

NEW RECORDS OF HELEOMYZIDAE FOR ITALIAN FAUNA
(Diptera)

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The family Heleomyzidae is actually subdivided in three superfamilies: Suillinae (with the only genus *Suillia* Robineau-Desvoidy, 1830 in the Palaearctic region), Heteromyzinae (which includes a tribe with the genera *Heteromyza* Fallen, 1820, *Tephrochlamys* Loew, 1862 and *Tephrochlaena* Czerny, 1924 in the Palaearctic region) and Heleomyzinae (3 tribes and 12 genera in the Palaearctic region) (Papp 1998). There are 151 known species in Europe (Woźnica 2004).

It's difficult to generalize biological characteristics of these flies because most observations till now show a remarkable variety of habits (Papp 1998). However, it can be made a clear distinction between Suillinae, whose species develop on mushrooms and the other two subfamilies, saprophagous, with maggots developing on decomposing organic substances (animal e vegetable).

Most species can be found in fresh and shaded places, often in mammal burrows, bird nests, caves, dung, on mushrooms and decomposing animal and vegetable matter, but also on dried carrions.

There aren't Italian studies about Heleomyzidae and the known distribution of the 48 species known so far for the country (Gorodkov 1995) is based mostly on faunistic papers by Bezzi (1891, 1892, 1895, 1897) and Rondani (1867).

A fundamental work was made by Czerny (1924); for Palaearctic region are very important the works and some revisions by Papp (1988), Gorodkov (1959, 1962, 1984), Woźnica (1993) and Collin (1943).

In this paper, new faunistic records, obtained from the study of museum collections and from aimed collecting, are provided. Six species are new for the Italian fauna, all other records are new for the relevant administrative region or, in some cases, for Peninsular Italy as a whole.

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ABBREVIATIONS. Depositories: MZUR = Museo di Zoologia, Università degli Studi di Roma "Sapienza"; MCZR = Museo civico di Zoologia, Roma; GLG: Giuseppe Lo Giudice. Other: prov. = province.

SPECIES LIST

Oldenbergiella seticerca Papp, 1980 (figs 2, 4-6)

RECORDS. ABRUZZO: L'Aquila prov., R.N.O. Monte Velino, loc. Fontecchia, 1250 m, 11.XI.2005, 1♂; 05.IV.2006, 1♂; 16.XI.2006, 4♀♀; 30.XI.2006, 6♀♀, 55♂♂, G. Lo Giudice, M. Mini & A. Vigna Taglianti leg. (MZUR).

REMARKS. The genus *Oldenbergiella* Czerny, 1924 includes 8 species. One of the species has an holarctic distribution, while the others 7 are known only for the West Palaearctic (North-Eastern Spain, Alps, Carpathians e Caucasus) (Carles-Tolrá 1995, 1998; Papp 1980). All these species are very small (2-4 mm), generally dark grey, pruinose. The costal spines, typical of Heleomyzidae species, are very reduced.

The biology of these flies is poorly known: some specimens were collected on dung and with traps with decomposing liver baits, showing saprophagous habits (Carles-Tolrá 1998).

O. seticerca is the only species of the genus which habitat is not restricted to mountains (Van der Weele 1996). This is a new record of the genus for Italy. The species was previously recorded from Spain, Hungary and Czech Republic (Woźnica 2004).

Orbellia myopiformis Robineau-Desvoidy, 1830 (figs 7-8)

RECORDS. LATIUM: Frosinone prov., Monti Ernici, 8.X.1979-1980 (sic!), 2♂♂ (MZUR).

REMARKS. Species widespread in central and northern Europe (Woźnica 2004). First record for Italy both for genus and species.

Oecothea fenestralis (Fallén, 1820)

RECORDS. LATIUM: Latina prov., Sabaudia, Capo Circeo, C.N.R. Ist. Naz. Biol. 30.III.1940, 1♂; Monti Ausoni, Monte S. Biagio, Icceta, 150 m, 19.XII.1987 - 22.I.1988, 1♀, S. Angeloni & A. Vigna Taglianti leg. (MZUR); CALABRIA: Vibo Valentia prov., Lago Angitola, V. 1987, 1♂, L. Rivosecchi leg. (MZUR).

