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CONTRIBUTION TO THE STUDY OF FUNGUS-GNATS (DIPTERA: MYCETOPHILOIDEA) OF PORTUGAL. II - SEVEN NEW RECORDS

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SUMMARY: In this study, based on several specimens collected on seven sites of Continental Portugal, data concerning twenty-six species breeding in fungi are given. For ninetheen of these mycetophilid species, new localities and breeding mushroom species are presented. Among the twenty-six, other are added as new records to the mycetophilíd fauna of the country: Sciophila lutea Macquart,1826; Mycetophila blanda Winnertz,1863; Mycetophila signatoides Dziedzicki,1884; Exechia bicincta (Staeger,1840); Exechia dorsalis (Staeger,1840); Rymosia beaucournui Matile,1963 and Rymosia spinipes Winnertz,1863. With these seven new records the number of fungus-gnat species known for Portugal is now 34. The data about all collected material are presented.

RESUMO: Este estudo é baseado em espécimens colhidos em sete locais de Portugal Continental e pertencentes a vinte e seis espécies cujo desenvolvimento se processa em cogumelos. Para dezanove destas espécies de micetofilídeos são referidos cogumelos como novos locais de desenvolvimento. Simultâneamente são acrescentadas novas áreas de distribuição. Dos vinte e seis taxa, sete são novos para a fauna micetofilídica do país: Sciophila lutea Macquart,1826; Mycetophila blanda Winnertz,1863; Mycetophila signatoides Dziedzicki,1884; Exechia bicincta (Staeger,1840); Exechia dorsalis (Staeger,1840); Rymosia beaucournui Matile,1963 and Rymosia spinipes Winnertz,1863. Com este acréscimo, o número de espécies de micetofilídeos detectados até ao presente em Portugal passa a ser de 34. São apresentados os dados relativos a todo o material colhido.

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INTRODUCTION

Mycetophilids, also known as fungus-gnats, are a quite large and diverse super-family of Diptera. Data for Portugal concerning this Diptera super-family is given in: TOLLET (1947) and RIBEIRO (submitted). Many species can show in their larval life a certain degree of association with fungi.

The mycetophilid breeding sites for the species collected for this study are the fruiting bodies of fungi. The seven collecting sites are near Lisbon. Among the mushroom breeding sites of the 26 species, for ninetheen of the mycetophilid species, new mushrooms (see Annex) and distribution areas are presented. Seven mycetophilid species are also presented as new records to Portugal. The mushrooms were collected between November '84 and November '86.

For each mycetophilid species, will be listed: type-locality, collecting site(s), mushroom species (one or several) with the number of sporophores in parentheses, month and year of eclosion (J- January, F- February, Mr- March, Ap- April, My- May, Jn- June, Jl- July, Ag- August, O- October, N- November, D- December; 84- 1984, 85- 1985, 86- 1986, 87- 1987) and number of males and females ecloded. A sign (★) will be given for the species first recorded for Portugal. Their distribution is based on the catalogue of Palaearctic Diptera (1988).

COLLECTING SITES

Prospected sites are located in Arrábida - Lagoa de Albufeira area.

SITES	LATITUDE (N)	LONGITUDE (W)	ALTITUDE (m)
A	38º 28'	9º 2'	150
B	38º 28'	8º 59'	250
C	38º 28'	8º 59'	200
D	38º 30'	9º 9'	60
E	38º 30'	9º 9'	50
F	38º 29'	9º 9'	50
G	38º 29'	9º 9'	50

STUDIED MATERIAL

Bolitophilidae

Bolitophila (Cliopisa) pseudohybrida Landrock,1912
Bolitophila pseudohybrida. Berl. ent. Z.,57: 45
Type-locality: Strzygi (Poland)

MATERIAL EXAMINED: Site A-Clitocybe odora(6),N,D84;J,F85, 72 ♂♂-86 ♀♀; Lepista nuda(5),F,Mr,Ap85, 112 ♂♂-81 ♀♀. Site B-Russula delica(1),D84, 1 ♀. Site D-Lepista nuda(8),J,F,Mr,Ap85;J,F,Mr86, 279 ♂♂-253 ♀♀. Site E-Lepista nuda(5),J,F86, 356 ♂♂-271 ♀♀. Site F-Lepista nuda(88), D84;J,F,Mr,Ap85;J,F,Mr86, 6426 ♂♂-5933 ♀♀; Clitocybe costata(1),F85, 2 ♀♀. Site G-Lepista nuda(29),F,Mr,Ap85;J,F,Mr,Ap86, 1426 ♂♂-1305 ♀♀; Russula atropurpurea(1),Mr85, 1 ♂.

Mycetophilidae

★ Sciophila lutea Macquart,1826
Sciophila lutea. Mem. Soc. Sci. Agric. Lille,**1823-1824**: 100
Type-locality: "Nord de la France" (France)

MATERIAL EXAMINED: Site D-Agaricus silvaticus(1),Ap85, 1 ♂-1 ♀. Site E-Amanita boudieri(3),Ap85, 1 ♂-2 ♀♀; Russula sanguinea(1),J1,Ag85, 14 ♂♂-13 ♀♀. Site F-Lepista nuda(1),F86, 1 ♀; Russula atropurpurea(1),Mr85, 1 ♀. Site G-Lepista nuda(2),F86, 2 ♂♂-2 ♀♀; Tricholoma colossum(1),F86, 1 ♂; Lactarius deliciosus(1),D86, 1 ♂-1 ♀.
DISTRIBUTION: Widespread in Europe, also known for China, Japan and in North Africa from Algeria.

