

Article No. 1.

A CHECK LIST OF MYXOMYCETES FROM GREECE

BRUCE ING

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Summary: 140 species of myxomycetes and one acriasid are listed for the mainland and islands of Greece, with data on distribution and ecology. Corticolous and snowline species are prominent in the list and many of these are new records for Greece. Several globally rare species are included, such as *Comatricha longipila*, *Dianema aggregatum*, *Diderma asteroides*, *Didymium sturgisii*, *Echinostelium cribrarioides*, *Licea iridis*, *Paradiacheopsis acanthodes* and *Stemonitis mussooriensis*.

Introduction

The present work includes data from literature containing records of myxomycetes in Greece, and field excursions, notably the visit of the British Mycological Society to Macedonia and Thessaly in the Spring of 1988. The authors' own field observations during a visit in 1988 and the results of culturing bark from living trees in moist chamber have added useful records, especially from the islands. It forms part of a larger study of microbial diversity which aims to provide information which is very scarce for this country (Zervakis *et al.*, 1998).

Taxa are listed in alphabetical order of species within genera, families and orders. Synonyms are given where the name used here differs from those used in cited literature. The only previously published list of any size is that of Alexopoulos (1959).

Under each species data on localities and substrates are given. The geographical data include region, district (nomos) and collection site. Several family members and friends have collected tree bark during their visits to Greece and this was cultured in standard petri dish moist chambers and the corticolous myxomycetes harvested and identified by Bruce Ing.

The following abbreviations are used: Is – island; Mon – monastery; Mt – mountain; NPR – National Park Reserve; PF – Protected Forest.

Species list

Phylum HETEROLOBOSEA

Class ACRASIOMYCETES

Order ACRASIDALES

Family Guttulinaceae

Pocheina rosea (Cienk.) A.R. Loeblich & Tappin

DODECANESE: Rhodos Is: Mt Filerimos; Profitis Elias; RhodesTown; Rodini Park, 1990, P. Livermore.

MACEDONIA: Pieria: Mt Olympos, Agios Giannis and Levadi; Dion, 1988, B. Ing [Minter, 1988]

THESSALY: Larissa: Vale of Tempi, 1998, B. Ing

- Trikala: Kastanea, Melotopos, 1988, B. Ing [Minter, 1988]

On bark of living *Arbutus unedo*, *Eucalyptus camuldulensis*, *E. globulus*, *Fraxinus excelsior*, *Phoenix dactylifera*, *Pinus brutia*, *P. nigra*, *Platanus orientalis*, *Pyrus amygdaliformis*, *Quercus x hispanica* and *Q. pubescens*. Widespread in temperate Europe, less often recorded in the Mediterranean region.

Phylum MYXOMYCOTA

Class CERATIOMYXOMYCETES

Order CERATIOMYXALES

Family Ceratiomyxaceae

Ceratiomyxa fruticulosa (Müll.) T. Macbr. var. **fruticulosa**

EPIROS: Ioannina: Katara Pass, near Metsovon; Kazarma, Zagori, 1955, C.J. Alexopoulos.

MACEDONIA: Drama: Frakto PF, 1985, S. Diamandis

- Pieria: Mt Olympos, 1985, S. Diamandis

PELOPONNESE : Arkadia: Chrysovitsi forest, 1955, C.J. Alexopoulos

- Lakonia: Langada gorge, Trypi, 1904, R. Maire

- Messinia: Mt Taygetos, 1996, G. Zervakis

THESSALY: Larissa: Tempi, 1954, C.J. Alexopoulos.

On rotten wood of *Abies borisii-regis*, *A. cephalonica*, *Picea abies*, *Pinus nigra* and *Platanus orientalis*.

var. **arbuscula** (Berk.& Br.) Nann.-Bremek.

EPIROS: Ioannina: Liosani valley, Metsovon; Katara Pass, near Metsovon, 1955, C.J. Alexopoulos

MACEDONIA: Halkidiki: Arnaia, 1954, C.J. Alexopoulos

- Kavala: Thassos Is, 1954, C.J. Alexopoulos

- Pieria: Katerini, Agios Demetrios, 1954, C.J. Alexopoulos

- Serres: Lailia forest, 1955, C.J. Alexopoulos

PELOPONNESE: Achaia: Mikha forest, 1954, C.J. Alexopoulos

STEREA ELLADA: Attiki: Mt Parnitha, 1954, C.J. Alexopoulos

THESSALY: Trikala: Pertouli forest, 1954, C.J. Alexopoulos

On rotten wood of conifers, including *Pinus brutia*.

Ceratiomyxa porioides (Alb.& Schwein.) J. Schröt.

EPIROS: Ioannina: Kazarma, Zagori, 1955, C.J. Alexopoulos

THESSALY: Trikala: Pertouli forest, 1955, C.J. Alexopoulos

On rotten wood, including *Abies cephalonica*.

More often regarded as a variety of the previous species, this very distinctive taxon is widespread and not uncommon in the Mediterranean region and has also been recorded from scattered localities in central and Eastern Europe.

Class MYXOMYCETES
Sub-class Lucisporomycetidae
Order CRIBRARIALES
Family Cribrariaceae

Cribraria argillacea (Pers.) Pers.

EPIROS: Ioannina: Zagori, 1955, C.J. Alexopoulos

MACEDONIA: Kavala: Thassos Is, 1954, C.J. Alexopoulos

STEREA ELLADA: Attiki: Mt Parnitha, 1954, C.J. Alexopoulos

On rotten conifer wood, including *Abies cephalonica* and *Pinus brutia*.

Cosmopolitan and especially characteristic of coniferous forest.

Cribraria aurantiaca Schrad.

MACEDONIA: Kavala: Thassos, 1954, C.J. Alexopoulos

PELOPONNESE: Achaia: Mikha forest, 1954, C.J. Alexopoulos

- Eleia: Strophilia forest, Metochi, 1954, C.J. Alexopoulos

- Messinia: Mt Taygetos, near Boliana, 1904. R. Maire

STEREA ELLADA: Attiki: Mt Parnitha, 1954, C.J. Alexopoulos

THESSALY: Trikala: Pertouli forest, 1954, C.J. Alexopoulos

On decaying wood of conifers, including *Abies cephalonica* and *Pinus pinea*.

Cosmopolitan and characteristic of coniferous forest.

Cribraria persoonii Nann.-Bremek.

MACEDONIA: Pieria: Mt Olympos, Agios Giannis, 1988, B. Ing [Minter, 1988]

STEREA ELLADA: Evritania: Mt Parnassos, 1954, C.J. Alexopoulos [Nannenga-Bremekamp, 1971]

On rotten branch of conifers, including *Pinus nigra*.

Widespread and frequent throughout the coniferous forests of Europe.

Cribraria violacea Rex

DODECANESE: Rhodos Is: Profitis Elias, 1955, C.J. Alexopoulos; Mt Filerimos, 1990, P. Livermore.

PELOPONNESE: Eleia: Pyrgos-Katakolon road, 1955, C.J. Alexopoulos

THESSALY: Magnissia: Portaria, Mt Pelion; Milies, Mt Pelion, 1998, B. Ing

On bark of living *Arbutus unedo*, *Cupressus sempervirens*, *Olea europaea* and *Platanus orientalis*. Cosmopolitan, but not common, although widespread in the Mediterranean region.

Lindbladia tubulina Fr.

MACEDONIA: Halkidiki: Agia Paraskevi, Kassandra, 1988, E. Gracia

- Pieria: Mt Olympos, Prionia, 1988, E. Gracia [Minter, 1988]

On rotten wood and sawdust of *Pinus nigra* and *P. halepensis*.

Widespread in coniferous forest and not uncommon in western Mediterranean countries but previously unreported from the east.

Order LICEALES
Family Liceaceae

Licea biforis Morgan

CRETE: Rethymno: Rethymno, 1995, G. Lewis-Ing.

MACEDONIA: Emathia: Vergina, Palatitsa, 1998, B. Ing

STEREA ELLADA: Attiki: Athens, Zappeion Park, 1955, C.J. Alexopoulos THESSALY - Larissa: Mt Ossa, Panagios Mon, 1988, B. Ing [Minter, 1988]

On bark of living *Olea europaea*, *Quercus pubescens*, *Schinus molle* and *Tilia tomentosa*. Common and widespread in the warmer parts of the world, increasing in northern Europe.

Licea castanea G. Lister

THESSALY: Magnissia: Portaria, Mt Pelion, 1954, C.J. Alexopoulos

On bark of living *Olea europaea*. Alexopoulos (1959) was uncertain about the identity of this collection and its larger, dark spores do suggest another species. Since its collection many more species of *Licea* have been described but without examining the material in Iowa it cannot be more reliably placed.

Licea denudescens T.E. Brooks & H.W. Keller

DODECANESE: Rhodes Is: Rhodes Town, 1990, P. Livermore

MACEDONIA: Pieria: Mt Olympos, Agios Giannis and Skoteina, 1988, B. Ing [Minter, 1988]

THESSALY: Larissa: Mt Ossa, Panagios Mon, 1988, B. Ing [Minter, 1988]

- Trikala: Meteora, 1988, B. Ing [Minter, 1988]

On bark of living *Abies borisii-regis*, *Castanea sativa*, *Ficus elastica*, *Quercus pubescens* and *Tilia tomentosa*. Widespread but not common throughout Europe.

Licea inconspicua T.E. Brooks & H.W. Keller

MACEDONIA: Pieria: Mt Olympos, Levadi and Prionia, 1988, B. Ing [Minter, 1988]

On bark of living *Juniperus oxycedrus* and *Pinus nigra*. Widespread but uncommon, not previously recorded in the Mediterranean region.

Licea iridis Ing & McHugh

DODECANESE: Rhodes Is: Monte Smith, 1990, P. Livermore

THESSALY: Trikala: Pertouli, 1998, B. Ing

On bark of living *Pistacia palaestina* and *Salix alba*. A rare species with a scattered distribution across Europe; recorded from NE Spain.

Licea kleistobolus G.W. Martin

CRETE: Rethymno: Plakias, 1995, G. Lewis-Ing.

IONIAN IS: Kefallonia: Argostoli, 1998, G. Lewis-Ing

- Levkada: Nidri, 1999, G. Lewis-Ing

MACEDONIA: Emathia: Vergina, Palatitsa, 1998, B. Ing

- Kavala: Thassos Is, 1996, H. J. Morris.

