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The fungus gnats (Diptera: Bolitophilidae, Keroplatidae, Mycetophilidae) of Sardinia, with description of six new species*

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Abstract

The fungus gnat fauna of Sardinia is reviewed and data presented for all species recorded. Altogether one species of Bolitophilidae, 16 species of Keroplatidae and 105 species of Mycetophilidae are recognised as occurring in Sardinia. As the bolitophilid and two of the mycetophilid species are represented only by females and are not determined to species level, the total confirmed Sardinian list stands at 119 species. Four species of Keroplatidae and 19 species of Mycetophilidae are new to the total Italian fauna, whereas three species of Keroplatidae and 32 species of Mycetophilidae are newly recorded for the island of Sardinia. Six species are described as new to science: two Keroplatidae (*Urytalpa juliae* **sp. nov.**, *Macrocera nuragica* **sp. nov.**) and four Mycetophilidae (*Boletina ichnusa* **sp. nov.**, *Trichonta sandalyon* **sp. nov.**, *Sciophila benjaminbottomi* **sp. nov.**, *Sciophila immodesta* **sp. nov.**). The new synonymy *Zygomyia valida* Winnertz, 1863 = *Zygomyia simplex* Strobl, 1895 **syn. nov.** is established. *Macrocera penicillata* Costa, 1857 is tentatively considered as a synonym of *M. phalerata* Meigen, 1818. Label data are provided for 5 and 17 species recorded without further detail in the Fauna Europaea online database, respectively from Italian mainland and Sicily; one species, *Mycetophila alea* Laffoon, 1965 is newly recorded for Sicily. Three species based on

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unconfirmed 19th century records cited by Hellrigl from South Tyrol should be deleted from the Italian list: *Exechiopsis indecisa* (Walker, 1856), *Mycetophila signata* Meigen, 1830 and *Mycomya storai* Väisänen, 1979.

Key words: Bolitophilidae, distribution, fungus gnats, Italy (mainland), Keroplatidae, Mycetophilidae, new records, new species, Sardinia, Sicily, taxonomy

Introduction

The Italian checklist (Dahl *et al*. 1995) included data only for 145 species of the fungus gnat families (Bolitophilidae, Ditomyiidae, Diadocidiidae, Keroplatidae, Mycetophilidae). Chandler (2003a, 2003b, 2003c) added 86 species from the northern Apennines and two others were added by Zaitzev (2001) and Matile (2002). Chandler (2004a) further increased the total to 329 species (mainland 318, Sardinia 31, Sicily 25) in the Fauna Europaea database by including many species for which records were known, but as yet unpublished. One previously known species, *Boletina sciarina* Staeger, 1840 (listed by Dahl *et al*. (1995) and in later works), was accidentally omitted. Chandler (2004b) described two new *Leia* Meigen species from the Po Valley (NE Italy) not listed in the database and recorded *Orfelia persimilis* Caspers, 1991 (described from Sardinia) as new to the Italian mainland; the other species added to the Italian fauna in this paper were included in Fauna Europaea. Chandler (2007) recorded *Mycomya permixta* Väisänen, 1984, previously known from Sicily, as new to the mainland.

Recent additions to the Italian fungus gnat fauna are those by Papp and Ševčík (2007), who recorded *Allodiopsis pseudodomestica* (Lackschewitz, 1937) and *Mycetophila boreocruciator* Ševčík, 2003 from the mainland; Ševčík and Laštovka (2008), who described two new species of *Docosia* Winnertz based partly on specimens from Italy; Kurina (2008) and Chandler (2008), who respectively added 117 and 13 species in two papers on the Stelvio National Park (South Tyrol) and the Belluno province (Venetia). Chandler (2008) also mentioned 32 species from Sardinia based on the material listed in detail below. Kurina (2008) recorded a further three species as new to the Italian mainland: *Mycetophila formosa* Lundström, 1911 and *M. strigatoides* (Landrock, 1927) (previously recorded for Sardinia), and *Phronia cinerascens* Winnertz, 1863 (previously recorded for Sicily). The two latter species and two others – *Brevicornu nigrofuscum* (Lundström, 1909) and *Mycetophila blanda* Winnertz, 1863 – were erroneously indicated as new to Italy by Kurina (2008) in his species list, but they were not included in the total of 117 species stated to be new to Italy.

Kurina (2008) drew attention to a paper by Hellrigl (1996), with data on fungus gnats in South Tyrol, which was overlooked in the compilation of Fauna Europaea (Chandler 2004a). However, as he showed, of the 64 named and 11 unnamed species of Keroplatidae and Mycetophilidae included in this paper only 20 were from Italy, the remainder, including all recent records, being from Austria. The 20 species listed from Italy were mostly based on 19th century faunistic works, and Hellrigl's (1996) list is an uncritical compilation including obsolete nomenclature. All of these records should be regarded as requiring confirmation. For example, the records of *Mycetophila punctata* Meigen, 1804 should not be interpreted as relating to *M. fungorum* (De Geer, 1776) when all records of this group in the material studied were of *M. perpallida* Chandler, 1993. Kurina (2008) noted that some of these species were omitted from the Italian list in Fauna Europaea (Chandler 2004a). These were *Boletina sciarina* mentioned above, *Exechia bicincta* (Staeger, 1840), *Exechiopsis indecisa* (Walker, 1856) and *Mycomya storai* Väisänen, 1979. Two other species listed by Hellrigl (1996), *Mycetophila signata* Meigen, 1830 and *Sciophila hirta* Meigen, 1818, were also omitted from Fauna Europaea. Kurina was able to confirm 9 of the 20 species, including *S. hirta*, from South Tyrol and in the present paper *E. bicincta* is recorded from Sardinia. It is, however, considered that the other three species should presently be omitted from the Italian list owing to the uncertainty of accurate determination. *Mycetophila signata* belongs to a group of closely related species of which four are now known from Italy, but all would have been included under *M. signata* at the time the record was made. *Exechiopsis indecisa* was listed by Hellrigl (1996) as its synonym *Exechia tenuicornis* van der Wulp, 1859 but the similar species *E.*

pseudindecisa Laštovka & Matile, 1974, which was recorded from South Tyrol by Kurina (2008), was not known when this record was made. *Mycomya storai* was based on the listing by Hellrigl of *Sciophila notata* Zetterstedt, 1860, described from the female, which Väisänen (1984) cited as a possible senior synonym of *M. storai*. However, Hellrigl's record was taken from Palm (1869) and Väisänen (1984) suggested that Palm's record might relate to *M. marginata* (Meigen, 1818).

Dahl *et al.* (1995) listed only two species of Keroplatidae from Sardinia, which had been recorded by Costa (1882, 1883) and Caspers (1991), respectively. Chandler (2004a, 2007) increased this to six species of Keroplatidae and 26 species of Mycetophilidae, based on unpublished records in collections for which the data is presented here.

In the present work, one species of Bolitophilidae (a female which could not be identified to species), 16 species of Keroplatidae and 105 species of Mycetophilidae (two based on females not identified to species) are reported from Sardinia, bringing the total confirmed fungus gnat fauna of the island to 119 species. Four species of Keroplatidae and 19 species of Mycetophilidae (marked ******) are recorded as new to the Italian fauna, three species of Keroplatidae and 32 species of Mycetophilidae (marked *****) are new to Sardinia, and six species (two Keroplatidae and four Mycetophilidae) are described as new. The material examined from recent surveys (2003–2006) comprised one species of Bolitophilidae, 12 species of Keroplatidae and 90 species of Mycetophilidae. Older Sardinian specimens of two species of Keroplatidae (both additional) and 19 species of Mycetophilidae (including 5 additional) have been examined from museum collections. Records are also cited of 2 species of Keroplatidae and 10 species of Mycetophilidae for which Sardinian specimens have not been examined by the author; one of these, *Keroplatus tipuloides* Bosc, 1792, is based on an old record but is considered likely to be correct as it is a large and distinctive species, while the identity of the others is accepted based on determinations by Norbert Caspers (Bechen, Germany) or Olavi Kurina (Tartu, Estonia).

With the 23 species newly recorded from Italy and the 6 species described as new in the present paper, the total Italian fungus gnat fauna now adds up to 497 species (mainland 461, Sardinia 119 and Sicily 26).

Study area

This comprises the island of Sardinia as all available data on the fungus gnat families of the island are included. It is, however, recognised that sampling effort has so far been concentrated in certain areas and further surveys in other parts of the island will be expected to provide additional distributional data, and it is expected that further species will be found to be present.

Material and methods

Data collection. The bulk of material studied was obtained in recent surveys by the Centro Nazionale per lo Studio e la Conservazione della Biodiversità Forestale "Bosco Fontana" (Verona) and was entirely determined by the author. This material, comprising many thousands of specimens, was collected by various methods, principally by Malaise trapping, at many sites in the period from 2003 to 2006 as part of an extensive survey of the insect fauna of the Marganai and Montimannu region-owned forests (SW Sardinia) (*cf.* Mason *et al.* 2006). The abbreviations for the sites involved as listed below are adopted in the faunistic list. Larger quantities of material were obtained from the sites coded SAR1 and S1, S2 and S3.

A small amount of older Sardinian material found in museum collections was also determined by the author. In addition, records were provided from two other sources: (1) material collected in 1981 by Dr Hans Malicky (Biological Station, Lunz, Austria) and obtained incidental to the collecting of Trichoptera at many sites throughout the Mediterranean region, principally by light trapping but also sometimes by sweeping and other methods; this material was determined by Norbert Caspers, who described *Orfelia persimilis* as new (Caspers 1991), and is deposited partly in Zoologische Staatsammlung München (Munich, Germany) and

partly in the private collection of Norbert Caspers (Bechen, Germany); (2) material collected in November 2005 by Olavi Kurina, determined by him and deposited in the Institute of Agricultural and Environmental Sciences, Estonian University of Life Sciences (Tartu, Estonia). A further species was added based on a specimen collected in 2000 by John Kramer (Leicester, United Kingdom).

Nomenclature and classification. These follow Chandler (2004a) except where there are more recent changes, which are indicated where appropriate. Synonyms are listed and original generic combinations are stated where they differ from the current generic assignment.

Faunistic list and species descriptions. All distinct species identified are numbered consecutively, including three cases where females that could not be determined to species level were recorded. Where undetermined females are listed without a number these are in most cases likely to belong to one or more of the species of that genus for which males were determined.

Under each species, material examined is listed in the same order as localities appear in the list of abbreviations of sampling sites given below; localities are indicated in the faunistic list only by the abbreviation codes. In 2005, following a re-arrangement of the Sardinian administrative regions, four new provinces (Olbia-Tempio, Ogliastra, Medio Campidano, Carbonia-Iglesias) were instituted. This change also involved many of the sites recently surveyed: these once belonged to the province of Cagliari but are now all (except G14, see below) included in the provinces of Carbonia-Iglesias and Medio Campidano. For practical reasons only the new provinces are given in the list of localities even in cases where the old province of Cagliari is given on the label; this is with the exception of the type material of the new species, for which all information is given exactly as it appears on the labels. Detailed information on location, altitude, collection method and collectors' names is given in the list of abbreviations, where the information provided on each location consequently varies according to that recorded by the respective collectors. In the faunistic list these details are omitted except in case of type material of new species, where they are given in full.

All dates of collection, which cover a period in the case of trap samples, are given with the year abbreviated if after 2000 (e.g. 06 = 2006). The sex of specimens in each sample is stated; for rarer species, and where low numbers were present in a sample, the numbers of males and females is stated but where larger numbers were present the words several or many are sometimes used and no attempt was made to record numbers of individuals in the many larger samples examined.

Terminology of morphology follows Søli *et al*. (2000). The genitalia of each dissected male and in those cases where specimens had been collected into alcohol, the entire insect, are mounted in dimethyl hydantoin formaldehyde (DMHF) on a 10 mm cover slip which is glued to a piece of card, above a hole bored to enable use of transmitted light. This is pinned together with the relevant labels. Undissected material received in alcohol otherwise usually remains in tubes containing this medium with the original labels, and determination labels where practicable. Drawings were made in pencil using a high power microscope, traced onto bristol board using a light box and inked in prior to scanning.

Zoogeography. Conclusions regarding the zoogeographical status of each species are based on the distribution indicated by Chandler (2004a) and broadly follow the categories defined by Chandler *et al*. (2006) with the equivalent category of Vigna Taglianti *et al*. (1999) stated in square brackets. The distribution within Italy is based on previous publications and the source of this information is stated. In some cases where Chandler (2004a) first recorded a species as new to the mainland of Italy or to Sicily, the previously unpublished data on which those records were based is stated in the notes.

Abbreviations

Depositories

BMNH Natural History Museum, London, United Kingdom.
CNBFVR Centro Nazionale per lo Studio e la Conservazione della Biodiversità Forestale "Bosco Fontana",

	Verona, Italy.
IZBE	Institute of Agricultural and Environmental Sciences, Estonian University of Life Sciences (former Institute of Zoology and Botany), Tartu, Estonia.
MNHN	Muséum National d'Histoire Naturelle, Paris, France.
NCB	private collection of Norbert Caspers, Bechen, Germany.
NMBA	Naturhistorisches Museum der Benediktiner Abtei, Admont, Austria.
PJCM	private collection of the author, Melksham, United Kingdom.
ZSM	Zoologische Staatsammlung München, Munich, Germany.

Sampling sites

Material obtained by CNBFVR surveys (deposited at CNBFVR):

C01: Carbonia-Iglesias province, Iglesias, Case Marganai, 756 m, UTM 32 S 463890 4355925, hand net, leg. D. Whitmore, M. Bardiani, D. Birtele, P. Cornacchia.

C03: Carbonia-Iglesias prov., Iglesias, vecchia cartiera (= cantoniera) Marganai, 491 m, UTM 32 S 0462272 4354677, hand net, leg. D. Whitmore, M. Bardiani, D. Birtele & P. Cornacchia.

C06: Carbonia-Iglesias prov., Domusnovas, Grotta San Giovanni, 325 m, UTM 32S 0467900 9359891, hand net, leg. D. Whitmore.

C07: Carbonia-Iglesias prov., Domusnovas, near Planargia-Scoveri, 625 m, UTM 32S 0465523 4362921, Malaise trap, leg. M. Bardiani, D. Birtele, P. Cornacchia & D. Whitmore.

C08: Carbonia-Iglesias prov., Domusnovas, Valle Oridda, 595 m, UTM 32S 0466970 4362400, pitfall trap, leg. M. Bardiani, D. Birtele, P. Cornacchia & D. Whitmore.

C14: Carbonia-Iglesias prov., Domusnovas, Sedda Pranu Cardu, 549 m, UTM 32S 0470926 4358924, Malaise trap, leg. M. Bardiani, D. Birtele, P. Cornacchia & D. Whitmore.

C16: Carbonia-Iglesias prov., Domusnovas, Gutturu Seu, 174 m, UTM 32 S 0471577 4355716, hand net, leg. D. Whitmore, M. Bardiani, D. Birtele & P. Cornacchia.

C18: Medio Campidano prov., Villacidro, Rio Cannisoni, 390 m, UTM 32S 0469095 4362383, hand net, leg. D. Whitmore.

C19: Medio Campidano prov., Villacidro, Rio Cannisoni, 375 m, UTM 32S 0468713 4362692, hand net, leg. D. Whitmore, M. Bardiani, D. Birtele & P. Cornacchia.

C23: Medio Campidano prov., Villacidro, radura sponda sinistra Rio Cannisoni, 401 m, UTM 32 S 0468459 4362806, Malaise trap, leg. M. Bardiani, D. Birtele, P. Cornacchia & D. Whitmore.

C27: Medio Campidano prov., Gonnosfanadiga, Monte Idda, Strada per M. te Linas, 474 m, UTM 32 S 0466946 4368997, hand net, leg. D. Whitmore, M. Bardiani, D. Birtele & P. Cornacchia.

C31: Carbonia-Iglesias prov., Domusnovas, Lago Siuru, 322 m, UTM 32S 0467069 4357916, Malaise trap [unless specified otherwise], leg. D. Whitmore, M. Bardiani, D. Birtele & P. Cornacchia (V.06) or Malaise trap, leg. D. Avesani, D. Birtele, P. Cerretti, M. Mei & D. Whitmore (VII.06) or hand net, leg. D. Whitmore (III.06, XI.06).

C43: Carbonia-Iglesias prov., Iglesias, Conca Margiani radura, 725 m, UTM 32S 0464970 4357011, sweep net, leg. G. Nardi.

C58: Medio Campidano prov., Villacidro, near P. ta Piscina Argiolas, rigagnolo [small stream] 282 m, UTM 32S 0472049 4360081, light trap, leg. M. Bardiani, G. Nardi, M. Zapparoli & D. Whitmore (XI.06) or light trap, leg. D. Avesani, M. Bardiani, D. Birtele & G. Nardi (IX.06).

C60: Carbonia-Iglesias prov., Domusnovas, near Gutturu Abis, 580 m, UTM 32S 0468140 4360761, hand net, leg. D. Whitmore.

C66: Carbonia-Iglesias prov., Buggerru, dintorni Grugua, 530 m, UTM 32S 0454376 4359960, hand net, leg. M. Bardiani, G. Nardi, M. Zapparoli & D. Whitmore.

C67: Carbonia-Iglesias prov., Buggerru, dintorni miniera San Luigi, 347 m, UTM 32S 0452771 4358764, sweep net, leg. M. Bardiani, G. Nardi, M. Zapparoli & D. Whitmore.

C69: Carbonia-Iglesias prov., Domusnovas, near sa Duchessa (strada per Perda Niedda), 350 m, UTM 32S 0466233 4359025, sieve, leg. M. Bardiani, G. Nardi, M. Zapparoli & D. Whitmore.

C70: Carbonia-Iglesias prov., Iglesias, Marganai, near Case Marganai, 660 m, UTM 32S 0463341 4556196, car net, leg. D. Birtele P. Cerretti, G. Nardi, M. Tisato & D. Whitmore (VI.04) or hand net, leg. M. Bardiani, G. Nardi, D. Whitmore & M. Zapparoli (XI.06).

C72: Carbonia-Iglesias prov., Domusnovas, near P. ta Planotzara, 309 m, UTM 32S 0465718 4356515, hand net, leg. D. Whitmore.

C82: Carbonia-Iglesias, Iglesias Marganai, Tintillonis, 480 m, Malaise trap, leg. D. Birtele, P. Cerretti, G. Nardi, M. Tisato & D. Whitmore.

C85: Carbonia-Iglesias prov., Iglesias, Marganai, 540 m, near *Foeniculum vulgare*, Malaise trap, IX.2003, some material labelled Mti ti Marganai, leg. D. Birtele P. Cerretti, E. Minari, M. Tisato & D. Whitmore and one specimen from glade with *Foeniculum vulgare*, IX.2004, leg. D. Birtele, P. Cerretti, E. Gatti, F. Mason & D. Whitmore. Some pinned material was collected in XI.2006 by D. Whitmore.

G14: Cagliari prov., Burcei, dintorni Punta ta Serpeddi, 785 m, UTM 32S 0526996 4356738, leg. D. Whitmore.

S1: Carbonia-Iglesias prov., Iglesias, near Colonia Beneck, 636 m, UTM 32S 0462391 4355441, Malaise trap, leg. G. Chessa.

S2: Carbonia-Iglesias prov., Domusnovas, sa Duchessa, 371 m, UTM 32S 0464990 4358384, Malaise trap, leg. G. Chessa.

S3: Carbonia-Iglesias prov., Domusnovas, Valle Oridda, 592 m, UTM 32S 0466973 4362228, Malaise trap, leg. G. Chessa.

SAR1: Carbonia-Iglesias prov., Iglesias, Marganai, 700 m, UTM 32S 0462853 4355582. Most samples were collected by pitfall trap or Malaise trap, a few by other methods, most leg. G. Chessa. This site was described in detail by Mason *et al.* (2006).

Material collected in May and June 1981 by Dr Hans Malicky (Biological Station, Lunz, Austria) (deposited at ZSM or in one case in NCB):

T1: Nuoro prov., Gavoi, Rio Taloro (= Aratu), 3 km south of dam reservoir, 670 m, 40º6'N 9º13'E, leg. H. Malicky.

T2: Olbia-Tempio prov., east of Badde Suelzu, 570 m, 40º44'N 9º20'E, leg. H. Malicky.

T3: Cagliari prov., Capoterra, Rio S. Girolamo, 550 m, 39º50'N 9º24'E, leg. H. Malicky.

T4: Cagliari prov., north of crossroads Sadali-Seulo, 800 m, 39º51'N 9º16'E, leg. H. Malicky.

T5: Oristano prov., south of Allai, tributary of Tirso, 50 m, 39º57'N 8º53'E, leg. H. Malicky.

T6: Province?, near Satzu, 240 m, 40º44'N 9º30'E, leg. H. Malicky.

T7: Province?, Rio Bunne, 10 km north of Paitada [maybe Pattada, Sassari province], 400 m, 40º37'N 9º06'E, leg. H. Malicky.

T8: Cagliari prov., south of Siliqua, 250, 39º12'N 8º48'E, leg. H. Malicky.

T9: Olbia-Tempio prov., Fiume Tirso, 10 km south-east of Budduso, 810 m, 40º34'N 9º20'E, leg. H. Malicky.

Material collected in November 2005 by Olavi Kurina (University of Life Sciences, Tartu, Estonia) (deposited at IZBE):

U0: Olbia-Tempio prov., Capo Ferro near Olbia, sweep netting, leg. O. Kurina.

U1: Sassari prov., Alghero, near Tramariglio, sweep netting, leg. O. Kurina.

U2: Sassari prov., Alghero, near Nuraghe Palmavera, sweep netting, leg. O. Kurina.

U3: Sassari prov., Alghero, coast, sweep netting, leg. O. Kurina.

U4: Oristano prov., Oristano, near Arborea, sweep netting, leg. O. Kurina.
U5: Nuoro prov., Siniscola, 13km south-west, sweep netting, leg. O. Kurina.

Material in other collections examined by the author:

V1: Sassari prov., Monte Limbara, Sassari, 1000 m, leg. L. Matile (MNHN).
V2: Nuoro prov., Desulo, 1000 m, leg. K.M. Guichard (BMNH).
V3: Nuoro prov., Aritzo, 1500 m, 39º55'N 9º20'E, leg. J. Kramer (PJCM).

Faunistic list

Bolitophilidae

1. *Bolitophila* (*Cliopisa*) sp.

Material examined. S1 17–31.X.06 1 ♀. **SAR1** 17.XII.04-4.I.05 1 ♀.

Notes. In the absence of males this species cannot be certainly determined. The enlargement of tarsomeres 2–4 of the fore leg and the structure of the ovipositor are suggestive of *Bolitophila pseudohybrida* Landrock, 1912a, a species recorded from mainland Italy (Chandler 2004a).

Keroplatidae, Keroplatinae, Keroplatini

2. *Cerotelion striatum* (Gmelin, 1790)

Tipula lineata Fabricius, 1775, not *T. lineata* Scopoli, 1763, not *T. lineata* Müller, 1764
Musca striata Gmelin, 1790
Platyura laticornis Meigen, 1818

Literature records. Sardinia (Chandler 2004a; Chandler 2008).

Material examined. V2 19.IX.1964 1 ♂

Chorotype. Type 3 [1.03 of Vigna Taglianti *et al.* (1999)]. Western Palaearctic.

Italian distribution. Southern mainland (Dahl *et al.* 1995) and Sardinia.

Notes. Chandler (2004a) recorded this species from Sardinia based on the specimen cited above.

3. *Keroplatus tipuloides* Bosc, 1792

Ceroplatus sesioides Wahlberg, 1839
Ceroplatus affinis Costa, 1844

Literature records. Sardinia (Costa 1882; Costa 1883; Santini 1980; Dahl *et al.* 1995; Chandler 2004a).

Chorotype. Type 2 [1.05 of Vigna Taglianti *et al.* (1999)]. Palaearctic.

Italian distribution. Northern and southern mainland and Sardinia (Dahl *et al.* 1995).

Notes. Costa (1844) described the synonym *Ceroplatus affinis* from the Italian mainland. A *Keroplatus* Bosc female from T6, 9.VI.1981, was undetermined to species by Norbert Caspers. This is therefore unlikely to have been *K. tipuloides*, which cannot be confused with any other species, so a second species of the genus may be present in Sardinia if the old record of *K. tipuloides* is correct.

Orfeliini

4. *Antlemon halidayi* (Loew, 1871)*

Asyndulum halidayi Loew, 1871
Helladepichoria tenuipes Becker, 1907

Material examined. C14 20–24.V.06 10 ♂♂♂ 1 ♀. **C23** 19–24.V.06 3 ♂♂. **C27** 22.V.06 ♂♂. **C31** 20–23.V.06 ♂♂ ♀♀. **C82** 11.VI.04 ♂♂, 12.VI.04 ♂♂. **S1** 2–16.V.06 2 ♂♂, 16–30.V.06 ♂♂ ♀♀, 30.V–13.VI.06 ♂♂ ♀♀, 13–27.VI.06 ♂♂ ♀♀. **S2** 4–18.IV.06 ♂♂, 18.IV–2.V.06 ♂♂ ♀♀, 2–16.V.06 ♂♂ ♀♀, 16–30.V.06 ♂♂ ♀♀, 30.V–13.VI.06 ♂♂ ♀♀, 13–27.VI.06 ♂♂ ♀♀. **SAR1** 16.II–15.VI.04 2 ♂♂ 1 ♀♀, 20.V–16.VI.05 ♂♂ ♀♀.