Coelosia silvatica Landrock,1918
Coelosia silvatica. Wien. ent. Ztg,37: 109
Type-locality: "Aus Kameral-Ellgoth, Osterr.-Schlesien" (Czechoslovakia)

MATERIAL EXAMINED: Site A-Cortinarius trivialis(2),J,F86, 2 ♂♂. Site C-Omphalotus olearius(2),J,F86, 2 ♂♂-1 ♀. Site F-Lepista nuda(4),D84; F85;J86, 7 ♂♂-1 ♀.

Docosia gilvipes (Walker,1856)
Leia gilvipes. Ins. Brit. Dipt.,3: 29
Type-locality: "Ireland"(probably N Ireland)(Great Britain)

MATERIAL EXAMINED: Site A-Leccinum griseum(1),O86, 4 ♂♂-4 ♀♀;Cortinarius trivialis(5),J86, 7 ♂♂-5 ♀♀. Site C-Macrolepiota procera(1),J85, 1 ♂; Omphalotus olearius(1),J86, 1 ♀. Site D-Amanita boudieri(10),Mr,Ap, My85, 13 ♂♂-21 ♀♀; Amanita vaginata(1),Ap86, 1 ♀; Laccaria bicolor(1), F85, 1 ♀; Russula cyanoxantha(1),F85, 1 ♂. Site E-Amanita boudieri(24), Mr,Ap,My85;Ap,My86, 47 ♂♂-52 ♀♀; Amanita curtipes(1),Ap,My,J186, 2 ♂♂-5 ♀♀; Amanita gemmata(15),Mr,Ap85;Mr,Ap,My86, 35 ♂♂-33 ♀♀; Tricholoma flavovirens(3),D86;J87, 11 ♂♂-9 ♀♀; Russula atropurpurea(1),Mr85, 6 ♂♂-4 ♀♀. Site F-Amanita boudieri(2),Mr,Ap,My85;My86, 7 ♂♂-15 ♀♀; Amanita curtipes(2),F,Ap85, 4 ♂♂-5 ♀♀; Amanita gemmata(17),Mr,My85;F,Mr,Ap86, 53 ♂♂-18 ♀♀; Amanita verna(2),My,Jn,J186, 31 ♂♂-26 ♀♀; Clitocybe odora (1),F85, 1 ♀; Lepista nuda(1),F,Mr85, 1 ♂-1 ♀; Russula cyanoxantha(1), F85, 1 ♂-1 ♀; Russula queletii(1),F,My, 2 ♂♂-2 ♀♀. Site G-Amanita boudieri(4),Mr,Ap,My85, 12 ♂♂-27 ♀♀; Amanita vaginata(1),J185, 6 ♂♂-5 ♀♀; Amanita gemmata(7),F,Mr,Ap85;Mr,My,Jn86, 17 ♂♂-6 ♀♀; Agaricus silvaticus(1),Mr,Ap85, 16 ♂♂-3 ♀♀; Russula vinosa(1),J87, 1 ♀.

Mycetophila alea Laffoon,1965
Mycetophila alea. Mycetophilidae, in Stone & al.:A catalog of the Diptera of America North of Mexico: 210
Type-locality: not given (Europe)

MATERIAL EXAMINED: Site A-Russula delica(1),N86, 4 ♂♂-5 ♀♀; Russula albonigra(7),N86, 65 ♂♂-62 ♀♀. Site C-Russula nigricans(1),D84, 1 ♂-1 ♀.

★ Mycetophila blanda Winnertz,1863
Mycetophila blanda. Verh. zool.-bot. Ges. Wien,13: 938
Type-locality: not given (?Krefeld)(D)

MATERIAL EXAMINED: Site E-Lactarius deliciosus(1),J85, 13 ♂♂-5 ♀♀. Site F-Lactarius hemicyaneus(1),F85, 3 ♂♂-1 ♀; Lactarius deliciosus(5), J85;F,Mr86, 206 ♂♂-181 ♀♀. Site G-Lactarius deliciosus(3),J85;Ap86,

159 ♂♂-177 ♀♀.

DISTRIBUTION: Widely distributed in Europe and reported for Mongolia.

Mycetophila fungorum (De Geer,1776)

Tipula fungorum. Mem. Ins.,**6**: 361

Type-locality: not given (Scandinavia)

