

The Ephydriidae of Sardinia (Diptera)*

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*In: Nardi G., Whitmore D., Bardiani M., Birtele D., Mason F., Spada L. & Cerretti P. (eds), *Biodiversity of Marganai and Montimannu (Sardinia). Research in the framework of the ICP Forests network. Conservazione Habitat Invertebrati*, 5: 733–748.

ABSTRACT

A list of the shore flies (Ephydriidae) of Sardinia (Italy) is provided. From 61 collected species, 27 (*Clanoneurum cimiciforme* (Haliday, 1855), *Psilopa aequalipes* (Becker, 1907), *P. leucostoma* (Meigen, 1830), *P. nana* Loew, 1860, *P. pulicaria* (Haliday, 1839), *Atissa hepaticoloris* Becker, 1903, *Hydrellia albifrons* (Fallén, 1813), *H. albilabris* (Meigen, 1830), *H. maura* Meigen, 1838, *H. subalbiceps* Collin, 1966, *Athyroglossa nudiuscula* Loew, 1873, *A. ordinata* Loew, 1873, *Ditrichophora calceata* (Meigen, 1830), *Gymnoclasiopa aulisioi* (Canzoneri, 1977), *G. insolita* (Canzoneri & Meneghini, 1977), *Hecamedoides unispinosus* (Collin, 1943), *Hyadina guttata* (Fallén, 1813), *Ilythea spilota* (Curtis, 1832), *Philygria flavipes* (Fallén, 1823), *P. stictica* (Meigen, 1830), *Parydroptera discomyzina* Collin, 1913, *Pelina nitens* Loew, 1873, *Brachydeutera ibari* Ninomyia, 1929, *Philotelma parvum* (Kramer, 1917), *Scatophila caviceps* (Stenhammar, 1844), *S. signata* (Loew, 1860) and *S. unicornis* Czerny, 1900) are new for the island. *Psilopa aequalipes* (Becker, 1907), *P. nana* Loew, 1860, *Hecamedoides unispinosus* (Collin, 1943), *Brachydeutera ibari* Ninomyia, 1929 and *Philotelma parvum* (Kramer, 1917) are new for Italy. The present number of shore flies known from Sardinia is 85.

Key words: Diptera, Ephydriidae, Italy, Sardinia.

RIASSUNTO

Gli Ephydriidae della Sardegna (Diptera)

È fornita una lista degli Ephydriidae della Sardegna (Italia). Delle 61 specie raccolte 27 (*Clanoneurum cimiciforme* (Haliday, 1855), *Psilopa aequalipes* (Becker, 1907), *P. leucostoma* (Meigen, 1830), *P. nana* Loew, 1860, *P. pulicaria* (Haliday, 1839), *Atissa hepaticoloris* Becker, 1903, *Hydrellia albifrons* (Fallén, 1813), *H. albilabris* (Meigen, 1830), *H. maura* Meigen, 1838, *H. subalbiceps* Collin, 1966, *Athyroglossa nudiuscula* Loew, 1873, *A. ordinata* Loew, 1873, *Ditrichophora calceata* (Meigen, 1830), *Gymnoclasiopa aulisioi* (Canzoneri, 1977), *G. insolita* (Canzoneri & Meneghini, 1977), *Hecamedoides unispinosus* (Collin, 1943), *Hyadina guttata* (Fallén, 1813), *Ilythea spilota* (Curtis, 1832), *Philygria flavipes* (Fallén, 1823), *P. stictica* (Meigen, 1830), *Parydroptera discomyzina* Collin, 1913, *Pelina nitens* Loew, 1873, *Brachydeutera ibari* Ninomyia, 1929, *Philotelma parvum* (Kramer, 1917), *Scatophila caviceps* (Stenhammar, 1844), *S. signata* (Loew, 1860) e *S. unicornis* Czerny, 1900) sono nuove per l'Isola. *Psilopa aequalipes* (Becker, 1907), *P. nana* Loew, 1860, *Hecamedoides unispinosus* (Collin, 1943), *Brachydeutera ibari* Ninomyia, 1929 e *Philotelma parvum* (Kramer, 1917) sono nuove per l'Italia. Attualmente 85 specie di Ephydriidae sono conosciute della Sardegna.

INTRODUCTION

Adults are very small to medium sized (1–6 mm) flies occurring along ponds, lakes and rivers as well as inhabiting other wet places. Characterized by arista bare to dorsally pubescent, or pectinate; postvertical setae absent; true vibrissae absent, but facial setae often developed; costa of wing with both humeral and subcostal breaks; subcosta weak; discal and second basal cells united, lack of anal vein and anal cell. The majority of larvae are aquatic or semi-aquatic in fresh or brackish water, and they are grazers or filter-feeders of organic material and ingest a broad spectrum of microorganisms, or decaying material; some are plant miners or predators. Many adult ephydriids are basi-

cally known to be polyphagous, feeding on microscopic organisms (Mathis & Zatwarnicki 1998).

Shore flies are very well known in Italy, with 189 species already recorded (Bächli et al. 1995; Canzoneri & Vienna 2000; Zatwarnicki 2004b, 2008; Raffone 2009), representing the richest ephydrid fauna of Europe. Prior to this study, there were 57 species recorded in the literature from Sardinia. The majority of species was provided by three papers: 38 by Canzoneri & Meneghini (1983), 21 by Munari & Roháček (1990) and 31 by Canzoneri & Vienna (2000); Canzoneri & Vienna (1994) and Canzoneri (1995) mentioned two species each, while single species were provided in seven further articles (Canzoneri & Meneghini 1979; Canzoneri & Munari 1984; Canzoneri 1985; Canzon-

eri & Vienna 1987; Munari 1988; Mathis & Zatwarnicki 1993; Raffone 2008). New findings increase the number of shore flies known from Sardinia to 85.

MATERIAL AND METHODS

The materials presented in this paper come from field campaigns carried out by the Centro Nazionale per lo Studio e la Conservazione della Biodiversità Forestale "Bosco Fontana" of Verona (Italy) (CNBFVR) between 2003 and 2006 (cf. Bardiani 2011), and from Muséum d'Histoire naturelle, Genève, Switzerland (specimens collected by B. Merz and M. Eggenberger in June 2002).

The systematic classification is based on Zatwarnicki's (1992) division of the Ephydriidae into five subfamilies. Nomenclature is provided after Mathis & Zatwarnicki (1995), with updates by Zatwarnicki (2004a). Species identification was carried out according to the keys of Canzoneri & Meneghini (1983) and Papp (1975), as well as by direct comparison with primary types, using a Leica MZ6 dissecting microscope. When necessary, characters of the male terminalia were consulted.

Localities of collection are listed in alphabetical order; a semicolon separates different records, if these are from the same site, the name of the site is listed only at the beginning with the oldest record. Literature data are listed before unpublished data. Up until 2005 Sardinia was divided into four provinces (Cagliari, Nuoro, Oristano, Sassari); subsequently, four provinces were added, bringing the total to eight and reducing the extension of the previous ones; for practical reasons all localities are here listed according to the new administrative subdivision, even for the records prior to 2005. Further information on sites sampled by the CNBFVR staff is provided by Bardiani (2011).

ABBREVIATIONS

COLLECTORS. BM = B. Merz; DA = D. Avesani; DB = D. Birtele; DW = D. Whitmore; EG = E. Gatti; EM = E. Minari; FM = F. Mason; GC = G. Chessa; GN = G. Nardi; MB = M. Bardiani; ME = M. Eggenberger; MM = M. Mei; MT = M. Tisato; PCe = P. Cerretti; PCo = P. Cornacchia.

OTHER ABBREVIATIONS AND RECURRENT TERMS USED IN FAUNISTIC LIST. cn = car net; dint. = environs of; f. = Fiume = River; ex = specimen/s; foce = river mouth; Gola = Gorge; I. = Isola = Island; Lago = Lake; Lido = Shore; lt = light trap; Monte = Mount; mt = Malaise trap; Mt. = Mount; Mts = Mounts; nt = hand net; ponte = bridge; Porto = Port; presso = near; radura = clearing; Rio = Stream, small river; ruscello = brook; sorgente = spring; sn =

sweeping net; spiaggia = beach; spiaggia marina = marine beach; SS = State Road; Stagno = Pond; strada da = road from; Terme = Spa; vers. = slope; vic. = near; verso = toward.

FAUNISTIC LIST

Species new for Italy are marked with two asterisks (**), those new to Sardinia with one asterisk (*).

DISCOMYZINAE

1. *Clanoneurum cimiciforme* (Haliday, 1855) *

RECORDS. **Carbonia-Iglesias prov.:** Iglesias, Marganai, plot CONECOFOR SAR1, 700 m, 32S 462853 4355582, 16.II–15.VI.2004, GC, mt, 1 ♂. **Oristano prov.:** Sinis peninsula, Capo Mannu, 0 m, 22.VI.2002, BM ME, 1 ♀.

CHOROTYPE. Europeo-Mediterranean.

ITALIAN DISTRIBUTION. Venetia, Emilia-Romagna, Marches, Tuscany, Umbria, Campania, Sicily and Sardinia.

2. *Psilopa aequalipes* (Becker, 1907) **

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, sa Duchessa, 371 m, 32S 464990 4358384, 3–17.X.2006, GC, mt, 1 ♂ 1 ♀.

CHOROTYPE. Mediterranean.

3. *Psilopa biskrae* (Becker, 1907)

LITERATURE RECORDS. **Olbia-Tempio prov.:** I. Caprera, Cala Garibaldi (Canzoneri & Meneghini 1983).

CHOROTYPE. W-Mediterranean.

ITALIAN DISTRIBUTION. Emilia-Romagna, Sicily and Sardinia.

4. *Psilopa compta* (Meigen, 1830)

LITERATURE RECORDS. **Ogliastra prov.:** Bari Sardo; Tortoli, Lido di Orri [= Orri] (Canzoneri & Vienna 2000). **Sassari prov.:** Castel Doria spa, thermal spring (Munari & Roháček 1990); Fertilia, 8 km NE (Canzoneri & Vienna 2000); Silis river, near mouth, Pond of Platamona (Munari & Roháček 1990).