Chorotype. Type 7 [3.01 of Vigna Taglianti *et al.* (1999)]. Mediterranean region and the Atlantic Islands.

Italian distribution. Southern Italy and Sicily (Dahl *et al.* 1995) and Sardinia.

5. *Macrorrhyncha gallica* Chandler & Matile *in* Chandler & Blasco-Zumeta, 2001**

Material examined. C14 20–24.V.06 ♂♂ ♀♀. **C23** 19–24.V.06 ♂♂ ♀♀. **C31** 20–23.V.06 2 ♂♂ 1 ♀. **C69** 12.XI.06 ♂♂. **C82** 9–11.VI.04 5 ♂♂. **S1** 30.V–13.VI.06 ♂♂, 13–27.VI.06 ♂♂. **S2** 2–16.V.06 ♂♂, 16–30.V.06 many ♂♂ ♀♀, 30.V–13.VI.06 many ♂♂ ♀♀, 13–27.VI.06 2 ♂♂, 27.VI–11.VII.06 ♂♂ ♀♀. **S3** 13–27.VI.06 ♂♂.

Chorotype. Type 6 [3.02 of Vigna Taglianti *et al.* (1999)]. South-west European, northern Spain, southern France and Corsica.

Italian distribution. Sardinia only.

6. *Monocentrota matilei* Bechev, 1989**
(Figs 1–3)

Material examined. S1 4–18.IV.06 1 ♂ 1 ♀. **S2** 2–16.V.06 1 ♀, 11–25.VII.06 4 ♂♂, 25.VII–8.VIII.06 2 ♂♂.

Chorotype. Type 6 [1.12 of Vigna Taglianti *et al.* (1999)]. Mediterranean and central European.

Italian distribution. Sardinia only.

Notes. *Monocentrota matilei* may be misplaced generically as it differs from other species of the genus in having antennae with only 13 flagellomeres and simple slender apically tapered gonostyli. Other *Monocentrota* Edwards species have 14 flagellomeres as in most Keroplatidae and the gonostyli are blunt ended with internal apical teeth. Bechev (1989) described this species from Bulgaria and Algeria. Papp (2003) recorded it from Hungary and provided more detailed figures of the genitalia. The Sardinian specimens agree in most respects with the figures provided by Bechev and Papp but the genitalia are also figured here (Figs 1–3) as they obviously differ from previous figures in the following respects: tergite 9 longer and more tapered apically and the cerci markedly smaller relative to this tergite (Fig. 3) and teeth only apparent on the apical margin of the aedeagus (Fig. 2) rather than more widely on its surface. The male Sardinian material is also described below to augment the description given by Bechev and to characterise the population. Further study may show that it is specifically distinct but study of further material from other areas would be desirable to determine if this is the case.

Description. Male. *Head* dark brown with short dark occipital bristling. Antenna about as long as thorax, dark brown, with 2 + 13 segments; flagellomeres not much longer than broad. Palpus brownish, slender.

Thorax dark brown with short black bristling on mesonotum in acrostichal and dorsocentral stripes, and irregular longer black setae laterally. Pleura bare except for scattered short setae on upper part of anepisternum. Laterotergite with dark bristling on upper half. Mediotergite bare. *Wing* slightly brownish tinted

on membrane, with costa and radial veins brown. Vein Sc short, ending in costa before level of base of Rs. Vein R_4 short, ending in costa more than twice its length beyond tip of R_1. Costa extends 0.5 distance from R_5 to M_1. Basal part of M not developed; r-m fusion long but shorter than curved Rs and stem of median fork. Vein A_1 weak on apical half but faintly reaching costa. R_1 and R_5 setose, other veins including Rs, r-m fusion and R_4 bare. Haltere yellow. *Wing length* 1.9–2.6 mm. *Legs* brownish yellow, with short dark setulae, those on tibiae and tarsi in regular rows; no stronger setae developed. Fore leg with metatarsus half length of tibia. Tibial spurs brown, a single spur on each tibia, that on fore leg as long as width of tibial apex, on mid leg 1.5 times and on hind leg twice as long as width of tibial apex.

Abdomen including genitalia brown with short dark bristling. *Genitalia* (Figs 1–3) with broadly emarginate gonocoxites, simple slender apically tapered gonostylus and aedeagus short and broad with short marginal teeth. Tergite 9 (Fig. 3) simple, tapered and rounded apically, with small densely bristled cerci protruding apically.

7. *Neoplatyura biumbrata* (Edwards, 1913)*

Platyura biumbrata Edwards, 1913

Material examined. C85 22–25.IX.04 1 ♀. **S2** 2–16.V.06 1 ♂, 3–17.X.06 1 ♂. **SAR1** 29.IX–21.X.03 2 ♂♂. **S1** 16–30.V.06 1 ♂, 5–19.IX.06 1 ♂, 19.IX–3.X.06 1 ♂.

Chorotype. Type 4 [2.01 of Vigna Taglianti *et al.* (1999)]. Western European including Mediterranean region.

Italian distribution. Sicily (Chandler 2004a) and Sardinia.

Notes. The Sicilian record by Chandler (2004a) refers to 2 ♂♂ and 1 ♀ from 7 km north-west of Francavilla [di Sicilia, Messina province], 21.v.1981, leg. H. Malicky, ZSM (det. N. Caspers).

8. *Neoplatyura nigricauda* (Strobl, 1893)

Platyura nigricauda Strobl, 1893

Literature records. Sardinia (Chandler 2008).

Material examined. C07 20–24.V.06 ♀♀. **C82** 9–10.VI.04 ♂♂. **S1** 2–16.V.06 ♂♂ ♀♀, 16–30.V.06 ♂♂, 30.V–13.VI.06 ♂♂, 13–27.VI.06 ♂♂ ♀♀, 22.VIII.5.IX.06 ♀♀, 5–19.IX.06 ♂♂, 19.IX–3.X.06 ♂♂, 3–17.X.06 ♂♂. **S2** 2–16.V.06 ♂♂, 16–30.V.06 ♂♂, 30.V–13.VI.06 ♂♂, 13–27.VI.06 ♀♀, 3–17.X.06 ♂♂, 17–31.X.06 ♂♂. **S3** 30.V–13.VI.06 ♂♂. **SAR1** 29.IX–21.X.03 1 ♂ 2 ♀♀, 31.VIII–14.IX.03 1 ♂ 3 ♀♀, 30.VI–16.VIII.04 ♀♀, 16.VIII.8.IX.04 ♂♂ ♀♀, 8–21.IX.04 ♀♀, 5.VIII.13.IX.05 7 ♂♂ 3 ♀♀, 13–30.IX.05 2 ♂♂, 6.X–5.XI.06 ♂♂ ♀♀.

Chorotype. Type 3 [1.03 of Vigna Taglianti *et al.* (1999)]. Western Palaearctic including the Near East.

Italian distribution. Northern mainland (Chandler 2003a, 2004b, 2008; Kurina 2008), Sicily (Chandler 2004a) and Sardinia.

Notes. The Sicilian record by Chandler (2004a) refers to 2 ♂♂ from 7 km north-west of Francavilla [di Sicilia, Messina province], 14.v.1981 and 1 ♂ from same locality, 21.v.1981, all leg. H. Malicky, ZSM (det. N. Caspers).

Neoplatyura spp. ♀♀

Material examined. C31 20–23.V.06 ♀♀. **S1** 2–16.V.06 1 ♀.

Notes. The identity of these specimens is uncertain. That from C31 is a large robust specimen, wing length 5.6 mm, while that from S1 is delicate with wing length 3.1 mm. Both are clear-winged and mainly yellow, the smaller with brown thoracic stripes.

9. *Orfelia persimilis* Caspers, 1991

Literature records. Sardinia (Caspers 1991; Dahl *et al.* 1995; Chandler 2004a).

Material examined. C14 20–24.V.06 ♂♂. **C23** 19–24.V.06 ♂♂. **S2** 30.V–13.VI.06 ♀♀, 13–27.VI.06 ♂♂, 8–22.VIII.06 ♂♂. **SAR1** 31.VIII.–14.IX.03 2 ♂♂, 14–29.IX.03 1 ♀, 30.VI–16.VII.04 ♂♂, 16.VII–1.VIII.04 ♂♂, 1–16.VIII.04 ♂♂ ♀♀, 16.VIII.8.IX.04 ♂♂, 16.VI–14.VII.05 2 ♂♂, 14.VII–5.VIII.05 3 ♂♂ 1 ♀, 30.IX–17.X.05 ♂♂. **S1** 16–30.V.06 ♂♂, 30.V–13.VI.06 ♂♂, 13–27.VI.06 ♂♂ ♀♀, 11–25.VII.06 ♂♂ ♀♀, 8–22.VIII.06 ♂♂, 22.VIII.5.IX.06 ♀♀. **T6** 9.VI.1981 1 ♂ [holotype, ZSM].

Chorotype. Type 6 [3.02 of Vigna Taglianti *et al.* (1999)]. South-west European.

Italian distribution. Northern mainland (Chandler 2004b) and Sardinia.

Notes. The other material cited from Corsica and Tunisia by Caspers (1991) is now considered not to be conspecific (unpublished observation by the author).

10. *Platyura marginata* Meigen, 1804*

Material examined. V3 22.v.00 1 ♀.

Chorotype. Type 2 [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic, widespread in Europe and extending to the Far East of Russia.

Italian distribution. Mainland of Italy (Chandler 2004a; Kurina 2008) and Sardinia.

Notes. The record from the Italian mainland by Chandler (2004a) was based on material from Aosta and Novara, Maggiore (leg. L. Matile, MNHN) but it has also recently been recorded from South Tyrol by Kurina (2008).

11. *Pyratula takkae* Chandler, 2001**

(Figs 4–5)

Material examined. S1 4–18.IV.06 1 ♂. **SAR1** 16.II–15.VI.04 1 ♂.

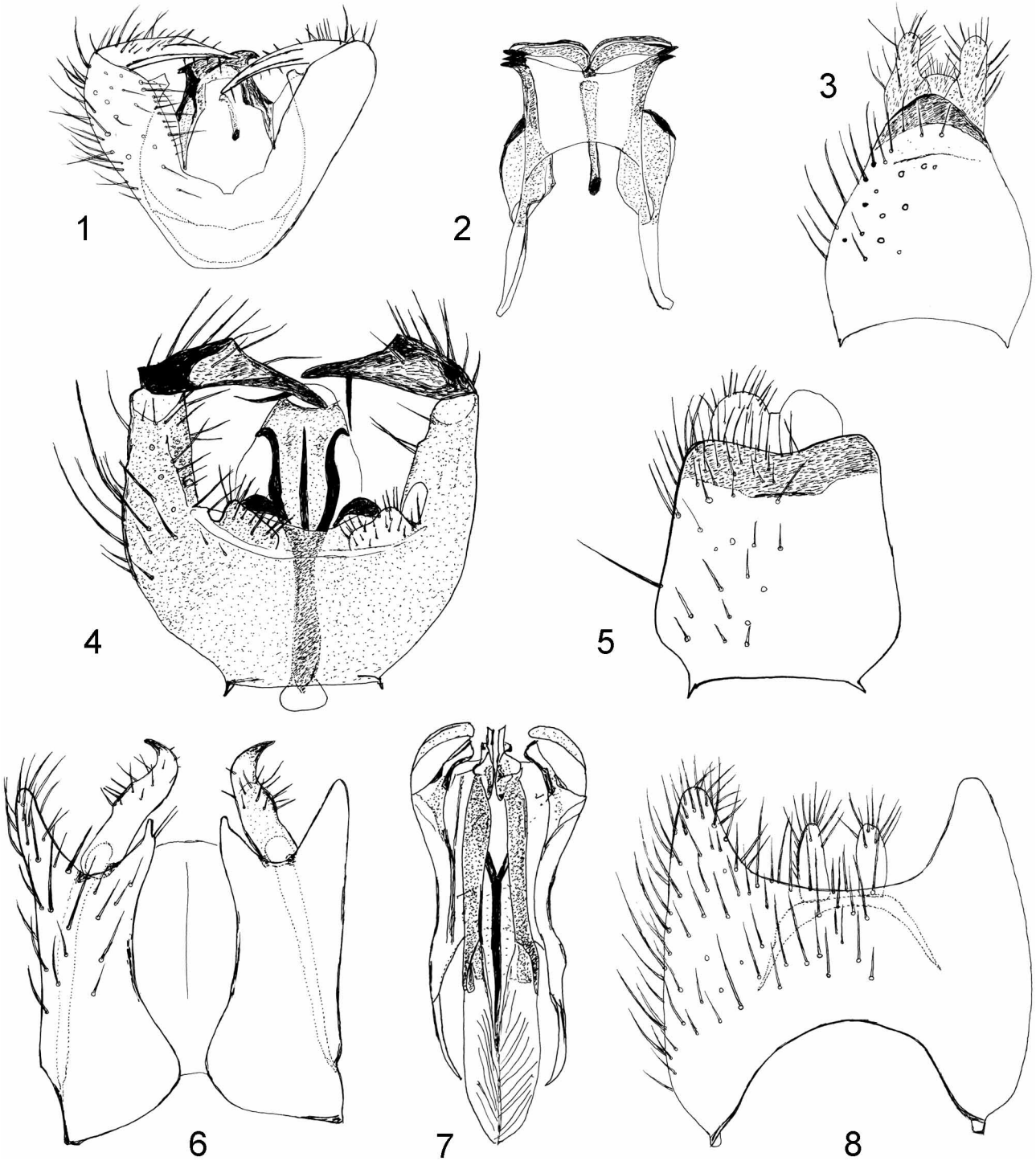
Chorotype. Type 6 [3.01 of Vigna Taglianti *et al.* (1999)]. Mediterranean, previously known only from Greece (Pelopponese).

Italian distribution. Sardinia only.

Notes. Chandler and Blasco-Zumeta (2001) included descriptions of six species of the *Pyratula perpusilla* Edwards, 1925 group, mostly from the Mediterranean region, only *P. perpusilla* itself being known from northern Europe. Among the species described in that paper these specimens are concluded to be conspecific with *P. takkae* pending discovery of further material. They agree well in most characters of the male genitalia (Figs 4–5), in particular in the structure of the apical margin of the gonocoxites, which is characteristic in species of this group. The holotype of *P. takkae* was unusual in this genus in having strong setae on the mediotergite. These specimens differ in lacking these setae so in the absence of other material it is not possible to say which condition is typical of the species. The holotype has the head damaged and lacks flagellomeres. The Sardinian specimens have the antenna 1.5 times as long as the thorax and the flagellomeres are about twice as long as broad.

Chandler (2004b) recorded *P. perpusilla* as new to Italy from Bosco della Fontana and Kurina (2008) recorded two species of this group from South Tyrol, *P. alpicola* Chandler, 2001 (also known from Czech Republic, the Swiss Alps and Andorra) and *P. oracula* Chandler, 1994 (mainly Mediterranean but also

occurring in Czech Republic and Switzerland). The finding of this species in Sardinia is thus of considerable interest, identifying Italy as having the richest known fauna of this genus.



FIGURES 1–8. Male genitalia. **1–3.** *Monocentrota matilei* Bechev (Sardinia, sa Duchessa). **1.** Ventral view of gonocoxites and gonostyli, with aedeagus in situ. **2.** Aedeagus. **3.** Tergite 9 and cerci. **4–5.** *Pyratula takkae* Chandler (Sardinia, Colonia Beneck). **4.** Ventral view of gonocoxites and gonostyli, with aedeagus in situ. **5.** Tergite 9 and cerci. **6–8.** *Urytalpa juliae* sp. nov. (paratype, Sardinia, sa Duchessa). **6.** Ventral view of gonocoxites and gonostyli. **7.** Aedeagus. **8.** Tergite 9 and cerci.

12. *Urytalpa juliae* sp. nov.
(Figs 6–8)

Type material. Holotype ♂: I-Sardegna (Carbonia-Iglesias), Domusnovas, sa Duchessa, 371 m, UTM WGS84 32 S 0464990 4358384, 4-18.IV.2006, Malaise trap S2, G. Chessa legit, Progetto Sardegna – CNBF (CNBFVR).

Paratypes: 1 ♂: I-Sardegna (Cagliari), Iglesias Marganai, 700 m, Plot Conecofor SAR1, UTM 32 S 462853 4355582, 29.IV-20.V.2005, Malaise trap, G. Chessa legit, Conecofor Programme CNBFVR; 10 ♂♂: I-Sardegna (Carbonia-Iglesias), Iglesias, near Colonia Beneck, 636 m, UTMWGS84 32 S 0462391 4355441, 21.III-4.IV.2006, Malaise trap S1, G. Chessa legit, Progetto Sardegna – CNBF; 7 ♂♂ 1 ♀: same data as previous except 4-18.IV.2006; 20 ♂♂ 1 ♀: same data as previous except 18.IV-2.V.2006; 1 ♂: same data as previous except 30.V-13.VI.2006; 6 ♂♂: same data as holotype except 21.III-4.IV.2006; 3 ♂♂: same data as holotype; 2 ♂: same data as holotype except 18.IV-2.V.2006; 5 ♂♂ 1 ♀: I-Sardegna (Carbonia-Iglesias), Domusnovas, Valle Oridda, 592 m, UTMWGS84 32 S 0466973 4362228, 4-18.IV.2006, Malaise trap S3, G. Chessa legit, Progetto Sardegna – CNBF; 1 ♀: same data as previous except 18.IV-2.V.2006 (paratypes deposited at CNBFVR, BMNH and PJCM).

Other material. 1 ♂: I-Sardegna (Cagliari), Iglesias Marganai, 700 m, Plot Conecofor SAR1, UTM 32 S 462853 4355582, 29.IV-20.V.2005, Malaise trap, G. Chessa legit, Conecofor Programme CNBFVR; 7 ♂♂ 7 ♀♀: Sardegna (Carbonia-Iglesias), Iglesias, near Colonia Beneck, 636 m, UTMWGS84 32 S 0462391 4355441, 2-16.V.2006, Malaise trap S1, G. Chessa legit, Progetto Sardegna – CNBF, 1 ♂: I-Sardegna (Carbonia-Iglesias), Domusnovas, Valle Oridda, 592 m, UTMWGS84 32 S 0466973 4362228, 21.III-4.IV.06, Malaise trap S3, G. Chessa legit, Progetto Sardegna – CNBF (all deposited at CNBFVR).

Diagnosis. A slender-bodied mainly brownish species with the mesonotum yellow with brown stripes and abdominal tergites with yellow apical markings, belonging to a group of the genus with the gonocoxites broadly separated ventrally and connected only by a membrane and with the gonostylus slender and outwardly curved apically, differing from the other species of this group in the gonocoxites not being tapered on the apical half and with their lateral margins not extending beyond the tips of the gonostyli, also in that tergite 9 is not constricted medially or produced laterally.

Description. Male. *Head* dark brown with short dark bristling. Antenna dark brown, about twice as long as head and thorax, with 2 + 14 segments; flagellomeres about 5 times as long as broad. Proboscis a little longer than typical for the genus, about a quarter head height in length. Palpus dark brown, slender.

Thorax brownish yellow with three dark brown stripes on mesonotum, the median reaching from fore margin but fading before prescutellar area, the laterals rounded in front leaving broad yellow humeral areas; short black bristling in a narrow median acrostichal row, irregular dorsocentrals between the brown stripes, becoming longer posteriorly, and irregular longer black setae laterally. Scutellum yellow, slightly darker on disc, with 6–8 fine setae on apical margin, medials as long as scutellum. Pleura brownish, bare except laterotergite with short dark bristling on disc. Mediotergite a little darker, bare. *Wing* yellowish with yellow veins. Vein Sc long, ending in costa just beyond level of base of Rs. Vein R_4 diagonal, ending in costa a little more than its length beyond tip of R_1. Costa thickened from just before tip of R_1, narrowing again before tip of R_5 and extending 0.25 distance from R_5 to M_1; the dense costal setulae in 3–4 rows on the thickened portion. Basal part of M not developed; r-m fusion short, nearly half as long as stem of median fork. Vein A_1 weak on apical half but reaching costa. Fork veins and vein A_1 with short setulae. Haltere yellow with many short dark setulae on knob. *Wing length* 3.9–5.2 mm. *Legs* mainly yellow, but mid and hind coxae brown and trochanters dark brown; bearing short dark setulae irregularly distributed on tibiae but more regular on tarsi; femora with a row of short ventral setae and tibiae with irregular rows of weak setae little more than half tibial diameter in length. Fore metatarsus 0.9 length of its tibia. Tibial spurs brown: fore tibia with a single spur, 1.5 times as long as width of tibial apex; mid and hind tibiae with two spurs, each with the posterior spur about 3 times as long as width of tibial apex and the anterior spur about 0.75 times as long as the posterior spur.

Abdomen brown with tergites from 2 onwards yellow apically, narrowly on 2, apical third on 3, apical half on 4–5, more narrowly on shorter tergites 6–7, 8 all brownish; genitalia and sternites brownish yellow; all bristling dark. *Genitalia* (Figs 6–8) with widely separated gonocoxites having only membranous connection; gonostylus simple, narrowed and outwardly pointed apically; aedeagus (Fig. 7) broad and robust, longer than gonocoxites. Tergite 9 (Fig. 8) broad but narrowed medially, small densely bristled cerci protruding from apical emargination.

Female. Similar to male in most respects but antennae markedly smaller and shorter than thorax with median flagellomeres only about 3 times as long as broad. Abdomen mainly brownish yellow, tergites only narrowly yellow on apical margins. Ovipositor short with simply rounded sternal lobes and short cerci. *Wing length* 3.4–4.0 mm.

Etymology. This species is named for my friend Julie Locke to acknowledge her help and encouragement during the preparation of this paper.

Chorotype. Type 6 [3.02 of Vigna Taglianti *et al.* (1999)]. Mediterranean.

Italian distribution. Sardinia only.

Notes. Evenhuis (2006) listed 12 species of *Urytalpa* Edwards worldwide. Bechev and Koç (2008) added a new species from Turkey and transferred *Platyura maritima* Becker, 1907, described from Tunisia, to the genus. They provided a key to seven west Palaearctic species, in which *U. juliae* runs to *U. nussbaumi* Chandler, 1994 described from Israel. Kjærandsen *et al*. (2009) described a new species from Sweden and transferred a Nearctic species to this genus, increasing the known world fauna to 16. They included a key to males of 14 species, compiled from the literature and principally using genital characters; *U. juliae* runs in this key to the Japanese species *U. yoshidai* Uesugi, 2004.

Although *Urytalpa* is a relatively small genus, there is some variation in genital structure and Kjærandsen *et al*. (2009) remarked on the need for a revision of this and allied genera. Chandler (1994) and Uesugi (2004) respectively commented on similarities in genital structure of *U. nussbaumi* and *U. yoshidai* to *Asindulum* Latreille. The latter genus, revised by Matile (1975), is typified by an elongate proboscis but has other characters close to *Urytalpa* and it is possible that this group of *Urytalpa* is more allied to that genus.

Urytalpa juliae resembles *U. nussbaumi* and *U. yoshidai* in having the gonocoxites broadly separated ventrally and connected only by a membrane and in the form of the gonostyli, which are slender and outwardly curved to a point apically. Other Palaearctic species of the genus have the gonocoxites narrowly to broadly fused basally. It differs from *U. nussbaumi* in the gonocoxites not being tapered on the apical half, the gonostyli relatively larger and tergite 9 broad medially where it is constricted in *U. nussbaumi*. In these respects it resembles *U. yoshidai* but that species differs in having a longer proboscis (at least half the height of head while it is only about a quarter of head height in *U. juliae*), in the lateral margins of the gonocoxites extending beyond the tips of the gonostyli and in having tergite 9 extended by a digitiform process on each lateral margin.

Macrocerinae

13. *Macrocera incompleta* Becker, 1908**

Macrocera tyrrhenica Edwards, 1928

Material examined. S1 21.III–4.IV.06 1 ♂, 4–18.IV.06 3 ♂♂ 1 ♀, 17–31.X.06 1 ♀. **S2** 18.IV–2.V.06 1 ♀. **SAR1** 1.III–29.IV.05 1 ♀.

Chorotype. Type 7 [3.01 of Vigna Taglianti *et al.* (1999)]. Mediterranean region and Atlantic Islands.

Italian distribution. Sardinia only.

Notes. Chandler and Ribeiro (1995) proposed the synonymy of the Canarian species *M. incompleta* with *M. tyrrhenica*, described from Corsica. Chandler *et al.* (2006) recorded this species from Greece.