MATERIAL EXAMINED: Site A-Cortinarius trivialis(11),J85;J86, 58 ♂♂-35 ♀♀; Russula delica(4),D84;N86, 8 ♂♂-17 ♀♀; Russula sanguinea(1),Jn85, 5 ♂♂-6 ♀♀. Site B-Mycena pura(1),My85, 2 ♀♀; Russula delica(1),D84,2 ♀♀. Site C-Xerocomus chrysenteron(1),J85, 20 ♂♂-26 ♀♀; Melanoleuca melaleuca (1),F85, 1 ♂-4 ♀♀; Oudemansiella platyphylla(1),J86, 3 ♂♂-3 ♀♀; Macrolepiota procera(1),J85, 3 ♂♂-1 ♀; Omphalotus olearius(13),J86, 47 ♂♂-39 ♀♀; Camarophyllus niveus(1),J85, 2 ♂♂-3 ♀♀; Russula cyanoxantha(1),Jn85, 16 ♂♂-15 ♀♀; Russula torulosa(1),N86, 2 ♂♂-1 ♀. Site D-Amanita boudieri(17),F,Mr,Ap,My85;Mr,Ap,My86, 134 ♂♂-151 ♀♀; Amanita vaginata(1),Mr86, 25 ♂♂-23 ♀♀; Amanita gemmata(1),Mr86, 2 ♂♂; Agaricus silvaticus(4),F,Mr85, 143 ♂♂-125 ♀♀; Lepista nuda(1),F85, 1 ♀. Site E-Xerocomus subtomentosus(4),Jn85, 59 ♂♂-56 ♀♀; Melanoleuca arcuata(1),D86, 6 ♂♂-1 ♀; Amanita boudieri(31),Mr,Ap,My85;Mr,My86, 387 ♂♂-356 ♀♀; Amanita curtipes(4),J,My85;Ap86, 64 ♂♂-75 ♀♀; Amanita gemmata(36),F,Mr,My85;F,Mr,Ap86, 576 ♂♂-539 ♀♀; Amanita rubescens(1), Jn85, 1 ♀; Macrolepiota excoriata(1),F85, 12 ♂♂-12 ♀♀; Russula ionochlora(1),My85, 1 ♂-6 ♀♀; Russula coerulea(1),N86, 1 ♂; Russula olivacea(2),N86, 12 ♂♂-7 ♀♀; Russula atropurpurea(3),F,Mr85, 5 ♂♂-5 ♀♀; Russula sanguinea(17),My,Jn85, 90 ♂♂-116 ♀♀; Russula torulosa(1),F, Mr86, 14 ♂♂-19 ♀♀. Site F-Suillus boudieri(1),F85, 6 ♂♂-6 ♀♀; Suillus granulatus mediterraneensis(10),F85;F,Mr,D86, 42 ♂♂-59 ♀♀; Xerocomus badius(1),Jn85, 5 ♂♂-4 ♀♀; Amanita boudieri(1),Mr86, 29 ♂♂-25 ♀♀; Amanita gemmata(40),F,Mr85;F,Mr86, 385 ♂♂-360 ♀♀; Amanita citrina(1), Mr86, 8 ♂♂-3 ♀♀; Russula atropurpurea(3),F85, 21 ♂♂-7 ♀♀; Russula queletii(1),F85, 2 ♂♂-2 ♀♀; Lactarius chrysorrheus(1),F85, 1 ♀. Site G-Suillus granulatus mediterraneensis(1),D86, 1 ♂-1 ♀; Mycena pura(1), Mr86, 1 ♂; Amanita boudieri(2),My85;My86, 6 ♂♂-4 ♀♀; Amanita gemmata (13),J,F,Mr85;Mr,Ap86, 175 ♂♂-153 ♀♀; Russula vinosa(2),N,D86, 9 ♂♂-

6 ♀♀; Russula turci(2),F86, 6 ♂♂-6 ♀♀; Russula integra(1),N86, 3 ♂♂-2 ♀♀; Russula atropurpurea(3),F,Mr85, 33 ♂♂-61 ♀♀.

Mycetophila luctuosa Meigen,1830
Mycetophila luctuosa. Syst. Beschr.,**6**: 299
Type-locality: not given (Europe)

MATERIAL EXAMINED: Site C-Russula nigricans(1),J85, 2 ♂♂-4 ♀♀. Site E-Amanita gemmata(1),Mr85, 1 ♂-3 ♀♀; Russula sanguinea(5),My,Jn85, 104 ♂♂-63 ♀♀. Site G-Lactarius deliciosus(1),N86, 3 ♂♂-4 ♀♀.

Mycetophila ruficollis Meigen,1818
Mycetophila ruficollis. Syst. Beschr.,**1**: 262
Type-locality: "Osterreich" (Austria)

MATERIAL EXAMINED: Site A-Oudemansiella platyphylla(1),D84, 1 ♂; Entoloma saundersii(4),D84, 7 ♂♂-12 ♀♀; Hebeloma crustuliniforme(1), J85, 1 ♂-5 ♀♀; Cortinarius trivialis(1),D84, 2 ♂♂-1 ♀; Clitocybe gibba (3),D84, 6 ♂♂-6 ♀♀; Lepista nuda(1),F85, 1 ♂; Russula delica(2),N86, 1 ♂-4 ♀♀. Site B-Mycena pura(18),Mr,My85, 135 ♂♂-168 ♀♀. Site C-Melanoleuca melaleuca(3),F,Mr85, 19 ♂♂-15 ♀♀; Camarophyllus niveus(1), J85, 1 ♂; Omphalotus olearius(14),J86, 25 ♂♂-21 ♀♀; Tricholoma atrosquamosum(1),J85, 4 ♂♂-5 ♀♀; Lactarius vietus(1),J85, 2 ♂♂-2 ♀♀. Site D-Russula cyanoxantha(1),F85, 1 ♀. Site E-Oudemansiella platyphylla(1),F85, 2 ♂♂-9 ♀♀; Amanita curtipes(1),J85, 1 ♂; Russula ionochlora(1),Jn85, 1 ♀; Russula violeipes(1),F85, 1 ♂; Russula sanguinea(8),My,Jn85, 37 ♂♂-37 ♀♀; Russula torulosa(2),D86, 8 ♂♂-8 ♀♀. Site F-Clitocybe odora(2),F85, 20 ♂♂-24 ♀♀; Tricholoma colossum(1),F86, 5 ♂♂-14 ♀♀; Russula queletii(1),F85, 18 ♂♂-22 ♀♀; Lactarius deliciosus (1),F86, 4 ♂♂-6 ♀♀; Lactarius chrysorrheus(7),F85, 46 ♂♂-32 ♀♀. Site G-Russula vinosa(2),N,D86, 4 ♂♂-6 ♀♀; Russula atropurpurea(1),Mr85, 1 ♂; Lactarius deliciosus(1),D86, 19 ♂♂-24 ♀♀.