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 20–23.V.2006, MB DB PCo DW, mt, 1 ♂ 2 ♀♀. **Medio Campidano prov.:** Villacidro, Nuxeddu Mts, Montimannu forest, 600 m, 12.VI.2002, BM ME, 1 ♀. **Nuoro prov.:** Dorgali, Cala Luna (S of Cala Gonone), 0 m,

17.VI.2002, BM ME, 5 ♂♂ 1 ♀; Dorgali dint., Rio Flumineddu, Gola di Gorropu, 350 m, 15.VI.2002, BM ME, 3 ♀♀. **Oristano prov.:** Bosa, Bosa Marina, 0 m, 20.VI.2002, BM ME, 1 ♀.

CHOROTYPE. Holarctic.

ITALIAN DISTRIBUTION. Majority of Italy apart from Aosta Valley.

5. *Psilopa leucostoma* (Meigen, 1830) *

RECORDS. **Nuoro prov.:** Dorgali, Cala Luna (S of Cala Gonone), 0 m, 17.VI.2002, BM ME, 6 ♂♂ 1 ♀; Dorgali dint., Rio Flumineddu, Gola di Gorropu, 350 m, 15.VI.2002, BM ME, 1 ♂. **Oristano prov.:** Bosa, Bosa Marina, 0 m, 20.VI.2002, BM ME, 1 ♂; Sinis peninsula, Capo Mannu, 0 m, 22.VI.2002, BM ME, 1 ♀.

CHOROTYPE. Holarctic.

ITALIAN DISTRIBUTION. Venetia, Friuli-Venezia Giulia, Emilia-Romagna, Marches and Sardinia.

6. *Psilopa maritima* (Perris, 1847)

LITERATURE RECORDS. **Ogliastra prov.:** Tortoli, lido di Orri [= Orri] (Canzoneri & Vienna 2000). **Olbia-Tempio prov.:** I. Caprera (Canzoneri 1985).

CHOROTYPE. S-European.

ITALIAN DISTRIBUTION. Venetia, Friuli-Venezia Giulia, Emilia-Romagna, Tuscany, Sicily and Sardinia.

7. *Psilopa nana* Loew, 1860 **

RECORDS. **Oristano prov.:** Bosa, Bosa Marina, 0 m, 20.VI.2002, BM ME, 2 ♀♀.

CHOROTYPE. W-Palearctic.

8. *Psilopa nigritella* Stenhammar, 1844

LITERATURE RECORDS. **Cagliari prov.:** Pula, Rio Margherita (Canzoneri & Meneghini 1983). **Oristano prov.:** f. Tirso (Canzoneri & Meneghini 1983).

CHOROTYPE. Palearctic.

ITALIAN DISTRIBUTION. Majority of Italy apart from Aosta Valley, Molise, Basilicata and Calabria.

9. *Psilopa nitidula* (Fallén, 1813)

LITERATURE RECORDS. **Nuoro prov.:** Macomer, ruscello 7 km a N (Canzoneri & Meneghini 1983). **Ogliastra prov.:** Bari Sardo (Canzoneri & Vienna 2000). Tortoli, Lido di Orri [= Orri] (Canzoneri & Vienna 2000).

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, sa Duchessa, 371 m, 32S 464990 4358384, 16–30.V.2006, GC, mt, 1 ♀; 13–27.VI.2006, GC, mt, 1 ♂; 27.VI–11.VII.2006, GC, mt, 1 ♀; 11–25.VII.2006, GC, mt, 9 ♂♂ 9 ♀♀; 25.VII–8.VIII.2006, GC, mt, 4 ♂♂ 5 ♀♀; 8–22.VIII.2006, GC, mt, 1 ♂; 3–17.X.2006, GC, mt, 1 ♀; Domusnovas, Valle Oridda, 592 m, 32S 466973 4362228, 27.VI–11.VII.2006, GC, mt, 1 ♂.

CHOROTYPE. Palearctic.

ITALIAN DISTRIBUTION. Majority of Italy apart from Aosta Valley and Basilicata.

10. *Psilopa pulicaria* (Haliday, 1839) *

RECORDS. **Carbonia-Iglesias prov.:** Buggerru, Cala Domestica, 10 m, 32S 446540 4358436, 11.XI.2006, DW, sn, 2 ♂♂; Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 12–17.VII.2006, DA MB DB PCe MM DW, nt, 3 ♂♂ 4 ♀♀. Domusnovas, Valle Oridda, 592 m, 32S 466973 4362228, 17–31.X.2006, GC, mt, 1 ♂; Iglesias, dint. colonia Beneck, 636 m, 32S 462391 4355441, 17–31.X.2006, GC, mt, 1 ♂.

CHOROTYPE. European.

ITALIAN DISTRIBUTION. Venetia, Friuli-Venezia Giulia, Emilia-Romagna, Sicily and Sardinia.

11. *Psilopa rutilans* Canzoneri & Meneghini, 1972

LITERATURE RECORDS. **Ogliastra prov.:** Tortoli (Canzoneri & Munari 1984). **Olbia-Tempio prov.:** I. della Maddalena, Punta Tegge (Canzoneri & Meneghini 1983).

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 12–17.VII.2006, DA MB DB PCe MM DW, mt, 1 ♀; 12.XI.2006, DW, nt, 1 ♀. **Nuoro prov.:** Dorgali, Cala Luna (S of Cala Gonone), 0 m, 17.VI.2002, BM ME, 2 ♂♂ 2 ♀♀. **Oristano prov.:** Sinis peninsula, Capo Mannu, 0 m, 22.VI.2002, BM ME, 1 ♀.

CHOROTYPE. Europeo-Mediterranean.

ITALIAN DISTRIBUTION. Venetia, Emilia-Romagna and Sardinia.

HYDRELLINAE

12. *Asmeringa inermis* Becker, 1903

LITERATURE RECORDS. **Cagliari prov.:** f. Chia (Canzoneri & Meneghini 1983). **Carbonia-Iglesias prov.:** I. di S. Antioco; Stagno S. Caterina (Canzoneri & Meneghini 1983). **Olbia-Tempio prov.:** Stagno Porto Taverna; Capo Carbonara (Canzoneri & Meneghini 1983). **Oristano prov.:** foce Tirso (Canzoneri & Meneghini 1983).

Sassari prov.: Coghinas river mouth (Munari & Roháček 1990).

CHOROTYPE. Mediterranean.

ITALIAN DISTRIBUTION. Venetia, Friuli-Venezia Giulia, Emilia-Romagna, Tuscany, Abruzzi, Campania, Apulia, Basilicata, Sicily and Sardinia.

13. *Atissa hepaticoloris* Becker, 1903 *

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 20–23.V.2006, MB DB PCo DW, mt, 5 ♂♂ 5 ♀♀; 12–17.VII.2006, DA MB DB PCe MM DW, mt, 7 ♂♂ 6 ♀♀.

CHOROTYPE. Europeo-Mediterranean.

ITALIAN DISTRIBUTION. Venetia, Emilia-Romagna, Tuscany, Campania and Sardinia.

14. *Atissa limosina* Becker, 1896

LITERATURE RECORDS. **Cagliari prov.:** Chia (Canzoneri & Meneghini 1983).

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 12–17.VII.2006, DA MB DB PCe MM DW, mt, 2 ♂♂ 1 ♀. **Nuoro prov.:** Dorgali, Cala Luna (S of Cala Gonone), 0 m, 17.VI.2002, BM ME, 2 ♀♀.

CHOROTYPE. Europeo-Mediterranean.

ITALIAN DISTRIBUTION. Venetia, Friuli-Venezia Giulia, Emilia-Romagna, Tuscany, Latium, Apulia and Sardinia.

15. *Atissa pygmaea* (Haliday, 1833)

LITERATURE RECORDS. **Cagliari prov.:** f. Flumendosa alla foce; SE Rio Malliù presso Cantone Cannas (Canzoneri & Meneghini 1983). **Olbia-Tempio prov.:** Olbia, f. Padrogiano (Canzoneri & Meneghini 1983). **Sassari prov.:** Rio Mascari (Canzoneri & Meneghini 1983). Castel Doria spa, thermal springs (Munari & Roháček 1990).

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 12–17.VII.2006, DA MB DB PCe MM DW, nt, 2 ♂♂ 3 ♀♀; 20–23.V.2006, DA MB DB PCe MM DW, nt, 1 ♀. Domusnovas, sa Duchessa, 371 m, 32S 464990 4358384, 18.IV–2.V.2006, GC, mt, 1 ♂. Domusnovas, Valle Oridda, 592 m, 32S 466973 4362228, 3–17.X.2006, GC, mt, 1 ♂. **Nuoro prov.:** Dorgali, Cala Luna (S of Cala Gonone), 0 m, 17.VI.2002, BM ME, 1 ♂.

CHOROTYPE. Palearctic with extension to Kenya, Senegal and Sierra Leone.

ITALIAN DISTRIBUTION. Majority of Italy apart from Piedmont, Lombardy and Liguria.

16. *Ptilomyia angustigenis* (Becker, 1926)

LITERATURE RECORDS. **Olbia-Tempio prov.:** Monte Limbara, 1100 m (Canzoneri & Vienna 2000). **Sassari prov.:** Stagno di Platamona (Munari & Roháček 1990); Terme di Castel Doria (Canzoneri & Vienna 2000).

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 20–23.V.2006, MB DB PCo DW, mt, 4 ♂♂ 5 ♀♀; 23.V.2006, MB DB PCo DW, nt, 1 ♀; 12–17.VII.2006, DA MB DB PCe MM DW, mt, 5 ♂♂ 6 ♀♀; Iglesias, dint. colonia Beneck, 636 m, 32S 462391 4355441, 30.V–13.VI.2006, GC, mt, 1 ♂.