14. *Macrocera nuragica* sp. nov.
(Figs 9–10)

Type material. Holotype ♂: I-Sardegna (Carbonia-Iglesias), Domusnovas, sa Duchessa, 371 m, UTM WGS84 32 S 0464990 4358384, 2-16.V.2006, Malaise trap S2, G. Chessa legit, Progetto Sardegna – CNBF (CNBFVR).

Paratype: 1 ♀: same data as holotype except 18.IV-2.V.2006 (CNBFVR).

Diagnosis. A small (for the genus) brownish yellow species with abdominal segments 6–8 and the genitalia darker brown and unmarked wings with macrotrichia present on most of membrane, belonging to a group with the male genitalia more complex than is typical for the genus, including a sclerotised aedeagal apodeme, resembling some species of this group in the cerci being elongate and narrowed apically, distinguished from them by the structure of the gonostylus which is broadly rounded ventrally and extended as a blunt sclerotised process dorsally.

Description. Male. *Head* mainly brown but face yellow; short dark bristling becoming longer ventrally on occiput and strong black setae on face. Antenna brown with scape and pedicel yellowish; elongate and probably about as long as body, but with tips missing, comprising only 9 and 10 flagellomeres respectively; long slender flagellomeres bear short dark bristling. Palpus yellowish, slender.

Thorax yellowish brown with all bristling dark, bearing three stripes on mesonotum, the median extending from fore margin onto disc of scutellum, the laterals rounded anteriorly and leaving large yellow humeral areas; mediotergite also dark medially. Pleura bare except for several short setae on upper part of anepisternum and some on disc of laterotergite. Mediotergite bare. *Wing* yellowish with brownish veins. Macrotrichia distributed over most of wing membrane, except radial sector and near base. Vein Sc long, ending in costa shortly before level of r-m fusion. Vein R_4 curved, ending in costa its length beyond tip of R_1 and not enlarged apically. Costa extending 0.2 distance from R_5 to M_1. Basal part of M well developed but faint in apical half; r-m fusion very short. Vein A_1 reaching costa. Base of m-Cu and basal portion of CuA_1 adjoining it pale and asetose, all other veins including Rs, r-m fusion and R_4 setose. Haltere yellow, bearing many fine setulae. *Wing length* 3.7 mm. *Legs* yellow except coxae 2–3 which are brownish; only parts of fore legs and femur and tibia of one hind leg present in holotype; bearing short dark setulae, irregular on tibiae. Fore metatarsus half length of its tibia.

Abdomen with segments 1–5 brownish yellow, 6–8 dark brownish and genitalia brown; all with short dark bristling. *Genitalia* (Figs 9–10) brown with broadly fused gonocoxites which bear dense fine setae on distal margins; gonostylus broadly rounded ventrally and extended as a blunt apically broadened sclerotised process dorsally; aedeagus membranous but with sclerotised apodeme. Tergite 9 (Fig. 10) short and broad; cerci elongate, broad basally but extended as slender processes, which are approximated apically and bear a few strong setae.

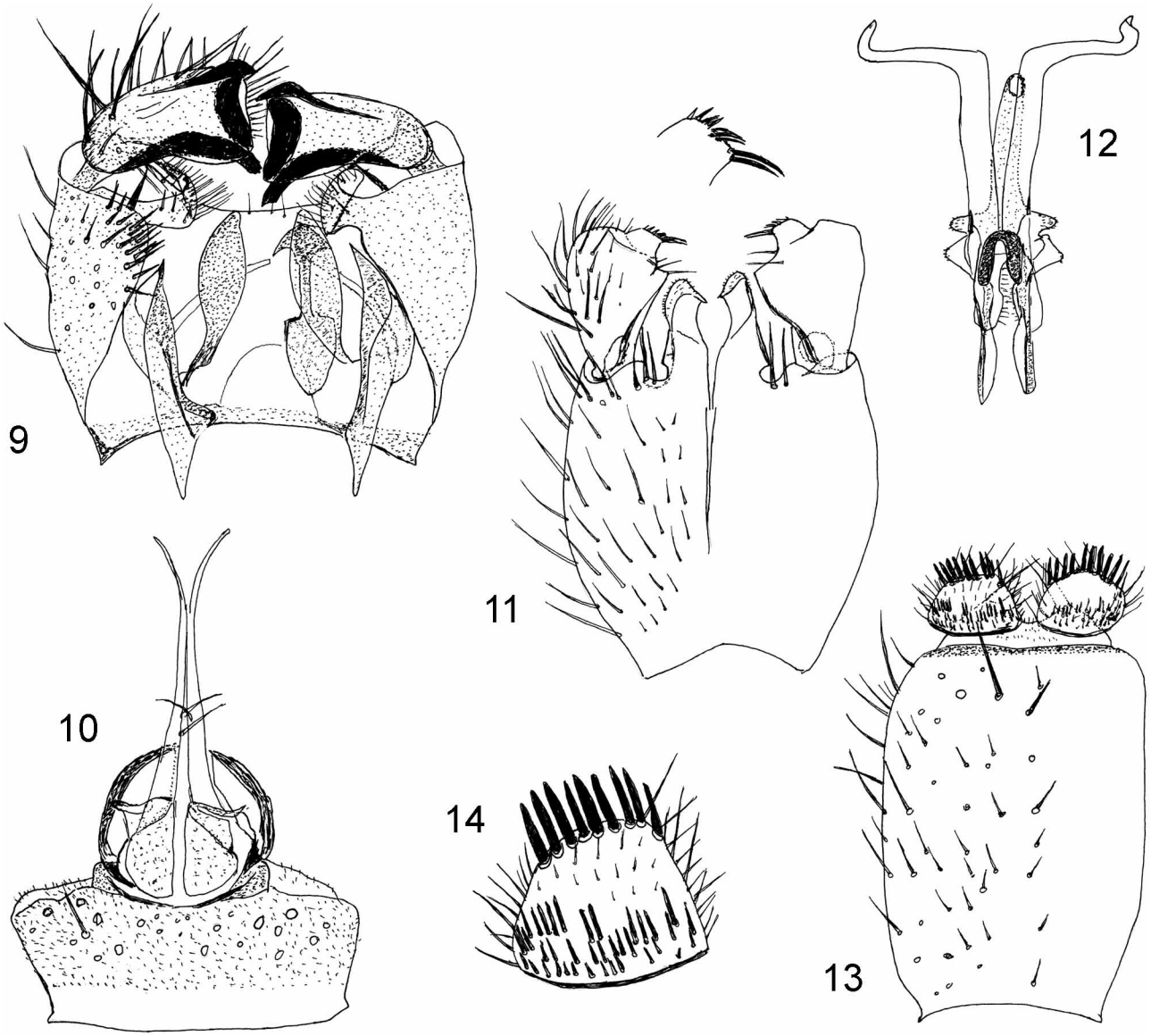
Female. Similar to male. Antenna probably relatively shorter and about two thirds body length but also with tips missing, comprising only 10 and 7 flagellomeres respectively. Wing brownish tinged. Costa extending 0.3 times distance from R_5 to M_1. Legs with one fore and one hind leg missing in specimen. Abdomen with tergites 1–4 yellow on apical half, 5–6 on apical third, 7 entirely brown. Ovipositor short, tergites 8–9 and sternite 8 brown; short slender two-segmented cerci yellowish. *Wing length* 3.3 mm.

Etymology. Named for the Nuragic people who were the aboriginal inhabitants of Sardinia.

Chorotype. Type 6 [3.02 of Vigna Taglianti *et al.* (1999)]. Mediterranean.

Italian distribution. Sardinia only.

Notes. This species belongs to a mainly Mediterranean group of *Macrocera* Meigen with macrotrichia on the wing membrane and more complex genital structure than is found in most species of the genus. Members of this group were described by Bechev (1991), Chandler (1994), Chandler and Gatt (2000), Martinovský (2001) and Chandler *et al.* (2006). Among this group it is allied to *M. buskettina* Chandler, 2001 from Malta and *M. gemagea* Bechev, 1991 from Bulgaria, which also have the cerci slender and narrowed apically, but differs in the structure of the gonostylus.



FIGURES 9–14. Male genitalia. **9–10.** *Macrocera nuragica* sp. nov. (holotype). **9.** Ventral view of gonocoxites and gonostyli, with aedeagal apodeme displaced to right. **10.** Tergite 9 and cerci. **11–14.** *Boletina ichnusa* sp. nov. (holotype). **11.** Ventral view of gonocoxites and gonostyli, with enlarged view of gonostylar process inset above. **12.** Aedeagus. **13.** Tergite 9 and cerci. **14.** Enlarged view of right cercus.

15. *Macrocera phalerata* Meigen, 1818

? *Macrocera penicillata* Costa, 1857

Literature records. Sardinia (Chandler 2004a).

Material examined. S1 18.IV–2.V.06 2 ♀♀, 2–16.V.06 3 ♀♀, 3–17.X.06 1 ♀, 17–31.X.06 2 ♂♂ 4 ♀♀. **S2** 4–18.IV.06 2 ♂♂ 5 ♀♀, 18.IV–2.V.06 5 ♀♀, 16–30.V.06 2 ♀♀, 13–27.VI.06 1 ♀, 3–17.X.06 4 ♀♀. **SAR1** 16.II–15.VI.04 1 ♀, 5–22.XI.04 1 ♀, 29.IV–20.V.05 2 ♀♀, 20.V–16.VI.05 1 ♀, 13–30.IX.05 7 ♂♂ 3 ♀♀, 30.IX–17.X.05 2 ♂♂ 4 ♀♀ , 6.X–5.XI.06 1 ♂. **T1** 6–7.VI.1981 1 ♂ 1 ♀, 21.X.1981 1 ♂. **T2** 31.V.1981 2 ♀♀.

Chorotype. Type 3 [1.03 of Vigna Taglianti *et al.* (1999)]. Western Palaearctic, including North Africa, Israel and Iran.

Italian distribution. Northern mainland (Dahl *et al.* 1995; Kurina 2008) and Sardinia.

Notes. Chandler (2004a) recorded this species from Sardinia based on the specimens from T1 and T2 cited above. The Sardinian material of this species mostly has three brown stripes indistinctly indicated on the mesonotum in contrast to most European material, which has the mesonotum mainly yellow without a central stripe and the lateral stripes reduced to supra-alar patches. Although resembling *M. parcehirsuta* Becker in that respect, no structural difference from typical *M. phalerata* has been found and they are concluded to be conspecific. The description of *M. penicillata* Costa, 1857, based on a male from near Napoli on the Italian mainland (Costa 1857), resembles more typical specimens of *M. phalerata* in having only the two dark patches on the thorax and is considered likely to be synonymous. It has not been recorded since its original description and has been distinguished on the male antennae being 4 times body length compared to about 3 times in *M. phalerata*; this is to some extent subjective depending on the degree of contraction of the abdomen and the antennae appear 4 times body length in some of the Sardinian specimens.

16. *Macrocera stigmoides* Edwards, 1925

Literature records. Sardinia (Chandler 2004a).

Material examined. S1 21.III-4.IV.06 1 ♂ 3 ♀♀, 4-18.IV.06 1 ♀, 18.IV-2.V.06 1 ♂, 3-17.X.06 1 ♀, 17-31.X.06 3 ♀♀. **S2** 21.III-4.IV.06 1 ♀, 4-18.IV.06 1 ♀, 18.IV-2.V.06 2 ♀, 3-17.X.06 1 ♀, 17-31.X.06 1 ♀. **S3** 21.III-4.IV.06 2 ♂♂ 3 ♀♀, 18.IV-2.V.06 1 ♀, 2-16.V.06 1 ♂, 17-31.X.06 1 ♀. **C31** 22.III.06 1 ♀. **T2** 31.V.1981 1 ♂. **T3** 27.V.1981 1 ♀. **U5** 23.XI.05 1 ♂.

Chorotype. Type 3 [1.03 of Vigna Taglianti *et al.* (1999)]. Western Palaearctic.

Italian distribution. Northern mainland and Sardinia (Chandler 2004a).

Notes. Chandler (2004a) recorded this species from Sardinia based on the specimens from T2 and T3 cited above. The hitherto unpublished Italian mainland record was based on material from Aosta (leg. L. Matile, MNHN) and 1 ♂ from Belluno, Cortina [d'Ampezzo, Belluno province], 23-24.VIII.1967 (leg. B.H. & M.C. Cogan, BMNH).

17. *Macrocera vittata* Meigen, 1830

Literature records. Sardinia (Chandler 2004a).

Material examined. T4 28.V.1981 1 ♀. **T5** 5.VI.1981 1 ♀ (both det. N. Caspers).

Chorotype. Type 4 [2.01 of Vigna Taglianti *et al.* (1999)]. European, widespread and frequent.

Italian distribution. Northern mainland, Sardinia and Sicily (Chandler 2004a).

Notes. Chandler (2004a) recorded this species from Sardinia based on the specimens cited above. The Sicilian record by Chandler (2004a) refers to 1 ♂ from 7 km north-west of Francavilla [di Sicilia, Messina province], 14.V.1981, 1 ♂ from same locality, 21.V.1981 and 1 ♂ from north of Petralia, 17.V.1981, leg. H. Malicky, ZSM (det. N. Caspers). That from the Italian mainland was based on material from Aosta (leg. L. Matile, MNHN).

Mycetophilidae, Gnoristinae

18. *Boletina basalis* (Meigen, 1818)

Leia basalis Meigen, 1818

Literature records. Sardinia (Chandler 2008).

Material examined. SAR1 17.XII.04–4.I.05 2 ♂♂

Chorotype. Type 4 [2.01 of Vigna Taglianti *et al.* (1999)]. European.

Italian distribution. Northern mainland (Dahl *et al.* 1995; Chandler 2008; Kurina 2008) and Sardinia.

19. *Boletina gripha* Dziedzicki, 1885*

Material examined. S1 21.III–4.IV.06 ♂♂ ♀♀, 4–18.IV.06 2 ♂♂, 18.IV–2.V.06 ♂♂ ♀♀, 2–16.V.06 ♂♂ ♀♀, 16–30.V.06 ♂♂, 3–17.X.06 ♂♂, 17–31.X.06 ♂♂ ♀♀. **S2** 21.III–4.IV.06 ♂♂ ♀♀, 4–18.IV.06 ♂♂ ♀♀, 18.IV–2.V.06 ♂♂ ♀♀, 2–16.V.06 ♂♂, 3–17.X.06 ♀♀, 17–31.X.06 ♂♂ ♀♀. **S3** 21.III–4.IV.06 ♂♂ ♀♀, 4–18.IV.06 ♂♂ ♀♀, 17–31.X.06 ♂♂ ♀♀. **SAR1** 29.IX–21.X.03 2 ♂♂ 1 ♀, 21.X–17.XI.03 ♂♂ ♀♀, 12.XII.03–8.I.04 ♂♂, 8–21.I.04 ♂♂ ♀♀, 21.I–16.II.04 ♂♂ ♀♀, 16.II–15.VI.04 ♂♂ ♀♀, 15–30.VI.04 ♂♂ ♀♀, 5–22.XI.04 ♂♂ ♀♀, 22.XI–17.XII.04 ♂♂ ♀♀, 17.XII.04–4.I.05 2 ♂♂, 4.I–18.I.05 3 ♂♂ 7 ♀♀, 18.I–1.III.05 ♂♂ ♀♀, 1.III–29.IV.05 ♂♂ ♀♀, 29.IV–20.V.05 ♂♂ ♀♀, 20.V–16.VI.05 ♂♂, 13–30.IX.05 1 ♂ 1 ♀, 30.IX–17.X.05 8 ♂♂ 17 ♀♀, 17.X–3.XI.05 8 ♂♂ 4 ♀♀, 3–16.XI.05 2 ♂♂ 9 ♀♀, 16.XI–2.XII.05 2 ♂♂ 6 ♀♀, 2–16.XII.05 2 ♂♂ 2 ♀♀, 16.XII.05–3.I.06 11 ♂♂. **U5** 23.XI.05 1 ♂ 1 ♀.

Chorotype. Type 2 [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic, including Atlantic Islands.

Italian distribution. Northern mainland (Chandler 2004a) and Sardinia.

Notes. The Italian mainland record by Chandler (2004a) was based on material from Aosta, leg. L. Matile (MNHN).

20. *Boletina ichnusa* sp. nov.

(Figs 11–14)

Type material. Holotype ♂: I-Sardegna (Cagliari), Iglesias Marganai, 700 m, Plot Conecofor SAR1, UTM 32 S 462853 4355582, 17.XII.2004-4.I.2005, Malaise trap, G. Chessa legit, Conecofor Programme CNBF (CNBFVR).

Paratype: 1 ♂: same data as holotype except 18.I-1.III.2005 (CNBFVR).

Diagnosis. A small dark species with legs yellow except mid and hind coxae which are mainly dark and a bare laterotergite, differing from other species with these characters by the structure of the male genitalia, the gonocoxites narrowly cleft medially with a pair of short broad ventral apical processes, the gonostylus broad with a short medial setose process and the cerci short and broad, with an apical comb of thickened setae and irregularly distributed setae on basal half.

Description. Male. *Head* dark brown with dark bristling. Antenna dark brown, twice as long as head and thorax together, with long slender flagellomeres. Palpus yellowish, slender, as long as head.

Thorax dark brown with black bristling on mesonotum and scutellum. Pleura, laterotergite and mediotergite bare. *Wing* clear, with costa and radial veins brown. Vein Sc ending in costa beyond level of base of Rs. Vein Sc_2 present, at just beyond half length of Sc. Costa extending 0.5 times distance from R_5 to M_1. Vein R_5 divergent from R_1 basally, then parallel with it in median portion and again divergent apically. Crossvein r-m diagonal, about two thirds length of stem of median fork. Veins setulose except for Sc, Sc_2, r-m, tb, A_1, stems of forks and bases of fork veins. Vein A_1 weak, ending just beyond level of base of posterior fork. Haltere yellow. *Wing length* 3.7–3.9 mm. *Legs* yellow except for mid and hind coxae which are mostly dark brown but a little paler apically; with short dark irregular setulae, tibiae with irregular rows of weak setae, of length subequal to 1.5 tibial width. Fore metatarsus 0.6 length of its tibia. Tibial spurs long, yellow; fore leg with one spur, mid and hind legs with two spurs.

Abdomen including genitalia brown with short dark bristling. *Genitalia* (Figs 11–14) with gonocoxites

narrowly cleft medially with a pair of ventral apical processes, which are broad basally, then curved and internally emarginate on apical half; gonostylus broad with a short medial setose process; aedeagus (Fig. 12) with short preapically geniculate apical lobes. Tergite 9 (Fig. 13) narrowly articulated with gonocoxites basally; cerci short and broad, with an apical comb of thickened setae and irregularly distributed smaller thickened setae on basal half (Fig. 14).

Female. Unknown.

Etymology. The ancient name of the island of Sardinia and is a noun in apposition.

Chorotype. Type 6 [3.02 of Vigna Taglianti *et al.* (1999)]. Mediterranean.

Italian distribution. Sardinia only.

Notes. This species belongs to the *Boletina sciarina* group, which also includes the other Sardinian species except *B. basalis*, and many others in the Palaearctic fauna. These are characterised by absence of setae on the laterotergite and the structure of the male genitalia including an undivided gonostylus. Within this group it resembles *B. gripha* and a few other species in having partly darkened coxae and differs from previously known species in the form of the gonocoxites and gonostylus.

21. *Boletina lundstroemi* Landrock, 1912b*

Material examined. S1 4–18.IV.06 1 ♂, 16–30.V.06 1 ♂. **SAR1** 16.II–15.VI.04 4 ♂♂, 17.X–3.XI.05 1 ♂.

Chorotype. Type 2 [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic.

Italian distribution. Northern mainland (Chandler 2003c) and Sardinia.

22. *Boletina sciarina* Staeger, 1840

Literature records. Sardinia (Chandler 2008).

Material examined. C82 11–12.VI.04 3 ♂♂. **S1** 18.IV–2.V.06 1 ♂. **SAR1** 4–18.I.05 1 ♀. 18.I–1.III.05 1 ♂.

Chorotype. Type 1 [1.01 of Vigna Taglianti *et al.* (1999)]. Holarctic..

Italian distribution. Northern mainland and Sardinia.

Notes. Although listed from northern Italy by Dahl *et al.* (1995) and recorded by Hellrigl (1996, South Tyrol) and Chandler (2003c, 2004b) this species was omitted in error by Chandler (2004a); its occurrence in South Tyrol was confirmed by Kurina (2008), and it was also recorded from Venetia (Belluno province) by Chandler (2008).

Boletina spp. ♀♀

Material examined. S2 17–30.X.06 ♀♀. **SAR1** 4–18.I.05 2 ♀♀, 18.I–1.III.05 9 ♀♀, 30.IX–17.X.05 1 ♀, 3–16.XI.05 1 ♀, 16.XI–2.XII.05 2 ♀♀. 16.XII.05–3.I.06 3 ♀♀, 16.XII.05–3.I.06 1 ♀. **U4** 22.XI.05 1 ♀.

Notes. These are undetermined females which could belong to either of the above two species.

23. *Coelosia fusca* Bezzi, 1892

Coelosia silvatica Landrock, 1918

Literature records. Sardinia (Chandler 2008).

Material examined. C01 24.III.06 3 ♂♂. **C16** 23.III.06 1 ♀. **C18** 9.XI.06 [1 specimen lacking abdomen].

S1 21.III–4.IV.06 ♂♂, 4–18.IV.06 ♂♂, 3–17.X.06 3 ♂♂, 17–31.X.06 ♂♂. **S2** 4–18.IV.06 ♀♀. **S3** 21.III–4.IV.06 ♀♀, 3–17.X.06 ♂♂ ♀♀, 17–31.X.06 ♂♂ ♀♀. **SAR1** 29.IX–21.X.03 1 ♂, 21.X–17.XI.03 6 ♂♂, 12.XII.03–8.I.04 ♀♀, 8–21.I.04 ♂♂, 21.I–16.II.04 ♂♂ ♀♀, 16.II–15.VI.04 ♂♂ ♀♀, 15–30.VI.04 1 ♂, 17.XII.04–4.I.05 3 ♂♂ 3 ♀♀ 1 without abdomen, 4–18.I.05 10 ♂♂ 19 ♀♀, 18.I–1.III.05 4 ♂♂ 7 ♀♀, 1.III–29.IV.05 1 ♂ 1 ♀, 30.IX–17.X.05 1 ♀, 17.X–3.XI.05 1 ♀, 3–16.XI.05 1 ♂ 1 ♀, 2–16.XII.05 3 ♀♀, 16.XII.05–3.I.06 3 ♀♀, 6.X–5.XI.06 ♂♂. **U5** 23.XI.05 1 ♂.

Chorotype. Type 3 [1.03 of Vigna Taglianti *et al.* (1999)]. Western Palaearctic including Canary Islands and Israel.

Italian distribution. Northern and southern mainland (Chandler 2007; Chandler 2008; Kurina 2008) and Sardinia.

Notes. Although originally described from Italy, Pavia (Bezzi 1892) this species was omitted by Dahl *et al.* (1995). Søli (1997) gave additional records from Lombardy and Aosta Valley.

24. *Ectrepesthoneura gracilis* Edwards, 1928*

Material examined. C70 14.XI.06 1 ♂. **S1** 21.III–4.IV.06 ♂♂, 4–18.IV.06 ♀♀, 18.IV–2.V.06 ♂♂ ♀♀, 17–31.X.06 ♂♂. **S2** 21.III–4.IV.06 ♂♂ ♀♀, 4–18.IV.06 2 ♀♀, 17–31.X.06 ♂♂ ♀♀. **S3** 21.III–4.IV.06 ♀♀, 4–18.IV.06 ♀♀, 18.IV–2.V.06 ♂♂ ♀♀. **SAR1** 21.X–17.XI.03 ♂♂ ♀♀, 12.XII.03–8.I.04 ♂♂ ♀♀, 8–21.I.04 ♂♂ ♀♀, 21.I–16.II.04 4 ♂♂ 1 ♀, 16.II–15.VI.04 3 ♂♂ 1 ♀, 15–30.VI.04 ♂♂ ♀♀, 5–22.XI.04 ♂♂, 22.XI–17.XII.04 ♂♂ ♀♀, 17.XII.04–4.I.05 ♂♂ ♀♀, 4.I–18.I.05 10 ♂♂ 10 ♀♀, 18.I–1.III.05 6 ♂♂ 11 ♀♀, 1.III–29.IV.05 ♂♂, 29.IV–20.V.05 ♂♂ ♀♀, 30.IX–17.X.05 4 ♂♂ 2 ♀♀, 17.X–3.XI.05 5 ♂♂ 3 ♀♀, 3–16.XI.05 4 ♂♂ 1 ♀, 16.XI–2.XII.05 10 ♂♂ 2 ♀♀, 2–16.XII.05 3 ♂♂ 5 ♀♀, 16.XII.05–3.I.06 4 ♂♂ 3 ♀♀. **U1** 21.XI.05 2 ♀♀. **U2** 21.XI.05 1 ♂ 2 ♀♀. **U5** 23.XI.05 1 ♂.

Chorotype. Type 6 [3.02 of Vigna Taglianti *et al.* (1999)]. Western Mediterranean: Spain, southern France, Corsica, Malta and Italy.