- Thessaloniki: Thessaloniki, 1988, B. Ing [Minter, 1988]; Latathon Mon,

Thessaloniki, 1998, B. Ing

STEREA ELLADA: Attiki: Athens, Zappeion Park, 1955, C.J. Alexopoulos

THESSALY - Magnissia: Portaria, Mt Pelion, 1954, C.J. Alexopoulos; Mouressi,

Mt Pelion, 1998, B. Ing

- Trikala: Pertouli, 1998, B. Ing

On bark of living *Castanea sativa*, *Eucalyptus globulus*, *Pinus brutia*, *P. halepensis*, *Platanus orientalis*, *Quercus pubescens*, *Salix alba* and *Schinus molle*. Cosmopolitan and common, especially on smooth-barked trees and vines.

Licea marginata Nann.-Bremek.

CRETE: Iraklio: Phaestos, 1995, G. Lewis-Ing

MACEDONIA: Halkidiki: Vassilika, 1988, B. Ing [Minter, 1988]

- Pella: Pella, 1988, B. Ing [Minter, 1988]

- Pieria: Mt Olympos, Agios Giannis, 1988, B. Ing [Minter, 1988]

On bark of living *Abies borisii-regis*, *Olea europaea* and *Salix*. A minute species which is widespread but uncommon in Europe; recorded from Spain and France but new to the eastern Mediterranean.

Licea parasitica (Zukal) G.W. Martin

CRETE: Iraklio: Iraklio, 1995, G. Lewis-Ing

DODECANESE: Rhodes Is: Mt Filerimos; Rhodes Town; Sianna, 1990, P. Livermore

IONIAN IS: Kefallonia: Fiskardo, 1998, G. Lewis-Ing.

MACEDONIA: Pieria: Mt Olympos, Agios Giannis, Levadi and Skoteina; Dion, 1988, B. Ing [Minter, 1988]

– Thessaloniki: Kouri forest, 1954, C.J. Alexopoulos

PELOPONNESE: Eleia: Olympia, 1955, C.J. Alexopoulos

THESSALY: Larissa: Mt Ossa, Panagios Mon, 1988, B. Ing [Minter, 1988]

- Magnissia: Portaria, Mt Pelion, 1954, C.J. Alexopoulos; Milies, Mt Pelion, 1998, B. Ing

- Trikala: Pertouli, 1998, B. Ing

On bark of living *Abies borisii-regis*, *Castanea sativa*, *Cupressus sempervirens*, *Eucalyptis* sp., *Fraxinus excelsior*, *Melia azedarach*, *Olea europaea*, *Pinus nigra*, *Quercus x hispanica*, *Q. pubescens*, *Salix alba*, *Schinus molle* and *Tilia tomentosa*. Cosmopolitan; the commonest corticolous myxomycete and very common in the Mediterranean region

Licea pedicellata (H.C. Gilb.) H.C. Gilb.

DODECANESE: Rhodes Is: Profitis Elias, 1990, P. Livermore

MACEDONIA: Pieria: Dion, 1988, B. Ing [Minter, 1988]

THESSALY: Magnissia: Mouressi, Mt Pelion, 1998, B. Ing

On bark of living *Fraxinus excelsior*, *Pinus brutia* and *Platanus orientalis*. An uncommon species but widely distributed in Europe, including the Mediterranean region.

Licea pygmaea (Meylan) Ing

DODECANESE: Rhodes Is: Arangelos; Profitis Elias; Rhodes Town; Rodini Park, 1990, P. Livermore

On bark of living *Eucalyptus globulus*, *Melia azedarach*, *Pinus brutia* and *Quercus x hispanica*. Uncommon, but perhaps not always distinguished from similar species; recorded from France and Turkey.

Licea scyphoides T.E Brooks & H.W. Keller

DODECANESE: Rhodes Is: Kamiros; Rhodes Town, 1990, P. Livermore

MACEDONIA: Emathia: Vergina, Palatitsa, 1998, B. Ing

- Pella: Pella, 1988, B. Ing [Minter, 1988]

PELOPONNESE: Eleia: Olympia, 1955, C.J. Alexopoulos

STEREA ELLADA: Attiki: Athens, Zappeion Park, 1955, C.J. Alexopoulos

On bark of living *Acer negundo*, *Cupressus sempervirens*, *Ficus elastica*, *Olea europaea*, *Pyrus communis*, *Salix* sp. and *Schinus molle*. The Alexopoulos specimens were recorded as “the stipitate form” of *L. parasitica* but the photograph (Alexopoulos, 1959, fig.5) clearly shows this species. Scattered and uncommon in Europe.

Licea testudinacea Nann.- Bremek.

THESSALY: Trikala: Pertouli, 1998, B. Ing

On bark of living *Salix alba*. Uncommon but widespread in Europe.

Order RETICULARIALES

Family Reticulariaceae

Lycogala epidendrum sensu lato

EPIROS: Ioannina: Liosani valley, Metsovo; Zagori, Ioannina, 1955, C.J. Alexopoulos; Pindos NPR [Avtzis & Diamandis, 1988]

MACEDONIA: Drama: Frakto PF, 1986, S. Diamandis

- Halkidiki: Thessaloniki-Arnaia road, 1954, C.J. Alexopoulos
- Kavala: Thassos Is, 1954, C.J. Alexopoulos
- Serres: Lailia forest, 1954, C.J. Alexopoulos
- Thessaloniki: Kouri forest, 1954, C.J. Alexopoulos

PELOPONNESE: Arkadia: Chrysovitsi forest; Alonistaina-Vitina road, 1955, C.J. Alexopoulos; Mt Mainalon [Minter & Diamandis, 1983]

- Eleia: Strophilia forest, Metochi, 1954, C.J. Alexopoulos
- Messinia: Mt Taygetos, 1996, G. Zervakis

STEREA ELLADA: Attiki: Mt Parnitha, 1954, C.J. Alexopoulos

- Fthiotida: Gardiki, 1996, D. Dimou & G. Zervakis

THESSALY :Larissa: Mt Ossa, 1906, R. Maire

- Trikala: Pertouli forest, 1954, C.J. Alexopoulos

On rotten wood of all kinds, including *Abies borisii-regis*, *A. cephalonica*, *Fagus sylvatica*, *Picea abies*, *Pinus nigra*, *P. pinea* and *Quercus frainetto*.

A complex of species of which *L. epidendrum* (L.) Fr. and *L. terrestre* Fr. are both among the commonest myxomycetes in the world. They have only recently been segregated and previously collected Greek material has not been examined. The above records must be credited to the aggregate. However, Alexopoulos (1959) clearly refers to a range of variation and this suggests that both species were involved in his collections.

***Lycogala terrestre* Fr.**

MACEDONIA: Halkidiki: Mt Athos [depicted in Diamandis & Perlerou, 1997, [as *epidendrum*]

- Pieria: Mt Olympos, Prionia, 1988, B. Ing [Minter, 1988, as *epidendrum*]

THESSALY: Trikala: Pertouli, 1998, B. Ing

On rotten wood, including that of *Abies borisii-regis*. These recent records justify the comments above.

***Reticularia intermedia* Nann.-Bremek.**

Enteridium intermedium (Nann.-Bremek.) M.L. Farr

MACEDONIA: Thessaloniki: Latathon monastery, Thessaloniki, 1954, C.J. Alexopoulos

On decaying telephone pole. This specimen was reported as *E. rozeanum* by Alexopoulos (1959) but its determination was corrected in Martin and Alexopoulos (1969). Uncommon and scattered across Europe, perhaps not always separated from the next species.

***Reticularia lycoperdon* Bull.**

Enteridium lycoperdon (Bull.) M.L. Farr

EPIROS - Ioannina: Katara Pass near Metsovo, 1955, C.J. Alexopoulos

MACEDONIA: Drama: Frakto PF, 1986, S. Diamandis

- Pieria: Mt Olympos, 1985 S. Diamandis

PELOPONNESE: Arkadia: Chrysovitsi forest, 1955, C.J. Alexopoulos

- Messinia: Chrysohori, 1996, G. Zervakis

THESSALY :Trikala: Pertouli forest, 1955, C.J. Alexopoulos; 1998, B. Ing; Gefyra Murgana, Kalambaka, 1988, B. Ing [Minter, 1988]

On rotten wood of all kinds, including that of *Abies cephalonica*, *Fagus orientalis*, *Picea abies*, *Pinus nigra*, *P. sylvestris*, *Platanus orientalis* and *Populus* spp.

Cosmopolitan and very common, especially in spring.

Tubifera ferruginosa (Batsch) J.F. Gmel.

EPIROS: Ioannina: Zagori; Peklari, 1955, C.J. Alexopoulos

MACEDONIA: Serres: Lailia forest, 1954, C.J. Alexopoulos

Also recorded, without locality, by Diamandis (1985).

On rotten conifer wood, including *Abies cephalonica* and *Pinus sylvestris*.

Very common in coniferous forests in the temperate zone.

Order TRICHIALES

Family Dianemataceae

Calomyxa metallica (Berk.) Niewland

Margarita metallica (Berk.) List.

DODECANESE: Rhodos Is: Lindos, 1990, P. Livermore

STEREA ELLADA: Attiki: Athens, Zappeion Park, 1955, C.J. Alexopoulos

THESSALY: Larissa: Vale of Tempi, 1988, B. Ing [Minter, 1988]

On bark of living *Platanus orientalis*, *Schinus molle* and *Tamarix parviflora*.

Widespread and frequent on bark, occasional on fallen woody debris.

Dianema aggregatum Kowalski

THESSALY: Trikala: Pertouli, 1998, B. Ing

On fern litter at edge of melting snow at 1500m. This rare species has previously been found in three sites in the high mountains of California so this collection is the first for Europe. The species is characterised by large aggregations of iridescent, pinkish-brown sporangia with a pinkish-brown spore mass, abundant capillitium with nodules and finely reticulate spores. The Pertouli material fits the description exactly.

Dianema harveyi Rex

THESSALY: Trikala: Meteora, 1988, E. Gracia [Minter, 1988]

On fallen branch of *Quercus pubescens*. A generally rare species; previously reported from France and Spain in the Mediterranean region.

Prototrichia metallica (Berk.) Massee

MACEDONIA: Pieria: Mt Olympos, Levadi, 1988, B. Ing [Minter, 1988]

THESSALY: Trikala: Kastanea village, 1988, E. Gracia [Minter, 1988]

On fallen twigs of *Abies borisii-regis* and *Pinus nigra*. An uncommon species which in most of the temperate zone is associated with montane forests up to the snowline.

Family Dictydiaethaliaceae

Dictydiaethalium plumbeum (Schum.) Rostaf.

THESSALY: Trikala: Gefyra Murgana, Kalambaka, 1988, B. Ing [Minter, 1988]

On rotten wood of *Platanus orientalis*.