CHOROTYPE. Europeo-Mediterranean.

ITALIAN DISTRIBUTION. Majority of Italy apart from Piedmont, Trentino-Alto Adige, Friuli-Venezia Giulia, Liguria and Apulia.

17. *Schema durrenbergensis* (Loew, 1864)

LITERATURE RECORDS. **Cagliari prov.:** f. Chia verso la foce; Stagno di Cagliari; Stagno di Chia (Canzoneri & Meneghini 1983). **Carbonia-Iglesias prov.:** SW Stagno di Porto Botte; Stagno di Punta Pino; Stagno di S. Caterina (Canzoneri & Meneghini 1983). **Olbia-Tempio prov.:** Stagno di Porto Taverna (Canzoneri & Meneghini 1983). **Oristano prov.:** foce f. Tirso (Canzoneri & Meneghini 1983).

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 12–17.VII.2006, DA MB DB PCe MM DW, mt, 1 ♂.

CHOROTYPE. W-Palearctic.

ITALIAN DISTRIBUTION. Venetia, Friuli-Venezia Giulia, Emilia-Romagna, Tuscany, Latium, Campania, Apulia, Basilicata, Sicily and Sardinia.

18. *Hydrellia albifrons* (Fallén, 1813)

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 23.V.2006, MB DB PCo DW, nt, 1 ♂.

CHOROTYPE. W-Palearctic

ITALIAN DISTRIBUTION. Venetia, Emilia-Romagna, Latium and Sardinia.

19. *Hydrellia albilabris* (Meigen, 1830) *

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru,

322 m, 32S 467069 4357916, 20–23.V.2006, MB DB PCo DW, mt, 1 ♀; 12–17.VII.2006, DA MB DB PCe MM DW, mt, 1 ♀.

CHOROTYPE. European.

ITALIAN DISTRIBUTION. Venetia, Friuli-Venezia Giulia, Emilia-Romagna, Latium, Abruzzi, Campania, Calabria, Sicily and Sardinia.

20. *Hydrellia fascitibia* (von Roser, 1840)

LITERATURE RECORDS. **Cagliari prov.:** foce f. Flumendosa (Canzoneri & Vienna 2000).

CHOROTYPE. Holarctic.

ITALIAN DISTRIBUTION. Trentino-Alto Adige, Venetia, Tuscany, Latium and Sardinia.

21. *Hydrellia griseola* (Fallén, 1813)

LITERATURE RECORDS. **Cagliari prov.:** Pula, Rio Margherita (Canzoneri & Meneghini 1983); f. Flumendosa (Canzoneri & Vienna 2000). **Nuoro prov.:** Macomer, ruscello 7 km N (Munari & Roháček 1990). **Olbia-Tempio prov.:** I. della Maddalena, Punta Tegge; Olbia, f. Padrogiano (Munari & Roháček 1990). **Oristano prov.:** f. Tirso al ponte (Munari & Roháček 1990). **Sassari prov.:** Castel Doria spa, thermal spring (Munari & Roháček 1990); Terme di Casteldoria; Torre di Casteldoria (Canzoneri & Vienna 2000).

RECORDS. **Cagliari prov.:** Burcei, dint. P.ta Serpeddì, 954 m, 32S 526996 4356738, 13.XI.2006, sorgente sn, DW, 1 ♂. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 22.III.2006, MB DB PCo DW, nt, 2 ♂♂ 1 ♀; 20–23.V.2006, MB DB PCo DW, mt, 4 ♀♀; 23.V.2006, MB DB PCo DW, nt, 1 ♀; 12.VII.2006, DA MB DB PCe MM DW, 1 ♀; 12–17.VII.2006, DA MB DB PCe MM DW, nt, 3 ♂♂ 4 ♀♀; 22.IX.2004, PCe DW, nt, 1 ♂; 12.XI.2006, DW, sn, 12 ♂♂ 19 ♀♀; 13.XI.2006, DW, nt, 1 ♂; 15.XI.2006, DW, 13 ♂♂ 6 ♀♀; Domusnovas, dint. Punta su Fenu, 250 m, 32S 467159 4356713, 10.XI.2006, mt, DW, 2 ♀♀; Domusnovas, Valle Oridda, 592 m, 32S 466973 4362228, 4–18.IV.2006, GC, mt, 1 ♂; 10.XI.2006, DW, sn, 1 ♂; Iglesias, dint. colonia Beneck, 636 m, 32S 462391 4355441, 21.III–4.IV.2006, mt, GC, 1 ♀. **Medio Campidano prov.:** Arbus, Piscinas, 0 m, 32S 452927 4376897, 21.IX.2004, PCe MT, nt, 1 ♂; Villacidro, Rio Cannisoni, 375 m, 32S 468713 4362692, 25.III.2006, MB DB PCo DW, nt, 1 ♂ 1 ♀. **Oristano prov.:** Sinis peninsula, Capo Mannu, 0 m, 22.VI.2002, BM ME, 1 ♂.

CHOROTYPE. Cosmopolitan.

ITALIAN DISTRIBUTION. Majority of Italy apart from Aosta Valley, Molise, Campania and Sardinia.

22. *Hydrellia maura* Meigen, 1838 *

RECORDS. **Cagliari prov.:** Burcei, dint. P.ta Serpeddì, 954 m, 32S 526996 4356738, 13.XI.2006, DW, sn sorgente, 23 ♂♂ 23 ♀♀. **Carbonia-Iglesias prov.:** Iglesias, dint. Case Marganai, 660 m, 32S 463341 4356196, 8.VI.2004, DB PCe GN MT DW, cn, 2 ♂♂.

CHOROTYPE. W-Palearctic.

ITALIAN DISTRIBUTION. Piedmont, Lombardy, Venetia, Marches, Tuscany, Umbria, Latium, Abruzzi, Basilicata, Calabria, Sicily and Sardinia.

23. *Hydrellia obscura* (Meigen, 1830)

LITERATURE RECORDS. **Sassari prov.:** Pond of Platamona (Munari & Roháček 1990; Canzoneri & Vienna 2000).

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 23.V.2006, MB DB PCo DW, nt, 2 ♂♂ 1 ♀.

CHOROTYPE. W-Palearctic.

ITALIAN DISTRIBUTION. Piedmont, Lombardy, Venetia, Marches, Latium, Abruzzi, Calabria and Sardinia.

24. *Hydrellia pubescens* Becker, 1926

LITERATURE RECORDS. **Cagliari prov.:** Gerrei, S. Nicolò, strada da Dolianova, R. [= Rio] Lassini, 800 m (Canzoneri & Meneghini 1983, as *H. nasturtii* Collin, 1928; Canzoneri & Vienna 1987, as *H. orlandinii* Canzoneri & Vienna, 1987). **Nuoro prov.:** Macomer, ruscello 7 km N (Canzoneri & Meneghini 1983, as *H. nasturtii*; Canzoneri & Vienna 1987, as *H. orlandinii*). **Sassari prov.:** Fertilia, 8 km NE (Canzoneri & Vienna 2000).

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 20–23.V.2006, MB DB PCo DW, mt, 1 ♂.

CHOROTYPE. Europeo-Mediterranean.

ITALIAN DISTRIBUTION. Venetia, Friuli-Venezia Giulia, Latium, Campania, Calabria, Sicily and Sardinia.

25. *Hydrellia ranunculi* Haliday, 1839

LITERATURE RECORDS. **Sassari prov.:** Lago Baratz, 60 m (Canzoneri & Vienna 2000).

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, sa Duchessa, 371 m, 32S 464990 4358384, 16–30.V.2006, GC, mt, 1 ♂.

CHOROTYPE. W-Palearctic.

ITALIAN DISTRIBUTION. Trentino-Alto Adige, Venetia, Emilia-Romagna, Latium, Sicily and Sardinia.

26. *Hydrellia subalbiceps* Collin, 1966 *

RECORDS. **Oristano prov.**: Mt. Ferru, Mt. Urtigu, 1000 m, 21.VI.2002, BM ME, 1 ♂.

CHOROTYPE. Europeo-Mediterranean.

ITALIAN DISTRIBUTION. Lombardy, Trentino-Alto Adige, Venetia, Tuscany, Marches, Latium, Abruzzi, Campania, Calabria, Sicily and Sardinia.

27. *Notiphila brunipes* (Robineau-Desvoidy, 1830)

LITERATURE RECORDS. **Olbia-Tempio prov.**: La Maddalena, Punta Tegge (Canzoneri & Meneghini 1983).

CHOROTYPE. European.

ITALIAN DISTRIBUTION. Lombardy, Venetia, Friuli-Venezia Giulia, Emilia-Romagna, Campania and Sardinia.

28. *Notiphila cinerea* Fallén, 1813

LITERATURE RECORDS. **Olbia-Tempio prov.**: La Maddalena (Canzoneri & Meneghini 1983). **Sassari prov.**: Fertilia, 8 km NE (Canzoneri & Vienna 2000).

RECORDS. **Carbonia-Iglesias prov.**: Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 23.V.2006, MB DB PCo DW, nt, 5 ♂♂ 9 ♀♀; 20–23.V.2006, MB DB PCo DW, mt, 1 ♀; 12–17.VII.2006, DA MB DB PCe MM DW, mt, 1 ♀; 12.XI.2006, DW, nt, 1 ♂.

CHOROTYPE. Palearctic.

ITALIAN DISTRIBUTION. Majority of Italy apart from Aosta Valley and Piedmont.

29. *Notiphila cogani* Canzoneri & Meneghini, 1979

LITERATURE RECORDS. **Nuoro prov.**: Macomer, ruscello 7 km a Nord (Canzoneri & Meneghini 1979, 1983).

CHOROTYPE. W-Mediterranean.

ITALIAN DISTRIBUTION. Latium, Campania and Sardinia.

30. *Notiphila riparia* Meigen, 1830

LITERATURE RECORDS. **Ogliastra prov.**: Tortolì, Lido di Orri [= Orri] (Canzoneri & Vienna 2000). **Sassari prov.**: Silis river, near mouth (Munari & Roháček 1990).