Italian distribution. Sicily (Chandler 2004a) and Sardinia.

Notes. The Sardinian specimens agree better with Corsican material in having only faintly marked wings but occasional examples have markings more approaching those found in Maltese material (Chandler & Gatt 2001). The Sicilian record by Chandler (2004a) refers to 1 ♂ from 7 km north-west of Francavilla [di Sicilia, Messina province], 14.v.1981 (leg. H. Malicky, ZSM; det. N. Caspers).

25. *Synapha fasciata* Meigen, 1818

Literature records. Sardinia (Chandler 2004a).

Material examined. C31 12–17.VII.06 ♂♂ ♀♀. **C58** 6.IX.06 ♂♂, 12.IX.06 1 ♂ 3 ♀♀. **C82** 9–10.VI.04 9 ♂♂. **S1** 4–18.IV.06 ♀♀, 18.IV–2.V.06 2 ♂♂, 2–16.V.06 2 ♂♂, 16–30.V.06 ♂♂ ♀♀, 30.V–13.VI.06 ♂♂ ♀♀, 13–27.VI.06 ♂♂, 27.VI–11.VII.06 ♂♂, 11–25.VII.06 6 ♂♂, 17–31.X.06 ♂♂. **S2** 4–18.IV.06 ♂♂, 18.IV–2.V.06 ♂♂ ♀♀, 16–30.V.06 ♂♂, 30.V–13.VI.06 ♀♀, 27.VI–11.VII.06 ♂♂, 11–25.VII.06 ♀♀, 5–19.IX.06 3 ♀♀, 19.IX–3.X.06 ♂♂ ♀♀, 17–31.X.06 ♀♀. **S3** 4–18.IV.06 ♂♂. **SAR1** 16.II–15.VI.04 1 ♂, 16.VI–14.VII.05 1 ♂. **T2** 31.V.1981 1 ♂.

Chorotype. Type 4 [2.01 of Vigna Taglianti *et al.*(1999)]. European.

Italian distribution. Northern mainland (Chandler 2004b) and Sardinia.

Notes. Chandler (2004a) recorded this species from Sardinia based on the specimen from T2 cited above.

26. *Synapha vitripennis* (Meigen, 1818)

Sciophila vitripennis Meigen, 1818

Literature records. Sardinia (Chandler 2008).

Material examined. S1 16–30.V.06 ♂♂, 13–27.VI.06 ♂♂. **SAR1** 29.IV–20.V.05 ♂♂, 16.VI–14.VII.05 1 ♂, 14.VII–5.VIII.05 1 ♂, 20.V–6.VI.06 1 ♂ 2 ♀♀.

Chorotype. Type 1 (revised from 4 in Chandler *et al.* 2006) [1.01 of Vigna Taglianti *et al.* (1999)]. Holarctic.

Italian distribution. Northern mainland (Chandler 2003c, 2008; Kurina 2008) and Sardinia.

27. *Tetragoneura ambigua* Grzegorzek, 1885**

Material examined. S2 30.V–13.VI.06 1 ♂. **S3** 16–30.V.06 1 ♀, 13–22.VI.06 2 ♀♀. **SAR1** 16.II–15.VI.04 3 ♂♂, 29.IV-20.V.05 1 ♂, 16.VI–14.VII.05 13 ♂♂ 5 ♀♀, 20.V-16.VI.06 6 ♂♂ 3 ♀♀.

Chorotype. Type 5 [2.04 of Vigna Taglianti *et al.* (1999)]. European, scattered distribution.

Italian distribution. Sardinia only.

Leiinae

28. *Docosia fumosa* Edwards, 1925**

Material examined. S1 21.III–4.IV.06 1 ♀. **S3** 17-31.X.06 1 ♂. **SAR1** 15–30.VI.04 1 ♀.

Chorotype. Type 4 [2.01 of Vigna Taglianti et al. (1999)]. European.

Italian distribution. Sardinia only.

29. *Docosia gilvipes* (Haliday *in* Walker, 1856)*

Leia gilvipes Haliday *in* Walker, 1856

Material examined. C70 14.XI.06 1 ♂. **C82** 9–10.VI.04 1 ♂. **S1** 21.III–4.IV.06 3 ♂♂ 1 ♀, 4–18.IV.06 ♂♂ ♀♀, 18.IV–2.V.06 ♂♂ ♀♀, 2–16.V.06 1 ♀, 16–30.V.06 ♀♀, 25.VII–8.VIII.06 ♂♂, 19.IX–3.X.06 ♂♂, 3–17.X.06 ♂♂. **S2** 21.III–4.IV.06 3 ♂♂ 1 ♀, 4–18.IV.06 ♂♂, 16–30.V.06 2 ♂♂ 1 ♀, 25.VII–8.VIII.06 ♂♂, 3–17.X.06 3 ♂♂ 1 ♀. **S3** 21.III–4.IV.06 ♂♂, 18.IV–2.V.06 ♀♀. **SAR1** 29.IX–21.X.03 2 ♂♂ 18 ♀♀, 21.X–17.XI.03 1 ♀, 12.XII.03–8.I.04 1 ♀, 8–21.I.04 3 ♀♀. 21.I–16.II.04 1 ♂, 16.II–15.VI.04 4 ♂♂ 16 ♀♀, 15–30.VI.04 1 ♂ 1 ♀, 18.I–1.III.05 ♂♂, 1.III–29.IV.05 1 ♂, 29.IV–20.V.05 1 ♀, 20.V–15.VI.05 1 ♀, 16.VI–14.VII.05 7 ♀♀, 5.VIII.13.IX.05 3 ♀♀, 13–30.IX.05 1 ♂ 13 ♀♀, 30.IX–17.X.05 10 ♀♀, 17.X–3.XI.05 1 ♂ 8 ♀♀, 3–16.XI.05 7 ♀♀, 16.XI–2.XII.05 2 ♀♀, 2–16.XII.05 1 ♀, 16.XII.05–3.I.06 3 ♂♂ 2 ♀♀, 6.X–5.XI.06 2 ♂♂.

Chorotype. Type 2 [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic.

Italian distribution. Northern mainland (Dahl *et al.* 1995; Kurina 2008) and Sardinia.

30. *Docosia melita* Chandler & Gatt, 2000**

Material examined. S1 21.III–4.IV.06 1 ♂, 18.IV–2.V.06 1 ♀, 17–31.X.06 4 ♂♂. **S2** 21.III–4.IV.06 6 ♂♂ 5

♀♀, 4–18.IV.06 5 ♂♂ 1 ♀. **SAR1** 29.IX–21.X.03 1 ♂, 21.X–17.XI.03 1 ♂, 12.XII.03–8.I.04 1 ♂ 1 ♀, 8–21.I.04 5 ♂♂ 4 ♀♀, 21.I–16.II.04 25 ♂♂ 3 ♀♀, 16.II–15.VI.04 12 ♂♂ 16 ♀♀, 15–30.VI.04 2 ♂♂ 4 ♀♀, 18.I–1.III.05 1 ♀, 29.IV–20.V.05 5 ♂♂ 2 ♀♀.

Chorotype. Type 6 [3.01 of Vigna Taglianti *et al.* (1999)]. Mediterranean.

Italian distribution. Sardinia only.

Notes. Chandler *et al.* (2006) recorded this species from Greece but noted small differences in genitalia from the Maltese types. Sardinian material is closer to the latter in this respect.

***Docosia* spp.** ♀♀

Material examined. C03 20.III.06 1 ♀. **C30** 20.III.2006 1 ♀. **C60** 10.XI.06 1 ♀. **C70** 8.VI.04 ♀♀, 9.VI.04 1 ♀.

Notes. These are undetermined females, which could belong to *D. melita* or an allied species.

31. *Leia beckeri* Landrock, 1940**

Neoglaphyroptera bifasciata Becker, 1907, not *N. bifasciata* von Roser, 1840, not *N. bifasciata* Gimmerthal, 1846

Material examined. U1 21.XI.05 1 ♂ 1 ♀. **U4** 22.XI.05 1 ♀ (det. O. Kurina).

Chorotype. Type 7 [3.01 of Vigna Taglianti *et al.* (1999)]. Western Palaearctic (Sardinia, North Africa and Canary Islands).

Italian distribution. Sardinia only.

Notes. This species is newly recorded for Europe. The wings of the Sardinian specimens are more strongly marked than in the Algerian holotype or in the material from the Canary Islands described by Chandler and Ribeiro (1995), with a darkened wing tip coalescing with the preapical band behind vein M_2 (O. Kurina pers. comm.).

32. *Leia bimaculata* (Meigen, 1804)

Mycetophila bimaculata Meigen, 1804

Literature records. Sardinia (Chandler 2008).

Material examined. C14 20–24.V.06 ♂♂ ♀♀. **C23** 19–24.V.06 ♂♂. **C31** 20–23.V.06 2 ♀♀, 12.XI.06 1 ♂. **C82** 9–12.VI.04 7 ♂♂ 10 ♀♀. **S1** 21.III–4.IV.06 ♂♂, 4–18.IV.06 ♂♂ ♀♀, 18.IV–2.V.06 ♂♂ ♀♀, 16–30.V.06 ♂♂ ♀♀, 30.V–13.VI.06 ♂♂ ♀♀, 13–27.VI.06 ♂♂ ♀♀, 27.VI–11.VII.06 ♀♀, 8–22.VIII.06 ♂♂ ♀♀, 5–19.IX.06 ♂♂, 3–17.X.06 ♂♂, 17–31.X.06 ♂♂. **S2** 21.III–4.IV.06 ♂♂ ♀♀, 4–18.IV.06 ♂♂ ♀♀, 18.IV–2.V.06 ♂♂ ♀♀, 2–16.V.06 ♂♂ ♀♀, 16–30.V.06 ♂♂ ♀♀, 30.V–13.VI.06 ♂♂ ♀♀, 13–27.VI.06 ♂♂ ♀♀, 25.VII–8.VIII.06 ♀♀, 8–22.VIII.06 ♂♂, 3–17.X.06 ♂♂, 17–31.X.06 ♂♂ ♀♀. **S3** 21.III–4.IV.06 ♂♂ ♀♀, 4–18.IV.06 ♂♂ ♀♀, 18.IV–2.V.06 ♂♂ ♀♀, 2–16.V.06 ♂♂, 16–30.V.06 ♂♂ ♀♀, 30.V–13.VI.06 ♀♀, 8–22.VIII.06 ♀♀, 17–31.X.06 ♂♂ ♀♀. **SAR1** 12.XII.03–8.I.04 ♂♂, 8.I–21.I.04 ♂♂, 21.I–16.II.04 ♀♀, 16.II–15.VI.04 2 ♂♂ 9 ♀♀, 15–30.VI.04 ♀♀, 30.VI–16.VII.04 ♀♀, 10.VII–1.VIII.04 ♂♂, 21.IX–6.X.04 ♂♂, 29.IV–20.V.05 ♀♀, 20.V–16.VI.05 ♀♀, 13–30.IX.05 3 ♀♀, 30.IX–17.X.05 1 ♀, 3–16.XI.05 1 ♀, 2–16.XII.05 1 ♂, 6.X–5.XI.06 ♀♀. **U3** 21.XI.05 1 ♀.

Chorotype. Type 2 (revised from 3 in Chandler *et al.* (2006)) [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic.

Italian distribution. North and south of mainland (Dahl *et al.* 1995; Chandler 2008) and Sardinia.

33. *Leia cylindrica* (Winnertz, 1863)*

Glaphyroptera cylindrica Winnertz, 1863

Material examined. C70 9.VI.04 1 ♂. **C82** 9–12.VI.04 22 ♂♂ 18 ♀♀. **S1** 4–18.IV.06 2 ♂♂, 30.V–13.VI.06 1 ♂, 17–31.X.06 2 ♂♂. **S2** 21.III–4.IV.06 1 ♂, 4–18.IV.06 2 ♂♂, 16–30.V.06 2 ♂♂, 17–31.X.06 1 ♂. **SAR1** 21.X–17.XI.03 1 ♂ 1 ♀, 16.II–15.VI.04 2 ♂♂ 1 ♀, 15–30.VI.04 1 ♂ 2 ♀♀, 5–22.XI.04 1 ♂ 1 ♀, 22.XI–17.XII.04 1 ♀, 17.XII.04–4.I.05 1 ♂, 20.V–15.VI.05 1 ♀, 16.VI–14.VII.05 1 ♂, 30.IX–17.X.05 1 ♂ 3 ♀♀.

Chorotype. Type 3 [1.03 of Vigna Taglianti *et al.* (1999)]. West Palaearctic, including Near East.

Italian distribution. South Tyrol (Kurina 2008) and Sardinia.

34. *Leia padana* Chandler, 2004b

Literature records. Sardinia (Chandler 2008).

Material examined. S3 17–31.X.06 1 ♂.

Chorotype. Type 6 [3.02 of Vigna Taglianti *et al.* (1999)]. Mediterranean, presently known only from Italy.

Italian distribution. Northern mainland (Chandler 2004b, 2008) and Sardinia.

Notes. This species was recently described from Bosco della Fontana (Lombardy, Mantua province) and has since been examined from another site in Venetia (Belluno province, Northern mainland Italy) (Chandler 2008), but has not yet been recorded elsewhere so the finding of a single male from Sardinia is of interest.

35. *Leia*? sp.

Material examined. SAR1 1.III–29.IV.05 1 ♀.

Notes. The single female specimen is predominantly dark bodied with yellow legs, the fore legs being missing. The thorax has three fused black stripes leaving the humeral area dark yellowish. The wings have a little more than the apical quarter dark brownish with a slight cloud at the base of r-m. The finding of males is necessary to establish its identity.

36. *Megophthalmidia illyrica* Chandler, Bechev & Caspers, 2006**

Material examined. C70 8.VI.04 1 ♂. **S1** 21.III–4.IV.06 1 ♂.

Chorotype. Type 6 [3.01 of Vigna Taglianti *et al.* (1999)]. Mediterranean, otherwise only known from Greece and Croatia.

Italian distribution. Sardinia only.

37. *Megophthalmidia ionica* Chandler, Bechev & Caspers, 2006**

Material examined. C14 20–24.V.06 1 ♂. **C82** 9–11.VI.04 5 ♂♂ 3 ♀♀. **S1** 21.III–4.IV.06 1 ♂, 4–18.IV.06 3 ♂♂, 18.IV–2.V.06 6 ♂♂ 1 ♀, 2–16.V.06 3 ♂♂ 2 ♀♀, 16–30.V.06 2 ♂♂. **S2** 4–18.IV.06 4 ♂♂ 1 ♀, 18.IV–2.V.06 12 ♂♂ 3 ♀♀, 2–16.V.06 many ♂♂ ♀♀, 16–30.V.06 8 ♂♂. **S3** 4–18.IV.06 2 ♂♂ 2 ♀♀, 18.IV–2.V.06 4 ♂♂ 4 ♀♀, 2–16.V.06 13 ♂♂ 12 ♀♀, 16–30.V.06 2 ♂♂ 2 ♀♀, 13–27.VI.06 2 ♀♀. **SAR1** 16.II–15.VI.04 21 ♂♂ 17 ♀♀, 15–30.VI.04 1 ♂, 29.IV–20.V.05 1 ♂ 1 ♀, 20.V–15.VI. 04 1 ♂.

Chorotype. Type 6 [3.01 of Vigna Taglianti *et al.* (1999)]. Mediterranean, otherwise only known from

Greece.

Italian distribution. Sardinia only.

38. *Novakia scatopsiformis* Strobl, 1893*

Material examined. C14 20–24.V.06 ♀♀. **C23** 19–24.V.06 1 ♂ 2 ♀♀. **C31** 20–23.V.06 ♂♂ ♀♀. **C70** 7.VI.04 ♂♂, 8.VI.04 ♀♀, 9.VI.04 2 ♂♂ 3 ♀♀. **C82** 9–12.VI.04 13 ♂♂ 48 ♀♀. **S1** 21.III–4.IV.06 ♂♂ ♀♀, 4–18.IV.06 ♂♂ ♀♀, 18.IV–2.V.06 ♂♂ ♀♀, 2–16.V.06 ♂♂ ♀♀, 16–30.V.06 ♂♂ ♀♀, 30.V–13.VI.06 2 ♂♂ 1 ♀, 13–27.VI.06 ♀♀. **S2** 21.III–4.IV.06 2 ♂♂ 2 ♀♀, 4–18.IV.06 ♀♀, 18.IV–2.V.06 2 ♂♂, 2–16.V.06 ♂♂ ♀♀, 16–30.V.06 ♂♂ ♀♀. **S3** 18–30.V.06 ♀♀. **SAR1** 16.II–15.VI.04 2 ♂♂ 19 ♀♀, 29.IV–20.V.05 1 ♂ 2 ♀♀, 20.V–16.VI.05 2 ♂♂, 16.VI–14.VII.05 3 ♀♀.

Chorotype. Type 3 (revised from 6 in Chandler *et al.* (2006)) [1.12 of Vigna Taglianti *et al.* (1999)]. Mostly Mediterranean but extending into central Europe and recently found to also occur in Sweden (Kjærandsen *et al.* 2007a).

Italian distribution. Northern mainland (Kurina 2008) and Sardinia.

Mycetophilinae, Exechiini

39. *Allodia* (*Allodia*) *lugens* (Wiedemann, 1817)*

Mycetophila lugens Wiedemann, 1817

Material examined. T2 31.V.1981 1 ♂ (det. by N. Caspers).

Chorotype. Type 1 [1.01 of Vigna Taglianti *et al.* (1999)]. Holarctic.

Italian distribution. North and south mainland (Dahl *et al.* 1995; Kurina 2008) and Sardinia.

40. *Allodia* (*Allodia*) *ornaticollis* (Meigen, 1818)

Mycetophila ornaticollis Meigen, 1818

Literature records. Sardinia (Chandler 2004a).

Material examined. C70 9.VI.04 1 ♂. **T2** 31.V.1981 ♂♂. **U2** 21.XI.05 2 ♂♂. **U3** 21.XI.05 2 ♂♂.

Chorotype. Type 1 [1.01 of Vigna Taglianti *et al.* (1999)]. Holarctic.

Italian distribution. Northern mainland (Dahl *et al.* 1995; Kurina 2008) and Sardinia.

Notes. This is *A. ornaticollis* in the sense of most authors including Zaitzev (2003). Chandler (2004a) recorded this species from Sardinia based on the specimen from T2 cited above.

Allodia (*Allodia*) spp. ♀♀

Material examined. S3 19.IX–3X.06 ♀♀. **U2** 21.XI.05 1 ♀.

Notes. Females of *Allodia* Winnertz *sensu stricto* cannot be named to species level.

41. *Allodia* (*Brachycampta*) *barbata* (Lundström, 1909)*

Brachycampta barbata Lundström, 1909

Material examined. S1 21.III–4.IV.06 1 ♂

Chorotype. Type 1 [1.01 of Vigna Taglianti *et al.* (1999)]. Holarctic.

Italian distribution. Northern mainland (Chandler 2004a) and Sardinia.

Notes. The Italian mainland record by Chandler (2004a) was based on material from Aosta (leg. L. Matile, MNHN).

42. *Allodia* (*Brachycampta*) *grata* (Meigen, 1830)

Mycetophila grata Meigen, 1830

Literature records. Sardinia (Chandler 2008).

Material examined. U2 21.XI.05 1 ♂ (det. by O. Kurina).

Chorotype. Type 2 [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic.

Italian distribution. Northern mainland (Kurina 2008) and Sardinia.

43. *Allodia* (*Brachycampta*) *pistillata* (Lundström, 1911)**

Brachycampta pistillata Lundström, 1911

Material examined. C70 9.VI.04 1 ♂. **U2** 21.XI.05 1 ♂.

Chorotype. Type 1 [1.01 of Vigna Taglianti *et al.* (1999)]. Holarctic.

Italian distribution. Sardinia only.

***Allodia* (*Brachycampta*) spp.** ♀♀

Material examined. S3 16–30.V.06 ♀. **U2** 21.XI.05 2 ♀♀. **U3** 21.XI.05 ♀♀. **U4** 22.XI.05 2 ♀♀.

Notes. Females of *Allodia* subgenus *Brachycampta* Winnertz cannot be named to species level.

44. *Brevicornu fuscipenne* (Staeger, 1840)*

Mycetophila fuscipennis Staeger, 1840

Material examined. S1 21.III–4.IV.06 1 ♂, 4–18.IV.06 1 ♂, 19.IX–3.X.06 1 ♂, 17–31.X.06 1 ♂. **SAR1** 16.II–15.VI.04 2 ♂♂, 18.I–1.III.05 1 ♂, 1.III–29.IV.05 4 ♂♂, 29.IV–20.V.05 3 ♂♂, 20.V–16.VI.05 2 ♂♂.

Chorotype. Type 1 [1.01 of Vigna Taglianti *et al.* (1999)]. Holarctic.

Italian distribution. Northern mainland (Chandler 2003c; Kurina 2008) and Sardinia.

45. *Brevicornu griseicolle* (Staeger, 1840)

Mycetophila griseicollis Staeger, 1840

Literature records. Sardinia (Chandler 2004a; Chandler 2008).

Material examined. C70 9.VI.04 2 ♂♂, 8.VI.04 ♂♂, 7.VII.04 ♂♂. **C82** 11–12.VI.04 1 ♂. **S2** 18.IV–2.V.06 ♂♂, 2–16.V.06 ♂♂. **S3** 17–31.X.06 ♂♂. **SAR1** 3–16.XI.05 1 ♂. **S1** 21.III–4.IV.06 ♂♂, 4–18.IV.06 2 ♂♂, 3–17.X.06 ♂♂. **U1** 21.XI.05 1 ♂. **V1** 10.VI.1972 9 ♂♂.

Chorotype. Type 2 (revised from 1 in Chandler *et al.* (2006)) [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic.

Italian distribution. Northern mainland (Chandler 2003c, 2008; Kurina 2008), Sardinia and Sicily (Chandler 2004a).

Notes. Chandler (2004a) recorded this species from Sardinia based on the specimens from V1 cited above. The Sicilian record by Chandler (2004a) refers to 1 ♂ from the east side of Mount Etna (Catania province), 1450 m, 12.VI.1982, leg. H. Malicky, ZSM (det. N. Caspers).

46. *Brevicornu intermedium* (Santos Abreu, 1920)

Allodia intermedia Santos Abreu, 1920
Brevicornu hissaricum Zaitzev, 1985

Literature records. Sardinia (Chandler 2008).

Material examined. C70 8.VI.04 1 ♂. **C82** 11–12.VI.04 1 ♂.

Chorotype. Type 3 [1.03 of Vigna Taglianti *et al.* (1999)]. Western Palaearctic including the Near East and Atlantic Islands.

Italian distribution. Northern mainland (Chandler 2008; Kurina 2008) and Sardinia.

47. *Brevicornu sericoma* (Meigen, 1830)

Mycetophila sericoma Meigen, 1830

Literature records. Sardinia (Chandler 2004a).

Material examined. S1 21.III–4.IV.06 ♂♂, 4–18.IV.06 ♂, 18.IV–2.V.06 ♂♂. **S2** 21.III–4.IV.06 ♂♂, 13–27.VI.06 ♂♂. **T2** 31.V.1981 1 ♂. **T8** 25.V.1981 1 ♂. **U1** 21.XI.05 1 ♂. **U2** 21.XI.05 1 ♂.

Chorotype. Type 1 [1.01 of Vigna Taglianti *et al.* (1999)]. Holarctic.

Italian distribution. Northern mainland (Chandler 2003c; Kurina 2008), Sardinia and Sicily (Chandler 2004a).

Notes. Chandler (2004a) recorded this species from Sardinia based on the specimens from T2 and T8 cited above. The Sicilian record by Chandler (2004a) refers to 1 ♂ from Nebradi, 8 km north-west of Cesaro, 1300 m, Messina province, 7.v.1999, leg. P. Gatt (private collection).

48. *Brevicornu verralli* (Edwards, 1925)

Allodia verralli Edwards, 1925

Literature records. Sardinia (Chandler 2004a; Chandler 2008).

Material examined. S1 4–18.IV.06 1 ♂. **S3** 21.III–4.IV.06 1 ♂. **V1** 10.VI.1972 1 ♂.

Chorotype. Type 2 [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic

Italian distribution. Northern mainland (Chandler 2003c, 2008; Kurina 2008), Sicily (Chandler 2004a) and Sardinia.

Notes. Chandler (2004a) recorded this species from Sardinia based on the specimen from V1 cited above. The Sicilian record by Chandler (2004a) refers to 1 ♂ from Nebradi, 8 km north-west of Cesaro, 1300 m, Messina province, 7.v.1999, leg. P. Gatt (private collection).

***Brevicornu* spp.** ♀♀

Material examined. C70 9.VI.04 5 ♀♀. **S3** 2–16.V.06 ♀♀. **SAR1** 17.X–3.XI.05 1 ♀, 2–16.XII.05 1 ♀. **S2** 8–22.VIII.06 ♀♀. **U1** 21.XI.05 1 ♀. **U4** 22.XI.05 1 ♀.

