donk, *Quercus ilex*, *Q. robur*.

**Hyphoderma setigerum** (Fr.) Donk, *Abies alba*, *Fagus sylvatica*, *Pinus nigra*, *Populus*.

**Hyphodermella corrugata** (Fr.) J. Erikss. & Ryvarden, *Ostrya carpinifolia*, *Ulmus glabra*, *Carpinus betulus*.

**Hyphodontia alutacea** (Fr.) J. Erikss., *Pinus nigra*.

**Hyphodontia alutaria** (Burt) J. Erikss., *Abies alba*, *Juglans regia*, *Juniperus communis*, *Pinus nigra*.

**Hyphodontia arguta** (Fr.) J. Erikss., *Abies alba*, *Carpinus*, *Cercis siliquastrum*, *Juniperus communis*, *Pinus pinea*, *Populus alba*, *Quercus robur*; *Robinia pseudoacacia*, *Salix*, *Ulmus*.

**Hyphodontia aspera** (Fr.) J. Erikss., *Abies alba*, *Fagus sylvatica*, *Fraxinus*, *Pinus nigra*, *Populus alba*, *Salix*.

**Hyphodontia breviseta** (P. Karst.) J. Erikss., *Abies alba*.

**Hyphodontia cineracea** (Bourdot & Galzin) J. Erikss. & Hjortstam, *Castanea sativa*.

**Hyphodontia crustosa** (Pers. : Fr.) J. Erikss., *Abies alba*, *Fagus sylvatica*, *Juniperus communis*, *Quercus pubescens*.

**Hyphodontia detzitica** (Bourdot) J. Erikss., *Clematis vitalba*.

**Hyphodontia gossypina** (Parmasto) Hjortstam, *Carpinus*, *Populus alba*, *Quercus ilex*, *Q. robur*; *Tilia*, *Ulmus minor*.

**Hyphodontia hastata** (Litsch.) J. Erikss., *Pteridium aquilinum*.

**Hyphodontia juniperi** (Bourdot & Galzin) J. Erikss. & Hjortstam, *Juniperus communis*.

\***Hyphodontia latitans** (Bourdot & Galzin) Ginns & Lefebvre, at Sasso Fratino Forest on *Ostrya carpinifolia*, the only collection in HUBO.

**Hyphodontia nespori** (Bres.) J. Erikss. & Hjortstam, *Abies alba*, *Corylus avellana*, *Pinus pinea*, *Quercus ilex*, *Q. robur*.

\***Hyphodontia nudiseta** Warcup & P. H. B. Talbot, one collection made on stump of *Abies alba* at Sasso Fratino Forest.

**Hyphodontia pallidula** (Bres.) J. Erikss., *Abies alba*, *Castanea sativa*, *Pinus pinea*.

**Hyphodontia pruni** (Lasch) Svrňek, *Abies alba*.

**Hyphodontia quercina** (Pers. : Fr.) J. Erikss., *Fagus sylvatica*, *Quercus ilex*.

**Hyphodontia rimosissima** (Peck) Gilb., *Pinus pinea*.

**Hyphodontia sambuci** (Pers. : Fr.) J. Erikss., *Acer*, *Carpinus*, *Clematis vitalba*, *Fagus sylvatica*, *Ficus carica*, *Ginkgo biloba*, *Hedera helix*, *Populus alba*, *Quercus robur*, *Q. ilex*, *Robinia pseudoacacia*, *Sambucus*, *Tilia*, *Ulmus glabra*, *U. minor*.

**Hyphodontia spathulata** (Schrad. : Fr.) Parmasto, a rare species, on *Pinus nigra*.

**Hyphodontia subalutacea** (P. Karst.) J. Erikss., *Abies alba*, *Picea abies*, *Pinus nigra*.

**Hyphodontiella multiseptata** Å. Strid, , in the Corno alle Scale Park (Bologna) on *Juniperus nana*, rare species.

**Hyphochnicium cymosum** (D. P. Rogers & H. S. Jacks.) K. H. Larss. & Hjortstam, broadleaved wood.

**Hyphodontia floccosa** (Bourdot & Galzin) J. Erikss., uncommon species, on *Pinus sylvestris*.

**Hypochnicium erikssonii** Hallenb. & Hjortstam, *Abies alba*, *Castanea sativa*, *Fraxinus oxycarpa*, *Fagus sylvatica*, *Pinus pinea*, *Populus*, *Quercus*.