RECORDS. **Carbonia-Iglesias prov.**: Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 12–17.VII.2006, DA MB DB PCe MM DW, mt, 1 ♀.

CHOROTYPE. W-Palearctic.

ITALIAN DISTRIBUTION. Lombardy, Venetia, Friuli-Venezia Giulia, Emilia-Romagna, Liguria, Marches, Latium, Abruzzi, Molise, Calabria and Sardinia.

GYMNOMYZINAE

31. *Athyroglossa nudiuscula* Loew, 1873 *

RECORDS. **Carbonia-Iglesias prov.**: Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 12–17.VII.2006, DA MB DB PCe MM DW, mt, 1 ♂ 3 ♀♀.

CHOROTYPE. W-Palearctic.

ITALIAN DISTRIBUTION. Liguria, Basilicata and Sardinia.

32. *Athyroglossa ordinata* Becker, 1896 *

RECORDS. **Carbonia-Iglesias prov.**: Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 12–17.VII.2006, DA MB DB PCe MM DW, mt, 2 ♀♀. **Nuoro prov.**: Dorgali dint., Rio Flumineddu, Gola di Gorropu, 350 m, 15.VI.2002, BM ME, 2 ♂♂.

CHOROTYPE. W-Palearctic.

ITALIAN DISTRIBUTION. Piedmont, Venetia, Liguria, Tuscany, Marches, Abruzzi, Campania, Calabria, Sicily and Sardinia.

33. *Chlorichaeta albipennis* (Loew, 1848)

LITERATURE RECORDS. **Cagliari prov.**: f. Flumendosa vic. foce (Canzoneri 1995). **Olbia-Tempio prov.**: Olbia, f. Padrogiano (Canzoneri 1995).

CHOROTYPE. Palearctic with extension to Cape Verde Islands, Madagascar, Guam and Hawaiian Islands.

ITALIAN DISTRIBUTION. Venetia, Emilia-Romagna, Marches, Tuscany, Latium, Abruzzi, Apulia, Campania, Basilicata, Sicily and Sardinia.

34. *Chlorichaeta tuberculosa* Becker, 1922

LITERATURE RECORDS. **Cagliari prov.**: f. Flumendosa vic. foce; Pula, Rio Margherita (Canzoneri & Meneghini 1983, as *C. albipennis*; Canzoneri 1995); Rio Geremeas (Mathis & Zatwarnicki 1993). **Olbia-Tempio prov.**: Olbia, f. Padrogiano (Canzoneri 1995).

CHOROTYPE. Mediterranean with extension to Afghanistan, India and Afrotropics.

ITALIAN DISTRIBUTION. Latium, Campania and Sardinia.

35. *Mosillus subsultans* (Fabricius, 1794)

LITERATURE RECORDS. **Cagliari prov.:** Pula, Rio Margherita (Canzoneri & Meneghini 1983). **Sassari prov.:** Rio Mannu presso Sassari (Canzoneri & Vienna 2000).

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 20-23.V.2006, MB DB PCo DW, mt, 1 ♂; Iglesias, dint. colonia Beneck, 636 m, 32S 462391 4355441, 3-17.X.2006, GC, mt, 1 ♀; Iglesias, Marganai, 540 m, 32S 463010 4355249, 3-4.IX.2003, DB PCe EM MT DW, mt near *Foeniculum vulgare*, 2 ♂♂ 2 ♀♀. **Nuoro prov.:** Dorgali dint., Rio Flumineddu, Gola di Gorropu, 350 m, 15.VI.2002, BM ME, 1 ♂.

CHOROTYPE. Palearctic.

ITALIAN DISTRIBUTION. Majority of Italy apart from Piedmont, Liguria, Umbria, Molise, Apulia, Basilicata and Sardinia.

36. *Ochthera schembrii* Rondani, 1847

LITERATURE RECORDS. **Cagliari prov.:** Pula, Rio Margherita; Chia (Canzoneri & Meneghini 1983). **Olbia-Tempio prov.:** La Maddalena; Caprera, Cala Garibaldi (Canzoneri & Vienna 2000). **Sassari prov.:** Rio Mannu presso Sassari (Canzoneri & Vienna 2000).

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 12.VII.2006, DA MB DB PCe MM DW, nt, 1 ♀. **Medio Campidano prov.:** Villacidro, dint. Lago di Montimannu, 256 m, 32S 474156 4363150, 10.VII.2006, DA MB DB PCo DW, nt, 2 ♂♂ 2 ♀♀.

CHOROTYPE. W-Palearctic.

ITALIAN DISTRIBUTION. Majority of Italy apart from Piedmont, Lombardy, Trentino-Alto Adige, Liguria, Umbria and Molise.

37. *Allotrichoma laterale* (Loew, 1860)

LITERATURE RECORDS. **Cagliari prov.:** Pula, Rio Margherita; f. Flumendosa vic. alla foce; Rio Malliù presso Cantoniera Cannas (Canzoneri & Meneghini 1983). **Olbia-Tempio prov.:** Olbia, f. Padrogiano (Canzoneri & Meneghini 1983). **Sassari prov.:** Rio Mascari (Canzoneri & Meneghini 1983); Castel Doria spa, thermal springs (Munari & Roháček 1990).

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 23.V.2006, MB DB PCo DW, nt, 1 ♂ 1 ♀; 20-23.V.2006, MB DB PCo DW, mt, 3 ♂♂ 5 ♀♀; 12.VII.2006, DA MB DB PCe MM DW, nt, 6 ♂♂ 4 ♀♀; 12-17.VII.2006, DA MB DB PCe MM DW, nt, 68 ♂♂ 52 ♀♀; Domusnovas, Valle Oridda, 592 m, 32S 466973 4362228,

11-25.VII.2006, GC, 1 ♂; 3-17.X.2006, GC, mt, 1 ♂. **Nuoro prov.:** Dorgali, Cala Luna (S of Cala Gonone), 0 m, 17.VI.2002, BM ME, 2 ♂♂. Orgosolo, Oristillai, 947 m, 32T 529688 4446725, 4.IX.2006, DA MB DB GN, nt radura, 1 ♀.

CHOROTYPE. W-Palearctic.

ITALIAN DISTRIBUTION. Majority of Italy apart from Aosta Valley.

38. *Hecamede albicans* (Meigen, 1830) (fig. 1)

LITERATURE RECORDS. **Cagliari prov.:** f. Chia verso la foce; f. Flumendosa verso la foce (Canzoneri & Meneghini 1983). **Olbia-Tempio prov.:** I. della Maddalena, Punta Tegge; I. della Maddalena, Baia Trinità (Canzoneri & Meneghini 1983). **Sassari prov.:** Coghin river mouth (Munari & Roháček 1990); Rio Mascari verso la foce (Canzoneri & Meneghini 1983).



Fig. 1. *Hecamede albicans* ♀, habitus, antero-lateral view (Sardinia: Arbus, Piscinas) (length 2.0 mm).

RECORDS. **Medio Campidano prov.:** Arbus, Piscinas, 0 m, 32S 452927 4376897, 10.VI.2004, DB PCe GN MT DW, nt, 3 ♂♂ 7 ♀♀; 26.III.2006, MB DB PCo DW, nt, 1 ♀. **Nuoro prov.:** Dorgali, Cala Luna (S of Cala Gonone), 0 m, 17.VI.2002, BM ME, 8 ex. **Ogliastra prov.:** Baunei, Santa Maria Navarrese, 0 m, 18.VI.2002, BM ME, 42 ex. **Oristano prov.:** Bosa, Bosa Marina, 0 m, 20.VI.2002, BM ME, 5 ex; Sinis peninsula, Capo Mannu, 0 m, 22.VI.2002, BM ME, 4 ♂♂ 7 ♀♀.

CHOROTYPE. Holarctic.

ITALIAN DISTRIBUTION. Majority of Italy apart from Piedmont, Lombardy, Trentino-Alto Adige, Umbria and Molise.

39. *Glenanthe ripicola* (Haliday, 1839)

LITERATURE RECORDS. **Olbia-Tempio prov.:** Stagno Porto Taverna (Canzoneri & Meneghini 1983).

CHOROTYPE. W-Palearctic.

ITALIAN DISTRIBUTION. Venetia, Friuli-Venezia Giulia, Emilia-Romagna, Tuscany, Apulia, Basilicata and Sardinia.

40. *Homalometopus ichnusae* Munari, 1988

LITERATURE RECORDS. **Cagliari prov.:** Stagno di Punta Pino; Stagno di Cagliari; Capo S. Antioco, Stagno di S. Caterina (Canzoneri & Meneghini 1983, as *H. albiditinctus* Becker, 1903; Munari 1988). **Carbonia-Iglesias prov.:** Stagno di Porto Botte (Canzoneri & Meneghini 1983, as *H. albiditinctus*). **Olbia-Tempio prov.:** Stagno di Porto Taverna (Canzoneri & Meneghini 1983, as *H. albiditinctus*); Stagno San Teodoro, SE di Olbia (Munari 1988).

CHOROTYPE. Sardinian endemic.

ITALIAN DISTRIBUTION. Sardinia.

41. *Diclasiope niveipennis* Becker, 1896 (fig. 2)

LITERATURE RECORDS. **Olbia-Tempio prov.:** Porto Taverna (Canzoneri & Meneghini 1983).

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 12.VII.2006, DA MB DB PCe MM DW, nt, 1 ♂; 12–17.VII.2006, DA MB DB PCe MM DW, mt, 9 ♂♂ 5 ♀♀. **Medio Campidano prov.:** Villacidro, Rio Cannisoni, 375 m, 32S 468713 4362692, 25.III.2006, MB DB PCo DW, nt, 1 ♂.

CHOROTYPE. European, with extension to North Africa, Kenya and Sudan.

ITALIAN DISTRIBUTION. Majority of Italy apart from Aosta Valley, Friuli-Venezia Giulia and Calabria.

