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Contribution to the knowledge of Ichneumonidae from Sicily. III. Pimplinae and Poemeniinae (Hymenoptera)

Riassunto: *Contributo alla conoscenza degli Ichneumonidae della Sicilia. III. Pimplinae e Poemeniinae (Hymenoptera).*

Sono forniti dati faunistici riguardanti gli Hymenoptera Pimplinae e Poemeniinae (Ichneumonidae) della Sicilia. Sono segnalate 32 specie di Pimplinae, 24 delle quali sono nuove per la Sicilia e 1, *Perithous speculator* Haupt, 1954, nuova anche per l'Italia; l'unica specie segnalata di Poemeniinae, *Poemenia notata* Holmgren, 1859, risulta nuova per l'Italia. Il numero di specie delle due sottofamiglie trattate note per la Sicilia è elevato a 39.

Abstract: Faunistic data on Hymenoptera Pimplinae and Poemeniinae (Ichneumonidae) from Sicily are provided. Thirty-two Pimplinae species are recorded, 24 of which are new for Sicily and 1, *Perithous speculator* Haupt, 1954, is new also to Italy; the only recorded Poemeniinae, *Poemenia notata* Holmgren, 1859, is new to Italy. The number of the two treated subfamilies known for Sicily is increased up to 39.

Key words: Ichneumonidae, Pimplinae, Poemeniinae, New records, Italy, Sicily.

INTRODUCTION

The faunistic knowledge of the Ichneumonidae from Sicily has received very little attention from researchers, and most part of data comes from old contributions, e.g., Ghiliani (1842), Sichel (1860), De Stefani Perez (1882, 1883, 1884, 1885, 1886, 1887a, 1887b, 1894, 1895) and Riggio & De Stefani, 1888. Only a few contributions were added recently: Pagliano & Scaramozzino (1995), Pagliano (2003), both containing data from some circumsicilian islands, Turrisi *et al.* (2007) and Riedel & Turrisi (2013) treating the subfamilies Ichneumoninae and Diplazontinae. The most recent survey of Sicilian Ichneumonidae still remains the checklist of the Italian fauna (Scaramozzino, 1995), although mostly not containing original data on Sicilian fauna.

The Pimplinae represents a moderately-rich subfamily, mostly idiobiont ectoparasitoids of many holometabolous insects, although Pimplini are often endoparasitoid of prepupae of Lepidoptera and Polyshinctini are koinobiont parasitoids specialized on Araneae (Wahl, 1993). The subfamily contains about one-hundred species in Italy, arranged within 33 genera, of which only 16 presently recorded for Sicily (Scaramozzino, 1995; Zwakhals, 2009). The Poemeni-

inae, formerly included within Pimplinae, are idiobiont ectoparasitoids of Hymenoptera Aculeata nesting in borings in wood (*Poemenia* Holmgren, 1859), whereas *Pseudorhyssa* Merrill, 1915 is a cleptoparasitoid of Siricidae (Spradbery, 1969). Only five species of this subfamily are recorded in Italy, none of which was currently known for Sicily. As for other ichneumonids, records on Sicilian Pimplinae are poor and scattered; no updated and comprehensive papers have been published so far. The present paper deals with faunistics of Sicilian Pimplinae and Poemeniinae. It belongs to an extensive study aiming to improve the knowledge in faunistics, taxonomy, distribution, and biogeography of the Sicilian Ichneumonidae, primarily based on the study of the G.F. Turrisi collection (previous contributions: Turrisi *et al.*, 2007; Riedel & Turrisi, 2013).

MATERIALS AND METHODS

This study is based on examination of the G.F. Turrisi collection, University of Catania, with a few additions of specimens collected by Prof. P. Alicata (University of Catania). Specimens were mostly collected by hand-netting, sometimes on flowers of several Angiospermae, especially in the eastern part of Sicily, and

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partly through pit-fall traps containing vinegar and salt, used for soil fauna sampling. For a list of the collecting sites (including brief descriptions of habitat) for the material belonging to the Turrisi collection, refer to Turrisi *et al.* (2007). To avoid repetitions, the name of the collector is omitted if it is the same as the depository. Primary data on Sicilian Ichneumonidae were obtained from the papers by De Stefani Perez, especially the comprehensive catalogue of Sicilian Hymenoptera (De Stefani Perez, 1895) and the checklist of the Italian Ichneumonidae (Scaramozzino, 1995); distributional data were taken from the catalogues of the Ichneumonidae of the World by Yu & Horstmann (1997) and Yu *et al.* (2005) and the online database Fauna Europaea (Zwakhals, 2009). The identification of the material was made by the first author.