Widespread and common in the Mediterranean region, as in the rest of Europe.

Family Trichiaceae

Arcyria cinerea (Bull.) Pers.

DODECANESE: Rhodos Is: Mt Filerimos; Sianna, 1990, P. Livermore

MACEDONIA: Emathia: Vergina, Palatitsa, 1998, B. Ing

- Halkidiki: Paliouri, 1988, E. Gracia [Minter, 1988]

- Pieria: Mt Olympos, Agios Giannis, Prionia and Skoteina, 1988, B. Ing [Minter, 1988]

STEREA ELLADA: Attiki: Mt Parnitha, 1954, C.J. Alexopoulos

THESSALY: Larissa: Vale of Tempi, 1988, B. Ing [Minter, 1988]; 1998, B. Ing

- Trikala: Meteora; Pertouli, Levadia, 1988, B. Ing [Minter, 1988]

On rotten wood of *Abies borisii-regis* and bark of living *A. borisii-regis*, *A. cephalonica*, *Castanea sativa*, *Cedrus atlantica*, *Eucalyptus globulus*, *Pinus leucodermis*, *Platanus orientalis* and *Quercus pubescens*. Cosmopolitan and very common on wood and bark.

Arcyria denudata (L.) Wettst.

MACEDONIA: Pieria: Dion, 1988, E. Gracia [Minter, 1988]

THESSALY: Trikala: Pertouli, 1955, C.J. Alexopoulos; Gefyra Murgana, Kalambaka, 1988, E. Gracia [Minter, 1988]

On rotten wood of *Platanus orientalis* and *Populus alba*. Cosmopolitan and usually very common.

Arcyria ferruginea Sauter

PELOPONNESE: Arkadia: Chrysovitsi forest, 1955, C.J. Alexopoulos

- Eleia: Olympia-Vitina road, 1955, C.J. Alexopoulos

STEREA ELLADA: Attiki: Mt Parnitha, 1954, C.J. Alexopoulos

On rotten wood, including *Platanus orientalis*. A widespread species, perhaps commoner during the cooler part of the year.

Arcyria incarnata (Pers.) Pers.

MACEDONIA: Drama: Frakto PF [Avtzis & Diamandis, 1988]

- Halkidiki: Thessaloniki-Arnaia road, 1954, C.J. Alexopoulos

- Kavala: Thassos Is, 1954, C.J. Alexopoulos

- Thessaloniki: Kouri forest, 1954, C.J. Alexopoulos

THESSALY: Trikala: Pertouli, 1954, C.J. Alexopoulos; Kastanea village, 1988, B. Ing [Minter, 1988]

Also recorded, without locality, by Diamandis (1992).

On rotten wood, including *Abies borisii-regis*, *Fagus orientalis* and *F. sylvatica*. Cosmopolitan and very common, especially in less humid woodlands.

Arcyria obvelata (Oeder) Onsberg

Arcyria nutans (Bull.) Grev.

MACEDONIA: Drama: Frakto PF [Avtzis & Diamandis, 1988]

- Pieria: Dion, 1988, E. Gracia [Minter, 1988]

On rotten wood of *Fagus sylvatica* and *Populus alba*. Probably cosmopolitan; common throughout the region.

Arcyria oerstedtii Rostaf.

MACEDONIA: Drama: Frakto PF, 1986, S. Diamandis

PELOPONNESE: Arkadia: Chrysovitsi forest, 1955, C.J. Alexopoulos

On rotten wood. Widespread but not common, usually on *Fagus* or conifers.

Arcyria pomiformis (Leers) Rostaf.

MACEDONIA: Pieria: Mt Olympos, Skoteina, 1988, E. Gracia [Minter, 1988]

THESSALY: Larissa: Mt Ossa, Agiopriono, 1988, E. Gracia [Minter, 1988]

On fallen branches of *Castanea sativa* and *Fagus sylvatica*. A common and widespread species which is also characteristic of bark of living *Quercus*, although not so far recorded from Greece on this substrate.

Hemitrichia abietina (Wig.) G. List.

MACEDONIA: Pieria: Mt Olympos, Prionia, 1988, E. Gracia [Minter, 1988]

- Serres: Lailia forest, 1954, C.J. Alexopoulos

STEREA ELLADA: Attiki: Mt Parnitha, 1954, C.J. Alexopoulos

THESSALY: Larissa: Mt Ossa, Agiopriono, 1988, E. Gracia [Minter, 1988]

- Trikala: Meteora, 1988, E. Gracia [Minter, 1988]

On fallen branches of *Fagus sylvatica*, *Pinus nigra* and *Platanus orientalis*. Widespread but never common; more frequently found on the bark of living trees than on fallen branches, although many corticolous species survive for some time on attached bark after the branch has fallen from the tree.

Hemitrichia clavata agg.

MACEDONIA: Serres: Lailia forest, 1955, C.J. Alexopoulos

On rotten wood of *Fagus sylvatica*. Alexopoulos (1959) commented on the intermediate characters of this material and was unable to decide whether the lower latitude *H. calyculata* (Speg.) M.L. Farr or the higher latitude *H. clavata* (Pers.) Rostaf. *sensu stricto* was present.

Metatrichia vesparium (Batsch) Nann.-Bremek.

Hemitrichia vesparium (Batsch) T. Macbr.

EPIROS: Arta: Ano Kalendini, 1906, R. Maire

MACEDONIA: Serres: Lailia forest, 1955, C.J. Alexopoulos

THESSALY: Larissa: Mt Ossa, 1906, R. Maire; Vale of Tempi, 1954, C.J. Alexopoulos

On rotten trunks of *Fagus sylvatica* and *Platanus orientalis*. Nearly cosmopolitan, but thinning out at higher latitudes.

Perichaena chrysosperma (Currey) List.

DODECANESE: Rhodos Is: Mt Filerimos; Rhodes Town, 1990, P. Livermore

MACEDONIA: Pieria: Mt Olympos, Prionia, 1988, B. Ing [Minter, 1988]

THESSALY: Larissa: Vale of Tempi, 1988, B. Ing [Minter, 1988]; 1998, B. Ing

- Magnissia: Portaria, Mt Pelion, 1954, C.J. Alexopoulos; Portaria; Milies;

Mouressi, Mt Pelion, 1998, B. Ing

- Trikala: Pertouli, 1998, B. Ing

On bark of living *Castanea sativa*, *Ficus elastica*, *Olea europaea*, *Pinus leucodermis*, *Platanus orientalis*, *Quercus macrolepis* and *Salix alba*. Common and widespread on bark, less common on fallen wood.

Perichaena corticalis (Batsch) Rostaf.

MACEDONIA: Emathia: Lutro, 1988, E. Gracia [Minter, 1988]

On litter of *Phragmites australis*. This common and widespread species is usually found on the bark of fallen trunks. This collection is typical for the species and does not approach *P. liceoides* (Rostaf.) Gilert, which is known from leaf litter and herbivore dung.

Perichaena depressa Libert

MACEDONIA: Emathia: Lutro, 1988, E. Gracia [Minter, 1988]

- Pieria: Mt Olympos, Skoteina, 1988, E. Gracia [Minter, 1988]

PELOPONNESE: Eleia: Olympia-Vitina road, 1955, C.J. Alexopoulos

On fallen wood of *Platanus orientalis* and on decaying *Agave americana* leaves and *Phragmites* litter. Common and widespread, especially in the warmer parts of the world. In the western Mediterranean it is characteristic of decaying cacti and other succulents.

Perichaena vermicularis (Schw.) Rostaf.

THESSALY: Larissa: Vale of Tempi, 1998, B. Ing

- Magnissia: Milies, Mt Pelion, 1998, B. Ing

On bark of living *Olea europaea* and *Platanus orientalis*. Widespread and frequent in litter, especially during the winter months; much less common on bark.

Trichia affinis de Bary

MACEDONIA: Pieria: Mt Olympos, Agios Giannis, Prionia, Skoteina, 1988, B. Ing [Minter, 1988]

THESSALY: Larissa: Mt Ossa, Panagios Mon, 1988, B. Ing

- Trikala: Elati, Agia Kyriaki; Kastanea, Melotopos; Pertouli, Levadia, 1988, E. Gracia [Minter, 1988]

On mosses on very rotten wood of *Abies borisii-regis*, *Castanea sativa* and *Quercus pubescens*. A common and widespread species; in recent years it has been confused or combined with *T. favoginea* and *T. persimilis*, but differs in colour, microscopic characters and ecology.

Trichia alpina (R.E. Fr.) Meylan

THESSALY: Magnissia: Mt Pelion, 1998, B. Ing

- Trikala: Pertouli, 1998, B. Ing

On sticks of *Populus tremula* and dead stems of *Cirsium* sp. at the snowline. One of the commoner nivicole myxomycetes, widespread in European mountains.

Trichia botrytis (J.F. Gmel.) Pers.

MACEDONIA: Pieria: Mt Olympos, Prionia and Skoteina, 1988, E. Gracia [Minter, 1988]

THESSALY: Larissa: Mt Ossa, Agiopriono, 1988, E. Gracia [Minter, 1988]

- Trikala: Elati, Agia Kyriaki; Kastanea village and Melotopos; Pertouli, Levadia, 1988, B. Ing [Minter, 1988]

On fallen wood of *Abies borisii-regis*, *Castanea sativa*, *Fagus sylvatica*, *Pinus nigra* and *Quercus pubescens*. A common and widespread species, typical of both coniferous and *Quercus* forests.

Trichia contorta (Ditm.) Rostaf. var. **contorta**

MACEDONIA: Emathia: Lutro, 1988, E. Gracia [Minter, 1988]

- Pieria: Mt Olympos, Prionia and Skoteina, 1988, E.R. Gracia [Minter, 1988]

STEREA ELLADA: Attiki: Mt Parnitha, 1954, C.J. Alexopoulos

THESSALY: Larissa: Mt Ossa, Panagios Mon, 1988, E. Gracia [Minter, 1988]

- Trikala: Elati, Agia Kyriaki; Meteora, 1988, E. Gracia [Minter, 1988]

On fallen wood of *Abies borisii-regis*, *A. cephalonica*, *Castanea sativa*, *Quercus pubescens* and *Tilia tomentosa*.

var. **inconspicua** (Rostaf.) List.

MACEDONIA: Emathia: Lutro, 1988, B. Ing [Minter, 1988]

- Thessaloniki: Thessaloniki cemetery, 1988, E. Gracia [Minter, 1988]

On herbaceous litter, including *Phragmites australis*. A common, widespread and very variable species.