REMARKS. Holarctic species (Gorodkov 1969). Previously recorded,

in Italy, from Lombardy (Pavia) (Bezzi 1891) and Emilia Romagna (Parma) (Rondani 1867). Often in mammal burrows (Hackman 1967).

***Eccoptomera filata* Loew, 1862**

RECORDS. LATIUM: Roma prov., Castel Porziano, V.1987, 1 ♂ (MZUR)

REMARKS. Larvae of this species develop in nest of rabbits and other small mammals (van der Weele 1996) This species was recorded both for North and South Italy, without more precise indication of locality, by Gorodkov (1995) and is widespread in Europe (Woźnica 2004).

***Eccoptomera infuscata* Wahlgren, 1918**

RECORDS. SICILY: Catania prov., Monte Etna versante meridionale, Canton[iera], 1890 m, 27.VII.1948, Hartig leg. (MZUR)

REMARKS. European species. Previously recorded for North Italy without more precise indication of locality (Gorodkov 1995).

***Eccoptomera inermis* Czerny, 1924**

RECORDS. MOLISE: Carpineto, 8.VI.1982, 1 ♂ (MZUR)

REMARKS. New record for Italy, previously recorded from Poland and Russia (Gorodkov 1984).

***Eccoptomera obscura* (Meigen, 1830)**

RECORDS. PIEMONTE: Cuneo prov., Alpi Liguri, Grotta delle Vene 103 Pi/CN, 1550 m, 21.VIII.1976, 1 ♀, M. Bologna leg. (MZUR) (mentioned in Bologna & Vigna Taglianti, 1985, as "Diptera indet."). LATIUM: Latina prov., Monti Lepini, Bassiano, Monte Semprevisa vers. SW, lecceta, 880 m, 3.VII - 31.VII.1993, 1 ♂, M. De Liberato & A. Letardi leg. (MZUR).

REMARKS. European species. Previously recorded from North Italy without other indication of locality (Gorodkov 1995). This species can be found often in caves (van der Weele 1996).

***Neoleria flavicornis* (Loew, 1862) (figs 9-10)**

RECORDS. TUSCANY: Lucca prov., Massaciuccoli X.1985, 1 ♀ (MZUR); Pisa, XI. 1983, 1 ♂, 1 ♀, (MZUR). MARCHES: Ascoli Piceno prov., Foce Tronto, 30.IV.1983, 1 ♀

(MZUR). LATIUM: Rome, Pietralata, 29.III.1943, 2♀♀; Latina prov., Fogliano, 8.XI.1983, 1♀ (MZUR).

REMARKS. Species widespread in central Europe (Woźnica 2004). New record for Italy.

***Neoleria ruficauda* (Zetterstedt, 1838) (figs 11-12)**

RECORDS. ABRUZZO: L'Aquila prov., R.N.O. Monte Velino loc. Mandridi, 1270 m, UTM 33 T 365391 4665529, 9.XII.2005, 2♂, 5♀♀; 9.XI.2006, 1♂; 16.XI.2006, 3♂♂, 4♀♀; 30.XI.2006, 1♂, 1♀, G. Lo Giudice, M. Mini & A. Vigna Taglianti leg. (MZUR).

REMARKS. European species, mentioned from Italy without further indications by Woźnica (2004).