LIST OF SPECIES

Ephialtes manifestator (Linnaeus, 1758)

MATERIAL EXAMINED: Etna, Maletto (CT), Fontanamurata, 1000 m, 26.X.1997, 1♂.

DISTRIBUTION: holarctic.

REMARKS: New for Sicily.

Dolichomitus imperator (Kriechbaumer, 1854)

MATERIAL EXAMINED: Etna, Maletto (CT), Fontanamurata, 1000 m, 2.VI.2002, 1♀, on decaying wood of *Quercus ilex* L.

DISTRIBUTION: holarctic.

Dolichomitus agnoscendus (Roman, 1939)

MATERIAL EXAMINED: Etna, Ragalna (CT), Monti Rossi environs, 1.V.1994, 1♀; Iblei, Noto (SR), Fiume Cassibile, centrale ENEL, 25.IV.1992, 1♀, R. Turrisi leg. (at light).

DISTRIBUTION: western palearctic.

REMARKS: New for Sicily.

Townesia tenuiventris (Holmgren, 1860)

MATERIAL EXAMINED: Etna, Belpasso (CT), Monte San Leo, 1000 m, 25.V.1999, 1♀.

DISTRIBUTION: holarctic.

REMARKS: New for Sicily.

Liotryphon punctulatus (Ratzeburg, 1848)

MATERIAL EXAMINED: Etna, Linguaglossa (CT), Monte Baracca, 1700 m, 26.VIII.1994, 1♀.

DISTRIBUTION: palearctic.

REMARKS: New for Sicily.

Exeristes arundinis (Kriechbaumer, 1887)

MATERIAL EXAMINED: Foce Fiume Simeto (CT), 27.X.1990, 1♀, S. Bella leg.

DISTRIBUTION: palearctic.

Exeristes roborator (Fabricius, 1793)

MATERIAL EXAMINED: Madonie, Petralia Soprana (PA), Piano Battaglia, 14.VIII.1993, 1♀; Etna, Randazzo (CT), Lago Gurridda, 800 m, 5♀; Piana di Catania, Catania (CT), Primosole, 25.V.1997, 1♀ on flowers of *Cachrys sicula* L. (Apiaceae); 7.VIII.1997, 1♀, 1♂; 20.VII.1996, 2♀; 27.IX.1996, 1♀; 17.VIII.1996, 1♂; Iblei, Portopalo di C.P. (SR), 27.VII.1992, 1♀ on flowers of *Foeniculum vulgare* L. (Apiaceae); Erei, Calascibetta (EN), 1.XI.1994, 1♀; Erei, Valguarnera Caropepe (EN), Monte Rossomanno, 31.VII.1995, 1♂; Alcantara, Calatabiano (CT), 4.VI.1999, 1♀; Iblei, Noto (SR), Testa dell'Acqua, 600 m, 3.IX.1995, 1♀; 18.IX.1994, 1♀; Iblei, Vizzini (CT), Poggio Morbano, 600 m, 1.X.1996, 1♀.

DISTRIBUTION: palearctic and oriental.

Endromopoda detrita (Holmgren, 1860)

MATERIAL EXAMINED: Etna, Linguaglossa (CT), Monte Baracca, 1700 m, 8.VIII.1996, 1♀; Etna, Castiglione di Sicilia (CT), Caserma Pitarrone, 1400 m, 26.VIII.1995, 1♀; Etna, Tremestieri Etneo (CT), 350 m, 20.III.1994, 1♀.

DISTRIBUTION: holarctic and oriental.

REMARKS: New for Sicily.

Scambus nigricans (Thompson, 1877)

MATERIAL EXAMINED: Nebrodi, Cesarò (ME), Biviere di Cesarò, 1240 m, 23.VI.1999, 1♀ on flowers of *Thapsia garganica* L. (Apiaceae); Etna, Linguaglossa (CT), Monte Baracca, 1700 m, 26.VIII.1994, 1♀; Etna, Milo (CT), Pietracannone, 1100 m, 8.VIII.1996, 1♀; Etna, Milo (CT), Monte Scorsona, 1200 m, 10.VIII.1996, 1♀; Etna, Zafferana Etnea (CT), Valle San Giacomo, 700 m, 25.VI.1995, 1♀; Etna, Tremestieri Etneo (CT), 350 m, 9.IV.1995, 1♀; Etna, Monterosso Etneo (CT), 500 m, 21.IV.1996, 1♂; Iblei, Noto (SR), Testa dell'Acqua, 600 m, 27.IV.1997, 2♂.

