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Bibliographic summary and new records of the Brachodidae and Sesiidae of Sicily, with an updated list and some comments on the distribution of Italian species

(Lepidoptera, Cossioidea)

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In this study, we have summarised the known records of Brachodidae and Sesiidae from Sicily. One Brachodidae and 30 Sesiidae species have been recognised. New faunistic data are provided for 21 Sesiidae based on recently collected material. Three species, *Paranthrene diaphana* Dalla Torre & Strand, 1925; *Synanthedon loranthi* (Králíček, 1966), and *S. formicaeformis* (Esper, 1783), are recorded from Sicily for the first time; this is also the first Italian record for *P. diaphana*. Specimens of *Chamaesphexia thracica* Z. Laštůvka, 1983 from the Italian mainland belong to *C. staudingeri* (Failla-Tedaldi, 1890). The presence of *Bembecia sirphiformis* (Lucas, 1849) in Italy is confirmed. Details on distribution and host plants are given for each species as well as biological remarks where necessary. Species erroneously reported for Sicily are listed and commented. The zoogeography of the Sicilian species is analysed and the list of Italian species is updated.

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Introduction

This research was carried out as part of a larger project for a better understanding of the faunistics, distribution, and biogeography of the Sicilian moths (Bella et al. 1999, Russo et al. 2002, Bella & Ferrauto 2005, Bella 2008, Bella et al. 2009, Bella 2013, Bella & Karsholt 2015). Although Sicily is one of the better investigated Italian regions, knowledge of the

Brachodidae and Sesiidae must still be considered fragmentary, because they are not easily observed in their natural habitats and are only rarely collected by most of the usual collecting methods. Consequently, specimens of these families are rare in most collections, and many species are only known from a few specimens. Knowledge of the host plants of the caterpillars on the island also still has some deficiencies. Recent research by numerous projects in Sicily has

increased our knowledge of the Sesiidae with new faunistic and biological data.

One Brachodidae and 30 Sesiidae species are currently recorded for Sicily and the circumsicilian islands, with over 5 and 60 (other two species are insufficiently documented), respectively present in Italy (Parenzan & Porcelli 2007, 2008, Bąkowski et al. 2010, here published results). For the Sicilian fauna, only one endemic subspecies belonging to the genus *Pyropteron* Newman, 1832 is known.

In this paper, we update the bibliographic summary of known Sicilian species, add new faunistic data, comment on the species erroneously reported for the island and analyse the zoogeography. *Paranthrene diaphana* Dalla Torre & Strand, 1925 is reported for the first time in Italy; records of *Chamaesphacia thracica* Z. Laštůvka, 1983 from the Italian mainland belong to *C. staudingeri* (Failla-Tedaldi, 1890), and the presence of *B. sirphiformis* (Lucas, 1849) in Italy is confirmed. Moreover, three species, *P. diaphana*, *Synanthedon loranthi* (Králiček, 1966), and *S. formicaeformis* (Esper, 1783), are new from Sicily. The list of the species present in Italy is updated.

Materials and methods

This contribution was based on a study of recently collected material in Sicily, principally by the authors. The research was carried out mainly in eastern and northern Sicily. Many male specimens were attracted with various commercial sex pheromones, mainly from Pherobank Company, the Netherlands and collected with a butterfly net. Some specimens were netted on flowers or resting respectively flying near the host plant. Several specimens of both sexes were reared from larvae or pupae, which were collected with the infested parts of their host plants. Additional collection data from the provinces of Palermo and Agrigento were provided by Prof. Paolo Parenzan. Species were identified by morphology of adults and when necessary by examination of the genitalia. If not otherwise specified, specimens are stored in S. Bella's collection. To avoid repetition, the collectors' names are reported only for material not collected by the senior author.

Collection data, bibliographic sources for general and Italian distributions, occurrence in Sicily, and host plants of the larvae are included for each species. The overall distributional data for all species follow Špaňenka et al. (1999) or Bertaccini & Fiumi (2002), with only some small unpublished corrections and additions. Species with new records for Sicily are marked with an asterisk (*).

The systematic order and nomenclature follow Laštůvka & Laštůvka (2001), with only a few changes.