***Heleomyza (Heleomyza) captiosa* (Gorodkov, 1962)**

RECORDS. LOMBARDY: Brescia prov., Bus del Coalghes, 9.XII.1972, 1♀ (mentioned in Bologna & Vigna Taglianti, 1985, as "Diptera indet."), A. Casale leg. (MZUR); PIEMONTE: Cuneo prov., Rossana, Grotta delle Fornaci 1010 Pi/CN, 30.XII.1966, 2♂♂ (mentioned in Bologna & Vigna Taglianti, 1985, as "Diptera indet."), A. Vigna Taglianti leg. (MZUR); Alpi Liguri, Frabosa, Grotta del Caudano 121 Pi/CN, 01.VII.1969, 2♂♂ (mentioned in Bologna & Vigna Taglianti, 1985, as "Diptera indet."), A. Vigna Taglianti leg. (MZUR); LIGURIA: Savona prov., Calizzano, Arma del Vallonasso 253 Li/SV, 1000 m, 30.VI.1969, 1♂ (mentioned in Bologna & Vigna Taglianti, 1985, as "Diptera indet."), 7♀♀ (mentioned in Bologna & Vigna Taglianti, 1985, as "Diptera indet."), A. Vigna Taglianti leg. (MZUR); Imperia prov. Alpi Liguri, Pozzo del Becco 607 Li/IM, 2005 m, 16.VIII.1976, 1♀ (mentioned in Bologna & Vigna Taglianti, 1985, as "Diptera indet."), M. Bologna, C. Bonzano & E. Piroli leg.; Galleria sulla strada Col Garezzo-Collardente, 1400 m, 10.VII.1970, 1♀ (mentioned in Bologna & Vigna Taglianti, 1985, as "Diptera indet."), M. Bologna leg. (MZUR); LATIUM: Latina prov., Monti Aurunci, Campodimele, M. Faggeto, faggeta, 1200 m, 26.IV - 30.V.1988, 1♂, S. Angeloni & A. Vigna Taglianti leg. (MZUR); ABRUZZO: L'Aquila prov., R.N.O. Monte Velino loc. Mandridi, 1270 m, UTM 33 T 365391 4665529, 9.XII.2005, 1♀; 25.I.2006, 1♂; 09.XI.2006, 1♂; 16.XI.2006, 1♂, 1♀; 30.XI.2006, 2♂♂, 1♀; 18.XI.2008, 5♂♂, G. Lo Giudice, M. Mini & A. Vigna Taglianti leg. (MZUR); Magliano de' Marsi, 714 m, UTM 33 T 364473 4662306, 17.XI.2008, 1♂ G. Lo Giudice, M. Mini & A. Vigna Taglianti leg. (MZUR); CAMPANIA: Caserta prov., Matese, Grotta di Campo Braca, 7.VIII.1947, 1♂, Scorciari, Coppola, G. Battista leg. (MCZR); SICILY: Messina prov., Taormina, 200 m, 4.IV.1950, 1♀, Hartig & Griesheim leg. (MZUR); Catania prov., M.te Etna, versante meridionale, Nicolosi, M.ti Rossi, 2.XII.1948, 1♂, Hartig leg. (MZUR).

REMARKS. Previously recorded only from Liguria (Vittoria, IV.1934) (Gorodkov 1959); the above specimens from Abruzzo, Latium, Lombardy, Piedmont and Sicily, represent new regional record.

Heleomyza (Heleomyza) modesta (Meigen, 1838)

RECORDS. TRENTINO ALTO ADIGE: Bolzano prov., Collalbo, 1200 m, 5.IV.1947, 1 ♂, Hartig leg. (MZUR); VENETO: Belluno prov., Ampezzano, 26.VII.1940, 1 ♀, C.N.R., Ist. Naz. Biol. (MZUR); UMBRIA: Perugia prov., Forsivo, 1050 m, 27.II.2010, 1 ♂, G. Lo Giudice leg. (GLG); ABRUZZO: L'Aquila prov., R.N.O. Monte Velino loc. Mandridi, 1270 m, UTM 33 T 365391 4665529, 9.XII.2005, 1 ♀; 16.XI.2006, 2 ♀♀; 5.IV.2006, 24 ♂♂, 19 ♀♀; 30.XI.2006, 2 ♂♂, 12 ♀♀, G. Lo Giudice, M. Mini & A. Vigna Taglianti leg. (MZUR); Lago S. Stefano, XII.1978, 1 ♂, L. Rivosecchi leg. (MZUR).

REMARKS. European species, previously recorded, in Italy, from Emilia Romagna, Piedmont and Lombardy (Rondani 1867 sub *Leria bracata*).

Heteromyza atricornis Meigen, 1830

RECORDS. ABRUZZO: L'Aquila prov., Cappadocia, Petrella Liri, grotte di Beatrice Cenci, 1030 m, 30.VIII.2009, 8 ♂♂, 3 ♀♀, G. Lo Giudice leg. (MZUR-GLG).

REMARKS. European species, common in caves (Carles-Tolrà and Escolá 2003). Previously recorded, in Italy, from Lombardy (Rondani 1867; Bezzi 1891) and Friuli (Trieste) (Funk & Graffe 1895).