**Hypochnicium geogenium** (Bres.) J. Erikss., *Pinus nigra*.

**Hypochnicium polonense** (Bres.) Å. Strid, *Abies alba*.

**Hypochnicium punctulatum** (Cooke) J. Erikss., *Abies alba*, *Carpinus betulus*, *C. orientalis*, *Pinus nigra*, *Ulmus glabra*.

**Hypochnicium vellereum** (Ellis & Cragin) Parmasto, *Acer platanoides*, *A. pseudoplatanus*, *Carpinus betulus*, *Fagus sylvatica*, *Populus alba*, *Quercus robur*, *Ulmus minor*, *U. glabra*.

\***Metulodontia nivea** (P. Karst.) Parmasto, Casentinesi Forests National Park on *Abies alba*, the only collecting area.

**Radulomyces confluens** (Fr. : Fr.) M. P. Christ., *Abies alba*, *Aesculus hippocastanum*, *Alnus*, *Carpinus betulus*, *Fagus sylvatica*, *Fraxinus oxycarpa*, *Juniperus communis*, *Pinus pinea*, *Populus alba*, *Quercus ilex*, *Q. robur*; *Robinia pseudoacacia*, *Salix*, *Ulmus*.

**Radulomyces molaris** (Chaillet : Fr.) M. P. Christ., *Acer*, *Carpinus betulus*, *Populus alba*, *Quercus ilex*, *Q. pubescens*, *Q. robur*.

**Radulomyces sulphureo-isabellinus** (Litsch.) Jülich, collected only at Sasso Fratino Forest on old trunk of *Abies alba* lying on the ground.

**Sarcodontia crocea** (Schwein. : Fr.) Kotl., uncommon species, on broadleaved wood.

**Schizopora flavipora** (Cooke) Ryvarden, *Quercus*.

**Schizopora paradoxa** (Schrad. : Fr.) Donk, *Abies alba*, *Carpinus*, *Erica arborea*, *Fagus sylvatica*, *Fraxinus oxycarpa*, *Populus alba*, *Quercus*, *Ulmus*.

**Subulicystidium longisporum** (Pat.) Parmasto, *Populus alba*, *Quercus robur*, *Ulmus glabra*.

Lindtneriaceae Locq.

**Cristinia gallica** (Pilát) Jülich, uncommon species, on ground.

**Cristinia helvetica** (Pers.) Parmasto, *Abies alba*, *Carpinus betulus*, *Fagus sylvatica*, *Quercus robur*, *Juniperus communis*, *Clematis vitalba*, *Picea abies*.

**Lindtneria chordulata** (D. P. Rogers) Hjortstam, Cervara (Reggio Emilia) on *Acer*, a very rare species. Leg et det. C. Losi.

**Lindtneria panphylensis** Bernicchia & M. J. Larsen, at Panfilia Forest (Ferrara) on *Quercus robur* and at Parco Ducale di Parma on *Carpinus betulus*, with two more collecting areas outside the Emilia-Romagna region. The species no longer grows there.

**Lindtneria trachyspora** (Bourdot & Galzin) Pilát, collected at Mesola Forest, at the base of *Carpinus betulus*, moss and leaves of *Quercus ilex*.

Meruliaceae P. Karst.

**Auriculariopsis ampla** (Lév.) Maire, *Populus nigra*, *Populus alba*, *Salix*.

**Byssomerulius corium** (Fr.) Parmasto, *Castanea sativa*, *Carpinus*, *Fagus sylvatica*, *Quercus ilex*, *Q. ilex*, *Q. robur*, *Salix*, *Ulmus*.

**Byssomerulius hirtellus** (Burt) Parmasto, *Carpinus betulus*, *Clematis vitalba*, *Crataegus*, *Fraxinus oxycarpa*, *Genista*, *Quercus ilex*, *Robinia pseudoacacia*.

**Ceraceomyces borealis** (Romell) J. Erikss. & Ryvarden, *Abies alba*.

**Ceraceomyces serpens** (Tode : Fr.) Ginns, *Pinus pinea*, *Salix*.

**Ceraceomyces sublaevis** (Bres.) Jülich, *Taxus baccata*.

**Ceraceomyces sulphurinus** (P. Karst.) J. Erikss. & Ryvarden, only collection in Italy, Mesola Forest on *Populus alba*.