Acronyms and abbreviations used in the text

Ölim	once
recte	right
DB	Daniel Bartsch leg. et coll.
GC	Giovanni Costa leg.
GFT	Giuseppe Fabrizio Turrisi leg.
PP	Paolo Parenzan leg. and coll.
AL	Aleš Laštůvka leg. and coll.
ZL	Zdeněk Laštůvka leg. and coll.
BMNH	Natural History Museum of London, United Kingdom
NHMB	Natural History Museum of Berlin, Germany
ZSM	Zoologische Staatssammlung of Munich, Germany
Di3A	Dipartimento di Agricoltura, Alimentazione e Ambiente, sez. Entomologia applicata, Università degli Studi di Catania, Italy

Collection sites

The specimens treated in this note were collected/observed in the provinces listed below. Altitude and coordinates are given for each collection site.

AGRIGENTO province

Santa Margherita Belice, 30 m a.s.l., 37°40'N, 12°58' E.

CATANIA province (volcano Etna)

Acì Sant' Antonio, Santa Maria La Stella, loc. Boschetto, 355 m a.s.l., 37°37'N, 15°07' E.

Adrano, Giardino Botanico Etneo to Rifugio Galvarina, 1800–1900 m a.s.l., 37°43'N, 14°57' E.

Belpasso, Monte San Leo, 1046 m a.s.l., 37°39'N, 14°59' E.

Bronte, 625 m a.s.l., 37°48'N, 14°47' E.

Calatabiano, fiume Alcantara, 50 m a.s.l., 37°49'N, 15°

13' E.

Linguaglossa, 540 m a.s.l., 37°50'N, 15°08' E.

Maletto, contrada Fontana Murata, 1000 m a.s.l., 37°49'N, 14°52' E.

Mascalucia, Bosco Massa Annunziata, 520 m a.s.l., 37°35'N, 15°02' E.

Nicolosi, Rifugio Sapienza, 1930 m a.s.l., 37°42'N, 14°59' E.

Ragalna, loc. Milia, 1326 m a.s.l., 37°40'N, 14°56' E.

San Gregorio di Catania, contrada Cerza, 130 m a.s.l., 37°32'N, 15°06' E.

San Gregorio di Catania, Immacolatelle e Micio Conti, 290 m a.s.l., 37°33'N, 15°06' E.

Zafferana Etnea, Valle San Giacomo, 744 m a.s.l., 37°42'N, 15°05' E.

Zafferana Etnea, Vallone degli Zappini, 1390 m a.s.l., 37°42'N, 15°03' E.

CATANIA province (plain)

Catania, contrada Primosole, loc. Collinetta Vaccarizzo, 60 m a.s.l., 37°22'N, 15°03' E.

Catania, fiume Simeto, contrada Torre Allegra, 5 m a.s.l., 37°24'N, 15°04'E.

Belpasso, contrada Fiumazzo, 1046 m a.s.l., 37°27'N, 14°54'E.

Mazzarrone (no other data).

Motta Sant'Anastasia, 70 m a.s.l., 37°30'N, 14°53'E.

Ramacca, loc. Libertinia, 188 m a.s.l., 37°32'N, 14°34'E.

MESSINA province

Capizzi, loc. Portella dell'Obolo, 1300 m a.s.l., 37°53'N, 14°30'E.

Isole Eolie, Lipari, loc. Piano Conte, 310 m a.s.l., 38°28'N, 14°55'E.

PALERMO province

Alia, Portella Incatena, 680 m a.s.l., 37°46'N, 13°45'E.

Balestrate, 40 m a.s.l., 38°02'N, 12°59'E.

Caltavuturo, 500 m a.s.l., 37°49'N, 13°52'E.

Castelbuono, loc. Cozzo Luminario, 1350 m a.s.l., 37°53'N, 14°04'E.

Castelbuono, Monte Ferro, 1450 m a.s.l., 37°53'N, 14°03'E.

Casteldaccia, loc. Valle Corvo, 345 m a.s.l., 37°56'N, 13°59'E.

Castronovo, Lago Fanaco, 630 m a.s.l., 37°40'N, 13°33'E.

Corleone (9 km S), 800 m a.s.l., 37°45'N, 13°34'E.

Giacalone, 650 m a.s.l., 38°01'N, 13°14'E.

Isnello (2 km S), 800 m a.s.l., 37°55'N, 14°00'E.

Isnello, loc. Piano Battaglia, 1600–1800 m a.s.l., 37°52'N, 14°01'E.

Isnello, loc. Piano Battaglietta, 1600 m a.s.l., 37°52'N, 14°02'E.