DISTRIBUTION: palearctic.

REMARKS: New for Sicily.

Scambus elegans (Woldstedt, 1877)

MATERIAL EXAMINED: Iblei, Vizzini (CT), Fiume Vizzini, c.da Rubalà, 320 m, 16.V.1999, 1♂.

DISTRIBUTION: western palearctic.

REMARKS: New for Sicily.

Scambus calobatus (Gravenhorst, 1829)

MATERIAL EXAMINED: Etna, Tremestieri Etneo (CT), 350 m, 16.V.1994, 1♀; 9.XI.1994, 1♀ (coll. K. Zwakhals); Etna, Nicolosi (CT), Monti Rossi, 800 m, 1.V.1994; 1♀. Etna, Maletto, Fontanamurata, 1000 m, 7.VII.1996, 1♀.

DISTRIBUTION: holarctic.

REMARKS: New for Sicily.

Scambus brevicornis (Gravenhorst, 1829)

MATERIAL EXAMINED: Etna, Tremestieri Etneo (CT), 350 m, 22.III.1994, 1♀; Etna, Linguaglossa (CT), Monte Baracca, 1700 m, 8.VIII.1996, 1♀.

DISTRIBUTION: holarctic.

REMARKS: New for Sicily.

Scambus vesicarius (Ratzeburg, 1844)

MATERIAL EXAMINED: Piana di Catania, Catani (CT), Primosole, 13.V.1996, 1♂.

DISTRIBUTION: holarctic.

REMARKS: New for Sicily.

Tromatobia lineatoria (Villers, 1789)

MATERIAL EXAMINED: Etna, Tremestieri Etneo (CT), 350 m, 16.V.1994, 1♀; Etna, Castiglione di Sicilia (CT), Caserma Pitarrone, 1450 m, 30.VII.1998, 1♀ (coll. K. Zwakhals); 21.VIII.1998, 2♀; Etna, Sant'Alfio (CT), Cerrita, 1400 m, 21.VIII.1998, 1♀; Etna, Maletto (CT), Fontanamurata, 1000 m, 26.X.1997, 1♀; Etna, Linguaglossa (CT), Monte Baracca, 1700 m, 23.VIII.1995, 1♀.

DISTRIBUTION: western palearctic.

REMARKS: New for Sicily.

Tromatobia ornata (Gravenhorst, 1829)

MATERIAL EXAMINED: Piana di Catania, Catania (CT), Primosole, 26.V.1996, 2♂ (1♂ coll. K. Zwakhals).

DISTRIBUTION: palearctic.

REMARKS: New for Sicily.

Zaglyptus multicolor (Gravenhorst, 1829)

MATERIAL EXAMINED: Etna, Maletto (CT), Fontanamurata, 1000 m, 26.X.1997, 1♀; Etna, Tremestieri Etneo (CT), 350 m, 22.X.1992, 1♀; Etna, Nicolosi (CT), Monte Manfré, 1400 m, 25.VIII.1995, 1♂; Etna, Sant'Alfio (CT), Cerrita, 1400 m, 21.VIII.1998, 1♂;

Etna, San Gregorio di Catania (CT), 200 m, 5.V.1994, 1♂; Etna, Milo (CT), Fornazzo, 800 m, 15.IX.1994, 1♂ (at light); 8.X.1994, 1♂; Etna, Zafferana Etnea (CT), Valle San Giacomo, 700 m, 26.VIII.1994, 1♂; Iblei, Noto (SR), Fiume Cassibile, centrale ENEL, 20.IX.1992, 1♀ (at light); Etna, Milo (CT), 700 m, 21.VII.1998, 1♀ (coll. K. Zwakhals); Iblei, Noto (SR), Testa dell'Acqua, 600 m, 18.IX.1994, 1♂ (coll. K. Zwakhals).

DISTRIBUTION: palearctic.

REMARKS: New for Sicily.

Zaglyptus varipes (Gravenhorst, 1829)

MATERIAL EXAMINED: Etna, Tremestieri Etneo (CT), 350 m, 23.X.1992, 1♂.

DISTRIBUTION: holarctic.

REMARKS: New for Sicily.

Clistopyga incitator (Fabricius, 1793)

MATERIAL EXAMINED: Piana di Catania, Catania (CT), Primosole, 13.V.1996, 2♀, on *Pyrus* leaves covered by aphids (1♀ coll. K. Zwakhals); Iblei, Ispica (SR), Pantano Longarini, 15.IX.1996, 1♀, S. Bella leg.