**Ceraceomyces tessulatus** (Cooke) Jülich, Baselica (Parma), on *Castanea sativa*, leg. et det. U. Peintner and S. Mayrhofer.

**Chondrostereum purpureum** (Pers. : Fr.) Pouzar, *Acer campestre*, *Aesculus hippocastanum*, *Carpinus betulus*, *Fagus sylvatica*, *Populus alba*, *P. nigra*, *Pyrus*, *Quercus robur*, *Q. ilex*.

**Dacryobolus sudans** (Alb. & Schwein. : Fr.) Fr., *Abies alba*, *Juniperus communis*, *Pinus nigra*, *P. pinea*.

**Gloeoporus dichrous** (Fr. : Fr.) Bres., *Quercus robur*.

**Gloeoporus taxicola** (Pers. : Fr.) Gilb. & Ryvarden, *Abies alba*, *Pinus pinea*, *P. nigra*, *P. sylvestris*.

**Mycoacia aurea** (Fr.) J. Erikss. & Ryvarden, *Quercus ilex*.

**Mycoacia fuscoatra** (Fr. : Fr.) Donk, *Quercus robur*, *Q. pubescens*, *Salix*, *Ulmus glabra*.

**Mycoacia nothofagi** (G. Cunn.) Ryvarden, at Sasso Fratino Forest on *Ulmus glabra*, an uncommon species with only a few finds and a scanty distribution.

**Mycoacia uda** (Fr.) Donk, *Fraxinus*, *Quercus* sp., *Q. pubescens*, *Q. robur*.

**Phanerochaete calotricha** (P. Karst.) J. Erikss. & Ryvarden, Monte Vacca, Bedonia (Parma) on *Castanea sativa* (leg et det. U. Peintner and S. Mayrhofer), and *Fagus sylvatica*.

\***Phanerochaete ericina** (Bourdot & Galzin) J. Erikss. & Ryvarden, Bedonia (Parma) on *Castanea sativa*, leg et det. U. Peintner and S. Mayrhofer.

**Phanerochaete filamentosa** (Berk. & M. A. Curtis) Burds., *Fagus sylvatica*.

**Phanerochaete galactites** (Bourdot & Galzin.) J. Erikss. & Ryvarden, *Populus alba*.

**Phanerochaete gigantea** (Fr. : Fr.) Rattan & al., *Abies alba*, *Pinus pinea*.

\***Phanerochaete jose-ferreirae** (D. A. Reid) D. A. Reid, a rare species, on *Aesculus hippocastanum*.

**Phanerochaete laevis** (Fr.) J. Erikss. & Ryvardeen, *Fagus sylvatica*.

**Phanerochaete martelliana** (Bres.) J. Erikss. & Ryvardeen, *Clematis vitalba*.

**Phanerochaete radulooides** J. Erikss. & Ryvardeen, Bedonia (Parma) on *Castanea sativa*, leg. et det. U. Peintner and S. Mayrhofer.

**Phanerochaete ravenelii** (Cooke) Burdsall, *Fagus sylvatica*, *Quercus pubescens*.

**Phanerochaete sanguinea** (Fr.) Pouzar, *Abies alba*, *Fagus sylvatica*, *Larix decidua*, *Pinus nigra*, *P. sylvestris*, *Populus alba*.

**Phanerochaete sordida** (P. Karst.) J. Erikss. & Ryvardeen, *Abies alba*, *Castanea sativa*, *Fagus sylvatica*, *Ostrya carpinifolia*, *Pinus nigra*, *Quercus ilex*, *Q. robur*, *Q. pubescens*.

**Phanerochaete tuberculata** (P. Karst.) Parmasto, *Castanea sativa*, *Quercus ilex*, *Q. robur*, *Q. cerris*, *Ulmus minor*.

**Phanerochaete velutina** (DC. : Fr.) P. Karst., *Populus alba*, *Fagus sylvatica*, *Quercus ilex*, *Q. robur*, *Ulmus glabra*.

\***Phlebia georgica** Parmasto, uncommon species with two collecting areas in Italy, one in Sardinia on *Taxus baccata* and one at Sasso Fratino Forest on branch of *Abies alba*.