Trichia decipiens (Pers.) T. Macbr.

Trichia pusilla (Hedw.) G.W. Martin

STEREA ELLADA: Attiki: Mt Parnitha, 1954, C.J. Alexopoulos

– Evritania: Kilamati, Agios Nikolaos, 1955, C.J. Alexopoulos

MACEDONIA: Halkidiki: Holomondas, 1988, E. Gracia [Minter, 1988]

- Kavala: Thassos Is, 1954, C.J. Alexopoulos

- Pieria: Mt Olympos, Agios Giannis, Prionia and Skoteina, 1988, B. Ing [Minter, 1988]

PELOPONNESE :Arkadia: Chrysovitsi forest, 1955, C.J. Alexopoulos

THESSALY : Larissa: Mt Ossa, Agiopriono and Panagios Mon; Vale of Tempi, 1988, E. Gracia [Minter, 1988]

- Trikala: Pertouli, 1955, C.J. Alexopoulos; 1988, B. Ing; Gefyra Murgana, Kalambaka, 1988, E. Gracia; Elati, Agia Kyriaki; Kastanea village and Melotopos, 1988, B. Ing [Minter, 1988]

On rotten wood of *Abies borisii-regis*, *Castanea sativa*, *Fagus sylvatica*, *Pinus halepensis*, *P. nigra*, *Platanus orientalis*, *Quercus pubescens* and *Tilia tomentosa*.

Cosmopolitan and generally very common.

Trichia meylanii Ing

Trichia decipiens var *olivacea* Meylan

MACEDONIA: Pieria: Mt Olympos, Skoteina, 1988, E. Gracia [Minter, 1988]

THESSALY: Trikala: Elati, Agia Kyriaki; Kastanea village, 1988, E. Gracia [Minter, 1988]

On rotten wood of *Abies borisii-regis* and *Castanea sativa*. Common and widespread, although not always listed separately from the previous species.

Trichia favoginea (Batsch) Pers.

EPIROS: Ioannina: Katara Pass, Metsovon; Zagori, 1955, C.J. Alexopoulos

MACEDONIA: Drama: Frakto PF [Avtzis & Diamandis, 1988]

- Serres: Lailia forest, 1954, C.J. Alexopoulos

PELOPONNESE: Achaia: Mikha forest, 1954, C.J. Alexopoulos

- Arkadia: Chrysovitsi forest, 1955, C.J. Alexopoulos

STEREA ELLADA: Evritania: Karpenisi; Kilamati: Agios Nikolaos, 1955, C.J. Alexopoulos

THESSALY: Larissa: Mt Ossa, 1906, R. Maire

- Trikala: Pertouli, 1955, C.J. Alexopoulos

Also recorded, without locality, by Diamandis (1985).

On rotten wood of *Fagus sylvatica* and *Pinus sylvestris*. The two recent collections and some of the earlier records may be better referred to *T. affinis*. Because of different species interpretations in Europe and North America this complex of cosmopolitan and common species presents problems for distributional and ecological studies. True *favoginea* is morphologically distinct from the far commoner *affinis*; both are morphologically and ecologically different from *persimilis* – in Europe. American workers regard them as a single variable species. It may be that different rates of speciation are operating in the two continents.

Trichia flavicoma (List.) Ing

MACEDONIA: Pieria: Mt Olympos, Skoteina, 1988, E. Gracia [Minter, 1988]

In leaf litter of *Castanea sativa*. Widespread in Europe but nowhere common.

Trichia lutescens Lister

PELOPONNESE:: Eleia: Olympia-Vitina road, 1955, C.J. Alexopoulos

On decaying *Agave americana*. Widespread on bark and succulents but never common.

Trichia persimilis Karst.

PELOPONNESE: Eleia: Strophilia forest, Metochi, 1955, C.J. Alexopoulos

STEREA ELLADA: Attiki: Mt Parnitha, 1954, C.J. Alexopoulos

– Evritania: Kilamati, Agios Nikolaos, 1955, C.J. Alexopoulos

THESSALY: Trikala: Pertouli, Levadia, 1988, E. Gracia [Minter, 1988]

On rotten wood, including *Abies borisii-regis* and *Castanea sativa*. Nearly cosmopolitan, but see remarks under *T. favoginea*.

Trichia scabra Rostaf.

THESSALY: Trikala: Pertouli, Levadia, 1986, S. Diamandis; 1988, E. Gracia [Minter, 1988]

On rotten wood of *Abies borisii-regis*. Widespread in mature woodlands of the temperate zone.

Trichia varia (Pers.) Pers.

EPIROS: Ioannina: Liosani valley, Metsovon, 1955, C.J. Alexopoulos

MACEDONIA: Kavala: Thassos Is, 1954, C.J. Alexopoulos

- Pieria: Dion, 1988, E. Gracia [Minter, 1988]

- Serres: Lailia forest, 1955, C.J. Alexopoulos

STEREA ELLADA: Attiki: Mt Parnitha, 1954, C.J. Alexopoulos

THESSALY: Larissa: Mt Ossa, Panagios Mon, 1988, B. Ing [Minter, 1988]

- Trikala: Gefyra Murgana, Kalambaka; Pertouli, Levadia, 1988, E. Gracia [Minter, 1988]

On rotten wood of *Abies borisii-regis*, *Platanus orientalis*, *Populus alba* and *Tilia tomentosa*. The commonest species of the genus and nearly cosmopolitan, only absent from lowland tropical forests.

Sub-class Colmellomycetidae

Order ECHINOSTELIALES

Family Clastodermataceae

Clastoderma debaryanum A. Blytt

STEREA ELLADA: Attiki: Mt Parnitha, 1954, C.J. Alexopoulos

On moss on bark, developed in moist chamber. Widespread but never common in Europe.

Clastoderma pachypus Nann.-Bremek.

MACEDONIA: Pieria: Mt Olympos, Agios Giannis, 1988, B. Ing [Minter, 1988]

On bark of living *Abies borisii-regis*. Widespread but never common, on trees in humid temperate and subtropical forests, known elsewhere in the Mediterranean region from Spain, France and Turkey (Lado, 1994.)

Family Echinosteliaceae

Echinostelium apitectum K.D. Whitney

MACEDONIA: Thessaloniki: Thessaloniki city and Latothon Mon, 1998, B. Ing

On bark of living *Melia azedarach* and *Pinus halepensis*. Widespread in Europe, including the Mediterranean region but nowhere common.

Echinostelium brooksii K.D. Whitney

CRETE: Iraklio: Iraklio, 1995, G. Lewis-Ing

DODECANESE: Rhodos Is: Mt Filerimos, 1990, P. Livermore

IONIAN IS: Kefallonia: Argostoli, 1998, G. Lewis-Ing

- Levkada: Nidri, 1999, G. Lewis-Ing

MACEDONIA: Emathia: Vergina, Palatitsa, 1998, B. Ing
- Pieria: Mt Olympos, Agios Giannis, 1988, B. Ing [Minter, 1988]

THESSALY: Larissa: Vale of Tempi, 1998, B. Ing

On bark of living *Abies borisii-regis*, *Cedrus atlantica*, *Eucalyptus* sp., *Olea europaea*, *Pinus halepensis*, *Platanus orientalis* and *Quercus pubescens*. Widespread in Europe, although less common in the Mediterranean region; recorded from Spain, Cyprus and Turkey.

***Echinostelium coelocephalum* T.E. Brooks & H.W. Keller**

MACEDONIA: Emathia: Vergina, Palatitsa, 1998, B. Ing

On bark of living *Pyrus communis*. An uncommon species with few European records, although known from France, Spain, Turkey and Ireland.

***Echinostelium colliculosum* K.D. Whitney & H.W. Keller**

CRETE: Iraklio: Phaestos, 1995, G. Lewis-Ing

DODECANESE: Astypalea Is, 1955, C.J. Alexopoulos

- Rhodos Is: Arhangelos; Mt Filerimos; Kamiros; Profitis Elias; Rhodes Town; Rodini Park; Sianna, 1990, P. Livermore

MACEDONIA: Emathia: Vergina, Palatitsa, 1998, B. Ing

- Kavala: Thassos Is, 1954, C.J. Alexopoulos

- Pella: Pella, 1988, B. Ing [Minter, 1988]

- Pieria: Mt Olympos, Agios Giannis, Prionia and Skoteina; Dion, 1988, B. Ing [Minter, 1988]

- Thessaloniki: Thessaloniki city, 1998, B. Ing

PELOPONNESE: Eleia: Olympia, 1955, C.J. Alexopoulos

STEREA ELLADA: Attiki: Aegina Is, Mesagros; Marathon, 1955; Porto Germeno,

1956, C.J. Alexopoulos

THESSALY: Larissa: Mt Ossa, Panagios Mon, 1988, B. Ing [Minter, 1988]; Vale of Tempi, 1998, B. Ing

- Magnissia: Milies, Mt Pelion, 1998, B. Ing

- Trikala: Kastanea, Meltopos, 1988, B. Ing [Minter, 1988]

On bark of living *Abies borisii-regis*, *Castanea sativa*, *Cedrus atlantica*, *Fraxinus excelsior*, *Genista hispanica*, *Melia azedarach*, *Olea europaea*, *Platanus orientalis*, *Pyrus amygdaliformis*, *Robinia pseudacacia*, *Quercus x hispanica*, *Q. pubescens* and *Salix*. The specimens collected by C.J. Alexopoulos (1959) were originally assigned to *E. elachiston* but the revision by Whitney (1980) indicates that they belong here. The species is widespread in Europe, especially in Mediterranean countries, including Cyprus, Montenegro and Turkey.

***Echinostelium corynophorum* K.D. Whitney**

CRETE: Iraklio: Iraklio; Phaestos, 1995, G. Lewis-Ing

DODECANESE: Rhodos Is: Apolakkia; Mt Filerimos; Kamiros; Monte Smith; Rhodes Town, 1990, P. Livermore

- Symi Is: Chora; Symi, 1990, P. Livermore

IONIAN IS: Levkada: Nidri, 1999, G. Lewis-Ing

MACEDONIA – Kavala: Thassos Is, 1996, B. Ing

- Thessaloniki: Latathon Mon, Thessaloniki, 1998, B. Ing

THESSALY: Magnissia: Portaria, Mt Pelion, 1998, B. Ing

On bark of living *Bougainvillea spectabilis*, *Cercis siliquastrum*, *Cupressus sempervirens*, *Juniperus excelsa*, *Olea europaea*, *Pinus halepensis*, *Platanus orientalis*, *Quercus macrolepis*, *Schinus molle* and *Tamarix parviflora*. Characteristic of Mediterranean vegetation but scattered across the rest of Europe; recorded from Cyprus, France, Spain, Tunisia and Turkey.