Notes. These could belong to any of the above species as females in this genus cannot be determined.

49. *Cordyla brevicornis* (Staeger, 1840)*

Pachypalpus brevicornis Staeger, 1840

Material examined. C82 11–12.VI.04 2 ♂♂. **S1** 19.IX–3.X.06 ♂♂. **S2** 18.IV–2.V.06 ♂♂, 3–17.X.06 ♂♂. **SAR1** 29.IX–21.X.03 7 ♂♂, 21.IX–6.X.04 ♂♂, 30.IX–17.X.05 4 ♂♂, 6.X–5.XI.06 2 ♂♂.

Chorotype. Type 2 [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic.

Italian distribution. Northern mainland (Chandler 2003c; Kurina 2008) and Sardinia.

50. *Cordyla crassicornis* Meigen, 1818

Literature records. Sardinia (Chandler 2008).

Material examined. C31 20–23.V.06 ♂♂. **C70** 8.VI.04 ♂♂. **S1** 21.III–4.IV.06 2 ♂♂, 4–18.IV.06 ♂♂ ♀♀, 18.IV–2.V.06 2 ♂♂, 2–16.V.06 3 ♂♂, 16–30.V.06 ♂♂, 13–27.VI.06 ♂♂. **S2** 21.III–4.IV.06 ♂♂, 4–18.IV.06 4 ♂♂, 2–16.V.06 ♂♂, 13–27.VI.06 ♂♂. **S3** 2–16.V.06 ♂♂. **SAR1** 16.II–15.VI.04 6 ♂♂, 1.III–29.IV.05 3 ♂♂, 29.IV–20.V.05 4 ♂♂, 16.VI–14.VII.05 6 ♂♂, 20.V–16.VI.06 ♂♂.

Chorotype. Type 2 [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic.

Italian distribution. North and south of mainland (Dahl *et al.* 1995; Chandler 2008; Kurina 2008), Sicily (Chandler 2004a) and Sardinia.

Notes. The Sicilian record by Chandler (2004a) refers to 1 ♂ from Randazzo, Lago di Gurrida (Catania province), 870 m, 11.vi.1999, leg. P. Gatt (private collection).

51. *Cordyla fasciata* Meigen, 1830*

Material examined. S1 17–31.X.06 ♂♂ ♀♀. **S2** 17–31.X.06 ♂♂ ♀♀. **SAR1** 12.XII.03–8.I.04 ♂♂, 15–30.VI.04 ♂♂, 22.XI–17.XII.04 ♀♀, 20.V–16.VI.05 ♂♂, 30.IX–17.X.05 ♂♂, 6.X–5.XI.06 ♂♂ ♀♀, 5–16.XI.06 ♀♀.

Chorotype. Type 2 [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic.

Italian distribution. Northern mainland (Chandler 2003c) and Sardinia.

52. *Cordyla fusca* Meigen, 1804

Literature records. Sardinia (Chandler 2008).

Material examined. S1 21.III-4.IV.06 1 ♂, 19.IX-3.X.06 1 ♂, 3-17.X.06 1 ♂, 17-31.X.06 1 ♂ 1 ♀. **S2**

19.IX-3.X.06 1 ♂, 3-17.X.06 1 ♂. **S3** 19.IX-3.X.06 2 ♂♂, 17-31.X.06 1 ♂. **SAR1** 29.IX-21.X.03 2 ♂♂, 8-21.i.04 1 ♀, 22.XI-17.xii.04 1 ♂, 5.VIII.13.ix.05 2 ♂♂, 13-30.ix.05 8 ♂♂ 1 ♀, 30.IX-17.X.05 5 ♂♂ 2 ♀♀, 17.X-3.xi.05 1 ♀, 3-16.xi.05 1 ♀, 6.X-5.xi.06 1 ♂.

Chorotype. Type 2 (revised from 3 in Chandler *et al.* 2006) [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic.

Italian distribution. Northern mainland (Dahl *et al.* 1995; Chandler 2008; Kurina 2008) and Sardinia.

53. *Cordyla murina* Winnertz, 1863

Literature records. Sardinia (Chandler 2008).

Material examined. C70 7.VI.04 ♂♂. **C82** 11–12.VI.04 1 ♂. **S1** 18.IV–2.V.06 ♂♂, 17–31.X.06 ♂♂. **S2** 21.III–4.IV.06 ♂♂, 18.IV–2.V.06 ♂♂, 16–30.V.06 ♂♂, 30.V–13.VI.06 ♂♂. **S3** 3–17.X.06 ♂♂. **SAR1** 8–21.I.04 ♂♂, 16.II–15.VI.04 ♂♂, 15–30.VI.04 ♂♂, 16.VIII.8.IX.04 ♂♂, 6.X–5.XI.04 ♂♂, 1.III–29.IV.05 3 ♂♂, 29.IV–20.V.05 4 ♂♂, 20.V–16.VI.05 ♂♂, 16.VI–14.VII.05 2 ♂♂, 14.VII–5.VIII.05 1 ♂. **U1** 21.XI.05 1 ♂.

Chorotype. Type 2 [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic.

Italian distribution. Northern mainland (Chandler 2003c, 2008; Kurina 2008) and Sardinia.

Notes. This is part of a species complex that is to be revised by Kurina (pers. comm.). Kurina (2008) has noted some undescribed species of this complex from South Tyrol but the Sardinian material appears to belong to *C. murina* of previous authors including Zaitzev (2003), while a different species was figured under this name by Edwards (1925).

54. *Cordyla nitidula* Edwards, 1925*

Material examined. C07 20–24.V.06 ♂♂. **C58** 10–11.XI.06 ♂♂, 12–13.XI.06 lt ♂♂. **S1** 25.VII–8.VIII.06 ♂♂, 8–22.VIII.06 ♀♀, 19.IX–3.X.06 ♂♂, 3–17.X.06 ♂♂, 17–31.X.06 ♂♂. **S2** 19.IX–3.X.06 2 ♂♂, 3–17.X.06 ♂♂, 17–31.X.06 ♂♂. **S3** 19.IX–3.X.06 ♂♂, 3–17.X.06 2 ♂♂. **SAR1** 29.IX–21.X.03 4 ♂♂, 21.X–12.XI.03 ♂♂, 12.XII.03–8.I.04 ♂♂, 16.II–15.VI.04 ♂♂, 15–30.VI.04 ♂♂, 5–22.XI.04 ♂♂, 22.XI–17.XII.04 ♂♂, 16.VI–14.VII.05 1 ♂, 5.VIII.13.IX.05 1 ♂, 13–30.IX.05 5 ♂♂, 30.IX–17.X.05 20 ♂♂, 17.X–3.XI.05 10 ♂♂, 3–16.XI.05 6 ♂♂, 6.X–5.XI.06 ♂♂. **U2** 21.XI.05 1 ♂. **U4** 22.XI.05 1 ♂.

Chorotype. Type 2 (revised from 3 in Chandler *et al.* (2006)) [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic.

Italian distribution. Northern mainland (Chandler 2003c; Kurina 2008) and Sardinia.

55. *Cordyla styliforceps* (Bukowski, 1934)*

Polyxena styliforceps Bukowski, 1934

Material examined. C23 17–24.V.06 ♂♂. **C31** 20–23.V.06 ♂♂. **C70** 8.VI.04 ♂♂. **C82** 9–11.VI.04 6 ♂♂ 4 ♀♀. **S1** 21.III–4.IV.06 ♂♂, 18.IV–2.V.06 2 ♂♂, 30.V–13.VI.06 ♂♂, 13–27.VI.06 ♂♂, 25.VII–8.VIII.06 ♂♂, 17–31.X.06 ♂♂. **S2** 21.III–4.IV.06 ♂♂, 18.IV–2.V.06 ♂♂, 16–30.V.06 ♂♂, 30.V–13.VI.06 ♂♂. **S3** 21.III–4.IV.06 ♂♂, 4–18.IV.06 ♂♂, 18.IV–2.V.06 2 ♂♂, 2–16.V.06 ♂♂, 16–30.V.06 ♂♂. **SAR1** 30.VI–16.VIII.04 ♂♂, 20.V–16.VI.06 ♂♂. **U4** 22.XI.05 1 ♂.

Chorotype. Type 7 [3.01 of Vigna Taglianti *et al.* (1999)]. South-western Palaearctic including the Mediterranean, Near East and Atlantic Islands.

Italian distribution. Northern mainland (Chandler 2003c; Kurina 2008) and Sardinia.

***Cordyla* spp.** ♀♀

Material examined. C82 11–12.VI.04 1 ♀. **SAR1** 29.IX–21.X.03 1 ♀, 16.VI–14.VII.05 3 ♀♀, 5.VIII.13.IX.05 1 ♀, 13–30.IX.05 4 ♀♀, 30.IX–17.X.05 2 ♀♀, 17.X–3.XI.05 8 ♀♀.

Notes. Females of some species of this genus cannot be reliably determined to species level.

56. *Exechia bicincta* (Staeger, 1840)*

Mycetophila bicincta Staeger, 1840
Mycetophila interrupta Zetterstedt, 1852
Exechia serpentina Lundström, 1911
Exechia spinosa Bukowski, 1949

Material examined. C06 12.XI.06 1 ♂. **C18** 9.XI.06 1 ♂. **C31** 12.XI.06 1 ♂. **C70** 9.VI.04 1 ♂. **C85** 10.XI.06 1 ♂ 4 ♀♀. **G14** 13.XI.06 1 ♂. **S1** 17–31.X.06 ♂♂. **S2** 17–31.X.06 ♂♂ ♀♀. **SAR1** 12.XII.03–8.I.04 ♀♀, 16.II–15.VI.04 ♀♀, 15–30.VI.04 ♀♀, 1.III–29.IV.05 1 ♀, 30.IX–17.X.05 2 ♂♂. **U1** 21.XI.05 2 ♂♂. **U2** 21.XI.05 6 ♂♂.

Chorotype. Type 1 [1.01 of Vigna Taglianti *et al.* (1999)]. Holarctic.

Italian distribution. Northern mainland (Hellrigl 1996) and Sardinia

Notes. Previously recorded from Italy only from South Tyrol (Hellrigl 1996, as *E. interrupta*).

57. *Exechia fulva* Santos Abreu, 1920

Exechia peyerimhoffi Burghele-Balacesco, 1966

Literature records. Sardinia (Chandler 2008).

Material examined. C43 15.XI.06 ♂♂. **S2** 4–18.IV.06 ♂♂. **S3** 25.VII–8.VIII.06 ♂♂. **SAR1** 12.XII.03–8.I.04 ♂♂, 21.I–16.II.04 ♂♂, 16.II–15.VI.04 1 ♂, 4.I–18.I.05 2 ♂♂, 18.I–1.III.05 ♂♂. **V1** 10.VI.1972 2 ♂♂ 4 ♀♀.

Chorotype. Type 7 [3.01 of Vigna Taglianti *et al.* (1999)]. Mediterranean and Atlantic Islands, often abundant.

Italian distribution. North mainland (Chandler 2008) and Sardinia.

58. *Exechia fusca* (Meigen, 1804)

Mycetophila fusca Meigen, 1804

Literature records. Sardinia (Chandler 2008).

Material examined. C60 10.XI.06 1 ♂. **S1** 2–16.V.06 ♂♂, 16–30.V.06 2 ♂♂, 13–27.VI.06 ♂♂. **S2** 4–18.IV.06 ♂♂, 16–30.V.06 ♂♂. **SAR1** 16.II–15.VI.04 1 ♂, 20.V–16.VI.05 ♂♂, 16.VI–14.VII.05 1 ♂, 13–30.IX.05 2 ♂♂, 30.IX–17.X.05 1 ♂. 2–16.XII.05 1 ♂. **U1** 21.XI.05 1 ♂. **U4** 22.XI.05 3 ♂♂. **U5** 23.XI.05 2 ♂♂ 1 ♀.

Chorotype. Type 1 [1.01 of Vigna Taglianti *et al.* (1999)]. Holarctic.

Italian distribution. Northern mainland (Dahl *et al.* 1995; Chandler 2008; Kurina 2008), Sicily (Chandler 2004a) and Sardinia.

Notes. The Sicilian record by Chandler (2004a) refers to 1 ♂ and 1 ♀ from Nebradi, 8 km north-west of Cesaro, 1300 m, Messina province, 7.v.1999, leg. P. Gatt (private collection).

***Exechia* spp. ♀♀ (*fulva* or *fusca*)**

Material examined. C85 5.IX.03 1 ♀. **S1** 18.IV–12.V.06 ♀♀. **S2** 30.V–13.VI.06 ♀♀, 27.VI–11.VII.06 ♀♀. **SAR1** 14.VII–5.VIII.05 1 ♀, 16.XI–2.XII.05 1 ♀.

Notes. Females of these two species cannot be reliably separated.

59. *Exechia parva* Lundström, 1909**

Material examined. C82 11–12.VI.04 1 ♂ 1 ♀.

Chorotype. Type 2 [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic.

Italian distribution. Sardinia.

60. *Exechia seriata* (Meigen, 1830)*

Mycetophila seriata Meigen, 1830
Mycetophila pallida Stannius, 1831

Material examined. U2 21.XI.05 1 ♂ (det. by O. Kurina).

Chorotype. Type 2 [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic.

Italian distribution. North and south of mainland (Dahl *et al.* 1995; Hellrigl 1996, as *E. pallida*) and Sardinia.

***Exechia* spp. ♀♀**

Material examined. U2 21.XI.05 2 ♀♀. **U4** 22.XI.05 3 ♀♀ (det. by O. Kurina).

Notes. These are females that could not be determined to species level.

61. *Exechiopsis* (*Exechiopsis*) sp.

Material examined. SAR1 21.I–16.II.04 2 ♀♀.

Notes. These specimens resemble *E. pulchella* (Winnertz, 1863) in the structure of the ovipositor but males are required for confirmation of their identity.

62. *Pseudexechia trisignata* (Edwards, 1913)*

Exechia trisignata Edwards, 1913

Material examined. S2 18.IV–2.V.06 1 ♂.

Chorotype. Type 2 [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic.

Italian distribution. Northern mainland (Chandler 2003c) and Sardinia.

Notes. This is part of a complex of species that has recently been revised by Kjærandsen (2009). The Sardinian specimen agrees well with his figures of *P. trisignata* and those by Edwards (1913).

63. *Pseudexechia trivittata* (Staeger, 1840)*

Mycetophila trivittata Staeger, 1840

Material examined. S1 2-16.V.06 1 ♂.

Chorotype. Type 2 (revised from 3 in Chandler *et al.* (2006)) [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic.

Italian distribution. Sardinia and Sicily (Chandler 2004a).

Notes. The Sicilian record by Chandler (2004a) refers to 1 ♂ from the east side of Mount Etna (Catania province), 1450 m, 12.VI.1982, leg. H. Malicky, ZSM (det. N. Caspers).

64. *Rymosia affinis* Winnertz, 1863*

Rymosia gracilipes Dziedzicki, 1910

Material examined. C70 14.XI.06 1 ♀. **C85** 10.XI.06 6 ♂♂ 1 ♀.

Chorotype. Type 2 (revised from 3 in Chandler *et al.* 2006) [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic, including North Africa and the Near East.

Italian distribution. Northern mainland (Dahl *et al.* 1995) and Sardinia

65. *Rymosia beaucournui* Matile, 1963b**

Material examined. C70 9.VI.04 1 ♂. **C82** 10.VI.04 ♂♂. **S1** 4–18.IV.06 ♂♂, 2–16.V.06 ♂♂, 30.V–13.VI.06 ♂♂, 13–27.VI.06 2 ♂♂, 27.VI–11.VII.06 ♂♂, 11–25.VII.06 ♂♂, 25.VII–8.VIII.06 ♂♂ ♀♀, 8–22.VIII.06 ♂♂, 22.VIII.5.IX.06 ♂♂, 19.IX–3.X.06 ♂♂, 17–31.X.06 ♂♂. **S2** 4–18.IV.06 ♂♂, 16–30.V.06 ♂♂. **S3** 17–31.X.06 ♂♂. **SAR1** 16.II–15.VI.04 4 ♂♂, 3–16.XI.05 1 ♂. **U2** 21.XI.05 4 ♂♂.

Chorotype. Type 6 [3.01 of Vigna Taglianti *et al.* (1999)]. Mediterranean, including southern France, Malta, North Africa, Israel and Greece (Chandler *et al.* 2006)

Italian distribution. Sardinia only.

Notes. The close resemblance between this species and the Canarian species *R. tenuivittata* Santos Abreu, 1920 was mentioned by Chandler and Ribeiro (1995). A comparative diagnosis of these and two other apparently very close species *R. cottii* Tollet, 1959 from Switzerland and *R. tolleti* Burghele-Balacesco, 1965 from France and Romania is needed (O. Kurina pers. comm.).

66. *Stigmatomeria crassicornis* (Stannius, 1831)

Mycetophila crassicornis Stannius, 1831

Literature records. Sardinia (Chandler 2004a; Chandler 2008).

Material examined. S1 18.IV–2.V.06 1 ♂. **U1** 21.XI.05 1 ♀. **V1** 10.VI.1972 1 ♀.

Chorotype. Type 1 [1.01 of Vigna Taglianti *et al.* (1999)]. Holarctic and widespread in the Mediterranean region (Chandler 2004a)

Italian distribution. Northern mainland (Chandler 2008; Kurina 2008), Sardinia and Sicily (Chandler 2004a).

Notes. Chandler (2004a) recorded this species from Sardinia based on the specimen from V1 cited above. The Sicilian record by Chandler (2004a) refers to 1 ♀ from south-east of Castelbuono (Palermo province), 300

m, 19.V.1981, leg. H. Malicky, ZSM (det. N. Caspers). Kjærandsen *et al.* (2007a) recognised that *S. obscura* Winnertz, 1863 is a distinct species, based on differences in the male genitalia. Thus, finding of males is required to confirm records based on females.

67. *Synplasta gracilis* (Winnertz, 1863)*

Rymosia gracilis Winnertz, 1863
Rymosia excogitata Dziedzicki, 1910 *sensu* Edwards, 1941

Material examined. C82 11–12.VI.04 1 ♂

Chorotype. Type 2 [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic, widespread in Europe.

Italian distribution. Northern mainland (Kurina 2008) and Sardinia.

68. *Tarnania dziedzickii* (Edwards, 1941)*

Rhymosia dziedzickii Edwards, 1941

Material examined. C43 15.XI.06 ♀♀. **C69** 12.XI.06 ♂♂. **C70** 14.XI.06 1 ♂ 2 ♀♀. **C85** 10.XI.06 10 ♂♂. **G14** 13.XI.06 1 ♂. **S1** 17–31.X.06 ♂♂. **SAR1** 21.X–17.XI.03 ♂♂, 12.XII.03–8.I.04 2 ♂♂ 1 ♀, 8–21.I.04 ♂♂, 21.I–16.II.04 ♂♂, 15–30.VI.04 ♂♂ ♀♀, 5–22.XI.04 ♂♂, 17.XII.04–4.I.05 2 ♀♀, 4.I–18.I.05 1 ♂ 6 ♀♀, 18.I–1.III.05 ♂♂, 1.III–29.IV.05 2 ♂♂, 17.X–3.XI.05 1 ♀, 3–16.XI.05 1 ♂. **U1** 21.XI.05 2 ♂♂ 1 ♀. **U2** 21.XI.05 1 ♀. **U4** 22.XI.05 1 ♂

Chorotype. Type 3 [1.03 of Vigna Taglianti *et al.* (1999)]. West Palaearctic including the Near East and North Africa.

Italian distribution. North and south of mainland (Dahl *et al.* 1995) and Sardinia.

Mycetophilini

69. *Epicypta aterrima* (Zetterstedt, 1852)

Mycetophila aterrima Zetterstedt, 1852

Literature records. Sardinia (Chandler 2008).

Material examined. SAR1 16.II–15.VI.04 2 ♀♀, 16.VII–1.VIII.04 1 ♀.

Chorotype. Type 1 [1.01 of Vigna Taglianti *et al.* (1999)]. Holarctic.

Italian distribution. North and south of mainland (Dahl *et al.* 1995; Chandler 2008; Kurina 2008) and Sardinia.

Notes. The females from the earlier date agree well in structure with *E. aterrima* while the later specimen has the cerci broader apically in lateral view.

70. *Mycetophila alea* Laffoon, 1965

Mycetophila guttata Dziedzicki, 1884, not *M. guttata* Hutton, 1881

Literature records. Sardinia (Chandler 2008).

Material examined. C31 20–23.V.06 ♂♂ ♀♀. **C70** 9.VI.04 1 ♂. **S1** 18.IV–2.V.06 ♂♂, 2–16.V.06 ♂♂, 16–

30.V.06 3 ♂♂, 17–31.X.06 ♀♀. **S3** 17–31.X.06 ♂♂. **SAR1** 16.II–15.VI.04 1 ♀, 15–30.VI.04 2 ♀♀, 16.VI–14.VII.05 1 ♀, 2–16.XII.05 1 ♂. **U1** 21.XI.05 1 ♂. **U2** 21.XI.05 1 ♂.

Chorotype. Type 1 [1.01 of Vigna Taglianti *et al.* (1999)]. Holarctic.

Italian distribution. North and south of mainland (Dahl *et al.* 1995; Chandler 2008; Kurina 2008), Sardinia and Sicily.

Notes. This species is here recorded as new to Sicily on 1 ♂ and 1 ♀ from Etna (Catania province), 1000 m, 5.vi.1999, leg. P. Gatt (private collection).

71. *Mycetophila britannica* Laštovka & Kidd, 1975*

Material examined. C70 9.VI.04 1 ♂. **C82** 9–12.VI.04 3 ♂♂ 1 ♀. **S1** 21.III–4.IV.06 ♂♂, 4–18.IV.06 ♂♂, 18.IV–2.V.06 2 ♂♂, 2–16.V.06 ♂♂. **S2** 21.III–4.IV.06 ♂♂ ♀♀, 4–18.IV.06 ♂♂ ♀♀, 18.IV–2.V.06 ♂♂, 16–30.V.06 ♀♀. **S3** 13–27.VI.06 ♀♀. **SAR1** 16.II–15.VI.04 4 ♂♂, 30.VI–16.VIII.04 ♂♂, 17.XII.04–4.I.05 ♂♂ ♀♀, 4.I–18.I.05 2 ♂♂ 1 ♀, 18.I–1.III.05 1 ♂ 2 ♀♀, 1.III–29.IV.05 2 ♂♂, 29.IV–20.V.05 ♂♂, 20.V–16.VI.05 ♂♂ ♀♀, 13–30.IX.05 1 ♂, 17.X–3.XI.05 3 ♂♂ 2 ♀♀, 3–16.XI.05 3 ♂♂ 2 ♀♀, 2–16.XII.05 1 ♀. **U1** 21.XI.05 2 ♂♂ 2 ♀♀. **U2** 21.XI.05 9 ♂♂ 5 ♀♀. **U4** 22.XI.05 1 ♀. **V1** 10.VI.1972 1 ♂.

Chorotype. Type 3 [1.03 of Vigna Taglianti *et al.* (1999)]. Western Palaearctic including the Near East and Atlantic Islands.

Italian distribution. Northern mainland (Chandler 2003c), Sicily (Chandler 2004a) and Sardinia.

Notes. As this is possibly the only species of the *M. ruficollis* Meigen, 1818 group to occur in Sardinia, females of this group are placed here. The Sicilian record by Chandler (2004a) refers to 1 ♂ and 1 ♀ from Nebradi, 8 km north-west of Cesaro (Messina province), 1300 m, 7.v.1999, leg. P. Gatt (private collection).

72. *Mycetophila edwardsi* Lundström, 1913

Literature records. Sardinia (Chandler 2004a).

Material examined. C07 20–24.V.06 ♂♂. **C70** 9.V.04 1 ♂. **S3** 21.III–4.IV.06 ♀♀. **SAR1** 16.II–15.VI.04 1 ♀. **T9** 30.V.1981 1 ♀. **V1** 10.VI.1972 2 ♂♂.

Chorotype. Type 3 [1.03 of Vigna Taglianti *et al.* (1999)]. Western Palaearctic.

Italian distribution. Northern mainland (Chandler 2003c; Kurina 2008) and Sardinia.

Notes. Chandler (2004a) recorded this species from Sardinia based on the specimens from T9 and V1 cited above.

73. *Mycetophila formosa* Lundström, 1911

Literature records. Sardinia (Chandler 2004a).

Material examined. C85 10.XI.06 1 ♂. **V1** 10.VI.1972 1 ♂.

Chorotype. Type 2 [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic.

Italian distribution. South Tyrol (Kurina 2008) and Sardinia.

Notes. Chandler (2004a) recorded this species from Sardinia based on the specimen from V1 cited above.

74. *Mycetophila marginata* Winnertz, 1863

Literature records. Sardinia (Chandler 2004a).

Material examined. T1 22.X.1981 1 ♂. **T7** 2.VI.1981 3 ♂♂ 2 ♀♀. **V1** 10.VI.1972 36 ♂♂.