42. *Discocerina obscurella* (Fallén, 1813)

LITERATURE RECORDS. **Cagliari prov.:** Pula, Rio Margherita; SE di Rio Malliù, presso Cantone Cannas (Canzoneri & Meneghini 1983). **Ogliastra prov.:** Bari Sardo (Canzoneri & Vienna 2000). **Olbia-Tempio prov.:** Stagno di Porto Taverna (Canzoneri & Meneghini 1983). **Oristano prov.:** f. Tirso (Canzoneri & Meneghini 1983). **Sassari prov.:** Silis river, near mouth (Munari & Roháček 1990).

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 20–23.V.2006, MB DB PCo DW, mt, 3 ♂♂ 2 ♀♀; 23.V.2006, MB DB PCo DW, nt, 1 ♂; 12.VII.2006, DA MB DB PCe MM DW, nt, 2 ♂♂ 5 ♀♀; 12–17.VII.2006, DA MB DB PCe MM DW, mt, 428 ex; 22.IX.2004, DB PCe EG FM DW, nt, 1 ♀. **Nuoro prov.:** Dorgali dint., Rio Flumineddu, Gola di Gorropu, 350 m, 15.VI.2002, BM

ME, 1 ♀; Orgosolo, Oristillai, 947 m, 32T 529688 4446725, 4.IX.2006, DA MB DB GN, nt radura, 9 ♂♂. **Ogliastra prov.:** Baunei, Santa Maria Navarrese, 0 m, 18.VI.2002, BM ME, 3 ♂♂ 3 ♀♀.

CHOROTYPE. Cosmopolitan.

ITALIAN DISTRIBUTION. Majority of Italy apart from Aosta Valley.

43. *Ditrichophora calceata* (Meigen, 1830) *

RECORDS. **Nuoro prov.:** 8 km E Oliena, Hotel Gologone, 120 m, 13.VI.2002, BM ME, 1 ♂.

CHOROTYPE. Europeo-Mediterranean.

ITALIAN DISTRIBUTION. Lombardy, Trentino-Alto Adige, Venetia, Friuli-Venezia Giulia, Emilia-Romagna, Liguria, Tuscany, Marches, Umbria, Latium, Campania, Calabria and Sardinia.

44. *Gymnoclasiopa aulisioi* (Canzoneri, 1977) *

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 22.III.2006, MB DB PCo DW, nt, 1 ♀; 20–23.V.2006, MB DB PCo DW, mt, 1 ♀.

CHOROTYPE. European.

ITALIAN DISTRIBUTION. Emilia-Romagna, Lombardy, Marches and Sardinia.

45. *Gymnoclasiopa insolita* (Canzoneri & Meneghini, 1977) *

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 12–17.VII.2006, DA MB DB PCe MM DW, mt, 11 ♂♂ 22 ♀♀; Domusnovas, Valle Orida, 592 m, 32S 466973 4362228, 17–31.X.2006, GC, mt, 1 ♂; Iglesias, dint. colonia Beneck, 636 m, 32S 462391 4355441, 30.V–13.VI.2006, GC, mt, 1 ♂. **Medio Campidano prov.:** Villacidro, Nuxeddu Mts, Montimannu forest, 600 m, 12.VI.2002, BM ME, 3 ♂♂ 1 ♀. **Nuoro prov.:** Dorgali dint., Rio Flumineddu, Gola di Gorropu, 350 m, 15.VI.2002, BM ME, 1 ♂.

CHOROTYPE. S-European.

ITALIAN DISTRIBUTION. Emilia-Romagna, Marches, Latium, Abruzzi, Campania, Apulia, Basilicata, Calabria, Sicily and Sardinia.

46. *Hecamedoides costatus* (Loew, 1860)

LITERATURE RECORDS. **Olbia-Tempio prov.:** Olbia, f. Padrogiano (Canzoneri & Meneghini 1983). **Oristano prov.:** Oristano, foce f. Tirso (Canzoneri & Meneghini 1983).

CHOROTYPE. European, with extension to Turkey, North Africa and Afrotropics.

ITALIAN DISTRIBUTION. Lombardy, Venetia, Friuli-Venezia Giulia, Emilia-Romagna, Tuscany, Latium, Abruzzi, Campania, Apulia, Basilicata, Sicily and Sardinia.

47. *Hecamedoides glaucellus* (Stenhammar, 1844)

LITERATURE RECORDS. **Cagliari prov.:** f. Flumendosa vic. foce; SE Rio Malliù, presso Cantone Cannas (Canzoneri & Meneghini 1983). **Olbia-Tempio prov.:** Olbia, f. Podrogiano (Canzoneri & Vienna 2000); Porto Taverna, stagno (Canzoneri & Meneghini 1983). **Sassari prov.:** Rio Mascari (Canzoneri & Meneghini 1983).

CHOROTYPE. European, with extension to Turkey, North Africa, Kenya and Sudan.

ITALIAN DISTRIBUTION. Majority of Italy apart from Aosta Valley and Friuli-Venezia Giulia.

48. *Hecamedoides unispinosus* (Collin, 1943) **

RECORDS. **Nuoro prov.:** Orgosolo, Oristillai, 947 m, 32T 529688 4446725, 4.IX.2006, DA MB DB GN, nt radura, 1 ♂.

CHOROTYPE. Holarctic.

49. *Polytrichophora duplosetosa* (Becker, 1896)

LITERATURE RECORDS. **Cagliari prov.:** Pula, Rio Margherita (Canzoneri & Meneghini 1983). **Sassari prov.:** Castel Doria spa, thermal springs (Munari & Roháček 1990).

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 23.V.2006, MB DB PCo DW, nt, 3 ♀♀; 12–17.VII.2006, DA MB DB PCe MM DW, mt, 22 ♂♂ 30 ♀♀. **Nuoro prov.:** Orgosolo, Oristillai, 947 m, 32T 529688 4446725, 4.IX.2006, DA MB DB GN, nt radura, 1 ♂.

CHOROTYPE. W-Palearctic.

ITALIAN DISTRIBUTION. Majority of Italy apart from Aosta Valley, Trentino-Alto Adige, Liguria and Calabria.

ILYTHEINAE

50. *Hyadina guttata* (Fallén, 1813) *

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 20–23.V.2006, MB DB PCo DW, mt, 1 ♂.

CHOROTYPE. Palearctic.

ITALIAN DISTRIBUTION. Lombardy, Trentino-Alto Adige, Venetia, Friuli-Venezia Giulia, Emilia-Romagna, Latium, Abruzzi, Campania, Sicily and Sardinia.

51. *Ilythea spilota* (Curtis, 1832) *

RECORDS. **Medio Campidano prov.:** Gonnosfanàdiga, Genna Mirratta, 794 m, 32 S 465363 4366138, 22.V.2006, MB DB PCo DW, nt, 1 ♀.

CHOROTYPE. Holarctic.

ITALIAN DISTRIBUTION. Piedmont, Venetia, Umbria and Sardinia.

52. *Nostima picta* (Fallén, 1813)

LITERATURE RECORDS. **Olbia-Tempio prov.:** Monte Limbara, 1100 m (Canzoneri & Vienna 2000). **Sassari prov.:** Pond of Platamona (Munari & Roháček 1990); Platamona (Canzoneri & Vienna 2000).

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 20–23.V.2006, MB DB PCo DW, mt, 1 ♂. Domusnovas, sa Duchessa, 371 m, 32S 464990 4358384, 4–18.IV.2006, GC, mt, 1 ♂.

CHOROTYPE. Holarctic.

ITALIAN DISTRIBUTION. Lombardy, Trentino-Alto Adige, Venetia, Friuli-Venezia Giulia, Emilia-Romagna, Liguria, Tuscany, Marches, Latium and Sardinia.

53. *Philygria flavipes* (Fallén, 1823) *

RECORDS. **Nuoro prov.:** Lula, Monte Albo, Punta Catirina, 1120 m, 16.VI.2002, BM ME, 1 ♂ 3 ♀♀.

CHOROTYPE. Sibero-European.

ITALIAN DISTRIBUTION. Lombardy, Trentino-Alto Adige, Venetia, Friuli-Venezia Giulia and Sardinia.

54. *Philygria stictica* (Meigen, 1830) (fig. 3) *

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 20–23.V.2006, MB DB PCo DW, mt, 2 ♀♀; 12–17.VII.2006, DA MB DB PCe MM DW, mt, 5 ♀♀; Domusnovas, sa Duchessa, 371 m, 32S 464990 4358384, 18.IV–2.V.2006, GC, mt, 4 ♂♂ 1 ♀; 2–16.V.2006, GC, mt, 1 ♂; 30.V–13.VI.2006, GC, mt, 1 ♂; 27.VI–11.VII.2006, GC, mt, 1 ♀; 8–22.VIII.2006, GC, mt, 1 ♂; 19.IX–3.IX.2006, GC, mt, 1 ♀; Domusnovas, Valle Orida, 592 m, 32S 466973 4362228, 21.III–4. IV.2006, GC, mt,

1 ♂; 18.IV–2.V.2006, GC, mt, 1 ♀; 2–16.V.2006, GC, mt, 3 ♂♂ 6 ♀♀; 11–25.VII.2006, GC, mt, 1 ♂ 1 ♀; 25.VII–8.VIII.2006, GC, mt, 4 ♂♂ 1 ♀; 8–22.VIII.2006, GC, mt, 2 ♂♂ 2 ♀♀; 22.VIII–5.IX.2006, GC, mt, 2 ♂♂; 5–19.IX.2006, GC, mt, 1 ♂ 2 ♀♀; Iglesias, dint. Case Marganai, 660 m, 32S 463341 4356196, 8.VI.2004, DB PCe GN MT DW, cn, 1 ♀; 9.VI.2004, DB PCe GN MT DW, cn, 3 ♂♂ 3 ♀♀; Iglesias, dint. colonia Beneck, 636 m, 32S 462391 4355441, 21.III–4.IV.2006, GC, mt, 1 ♀; 4–18.IV.2006, GC, mt, 1 ♀; 18.IV–2.V.2006, GC, mt, 1 ♂; 16–30.V.2006, GC, mt, 2 ♀♀; 13–27.VI.2006, GC, mt, 1 ♂ 3 ♀♀; 19.IX–3.X.2006, GC, mt, 1 ♂; Iglesias, Marganai, plot CONECOFOR SAR1, 700 m, 32S 462853 4355582, 6.II–15.VI.2004, mt, GC, 1 ♂; 16.VI–14.VII.2005, GC, 6 ♂♂ 7 ♀♀; 14.VII–5.VIII.2005, GC, mt, 1 ♀; Iglesias, S. Benedetto, Marganai Forest, 570 m, 11.VI.2002, BM ME, 1 ♂. **Medio Campidano prov.:** Villacidro, Rio Cannisoni, radura sponda sinistra, 401 m, 32S 468459 4362806, 19–24.V.2006, MB DB PCo DW, mt radura, 1 ♂. **Nuoro prov.:** Lula, Monte Albo, Punta Catirina, 1120 m, 16.VI.2002, BM ME, 1 ♂.