Echinostelium cribrarioides Alexop.

MACEDONIA: Pieria: Mt Olympos, Prionia, 1988, B. Ing [Minter, 1988]

STEREA ELLADA: Attiki: Mt Penteli, Daou Penteli, 1960, C.J. Alexopoulos [TYPE]

On bark of living *Pinus nigra* and *Populus*. Described from Greece and reported, often as a mistake for *Clastoderma pachypus*, from several continents. Recent revision suggests that it is rare but genuine material is known from Spain, France and Turkey.

Echinostelium elachiston Alexop.

MACEDONIA: Halkidiki: Vassilika, 1988, B. Ing [Minter, 1988]

- Pella: Pella, 1988, B. Ing [Minter, 1988]

THESSALY: Larissa: Tempi-Stomion road, 1954, C.J. Alexopoulos [TYPE]

On bark of living *Platanus orientalis* and *Salix* sp. Described from Greece but confused for many years with *E. colliculosum*. Rather rare, in the Mediterranean region known from France, Spain and Tunisia.

Echinostelium fragile Nann.-Bremek.

DODECANESE: Rhodos Is: Profitis Elias, 1990, P. Livermore

On bark of living *Pyrus amygdaliformis*. Widespread in Europe but rare in the Mediterranean region; recorded from France, Spain and Montenegro.

Echinostelium minutum de Bary

DODECANESE: Rhodos Is: Petaloudes, 1955, C.J. Alexopoulos; Arhangelos; Mt Filerimos; Lindos;

Monte Smith; Rhodes Town, 1990, P. Livermore

- Symi Is: Chora, 1990, P. Livermore

MACEDONIA: Emathia: Vergina, Palatitsa, 1998, B. Ing

- Kavala: Thassos Is, 1954, C.J. Alexopoulos

- Pieria: Mt Olympos, Agios Giannis, Prionia and Skoteina, 1988, B. Ing [Minter, 1988]

PELOPONNESE: Achaia: Mikha forest, 1954, C.J. Alexopoulos

STEREA ELLADA: Attiki: Mt Parnitha; Athens, Zappeion Park, 1954; Aegina Is, 1955, C.J. Alexopoulos

THESSALY: Larissa: Mt Ossa, Panagios Mon, 1988, B. Ing [Minter, 1988]; Vale of Tempi, 1998, B. Ing

- Magnissia: Portaria, Mt Pelion, 1998, B. Ing

On bark of living, *Abies borisii-regis*, *A. cephalonica*, *Castanea sativa*, *Cedrus atlantica*, *Ceratonia siliqua*, *Eucalyptus globulus*, *Juniperus oxycedrus*, *Liquidambar orientalis*, *Melia azedarach*, *Nicotiana glauca*, *Olea europaea*, *Pinus nigra*, *Platanus orientalis*, *Pyrus communis*, *Quercus x hispanica*, *Schinus molle*, *Tamarix parviflora* and *Tilia tomentosa*.

Cosmopolitan and very common in the Mediterranean region.

Order STEMONITIDALES

Family Amaurochaetaceae

Collaria elegans (Racib.) Dhillon & Nann.-Brem.

Comatricha elegans (Racib.) List.

MACEDONIA: Halkidiki: Vassilika, 1988, B. Ing [Minter, 1988]

STEREA ELLADA: Attiki: Mt Parnitha, 1954, C.J. Alexopoulos

THESSALY: Larissa: Mt Ossa, Agriopriono, 1988, E. Gracia [Minter, 1988]

On rotten wood of *Pinus brutia* and *P. nigra*. Widespread and frequent, especially on fallen, small conifer branches.

Comatricha alta Preuss

Comatricha nigra var. *alta* (Preuss) List.

STEREA ELLADA: Attiki: Mt Parnitha, 1954, C.J. Alexopoulos

On rotten wood. Widespread but nowhere common.

Comatricha laxa Rostaf.

CRETE: Iraklio: Phaistos, 1995, G. Lewis-Ing

DODECANESE: Rhodes Is: Mt Filerimos; Genadi; Lindos; Rhodes Town, 1990, P. Livermore

IONIAN IS: Kefallonia: Argostoli and Fiskardo, 1998, G. Lewis-Ing

MACEDONIA: Pieria: Mt Olympus, Agios Giannis, 1988, B. Ing [Minter, 1988]

On fallen branch of *Quercus pubescens* and bark of living *Ceratonia siliqua*, *Eucalyptus globulus*, *Melia azedarach*, *Olea europaea*, *Quercus macrolepis* and *Tamarix parviflora*. Common and widespread, usually on fallen wood but occasionally on bark in moist chamber culture.

Comatricha longipila Nann.-Bremek.

THESSALY: Trikala: Meteora, 1988, B. Ing

On bark of living *Quercus pubescens*. A rare species with few Mediterranean records.

Comatricha nigra (Pers.) J. Schröt.

STEREA ELLADA: Attiki: Mt Parnitha, 1954, C.J. Alexopoulos

DODECANESE: Rhodes Is: Kamiros; Profitis Ilias, 1955, C.J. Alexopoulos; Lindos, 1990, P. Livermore

MACEDONIA: Halkidiki: Kryopigi; Paliouri, 1988, E. Gracia [Minter, 1988]

- Pieria: Dion; Mt Olympus, Agios Giannis, Levadi, Prionia and Skoteina, 1988, B. Ing [Minter, 1988]

PELOPONNESE: Arkadia: Chrysovitsi, 1955, C.J. Alexopoulos

THESSALY: Larissa: Mt Ossa, Agiopriono and Panagios Mon, 1988, B. Ing [Minter, 1988]

- Magnissia: Skiathos Is, 1955, C.J. Alexopoulos

- Trikala: Elati, Agia Kyriaki; Kastanea, Melotopos; Meteora, 1988, B. Ing [Minter, 1988]

On rotten wood of *Abies borisii-regis*, *Castanea sativa*, *Fagus sylvatica*, *Pinus nigra*, *Platanus orientalis*, *Populus alba*, *Quercus ilex*, *Q. pubescens* and *Tilia tomentosa*, and on bark of living *Cupressus sempervirens*, *Pinus halepensis* and *Tamarix parviflora*. Cosmopolitan; possibly the commonest myxomycete species everywhere.

Comatricha pulchella (C. Bab.) Rostaf.

MACEDONIA: Halkidiki: Pantokrateros Mon, Athos, 1988, J.T. Palmer

On *Quercus ilex* litter. Widespread on long-lasting leaf litter, especially in humid woodlands.

Enerthenema papillatum (Pers.) Rostaf.

STEREA ELLADA: Attiki: Marathon, 1955, C.J. Alexopoulos

DODECANESE: Rhodes Is: Mt Filerimos, 1990, P. Livermore

MACEDONIA: Kavala: Thassos Is, 1954, C.J. Alexopoulos; 1996, H.J. Morris

- Thessaloniki: Thessaloniki, 1988, B. Ing [Minter, 1988]

PELOPONNESE: Eleia: Strophilia forest, Metochi, 1954, C.J. Alexopoulos

THESSALY: Trikala: Gefyra Murgana, Kalambaka; Meteora, 1988, B. Ing [Minter, 1988]

On fallen branches of *Pinus halepensis*, *Platanus orientalis* and *Quercus pubescens* and on bark of living *Cupressus sempervirens*, *Pinus brutia*, *P. halepensis* and *Quercus macrolepis*. The Marathon collection was recorded as an undescribed species of *Comatricha* by Alexopoulos (1959) but is a familiar form of the present species, lacking the apical disc to the columella. Such variants are well illustrated by Mitchell (1979). The species is cosmopolitan and very common on acidic tree bark, whether on a living tree trunk or a recently fallen branch.

Paradiacheopsis acanthodes (Alexop.) Nann.-Bremek.

Comatricha acanthodes Alexop.

MACEDONIA: Kavala: Thassos Is, 1954, C.J. Alexopoulos [TYPE]

On bark of living *Olea europaea*. Described from Thassos (Alexopoulos, 1958) this rare species is found in a few sites in Western Europe but nowhere else in the Mediterranean region.

Paradiacheopsis cribrata Nann.-Bremek.

DODECANESE: Rhodos Is: Lindos, 1990, P. Livermore

MACEDONIA: Kavala: Thassos Is, 1996, H.J. Morris

THESSALY: Trikala: Pertouli, 1998, B. Ing

On bark of living *Pinus brutia*, *Salix alba* and *Tamarix parviflora*. Scattered across Europe but nowhere common.

Paradiacheopsis fimbriata (G.List. & Cran) Hertel

Comatricha fimbriata G.List. & Cran

DODECANESE: Rhodos Is: Rhodes Town, 1990, P. Livermore

MACEDONIA: Kavala: Thassos Is, 1996, H.J. Morris

THESSALY: Larissa: Vale of Tempi, 1998, B. Ing

- Magnissia: Mouressi, Mt Pelion, 1998, B. Ing

- Trikala: Pertouli, 1998, B. Ing

On bark of living *Ficus elastica*, *Pinus brutia*, *Platanus orientalis* and *Salix alba*. Very common in the temperate zone on acid-barked trees, such as conifers, and on other trees affected by acid deposition, thus tolerant of urban situations. The collections doubtfully referred to this species by Alexopoulos (1959) are here placed under *P. solitaria*.

Paradiacheopsis microcarpa (Meylan) D.W. Mitchell ex Ing

MACEDONIA: Pieria: Mt Olympos, Prionia, 1988, B. Ing [Minter, 1988]

On bark of living *Pinus leucodermis*. A rare species, previously known from the British Isles and Switzerland, but new to the Mediterranean.

Paradiacheopsis solitaria (Nann.-Bremek.) Nann.-Bremek.

CRETE: Iraklio: Iraklio, 1995, G. Lewis-Ing

DODECANESE: Rhodos Is: Lindos; Monte Smith, 1990, P. Livermore

IONIAN IS: Kefallonia: Argostoli, 1998, G. Lewis-Ing

MACEDONIA: Kavala: Thassos Is, 1996, H.J. Morris

- Pieria: Mt Olympos, Agios Giannis, 1988, B. Ing [Minter, 1988]

STEREA ELLADA: Attiki: Mt Parnitha, 1954, C.J. Alexopoulos

THESSALY: Larissa: Mt Ossa, Panagios Mon, 1988, B. Ing [Minter, 1988]; Vale of Tempi, 1998, B. Ing

- Magnissia: Portaria, Mt Pelion, 1954, C.J. Alexopoulos; Mouressi, Mt Pelion, 1998, B. Ing

- Trikala: Pertouli, 1998, B. Ing

On bark of living *Abies borisii-regis*, *A. cephalonica*, *Castanea sativa*, *Eucalyptus* sp., *Olea europaea*, *Pinus brutia*, *Platanus orientalis*, *Salix alba*, *Tamarix parviflora* and *Tilia tomentosa*. The material from Mt Parnitha and Mt Pelion was tentatively referred to *Comatricha fimbriata* by Alexopoulos (1959) but is better placed here. A common and widespread species, especially on older trees.