Chorotype. Type 3 (revised from 4 in Chandler *et al.* (2006)) [1.03 of Vigna Taglianti *et al.* (1999)].

Western Palaearctic.

Italian distribution. Northern mainland (Dahl *et al.* 1995; Kurina 2008) and Sardinia.

Notes. Chandler (2004a) recorded this species from Sardinia based on the specimens from V1 cited above.

75. *Mycetophila ocellus* Walker, 1848

Mycetophila dimidiata Staeger, 1840, not *M. dimidiata* Meigen, 1804.

Literature records. Sardinia (Chandler 2004a; Chandler 2008).

Material examined. T1 22.X.1981 2 ♀♀ (det. N. Caspers).

Chorotype. Type 1 [1.01 of Vigna Taglianti *et al.* (1999)]. Holarctic.

Italian distribution. Northern mainland (Dahl *et al.* 1995; Chandler 2008; Kurina 2008) and Sardinia.

Notes. Chandler (2004a) recorded this species from Sardinia based on the specimens cited above.

76. *Mycetophila ornata* Stephens, 1846

Literature records. Sardinia (Chandler 2004a).

Material examined. T2 31.V.1981 2 ♂♂. **V1** 10.VI.1972 1 ♀.

Chorotype. Type 2 [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic.

Italian distribution. Northern mainland (Dahl *et al.* 1995; Kurina 2008) and Sardinia.

Notes. Chandler (2004a) recorded this species from Sardinia based on the specimens cited above.

77. *Mycetophila perpallida* Chandler, 1993

Mycetophila grisea Zetterstedt, 1852

Literature records. Sardinia (Chandler 2004a; Chandler 2008).

Material examined. C23 19–24.V.06 ♂♂. **C31** 20–23.V.06 ♂♂. **C82** 9–12.VI.04 51 ♂♂. **S1** 21.III–4.IV.06 ♂♂, 4–18.IV.06 ♂♂, 18.IV–2.V.06 ♂♂, 2–16.V.06 many ♂♂, 16–30.V.06 ♂. **S2** 21.III–4.IV.06 2 ♂♂, 4–18.IV.06 2 ♂♂, 18.IV–2.V.06 ♂♂, 2–16.V.06 ♂♂, 16–30.V.06 ♂♂. **S3** 21.III–4.IV.06 ♂♂, 25.VII–8.VIII.06 ♂♂. **SAR1** 16.II–15.VI.04 ♂♂, 15–30.VI.04 ♂♂, 30.VI–16.VIII.04 ♂♂, 5–22.XI.04 ♂♂, 17.XII.04–4.I.05 ♂♂, 4.I–18.I.05 10 ♂♂, 18.I–1.III.05 ♂♂, 1.III–29.IV.05 3 ♂♂, 29.IV–20.V.05 2 ♂♂, 20.V–16.VI.05 2 ♂♂,16.VI–14.VII.05 7 ♂♂, 30.IX–17.X.05 2 ♂♂, 17.X–3.XI.05 1 ♂, 3–16.XI.05 2 ♂♂. 2–16.XII.05 1 ♂. **U1** 21.XI.05 1 ♂. **U2** 21.XI.05 1 ♂. **U3** 21.XI.05 1 ♂. **U4** 22.XI.05 4 ♂♂. **V1** 10.VI.1972 2 ♂♂.

Chorotype. Type 3 [1.03 of Vigna Taglianti *et al.* (1999). Western Palaearctic, including North Africa and the Atlantic Islands.

Italian distribution. Northern mainland (Chandler 2003c, 2008; Kurina 2008) and Sardinia.

Notes. Chandler (2004a) recorded this species from Sardinia based on the specimens from V1 cited above. It was indicated by Kjærandsen *et al*. (2007a) that the holotype of *Mycetophila grisea* was identical to *M. perpallida*, but the latter name was retained pending a review of other possible synonyms with precedence.

Mycetophila sp. (*perpallida* or *fungorum* (De Geer, 1776))

Material examined. C82 11–12.VI.04 51 ♀♀. **S1** 18.IV–2.V.06 ♀♀, 2–16.V.06 ♀♀. **S2** 21.III–4.IV.06 ♀♀,

11–25.VII.06 ♀♀. **SAR1** 17.XII.04–4.I.05 ♀♀, 4.I–18.I.05 7 ♀♀, 18.I–1.III.05 ♀♀, 20.V–16.VI.05 ♀♀, 16.VI–14.VII.05 1 ♀, 13–30.IX.05 1 ♀, 30.IX–17.X.05 1 ♀, 17.X–3.XI.05 1 ♀, 3–16.XI.05 2 ♀♀, 2–16.XII.05 1 ♀. 16.XII.05–3.I.06 1 ♀, 30.V–13.VI.06 ♀♀, 6.X–5.XI.06 ♀♀. **U0** 20.XI.05 1 ♀. **U2** 21.XI.05 6 ♀♀. **U3** 21.XI.05 1 ♀. **U4** 22.XI.05 3 ♀♀.

Notes. As males of the allied species *M. fungorum* (De Geer, 1776) have not been examined from Sardinia it is probable that all females of this complex from the island belong to *M. perpallida*. Specimens (5 ♂♂ and 8 ♀♀) from localities T1, T2 and T7 determined as *M. fungorum* before the recognition of *M. perpallida* have not been re-examined but are concluded to also belong to it.

78. *Mycetophila pictula* Meigen, 1830*

Material examined. S3 4–18.IV.06 1 ♀.

Chorotype. Type 1 [1.01 of Vigna Taglianti *et al.* (1999)]. Holarctic.

Italian distribution. Northern mainland (Dahl *et al.* 1995) and Sardinia.

79. *Mycetophila signatoides* Dziedzicki, 1884

Fungivora conformis Matile, 1963a
Mycetophila assimilis Matile, 1967

Literature records. Sardinia (Chandler 2004a; Chandler 2008).

Material examined. C70 8.VI.04 1 ♂. **C82** 9.VI.04 1 ♂. **SAR1** 16.II–15.VI.04 1 ♂. **U1** 21.XI.05 1 ♂. **U2** 21.XI.05 2 ♂♂. **V1** 10.VI.1972 1 ♂.

Chorotype. Type 2 (revised from 4 in Chandler *et al.* (2006)) [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic.

Italian distribution. Northern mainland (Chandler 2008; Kurina 2008) and Sardinia.

Notes. Chandler (2004a) recorded this species from Sardinia based on the specimen from V1 cited above. Zaitzev (2003) used the name *M. assimilis* for this species and applied the name *M. signatoides* to a different as yet undescribed species, as discussed by Chandler (2001). The previously unpublished records from the mainland of Italy are from Aosta, leg. L. Matile (MNHN) and from Siusi allo Sciliar [= Seis am Schlern] (Bolzano province), 1–13.VI.1964, 1 ♂, leg. J. C. Deeming (BMNH).

80. *Mycetophila sordida* van der Wulp, 1874

Literature records. Sardinia (Chandler 2004a).

Material examined. U4 22.XI.05 2 ♂♂. **V1** 10.VI.1972 1 ♂.

Chorotype. Type 1 [1.01 of Vigna Taglianti *et al.* (1999)]. Holarctic.

Italian distribution. Sardinia only.

Notes. Chandler (2004a) recorded this species from Sardinia based on the specimen from V1 cited above.

81. *Mycetophila spectabilis* Winnertz, 1863*

Material examined. C31 12–17.VII.06 1 ♂ 1 ♀. **V1** 10.VI.1972 1 ♀.

Chorotype. Type 3 [1.03 of Vigna Taglianti *et al.* (1999)]. Western Palaearctic including the Near East.

Italian distribution. Northern mainland (Dahl *et al.* 1995) and Sardinia.

82. *Mycetophila stolida* Walker, 1856

Literature records. Sardinia (Chandler 2004a).

Material examined. T2 31.V.1981 1 ♂ (det. N. Caspers).

Chorotype. Type 1 [1.01 of Vigna Taglianti *et al.* (1999)]. Holarctic.

Italian distribution. Northern mainland (Dahl *et al.* 1995; Kurina 2008) and Sardinia.

Notes. Chandler (2004a) recorded this species from Sardinia based on the specimen cited above.

83. *Mycetophila strigatoides* (Landrock, 1927)

Fungivora strigatoides Landrock, 1927

Literature records. Sardinia (Chandler 2004a; Chandler 2008).

Material examined. C82 9–12.VI.04 6 ♂♂ 10 ♀♀. **S1** 16–30.V.06 2 ♂♂. **S3** 18.IV–2.V.06 1 ♂. **T3** 27.V.1981 2 ♂♂. **T6** 9.VI.1981 1 ♂ 1 ♀. **T8** 25.V.1981 1 ♀. **V1** 10.VI.1972 1 ♂ 1 ♀.

Chorotype. Type 2 [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic including Mediterranean region.

Italian distribution. Northern mainland (Chandler 2008; Kurina 2008), Sardinia and Sicily (Chandler 2004a).

Notes. Chandler (2004a) recorded this species from Sardinia based on the specimens from T3, T6, T8 and V1 cited above. The Sicilian record by Chandler (2004a) refers to 1 ♂ from Randazzo, Lago di Gurrida (Catania province), 870 m, 11.vi.1999, leg. P. Gatt (private collection). Kurina (2008) indicated this species as new to Italy but this was a new record only for the Italian mainland.

84. *Mycetophila unicolor* Stannius, 1831*

Mycetophila fusconitens Becker, 1908
Mycetophila posticalis Lundström, 1912

Material examined. U0 20.XI.05 1 ♂ (det. by O. Kurina).

Chorotype. Type 3 [1.03 of Vigna Taglianti *et al.* (1999)]. Western Palaearctic including Near East.

Italian distribution. Northern mainland (Chandler 2003c) and Sardinia.

85. *Mycetophila vittipes* Zetterstedt, 1852

Mycetophila continens Becker, 1908

Literature records. Sardinia (Chandler 2004a).

Material examined. V1 10.VI.1972 5 ♂♂ 2 ♀♀.

Chorotype. Type 2 [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic.

Italian distribution. Northern mainland (Dahl *et al.* 1995) and Sardinia.

Notes. Chandler (2004a) recorded this species from Sardinia based on the specimens cited above.

***Mycetophila* spp.** ♀♀

Material examined. S2 21.III–4.IV.06 ♀♀. **S3** 21.III–4.IV.06 ♀♀. **SAR1** 1.III–29.IV.05 ♀♀. **U1** 21.XI.05 4

♀♀. **U2** 21.XI.05 10 ♀♀. **U3** 21.XI.05 1 ♀.

Notes. These are specimens that cannot be reliably assigned to species without associated males.

86. *Phronia basalis* Winnertz, 1863**

Material examined. C19 25.III.06 1 ♂, 9.XI.06 3 ♂♂ 1 ♀. **C60** 10.XI.06 2 ♂♂. **C69** 12.XI.06 1 ♂. **C70** 9.V.04 1 ♂. **S1** 21.III–4.IV.06 ♂♂, 4–18.IV.06 ♂♂, 19.IX–3.X.06 ♂♂, 3–17.X.06 2 ♂♂, 17–31.X.06 ♂♂. **S2** 21.III–4.IV.06 ♂♂, 4–18.IV.06 ♂♂, 11–25.VII.06 ♂♂. **S3** 21.III–4.IV.06 ♂♂, 3–17.X.06 ♂♂ ♀♀. **SAR1** 29.IX–21.X.03 15 ♂♂ 6 ♀♀, 21.X–17.XI.03 ♂♂ ♀♀, 12.XII.03–8. I.04 ♂♂ ♀♀, 5–22.XI.04 ♂♂, 8–21.I.04 ♂♂ ♀♀, 21.I–16.II.04 ♂♂ ♀♀, 16.II–15.VI.04 ♂♂ ♀♀, 15–30.VI.04 ♂♂, 30.VI–16.VIII.04 ♂♂, 22.XI–17.XII.04 ♂♂, 17.XII.04–4.I.05 3 ♂♂, 4.I–18.I.05 7 ♂♂ 8 ♀♀, 18.I–1.III.05 ♂♂ ♀♀, 1.III–29.IV.05 ♂♂ ♀♀, 29.IV–30.V.05 ♂♂ ♀♀, 13–30.IX.05 1 ♂, 30.IX–17.X.05 3 ♂♂, 17.X–3.XI.05 1 ♂, 16.XI–2.XII.05 5 ♂♂ 10 ♀♀, 3–16.XI.05 2 ♂♂ 1 ♀, 2–16.XII.05 14 ♂♂ 12 ♀♀, 16.XII.05–3.I.06 37 ♂♂ 21 ♀♀, 6.X–5.XI.06 ♂♂.

Chorotype. Type 3 [1.03 of Vigna Taglianti *et al.* (1999)]. Western Palaearctic including North Africa and the Near East.

Italian distribution. Sardinia only.

87. *Phronia biarcuata* (Becker, 1908)

Telmaphilus biarcuatus Becker, 1908
Phronia johannae Steenberg, 1924
Phronia praecox Edwards, 1925

Literature records. Sardinia (Chandler 2004a).

Material examined. SAR1 17.XII.04–4.I.05 ♂♂ ♀♀, 18.II–1.III.05 ♂♂ ♀♀, 1.III–29.IV.05 ♂♂. **V1** 10.VI.1972 2 ♂♂ 1 ♀.

Chorotype. Type 2 [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic.

Italian distribution. Northern mainland (Chandler 2003c; Kurina 2008), Sardinia and Sicily (Chandler 2004a).

Notes. Chandler (2004a) recorded this species from Sardinia based on the specimens from V1 cited above. The Sicilian record published by Chandler (2004a) refers to 1 ♂ from 7 km north-west of Francavilla [di Sicilia, Messina province], 480 m, 14.v.1981, leg. H. Malicky, ZSM (det. N. Caspers).

88. *Phronia conformis* (Walker, 1856)

Mycetophila conformis Walker, 1856

Literature records. Sardinia (Chandler 2008).

Material examined. S1 18.IV–12.VI.06 1 ♂. **SAR1** 16.XII.05–3.I.06 1 ♂.

Chorotype. Type 1 [1.01 of Vigna Taglianti *et al.* (1999)]. Holarctic.

Italian distribution. Northern mainland (Chandler 2008; Kurina 2008) and Sardinia.

89. *Phronia nitidiventris* (van der Wulp, 1859)*

Mycetophila nitidiventris van der Wulp, 1859

Material examined. C70 9.VI.04 1 ♂. **S1** 18.IV–12.V.06 ♂♂. 7.VI.04 ♂♂ ♀♀, 8.VI.04 ♂♂. **SAR1** 16.II–15.VI.04 1 ♂. **U2** 21.XI.05 1 ♂.

Chorotype. Type 2 [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic.

Italian distribution. Northern mainland (Dahl *et al.* 1995) and Sardinia.

90. *Phronia tenuis* Winnertz, 1863

Literature records. Sardinia (Chandler 2004a).

Material examined. T2 31.V.1981 1 ♂ (det. N. Caspers). **U1** 21.XI.05 1 ♂ (det. O. Kurina).

Chorotype. Type 1 [1.01 of Vigna Taglianti *et al.* (1999)]. Holarctic.

Italian distribution. North and south of mainland (Dahl *et al.* 1995; Kurina 2008) and Sardinia.

Notes. Chandler (2004a) recorded this species from Sardinia based on the specimen from T2 cited above.

Phronia spp. ♀♀

Material examined. C82 11–12.VI.04 1 ♀. **S2** 19.IX–3.X.06 ♀♀, 3–17.X.06 ♀♀. **S3** 2–16.V.06 ♀♀. **SAR1** 14–29.IX.03 1 ♀, 16.VI–14.VII.05 1 ♀, 13–30.IX.05 5 ♀♀, 30.IX–17.X.05 1 ♀, 17.X–3.XI.05 1 ♀, 6.X–5.XI.06 ♀♀. **U4** 22.XI.05 1 ♀.

Notes. Determination of females in this genus is difficult. While females of *Phronia basalis* and *P. biarcuata* can be recognised on wing characters and are here associated with their males, the females listed here cannot be confidently assigned to species.

91. *Sceptonia cryptocauda* Chandler, 1991

Literature records. Sardinia (Chandler 2008).

Material examined. S1 16-30.V.06 1 ♂. **SAR1** 16.II-15.VI.04 1 ♂, 20.V-16.VI.05 1 ♂. **U3** 21.XI.05 1 ♂.

Chorotype. Type 3 [1.03 of Vigna Taglianti *et al.* (1999)]. Western Palaearctic including the Near East.

Italian distribution. Northern mainland (Chandler 2008; Kurina 2008) and Sardinia.

92. *Sceptonia flavipuncta* Edwards, 1925

Literature records. Sardinia (Chandler 2004a).

Material examined. C23 19–24.V.06 ♂♂. **S2** 4–18.IV.06 ♂♂, 16–30.V.06 2 ♂♂ 1 ♀, 30.V–13.VI.06 ♂♂, 8–22.VIII.06 ♀♀. **S3** 17–31.X.05 ♀♀. **SAR1** 20.V–16.VI.05 ♀♀, 16.VI–14.VII.05 1 ♂. **S1** 4–18.IV.06 ♂♂ ♀♀, 2–16.V.06 ♂♂, 16–30.V.06 6 ♂♂ 1 ♀, 30.V–13.VI.06 ♂♂, 13–27.VI.06 ♂♂, 25.VII–8.VIII.06 ♂♂, 3–17.X.06 ♂♂. **V1** 10.VI.1972 1 ♂.

Chorotype. Type 4 [2.01 of Vigna Taglianti *et al.* (1999)]. European..

Italian distribution. Northern mainland (Chandler 2003, 2004b; Kurina 2008) and Sardinia.

Notes. Chandler (2004a) recorded this species from Sardinia based on the specimen from V1 cited above.

93. *Sceptonia membranacea* Edwards, 1925

Literature records. Sardinia (Chandler 2004a; Chandler 2008).

Material examined. S1 21.III–4.IV.06 ♂♂, 4–18.IV.06 ♂♂, 2–16.V.06 ♂♂, 16–30.V.06 ♂♂. **SAR1** 29.IV–20.V.05 2 ♂♂. **T2** 31.V.1981 1 ♂ 1 ♀. **U3** 21.XI.05 1 ♂. **V1** 10.VI.1972 1 ♂.

Chorotype. Type 3 [1.03 of Vigna Taglianti *et al.* (1999)]. Western Palaearctic.

Italian distribution. Northern mainland (Chandler 2003c, 2008; Kurina 2008) and Sardinia.

Notes. Chandler (2004a) recorded this species from Sardinia based on the specimens from T2 and V1 cited above.

94. *Sceptonia nigra* (Meigen, 1804)

Mycetophila nigra Meigen, 1804

Literature records. Sardinia (Chandler 2004a; Chandler 2008).

Material examined. S1 21.III–4.IV.06 3 ♂♂, 4–18.IV.06 ♂♂, 18.IV–2.V.06 ♂♂. **S2** 21.III–4.IV.06 ♂♂, 4–18.IV.06 ♂♂, 18.IV–2.V.06 ♂♂. **S3** 21.III–4.IV.06 5 ♂♂ 1 ♀. **SAR1** 16.VI–14.VII.05 1 ♂. **T2** 31.V.1981 1 ♂. **V1** 10.VI.1972 1 ♂.

Chorotype. Type 2 [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic, possibly Holarctic.

Italian distribution. North and south of mainland (Dahl *et al.* 1995; Chandler 2008; Kurina 2008) and Sardinia.

Notes. Chandler (2004a) recorded this species from Sardinia, based on the specimens from T2 and V1 cited above.

95. *Sceptonia tenuis* Edwards, 1925*

Material examined. S2 17–31.X.06 1 ♂.

Chorotype. Type 4 [2.01 of Vigna Taglianti *et al.* (1999)]. European.

Italian distribution. Northern mainland (Kurina 2008) and Sardinia.

Sceptonia spp. (*nigra* Meigen, 1804 group) ♀♀

Material examined. C31 20–23.V.06 ♀♀. **C70** 7.VI.04 ♀♀. **S2** 21.III–4.IV.06 2 ♀♀, 4–18.IV.06 ♀♀. **S3** 25.VII–8.VIII.06 ♀♀. **SAR1** 16.II–15.VI.04 2 ♀♀, 16.XII.05–3.I.06 1 ♀. **V1** 10.VI.1972 1 ♀.

Notes. Females of this group cannot be determined to species level and these specimens could belong to *Sceptonia cryptocauda*, *S. membranacea* or *S. nigra*.

96. *Trichonta comica* Gagné, 1981**

Material examined. U1 21.XI.05 1 ♂ (det. by O. Kurina).

Chorotype. Type 1 [1.01 of Vigna Taglianti *et al.* (1999)]. Holarctic, in Europe a mainly nordic distribution but has also been recorded from the French mainland, Switzerland and Montenegro (included under the former Yugoslavia by Chandler (2004a) based on an unpublished record).

Italian distribution. Sardinia only.

Notes. [O. Kurina pers. comm.] The specimen has both hind legs and one fore and mid legs lost but

terminalia have survived. Using the key by Gagné (1981) it runs to the couplet including the rare Holarctic species *Trichonta comica* Gagné, 1981 and the Palaearctic *T. concinna* Gagné, 1981. The lateral part of the gonostylus is identical with Gagné's fig. 71 but tergites 9–10 are most similar to *T. concinna* (Gagné's fig 76). Further, the aedeagal projections in this specimen are dorsoventrally hooked (visible in lateral view). Gagné used the term "twisted" (probably equivalent to hooked) for *T. concinna* and straight for *T. comica* but the specimen is more similar to *T. comica*.

97. *Trichonta foeda* Loew, 1869**

Trichonta stereana Edwards, 1925

Material examined. S1 4–18.IV.06 ♂♂, 19.IX–3.X.06 ♂♂, 17–31.X.06 ♂♂. **S3** 3–17.X.06 ♂♂. **SAR1** 29.IX–21.X.03 1 ♂, 21.X–17.XI.03 ♂♂, 8–21.I.04 ♂♂, 21.I–16.II.04 ♂♂, 16.II–15.VI.04 ♂♂, 15–30.VI.04 ♂♂, 22.XI–17.XII.04 2 ♂♂, 17.XII.04–4.I.05 2 ♂♂, 4–18.I.05 1 ♂, 18.I–1.II.05 ♂♂ ♀♀, 1.III–29.IV.05 ♂♂, 3–16.XI.05 1 ♂, 2–16.XII.05 1 ♂, 16.XII.05–3.I.06 2 ♂♂.

Chorotype. Type 1 [1.01 of Vigna Taglianti *et al.* (1999)]. Holarctic.

Italian distribution. Sardinia only.

98. *Trichonta pulchra* Gagné, 1981**

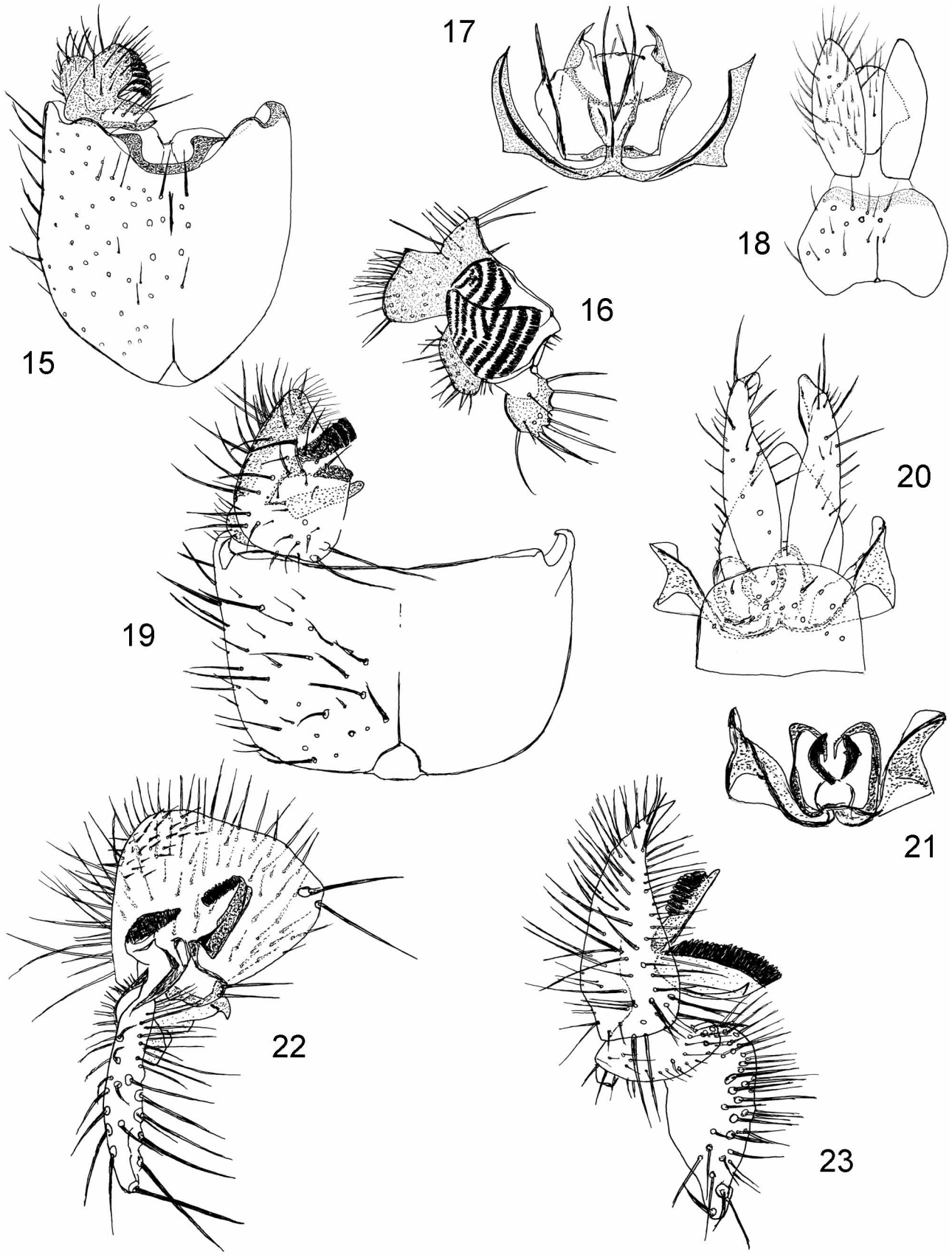
(Figs 15–18)

Material examined. S1 19.IX–3.X.06 2 ♂♂ 1 ♀, 3-17.X.06 10 ♂♂ 1 ♀, 17-31.X.06 3 ♂♂.