**Phlebia lilascens** (Bourdot) J. Erikss. & Ryvardeen, broadleaved wood.

**Phlebia livida** (Pers. : Fr.) Bres., *Fagus sylvatica*, *Fraxinus oxycarpa*, *Quercus cerris*, *Q. robur*, *Ulmus glabra*.

**Phlebia radiata** Fr., *Alnus glutinosa*, *Carpinus orientalis*, *Pinus nigra*, *Populus alba*, *Prunus*, *Quercus robur*, *Q. ilex*.

**Phlebia rufa** (Fr.) M. P. Christ., *Carpinus betulus*, *Populus alba*, *Quercus ilex*, *Q. cerris*, *Ulmus glabra*.

**Phlebia subcretacea** (Litsch.) M. P. Christ., *Abies alba*.

**Phlebia tremellosa** (Schrad. : Fr.) Burds. & Nakasone, *Abies alba*, *Carpinus betulus*, *Fagus sylvatica*, *Pinus nigra*, *P. pinea*, *Populus alba*, *Quercus ilex*.

\***Phlebia viridisaebrosa** J. Erikss. & Hjortstam, Bedonia (Parma) on *Castanea sativa*, leg. et det. U. Peintner and S. Mayrhofer.

**Resinicium bicolor** (Alb. & Schwein. : Fr.) Parmasto, *Taxus baccata*, *Abies alba*.

**Resinicium furfuraceum** (Bres.) Parmasto, *Abies alba*.

**Scopuloides rimosa** (Cooke) Jülich, *Fagus sylvatica*, *Quercus cerris*.



Peniophoraceae Lotsy

**Peniophora cinerea** (Fr.) Cooke, *Castanea sativa*, *Quercus robur*, *Q. ilex*, *Q. cerris*, *Ulmus minor*, *Corylus avellana*, *Fagus sylvatica*, *Fraxinus oxycarpa*, *Populus alba*.

**Peniophora incarnata** (Pers. : Fr.) P. Karst., *Aesculus hippocastanum*, *Carpinus orientalis*, *Castanea sativa*, *Fagus sylvatica*, *Hedera helix*, *Populus alba*, *Robinia pseudoacacia*, *Salix*, *Tilia*, *Fraxinus oxycarpa*.

**Peniophora junipericola** J. Erikss., *Juniperus communis*.

**Peniophora laeta** (Fr.) Donk, *Ostrya carpinifolia*.

**Peniophora lycii** (Pers.) Höhn. & Litsch., *Aesculus hippocastanum*, *Crataegus*, *Fagus sylvatica*, *Fraxinus oxycarpa*, *Juniperus communis*, *Quercus robur*, *Q. ilex*, *Pinus pinea*, *Ulmus glabra*.

**Peniophora meridionalis** Boidin, *Quercus cerris*.

**Peniophora piceae** (Pers.) J. Erikss., *Abies alba*.

**Peniophora polygonia** (Pers. : Fr.) Bourdot & Galzin, *Populus alba*.

**Peniophora pseudoversicolor** Boidin, a rare species, on *Castanea sativa*.

**Peniophora quercina** (Pers. : Fr.) Cooke, *Quercus ilex*, *Q. robur*, *Q. cerris*, *Castanea sativa*,

**Peniophora rufomarginata** (Pers.) Litsch., *Populus alba*, *Quercus robur*.

\***Peniophora subpirispora** Boidin & Cavet, *Bedonia* (Parma) on *Castanea sativa*, leg. et det. U. Peintner and S. Mayrhofer.

Podoscyphaceae D.A. Reid

**Cotylidia pannosa** (Sowerby : Fr.) D. A. Reid, soil in *Fagus sylvatica* + *Abies alba* forests.

**Podoscypha multizonata** (Berk. & Broome) Pat., *Fagus sylvatica*.

Sistotremataceae Jülich

**Brevicellicium olivascens** (Bres.) K. H. Larss. & Hjortstam, uncommon species, on *Carpinus betulus*, *Castanea sativa*, *Clematis vitalba*.

**Galzinia incrustans** (Höhn. & Litsch.) Parmasto, *Clematis vitalba*.

\***Paullicorticium pearsonii** (Bourdot) J. Erikss., Piella Mountain and Corno alle Scale Park (Bologna) on *Pinus nigra* and *Abies alba*, respectively.

