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Linzer biol. Beitr.	38/1	953-960	21.7.2006

New or little known Sphecidae (Hymenoptera, Aculeata) from Sicily (Italy)

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A b s t r a c t : A commented list of new or little known species of Sphecidae from Sicily is given. It concerns twenty-three species, of which sixteen are recorded for the first time from Sicily: *Ammophila campestris* LATREILLE 1809, *Astata minor* (KOHL 1885), *Astata apostata* MERCET 1910, *Cerceris ruficornis ruficornis* (FABRICIUS 1793), *Crossocerus cetratus* (SHUCKARD 1837), *Crossocerus vagabundus* (PANZER 1798), *Ectemnius cavifrons* (THOMSON 1870), *Gorytes quinquecinctus* (FABRICIUS 1793), *Miscophus bicolor* JURINE 1807, *Nitela spinolae* LATREILLE 1809, *Passaloecus corniger* SHUCKARD 1837, *Passaloecus insignis* (VAN DER LINDEN 1829), *Rhopalum coarctatum* (SCOPOLI 1793), *Spilomena punctatissima* BLÜTHGEN 1953, *Tachysphex obscuripennis gibbus* KOHL 1885 and *Trypoxylon deceptorium* ANTROPOV 1991. New data on seven species, recently recorded from Sicily, are provided: *Astata gallica* DE BEAUMONT 1942, *Crossocerus podagricus* (VAN DER LINDEN 1829), *Passaloecus pictus* RIBAUT 1952, *Rhopalum clavipes* (LINNAEUS 1758), *Stigmus solskyi* MORAWITZ 1864, *Tachysphex julliani* KOHL 1883, *Trypoxylon kolazyi* KOHL 1893.

K e y w o r d s : Hymenoptera, Sphecidae, Sicily, new records.

Introduction

The faunistic knowledge of Sphecidae of Sicily has not received quite attention from researchers, with a few exceptions. Among the most ancient contributions containing data on Sicilian Sphecidae, it must be underline those of GHILIANI (1842), SICHEL (1860) and DE STEFANI PEREZ (1881, 1884a, 1884b, 1886, 1887, 1889, 1894, 1895). Only after long time it was published a specific contribution on Sicilian Hymenoptera Aculeata, including Sphecidae (GIORDANI SOIKA 1944). More recently a specific contribution on Sicilian Sphecidae was published by SCHMID-EGGER (2003). Some contributions were published on Hymenoptera (including Sphecidae) of some circumsicilian Islands (RIGGIO & DE STEFANI PEREZ 1888; PAGLIANO & SCARAMOZZINO 1995; PAGLIANO 2003). For Italian Sphecidae, in recent years two catalogues were published by PAGLIANO (1990), and NEGRISOLO (1995). The data on Italian Sphecidae were summarized in the volume of "Fauna d'Italia" (PAGLIANO & NEGRISOLO 2005).

The present contribution deals with some interesting records of Sphecidae from Sicily. They concern twenty-three species, of which sixteen are reported from Sicily for the first time, while new data on seven species, recently recorded from Sicily, are provided.

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Material and methods

This study is based on examination of material recently collected by authors especially in the eastern part of Sicily. The material is stored in the collection of authors.

The identification of the material was made by authors, on the basis of recent monographs by BITSCH & LECLERCQ (1993), BITSCH et al. (1997, 2001), and PAGLIANO & NEGRISOLO (2005). Primary data on Sicilian Sphecidae were obtained from De Stefani Perez's papers, especially the comprehensive Catalogue of Sicilian Hymenoptera (DE STEFANI PEREZ 1895), the two recent Italian checklists (PAGLIANO 1990; NEGRISOLO 1995), the recent contribution of SCHMID-EGGER (2003), and, above all, the recent monograph of Italian Sphecidae (PAGLIANO & NEGRISOLO 2005). To avoid repetitions in the text, for each taxon, the bibliographic sources for general distribution (BITSCH & LECLERCQ 1993; BITSCH et al. 1997, 2001), and Italian distribution (PAGLIANO 1990; NEGRISOLO 1995; PAGLIANO & NEGRISOLO 2005), are not mentioned.

The systematic account follows that of NEGRISOLO (1995) and PAGLIANO & NEGRISOLO (2005).