★ Mycetophila signatoides Dziedzicki,1884
Mycetophila signatoides. Pam. fizyogr.,4: 310
Type-locality: not given (probably district of Krefeld, D)

MATERIAL EXAMINED: Site F-Xerocomus badius(1),Jn85, 4 ♂♂-11 ♀♀.
DISTRIBUTION: Widely distributed in Europe.

Allodia lugens (Wiedemann,1817)
Mycetophila lugens. Zool. Mag. Kiel,1(1): 68
Type-locality: not given (Germany)

MATERIAL EXAMINED: Site C-Melanoleuca melaleuca(1),Mr85, 5 ♂♂-4 ♀♀.

Allodia ornaticollis (Meigen,1818)
Mycetophila ornaticollis. Syst. Beschr.,1: 269
Type-locality: not given (Germany)

MATERIAL EXAMINED: Site F-Inocybe friesii(1),F85, 3 ♂♂.

Allodiopsis rustica (Edwards,1941)
Rhymosia rustica. Entomologist's mon. Mag.,77: 75
Type-locality: Llangamarrch Wells, Brecknock (Great Britain)

MATERIAL EXAMINED: Site A-Dermocybe sp.(1),D84, 1 ♀; Clitocybe odora (4),N84;J85, 2 ♂♂-5 ♀♀; Lepista nuda(3),F,Mr85, 9 ♂♂-9 ♀♀. Site C-Clitocybe clavipes(8),Mr,Ap85, 29 ♂♂-26 ♀♀. Site E-Lepista nuda(1),J86, 2 ♂♂-1 ♀. Site F-Lepista nuda(4),F,Mr85, 7 ♂♂-9 ♀♀; Russula atropurpurea (1),D84, 1 ♂. Site G-Lepista nuda(3),F85, 8 ♂♂-5 ♀♀.

Cordyla brevicornis (Staeger,1840)
Pachypalpus brevicornis. Naturh. Tidsskr.,3: 269
Type-locality: "Fredriksbergs Slothave" (Denmark)

MATERIAL EXAMINED: Site C-Russula sanguinea(1),Jn85, 8 ♂♂-12 ♀♀. Site E-Amanita gemmata(1),My85, 2 ♂♂; Russula sanguinea(1),My85, 21 ♂♂-5 ♀♀.

Cordyla fusca Meigen,1804
Cordyla fusca. Klass. Beschr.,1: 93
Type-locality: Aachen (D)

MATERIAL EXAMINED: Site A-Russula delica(2),J,N86, 3 ♂♂-20 ♀♀; Russula albonigra(3),N86, 10 ♂♂-9 ♀♀. Site C-Russula torulosa(1),N86, 1 ♂. Site E-Russula vinosa(3),N,D86, 26 ♂♂-20 ♀♀; Russula torulosa(1),N86, 1 ♂-1 ♀; Lactarius deliciosus(7),O,N,D86, 118 ♂♂-258 ♀♀. Site F-Amanita gemmata(1),F85, 1 ♂; Russula emetica(2),O86, 10 ♀♀; Russula atropurpurea (1),F85, 1 ♂-1 ♀; Lactarius deliciosus(2),N84;D86, 13 ♂♂-11 ♀♀. Site G-Lactarius deliciosus(4),J85;J,O,N86, 29 ♂♂-26 ♀♀.

Cordyla nitidula Edwards,1925
Cordyla nitidula. Trans. R. ent. Soc. Lond.,1924: 616
Type-locality: Shefford, Beds. (Great Britain)

MATERIAL EXAMINED: Site A-Russula torulosa(1),O86, 4 ♂♂-8 ♀♀. Site C-Russula torulosa(1),O86, 4 ♂♂-4 ♀♀. Site E-Russula ochroleuca(2),O86, 6 ♂♂-9 ♀♀; Russula ionochlora(1),My85, 1 ♂; Russula olivacea(2),O86, 2 ♂♂-8 ♀♀; Russula sanguinea(1),Jn85, 2 ♂♂-1 ♀; Russula torulosa(1), O86, 1 ♂-2 ♀♀. Site F-Russula atropurpurea(2),N84, 34 ♂♂-28 ♀♀.

Cordyla styliforceps (Bukowski,1934)
Polyxena styliforceps. Konowia,13: 186
Type-locality: "Naturschutzgebiet von Krim unweit Aloschta" (Crimea, USSR)

MATERIAL EXAMINED: Site A-Russula albonigra(1),N86, 7 ♂♂-15 ♀♀. Site B-Russula delica(1),O86, 6 ♂♂-4 ♀♀. Site C-Russula vinosa(1),O86, 22 ♂♂-28 ♀♀; Lactarius vietus(1),J85, 1 ♂. Site D-Amanita gemmata(2),F85;Mr86, 53 ♂♂-78 ♀♀. Site E-Amanita boudieri(3),Mr,My,Jn86, 5 ♂♂-4 ♀♀; Amanita curtipes(1),Ap86, 1 ♂; Amanita gemmata(8),J,Mr,My85;Ap,My86, 26 ♂♂-42 ♀♀; Russula cyanoxantha(1),My86, 5 ♂♂; Russula ionochlora(1),Jn85, 1 ♂-2 ♀♀; Russula sanguinea(2),Jn85, 7 ♂♂-5 ♀♀. Site F-Amanita gemmata (9),F,Mr85;Mr86, 53 ♂♂-44 ♀♀; Russula atropurpurea(1),F85, 28 ♂♂-13 ♀♀; Lactarius deliciosus(1),J85, 1 ♂. Site G-Amanita gemmata(4),F85;F,Mr, Ap86, 4 ♂♂-18 ♀♀; Tricholoma colossum(1),F86, 1 ♂.