CHOROTYPE. European.

ITALIAN DISTRIBUTION. Lombardy, Venetia, Friuli-Venezia Giulia, Emilia-Romagna, Tuscany, Latium, Apulia, Calabria, Sicily and Sardinia.

55. *Parydroptera discomyzina* Collin, 1913 *

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, sa Duchessa, 371 m, 32S 464990 4358384, 16–30.V.2006, GC, mt, 1 ♀; Iglesias, dint. colonia Beneck, 636 m, 32S 462391 4355441, 17–31.X.2006, GC, mt, 1 ♀.

CHOROTYPE. W-European.

ITALIAN DISTRIBUTION. Marches and Sardinia.



Fig. 2. *Diclasiopa niveipennis* ♂, habitus, lateral view (Sardinia: Villacidro, Rio Cannisoni) (length 2.2 mm).



Fig. 3. *Philygria stictica* ♀, habitus, lateral view (Sardinia: Domusnovas, Lago Siuru) (length 1.6 mm).

56. *Pelina nitens* Loew, 1873 *

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, sa Duchessa, 371 m, 32S 464990 4358384, 18. IV–2.V.2006, GC, mt, 1 ♀.

CHOROTYPE. Asiatic-European.

ITALIAN DISTRIBUTION. Latium, Calabria and Sardinia.

57. *Parydra coarctata* (Fallén, 1813) (fig. 4)

LITERATURE RECORDS. **Nuoro prov.:** Macomer, ruscello 7 km a N (Canzoneri & Meneghini 1983); Rio de Sadali (Passo Genna a Meddeu), 950 m (Canzoneri & Vienna 2000). **Sassari prov.:** Rio Mannu presso Sassari (Canzoneri & Vienna 2000).

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 22.III.2006, MB DB PCo DW, nt, 1 ♀; 20–23.V.2006, MB DB PCo DW, mt, 1 ♂ 1 ♀; 23.V.2006, DW, nt, 3 ♀♀; 22.IX.2004, DW, nt, 2 ♀♀. **Medio**



Fig. 4. *Parydra coarctata* ♀, habitus, lateral view (Sardinia: Seui, dint. Monte Tonneri, Sa ucca 'e su Oe) (length 3.6 mm).

Campidano prov.: Gonnosfanàdiga, Genna Mirratta, 794 m, 32 S 465363 4366138, 22.V.2006, MB DB PCo DW, nt, 2 ♀♀. Villacidro, dint. Lago di Montimannu, lungo Rio Leni, 256 m, 32S 474156 4363150, 10.VII.2006, DA MB DB PCe DW, nt, 1 ♂ 1 ♀. **Ogliastra prov.:** Seui, dint. Monte Tonneri, Sa ucca 'e su Oe, 912 m, 32S 531228 4413496, 5.IX.2006, DA MB DB GN, 5 ♂♂ 13 ♀♀. **Oristano prov.:** Mt. Ferru, Mt. Urtigu, 1000 m, 21.VI.2002, BM ME, 1 ♂ 4 ♀♀.

CHOROTYPE. Palearctic.

ITALIAN DISTRIBUTION. Majority of Italy apart from Aosta Valley and Liguria.

58. *Parydra cognata* Loew, 1860

LITERATURE RECORDS. **Nuoro prov.:** Macomer, ruscello 7 km a N (Canzoneri & Meneghini 1983); Rio de Sadali (Pass Genna i Meddau), 950 m (Canzoneri & Vienna 2000).

CHOROTYPE. Europeo-Mediterranean.

ITALIAN DISTRIBUTION. Majority of Italy apart from Aosta Valley, Piedmont and Molise.

59. *Parydra flavitarsis* (Dahl, 1964)

LITERATURE RECORDS. **Sassari prov.:** 8 km NE di Fertilia (Canzoneri & Vienna 1994).

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 22.IX.2004, MB DB PCe DW, nt, 1 ♀; Domusnovas, sa Duchessa, 371 m, 32S 464990 4358384, 21.III–4.IV.2006, GC, mt, 2 ♀♀; 18.IV–2.V.2006, GC, mt, 1 ♀; Domusnovas, dint. P.ta Planotzara, 360 m, 32 S 465515 4356209, 13.VII.2006, DA MB DB PCo MM DW, nt, 1 ♀; Iglesias, dint. Case Marganai, 660 m, 32S 463341 4356196, 8.VI.2004, DB PCe GN MT DW, cn, 1 ♂.

CHOROTYPE. Mediterranean.

ITALIAN DISTRIBUTION. Latium, Abruzzi, Calabria, Sicily and Sardinia.

60. *Parydra fossarum* (Haliday, 1833)

LITERATURE RECORDS. **Nuoro prov.:** Rio de S. Elena alla SS 389, 460 m (Canzoneri & Vienna 2000). Macomer, ruscello a 7 km a N (Canzoneri & Meneghini 1983). **Olbia-Tempio prov.:** Monte Limbara, 1100 m (Canzoneri & Vienna, 2000). **Oristano prov.:** f. Tirso al ponte (Canzoneri & Meneghini 1983). **Sassari prov.:** Rio Mascari (Canzoneri & Meneghini 1983); Castel Doria spa, thermal springs; Silis river, near mouth; Pond of Platamona (Munari & Roháček 1990); Fertilia, 8 km NE; Stagno di Platamonta; f. Silis alla foce; Terme di Casteldoria (Canzoneri & Vienna, 2000).

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 22.III.2006, MB DB PCo DW, nt, 1 ♂ 2 ♀♀; 23.V. 2006, MB DB PCo DW, nt, 2 ♂♂ 1 ♀; 22.IX.2004, MB DB PCo DW, nt, 1 ♀; 12.XI.2006, DW, nt, 6 ♂♂ 2 ♀♀; 15.XI.2006, DW, nt, 4 ♂♂ 5 ♀♀; Domusnovas, dint. P.ta Planotzara, 360 m, 32 S 465515 4356209, 13.VII.2006, DA MB DB PCe MM DW, nt, 1 ♀.

CHOROTYPE. Holarctic.

ITALIAN DISTRIBUTION. Majority of Italy apart from Aosta Valley, Liguria, Tuscany and Molise.

61. *Parydra pubera* Loew, 1860

LITERATURE RECORDS. **Cagliari prov.:** Pula, Rio Margherita (Canzoneri & Meneghini 1983).

CHOROTYPE. Europeo-Mediterranean.

ITALIAN DISTRIBUTION. Venetia, Friuli-Venezia Giulia, Latium, Campania, Apulia, Sicily and Sardinia.

62. *Brachydeutera ibari* Ninomyia, 1929 **

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 12–17.VII.2006, DA MB DB PCe MM DW, mt, 1 ♀.

CHOROTYPE. S-European, with extension to Israel, Japan, Russia (Far East), Oriental China, Bonin Islands, Taiwan and Hawaii.

63. *Coenia palustris* (Fallén, 1823)

LITERATURE RECORDS. **Sassari prov.:** Pond of Platamona (Munari & Roháček 1990; Canzoneri & Vienna 2000).

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 12.VII.2006, DA MB DB PCe MM DW, nt, 1 ♀.

CHOROTYPE. Palearctic.

ITALIAN DISTRIBUTION. Trentino-Alto Adige, Venetia, Friuli-Venezia Giulia, Emilia-Romagna, Latium, Molise and Sardinia.

64. *Ephydra bivittata* Loew, 1860

LITERATURE RECORDS. **Cagliari prov.:** Cagliari, stagno Punta Pino (Canzoneri & Meneghini 1983).

CHOROTYPE. Mediterranean.

ITALIAN DISTRIBUTION. Venetia, Friuli-Venezia Giulia, Emilia-Romagna, Tuscany, Apulia, Sicily and Sardinia.

65. *Ephydra flavipes* (Macquart, 1843)

LITERATURE RECORDS. **Cagliari prov.:** Cagliari, Stagno di Cagliari; Chia, spiaggia marina (Canzoneri & Meneghini 1983). **Oristano prov.:** f. Tirso; Stagno di Cabras (Canzoneri & Meneghini 1983).

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 12–17.VII.2006, DA MB DB PCe MM DW, mt, 1 ♀. **Oristano prov.:** Arborea, Stagno di s'Ena Arrubia, 0 m, 32S 462842 4408878, 10.VII.2006, DA MB DB PCe DW, 1 ♀.

CHOROTYPE. Asiatic-European, with extension to North Africa, Chad, Sudan and Aldabra.

ITALIAN DISTRIBUTION. Majority of Italy apart from Piedmont, Lombardy, Trentino-Alto Adige, Liguria, Umbria and Calabria.

66. *Ephydra macellaria* Egger, 1862

LITERATURE RECORDS. **Cagliari prov.:** f. Flumendosa vic. foce; Chia, spiaggia marina (Canzoneri & Meneghini 1983). **Ogliastra prov.:** Tortoli, spiaggia di Cea (Canzoneri & Vienna 2000). **Oristano prov.:** f. Tirso al ponte; Stagno di Cabras (Canzoneri & Meneghini 1983).