Stemonitopsis amoena (Nann.-Bremek.) Nann.-Bremek.

DODECANESE: Rhodos Is: Lindos, 1990, P. Livermore

PELOPONNESE: Achaia: Mikha forest, 1954, C.J. Alexopoulos

On bark of living *Abies cephalonica* and *Tamarix parviflora*. The Mikha forest collection was reported as an undescribed species by Alexopoulos (1959). His

description and illustration fit the current species which is widely known in the Mediterranean region, including Cyprus.

Stemonitopsis hyperopta (Meylan) Nann.-Bremek.

Stemonitis hyperopta Meylan

EPIROS: Ioannina: Zagori, 1955, C.J. Alexopoulos

On rotten wood of *Abies cephalonica*. Widespread and highly characteristic of coniferous forests in the temperate zone.

Stemonitopsis subcaespitosa (Peck) Nann.-Bremek.

MACEDONIA: Pieria: Mt Olympos, Skoteina, 1988, B. Ing [Minter, 1988]

On bark of living *Castanea sativa*. Scattered across Europe, but always rare; not exclusively a bark species.

Stemonitopsis typhina (Wiggers) Nann.-Bremek.

Comatricha typhoides (Bull.) Rostaf.

EPIROS: Ioannina: Zagori, 1955, C.J. Alexopoulos

MACEDONIA: Serres: Lailia forest, 1955, C.J. Alexopoulos

THESSALY: Larissa: Mt Ossa, Panagios Mon, 1988, E. Gracia [Minter, 1988]

- Trikala: Meteora, 1988, E. Gracia [Minter, 1988]

On rotten wood of *Abies cephalonica*, *Fagus sylvatica*, *Quercus pubescens* and *Tilia tomentosa*. Cosmopolitan and very common in damp forests.

Family Stemonitidaceae

Macbrideola cornea (G.List.& Cran) Alexop.

Comatricha cornea G. List. & Cran

DODECANESE: Rhodes Is: Lindos; Profitis Elias, 1990, P. Livermore

MACEDONIA: Emathia: Vergina, Palatitsa, 1998, B. Ing

- Pieria: Dion; Mt Olympos, Agios Giannis and Skoteina, 1988, B. Ing [Minter, 1988]

PELOPONNESE: Achaia: Mikha forest, 1954, C.J. Alexopoulos

STEREA ELLADA - Attiki: Mt Parnitha, 1954, C.J. Alexopoulos

THESSALY: Larissa: Vale of Tempi, 1988, B. Ing [Minter, 1988]; 1998, B. Ing

- Magnissia: Milies; Mouressi; Portaria, Mt Pelion, 1998, B. Ing

- Trikala: Kastanea, Melotopos, 1988, B. Ing [Minter, 1988]; Pertouli, 1998, B. Ing

On mosses on bark of living *Abies cephalonica*, *Acacia dealbata*, *Castanea sativa*, *Fraxinus excelsior*, *Olea europaea*, *Pinus brutia*, *Platanus orientalis*, *Quercus pubescens* and *Salix alba*. Common in the temperate zone, especially in damp woodlands.

Macbrideola oblonga Pando & Lado

MACEDONIA: Emathia: Vergina, Palatitsa, 1998, B. Ing

On bark of living *Quercus pubescens*. Previously known from several sites in Spain where it characteristic of *Q. rotundifolia*. The bark of the tree at the ancient palace at Vergina was reminiscent of evergreen oak in texture and water content.

Macbrideola synsporos (Alexop.) Alexop. [*C. synsporos* Alexop.]

DODECANESE: Rhodes Is: Petaloudes, 1955, C.J. Alexopoulos [TYPE]; Profitis Elias, 1990, P. Livermore

MACEDONIA: Emathia: Vergina, Palatitsa, 1998, B. Ing

On bark of living *Ceratonia siliqua*, *Pinus brutia* and *Quercus pubescens*. Described from Rhodes (Alexopoulos, 1958) and easily characterised by clustered spores this rare species has been found in few places outside the Mediterranean region.

Stemonitis axifera (Bull.) T. Macbr.

EPIROS: Ioannina: Zagori, 1955, C.J. Alexopoulos; Pindos NPR [Avtzis & Diamandis, 1988]

MACEDONIA: Drama: Frakto PF [Avtzis & Diamandis, 1988]

- Pieria: Mt Olympus [Avtzis & Diamandis, 1988]

Also recorded, without locality, by Diamandis (1985, 1992)

On rotten wood, including *Fagus orientalis*, *F. sylvatica*, *Picea abies*, *Pinus nigra* and *P. sylvestris*. Cosmopolitan and generally common.

Stemonitis fusca Roth

EPIROS: Ioannina: Zagori, 1955, C.J. Alexopoulos

MACEDONIA: Pieria: Mt Olympus, Prionia and Skoteina, 1988, B. Ing [Minter, 1988]

- Serres: Lailia forest, 1954, C.J. Alexopoulos

STEREA ELLADA: Etoloakarnania: Vonitsa, 1906, R. Maire

THESSALY: Trikala: Elati, Agia Kyriaki; Kastanea village, 1988, B. Ing [Minter, 1988]

On rotten wood, including *Abies borisii-regis*, *Castanea sativa*, *Fagus sylvatica* and *Platanus orientalis*. Cosmopolitan and the commonest species of the genus.

Stemonitis herbatica Peck

MACEDONIA: Emathia: Lutro, 1988, B. Ing [Minter, 1988]

- Pieria: Mt Olympus, Skoteina, 1988, B. Ing [Minter, 1988]

On litter of *Phragmites australis* and on bark of living *Castanea sativa*. A widespread litter species but very rare in bark cultures and only after some months in the moist chamber.

Stemonitis mussooriensis Martin, Thind & Sohi

DODECANESE: Rhodos Is: Lindos, 1990, P. Livermore

On bark of living *Acacia dealbata*. A rare species previously known from India, Brazil and the Netherlands; usually lignicolous and hitherto not before recorded from bark of living trees.

Stemonitis smithii T. Macbr.

MACEDONIA: Kavala: Thassos Is, 1954, C.J. Alexopoulos

On damp, rotten wood. Widespread but rare; not always adequately distinguished from *S. axifera*.

Stemonitis splendens Rostaf.

PELOPONNESE: Eleia: Strophilia forest, Metochi, 1955, C.J. Alexopoulos

On rotten wood. Almost cosmopolitan but decreases rapidly at higher latitudes and altitudes.

Order PHYSARALES

Family Didymiaceae

Diderma alpinum Meylan

CRETE: Hania: Lefkos Oros, 1994, M. Schnittler

THESSALY: Trikala: Pertouli, 1998, B. Ing

On living *Berberis cretica* and plant litter at the edge of melting snow, at 15-1600m. A common and widespread species in Spring in the mountains of Europe and in most parts of the world where a long-lasting snow-pack develops.

Diderma asteroides (A. & G. List.) G. List.

MACEDONIA: Halkidiki: Philotheou Mon, Athos, 1988, A. Henrici [Minter, 1988]

On leaf litter of *Tilia tomentosa*. A rare species everywhere, perhaps less so in sclerophyll forest; known previously from the western Mediterranean.

Diderma chondrioderma (de Bary & Rostaf.) G. Lister

DODECANESE: Rhodes Is: Monte Smith; Rhodes Town, 1990, P. Livermore

IONIAN IS: Kefallonia: Skala, 1998, G. Lewis-Ing

THESSALY: Trikala: Kastanea, Meltopos, 1988, B. Ing [Minter, 1988]

On bark of living *Eucalyptus globulus*, *Pinus halepensis* and *Quercus pubescens*, on dead standing flower stem of *Agave americana*. A widespread corticolous species, nowhere common and apparently favouring more humid sites; scattered around the Mediterranean region.

Diderma hemisphaericum (Bull.) Hornem.

THESSALY: Trikala: Meteora, 1988, B. Ing; Pili, 1988, E. Gracia [Minter, 1988]

In damp leaf litter of *Platanus orientalis* and *Quercus pubescens*. A widespread species of damp forest zones; common in the Mediterranean region.

Diderma meyeriae Singer, Moreno, Illana & Sanchez

Diderma niveum sensu auct.

MACEDONIA: Pieria: Mt Olympos, Prionia, 1998, B. Ing

STEREA ELLADA: Attiki: Mt Parnitha, 1955, C.J. Alexopoulos

THESSALY: Magnissia: Mt Pelion, 1998, B. Ing

- Trikala: Pertouli, 1988, B. Ing

On vegetation at the edge of melting snow in Spring, the recent collections were all made at between 1400 and 1500 m. The Mt Parnitha material had no spores but did show the characteristic changes to the peridial lime associated with rewetting and drying, which is a familiar feature of calcareous snowline species (Alexopoulos, 1959) This is the commonest nivicolous myxomycete and is found in spring wherever a three-month long snow-pack develops.

Diderma montanum (Meylan) Meylan

MACEDONIA: Serres: Lailia forest, 1954, C.J. Alexopoulos

THESSALY: Trikala: Elati, Agia Kyriaki, 1988, B. Ing [Minter, 1988]

On mossy stumps and very rotten wood. Widespread but never common this species is usually found on leaf litter but does occur on mossy wood in alpine forests in Central Europe so these gatherings are not exceptional.

Diderma spumarioides (Fr.) Fr.

MACEDONIA: Emathia: Lutro, 1988, E. Gracia [Minter, 1988]

- Halkidiki: Agia Paraskevi, Kassandra, 1988, E. Gracia; Petralona Cave, 1988, B. Ing [Minter, 1988]

- Pieria: Mt Olympos, Levadi, 1988, E. Gracia [Minter, 1988]

PELOPONNESE: Messinia: Mt Taygetos, near Boliana, 1904, R. Maire

THESSALY: Trikala: Kastanea; Meteora, 1988, B. Ing [Minter, 1988]

In leaf litter of *Phragmites australis*, *Pinus nigra*, *Rubus*, *Quercus coccifera*, *Q. ilex* and *Q. pubescens*. A characteristic Mediterranean species of sclerophyllous forest litter on limestone; also found on bryophytes in Atlantic sand dune systems.