Description. This species is redescribed here, on the basis of the Sardinian specimens, to amplify the brief original description and in view of points of difference from it, as explained in the notes.

Male. *Head* dark brown with dark bristling. Antenna about 1.5 times as long as thorax, with scape, pedicel and base of first flagellomere yellow, otherwise brownish; flagellomeres about twice as long as broad. Palpus yellowish, slender.

Thorax dark brown except for large yellow humeral patches separated by broad dark brown stripe reaching fore margin; short dark bristling on mesonotum; scutellum with two pairs of long marginal setae, more than twice its length. Pleura bare except for a few short setae on upper part of anepisternum, laterotergite with setae on disc and metepisternum with short weak setae on posterior margin. Mediotergite bare. *Wing* clear with slight brownish shade on membrane from costa to radial sector. Vein Sc ending free about 0.5 distance to base of Rs. Costa ending at tip of R_5. Rs short and vertical, r-m a little longer but shorter than stem of median fork. Posterior fork beginning at level of middle of stem of median fork. Vein A_1 weak, reaching level of base of posterior fork. Radial veins and fork veins (except their bases) setose, other veins including Rs, r-m, tb, stems of fork veins and vein A_1 are bare. Haltere yellow. *Wing length* 2.4–2.7 mm. *Legs* yellow except tip of hind coxa and apical quarter of hind femur which are dark brown; all setulae dark; hind coxa without a basal seta. Mid tibia with 3 posterodorsal setae less than tibial width in length. Hind tibia with 10–11 anterodorsal and 7 dorsal setae, about half tibial width in length. Fore metatarsus half length of its tibia. Tibial spurs brown, 1:2:2, fore as long, mid 1.5 times and hind twice as long as width of tibial apex.



FIGURES 15–23. Male genitalia. **15–18.** *Trichonta pulchra* Gagné (Sardinia, Colonia Beneck). **15.** Ventral view of gonocoxites and gonostylus. **16.** Internal view of gonostylus. **17.** Aedeagus. **18.** Tergite 9 and cerci. **19–23.** *Trichonta sandalyon* sp. nov. (holotype). **19.** Ventral view of gonocoxites and gonostylus. **20.** Tergite 9 and cerci (aedeagus in situ below). **21.** Aedeagus. **22.** Internal view of gonostylus. **23.** Dorsal view of gonostylus.

Abdomen dark brown with tergites 1–4 partly yellow, 1 mainly yellow and dark on midline, 2–4 with yellow basal patches narrowed dorsally, sometimes more extensive and only narrowly dark dorsally, remaining tergites entirely brown; with short dark bristling. Genitalia (Figs 15–18) dark brown; gonocoxites with narrow median excavation ventrally; gonostylus with ventral part shallowly bilobed, a simple bristly mesal lobe, a short dorsal lobe with strong apical setae and two large internal lobes bearing combs of corrugations. Aedeagus (Fig. 17) short and broad. Tergite 9 (Fig. 18) short and broad; cerci a little more elongate, together shorter than gonocoxites.

Female. Similar to male. Abdomen with bases of tergites 2–5 narrowly yellow, interrupted on midline on 3–4, no more than a third of length and not broadened laterally, very narrow on 5. Ovipositor brown, with short cerci. *Wing length* of female 2.5 mm.

Chorotype. Type 1 [1.01 of Vigna Taglianti *et al.* (1999)]. Holarctic.

Italian distribution. Sardinia only.

Notes. *Trichonta pulchra* was described from one male from Canada and four British males, the latter being in the author's collection and these having posterior setae on the hind tibia, although some more recent British material has these setae sparse or absent. It has only otherwise been recorded from the Czech Republic (Ševčík 2001) and Hungary (Ševčík & Papp 2002). Because they lack posterior setae on the hind tibia the Sardinian specimens run to couplet 57 in the key by Gagné (1981), where they agree with *T. vitta* (Meigen, 1830) in having Sc ending free but have the dorsal part of the gonostylus short. The specimens are also described and figured here because fig. 119 of Gagné (1981) shows the gonocoxites as having a simple margin and it is not apparent that this species has a medial excavation of the gonocoxites resembling that in *T. patens* Johannsen, 1912. However, all parts of the gonostylus differ in structure from that species.

99. *Trichonta sandalyon* sp. nov.

(Figs 19–23)

Type material. Holotype ♂: I-Sardegna (Cagliari), Iglesias Marganai, 700 m, Plot Conecofor SAR1, UTM 32 S 462853 4355582, 16.XII.2005-3.I.2006, Malaise trap, G. Chessa legit, Conecofor Programme CNBF (CNBFVR).

Diagnosis. A dark coloured species including genitalia, with legs yellow except entirely brown mid and hind coxae and brownish trochanters, hind coxa without a basal seta, hind tibia with antero- and posteroventral setae absent, differing from other species in the structure of the male genitalia with short broad gonocoxites lacking any medial emargination and the gonostylus with a simple broad ventral lobe about as long as gonocoxites, a rounded bristly mesal lobe, a strongly setose apically tapered dorsal lobe and two internal lobes bearing corrugations.

Description. Male. *Head* dark brown with dark bristling. Antenna brown, about 1.5 times as long as head and thorax; flagellomeres about 4 times as long as broad. Palpus brown, slender.

Thorax brown with short pale bristling on mesonotum and scutellum. Pleura bare except for a few short setae on upper edge of anepisternum, laterotergite with a few setae on disc and metepisternum with short weak setae on posterior margin. Mediotergite bare. *Wing* yellowish, with a faint brown shade on apical quarter and apical half of hind margin; veins brown, especially costa and radial veins. Vein Sc ending in R at 0.6 distance to base of Rs. Costa extends only slightly beyond tip of R_5. Base of Rs very short; r-m about as long as stem of median fork. Posterior fork beginning level with to slightly beyond level of base of median fork. Vein A_1 ending at level of base of stem of median fork. Radial veins and fork veins (except their bases) setose, other veins including Rs, r-m, tb, stems of fork veins and vein A_1 bare. Haltere yellow. *Wing length* 3.0 mm. *Legs* yellow, with mid and hind coxae entirely brown and trochanters brownish; all setulae dark; hind coxa without a basal seta; hind tibia with rows of anterodorsal and posterodorsal setae, which are less than tibial width in length. Fore metatarsus about as long as its tibia. Tibial spurs long, yellow, 1:2:2.

Abdomen dark brown with short brownish bristling. Genitalia (Figs 19–23) brown with short broad gonocoxites lacking any medial emargination; gonostylus (Figs 22–23) with simple broad ventral lobe about as long as gonocoxites, a rounded bristly mesal lobe, a strongly setose apically tapered dorsal lobe and two internal lobes bearing corrugations; aedeagus short with apically rounded lobes. Tergite 9 (Fig. 20) short and broad; cerci elongate and tapered apically but a little shorter than gonocoxites.

Female. Unknown.

Etymology. An early name for the island of Sardinia and is a noun in apposition.

Chorotype. Type 6 [3.02 of Vigna Taglianti *et al.* (1999)]. Mediterranean.

Italian distribution. Sardinia only.

Notes. This species resembles *T. falcata* in genital structure but has the gonostylus larger relative to the gonocoxites and differs in several other respects such as lacking the hind coxal seta and absence of antero- and posteroventral setae on the hind tibia. In the key by Gagné (1981) it runs to couplet 64 but differs from both alternatives in having r-m and stem of median fork subequal while vein A_1 is asetose.

100. *Trichonta vitta* (Meigen, 1830)

Mycetophila vitta Meigen, 1830

Material examined. C60 10.XI.06 1 ♀. **C85** 10.XI.06 1 ♀. **S3** 17–31.X.06 ♂♂. **SAR1** 12.XII.03–8.I.04 ♂♂ ♀♀, 8–21.I.04 ♂♂, 21.I–16.II.04 2 ♂♂, 16.II–15.VI.04 10 ♂♂ 1 ♀, 5–22.XI.04 ♂♂, 17.XII.04–4.I.05 1 ♂ 1 ♀, 4.I–18.I.05 1 ♂ 2 ♀♀, 18.I–1.III.05 2 ♂♂, 1.III–29.IV.05 ♂♂, 29.IV–20.V.05 ♂♂, 5.VIII.13.IX.05 1 ♂, 13–30.IX.05 1 ♂ 2 ♀♀, 30.IX–17.X.05 1 ♂ 1 ♀, 16.XI–2.XII.05 1 ♀.

Chorotype. Type 1 [1.01 of Vigna Taglianti *et al.* (1999)]. Holarctic.

Italian distribution. Northern mainland (Chandler 2004a; Kurina 2008) and Sardinia.

Notes. The Italian mainland record by Chandler (2004a) was from Aosta (leg. L. Matile, MNHN).

101. *Zygomyia humeralis* (Wiedemann, 1817)

Mycetophila humeralis Wiedemann, 1817

Literature records. Sardinia (Chandler 2004a).

Material examined. S1 18.IV–2.V.06 2 ♂♂, 16–30.V.06 ♂♂, 30.V–13.VI.06 ♂♂, 13–27.VI.06 ♂♂. **SAR1** 8–21.I.04 ♂♂, 20.V–16.VI.05 ♂♂, 16.VI–14.VII.05 1 ♂. **T6** 9.VI.1981 1 ♂. **U2** 21.XI.05 1 ♂.

Chorotype. Type 4 [2.01 of Vigna Taglianti *et al.* (1999)]. European.

Italian distribution. Northern mainland (Chandler 2003c; Kurina 2008) and Sardinia.

Notes. Chandler (2004a) recorded this species from Sardinia based on the specimen from T6 cited above.

102. *Zygomyia valeriae* Chandler, 1991

Literature records. Sardinia (Chandler 2004a; Chandler 2008).

Material examined. V1 10.VI.1972 1 ♂.

Chorotype. Type 4 [2.01 of Vigna Taglianti *et al.* (1999)]. European.

Italian distribution. Northern mainland (Chandler 2003, 2004b, 2008; Kurina 2008) and Sardinia.

Notes. Chandler (2004a) recorded this species from Sardinia based on the specimen cited above.

103. *Zygomyia valida* Winnertz, 1863*

Zygomyia simplex Strobl, 1895 **syn. nov.**

Material examined. C82 11–12.VI.04 1 ♂. **S1** 4–18.IV.06 ♂♂, 18.IV–2.V.06 ♂♂, 16–30.V.06 ♂♂. **S2** 21.III–4.IV.06 ♂♂, 4–18.IV.06 ♂♂, 18.IV–2.V.06 ♂♂, 2–16.V.06 ♂♂. **SAR1** 1.III–29.IV.05 ♂♂.

Chorotype. Type 2 (revised from 3 in Chandler *et al.* (2006)) [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic.

Italian distribution. North and south of mainland (Dahl *et al.* 1995; Kurina 2008) and Sardinia.

Notes. It was indicated by Chandler (2004a) that the type specimen of *Zygomyia simplex* (in NMBA) had been examined and found to be conspecific with *Z. valida*; this specimen was a male rather than a female as stated in the original description. As this has only been reported on line, this synonymy is formally established here.

104. *Zygomyia vara* (Staeger, 1840)*

Mycetophila vara Staeger, 1840

Material examined. C70 9.VI.04 1 ♀.

Chorotype. Type 1 [1.01 of Vigna Taglianti *et al.* (1999)]. Holarctic.

Italian distribution. Northern mainland (Chandler 2003, 2004b; Kurina 2008) and Sardinia.

***Zygomyia* spp. ♀♀ (*humeralis* group)**

Material examined. C82 11–12.VI.04 1 ♀. **SAR1** 16.VI–14.VII.05 1 ♀.

Notes. Females of this genus cannot be determined to species. These specimens could belong to *Z. humeralis* or one of the allied species of this group.

***Zygomyia* spp. ♀♀ (not *humeralis* group)**

Material examined. C31 20–23.V.06 1 ♀. **U3** 21.XI.05 1 ♀.

Notes. These specimens could belong to *Z. valeriae*, *Z. valida* or an allied species.

Mycomyinae

105. *Mycomya* (*Mycomya*) *cinerascens* (Macquart, 1826)*

Sciophila cinerascens Macquart, 1826

Material examined. C70 9.VI.04 1 ♂. **S1** 18.IV–2.V.06 ♂♂.

Chorotype. Type 1 [1.01 of Vigna Taglianti *et al.* (1999)]. Holarctic.

Italian distribution. Northern mainland (Dahl *et al.* 1995; Kurina 2008), Sicily (Chandler 2004a) and Sardinia.

Notes. The Sicilian record published by Chandler (2004a) refers to 1 ♂ from south-east of Castelbuono (Palermo province), 300 m, 19.V.1981, leg. H. Malicky, ZSM (det. N. Caspers).

106. *Mycomya* (*Mycomya*) *indistincta* Polevoi *in* Zaitzev & Polevoi, 1995**

Material examined. SAR1 17.X–3.XI.05 1 ♂, 16.XII.05–3.I.06 1 ♂.

Chorotype. Type 4 [2.01 of Vigna Taglianti *et al.* (1999)]. European, only recorded previously from Finland, northern Russia and Andorra.

Italian distribution. Sardinia only.

107. *Mycomya* (*Mycomya*) *prominens* (Lundström, 1913)*

Sciophila prominens Lundström, 1913

Material examined. S1 21.III–4.IV.06 ♂♂, 17–31.X.06 ♂♂. **S2** 3–17.X.06 ♂♂. **SAR1** 21.X–17.XI.03 ♂♂, 12.XII.03–8.I.04 ♂♂, 8–21.I.04 ♂♂, 16.II–15.VI.04 ♂♂, 5–22.XI.04 2 ♂♂, 17.XII–4.I.05 ♂♂, 30.IX–17.X.05 1 ♂, 3–16.XI.05 1 ♂, 2–16.XII.05 1 ♂. **U2** 21.XI.05 2 ♂♂.

Chorotype. Type 2 (revised from 3 in Chandler *et al.* (2006)) [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic.

Italian distribution. Northern mainland (Dahl *et al.* 1995) and Sardinia.

108. *Mycomya* (*Mycomya*) *tenuis* (Walker, 1856)

Sciophila tenuis Walker, 1856

Literature records. Sardinia (Chandler 2004a).

Material examined. T6 9.VI.1981 1 ♂ (det. N. Caspers, NCB).

Chorotype. Type 2 (revised from 3 in Chandler *et al.* (2006)) [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic.

Italian distribution. North and south of mainland (Dahl *et al.* 1995; Kurina 2008) and Sardinia.

Notes. Chandler (2004a) recorded this species from Sardinia based on the specimen cited above.

109. *Mycomya* (*Mycomya*) *tumida* (Winnertz, 1863)*

Sciophila tumida Winnertz, 1863

Material examined. C08 24.III–24.V.06 2 ♂♂. **SAR1** 8–21.I.04 2 ♂♂ 1 ♀, 21.I–16.II.04 ♂♂, 16.II–15.VI.04 2 ♂♂, 5–22.XI.04 2 ♂♂, 22.XI–17.XII.04 1 ♂, 17.XII.04–4.I.05 1 ♂, 4–18.I.05 2 ♂♂, 18.I–1.III.05 4 ♂♂, 1.III–29.IV.05 ♂♂, 29.IV–20.V.05 ♂♂, 13–30.IX.05 1 ♂, 2–16.XII.05 2 ♂♂, 16.XII.05–3.I.06 1 ♂.

Chorotype. Type 2 [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic.

Italian distribution. North and south of mainland (Dahl *et al.* 1995) and Sardinia.

***Mycomya* (*Mycomya*) spp. ♀♀ (*prominens* or *tumida*)**

Material examined. C08 24.III–24.V.06 1 ♀. **SAR1** 17.X–18.XI.03 1 ♀, 21.I–16.II.04 ♀♀, 5–22.XI.04 2 ♀♀, 22.XI–17.XII.04 8 ♀♀, 17.XII.04–4.I.05 3 ♀♀, 4–18.I.05 3 ♀♀, 18.I–1.III.05 7 ♀♀, 16.XI–2.XII.05 1 ♀, 2–16.XII.05 23 ??, 16.XII.05–3.I.06 2 ♀♀.

Notes. Females of *M. prominens* and *M. tumida* cannot be reliably separated.

***Mycomya* (*Mycomya*) spp.** ♀♀

Material examined. SAR1 16.II–15.VI.04 3 ♀♀, 30.VI–16.VII.04 ♀♀. **U2** 21.XI.05 1 ♀.

Notes. Most females in this genus cannot be reliably assigned to species level. Those recorded here could belong to one of the above species other than *M. prominens* and *M. tumida*.

110. *Mycomya* (*Mycomyopsis*) *maura* (Walker, 1856)

Sciophila maura Walker, 1856

Literature records. Sardinia (Chandler 2007).

Material examined. C19 24.III.06 1 ♂ 1 ♀, 25.III.06 2 ♂♂. **S1** 21.III–4.IV.06 ♂♂ ♀♀. **S2** 21.III–4.IV.06 several ♂♂ ♀♀, 4–18.IV.06 ♂♂ ♀♀. **S3** 4–18.IV.06 ♂♂ ♀♀. **SAR1** 15–30.VI.04 ♂♂ ♀♀, 18.I–1.III.05 2 ♂♂.

Chorotype. Type 4 [2.01 of Vigna Taglianti *et al.* (1999)]. European

Italian distribution. Northern mainland (Chandler 2004b) and Sardinia.

111. *Mycomya* (*Mycomyopsis*) *permixta* Väisänen, 1984

Literature records. Sardinia (Chandler 2007).

Material examined. C06 12.XI.06 1 ♂ 3 ♀♀. **C66** 11.XI.06 2 ♂♂ 3 ♀♀. **C67** 11.XI.06 ♀♀. **C72** 14.XI.06 2 ♀♀. **C85** 10.XI.06 1 ♀. **S1** 17–31.X.06 ♂♂ ♀♀. **S2** 17–31.X.06 ♂♂ ♀♀. **S3** 17–31.X.06 ♂♂ ♀♀. **SAR1** 21.X–17.XI.03 ♂♂, 12.XII.03–8.I.04 ♀♀, 5–22.XI.04 5 ♂♂ 2 ♀♀, 22.XI–17.XII.04 2 ♂♂ 3 ♀♀, 17.XII.04–4.I.05 ♂♂, 30.IX–17.X.05 35 ♂♂ 20 ♀♀, 17.X–3.XI.05 9 ♂♂ 6 ♀♀, 3–16.XI.05 1 ♂ 1 ♀, 16.XI–2.XII.05 1 ♂ 2 ♀♀.**U4** 22.XI.05 7 ♂♂ 8 ♀♀. **U5** 23.XI.05 2 ♂♂.

Chorotype. Type 1 [1.01 of Vigna Taglianti *et al.* (1999)]. Holarctic.

Italian distribution. Southern mainland, Sardinia (Chandler 2007) and Sicily (Chandler 2004a).

Notes. The Sicilian record published by Chandler (2004a) refers to 1 ♂ from the east side of Mount Etna (Catania province), 1450 m, 12.VI.1982, leg. H. Malicky, ZSM (det. N. Caspers). Chandler (2007) recorded this species in large numbers from reafforested areas on Mount Vesuvius and from Sardinia (without further data) on the basis of the above-mentioned specimens.

112. *Mycomya* (*Mycomyopsis*) *trilineata* (Zetterstedt, 1838)

Sciophila trilineata Zetterstedt, 1838

Literature records. Sardinia (Chandler 2008).

Material examined. SAR1 16.VI–14.VII.05 1 ♀.

Chorotype. Type 2 [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic.

Italian distribution. North and south of mainland (Dahl *et al.* 1995; Chandler 2008) and Sardinia.

113. *Neoempheria striata* (Meigen, 1818)*

Sciophila striata Meigen, 1818

Material examined. C82 9–10.VI.04 1 ♂. **SAR1** 15–30.VI.04 1 minus abdomen, 6.X–5.XI.04 1 ♂, 13–

30.IX.05 3 ♂♂ 2 ♀♀, 30.IX.–17.X.05 2 ♂♂ 3 ♀♀ and 1 minus abdomen, 17.X–3.XI.05 2 ♂♂ 2 ♀♀ and 2 minus abdomen, 3–16.XI.05 4 ♂♂ 4 ♀♀, 16.XI–2.XII.05 1 ♀♀, 6.X–5.XI.06 ♂♂.

Chorotype. Type 2 [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic.

Italian distribution. North and south of mainland (Dahl *et al.* 1995; Kurina 2008) and Sardinia.

Sciophilinae

114. *Acnemia nitidicollis* (Meigen, 1818)

Leia nitidicollis Meigen, 1818

Literature records. Sardinia (Chandler 2008).

Material examined. C31 20–23.V.06 ♂♂. **C82** 11–12.VI.04 1 ♂. **S1** 18.IV–2.V.06 3 ♂♂, 2–16.V.06 ♂♂, 16–30.V.06 ♂♂. **S2** 21.III–4.IV.06 ♀♀, 4–18.IV.06 ♂♂. **SAR1** 16.II–15.VI.04 1 ♀, 20.V–16.VI.05 ♂♂ ♀♀, 16.VI–14.VII.05 4 ♂♂.

Chorotype. Type 2 [1.02 of Vigna Taglianti *et al.* (1999)]. Palaearctic.

Italian distribution. North of mainland (Chandler 2003c, 2008; Kurina 2008) and Sardinia.

115. *Azana corsicana* Coher, 1995**

Material examined. S1 4–18.IV.06 1 ♂. **S2** 21.III–4.IV.06 1 ♂. **SAR1** 16.II–15.VI.04 1 ♂, 29.IV–20.V.05 1 ♂.

Chorotype. Type 6 [3.02 of Vigna Taglianti *et al.* (1999)]. Mediterranean.

Italian distribution. Sardinia only.

Notes. Previously known only from the Corsican type material.

116. *Azana flavohalterata* Strobl *in* Czerny & Strobl, 1909**

Azana bulgarense Coher, 1995

Material examined. C14 20–24.V.06 ♂♂ ♀♀. **C23** 19–24.V.06 1 ♂ 4 ♀♀. **C31** 20–23.V.06 2 ♂♂ 1 ♀. **C70** 8.VI.04 1 ♀. **C82** 11.VI.04 1 ♂. **S1** 4–18.IV.06 2 ♂♂ 2 ♀♀, 18.IV–2.V.06 5 ♂♂ 2 ♀♀, 16–30.V.06 3 ♂♂, 30.V–13.VI.06 ♀♀. **S2** 21.III–4.IV.06 4 ♂♂ 1 ♀, 4–18.IV.06 16 ♂♂ 4 ♀♀, 18.IV–2.V.06 2 ♂♂ 1 ♀, 2–16.V.06 5 ♂♂ 2 ♀♀, 16–30.V.06 12 ♂♂. **S3** 4–18.IV.06 3 ♂♂, 18.IV–2.V.06 4 ♂♂ 1 ♀, 2–16.V.06 5 ♂♂. **SAR1** 16.II–15.VI.04 13 ♂♂ 1 ♀, 29.IV–20.V.05 ♂♂.

Chorotype. Type 6 [3.01 of Vigna Taglianti *et al.* (1999)]. Mediterranean.

Italian distribution. Sardinia only.

Notes. Previous records are from Spain, Greece (Thessaly, Paxos, Milos and Crete), Bulgaria, Cyprus and Israel (Chandler *et al.* 2006).

***Azana* spp.** ♀♀

Material examined. C82 9–10.VI.04 ♀♀. **S2** 4–18.IV.06 ♀♀

Notes. These may be females of *A. corsicana* but this cannot be confirmed.