Lercara Friddi, 630 m a.s.l., 37°44'N, 13°35'E.

Lercara Friddi (5 km SW), near Castronovo, 780 m a.s.l., 37°42'N, 13°34'E.

Palermo, loc. Parco d'Orleans, 35 m a.s.l., 38°06'N, 13°21'E.

Petralia Sottana, 1000–1100 m a.s.l. (no other data).

Piana degli Albanesi, 800 m a.s.l., 37°59'N, 13°17'E.

Polizzi Generosa (6 km S), 880 m a.s.l., 37°45'N, 13°59'E.

Polizzi Generosa, loc. Vallone Madonna degli Angeli, 1400–1500 m a.s.l., 37°50'N, 14°01'E.

Polizzi Generosa, Monte dei Cervi, 1500–1600 m a.s.l., 37°52'N, 13°58'E.

Scillato (4 km E), 340 m a.s.l., 37°49'N, 13°56'E.

Sclafani Bagni, 470 m a.s.l., 37°49'N, 13°51'E.

Trabia, Bosco Artale, 950 m a.s.l., 37°35'N, 13°59'E.

SIRACUSA province

Augusta, fiume San Leonardo (no other data).

Buccheri, Monte Santa Venere (Iblean Mts.), 600 m a.s.l., 37°09'N, 14°58'E.

Noto, Vendicari, Pantano Grande, 5 m a.s.l., 36°48'N, 15°05'E.

Sortino, fiume Anapo, contrada Fusco (Iblean Mts.), 200 m a.s.l., 37°08'N, 15°02'E.

Vizzini, fiume Vizzini, contrada Paradiso (Iblean Mts.), 510 m a.s.l., 37°08'N, 14°48'E.

List of Sicilian species and faunistic results

Brachodidae

Brachodinae

Brachodes nana (Treitschke, 1834)

Distribution. Sicily, Croatia, Albania, Greece, and Macedonia, also recorded from southern Hungary, but well documented only from Albania, Greece, and Sicily (Kallies 2013).

Host plants. Larvae probably on Poaceae.

General citations from Sicily: *Chimaera nana* was described from Sicilian specimens (Treitschke 1834); a male specimen from Sicily was deposited in the collection of the NHMB (Bertaccini & Fiumi 2002, Parenzan & Porcelli 2007).

Sesiidae

Tinthiinae, Tinthiini

**Tinthia tineiformis* (Esper, 1789)

Distribution. The species has a wide range of distribution in southern Europe; it is also present in Asia Minor, the Middle East, Iran, and northern Africa (Morocco, Algeria, and Tunisia).

Host plants. Larvae in *Convolvulus* spp. (Convolvulaceae) (Bertaccini & Fiumi 2002).

Remark. The record of *Tinthia brosisiformis* (Hübner, 1813) (*tineiformis* var. *brosisiformis*) for Sicily (Curò 1874–1880) refers to *T. tineiformis* (Parenzan & Porcelli 2007).

Sicilian records. PALERMO: Madonie, IV–VI (Minà-Palumbo & Failla-Tedaldi 1887–1889, Ragusa 1923, Mariani 1939); Monte Pellegrino, IV–VI (Kalchberg 1872, Ragusa 1923); 18.–20.V.1858 (Mann 1859); V.1881 (Gianelli 1881, Minà-Palumbo & Failla-Tedaldi 1887–1889, Ragusa 1923, Mariani 1939, de Freina 1997); Palermo (Riggio 1884); IV–VI (Ragusa 1923, de Freina 1997); Castelbuono, 1995 (Parenzan & Porcelli 2007); Ficuzza 15.–23.VI.1889 (Calberla 1889); Geraci Siculo, 1995 (Parenzan & Porcelli 2007). AGRIGENTO: Agrigento (Ölim Girgenti), 4.–5.VI.1885 (Struve 1885, Minà-Palumbo & Failla-Tedaldi 1887–1889, Ragusa 1923); Santo Stefano Quisquina, Pizzo dell'Apa, 11.VI., 17.VII.1996 (Ippolito & Parenzan 1998). MESSINA: Zappulla (Nebrodi), V.–VII. (Mariani 1939). CATANIA: Nicolosi (Etna), 3.VII. (Ragusa 1923). SIRACUSA: Convento dei Cappuccini, 14.V.1846 (Zeller 1847b); 14.V.1853 (Zeller 1854); fiume Anapo, 20–21 and 30.–31.V.1846 (Zeller 1847b); Latomie del Casale 31.V.1846 (Zeller 1847b); 23.V. 1853 (Zeller 1854); Noto (Assenza 1891); Vendicari, 8.VI., 6.VII.1997, 24.V.1998 (Bella et al. 2009); Siracusa,