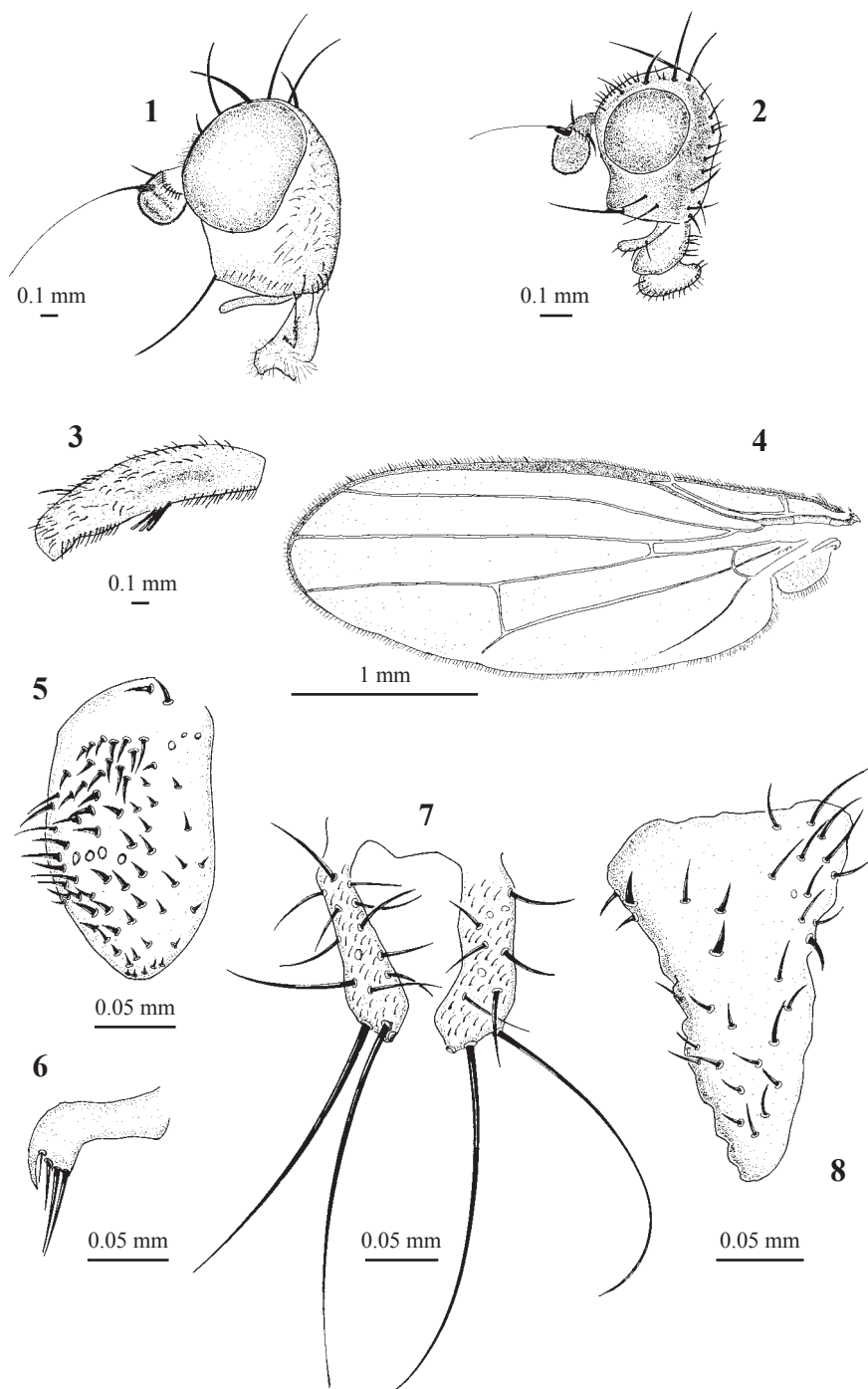
Tephroclamys flavipes (Zetterstedt, 1838)

RECORDS. LATIUM: Latina prov., P. N. Circeo, Macchia Alta, Quarto Freddo, I.1978, 1 ♀, Calvario e Rufolo leg. (MZUR); ABRUZZO: L'Aquila prov., R.N.O. Monte Velino loc. Mandridi, 1270 m, UTM 33 T 365391 4665529, 9.XII.2005, 1 ♀, G. Lo Giudice, M. Mini & A. Vigna Taglianti leg. (MZUR); Sante Marie, Santo Stefano, 850 m, 25.XII.2008, 1 ♀, G. Lo Giudice leg. (GLG).