117. *Monoclona rufilatera* (Walker, 1837)

Sciophila rufilatera Walker, 1837
Sciophila halterata Staeger, 1840
Staegeria unicornuta Dziedzicki, 1884
Monoclona atrata Strobl, 1898
Monoclona aristata Ostroverkhova, 1979
Acnemia weigandi Plassmann, 1999

Literature records. Sardinia (Chandler 2008).

Material examined. S1 21.III–4.IV.06 ♂♂ ♀♀, 4–18.IV.06 ♂♂, 18.IV–2.V.06 ♂♂ ♀♀, 2–16.V.06 ♂♂ ♀♀, 16–30.V.06 ♂♂, 3–17.X.06 ♂♂, 17–31.X.06 ♂♂. **S2** 21.III–4.IV.06 2 ♂♂ 3 ♀♀, 4–18.IV.06 ♂♂ ♀♀, 18.IV–2.V.06 ♂♂, 2–16.V.06 ♂♂ ♀♀, 3–17.X.06 ♀♀. **S3** 4–18.IV.06 ♂♂, 18.IV–2.V.06 ♂♂. **SAR1** 29.IX–21.X.03 10 ♂♂ 2 ♀♀, 21.X–17.XI.03 ♂♂, 12.XII.03–8.I.04 ♀♀, 21.I–16.II.04 ♀♀, 16.II–15.VI.04 8 ♂♂ 10 ♀♀, 15–30.VI.04 ♂♂ ♀♀, 6.X–5.XI.04 ♂♂ ♀♀, 5–22.XI.04 ♂♂, 22.XI–17.XII.04 ♂♂ ♀♀, 18.I–1.III.05 1 ♂, 1.III–29.IV.05 ♂♂, 29.IV–20.V.05 ♂♂ ♀♀, 20.V–16.VI.05 ♂♂, 13–30.IX.05 34 ♂♂ 4 ♀♀, 30.IX–17.X.05 9 ♂♂ 7 ♀♀, 17.X–3.XI.05 4 ♂♂, 3–16.XI.05 23 ♂♂ 7 ♀♀, 16.XI–2.XII.05 4 ♂♂ 8 ♀♀, 2–16.XII.05 1 ♂ 1 ♀, 16.XII.05–3.I.06 1 ♂, 6.X–5.XI.06 ♂♂ ♀♀.

Chorotype. Type 1 [1.01 of Vigna Taglianti *et al.* (1999)]. Holarctic.

Italian distribution. Northern mainland (Chandler 2003, 2004b, 2008; Kurina 2008) and Sardinia.

118. *Sciophila benjaminbottomi* sp. nov.
(Figs 24–26)

Type material. Holotype ♂: I-Sardegna (Cagliari), Iglesias Marganai, 700 m, Plot Conecofor SAR1, UTM 32 S 462853 4355582, 20.V-16.VI.2005, Malaise trap, G. Chessa legit, Conecofor Programme CNBF (CNBFVR).

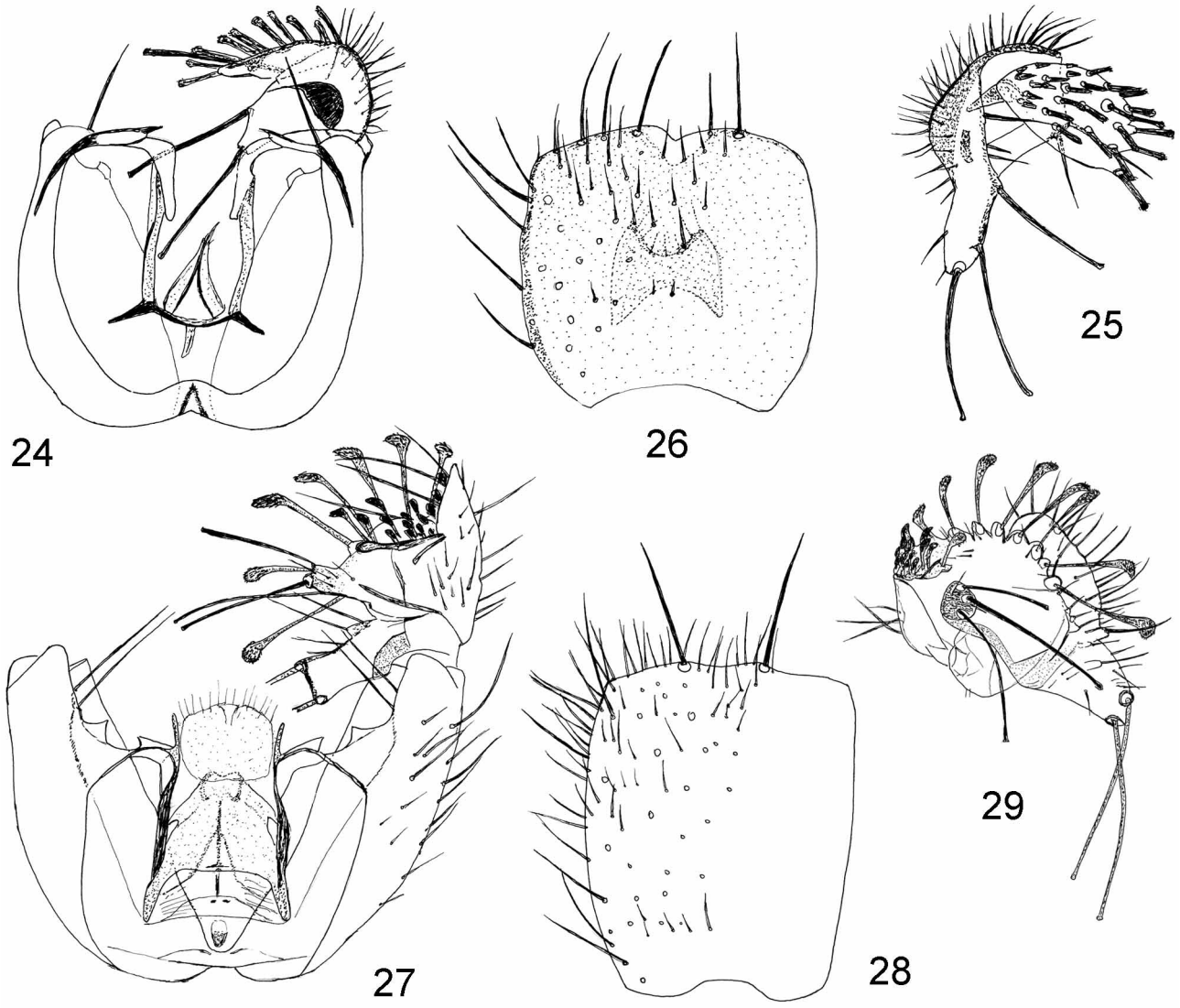
Paratype: 1 ♂: I-Sardegna (Carbonia-Iglesias), Domusnovas, sa Duchessa, 371 m, UTM WGS84 32 S 0464990 4358384, 18.IV-2.V.2006, Malaise trap S2, G. Chessa legit, Progetto Sardegna – CNBF (CNBFVR).

Diagnosis. A small (for the genus) dark species with yellow legs, a uniform covering of both macrotrichia and microtrichia on the wing membrane, aedeagal apodeme simple without teeth, gonocoxites with a single small tooth on dorsal lobe, gonostylus with ventral lobe bearing three apical megasetae and tergite 9 short and broad with a small median emargination.

Description. Male. *Head* dark brown with dark bristling. Antenna brown except base of first flagellomere, about as long as head and thorax together; flagellomeres about 1.5 times as long as broad. Palpus yellow, slender.

Thorax dark brown with brown bristling on mesonotum and scutellum and some strong dark setae on prothorax. Pleura with a few setae on upper part of anepisternum. Laterotergite and mediotergite with long brown setae. *Wing* clear with a uniform covering of both macrotrichia and microtrichia on membrane. Vein Sc short, ending in costa well beyond level of base of Rs. Sc_2 at 0.6 its length and level with base of Rs. Vein R_4 close to and parallel with Rs, forming a small narrow radial cell. Costa extending 0.25 distance from R_5 to M_1. Crossvein r-m nearly vertical and a little longer than stem of median fork. Posterior fork beginning level with basal third of median fork. Vein A_1 reaching level of base of posterior fork. Veins setose except for Rs, R_4 and r-m except extreme base closest to radial cell. Haltere yellow. *Wing length* 2.4 mm. *Legs* yellow except apical third of hind femur which is brown (the holotype lacks hind legs, one mid leg and the other mid tarsus; the paratype has only mid legs and one hind leg); tibiae with irregular short dark setulae and bearing short bristles little more than half tibial width, distributed as follows: mid tibia with 3 anterodorsal, 3 short posteroventral on apical half and 2 posterior setae on apical third; hind tibia with 5 anterodorsal, 3 dorsal on apical half and 6

posterior setae. Fore metatarsus 0.7 length of its tibia. Tibial spurs long, yellow, 1:2:2, the anterior 0.75 as long as posterior on mid and hind legs.



FIGURES 24–29. Male genitalia. **24–26.** *Sciophila benjaminbottomi* sp. nov. **24.** Dorsal view of gonocoxites and gonostyli, with aedeagus in situ (tergite 9 and cerci removed) (holotype). **25.** Internal view of gonostylus (paratype). **26.** Tergite 9 and cerci (paratype). **27–29.** *Sciophila immodesta* sp. nov. (holotype). **27.** Dorsal view of gonocoxites and gonostyli, with aedeagus and cerci in situ (only tergite 9 removed). **28.** Tergite 9. **29.** Internal view of gonostylus.

Abdomen including genitalia brown with short dark bristling. Genitalia (Figs 24–26) with gonocoxites only narrowly articulating basally, distally linked to aedeagal apodemes, which are simple but dorsal gonocoxal lobe with a single narrow apically pointed medially directed tooth; gonostylus with ventral lobe bearing three blunt tipped long slender megasetae and internal lobe bearing short blunt megasetae. Tergite 9 (Fig. 26) short and broad, blunt edged apically, with a small median emargination, with only fine irregular setae on apical margin and enclosing cerci.

Female. Unknown.

Etymology. This species is named for my friend Benjamin Bottom to acknowledge his feline support during the preparation of this paper.

Chorotype. Type 6 [3.02 of Vigna Taglianti *et al.* (1999)]. Mediterranean

Italian distribution. Sardinia only.

Notes. This species has the gonostylus structurally similar to several other small dark species of the genus, including *Sciophila insolita* Santos Abreu, 1920, but it differs from other species by the simple structure of tergite 9.

119. *Sciophila immodesta* sp. nov.
(Figs 27–29)

Type material. Holotype ♂: Sardinia (Cagliari), Plot Conecofor SAR1, Iglesias Marganai, 700 m, UTM 32S 0462853 4355582, 16.XI-2.XII.2005, leg. G. Chessa, deposited at CNBFVR.

Diagnosis. A medium-sized (for the genus) dark species with yellow legs, a uniform covering of both macrotrichia and microtrichia on the wing membrane, aedeagal apodeme with two divergent teeth, gonocoxites with a single broad tooth on dorsal lobe, gonostylus with ventral lobe bearing two apical megasetae and tergite 9 broad and blunt apically, bearing two long setae.

Description. Male. *Head* dark brown with brown bristling. Antenna probably about twice as long as thorax, but tips missing, with only 11 and 8 flagellomeres respectively; scape and pedicel yellowish brown, flagellomeres light brown, 2.5–3 times as long as broad. Palpus yellowish, slender.

Thorax dark brown with light brown bristling on mesonotum, scutellum and laterotergite. Mediotergite with a few setae. *Wing* clear with a uniform covering of both macrotrichia and microtrichia on membrane. Vein Sc ending in costa beyond level of base of Rs. Sc_2 at apical quarter of Sc, just before base of Rs. Vein R_4 close to and parallel with Rs, forming a small narrow radial cell. Costa extending 0.3 distance from R_5 to M_1. Crossvein r-m and stem of median fork short and subequal. Posterior fork beginning level with basal quarter of median fork. Vein A_1 reaching level of base of posterior fork. Veins setose except for Rs, R_4 and most of r-m (except portion closest to radial cell, which is setose). Haltere yellow. *Wing length* 3.8 mm. *Legs* yellow, with irregular short dark setulae and setae a little longer than tibial width: mid tibia with 5 anterior, 3 dorsal and 3–4 short posteroventral setae; hind tibia with 5 anterior, 4 anterodorsal, 5 dorsal and 5–6 short posterodorsal setae. Fore metatarsus 0.9 length of its tibia. Tibial spurs long, yellow, 1:2:2, the anterior 0.8 times as long as posterior on mid and hind legs.

Abdomen including genitalia light brown with short brown bristling. Genitalia (Figs 27–29) with gonocoxites only narrowly articulating basally, distally linked to aedeagal apodemes; outer tooth of aedeagal apodeme laterally directed and widely divergent from inner; dorsal gonocoxal lobe with a single broad apically pointed tooth; gonostylus with ventral lobe bearing two blunt tipped apical megasetae and internal lobes bearing apically enlarged megasetae. Tergite 9 (Fig. 29) broad and blunt edged apically, bearing two long setae and enclosing cerci.

Female. Unknown, but see comments under *Sciophila* spp. females of the S. *lutea* Macquart, 1826 group.

Etymology. By analogy to *S. modesta* Zaitzev, 1982 which is a member of the *S. lutea* Macquart, 1826 group without teeth developed on the apodeme and gonocoxites, while here they are weakly developed.

Chorotype. Type 6 [3.02 of Vigna Taglianti *et al.* (1999)]. Mediterranean.

Italian distribution. Sardinia only.

Notes. This species belongs to the *Sciophila lutea* group, of which there are several species in the Mediterranean region (Caspers 1991; Chandler 1994; Chandler & Gatt 2000; Chandler & Blasco-Zumeta 2001; Chandler *et al.* 2006; Bechev & Koç 2006). No species of this group had yet been confirmed from Italy but unidentified yellow females were reported from Bosco della Fontana (Chandler 2004a) and *S. corlutea* Chandler, 2001 occurs in Corsica and other parts of western Europe. Bechev and Koç (2006), who described two new species from Turkey, provided a key to the species of this group. In their key *S. immodesta* runs to couplet 3 but differs from both alternatives in that there is a single small tooth on the dorsal gonocoxal lobe. Among known species it resembles *S. corlutea* in the form of the aedeagal apodeme except that the outer tooth is more divergent and laterally directed and the tooth on the gonocoxal lobe is absent in *S. corlutea*. It also

differs in darker body coloration, but this may be infraspecific variation as found in some other species of the group.

***Sciophila* spp. ♀♀ (*lutea* Macquart, 1826 group)**

Material examined. S2 4–18.IV.06 ♀. **S3** 18.IV–2.V.06 ♀♀, 2–16.V.06 ♀♀. **SAR1** 30.VI–16.VII.04 ♀♀, 16.VII–1.VIII.04 ♀♀, 29.IV–20.V.05 ♀♀, 20.V–16.VI.05 2 ♀♀.

Notes. These are entirely yellowish specimens considered to belong to the *Sciophila lutea* group. Males are necessary for determination and it is possible that they belong to *S. immodesta* described above.

120. *Sciophila insolita* Santos Abreu, 1920**

Material examined. S3 21.III–4.IV.06 2 ♂♂, 18.IV–2.V.06 ♂♂. **SAR1** 29.IX–21.X.03 2 ♂♂, 16.II–15.VI.04 ♂♂, 5–22.XI.04 ♂♂, 17.XII.04–4.I.05 ♂♂, 1.III–29.IV.05 ♂♂, 29.IV–20.V.05 7 ♂♂, 20.V–16.VI.05 ♂♂, 30.IX–17.X.05 4 ♂♂, 17.X–3.XI.05 1 ♂, 3–16.XI.05 4 ♂♂, 2–16.XII.05 1 ♂, 6.X–5.XI.06 8 ♂♂ 1 ♀.

Chorotype. Type 7 [3.01 of Vigna Taglianti *et al.* (1999)]. Mediterranean and Atlantic Islands.

Italian distribution. Sardinia only.

Notes. Only previously known from the Canary Islands and Balearic Islands (Mallorca) (Chandler & Ribeiro 1995).

121. *Sciophila parviareolata* Santos Abreu, 1920**

Material examined. S3 16–30.V.06 1 ♂.

Chorotype. Type 3 [1.03 of Vigna Taglianti *et al.* (1999)]. In Europe south-westerly (Britain, Portugal and Spain), but also known from the Canary Islands, Gough Island in the South Atlantic and New Zealand, where it appears to be a recent introduction (Toft & Chandler 2004) and one male was recently recorded from Iceland (Kjærandsen *et al.* 2007b).

Italian distribution. Sardinia only.

Ecology. Unknown but most British records of this species are from indoors and it has been suggested that it might be associated with fungi on household timbers, which may also account for its unusual distribution. The Sardinian specimen was collected at Valle Oridda, in a habitat characterized by secondary garrigue-type vegetation. The Iceland specimen was collected in a birch wood.

Notes. Chandler (2001) recognised that this species was distinct from *S. hirta* Meigen, 1818 with which it had been synonymised by Zaitzev (1982).

122. *Sciophila zaitzevi* Bechev, 1988**

Material examined. S1 18.IV–2.V.06 2 ♂♂, 16–30.V.06 2 ♂♂, 17–31.X.06 2 ♂♂. **SAR1** 20.V–16.VI.05 2 ♂♂.

Chorotype. Type 4 [2.01 of Vigna Taglianti *et al.* (1999)]. European.

Italian distribution. Sardinia only.

Notes. This species was described from Bulgaria (Bechev 1988) and since recorded from Russia and Slovakia (Ševčík 2005). The figures given by Dziedzicki (1915) of unlocalised specimens in the Winnertz collection under the name *Lasiosoma pilosa* Meigen, 1838 (a probable misidentification; *L. pilosa* is currently considered as a probable synonym of *Sciophila hirta* Meigen, 1838) are evidently of the same species;

Winnertz (1863) probably included more than one species under the name *pilosa* as he described several varieties.

***Sciophila* spp.** ♀♀

Material examined. C82 11–12.VI.04 1 ♀. **S3** 4–18.IV.06 ♀♀. **SAR1** 29.IX–21.X.03 1 ♀, 15–30.V.04 ♀♀, 16.VI–14.VII.05 1 ♀, 13–30.IX.05 1 ♀, 17.X–3.XI.05 1 ♀, 3–16.XI.05 1 ♀, 6.X–5.XI.06 ♀♀.

Notes. These are dark coloured females, which probably belong to one or more of the above species.

Discussion

The Mediterranean fauna of the fungus gnat families is becoming better known with recent studies and the state of knowledge was summarised by Chandler *et al.* (2006) when dealing with the fauna of Greece and Cyprus. That work placed the species recorded in those areas in ten categories according to their known distribution, from which it was apparent that the majority of species recorded were widespread in Europe or more widely in the Palaearctic or Holarctic regions. This is not too surprising as this group of insects develop mainly in fungi or decaying wood and are largely restricted to forest habitats. They are therefore more dependent on the distribution of forests, especially where moist microhabitats exist, rather than on overall climatic conditions.

The species recorded from Sardinia have been assigned to the first seven of the distributional categories defined by Chandler *et al.* (2006), the other three relating to the eastern Mediterranean and apparently endemic status of some species. This approach is to provide a consistent comparison with the work cited but, to also place this in the context of the Sardinian fauna of other groups, species have also been assigned to the chorotype categories proposed by Vigna Taglianti *et al*. (1999).

Those species newly described in the present paper are placed in the Mediterranean category 6 on the assumption that they may be found to occur elsewhere (these apparently endemic species fall in the western Mediterranean category 3.02 of Vigna Taglianti *et al.* (1999)). The categories and the number of Sardinian species that fall in each are as follows:

Holarctic (found in Europe and North America) [1.01 of Vigna Taglianti *et al.* (1999)]	27
Palaearctic (extending to the eastern part) [mostly 1.02 but in one case 1.05 of Vigna Taglianti *et al.* (1999)]	36
Western Palaearctic (extending outside Europe) [1.03 (18) and 1.12 (1) of Vigna Taglianti *et al.* (1999)]	19
European (widely distributed in Europe) [2.01 of Vigna Taglianti *et al.* (1999)]	12
Central and southern Europe [2.04 of Vigna Taglianti *et al.* (1999)]	1
Mediterranean subregion and southern Europe [1.12 (1), 3.01 (6) or 3.02 (11) of Vigna Taglianti *et al.* (1999)]	18
As previous category and Atlantic Islands [also 3.01 of Vigna Taglianti *et al.* (1999)]	6
Total	119

The findings for Sardinia have also shown that the majority of species recorded are widespread outside the island. The proportion confined to the Mediterranean region and adjacent areas is smaller than was apparent in the eastern Mediterranean, where it was a substantial element amounting to about a quarter of the total fauna of Greece and Cyprus (Chandler *et al.* 2006). There is, however, a significant fauna characteristic of this region and it is of particular interest that some species newly described from Greece by Chandler *et al.* (2006) have been found to occur in Sardinia, suggesting that they have a wider distribution. As the fauna of adjacent regions becomes better known it is possible that some of the species described as new in the present paper will be found elsewhere and it cannot be certain that any of the species now known only from Sardinia will prove to be endemic to the island. However, this possibility equally cannot be excluded.

As described in the introduction the overall Italian fauna is becoming better known and the Sardinian fauna is evidently relatively small compared to the total Italian fauna. This is to be expected both because island faunas are likely to be more restricted and because the large central European fauna is well represented in the Italian Alps and the Northern Apennines.

Nevertheless, it may be expected that knowledge of the Sardinian fauna is still at an early stage and wider collecting will certainly add to this, as also suggested by the number of species yet known from a small number of specimens. A comparison with the known Corsican fauna is also useful as an indicator of this, as while many species are in common between the two islands there is a significantly high number of species that are not.

The Corsican fungus gnats were the subject of a paper by Edwards (1928). More recently the works of Matile have added information on the fauna of Corsica, summarised in his French checklist (Matile 1977, 1980). Chandler (2004a) consequently listed 145 species of fungus gnats from Corsica, which comprised 4 species of Bolitophilidae, 1 species of Diadocidiidae, 13 species of Keroplatidae and 127 species of Mycetophilidae. The four Bolitophilidae are all widespread in Europe and included one species of the subgenus *Cliopisa* Enderlein of *Bolitophila* Meigen but of a different species group to the female specimens found in Sardinia; it is probable that further species of this family occur in both islands. The single species of Diadocidiidae recorded was a common Palaearctic species and it is possible that it also occurs in Sardinia.

In the Keroplatidae most of the species found in Corsica are widespread species of *Keroplatus* Bosc, *Macrocera* Meigen and *Orfelia* Costa while two species, *Macrocera incompleta* and *Macrorrhyncha gallica*, have a Mediterranean distribution. Only the two latter and three other species of *Macrocera, M. phalerata, M. stigmoides* and *M. vittata*, are in common with Sardinia, the Corsican record of *Orfelia persimilis* (Caspers 1991) referring to a related undescribed species. The presence of two widespread species of *Keroplatus* in Corsica supports the possibility that the unnamed Sardinian material mentioned above was of a species other than *K. tipuloides*. The presence of ten species of this family in Sardinia that are not recorded from Corsica suggests that the keroplatid fauna of that island is under-recorded. Six of these ten species are of a Mediterranean distribution and two of them are newly described and not known outside Sardinia.

In the Mycetophilidae only 52 species, about half the known Sardinian fauna and about 40 % of the Corsican fauna, are in common between Corsica and Sardinia. The total mycetophilid fauna for the two islands is 180 species, suggesting that both are still significantly under-recorded. However, a greater proportion of widespread European species is found in Corsica, possibly due to closer proximity to the mainland or to the extent of suitable forest habitat. Considering species with a predominantly Mediterranean distribution, there are a similar number in each island but surprisingly few in common i.e. *Ectrepesthoneura gracilis*, *Exechia fulva* and *Azana corsicana*, of which the last is known only from Corsica and Sardinia. The other mainly Mediterranean or apparently endemic species found in the two islands are as follows:

Corsica: *Anatella concava* Plassmann, 1990; *Epicypta torquata* Matile, 1977; *Exechiopsis coremura* Edwards, 1928; *E. vizzavonensis* Edwards, 1928; *Leia fuscicalcar* Edwards, 1928; *L. umbrosa* Caspers, 1991; *Mycetophila corsica* Edwards, 1928; *Neuratelia spinosa* Matile, 1974; *Phronia tyrrhenica* Edwards, 1928 (among which *Epicypta torquata* and *Exechiopsis vizzavonensis* are also recorded from central Europe).

Sardinia: *Boletina ichnusa, Docosia melita, Leia beckeri, L. padana, Megophthalmidia illyrica, M. ionica, Cordyla styliforceps, Rymosia beaucournui, Trichonta sandalyon, Azana flavohalterata, Sciophila benjaminbottomi, S. insolita, S. immodesta*.

Also taking the Keroplatidae into account, Sardinia has a greater proportion of Mediterranean species, constituting about 18 % of the total fungus gnat fauna compared to only 10 % of the larger Corsican fauna.

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