VI.1853 (Zeller 1854, Minà-Palumbo & Failla-Tedaldi 1887–1889, Ragusa 1923, Mariani 1939); Sortino, 1995 (Parenzan & Porcelli 2007). **General citations from Sicily:** (Herrich-Schäffer 1845–1851, Staudinger 1856, Bellier de La Chavignerie 1861, Curò 1874–1880, 1885, Ragusa 1905, Le Cerf 1920, Mariani 1940–1943, Laštůvka 1987, 1990b, Prola & Beer 1991, Balletto et al. 1995, Karsholt & Razowski 1996, Laštůvka & Laštůvka 2001, Bertaccini & Fiumi 2002, Parenzan & Porcelli 2007).

New records. PALERMO: Balestrate 1.VIII.1997, 1 ♂ (PP); Bosco Artale 3.VII.1997, 2 ♂♂ (S. Cullotta leg., coll. PP); Parco d'Orleans 25.V.1996, 1 ♂, 19.VI.1996, 1 ♂, 17.VII.1996, 2 ♂♂ (PP); Isnello 1.VI., 1 ♂, 7.VI.2013, 2 ♂♂ (DB). CATANIA: Complesso Immacolatelle e Micio Conti 17.VI.1996, 1 ♂; contrada Fiumazzo 4.VII.2014, 1 ♂; loc. Libertinia 10.V.2015, 1 ♂; Mazzarrone 6.VII.1960, 1 ♂ (Di3A); Milia 9.VI.1996, 4 ♂♂; Santa Maria La Stella 26.V.1996, 6 ♂♂; contrada Primosole 26.V., 1 ♀, 11.VI.1996, 1 ♂ (GFT), 29.V.1997, 1 ♀; Motta Sant'Anastasia 29.V.2000, 1 ♀. SIRACUSA: fiume Anapo 18.V., 1 ♀, 15.VI., 1 ♀, 18.IX.1996, 2 ♂♂; fiume Vizzini 30.V.1999, 1 ♀; Vendicari 8.VI., 6 ♂♂, 6.VII.1997, 3 ♂♂, 24.V., 1 ♂, 21.VI.1998, 13 ♂♂, 15.V.1999, 12 ♂♂.

Sesiinae, Sesiini

Sesia apiformis (Clerck, 1759)

Distribution. Europe, the Middle East, and introduced in the USA and Canada.

Host plants. *Populus* and occasionally *Salix* spp. (Salicaceae) (Bertaccini & Fiumi 2002).

Sicilian records. PALERMO: Madonie, Castelbuono, in poplar grove, VII. (Minà-Palumbo & Failla-Tedaldi 1887–1889, Bartel 1902, Ragusa 1923, Mariani 1939, Prola & Beer 1991). **General citations from Sicily:** (Ragusa 1905, Mariani 1940–1943, Laštůvka 1990b, Balletto et al. 1995, Karsholt & Razowski 1996, de Freina 1997, Laštůvka & Laštůvka 2001, Parenzan & Porcelli 2007).

**Eusphacia melanocephala* (Dalman, 1816)

Distribution. Europe, especially northern and central parts, northern Turkey, Russia, and eastern Kazakhstan; probably a eurosiberian distribution.

Host plant. Monophagous on *Populus tremula* (Bertaccini & Fiumi 2002).

Sicilian records. CATANIA: Zafferana Etnea, VII.1957 (Bertaccini & Fiumi 2002). **General citations from Sicily:** (Parenzan & Porcelli 2007). The southern-most record of this species.

New record. CATANIA: Vallone degli Zappini 3.VI.2013 (2 larval galleries in *Populus tremula*) (DB).

Sesiinae, Paranthrenini

**Paranthrene tabaniformis* (Rottenburg, 1775)

Distribution. The species has a wide transpalaeartic distribution; it is also present in the Nearctic region.

Host plants. *Populus* spp., occasionally *Salix* spp., and *Hippophae rhamnoides*. *P. tabaniformis* is a principal xylophagous insect pest in poplar nurseries and young plantations in southern and central Europe.