Diderma umbilicatum Pers.

MACEDONIA: Pieria: Mt Olympos, Agios Giannis, 1988, E. Gracia [Minter, 1988]

THESSALY: Trikala: Pertouli, Levadia, 1988, E. Gracia [Minter, 1988]

On fallen twigs of *Abies borisii-regis* and *Quercus pubescens*. Widespread but uncommon; scattered in the Mediterranean region.

Didymium bahiense Gottsberger

DODECANESE: Rhodes Is: Rhodes Town, 1990, P. Livermore

On bark of living *Ricinus communis*. This is the commonest segregate from the *D. iridis* complex. It is nearly cosmopolitan in soil and leaf litter and on herbivore dung but occasionally develops in bark cultures after a few months.

Didymium difforme (Pers.) S.F. Gray

DODECANESE: Rhodes Is: Lindos; Rhodes Town, 1990, P. Livermore

MACEDONIA: Halkidiki: Agia Paraskevi; Paliouri, 1988, E. Gracia [Minter, 1988]

- Pieria: Mt Olympos, Prionia, 1998, B. Ing

- Thessaloniki: Thessaloniki cemetery, 1988, E. Gracia [Minter, 1988]

THESSALY: Larissa: Mt Ossa, Agiopriono, 1988, B. Ing [Minter, 1988]

- Trikala: Gefyra Murgana, Kalambaka, 1988, B. Ing

On leaf litter, including that of *Cistus salviaefolius*, *Populus tremula* and *Quercus coccifera*, and bark of living *Ficus carica* and *Ricinus communis*. One of the commonest litter myxomycetes this is also found frequently on cultures of tree bark, especially of young twigs.

Didymium dubium Rostaf.

MACEDONIA: Pieria: Mt Olympos, Prionia, 1998, B. Ing

THESSALY: Trikala: Pertouli, 1998, B. Ing

On plant litter at the edge of melting snow in Spring, especially old stems of *Cirsium*. Common and widespread in all montane areas with a long snow-lie.

Didymium megalosporum Berk. & M.A. Curt.

MACEDONIA: Thessaloniki: Thessaloniki cemetery, 1988, E. Gracia [Minter, 1988]

On leaf litter. Another segregate from *D. iridis*. This taxon is widespread but uncommon; it favours moister climates and is rare in the Mediterranean.

Didymium melanospermum (Pers.) T. Macbr.

MACEDONIA: Halkidiki: Poligyros, 1988, D.W. Minter [Minter, 1988]

On fallen cones of *Pinus nigra*.

A cosmopolitan species; in Europe it is characteristic of litter in pine forests.

Didymium minus (List.) Morgan

MACEDONIA: Pieria: Mt Olympos, Levadi, 1988, E. Gracia [Minter, 1988]

- Thessaloniki: Thessaloniki cemetery, 1988, E. Gracia [Minter, 1988]

THESSALY: Trikala: Kastanea village, 1988, E. Gracia [Minter, 1988]

On leaf litter of *Abies borisii-regis* and *Quercus pubescens*. A widespread species of leaf litter in forest and tall-herb communities; widespread in the Mediterranean region.

Didymium nigripes (Link) Fr.

STEREA ELLADA: Attiki: Mt Parnitha, 1954, C.J. Alexopoulos

THESSALY: Larissa: Mt Ossa, Agiopriono, 1988, B. Ing [Minter, 1988]

On leaf litter, including *Abies cephalonica*.

Common and cosmopolitan, especially on litter in sclerophyll forests.

Didymium niviculum Meylan

MACEDONIA: Pieria: Mt Olympos, Prionia, 1998, B. Ing

THESSALY: Trikala: Pertouli, 1998, B. Ing

On plant litter at the edge of melting snow. Another common and widespread nivicole species, differing from *dubium* in its larger spores and having the peridial lime often arranged in plates or flakes.

Didymium squamulosum (Alb. & Schwein.) Fr.

MACEDONIA: Emathia: Lutro, 1988, E. Gracia [Minter, 1988]

- Halkidiki: Agia Paraskevi, Kassandra; Kriopygi, Kassandra, 1988, E. Gracia [Minter, 1988]

- Pieria: Dion; Mt Olympos, Levadi, 1988, E. Gracia [Minter, 1988]

THESSALY: Magnissia: Mandraki, Skiathos Is, 1954, C.J. Alexopoulos

- Trikala: Meteora; Pili, 1988, E. Gracia [Minter, 1988]

On leaf litter of *Phragmites australis*, *Platanus orientalis*, *Populus alba*, *Quercus coccifera*, *Q. ilex* and *Q. pubescens*, and on bark of living *Olea europaea* in moist chamber. Cosmopolitan, one of the commonest myxomycetes everywhere.

Didymium sturgisii Hagelst.

IONIAN IS: Kefallonia: 1998, date, G. Lewis-Ing.

On bark of *Pinus halepensis*. A globally rare species with few European records.

Didymium vaccinum (Dur. & Mont.) Buchet

THESSALY: Magnissia: Ano Volos, 1998, B. Ing

On decaying cladodes of *Opuntia ficus-indica*. This is a widespread species on succulents and grass litter in many parts of the world. It is common in the Mediterranean region on introduced cacti and was originally described from Morocco.

Lepidoderma carestianum (Rab.) Rostaf.

THESSALY: Magnissia: Mt Pelion, 1998, B. Ing

- Trikala: Pertouli, 1998, B. Ing

On vegetation at edge of melting snow, at 1500m. Common and widespread in the mountains of Europe.

Lepidoderma crustaceum Kowalski

CRETE: Hania: Lefkos Oros, 1994, M. Schnittler [Schnittler & Novozhilov, 1999]

On living *Berberis cretica* at edge of melting snow at 1550 m. Uncommon and recorded only from the Swiss Jura, Italian Alps, Washington and California.

Leptoderma iridescens G. Lister

MACEDONIA: Pieria: Mt Olympos, Levadi, 1988, E. Gracia [Minter, 1988]

On fallen branch of *Pyrus amygdaliformis*. Uncommon and thinly scattered across Europe.

Mucilago crustacea Wiggers

Mucilago spongiosa (Leyss.) Morgan

IONIAN IS: Lefkada Is (Maire & Politis, 1940)

MACEDONIA: Emathia: Lutro, 1988, K. Southern [Minter, 1988]

On litter of *Phragmites australis*. Probably cosmopolitan, especially in limestone areas.

Family Lamprodermataceae

Lamproderma arcyrioides (Sommerf.) Rost.

STEREA ELLADA: Attiki: Mt Parnitha, 1954, C.J. Alexopoulos

On leaf litter. A widespread species at the snowline. It is not clear from the original report whether this was at the snowline. If not the species was likely to have been *Lamproderma nigrescens*, which was confused with *arcyrioides* in the past.

Lamproderma columbinum (Pers.) Rostaf.

THESSALY: Trikala: Pertouli, Levadia, 1988, B. Ing [Minter, 1988]

On very rotten, mossy, stump. Widespread in the moister parts of forests, including ravines.

Lamproderma scintillans (Berk. & Broome) Morg.

MACEDONIA: Halkidiki: Kryopigi, Kassandra, 1988, E. Gracia [Minter, 1988]

On leaf litter of *Quercus ilex*. Nearly cosmopolitan on long-lasting leaf litter, especially of sclerophylls.

Lamproderma zonatum (Ces. & de Not.) Meylan

Lamproderma carestiae auct.

THESSALY: Trikala: Pertouli, 1998, B. Ing

On living shoots of *Juniperus communis* emerging from melting snow. One of the commoner snowline species of this large and difficult genus; widespread in montane Europe.

Family Physaraceae

Badhamia affinis Rostaf.

MACEDONIA: Emathia: Vergina, Palatitsa, 1998, B. Ing

- Halkidiki: Paliouri, Kassandra, 1988, E. Gracia [Minter, 1988]

STEREA ELLADA: Attiki: Mt Parnitha, 1954, C.J. Alexopoulos

THESSALY: Larissa: Larissa-Tempi road, 1954, C.J. Alexopoulos

- Trikala: Kastanea, Melotopos; Meteora, 1988, B. Ing [Minter, 1988]; Pertouli, 1998, B. Ing

On bark of living *Olea europaea*, *Platanus orientalis*, *Pyrus communis*, *Quercus pubescens* and *Salix alba*. The Paliouri collection is on fallen leaves of *Cistus salviaefolius* which is an unusual habitat for a normally exclusively corticolous species. Widespread in temperate regions; scattered in the Mediterranean region and more often in the mountains.

Badhamia capsulifera (Bull.) Berk.

MACEDONIA: Pieria: Mt Olympos, Skoteina, 1988, B. Ing [Minter, 1988]

On bark of living *Castanea sativa*. Widespread in temperate regions, hitherto confined to the western part of the Mediterranean region.

Badhamia foliicola Lister

MACEDONIA: Halkidiki: Paliouri, Kassandra, 1988, E. Gracia [Minter, 1988]

- Thessaloniki: Thessaloniki, 1988, B. Ing [Minter, 1988]

On fallen leaves of *Cistus salviaefolius* and on bark of living *Pinus halepensis*.

A frequent species of grassland communities but also quite common on bark of living trees in temperate regions; widespread in the Mediterranean.

Badhamia macrocarpa (Ces.) Rostaf.

MACEDONIA: Halkidiki: Eleohorion; Jerakini, 1988, E. Gracia [Minter, 1988]

On fallen bark of *Olea europaea*.

Frequent, but nowhere common; widespread in the Mediterranean.

Badhamia panicea (Fr.) Rostaf.

MACEDONIA: Pieria: Dion, 1988, E. Gracia [Minter, 1988]

THESSALY: Larissa: Vale of Tempi, 1988, E. Gracia [Minter, 1988]

On rotten wood of *Platanus orientalis* and *Populus alba*. Very common and probably cosmopolitan.

Craterium leucocephalum (Pers.) Ditm.

MACEDONIA: Emathia: Lutro, 1988, Z. Gonou [Minter, 1988]

- Halkidiki: Palaeokastron; Kriopygi, Kassandra, 1988, E. Gracia [Minter, 1988]

STEREA ELLADA: Attiki: Mt Parnitha, 1954, C.J. Alexopoulos

THESSALY: Trikala: Kastanea, Melotopos; Meteora, E. Gracia [Minter, 1988]

On leaf litter of *Phragmites australis*, *Populus*, *Quercus ilex* and *Q. pubescens*.