DISTRIBUTION: palearctic.

REMARKS: New for Sicily.

Schizopyga podagratica Gravenhorst, 1829

MATERIAL EXAMINED: Etna, Maletto (CT), Fontanamurata, 1000 m, 26.X.1997, 1♂.

DISTRIBUTION: palearctic.

REMARKS: New for Sicily.

Zatypota percontatoria (Müller, 1776)

MATERIAL EXAMINED: Etna, Tremestieri Etneo (CT), 350 m, 18.V.1993, 1♀; 10.VI.1994, 1♂; 10.VI.1995, 1♂; Catania (CT), San Nullo, 1.IV.1994, 1♂; 23.IV.1996, 1♂; Etna, Sant'Alfio (CT), Pietrafucile, 800 m, 28.VII.1998, 1♀.

DISTRIBUTION: holarctic.

REMARKS: New for Sicily.

Itopectis maculator (Fabricius, 1775)

MATERIAL EXAMINED: Piana di Catania, Catania (CT), Primosole, 26.V.1996, 1♀; Etna, Castiglione di Sicilia (CT), Caserma Pitarrone, 1450 m, 15.VII.1992, 1♀; Etna, Tremestieri Etneo (CT), 350 m, 25.III.1995, 1♀; 16.V.1994, 1♂; 25.IV.1994, 1♂; Iblei, Vizzini (CT), Fiume Vizzini, Poggio del Lago, 600 m, 7.V.1994, 1♂ (coll. K. Zwakhals); Iblei, Vizzini (CT), Fiume

Vizzini, C.da Rubalà, 320 m, 16.V.1999, 1♀ (coll. K. Zwakhals).

DISTRIBUTION: holarctic.

Itopectis alternans (Gravenhorst, 1829)

MATERIAL EXAMINED: Iblei, Vizzini (CT), Fiume Vizzini, Poggio del Lago, 600 m, 7.V.1994, 1♂.

DISTRIBUTION: palearctic and oriental.

REMARKS: New for Sicily.

Pimpla rufipes (Miller, 1759)

MATERIAL EXAMINED: Etna, Linguaglossa (CT), Monte Baracca, 1700 m, 23.VIII.1995, 1♀.

DISTRIBUTION: holarctic and oriental.

Pimpla turionellae Linnaeus, 1758

Material examined: Etna, Linguaglossa (CT), 550 m, 6.XII.1995, 1♀, G. Costa leg.; Etna, Milo (CT), Casa Pietracannone, 1000 m, 12.VII.1998, 1♀.

Distribution: holarctic and oriental.

Remarks: New for Sicily.

Pimpla insignatoria (Gravenhorst, 1807) (= *Pimpla conmixta* Kiss, 1929)

MATERIAL EXAMINED: Nebrodi, Caronia (ME), Contrada Moglia, m 1300, VIII.1987, 1♀, P. Alicata leg. (Hilpert det. 1993); IX.1987, 2♀, P. Alicata leg. (Hilpert det. 1993); VIII.1988, 1♀, P. Alicata leg. (Hilpert det. 1993); IX.1988, 1♀, P. Alicata leg. (Hilpert det. 1993).

DISTRIBUTION: western palearctic.

REMARKS: New for Sicily.

Pimpla contemplator (Müller, 1776)

MATERIAL EXAMINED: Etna, Milo (CT), Casa Pietracannone, 1000 m, 28.VIII.1996, 1♂; Nebrodi, Caronia (ME), Contrada Moglia, m 1300, VII.1988, 1♀, P. Alicata leg. (Hilpert det. 1993); VIII.1988, 1♀, P. Alicata leg. (Hilpert det. 1993); IX.1988, 1♀, P. Alicata leg. (Hilpert det. 1993).

DISTRIBUTION: holarctic.

REMARKS: New for Sicily.

Pimpla spuria Gravenhorst, 1829

MATERIAL EXAMINED: Nebrodi, Caronia (ME), Contrada Crocitti, m 800, VI.1988, 2♀, P. Alicata leg. (Hilpert det. 1993); VIII.1987, 1♀, P. Alicata leg. (Hilpert det. 1993); Nebrodi, Caronia (ME), Case Crocitti, m 550, VII.1988, 2♀, P. Alicata leg. (Hilpert