★ Exechia bicincta (Staeger,1840)
Mycetophila bicincta. Naturh. Tidsskr.,3: 263
Type-locality: not given (Denmark)

MATERIAL EXAMINED: Site C-Omphalotus olearius(1),D85;J86, 4 ♂♂-2 ♀♀.
DISTRIBUTION: Widely distributed in Europe.

★ Exechia dorsalis (Staeger,1840)
Mycetophila dorsalis. Naturh. Tidsskr.,3: 262
Type-locality: not given (Denmark)

MATERIAL EXAMINED: Site A-Entoloma saundersii(1),D84, 1 ♂-1 ♀. Site B-Mycena pura(1),Mr85, 1 ♂. Site C-Melanoleuca melaleuca(1),F85, 1 ♂-1 ♀.
DISTRIBUTION: Widely distributed in Europe except in the South, also known for Mongolia.

Exechia fusca (Meigen,1804)
Mycetophila fusca. Klass. Beschr.,1: 91
Type-locality: not given (?Germany)

MATERIAL EXAMINED: Site A-Entoloma saundersii(1),D84, 1 ♂; Dermocybe sp. (2),D84, 2 ♂♂; Cortinarius trivialis(2),D84, 4 ♂♂-6 ♀♀. Site B-Mycena pura(1),My85, 3 ♂♂-2 ♀♀. Site E-Amanita curtipes(1),J85, 1 ♂; Amanita gemmata(4),F85;Mr86, 9 ♂♂-10 ♀♀; Russula atropurpurea(1),Mr85, 1 ♂. Site F-Amanita gemmata(1),Mr85, 1 ♂; Lactarius chrysorrheus(2),F85,2 ♂♂.

Exechia peyerimhoffi Burghele-Balacesco,1967
Exechia peyerimhoffi. Int. J. Speleol.,2: 330
Type-localities: Ifri bou-Anou: Tifritz Si Ait M'hammed ou-Ali, Tessereft Tabort Boufrichen, Tessereft Guiril, Tessereft Agouni Tamkijet (caves in Algeria)

MATERIAL EXAMINED: Site A-Xerocomus chrysenteron(1),F85, 2 ♀♀; Oudemansiella platyphylla(1),D84, 1 ♂-5 ♀♀; Entoloma saundersii(2),D84, 7 ♂♂-10 ♀♀; Amanita phalloides(1),D86, 15 ♂♂-7 ♀♀; Cortinarius trivialis (11),N,D84;J,D85;J,F86, 77 ♂♂-60 ♀♀; Camarophyllus niveus(1),D84, 1 ♂; Clitocybe gibba(1),D84, 1 ♀; Russula delica(3),J,N86, 23 ♂♂-43 ♀♀.

Site B-Mycena pura(1),Mr85, 1 ♂; Russula delica(1),D84, 3 ♂♂. Site C-Xerocomus chrysenteron(1),J85, 1 ♀; Oudemansiella platyphylla(1),D85, 2 ♂♂-1 ♀; Inocybe geophylla(1),J85, 1 ♂-1 ♀; Omphalotus olearius(12), D85;J86, 72 ♂♂-67 ♀♀; Camarophyllus niveus(1),J85, 2 ♂♂-2 ♀♀; Laccaria bicolor(1),J85, 1 ♀; Tricholoma saponaceum(1),J85, 4 ♂♂-2 ♀♀. Site D-Suillus granulatus mediterraneensis(1),F85, 2 ♂♂; Melanoleuca melaleuca (1),J85, 2 ♂♂-7 ♀♀; Amanita curtipes(1),F86, 4 ♂♂-8 ♀♀; Amanita gemmata (2),F85;F,Mr86, 5 ♂♂-9 ♀♀; Agaricus silvaticus(1),F85, 1 ♂; Russula cyanoxantha(1),J,F85, 2 ♂♂-7 ♀♀. Site E-Suillus granulatus mediterraneensis (1),D85;J86, 17 ♂♂-10 ♀♀; Melanoleuca arcuata(2),D86, 19 ♂♂-15 ♀♀; Mycena seynii(2),N85, 5 ♂♂-4 ♀♀; Amanita curtipes(1),J85, 6 ♂♂; Amanita gemmata(28),F85;F,Mr,Ap86, 330 ♂♂-298 ♀♀; Inocybe geophylla(1),F86, 1 ♂; Tricholoma flavovirens(3),D86, 29 ♂♂-29 ♀♀; Russula vinosa(2),N86, 9 ♂♂-1 ♀; Russula amoenicolor(1),J86, 1 ♂; Russula violeipes(1),F85, 18 ♂♂-14 ♀♀; Russula turci(10),F86, 18 ♂♂-26 ♀♀; Russula coerulea(1),N86, 11 ♂♂-9 ♀♀; Russula atropurpurea(1),F85, 1 ♀; Russula torulosa(6),F, D86, 71 ♂♂-52 ♀♀. Site F-Suillus granulatus mediterraneensis(9),D85;J, F,D86, 60 ♂♂-54 ♀♀; Amanita curtipes(1),F85, 1 ♂; Amanita gemmata(10), Mr85;F,Mr86, 77 ♂♂-67 ♀♀; Inocybe geophylla(3),J,F85, 7 ♂♂-6 ♀♀; Inocybe friesii(2),F85, 2 ♂♂; Laccaria laccata(1),J86, 1 ♂-1 ♀; Russula cyanoxantha(1),F85, 1 ♀; Russula violeipes(1),F85, 2 ♀♀; Russula emetica (1),N86, 1 ♂-8 ♀♀; Russula atropurpurea(1),N84, 3 ♂♂-9 ♀♀; Lactarius deliciosus(1),D86, 1 ♂; Lactarius chrysorrheus(3),F85, 2 ♂♂-3 ♀♀. Site G-Suillus granulatus mediterraneensis(1),D86, 5 ♂♂-5 ♀♀; Mycena pura(3), F86, 4 ♂♂-1 ♀; Amanita boudieri(1),Mr85, 1 ♂; Amanita gemmata(2),F86, 5 ♂♂; Laccaria laccata(3),J85;F86, 17 ♂♂-24 ♀♀; Clitocybe dicolor(1), J85, 1 ♂-2 ♀♀; Lepista nuda(1),Mr86, 2 ♂♂-1 ♀; Russula vinosa(2),D86, 28 ♂♂-27 ♀♀; Russula turci(3),F86, 9 ♂♂-8 ♀♀; Russula atropurpurea(2), F85, 2 ♂♂-3 ♀♀.