List of species

Ammophila campestris LATREILLE 1809

Material examined: Mount Etna, Serra La Nave, 1730 m (Ragalna, Catania), 26.VI.1999, 1♀ (G.F. Turrisi leg.).

Remarks: First record for Sicily! Widespread in Europe and Asia, to the east in China and Corea. In Italy it is widely distributed from north to the extremely south regions.

Astata apostata MERCET 1910

Material examined: Mount Etna, Catania, San Nullo, 12.VI.1994, 1♂ (G.F. Turrisi leg.).

Remarks: First record for Sicily! South-European-Maghrebian. In Italy it was previously recorded only from Latium and Calabria.

Astata gallica DE BEAUMONT 1942

Material examined: Piana di Catania, Primosole (Catania), 3.VIII.1996, 1♀ (G.F. Turrisi leg.).

Remarks: Recently recorded from Sicily by SCHMID-EGGER (2003). This species is present in south-west Europe, as north as Hungary and Slovakia, and in North Africa. In Italy, outside Sicily, it was previously recorded only from Latium, Apulia, Basilicata and Sardinia.

Astata minor (KOHL 1885)

Material examined: Piana di Catania, Primosole (Catania), 25.V.1997, 1♀ (G.F. Turrisi leg.).

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Remarks: First record for Sicily! Widespread in the western sector of Palaearctic region. In Italy it was recorded from peninsular Italy, as south as Basilicata, and Sardinia. The specimen examined was collected on flowers of *Cachrys sicula* L. (Apiaceae).

***Gorytes quinquecinctus* (FABRICIUS 1793)**

Material examined: Mount Etna, Tremestieri Etneo, 350 m (Catania), 19.V.1993, 1♂ (G.F. Turrisi leg.); 16.V.1994, 1♂ (G.F. Turrisi leg.); Mount Etna, slopes of Mount San Leo, 1000 m (Belpasso, Catania), 4.VI.1992, 1♂ (G.F. Turrisi leg.); 24.VI.1992, 1♂, 3♀♀ (G.F. Turrisi leg.); 7-9.VII.1992, 2♂♂ (G.F. Turrisi leg.); 2.VI.1993, 7♂♂ (G.F. Turrisi leg.); 26.VI.1999, 1♂ (G.F. Turrisi leg.).

Remarks: First record for Sicily! Widespread in Europe, Turkey, and Kazakhstan, its presence in N-Africa is not confirmed (BITSCH et al. 1997). It is recorded from the whole peninsular Italy, as south as Calabria. The specimens from Mount San Leo were collected on flowers of several Apiaceae: *Ferula communis* L., *Thapsia garganica* L., and *Opopanax chironium* L. All the male specimens examined have clypeus and pronotal lobes extensively yellow, as females.

***Crossocerus cetratus* (SHUCKARD 1837)**

Material examined: Mount Etna, slopes of Mount Maletto, 1600 m (Maletto, Catania), 20.VII.1999, 1♀ (S. Tomarchio leg.).

Remarks: First record for Sicily! It is widespread in Europe and Asia, but its distribution is scattered in the southern parts. In Italy it was previously known only from the extreme north, thus it is remarkable the record from Sicily.

***Crossocerus podagricus* (VAN DER LINDEN 1829)**

Material examined: Mount Etna, Giardino Botanico, Case Santa Barbara, 1700 m (Nicolosi, Catania), 25.VI.2001, 1♂ (S. Tomarchio leg.).

Remarks: Recently recorded from Sicily by SCHMID-EGGER (2003). Widely distributed in the Palaearctic region, most common in the northern territories, it becomes rare in the southern part. Its presence in Algeria is doubtful (BITSCH & LECLERCQ 1993). It is recorded from peninsular Italy, as south as Campania.

***Crossocerus vagabundus* (PANZER 1798)**

Material examined: Mount Etna, Immacolatelle, San Gregorio di Catania (Catania), 27.VI.1996, 1♂ (S. Tomarchio leg.).

Remarks: First record for Sicily! Widespread in the Palaearctic region. It is recorded from the whole peninsular Italy, as south as Calabria. Its presence in Sicily has to be expected.