**Sistotrema autumnale** Ryvar den & H. Solheim, uncommon species, on graminaceous plant.

**Sistotrema brinkmannii** (Bres.) J. Erikss., *Picea abies*, *Populus alba*.

**Sistotrema confluens** Pers. : Fr., on debris of *Pinus nigra* and *Fagus sylvatica*.

**Sistotrema coroniferum** (Höhn. & Litsch.) Donk, *Salix*.

\***Sistotrema hirschii** (Donk) Donk, Bedonia (Parma) on *Castanea sativa*, leg. et det. U. Peintner and S. Mayrhofer.

**Sistotrema muscicola** (Pers.) S. Lundell, rare species, at Monte Sole Park (Bologna) on *Erica arborea*; at Mesola Forest on *Juniperus communis*, and at La Martina Park (Bologna) on litter of *Pinus nigra*.

**Sistotrema oblongisporum** M. P. Christ. & Hauerslev, *Populus alba*.

**Sistotrema octosporum** (J. Schröt. ex Höhn. & Litsch.) Hallenb., *Pinus pinea*.

**Sistotrema suballantosporum** Hallenb., only in Bedonia (Parma) on *Castanea sativa*, leg. et det. U. Peintner and S. Mayrhofer.

**Sistotremastrum niveocremaum** (Höhn. & Litsch.) J. Erikss., *Quercus cerris*.

**Sistotremastrum suecicum** Litsch. ex J. Erikss., uncommon species, on *Juniperus communis*.

**Trechispora cohaerens** (Schwein.) Jülich & Stalpers, *Abies alba*, *Fagus sylvatica*, *Juniperus communis*, *Pinus pinea*, *Populus alba*, *Quercus cerris*.

**Trechispora farinacea** (Pers. : Fr.) Liberta, *Abies alba*, *Fagus sylvatica*, fern, *Juniperus communis*, *Pinus nigra*, *P. pinea*, *Populus alba*, *Quercus robur*, *Q. ilex*.

**Trechispora fastidiosa** (Pers. : Fr.) Liberta, *Abies alba*, broadleaved wood.

**Trechispora hymenocystis** (Berk. & Broome) K. H. Larss., on very rotten stumps of *Abies alba*.

**Trechispora microspora** (P. Karst.) Liberta, *Abies alba*, *Pteridium aquilinum*, *Quercus robur*, *Q. ilex*.

**Trechispora mollusca** (Pers. : Fr.) Liberta, *Abies alba*, *Populus alba*.

**Trechispora praefocata** (Bourdot & Galzin) Liberta, *Abies alba*, *Quercus ilex*, *Ulmus glabra*.

**Trechispora stellulata** (Bourdot & Galzin) Liberta, litter of *Quercus*, *Pteridium aquilinum*, *Quercus ilex*.

**Trechispora stevensonii** (Berk. & Broome) K. H. Larss., *Ulmus glabra*, broadleaved wood.

#### Steccherinaceae Parmasto

**Fibricium rude** (P. Karst.) Jülich, uncommon species, on cones of *Pinus pinea*.

**Fibricium subceraceum** (Hallenb.) Bernicchia, *Corylus avellana*, *Populus alba*, *Quercus robur*, *Salix*.

**Irpex lacteus** (Fr. : Fr.) Fr., uncommon species, on *Populus*, *Quercus*.

**Junghuhnia nitida** (Pers. : Fr.) Ryvarden, *Carpinus orientalis*, *Castanea sativa*, *Fagus sylvatica*, *Ostrya carpinifolia*, *Quercus ilex*, *Q. robur*, *Salix*, *Ulmus glabra*.

**Junghuhnia semispiniformis** (Murrill) Ryvarden, a very rare species in the world with a peculiar distribution and only two collecting areas: in Mexico and at Mesola Forest on *Fraxinus oxycarpa*. The species no longer can be found there.

**Mycoaciella bispora** (Stalpers) J. Erikss. & Ryvarden, only found at Villa Ghigi Park (Bologna) on *Quercus pubescens*.