Sicilian records. TRAPANI: Gibellina (De Stefani Perez 1901); Salaparuta, fiume Belice, larva on *Salix*, VI.1994 (Parenzan & Porcelli 2007); Santa Ninfa (De Stefani Perez 1901). PALERMO: Balestrate and Castelvetro (De Stefani Perez 1901); Ficuzza, V. and VII. (Ragusa 1923); Ficuzza, Lupo (recte Bivio Lupo) (var. *rhingi-aeformis*) V. and VII.1903 (Ragusa 1904); Godrano (De Stefani Perez 1901); Palermo, VI. (Mariani 1939); Piana degli Albanesi, 23.V.1995, 23.VI.1996, (Parenzan & Porcelli 2007); Termini Imerese, larvae on *Populus nigra* (De Stefani Perez 1901); Valle Del Paradiso, 25.VI. (Ragusa 1923); Zucco (De Stefani Perez 1901). AGRIGENTO: Filaga, larva on *Populus*, 16.–23.V.1995 (Parenzan & Porcelli 2007). MESSINA: Francavilla di Sicilia (Bertaccini & Fiumi 2002); Isole Eolie, Lipari 7.VI.1997 (Parenzan & Porcelli 2007). CATANIA: Adrano (Bertaccini & Fiumi 2002); Catania, larva on *Populus*, VII.1889 (Ragusa 1889, 1904); Catania, Cimitero, VII. (Ragusa 1923); Salto del Cane (Etna) (Bertaccini & Fiumi 2002). SIRACUSA: Cassaro (Bertaccini & Fiumi 2002). **General citations from Sicily:** (Ragusa 1905, Bartel 1912, Le Cerf 1920, Mariani 1940–1943, Laštůvka 1990b, Prola & Beer 1991, Balletto et al. 1995, Karsholt & Razowski 1996, Laštůvka & Laštůvka 2001, Parenzan & Porcelli 2007).

New records. MESSINA: Isole Eolie, Lipari 7.VI.1997, 1 ♂ (GFT). SIRACUSA: fiume Anapo 15.VI.1996, 1 ♀. PALERMO: Portella Incatena 6.VI.2013, 3 ♂♂ (DB).

Paranthrene insolita polonica Schnaider, 1939

Distribution. *Paranthrene insolita* Le Cerf, 1914 is broadly distributed in central and southern parts of Europe and in the Middle East, subspecies *polonica* in western, central and eastern Europe, in Italy and in the Balkans.

Host plants. *Quercus* spp.

Sicilian records. PALERMO: Castelbuono 10.VI.1995 (Bertaccini & Fiumi 2002, Pinzari & Prola 2003). **General citations from Sicily:** (Laštůvka & Laštůvka 2001, Parenzan & Porcelli 2007).

**Paranthrene diaphana* Dalla Torre & Strand, 1925

Distribution. Bosnia and Herzegovina, Serbia, Macedonia, Bulgaria, Turkey, Syria, and Iran.



Fig. 1. *Paranthrene diaphana*. Female, Sicily (Palermo, Ficuzza), 17.VI.2000.

Host plants. *Salix* spp. (*Salix alba*), and *Populus* spp. (*Populus alba*).

New records. PALERMO: Ficuzza 17.VI.2000, 1 ♀, on leaves of *Salix* sp. (AL & ZL).

New species for Sicily and Italy.

Sesiinae, Synanthedonini

****Synanthedon formicaeformis* (Esper, 1783)**

Distribution. Species with wide eurosiberian (or even holarctic) distribution.

Host plants. *Salix* spp. (Salicaceae).

General citations from Sicily: (Ragusa 1905); V.-VI. 1906 (Mayer 1909). Incorrect determination (Parenzan & Porcelli 2007).

New record. MESSINA: Portella dell'Obolo 11.V.2007 (larvae/pupae in *Salix* sp., 1 ♀, 1 ♂ emerged 25.V.2007) (DB).

First reliable record for Sicily.

****Synanthedon myopaeformis cruentata* (Mann, 1859)**

Distribution. The area of *Synanthedon myopaeformis* (Borkhausen, 1789) extends from central and southern Europe through the Middle East to Egypt. It is introduced in the Canary Islands and probably also in Central Asia (Spatenka & Kallies 2006). Subspecies *cruentata* occurs in southern Italy, Sicily, and Malta.