***Ectemnius cavifrons* (THOMSON 1870)**

Material examined: Mount Etna, Serra La Nave, 1730 m (Nicolosi, Catania), 7.IX.1997, 1♂ (G.F. Turrisi leg.); Mount Etna, Mounts Sartorius, 1650 m (Sant'Alfio, Catania), 13.VIII.1993, 3♂♂, 2♀♀ (G. Costa leg.); Mount Etna, Mount Baracca, 1700 m (Linguaglossa, Catania), 23.VIII.1995, 1♀ (G.F. Turrisi leg.).

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Remarks: First record for Sicily! Widespread troughout Europe and Asia, but its distribution is poorly known in the Mediterranean region. In Italy it is recorded from peninsular regions, as south as Apulia, and for Sardinia. The specimens of Mounts Sartorius were obtained from nest inside wood of *Betula aetnensis* Rafinesque, (Betulaceae), with Diptera Brachycera as hosts.

***Rhopalum clavipes* (LINNAEUS 1758)**

Material examined: Mounts Nebrodi, Biviere di Cesarò, 1270 m (Cesarò, Messina), 1♂ (G.F. Turrisi leg.); Mount Etna, Milo, 750 m, 21.VII.1998, 1♂ (G.F. Turrisi leg.); Mount Etna, Casa Pietracannone, 1100 m (Milo, Catania), 12.VII.1998, 1♂ (G.F. Turrisi leg.); 28.VIII.1996, 1♀ (G.F. Turrisi leg.).

Remarks: Recently recorded from Sicily by SCHMID-EGGER (2003). Euroasiatic, probably introduced in N-America: U.S.A. It is recorded from penisular Italy, as south as Campania.

***Rhopalum coarctatum* (SCOPOLI 1793)**

Material examined: Mounts Iblei, Vizzini river, c.da Rubalà, 320 m (Vizzini, Catania), 16.V.1999, 1♀ (G.F. Turrisi leg.).

Remarks: First record for Sicily! Euroasiatic, probably introduced in N-America. It is recorded from peninsular Italy, as south as Abruzzo.

***Cerceris ruficornis ruficornis* (FABRICIUS 1793)**

Material examined: Mount Etna, c.da Milia, 1250 m (Ragalna, Catania), 25.VII.1998, 1♂ (S. Tomarchio leg.).

Remarks: First record for Sicily! It is a species with a wide distribution in the Palaearctic region, but becomes very rare in N-Africa. It is recorded for several regions of Italy, as south as Basilicata.

***Tachysphex julliani* KOHL 1883**

Material examined: Mount Etna, Valle San Giacomo 800 m (Zafferana Etnea, Catania), 25.VI.1995, 1♀ (G.F. Turrisi leg.); Mount Etna, c.da Milia, 1250 m (Ragalna, Catania), 25.VI.2001, 1♂ (S. Tomarchio leg.).

Remarks: Recently recorded from Sicily by SCHMID-EGGER (2003). W-Palaearctic. In Italy it is known also from Tuscany and Latium.

***Tachysphex obscuripennis gibbus* KOHL 1885**

Material examined: Mount Etna, c.da Milia, 1250 m (Ragalna, Catania), 15.VIII.1995, 1♂ (S. Tomarchio leg.).

Remarks: First record for Sicily! W-Mediterranean. It is recorded from the whole Italy, including Sardinia, as south as Campania and Apulia. The sistematic status of this subspecies is currently under revision by the authors.

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***Miscophus bicolor* JURINE 1807**

Material examined: Mount Etna, c.da Milia, 1250 m (Ragalna, Catania), 25.VI.2001, 1♂ (S. Tomarchio leg.).

Remarks: First record for Sicily! Polytipic species, widely distributed in the Palaearctic region. It is recorded from the whole Italy, as south as Apulia. The specimen examined has genae covered with recumbent hairs, that might be absent.

***Nitela spinolae* LATREILLE 1809**

Material examined: Mount Etna, Giardino Botanico, Case Santa Barbara, 1700 m (Nicolosi, Catania), 25.VI.2001, 1♂ (S. Tomarchio leg.).

Remarks: First record for Sicily! Distributed in all the Europe and Turkey. It is recorded from peninsular Italy, as south as Campania, and Sardinia.