Exechia separata Lundstrom,1912
Exechia separata. Acta Soc. Fauna Flora fenn.,**36**(1): 34
Type-localities: Kuusto and Muonio (Finland)

MATERIAL EXAMINED: Site A-Clitocybe odora(1),N84, 1 ♀. Site E-Amanita gemmata(1),F86, 3 ♂♂-2 ♀♀. Site F-Suillus granulatus mediterraneensis

(2),F,N86, 3 ♂♂-3 ♀♀; Chroogomphus rutilus(2),Mr,My86, 14 ♂♂-14 ♀♀; Clitocybe costata(1),F85, 2 ♀♀.

★ Rymosia beaucournui Matile,1963
Rymosia beaucournui. Revue fr. Ent.,**30**: 190
Type-locality: Pyrénées: Grotte de Valbonne (France)

MATERIAL EXAMINED: Site C-Camarophyllus niveus(1),J85, 1 ♂. Site D-Laccaria bicolor(1),F85, 3 ♂♂-2 ♀♀. Site E-Amanita curtipes(1),J85, 2 ♂♂-2 ♀♀; Amanita gemmata(1),F86, 2 ♂♂.
DISTRIBUTION: Known in France.

Rymosia pseudocretensis Burghele-Balacesco,1967
Rymosia pseudocretensis. Int. J. Speleol.,**2**: 332
Type-locality: Ifri Maareb (Algeria)

MATERIAL EXAMINED: Site D-Agaricus silvaticus(2),J,F85, 17 ♂♂-25 ♀♀; Lycoperdon perlatum(1),J85, 6 ♂♂-4 ♀♀. Site E-Melanoleuca melaleuca(2), J,F85, 8 ♂♂-11 ♀♀; Macrolepiota excoriata(1),F85, 6 ♂♂-5 ♀♀. Site G-Melanoleuca melaleuca(1),F85, 6 ♂♂-3 ♀♀.

★ Rymosia spinipes Winnertz,1863
Rymosia spinipes. Verh. zool.-bot. Ges. Wien.,**13**: 813
Type-locality: not given (?Krefeld) (D)

MATERIAL EXAMINED: Site A-Entoloma saundersii(10),N84, 95 ♂♂-120 ♀♀. Site F-Inocybe friesii(1),F85, 1 ♂; Tricholoma orirubens(2),N84, 53 ♂♂-57 ♀♀.
DISTRIBUTION: Known in Europe from Austria, German Federal Republic, Spain, France, Great Britain, Poland and Roumania. Also known for Afghanistan.

Tarnania dziedzickii (Edwards,1941)
Rhymosia dziedzickii. Entomologist's mon. Mag.,**77**: 78
Type-locality: Symonds'Yat, Glos. (Great Britain)

MATERIAL EXAMINED: Site A-Cortinarius trivialis(18),D84;J,D85;J,F86,

58 ♂♂-51 ♀♀; Camarophyllus niveus(1),D84, 1 ♂-2 ♀♀; Russula delica(5), J,O,N86, 36 ♂♂-29 ♀♀. Site C-Macrolepiota procera(1),J85, 3 ♂♂-3 ♀♀; Omphalotus olearius(11),D85;J86, 18 ♂♂-11 ♀♀; Russula torulosa(1),N86, 2 ♂♂. Site E-Tricholoma flavovirens(2),N,D86, 7 ♂♂-9 ♀♀; Russula ochroleuca(1),086, 2 ♀♀; Russula vinosa(5),N86, 19 ♂♂-11 ♀♀; Russula turci(11),F,Mr86, 49 ♂♂-56 ♀♀; Russula coerulea(2),N86, 18 ♂♂-24 ♀♀. Site F-Clitocybe odora(1),F85, 1 ♂; Tricholoma colossum(1),F86, 1 ♂; Russula delica(1),F86, 10 ♂♂-17 ♀♀; Russula atropurpurea(1),F85, 3 ♂♂-3 ♀♀. Site G-Tricholoma colossum(2),F86, 1 ♂-5 ♀♀; Russula turci(3), F86, 27 ♂♂-21 ♀♀.