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 12.VII.2006, DA MB DB PCe MM DW, nt, 2 ♀♀; 12–17.VII.2006, DA MB DB PCe MM DW, mt, 2 ♂♂ 7 ♀♀.

CHOROTYPE. Palearctic.

ITALIAN DISTRIBUTION. Venetia, Friuli-Venezia Giulia, Emilia-Romagna, Marches, Latium, Abruzzi, Molise, Apulia, Sicily and Sardinia.

67. *Setacera breviventris* (Loew, 1860)

LITERATURE RECORDS. **Cagliari prov.:** Cagliari (Canzoneri & Meneghini 1983).

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 12–17.VII.2006, DA MB DB PCe MM DW, mt, 8 ♂♂ 9 ♀♀.

CHOROTYPE. Subcosmopolitan (Palearctic, Afrotropical, Oriental and Australasian regions).

ITALIAN DISTRIBUTION. Lombardy, Venetia, Friuli-Venezia Giulia, Emilia-Romagna, Marches, Latium, Campania, Apulia, Sicily and Sardinia.

68. *Setacera micans* (Haliday, 1833)

LITERATURE RECORDS. **Cagliari prov.:** f. Chia verso la foce (Canzoneri & Vienna 1994); Rio Malliù presso Cantone Cannas (Canzoneri & Vienna 1994). **Ogliastra prov.:** Tortoli, spiaggia di Cea (Canzoneri & Vienna 1994).

CHOROTYPE. Holarctic.

ITALIAN DISTRIBUTION. Venetia, Friuli-Venezia Giulia, Emilia-Romagna, Marches, Latium, Molise, Apulia, Calabria, Sicily and Sardinia.

69. *Setacera trina* Collin, 1964

LITERATURE RECORDS. **Ogliastra prov.:** Tortoli (Canzoneri & Vienna 2000).

CHOROTYPE. European.

ITALIAN DISTRIBUTION. Venetia, Friuli-Venezia Giulia, Emilia-Romagna, Latium and Sardinia.

70. *Haloscatella dichchaeta* (Loew, 1860)

LITERATURE RECORDS. **Sassari prov.:** Castel Doria spa, thermal springs; Coghinas river mouth (Munari & Roháček 1990; Canzoneri & Vienna 2000).

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 23.V.2006, MB DB PCo DW, nt, 1 ♂ 1 ♀. **Nuoro prov.:** Dorgali, Cala Luna (S of Cala Gonone), 0 m, 17.VI.2002, BM ME, 2 ♂♂.

CHOROTYPE. Palearctic and South Africa.

ITALIAN DISTRIBUTION. Venetia, Friuli-Venezia Giulia, Emilia-Romagna, Tuscany, Marches, Latium, Abruzzi, Campania, Apulia, Sicily and Sardinia.

71. *Limmellia quadrata* (Fallén, 1813)

LITERATURE RECORDS. **Olbia-Tempio prov.:** Mont Limbara, 1100 m (Munari & Roháček 1990; Canzoneri & Vienna 2000).

CHOROTYPE. Palearctic.

ITALIAN DISTRIBUTION. Lombardy, Venetia, Emilia-Romagna, Tuscany, Latium, Abruzzi, Sicily and Sardinia.

72. *Philotelma nigripenne* (Meigen, 1830)

LITERATURE RECORDS. **Sassari prov.:** Rio Mascari (Canzoneri & Meneghini 1983).

CHOROTYPE. European.

ITALIAN DISTRIBUTION. Venetia, Campania, Sicily and Sardinia.

73. *Philotelma parvum* (Kramer, 1917) (fig. 5) **

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 12.VII.2006, DA MB DB PCe MM DW, nt, 2 ♂♂; 23.V.2006, MB DB PCo DW, 1 ♂ 1 ♀. **Nuoro prov.:** Dorgali, Cala Luna (S of Cala Gonone), 0 m, 17.VI.2002, BM ME, 1 ♀.

CHOROTYPE. Palearctic.



Fig. 5. *Philotelma parvum* ♂, habitus, lateral view (Sardinia: Domusnovas, Lago Siuru) (length 1.5 mm).

74. *Philotelma rossii* (Canzoneri & Meneghini, 1979)

LITERATURE RECORDS. **Sassari prov.:** Castel Doria spa, thermal springs; Pond of Platamona (Munari & Roháček 1990; Canzoneri & Vienna 2000); Fertilia, 8 km NE (Canzoneri & Vienna 2000).

CHOROTYPE. European.

ITALIAN DISTRIBUTION. Venetia, Emilia-Romagna, Latium and Sardinia.

75. *Scatella ciliata* Collin, 1930

LITERATURE RECORDS. **Oristano prov.:** Stagno Sale Porcus (Canzoneri & Vienna 2000). **Sassari prov.:** Coghinas river mouth (Munari & Roháček 1990; Canzoneri & Vienna 2000).

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru,

322 m, 32S 467069 4357916, 20–23.V.2006, MB DB PCo DW, mt, 1 ♂.

CHOROTYPE. W-European with extension to Tunisia.
ITALIAN DISTRIBUTION. Venetia, Friuli-Venezia Giulia, Emilia-Romagna, Apulia, Sicily and Sardinia.

76. *Scatella lutosa* (Haliday, 1833)

LITERATURE RECORDS. **Cagliari prov.:** f. Flumendosa (Canzoneri & Vienna 2000). **Oristano prov.:** Stagno Sale Porcus (Canzoneri & Vienna 2000).

RECORDS. **Nuoro prov.:** Dorgali, Cala Luna (S of Cala Gonone), 0 m, 17.VI.2002, BM ME, 1 ♂ 2 ♀♀.

CHOROTYPE. Palearctic.

ITALIAN DISTRIBUTION. Venetia, Friuli-Venezia Giulia, Emilia-Romagna, Tuscany, Marches, Latium, Abruzzi, Campania, Apulia, Calabria and Sardinia.

77. *Scatella obsoleta* Loew, 1861

LITERATURE RECORDS. **Cagliari prov.:** f. Flumendosa alla foce (Canzoneri & Vienna 2000). **Nuoro prov.:** Nuoro, f. Tirso (Canzoneri & Meneghini 1983). **Olbia-Tempio prov.:** Olbia, f. Padrogiano (Canzoneri & Meneghini 1983). **Oristano prov.:** Oristano, f. Tirso (Canzoneri & Meneghini 1983).

CHOROTYPE. Holarctic.

ITALIAN DISTRIBUTION. Majority of Italy apart from Friuli-Venezia Giulia, Umbria, Molise, Basilicata and Sicily.

78. *Scatella paludum* (Meigen, 1830)

LITERATURE RECORDS. **Cagliari prov.:** f. Flumendosa alla foce (Canzoneri & Meneghini 1983). **Nuoro prov.:** Macomer, stream 7 km N; Nuoro, f. Tirso (Canzoneri & Meneghini 1983). **Olbia-Tempio prov.:** I. della Maddalena (Canzoneri & Meneghini 1983). **Oristano prov.:** Oristano, f. Tirso (Canzoneri & Meneghini 1983). **Sassari prov.:** Castel Doria spa, thermal springs (Munari & Roháček 1990; Canzoneri & Vienna, 2000).

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 22.III.2006, MB DB PCo DW, nt, 1 ♀; 23.V.2006, MB DB PCo DW, nt, 2 ♂♂ 2 ♀♀; 20–23.V.2006, MB DB PCo DW, mt, 1 ♀; 12.VII.2006, DA MB DB PCe MM DW, nt, 1 ♂ 1 ♀; 12–17.VII.2006, DA MB DB PCe MM DW, mt, 2 ♂♂ 2 ♀♀; 12.XI.2006, DW, nt, 1 ♂ 1 ♀; 15.XI.2006, DW, mt, 5 ♂♂ 3 ♀♀; Domusnovas, Sedda Pranu Cardu, 549 m, 32S 470926 4358924, 8.IX.2006, DA MB DB GN, lt, 1 ♀; Domusnovas, Valle Oridda, 592 m, 32S 466973

4362228, 4–18.IV.2006, GC, mt, 2 ♂♂. **Nuoro prov.:** Dorgali, Cala Luna (S of Cala Gonone), 0 m, 17.VI.2002, BM ME, 3 ♀♀.

CHOROTYPE. Holarctic, with extension to South Africa.

ITALIAN DISTRIBUTION. Whole of Italy.

79. *Scatella stagnalis* (Fallén, 1813)

LITERATURE RECORDS. **Cagliari prov.:** Pula, Rio Margherita; SE Rio Malliù, presso Cantoniera Cannas (Canzoneri & Meneghini 1983); f. Flumendosa alla foce; foce Rio di Chia presso Torre Chia (Canzoneri & Vienna 2000). **Nuoro prov.:** Macomer (Canzoneri & Meneghini 1983); Nuoro, f. Tirso (Canzoneri & Meneghini 1983). **Ogliastra prov.:** Bari Sardo (Canzoneri & Vienna 2000). **Olbia-Tempio prov.:** I. della Maddalena (Canzoneri & Meneghini 1983). **Oristano prov.:** f. Tirso (Canzoneri & Meneghini 1983). **Sassari prov.:** Casteldoria spa, thermal springs (Munari & Roháček 1990); Fertilia, 8 km NE; foce al Golfo di Arzachena; Monte Limbara, vers. S, 1000 m; Stagno di Platamona; Terme di Casteldoria (Canzoneri & Vienna 2000).

CHOROTYPE. Cosmopolitan.

ITALIAN DISTRIBUTION. Majority of Italy apart from Aosta Valley.