***Trypoxylon deceptorium* ANTROPOV 1991**

Material examined: Alcantara valley, Calatabiano (Catania), 4.VI.1999, 1♀ (G.F. Turrisi leg.); Piana di Catania, Simeto river, mouth (Catania), 27.VI.1992, 1♀ (G.F. Turrisi leg.); Mount Etna, Gravina di Catania, 340 m (Catania), 11.X.1991, 1♀ (G.F. Turrisi leg.); Mount Etna, Linguaglossa, c.da Salice, 550 m (Catania), 7.X.1993, 1♀ (G.F. Turrisi leg.); Mounts Iblei, Vizzini river, c.da Rubalà, 320 m (Catania), 16.V.1999, 1♀ (G.F. Turrisi leg.).

Remarks: First record for Sicily! Central and western Palaearctic, as east as Mongolia. In Italy it is recorded for Veneto, Tuscany, Latium, Abruzzo, and Sardinia.

***Trypoxylon kolazyi* KOHL 1893**

Material examined: Mount Etna, Tremestieri Etneo, 350 m (Catania), 11.VI.1994, 1♀ (G.F. Turrisi leg.); Mount Etna, San Gregorio di Catania, c.da Cerza (Catania), VI.1994, 1♀ (S. Bella leg.); Piana di Catania, Primosole (Catania), 4.VI.1995, 1♀ (G.F. Turrisi leg.).

Remarks: Recently recorded from Lampedusa Island (PAGLIANO 2003) and Sicily (SCHMID-EGGER 2003). South-European, including Turkey. Recorded from a few regions of north and central Italy, as south as Latium.

***Passaloecus corniger* SHUCKARD 1837**

Material examined: Mount Etna, slopes of Mount Maletto, 1600 m (Maletto, Catania), 28.VII.1999, 1♀ (S. Tomarchio leg.).

Remarks: First record for Sicily! Euroasiatic. It is recorded from peninsular Italy, as south as Latium.

***Passaloecus insignis* (VAN DER LINDEN 1829)**

Material examined: Mount Etna, Fossa della Nave, 1700 m (Ragalna, Catania), 10.VIII.2000, 1♂ (S. Tomarchio leg.).

Remarks: First record for Sicily! Euroasiatic, introduced in North America (Canada U.S.A.). It is recorded from peninsular Italy, as south as Abruzzo.

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***Passaloecus pictus* RIBAUT 1952**

Material examined: Mount Etna, c.da Milia, 1250 m (Ragalna, Catania), 21.VI.2000, 1♂ (S. Tomarchio leg.).

Remarks: Recently recorded from Sicily by SCHMID-EGGER (2003). S-Europe and Turkey. It is recorded from peninsular Italy, as south as Latium and Abruzzo. The specimen examined has the labium entirely brown, more or less dark, without yellowish notes, and without a V-shaped whitish spot, normally present.

***Spilomena punctatissima* BLÜTHGEN 1953**

Material examined: Mount Etna, c.da Milia, 1400 m (Ragalna, Catania), 10.VIII.1999, 1♀ (S. Tomarchio leg.).

Remarks: First record for Sicily! South-European, known only from a few Countries. In Italy it is recorded only from the extremely north regions (Piedmont, Valle d'Aosta, Lombardy, Trentino-Alto Adige, and Friuli-Venezia Giulia), so the extension of the range to the south is remarkable.

***Stigmus solskyi* MORAWITZ 1864**

Material examined: Mount Etna, Milo, 750 m (Catania), 21.VII.1998, 2♂♂ (G.F. Turrisi leg.); Mount Etna, Tremestieri Etneo, 350 m (Catania), 1.VII.1994, 2♂♂ (G.F. Turrisi leg.); 29.IX.1995, 1♂ (G.F. Turrisi leg.); Mounts Iblei, Vizzini river, c.da Rubalà, 320 m (Vizzini, Catania), 16.V.1999, 1♂ (G.F. Turrisi leg.); Mounts Iblei, Noto, Testa dell'Acqua, 600 m (Siracusa), 3.IX.1995, 1♂ (G.F. Turrisi leg.).

Remarks: Recently recorded from Sicily by SCHMID-EGGER (2003). Europe, Turkey, and Kazakhstan. It is recorded from a few regions of peninsular Italy, as south as Campania.