ANNEX - List of fungus species (Agaricaceae after MOSER,1983; Amanita boudieri and Amanita curtipes after GARCIN,1984; Lycoperdon perlatum after MORENO et. al.,1986) and related Mycetophiloidea species which emerged from them. Species of Mycetophiloidea found for the first time in a breeding mushroom are those signed with *

Suillus boudieri (Quél.) Watl.
Mycetophila fungorum

Suillus granulatus mediterraneensis Blum et Jacq
Mycetophila fungorum
* Exechia peyerimhoffi
Exechia separata

Xerocomus badius (Fr.) Kuhn. ex Gilb.
* Mycetophila fungorum

Xerocomus subtomentosus (L. ex Fr.) Quél.
* Mycetophila fungorum

Xerocomus chrysenteron (Bull. ex St. Amans) Quél.
* Mycetophila fungorum
* Exechia peyerimhoffi

Leccinum griseum (Quél.) Sing.

* Docosia gilvipes

Omphalotus olearius (DC ex Fr.) Sing.

* Coelosia silvatica
* Docosia gilvipes
* Mycetophila fungorum
* Mycetophila ruficollis
* Exechia peyerimhoffi
* Tarnania dziedzickii

Chroogomphus rutilus (Schff. ex Fr.) O.K. Miller

Exechia separata

Camarophyllus niveus (Scop. ex Fr.) Wuensche

* Mycetophila fungorum
* Mycetophila ruficollis
* Exechia peyerimhoffi
* Tarnania dziedzickii

Laccaria bicolor (R. Mre.) Orton

* Docosia gilvipes
* Exechia peyerimhoffi

Laccaria laccata (Scop. ex Fr.) Bk. & Br.

Exechia peyerimhoffi

Clitocybe odora (Bull. ex Fr.) Kummer

* Bolitophila pseudohybrida
* Docosia gilvipes
* Mycetophila ruficollis
* Allodiopsis rustica
* Exechia separata
* Tarnania dziedzickii

Clitocybe clavipes (Pers. ex Fr.) Kummer

* Allodiopsis rustica

Clitocybe costata Kuehn. & Romagn.

* Bolitophila pseudohybrida
* Exechia separata

Clitocybe gibba (Pers. ex Fr.) Kummer

* Mycetophila ruficollis
* Exechia peyerimhoffi

Clitocybe dicolor (Pers.) Lge.

* Exechia peyerimhoffi

Lepista nuda (Bull. ex Fr.) Cke.

Bolitophila pseudohybrida
* Coelosia silvatica
* Docosia gilvipes
Mycetophila fungorum
Mycetophila ruficollis
* Allodiopsis rustica
* Exechia peyerimhoffi

Tricholoma colossum (Fr.) Quél.

* Mycetophila ruficollis
* Cordyla styliforceps
* Tarnania dziedzickii

Tricholoma flavovirens (Pers. ex Fr.) Lund et Nanf.

* Docosia gilvipes
* Exechia peyerimhoffi
* Tarnania dziedzickii

Tricholoma saponaceum (Fr.) Kummer

* Exechia peyerimhoffi

Tricholoma atrosquamosum (Chev.) Sacc.

* Mycetophila ruficollis

Melanoleuca arcuata (Fr.) Sing.
* Mycetophila fungorum
* Exechia peyerimhoffi

Melanoleuca melaleuca (Pers. ex Fr.) Mre.
* Mycetophila fungorum
* Mycetophila ruficollis
* Allodia lugens
* Exechia peyerimhoffi
* Rymosia pseudocretensis

Oudemansiella platyphylla (Pers. ex Fr.) Mos.
* Mycetophila fungorum
* Mycetophila ruficollis
* Exechia peyerimhoffi

Mycena pura (Pers. ex Fr.) Kummer
* Mycetophila fungorum
* Mycetophila ruficollis
* Exechia fusca
* Exechia peyerimhoffi

Mycena seynii Quél.
* Exechia peyerimhoffi

Entoloma saundersii (Fr.) Sacc.
* Mycetophila ruficollis
* Exechia fusca
* Exechia peyerimhoffi

Amanita vaginata (Bull. ex Fr.) Quél.
Docosia gilvipes
Mycetophila fungorum

Amanita gemmata (Fr.) Gill.
- Docosia gilvipes
- Mycetophila fungorum
- * Mycetophila luctuosa
- * Cordyla breviçornis
- * Cordyla fusca
- Cordyla styliforceps
- Exechia fusca
- Exechia peyerimhoffi
- * Exechia separata

Amanita phalloides (Vaill. ex Fr.) Secr.
- * Exechia peyerimhoffi

Amanita verna (Bull. ex Fr.) Pers. ex Vitt. (Fr. 1821)
- * Docosia gilvipes

Amanita citrina (Schff.) S.F. Gray.
- Mycetophila fungorum

Amanita boudieri Barla
- * Docosia gilvipes
- * Mycetophila fungorum
- * Cordyla styliforceps
- * Exechia peyerimhoffi

Amanita curtipes Gilbert
- * Docosia gilvipes
- * Mycetophila fungorum
- * Mycetophila ruficollis
- * Cordyla styliforceps
- * Exechia fusca
- * Exechia peyerimhoffi