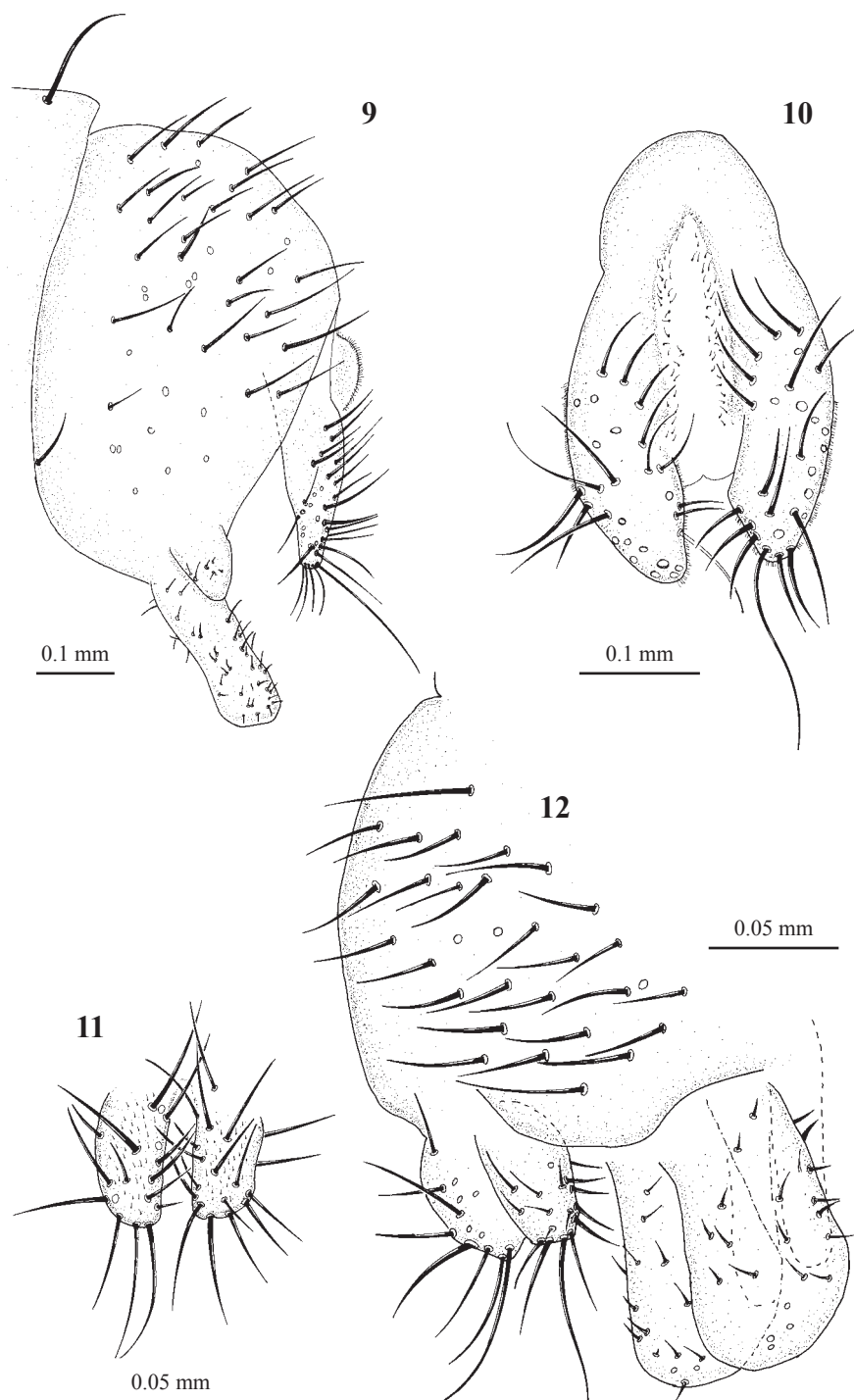
REMARKS. European species. Previously recorded, in Italy, from Emilia Romagna (Parma) (Rondani 1867).