Host plants. Larvae on *Malus*, *Cydonia oblonga*, *Sorbus*, *Crataegus*, and *Pyrus* (Bertaccini & Fiumi 2002).

Remarks. *Sesia cruentata* was described from a male specimen from Valle Palla-Gutta (recte Valle Corta, Palermo) VI.1858 (Mann 1859). *S. cr. ab. lugubris* (Ragusa, 1923) was described from specimens from Catania; it is only an intrasubspecific taxon.

Sicilian records. PALERMO: Valle Corta (recte Valle Palla-Gutta) (Mann 1859, Curò 1874-1880, 1885, Laštůvka 1990b, de Freina 1997, Parenzan & Porcelli 2008); Barraca (Mts. Madonie), V.-VI. (Minà-Palumbo & Failla-Tedaldi 1887-1889, Bartel 1902); Castelbuono 15.-19. VI.1885 (Struve 1885); Ficuzza (Ragusa 1923); Madonie V.-VII. (Minà-Palumbo & Failla-Tedaldi 1887-1889, Bartel 1902, Perlini 1905, Ragusa 1923, Mariani 1939); Palermo 7.VII.1885 (Ragusa 1885); Palermo (Minà-Palumbo & Failla-Tedaldi 1887-1889, Bartel 1902, Perlini

1905, Mariani 1939, Laštůvka & Laštůvka 1995); 1914 (de Freina 1997); San Guglielmo (Madonie), V.-VI. (Failla-Tedaldi 1880, Ragusa 1882); VI.1885 (Ragusa 1885); Trabia, Petralia and Ventimiglia (recte Ventimiglia di Sicilia) (Bertaccini & Fiumi 2002). CALTANISSETTA: Babaurra (Prola & Beer 1991). MESSINA: Monte Soro and San Fratello (Bertaccini & Fiumi 2002). CATANIA: Catania (as *Sesia cr. ab. lugubris*) (Ragusa 1923); Catania and surrounding, 1839 (as *mutillaeformis* Laspeyres, 1801) (Ghilian 1842, Minà-Palumbo & Failla-Tedaldi 1887-1889, Bartel 1902); V.1884 (Ragusa 1885, Minà-Palumbo & Failla-Tedaldi 1887-1889, Bartel 1902, Perlini 1905, Ragusa 1923, Mariani 1939); 1.VI.1932 (de Freina 1997); 20.IX.1940 (Bertaccini & Fiumi 2002); Cassone, Francavilla, Monte Arso, Pedara, and Ragalna (Etna) (as *typhiaeformis* ssp. *cruentata*) (Bertaccini & Fiumi 2002); Monte Arso 19-20.VI.1995 (de Freina 1997). **General citations from Sicily:** (Curò 1874-1880, 1885, Staudinger 1901, Perlini 1903-1904, Ragusa 1905, Krausse 1907, Pionneau 1908-1909, Bartel 1912, Caffi 1938, Mariani 1940-1943, Karsholt & Razowski 1996, de Freina 1997, Laštůvka & Laštůvka 2001, Parenzan & Porcelli 2007).

New records. PALERMO: Miliuni 17.VI. (coll. Luigi Failla-Tedaldi) (as *typhiaeformis typhiaeformis* Borkhausen, 1789); Lago Fanaco 6.VI.2013, 1 ♂ (DB). MESSINA: fiume Alcantara 13.VI.2000, 1 ♀ (GFT). CATANIA: contrada Cerza 26.VI.1998, 1 ♂; Monte Arso 1995 (ZL).

****Synanthedon vespiformis* (Linnaeus, 1761)**

Distribution. Europe and the Middle East.

Host plants. Polyphagous species mostly on deciduous trees, with a preference for *Quercus*.

Sicilian records. PALERMO: Ficuzza, 16.VII., 20.VIII., IX. (Ragusa 1923); Lupo (recte Bivio Lupo), V., and Madonie, VII. (Ragusa 1923); Madonie, V.-VI. (as *asiliformis*) (Minà-Palumbo & Failla-Tedaldi 1887-1889); Palermo (as *asiliformis*) (Riggio 1884); San Guglielmo (Madonie), VI. (Ragusa 1923). CATANIA: Maletto (recte Monte Maletto) (Etna), 29.VI.1997 (Parenzan & Porcelli 2007); Bonaccorsi (recte Aci Bonaccorsi), larvae on almond (*Prunus dulcis*) (Parenzan & Porcelli 2007). SIRACUSA: Noto (Parenzan & Porcelli 2007). **General citations from Sicily:** (Curò 1859, 1874-1880, 1885, Bellier de La Chavignerie 1861, Ragusa 1905, Caffi 1938, Mariani 1939, 1940-1943, Laštůvka 1990b, Balletto et al. 1995, Karsholt & Razowski 1996, Laštůvka & Laštůvka 2001, Parenzan & Porcelli 2007).