**Steccherinum bourdotii** Saliba & A. David, *Carpinus betulus*, *Quercus ilex*.

**Steccherinum fimbriatum** (Pers. : Fr.) J. Erikss., *Castanea sativa*, *Abies alba*, *Pinus nigra*, *Ulmus minor*.

**Steccherinum ochraceum** (Pers. : Fr.) Gray, *Aesculus hippocastanum*, *Carpinus betulus*, *C. orientalis*, *Castanea sativa*, *Fagus sylvatica*, *Ostrya carpinifolia*, *Quercus ilex*, *Q. robur*, *Q. pubescens*, *Ulmus glabra*.

**Steccherinum oreophilum** Lindsey & Gilb., a rare species in Italy, with two collecting areas, one at Calabria National Park and one at Monte Sole Park (Bologna) on *Castanea sativa*.

\***Steccherinum queletii** (Bourdot & Galzin) Hallenb. & Hjortstam, Piella Mountain and Corno alle Scale Park (Bologna), both on *Abies alba*.

**Steccherinum robustius** (J. Erikss. & S. Lundell) J. Erikss., a rare species, on *Populus alba*.

Stephanosporaceae Oberw. & E. Horak

**Stephanospora caroticolor** (Berk.) Pat., calcareous soil.

Stereaceae Pilát

**Amylostereum chailletii** (Chaillet. : Fr.) Boidin, *Abies alba*.

**Amylostereum laevigatum** (Fr.) Boidin, *Cupressus sempervirens*, *Juniperus communis*, *Taxus baccata*.

**Porostereum spadiceum** (Pers. : Fr.) Hjortstam & Ryvarden, *Acer negundo*, *Carpinus betulus*, *Fagus sylvatica*, *Ostrya carpinifolia*, *Quercus ilex*, *Q. robur*, *Q. pubescens*.

**Stereum gausapatum** (Fr.) Fr., *Carpinus orientalis*, *Quercus cerris*, *Q. robur*, *Q. ilex*, *Salix*.

**Stereum hirsutum** (Willd. : Fr.) Gray, *Acer negundo*, *Aesculus hippocastanum*, *Carpinus betulus*, *Castanea sativa*, *Fagus sylvatica*, *Populus alba*, *P. nigra*, *Quercus cerris*, *Q. ilex*, *Q. robur*.

***Stereum insignitum*** Quéél., a very rare species, collected in Calabria National Park and at Sasso Fratino Forest on *Acer platanoides* and *Fagus sylvatica* where it has not been found again since 1992; it seems to have disappeared there.

***Stereum ochraceoflavum*** (Schwein.) Ellis, *Prunus avium*, *Quercus cerris*.

***Stereum reflexulum*** D. A. Reid, *Erica arborea*.

***Stereum rugosum*** (Pers. : Fr.) Fr., *Carpinus*, *Fagus sylvatica*, *Pyrus*.

***Stereum sanguinolentum*** (Alb. & Schwein. : Fr.) Fr., *Abies alba*, *Larix decidua*, *Pinus nigra*, *P. pinea*, *P. sylvestris*.