Tephroclamys rufiventris (Meigen, 1830)

RECORDS. UMBRIA: Perugia prov., Norcia, Forsivo, 1050 m, 11.IV.2009, 2 ♀♀, G. Lo Giudice leg. (GLG); LATIUM: Frosinone prov., Monti Lepini, Supino, Monte Salerio, Pian d Croce, faggeta, 1100 m, 30.VII/27.VIII.1992, 1 ♂, 1 ♀; 30.IX/30.X.1992, 1 ♂, 2 ♀♀, De Liberato & A. Vigna Taglianti leg. (MZUR); Latina prov., Monti Aurunci, Campodimele, M. Faggeto, faggeta, 1200 m, 26.VII-26.VIII.1988, 1 ♀, 1 ♂, S. Angeloni & A. Vigna Taglianti leg. (MZUR); Monti Lepini, Bassiano, Monte Semprevisa vers. W, faggeta, 1130 m, 30.IX/30.X.1992, 1 ♀, 1 ♂, De Liberato & A. Vigna Taglianti leg. (MZUR); Formia, 50 m, IV.1948, 1 ♀, O. Querci leg.; Rome prov., Castelporziano, Bosco Igrofilo, 3.III - 5.IV.1986, 1 ♂, P. Bonavita leg. (MZUR); Rocca Priora, 27.I - 17.II.2008, 1 ♀, G. Lo Giudice leg. (GLG); Acilia, 3.III.1943, 3 ♀♀, Castellani leg. (MCZR); Roma



Figs 1-8 – *Acantholeria vockerothi*, male head (in profile) (1); *Oldenbergiella seticerca*, male head (in profile) (2); *A. vockerothi*, male hind femur (3); *O. seticerca*, wing (4); *O. seticerca*, surstylus (5); *O. seticerca*, gonite (6); *Orbellia myopiformis*, cerci (caudal view) (7); *O. myopiformis*, surstylus (8).



Figs 9-12 – *Neoleria flavicornis*, male genitalia (lateral view) (9); *N. flavicornis*, male cerci (caudal view) (10); *N. ruficauda*, male cerci (caudal view) (11); *N. ruficauda*, male genitalia (lateral view) (12).

lido, 9.III.1943, 1 ♀, Castellani leg. (MCZR); Zoo, 15.III.1940, 7 ♀♀, G. Tamino leg. (MCZR); ABRUZZO: L'Aquila prov., R.N.O. Monte Velino loc. Mandridi, 1270 m, UTM 33 T 365391 4665529, 9.XII.2005, 1 ♂, G. Lo Giudice, M. Mini & A. Vigna Taglianti leg. (MZUR); Sante Marie, Santo stefano, 850-900 m, 6.IV.2009, 1♀, G. Lo Giudice leg. (GLG); CALABRIA: Cosenza prov., Mendicino, 27.I.1952, 1♀, D. Conforti leg. (MCZR); Sila, V.1987, L. Rivosecchi leg. (MZUR); SICILY: Catania prov., Monte Etna, Vers. Meridionale, Nicolosi, M.ti Rossi, 900 m, 2.XII.1948, 1 ♂, Hartig leg. (MZUR); Sor. Imera, V.1987, 1 ♀, L. Rivosecchi leg. (MZUR).

REMARKS. Holarctic species, previously recorded, in Italy, from Friuli (Trieste) (Funk & Graffe 1895) and Calabria (Bezzi 1895).

***Tephroclamys tarsalis* (Zetterstedt, 1847)**

RECORDS. LATIUM: Rome prov., Castelporziano, bosco igrofilo, 3.III-5.IV.1986, 1 ♂, P. Bonavita leg. (MZUR).

REMARKS. Palaearctic species, widespread in northern and central Europe. Previously recorded, in Italy, from Emilia Romagna only (Ron-dani 1867).

***Acantholeria vockerothi* (Hackman, 1969) (figs 1, 3)**

RECORDS. LIGURIA: Imperia prov., Alpi liguri, Pozzo del Becco, 607 Li/IM, 2005 m, 16.VIII.1976, 5 ♂♂, 1 ♀, M. Bologna, C. Bonzano & E. Piroli leg. (MZUR).

REMARKS. New record for Italy. The species is known from Spain (Hackman 1969; Carles-Tolrà and Escolà 2003), and Andorra (Woźnica 2004).

***Gymnomus amplicornis* (Czerny, 1924)**

RECORDS. MARCHES: Ascoli Piceno prov., M. Laga, V. Umito, 20.VIII.1992, 1♀ (MZUR).