80. *Scatella subguttata* (Meigen, 1830)

LITERATURE RECORDS. **Cagliari prov.:** f. Flumendosa vic. foce; SE Rio Malliù, presso Cantone Cannas (Canzoneri & Meneghini 1983). **Ogliastra prov.:** Tortoli, spiaggia di Cea (Canzoneri & Vienna 2000). **Olbia-Tempio prov.:** I. della Maddalena, Baia Trinità (Canzoneri & Meneghini 1983). **Oristano prov.:** foce f. Tirso (Canzoneri & Meneghini 1983). **Sassari prov.:** Coghinas river mouth (Canzoneri & Vienna 2000; Munari & Roháček 1990).

RECORDS. **Nuoro prov.:** Dorgali, Cala Luna (S of Cala Gonone), 0 m, 17.VI.2002, BM ME, 1 ♀ 1 ♂.

CHOROTYPE. Europeo-Mediterranean.

ITALIAN DISTRIBUTION. Majority of Italy apart from Piedmont, Lombardy, Trentino-Alto Adige, Liguria and Marches.

81. *Scatella tenuicosta* Collin, 1930

LITERATURE RECORDS. **Ogliastra prov.:** Bari Sardo (Raffone 2008). **Sassari prov.:** Stagno di Platamona (Raffone 2008).

RECORDS. **Cagliari prov.:** Burcei, dint. P.ta Serpeddi, 954 m, 32S 526996 4356738, 13.XI.2006, DW, sn sorgente, 1 ♀. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 22.III.2006, MB DB PCo DW, nt, 1 ♂ 2

♀♀; 23.V.2006, DW, nt, 1 ♀; 12.VII.2006, DA MB DB PCe MM DW, 5 ♂♂ 7 ♀♀; 20–23.V.2006, MB DB PCo DW, mt, 3 ♀♀; 12.XI.2006, DW, mt, 12 ♂♂ 18 ♀♀; Domusnovas, sa Duchessa, 371 m, 32S 464990 4358384, 25. VII–8.VIII.2006, GC, mt, 1 ♀; Domusnovas, Valle Oridda, 592 m, 32S 466973 4362228, 11–25.VII.2006, GC, mt, 1 ♂; Iglesias, dint. colonia Beneck, 636 m, 32S 462391 4355441, 4–18.IV.2006, GC, mt, 1 ♀; 16–30.V.2006, GC, mt, 1 ♂; Iglesias, Marganai, plot CONE-COFOR SARI, 700 m, 32S 462853 4355582, 6.II–15.VI.2004, GC, mt, 1 ♀. **Nuoro prov.:** Dorgali, Cala Luna (S of Cala Gonone), 0 m, 17.VI.2002, BM ME, 2 ♂♂; Orgosolo, Oristillai, 947 m, 32T 529688 4446725, 4.IX.2006, DA MB DB GN, nt radura, 1 ♂. **Ogliastra prov.:** Baunei, Santa Maria Navarrese, 0 m, 18.VI.2002, BM ME, 1 ♂; **Oristano prov.:** Mt. Ferru, Mt. Urtigu, 1000 m, 21.VI.2002, BM ME, 1 ♂ 2 ♀♀.

CHOROTYPE. Holarctic.

ITALIAN DISTRIBUTION. Majority of Italy apart from Aosta Valley, Campania and Basilicata.

82. *Scatophila caviceps* (Stenhammar, 1844) *

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 20–23.V.2006, MB DB PCo DW, mt, 3 ♂♂ 3 ♀♀; Domusnovas, Valle Oridda, 592 m, 32S 466973 4362228, 18.IV–2.V.2006, GC, mt, 1 ♀; Iglesias, dint. Case Marganai, 660 m, 32S 463341 4356196, 9.VI.2005, DB PCe GN MT DW, cn, 1 ♀; 12–17.VII.2006, DA MB DB PCe MM DW, nt, 1 ♀. **Medio Campidano prov.:** Villacidro, Rio Cannisoni, radura sponda sinistra, 401 m, 32S 468459 4362806, 19–24.V.2006, MB DB PCo DW, mt radura, 2 ♂♂.

CHOROTYPE. Palearctic.

ITALIAN DISTRIBUTION. Majority of Italy apart from Molise, Basilicata and Sardinia.

83. *Scatophila despecta* (Haliday, 1839)

LITERATURE RECORDS. **Sassari prov.:** Torre di Casteldoria (Canzoneri & Vienna 2000).

RECORDS. **Ogliastra prov.:** Baunei, Santa Maria Navarrese, 0 m, 18.VI.2002, BM ME, 1 ♂. **Oristano prov.:** Mt. Ferru, Mt. Urtigu, 1000 m, 21.VI.2002, BM ME, 1 ♂.

CHOROTYPE. Palearctic.

ITALIAN DISTRIBUTION. Majority of Italy apart from Lombardy, Liguria, Umbria, Latium, Molise, Calabria, Basilicata and Sardinia.

84. *Scatophila signata* (Loew, 1860) *

RECORDS. **Medio Campidano prov.:** Villacidro, Nuxeddu Mts,

Montimannu forest, 600 m, 12.VI.2002, BM ME, 1 ♀. **Nuoro prov.:** Dorgali dint., Rio Flumineddu, Gola di Gorropu, 350 m, 15.VI.2002, BM ME, 3 ♂♂ 4 ♀♀.

CHOROTYPE. European.

ITALIAN DISTRIBUTION. Tuscany, Sicily and Sardinia.

85. *Scatophila unicornis* Czerny, 1900 *

RECORDS. **Carbonia-Iglesias prov.:** Domusnovas, Lago Siuru, 322 m, 32S 467069 4357916, 20–23.V.2006, MB DB PCo DW, mt, 2 ♂♂ 1 ♀.

CHOROTYPE. Holarctic.

ITALIAN DISTRIBUTION. Venetia, Emilia-Romagna, Umbria, Latium, Campania and Sardinia.

(3, 3.5%; one species with extension to Israel, Japan, Far East of Russia, Oriental China, Bonin Islands, Taiwan and Hawaii).

The largest group of species (32, 37.6%) is that of those widely distributed within the Palearctic Region: 2 (2.3%) Asiatic-European (one species with extension to North Africa, Chad, Sudan, and Aldabra); 1 (1.2%) Sibero-European; 13 (15.3%) W-Palearctic; and 16 (18.8%) Palearctic (one species with extension to Kenya, Senegal and Sierra Leone; one with extension to Cape Verde Islands, Madagascar, Guam and Hawaiian Islands; one also present in South Africa). A very wide chorotype is shown by 17 species (20%), 13 (15.3%) of which Holarctic (one with extension to South Africa), 1 (1.2%) Subcosmopolitan and 3 (3.5%) Cosmopolitan (*Hydrellia griseola*, *Discocerina obscurella* and *Scatella stagnalis*).

RESULTS

The present paper reports 61 species recently collected from Sardinia, 27 of which (*Clanoneurum cimiciforme*, *Psilopa aequalipes*, *P. leucostoma*, *P. nana*, *P. pulicaria*, *Atissa hepaticoloris*, *Hydrellia albifrons*, *H. albilabris*, *H. mauna*, *H. subalbiceps*, *Athyroglossa nudiuscula*, *A. ordinata*, *Ditrichophora calceata*, *Gymnoclasiopa aulisioi*, *G. insolita*, *Hecamedoides unispinosus*, *Hyadina guttata*, *Ilythea spilota*, *Philygria flavipes*, *P. stictica*, *Parydroptera discomyzina*, *Pelina nitens*, *Brachydeutera ibari*, *Philotelma parvum*, *Scatophila caviceps*, *S. caviceps* and *S. unicornis*) are new for the island. *Psilopa aequalipes*, *P. nana*, *Hecamedoides unispinosus*, *Brachydeutera ibari* and *Philotelma parvum* are new for Italy.

ZOOGEOGRAPHIC ANALYSIS

The species recorded from Sardinia could be assigned to 14 distributional categories (Vigna Taglianti et al. 1999). Out of 85 species one is a Sardinian endemic (*Homalometopus ichnusae*).

The distribution of further 18 species (21.2%) is rather limited: 11 species (12.9%) are Europeo-Mediterranean, 2 (2.3%) W-Mediterranean and 5 (5.5%) Mediterranean (one species with extension to Afghanistan, India and the Afrotropics).

To the group of moderately extended distribution belong the W-European (2, 2.3%; one species with extension to Tunisia), European (12, 14.1%; one species with extension to North Africa, Kenya and Sudan; one with extension to Turkey, North Africa and Afrotropics; one with extension to Turkey, North Africa, Kenya and Sudan), and S-European species

DISCUSSION

The number of shore fly species known from Sardinia (85) is more than twice that known from Corsica (41). There are 28 species in common between the two islands, and 13 species are known from Corsica but not from Sardinia (*Psilopa marginella* Fallén, 1823, *Hydrellia meigeni* Zatwarnicki, 1988, *Athyroglossa glabra* (Meigen, 1830), *Allotrichoma bezzii* Becker, 1896, *A. filiforme* Becker, 1896, *Gymnoclasiopa plumosa* (Fallén, 1823), *G. pulchella* (Meigen, 1830), *Philygria interstincta* (Fallén, 1813), *Pelina aenea* (Fallén, 1813), *P. aenescens* (Stenhammar, 1844), *Parydra nigritarsis* Strobl, 1893, *Lamproscatella sibilans* (Haliday, 1833) and *Scatella silacea* Loew, 1860); on the other hand, 37 species of Ephydriidae are recorded from Sardinia but not from Corsica. The majority of the species recorded from Corsica but not from Sardinia are widely distributed and their absence in Sardinia is probably due to scarce collecting in aquatic and semiaquatic environments; the exception is *Parydra nigritarsis*, records of which from outside northern Europe and the Alps are based on misdetermination.

Acknowledgements

This paper was prepared in the context of the ICP Forests monitoring programme.

I express my sincere thanks to Daniel Whitmore and Pierfilippo Cerretti (Centro Nazionale per lo Studio e la Conservazione della Biodiversità Forestale "Bosco Fontana" of Verona) and Bernhard Merz (Geneva) for the assistance in preparation of the paper and making the materials available for study.

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