Remarks

Based upon the Italian checklist by NEGRISOLO (1995) and on the recent volume of "Fauna d'Italia" by PAGLIANO & NEGRISOLO (2005), the fauna of Sphecidae from Sicily includes 193 taxa (species and subspecies). After the recent update by SCHMID-EGGER (2003) this number rises to 212 taxa. In this study sixteen taxa are recorded as new for Sicily: *Ammophila campestris* LATREILLE 1809, *Astata minor* (KOHL 1885), *Astata apostata* MERCET 1910, *Cerceris ruficornis ruficornis* (FABRICIUS 1793), *Crossocerus cetratus* (SHUCKARD 1837), *Crossocerus vagabundus* (PANZER 1798), *Ectemnius cavifrons* (THOMSON 1870), *Gorytes quinquecinctus* (FABRICIUS 1793), *Miscophus bicolor* JURINE 1807, *Nitela spinolae* LATREILLE 1809, *Passaloecus corniger* SHUCKARD 1837, *Passaloecus insignis* (VAN DER LINDEN 1829), *Rhopalum coarctatum* (SCOPOLI 1793), *Spilomena punctatissima* BLÜTHGEN 1953, *Tachysphex obscuripennis gibbus* KOHL 1885, and *Trypoxylon deceptorium* ANTROPOV 1991. New data on the following seven species, recently recorded from Sicily by SCHMID-EGGER (2003), are added: *Astata gallica* DE BEAUMONT 1942, *Crossocerus podagricus* (VAN DER LINDEN 1829), *Passaloecus pictus* RIBAUT 1952, *Rhopalum clavipes* (LINNAEUS 1758), *Stigmus solskyi* MORAWITZ 1864, *Tachysphex julliani* KOHL 1883, and *Trypoxylon kolazyi* KOHL 1893.

With these new records, the fauna of Sphecidae from Sicily includes 228 taxa out of a

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total of 380 species known for Italy (NEGRISOLO 1995; PAGLIANO & NEGRISOLO 2005).

We believe that new researches on Sicilian Sphecidae, including circumsicilian Islands, could be significatively increased the number of taxa.

Zusammenfassung

Vorliegende Arbeit behandelt neue oder wenig bekannte Sphecidae-Arten für Sizilien (Italien). Von den 23 angeführten Arten sind folgende 16 neu für das Untersuchungsgebiet: *Ammophila campestris* LATREILLE 1809, *Astata minor* (KOHL 1885), *Astata apostata* MERCET 1910, *Cerceris ruficornis ruficornis* (FABRICIUS 1793), *Crossocerus cetratus* (SHUCKARD 1837), *Crossocerus vagabundus* (PANZER 1798), *Ectemnius cavifrons* (THOMSON 1870), *Gorytes quinquecinctus* (FABRICIUS 1793), *Miscophus bicolor* JURINE 1807, *Nitela spinolae* LATREILLE 1809, *Passaloecus corniger* SHUCKARD 1837, *Passaloecus insignis* (VAN DER LINDEN 1829), *Rhopalum coarctatum* (SCOPOLI 1793), *Spilomena punctatissima* BLÜTHGEN 1953, *Tachysphex obscuripennis gibbus* KOHL 1885 und *Trypoxylon deceptorium* ANTROPOV 1991. Für weitere sieben Arten wurden aktuelle Nachweise erbracht: *Astata gallica* DE BEAUMONT 1942, *Crossocerus podagricus* (VAN DER LINDEN 1829), *Passaloecus pictus* RIBAUT 1952, *Rhopalum clavipes* (LINNAEUS 1758), *Stigmus solskyi* MORAWITZ 1864, *Tachysphex julliani* KOHL 1883 und *Trypoxylon kolazyi* KOHL 1893.

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Digitale Literatur/Digital Literature

Zeitschrift/Journal: Linzer biologische Beiträge

Jahr/Year: 2006

Band/Volume: 0038_1

Autor(en)/Author(s): Tomarchio Salvatore, Turrisi Giuseppe Fabrizio

Artikel/Article: New or little known Sphecidae (Hymenoptera, Aculeata) from Sicily (Italy) 953-960