det. 1993); Nebrodi, Caronia (ME), Contrada Moglia, m 1300, VII.1988, 1♀, P. Alicata leg. (Hilpert det. 1993); Fiume Alcantara, Calatabiano (CT), 4.VI.1999, 1♂; Etna, Zafferana Etnea (CT), Valle San Giacomo, 700 m, 12.VII.1995, 1♀; Catania (CT), San Nullo, 9.VI.1994, 1♀; Etna, Nicolosi (CT), Monte Manfrè, 25.VIII.1995, 1♀; Etna, Milo (CT), Case Paternò, 1200 m, 22.VIII.1996, 1♂; Etna, Milo (CT), Monte Scorsone, 1400 m, 10.VIII.1996, 1♂; Etna, Maletto (CT), Fontanamurata, 1000 m, 9.VII.1995, 1♂ on flowers of *Opopanax chironium* (Apiaceae); Etna, Tremestieri Etneo (CT), 350 m, 3-4.V.1996, 3♂ on flowers of *Euphorbia ceratocarpa* (Euphorbiaceae); 20.V.1995, 3♂; 7.V.1996, 2♂ on flowers of *Euphorbia ceratocarpa* (Euphorbiaceae); 6.V.1994, 1♂; 1.VI.1994, 2♂; Piana di Catania, Catania (CT), Contrada Primosole, 13.V.1996, 2♂ on *Pyrus* leaves covered by aphids; 4.VI.1995, 1♂, on flowers of *Cachrys sicula* L. (Apiaceae); 24.III.1996, 1♂; 7.IV.1996, 2♂; Iblei, Noto (SR), Testa dell'Acqua, 600 m, 12.X.1998, 1♂.

DISTRIBUTION: palearctic and oriental.

Apechthis compunctor (Linnaeus, 1758)

MATERIAL EXAMINED: Etna, Randazzo (CT), San Teodoro, 800 m, 20.IV.1992, 1♀; Etna, San Gregorio di Catania, 200 m, 15.IV.1996, 1♂.

DISTRIBUTION: holarctic.

Apechthis quadridentata (Thomson, 1877)

MATERIAL EXAMINED: Etna, Castiglione di Sicilia (CT), Caserma Pitarrone, 1450 m, 26.VIII.1994, 1♀.

DISTRIBUTION: palearctic.

REMARKS: New for Sicily.

Apechthis rufata (Gmelin, 1790)

MATERIAL EXAMINED: Nebrodi, Caronia (ME), Contrada Moglia, m 1300, VII.1988, 1♀, P. Alicata leg. (Hilpert det. 1993).

DISTRIBUTION: palearctic and oriental.

Perithous speculator Haupt, 1954

MATERIAL EXAMINED: Iblei, Vizzini (CT), Fiume Vizzini, Poggio del Lago, 600 m, 7.V.1994, 1♂; Etna, Milo (CT), Fornazzo, 800 m, X.1994, 1♂, S. Bella leg. (at light).

DISTRIBUTION: palearctic.

REMARKS: New for Sicily and Italy.

Perithous septemcinctorius (Thunberg, 1824)

MATERIAL EXAMINED: Etna, Tremestieri Etneo (CT), 350 m, 25.IV.1994, 1♂; 1.VII.1994, 2♂.

DISTRIBUTION: holarctic.

REMARKS: New for Sicily.

Subfamily Poemeniinae

Poemenia notata Holmgren, 1859

MATERIAL EXAMINED: Etna, Tremestieri Etneo (CT), 350 m, 24.X.1994, 1♀.

DISTRIBUTION: western palearctic.

REMARKS: New for Sicily and Italy.

CONCLUSIONS

The material examined includes 32 species of the subfamily Pimplinae and one species of the subfamily Poemeniinae; 24 Pimplinae are new findings for Sicily, and *Perithous speculator* is also new to Italy. *Poemenia notata*, new national and regional record, is the first species belonging to the subfamily Poemeniinae known for Sicily. These new records increase the species of Pimplinae and Poemeniinae

known for Sicily up to 39. Since the great part of the identified species are widespread in the Palearctic Region, these data confirm the poor knowledge of the Sicilian Ichneumonidae in general and of Pimplinae and Poemeniinae in particular. It was not possible to ascertain the identity of *Pimpla fatua* De Stefani Perez, 1887. This species was described in both sexes from Sicily without an indication of locality (De Stefani Perez, 1887a: 88-89), but the type material, as well as the rest of the De Stefani's collection, is considered lost (Caleca & Mineo, 1985). The Sicilian Pimplinae are clearly underestimated, and further research will probably significantly increase the current number of species, especially through better explorations of the montane habitats of Sicily (Sicani, Madonie, Nebrodi, Peloritani and Etna) and the south-eastern Iblean massif.

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