Amanita rubescens (Pers. ex Fr.) Gray
- * Mycetophila fungorum

Agaricus silvaticus Schff.
* Docosia gilvipes
* Mycetophila fungorum
* Exechia peyerimhoffi
* Rymosia pseudocretensis

Macrolepiota procera (Scop. ex Fr.) Sing.
Docosia gilvipes
Mycetophila fungorum
* Tarnania dziedzickii

Macrolepiota excoriata (Schff. ex Fr.)
* Mycetophila fungorum
* Rymosia pseudocretensis

Inocybe geophylla (Sow. ex Fr.) Kummer
Exechia peyerimhoffi

Inocybe friesii Heim
* Allodia ornaticollis
* Exechia peyerimhoffi

Hebeloma crustuliniforme (Bull. ex Fr.) Quél.
Mycetophila ruficollis

Dermocybe sp.
* Allodiopsis rustica
* Exechia fusca

Cortinarius trivialis Lge.
* Coelosia silvatica
* Docosia gilvipes
* Mycetophila fungorum
* Mycetophila ruficollis
* Exechia fusca
* Exechia peyerimhoffi
* Tarnania dziedzickii

Russula delica Fr.
* Bolitophila pseudohybrida
* Mycetophila alea
* Mycetophila fungorum
* Mycetophila ruficollis
* Cordyla fusca
* Cordyla styliforceps
* Exechia peyerimhoffi
* Tarnania dziedzickii

Russula nigricans (Bull.) Fr.
* Mycetophila alea
* Mycetophila luctuosa

Russula albonigra Krbh.
* Mycetophila alea
* Cordyla fusca
* Cordyla styliforceps

Russula ochroleuca (Pers.) Fr.
* Cordyla nitidula
* Tarnania dziedzickii

Russula vinosa Lindbl.
* Docosia gilvipes
* Mycetophila fungorum
* Mycetophila ruficollis
* Cordyla fusca
* Cordyla styliforceps
* Exechia peyerimhoffi
* Tarnania dziedzickii

Russula cyanoxantha Schff. ex Fr.
* Docosia gilvipes
Mycetophila fungorum
* Mycetophila ruficollis

* Cordyla styliforceps
* Exechia peyerimhoffi

Russula ionochlora Romagn.
* Mycetophila fungorum
* Mycetophila ruficollis
* Cordyla nitidula
* Cordyla styliforceps

Russula amoenicolor Romagn.
* Exechia peyerimhoffi

Russula violeipes Quél.
* Mycetophila ruficollis
* Exechia peyerimhoffi

Russula turci Bres.
* Mycetophila fungorum
* Exechia peyerimhoffi
* Tarnania dziedzickii

Russula coerulea Fr.
* Mycetophila fungorum
* Exechia peyerimhoffi
* Tarnania dziedzickii

Russula olivacea (Schff. ex Secr.) Fr.
* Mycetophila fungorum
* Cordyla nitidula

Russula integra L. ex Fr. ss. R. Mre.
* Mycetophila fungorum

Russula emetica Fr.
* Cordyla fusca
* Exechia peyerimhoffi

Russula atropurpurea Krbh.

* Bolitophila pseudohybrida
* Docosia gilvipes
* Mycetophila fungorum
* Mycetophila ruficollis
* Allodiopsis rustica
* Cordyla fusca
* Cordyla nitidula
* Cordyla styliforceps
* Exechia fusca
* Exechia peyerimhoffi
* Tarnania dziedzickii

Russula sanguinea (Bull. ex St. Am.) Fr.

* Mycetophila fungorum
* Mycetophila luctuosa
* Mycetophila ruficollis
* Cordyla brevicornis
* Cordyla nitidula
* Cordyla styliforceps

Russula queletii Fr. in Quél.

* Docosia gilvipes
* Mycetophila fungorum
* Mycetophila ruficollis

Russula torulosa Bres.

* Mycetophila fungorum
* Mycetophila ruficollis
* Cordyla fusca
* Cordyla nitidula
* Exechia peyerimhoffi
* Tarnania dziedzickii

Lactarius deliciosus Fr.
- Mycetophila luctuosa
- Mycetophila ruficollis
- Cordyla fusca
- Cordyla styliforceps
- * Exechia peyerimhoffi

Lactarius chrysorrheus Fr.
- * Mycetophila fungorum
- * Mycetophila ruficollis
- * Exechia fusca
- * Exechia peyerimhoffi

Lactarius vietus Fr.
- * Mycetophila ruficollis
- * Cordyla styliforceps

Lycoperdon perlatum Pers.
- * Rymosia pseudocretensis

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REFERENCES

GARCIN,R.1984 - Les amanites européennes: 1-332 (Revision by Roger Girel).

MORENO,G.; MANJON,J.L.G. & ZUGAZA,A.1986 - La guia de incafo de los hongos de la Peninsula Iberica, 2: 665-1276.

MOSER,M.1983 - Keys to Agarics and Boleti (Polyporales, Boletales, Agaricales, Russulales): 1-535 (Translated by R. Phillips, Phillips).

RIBEIRO,E.(submitted) - Contribution to the study of fungus-gnats (Diptera: Mycetophiloidea) of Portugal. I - Twenty-three new records.

SOOS,A. & PAPP,L.(ed.)1988 - Catalogue of Palaearctic Diptera, 3: 1-448.

TOLLET,R.1947 - Explorations biologiques des grottes du Portugal - Mycetophilidae. Bull. Inst. Zool. Porto, 32(4): 217-220.