***Stereum subtomentosum*** Pouzar, *Alnus glutinosa*, *Fagus sylvatica*, *Populus*, *Quercus robur*; *Ulmus glabra*.

***Xylobolus subpileatus*** (Berk. & M. A. Curtis) Boidin, *Quercus robur*.

#### Tubulicrinaceae Jülich

***Litschauerella clematitis*** (Bourdot & Galzin) J. Erikss. & Ryvarden, *Abies alba*, *Juniperus nana*.

***Tubulicium vermiferum*** (Bourdot) Oberw. ex Jülich, *Taxus baccata*.

***Tubulicrinis accedens*** (Bourdot & Galzin) Donk, *Abies alba*.

***Tubulicrinis angustus*** (D. P. Rogers & Weresub) Donk, *Pinus nigra*.

***Tubulicrinis borealis*** J. Erikss., coniferous wood.

***Tubulicrinis calothrix*** (Pat.) Donk, *Larix decidua*.

***Tubulicrinis glebulosus*** (Fr.) Donk, *Pinus nigra*.

***Tubulicrinis hirtellus*** (Bourdot & Galzin) J. Erikss., *Abies alba*.

***Tubulicrinis medius*** (Bourdot & Galzin) Oberw., *Abies alba*.

***Tubulicrinis subulatus*** (Bourdot & Galzin) Donk, *Abies alba*, *Picea abies*, *Pinus nigra*.

#### Xenasmataceae Oberw.

***Aphanobasidium sphaerosporum*** Boidin & Gilles, *Fagus sylvatica*.

***Coronicium gemmiferum*** (Bourdot & Galzin) J. Erikss. & Ryvarden, a rare species in Italy, on *Populus alba*.

***Phlebiella allantospora*** (Oberw.) K. H. Larss. & Hjortstam, *Abies alba*, *Pinus nigra*.

\****Phlebiella christiansenii*** (Parmasto) K. H. Larss. & Hjortstam, at Corno alle Scale Park (Bologna), on *Pinus nigra*.

\****Phlebiella fibrillosa*** (Hallenb.) K. H. Larss. & Hjortstam, at Mesola Forest on broadleaved wood.

\***Phlebiella grisella** (Bourdot) K. H. Larss. & Hjortstam, only once at Sasso Fratino Forest on a trunk of *Abies alba* lying on the ground.

**Phlebiella tulasnelloidea** (Höhn. & Litsch.) Ginns & Lefebvre, *Abies alba*, *Carpinus betulus*, *Quercus ilex*.

**Phlebiella vaga** (Fr.) P. Karst., *Abies alba*, *Carpinus betulus*, *Fagus sylvatica*, *Juniperus nana*, *J. communis*, *Pinus nigra*, *P. pinea*, *Ulmus*.