Common and widespread in drier litter than the next species.

Craterium minutum (Leers) Fr.

MACEDONIA: Emathia: Lutro, 1988, E. Gracia [Minter, 1988]

- Halkidiki: Petralona Cave, 1988, B. Ing [Minter, 1988]

THESSALY: Larissa: Mt Ossa, Panagios Mon, 1988, E. Gracia [Minter, 1988]

- Trikala: Gefyra Murgana, Kalambaka; Meteora, 1988, E. Gracia [Minter, 1988]

On leaf litter of *Phragmites australis*, *Platanus orientalis*, *Quercus coccifera*, *Q. pubescens* and *Tilia tomentosa*. Cosmopolitan and very common.

Fuligo septica (L.) Wiggers

DODECANESE: Rhodes Is: Rhodes-Filerimos road, 1955, C.J. Alexopoulos

EPIROS: Ioannina: Zagori, 1955, C.J. Alexopoulos

MACEDONIA: Drama: Frakto PF [Avtzis & Diamandis, 1988]

- Halkidiki: Vassilika, 1983, S. Diamandis

- Pieria: Dion, 1988, E. Gracia [Minter, 1988]; Mt Olympos NPR [Avtzis & Diamandis, 1988]

PELOPONNESE: Eleia: Strophilia forest, 1955, C.J. Alexopoulos

- Messinia: Mt Taygetos, 1996, G. Zervakis

STEREA ELLADA :Attiki: Mt Parnitha, 1954, C.J. Alexopoulos

- Fthiotida: Gardiki, 1996, D. Dimou & G. Zervakis

THESSALY: Larissa: Krania, 1906, R. Maire

- Trikala: Elati, Agia Kyriaki; Pertouli, Levadi, 1988, B. Ing [Minter, 1988]

On dead wood of *Abies borisii-regis*, *A. cephalonica*, *Cupressus arizonica*, *Picea abies*, *Pinus halepensis*, *P. nigra* and *Populus alba*.

Leocarpus fragilis (Dicks.) Rostaf.

CRETE: Lassithi: Tourloti, 1996, G. Zervakis

EVOIA: Mt Dirfi, 1996, D. Dimou & G. Zervakis

MACEDONIA: Halkidiki: 1985, S. Diamandis; Vassilika, 1988, B. Ing [Minter, 1988]

- Pieria: Mt Olympos, Agios Giannis, 1988, E. Gracia [Minter, 1988]

On forest litter, often developing on living plant stems some centimetres above the ground; associated with *Abies cephalonica*, *Cupressus arizonica*, *Pinus brutia*, *P. halepensis*, *P. nigra*, *Prunus dulcis*, *Quercus pubescens* and *Salix*. Very common in conifer forests in temperate regions, less so in lower latitudes.

Physarum album (Bul.) Chevall.

Physarum nutans Pers.

DODECANESE: Rhodes Is: Profitis Elias, 1955, C.J. Alexopoulos

MACEDONIA: Halkidiki: Agia Paraskevi; Kriopygi, 1988, E. Gracia [Minter, 1988]

- Pieria: Dion, 1988, E. Gracia; Mt Olympos, Agios Giannis, 1988, B. Ing [Minter, 1988]

- Serres: Lailia forest, 1954, C.J. Alexopoulos

STEREA ELLADA: Attiki: Mt Parnitha, 1954, C.J. Alexopoulos

THESSALY: Larissa: Mt Ossa, Panagios Mon, 1988, B. Ing [Minter, 1988]

- Trikala: Kastanea village; Meteora, 1988, B. Ing [Minter, 1988]

On rotten wood of *Abies borisii-regis*, *Populus alba*, *Quercus coccifera*, *Q. ilex*, *Q. pubescens* and *Tilia tomentosa*. Cosmopolitan and very common.

Physarum auriscalpium Cooke

DODECANESE: Rhodes Is: Profitis Elias, 1954, C. J. Alexopoulos, 1990, P. Livermore; Rhodes Town, 1990, P. Livermore

MACEDONIA: Kavala: Thassos Is, 1954, C.J. Alexopoulos

- Pieria: Mt Olympos, Agios Giannis, 1988, B. Ing [Minter, 1988]

- Thessaloniki: Kouri forest, 1954, C.J. Alexopoulos

THESSALY: Trikala: Kastanea, Melotopos, 1988, B. Ing [Minter, 1988]

On bark of living *Cupressus sempervirens*, *Olea europaea* and *Quercus pubescens*.

Widespread and frequent in most of Europe but often considered synonymous with *P. decipiens* so the distribution data are confused.

Physarum bitectum G. Lister

THESSALY: Trikala: Meteora, 1988, E. Gracia [Minter, 1988]

In leaf litter of *Quercus pubescens*. Widespread and frequent in the Mediterranean region.

Physarum brunneolum (Phillips) Massee

THESSALY: Trikala: Meteora, 1988, E. Gracia [Minter, 1988]

In leaf litter of *Quercus pubescens*. Widespread and frequent in the Mediterranean region where it is a characteristic species of sclerophyll forest, but rare or absent in most temperate regions

Physarum cinereum (Batsch) Pers.

MACEDONIA: Halkidiki: Agia Paraskevi, Kassandra, 1988, E. Gracia

On leaf litter of *Cistus salviaefolius*. Cosmopolitan on litter in many types of vegetation.

Physarum compressum Alb.& Schwein.

DODECANESE: Rhodes Is: Monte Smith, 1990, P. Livermore

IONIAN IS: Kerkyra Is: Achillion gardens, 1904, R. Maire

THESSALY: Magnissia: Ano Volos, 1998, B. Ing

- Trikala: Meteora, 1988, E. Gracia; Pertouli, 1998, B. Ing

On dead flowering stem of *Agave americana*, decaying cladodes of *Opuntia ficus-indica*, on leaf litter, including that of palms, and on bark of living *Salix alba*. Cosmopolitan on herbaceous waste of many kinds; not uncommon in moist chamber cultures of bark.

Physarum decipiens M.A. Curtis

Badhamia decipiens (M.A. Curt.) Berk.

CRETE: Iraklio: Iraklio, 1995, G. Lewis-Ing

DODECANESE: Rhodes Is: Arhangelos; Monte Smith, 1990, P. Livermore

MACEDONIA: Pieria: Dion, 1988, B. Ing [Minter, 1988]

PELOPONNESE: Achaia: Mikha forest, 1954, C.J. Alexopoulos

On bark of living *Abies cephalonica*, *Fraxinus excelsior*, *Melia azedarach*, *Olea europaea* and *Pinus halepensis*. Widespread and frequent on bark throughout Europe but sometimes combined with *P. auriscalpium* so its distribution is uncertain.

Physarum leucophaeum Fr.

EPIROS: Ioannina: Liosani valley, Metsovo, 1955, C.J. Alexopoulos

MACEDONIA: Pieria: Dion, 1988, E. Gracia [Minter, 1988]

- Thessaloniki: Kouri forest, 1954, C.J. Alexopoulos

PELOPONNESE: Eleia: Strophilia forest, 1955, C.J. Alexopoulos

On rotten wood, including *Populus alba*. Cosmopolitan; very common in the Mediterranean region.

Physarum leucopus Link

THESSALY: Trikala: Meteora, 1988, E. Gracia [Minter, 1988]

In leaf litter of *Quercus pubescens*. Widespread and frequent in the Mediterranean region.

Physarum oblatum Macbr.

MACEDONIA: Pieria: Mt Olympus, Agios Giannis, 1988, B. Ing [Minter, 1988]

On bark of living *Quercus pubescens*. Scattered across Europe and found in the Mediterranean region in Portugal, Spain and Turkey.

Physarum psittacinum Ditm.

DODECANESE: Rhodes Is: Monte Smith, 1990, P. Livermore

On dead flower stem of *Agave americana* in moist chamber culture. A typically lignicolous myxomycete which is occasionally found on bark but has not previously been recorded on aerial parts of non-woody plants. Widespread in temperate forests, and characteristic of ancient woodland; known from the western Mediterranean region.

Physarum pusillum (Berk. & M.A. Curt.) G.List.

DODECANESE: Rhodes Is: Rhodes Town, 1990, P. Livermore

STEREA ELLADA: Attiki: Aegina Is, Mesagros, 1955, C.J. Alexopoulos

On bark of living *Ceratonia siliqua* and *Hibiscus syriacus*. A cosmopolitan species which is found on grass based litter and the bark of woody plants; common in the Mediterranean region.

Physarum robustum (List.) Nann.-Bremek.

DODECANESE: Rhodes Is: Kamiros, 1990, P. Livermore

MACEDONIA: Halkidiki: Holomondas, 1987, S. Diamandis

On rotten wood and, rarely – as with the Rhodes collection – on the bark of living trees, in this case *Cupressus sempervirens*. Widespread and frequent in Europe; previously recorded from the western Mediterranean.

Physarum vernum Sommerf.

CRETE: Anogia: Mt Ida, 2002, A. Andrews

On vegetation at the edge of melting snow at 1650 m. A fairly common snowline species in Europe.

Physarum viride (Bull.) Pers.

EPIROS: Ioannina: Zagori; Konitsa, Lakos Trohos, 1955, C.J. Alexopoulos

THESSALY: Larissa: Mt Ossa, Panagios Mon, 1988, B. Ing

On fallen branches of *Fagus sylvatica* and *Tilia tomentosa*. Cosmopolitan and widespread.

Herbaria

Material collected by Alexopoulos in 1954 and 1955 is deposited in the mycological herbarium at Iowa State University. Collections made by B. Ing and E. Gracia are in herbaria in Ullapool, Scotland, and Barcelona, respectively. There are a few additional specimens held at the Forest Research Institute, Vasilika and the Kalamata Institute.

Biogeography

The range of ecosystems found in Greece is mirrored by the diversity of myxomycete taxa. Each major vegetation type – lowland evergreen oak/pine forest, phrygana, submontane oak/chestnut forest, montane beech/fir/pine forests and even the alpine zone – has its characteristic suite of species. With a relatively small list of known species it is not possible at this time to make anything other than general observations about the biogeographical affinities of Greek myxomycetes. It is inevitable that a significant proportion are cosmopolitan and generally common, however, there is a well-marked Mediterranean element at lower altitude, especially on dry limestone vegetation, a typical temperate forest selection at middle altitude and a portion of the central European montane element in the alpine zone, particularly at the snowline in Spring. Only in the damper parts of the forests are the representatives of more oceanic zones to be found. Further work will be necessary, both in discovering more taxa and in exploring other regions of the country, before any more concrete associations can be demonstrated.

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