REMARKS. European, boreo-alpine and troglophilous species. Larvae are saprophagous and develop in bats guano, in caves up to 40 meters deep (Woźnica 2006).

New record from Marches; previously recorded, in Italy, from Latium (Rome prov., Colli Albani) (Di Luca 1995 sub *Scoliocentra ampli-cornis*).

Gymnomus caesius (Meigen, 1830)

RECORDS. PIEDMONT: Cuneo prov., Alpi Liguri, Pamparato, Tana delle Turbiglie, 115 Pi, 23.XI.1972, 1♂, A. Casale leg. (MZUR); Alpi Liguri, Grotta delle Vene, 1600m, 21.VIII.1976, 1♂, M. Bologna leg. (MZUR); LATIUM: Latina prov., Monti Ausoni, Monte S. Biagio, lecceta, 150 m, 26.IV - 30.V.1988, 1♂, S. Angeloni & A. Vigna Taglianti leg. (MZUR); Monti Aurunci, Campodimele, Monte Faggeto, faggeta, 1200 m, 26.IV - 30.V.1988, 3♂♂, S. Angeloni & A. Vigna Taglianti leg. (MZUR); ABRUZZO: L'Aquila prov., Sante Marie, Santo Stefano, 850-900 m, 24.XII.2007, 2♂♂; 19.I.2008, 3♀♀, Giuseppe Lo Giudice leg. (GLG).

REMARKS. Species widespread in central and northern Europe. Mentioned from Emilia Romagna (Rondani 1867 sub *Leria caesia*) and from Trentino Alto Adige: Bolzano prov., Passo dello Stelvio (Papp & Woźnica 1993; Austria, Tyrolis, Stilsfer Joch). This species can be found often in caves (Carles-Tolrà and Escolà 2003).

Gymnomus spectabilis (Loew, 1862)

RECORDS. LATIUM: Latina prov., Monti Aurunci, Campodimele, Monte Faggeto, faggeta, 1200 m, 26.IV - 30.V.1988, 1♂, S. Angeloni & A. Vigna Taglianti leg. (MZUR).

REMARKS. This European species is not considered very rare, but large series have been collected only in caves (van der Weele 1996). The occurrence of this species in Italy, without more precise indication of locality, has been reported by Papp & Woźnica (1993). In the same paper, however, there is also a record from "Tyrolis, Stilsfer Joch" (=Passo dello Stelvio), a locality which is actually in Italy (Trentino Alto Adige, Bolzano prov.), not in Austria as mistakenly indicated (Papp & Woźnica, 2003).

Gymnomus mariei (Séguy, 1934)

RECORDS. PIEDMONT: Cuneo prov., Alpi Liguri, Carsena del Ferà 202 Pi/CN (a -30 m), 2180 m, 12.VIII.1967, 1♂, 5♀♀, A. Vigna Taglianti leg. (MZUR).

REMARKS. New record for Italy, previously recorded from France and Switzerland (Gorodkov 1984, Papp & Woźnica 1993, Woźnica 2004).

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SUMMARY

Some faunistic records of Heleomyzidae for Italian fauna are provided. Six of the species *Oldenbergiella seticerca* Papp, 1980, *Orbellia myopiformis* Robineau-Desvoidy, 1830, *Eccoptomera inermis* Czerny, 1924, *Neoleria flavicornis* (Loew, 1862), *Acantholeria vockerothi* (Hackman, 1969), *Gymnomus mariei* (Séguy, 1934) and the genera *Oldenbergiella* and *Orbellia* are new for Italian fauna.

RIASSUNTO

Nuovi reperti di Heleomyzidae per la fauna italiana (Diptera).

Vengono forniti nuovi reperti di ditteri Heleomyzidae per la fauna italiana. Sei specie *Oldenbergiella seticerca* Papp, 1980, *Orbellia myopiformis* Robineau-Desvoidy, 1830, *Eccoptomera inermis* Czerny, 1924, *Neoleria flavicornis* (Loew, 1862), *Acantholeria vockerothi* (Hackman, 1969), *Gymnomus mariei* (Séguy, 1934) ed i generi *Oldenbergiella* e *Orbellia* risultano nuovi per la fauna italiana.

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