**Xenasma pruinatum** (Pat.) Donk, uncommon species, on broadleaved wood.

**Xenasma pulverulentum** (Litsch.) Donk, broadleaved wood.

### Thelephorales

#### Bankeraceae Donk

**Bankera violascens** (Alb. & Schwein. : Fr.) Pouzar

**Phellodon confluens** (Pers.) Pouzar

**Phellodon melaleucus** (Sw. in Fr. : Fr.) P. Karst.

**Phellodon niger** (Fr. : Fr.) P. Karst.

**Phellodon tomentosus** (L. : Fr.) Banker

#### Thelephoraceae Chevall.

**Boletopsis grisea** (Peck) Bondartsev & Singer, soil in mixed forest.

**Boletopsis leucomelaena** (Pers.) Fayod, soil in mixed forests.

**Hydnellum aurantiacum** (Batsch : Fr.) P. Karst.

**Hydnellum compactum** (Pers. : Fr.) P. Karst.

**Hydnellum concrescens** (Pers.) Banker

**Hydnellum peckii** Banker apud Peck

**Hydnellum scrobiculatum** (Fr.) P. Karst.

**Pseudotomentella flavovirens** (Höhn. & Litsch.) Svrñek, *Abies alba*.

**Pseudotomentella mucidula** (P. Karst.) Svrñek, *Abies alba*, *Pinus nigra*.

**Sarcodon glaucopus** Maas Geest. & Nannf.

**Sarcodon imbricatus** (L. : Fr.) P. Karst.

**Sarcodon joeides** (Pass.) Pat.

**Sarcodon leucopus** (Pers.) Maas Geest. & Nannf.

**Sarcodon scabrosus** (Fr.) P. Karst.

**Sarcodon unterwoodii** Banker

**Thelephora anthocephala** var. **antocephala** (Bull. : Fr.) Fr., litter.

**Thelephora anthocephala** var. **clavularis** (Fr.) Quél., *Quercus* litter.

**Thelephora caryophyllea** Fr., litter of coniferous forests.

**Thelephora mollissima** Fr.

**Thelephora palmata** Fr., litter.

**Thelephora penicillata** Pers. : Fr.

**Thelephora terrestris** Fr., *Pinus pinea*, *Vaccinium myrtillus*.

**Tomentella atroarenicolor** Nikol., *Pinus pinea*.

**Tomentella badia** (Link) Stalpers, *Abies alba*.

**Tomentella calcicola** (Bourdot & Galzin) M. J. Larsen, *Salix*.

**Tomentella crinalis** (Fr.) M. J. Larsen, *Acer campestre*.

**Tomentella echinospora** (Ellis) Bourdot & Galzin, *Pinus nigra*.

**Tomentella ellisii** (Sacc.) Jülich & Stalpers, *Fraxinus oxycarpa*,  
*Quercus robur*, *Tilia*, *Juniperus communis*.

**Tomentella pannosa** (Berk. & M. A. Curtis) Bourdot & Galzin,  
*Populus alba*.

**Tomentella pilosa** (Burt) Bourdot & Galzin, *Populus alba*,  
growing on *Sebacina* sp. on *Rhamnus*.

**Tomentella radiosa** (P. Karst.) M. A. Rick, *Castanea sativa*.

**Tomentella umbrina** (Fr.) Litsch., *Abies alba*.

## Tremellales

Exidiaceae R. T. Moore

\***Stypella dubia** (Bourdot & Galzin) P. Roberts, with two finds in Italy, one at Sasso Fratino Forest on a stump of *Ulmus glabra* and the other at Passo del Dragone (CS) on *Fagus*.

**Stypella versiformis** (Berk. & Broome) D. A. Reid, a rare species, on *Abies alba* at Piella Mountain (Bologna).

**Exidia glandulosa** Fr., *Aesculus hippocastanum*, *Carpinus*, *Fagus sylvatica*, *Fraxinus oxycarpa*, *Tilia*.

**Exidiopsis calcea** (Pers. : Fr.) K. Wells, *Abies alba*, *Populus alba*, *Morus alba*.

**Protomerulius caryae** (Schwein.) Ryvarden, at Mesola Forest on *Pinus pinea*, and *Populus alba*; it is the only collection area in Italy.

**Pseudohydnum gelatinosum** (Scop. : Fr.) P. Karst., *Abies alba*.

**Sebacina caesiocinerea** (Höhn. & Litsch.) D. P. Rogers, *Abies alba*.

**Sebacina incrustans** (Fr.) Tul., *Fagus sylvatica*.

**Tremiscus helvelloides** (DC. : Fr.) Donk

Filobasidiaceae L.S. Olive

**Filobasidiella lutea** P. Roberts, a rare species in Europe, a mycoparasite and till now always collected on *Hypochnicium vellereum* growing on *Ulmus*. Our collection was growing at Fornino, Badia Prataglia Reserve, Casentinesi Forests National Park on *Ulmus glabra* (Karstenia, 2000).

## Tremellaceae Fr.

***Tremella foliacea*** Pers. : Fr., *Fagus sylvatica*.

***Tremella mesenterica*** Fr., *Fagus sylvatica*, *Salix*, many deciduous trees.

\****Tremella polyporina*** D. A. Reid, two collections at Mesola Forest on *Oligoporus* growing on *Juniperus communis* and at Corno alle Scale Park on *Oligoporus* growing on *Abies*. Det. J. Ginns.

## Tulasnellales

### Tulasnellaceae Juel

***Tulasnella calospora*** (Boud.) Juel, *Castanea sativa*.

***Tulasnella pallida*** Bres., *Abies alba*, *Juniperus communis*.

***Tulasnella violea*** (Qué.) Bourdot & Galzin, *Abies alba*, *Picea abies*.

## Conclusions

A large proportion of lignicolous species have a wide distribution over a continuous area. There are some obvious exceptions. These notes expound on some species which for many reasons we consider rare and interesting. For most of them we have no more than three reports throughout the country. Although an accurate assessment of European distribution patterns will remain an unfinished task, we can provide information on the few species whose distribution is rather well known. The finds of *Phanerochaete martelliana*, *Perenniporia ochroleuca*, *Peniophora meridionalis*, and *Hexagonia nitida* in the Emilia-Romagna region are the northernmost reports of these species in Italy. They are thermophilous and have a meridional distribution, particularly in the Mediterranean macchia.

Some species which occur sporadically in our region are absent in the central part of the country and reappear in some isolated spots, in the mountain areas of southern Italy (Calabria National Park, for example), with a discontinuous distributional pattern.

Another interesting aspect is the presence of some lignicolous species growing on unusual substrata. In the Emilia-Romagna region the most interesting area, not comparable with any other in Italy (both for its geographic position inside a National Park and the almost complete absence of anthropic influence), is the Sasso Fratino Forest (Forlì) which has many unique species. The other locality in Italy which shows some endemisms is the Supramonte di Orgosolo (Nuoro), Sardinia; for many reasons, this can be considered a relict area.

We report 25 species found for the first time in Italy.

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