New records. CATANIA: Fontana Murata 29.VI.1997, 1 ♂ (GFT); Torre Allegra 26.V.1999, 1 ♀.

***Synanthedon conopiformis* (Esper, 1782)**

Distribution. Central and southern parts of Europe; the Middle East.

Host plants. Larvae on *Quercus* spp. (Špatenka et al. 1999).

Sicilian records. PALERMO: Castelbuono (Madonie), V (Ragusa 1923, Prola & Beer 1991); 5.VI.2001 (Bertaccini & Fiumi 2002). **General citations from Sicily:** (Bartel 1912, Laštůvka 1990b, Balletto et al. 1995, Karsholt & Razowski 1996, Laštůvka & Laštůvka 2001, Parenzan & Porcelli 2007).

****Synanthedon spuleri* (Fuchs, 1908)**

Distribution. Central, partly southern Europe; the Middle East.

Host plants. Polyphagous larvae, especially on *Carpinus betulus*, *Corylus avellana*, *Juniperus communis*, *Quercus*, *Ulmus*, *Acer*, *Fagus sylvatica*, *Salix*, and *Pyrus* (Bertaccini & Fiumi 2002).

Sicilian records. PALERMO: Ficuzza, V.-VI. (Minà-Palumbo & Failla-Tedaldi 1887-1889, Ragusa 1923, Mariani 1939); Madonie, 1.-27.VII.1889 (Calberla 1889, Minà-Palumbo & Failla-Tedaldi 1887-1889, Ragusa 1923, Mariani 1939); Monreale (Minà-Palumbo & Failla-Tedaldi 1887-1889, Ragusa 1923); Monte San Salvatore, VI (Mariani 1939); Palermo (Riggio 1884, Minà-Palumbo & Failla-Tedaldi 1887-1889, Ragusa 1923, Mariani 1937); Piano Battaglia (Madonie), 2.VI.1994 (Bertaccini & Fiumi 2002). CATANIA: Rifugio Citelli (Etna) (Prola & Beer 1991). **General citations from Sicily:** (Bellier de La Chavignerie 1861, Curò 1874-1880, 1885, Ragusa 1905); V.-IX. (Ragusa 1923, Samoggia 1933, Mariani 1940-1943, Laštůvka 1990b, Balletto et al. 1995, Karsholt & Razowski 1996, de Freina 1997, Laštůvka & Laštůvka 2001, Parenzan & Porcelli 2007).

New records. CATANIA: Linguaglossa 9.VI.1997, 2 ♂♂; 25.V.1998, 1 ♂, 1 ♀ (all specimens were caught on flowers of *Ligustrum japonicum*) (GC). PALERMO: Madonie (Piano Battaglia), 2 ♂♂ (det. Mario Mariani, confirmed by ZL).

****Synanthedon lorantheri* (Králíček, 1966)**

Distribution. Central and southern parts of Europe; northern Italy. Not yet known from central and southern Italy.

Host plant. Larvae on *Viscum album* and *Loranthus europaeus* (Loranthaceae) on various trees (Králíček 1966).

New record. PALERMO: Isnello 7.VI.2013, 1 ♂ (pupa in *Viscum album* on *Quercus*, emerged 11.VI.) (DB).

New species for Sicily.

****Bembecia hymenopteriformis* (Bellier, 1860)**

Distribution. Europe (southern Spain, Italy and Sicily) and northern Africa.

Host plants. *Lotus* spp. and *Anthyllis vulneraria* (Fabaceae) (Bertaccini & Fiumi 2002).

Remarks. *Sesia hymenopteriformis* is described from specimens of Monte Cuccio (Palermo), 22.VII.1859 (Bellier de La Chavignerie 1860). Other described taxa are *Dipsosphesia hymenopteriformis* var. *lucicornis* from specimens of Zappulla (Nebrodi), V.–VI., IX.–X. (Mariani 1937) and *D. hymenopteriformis* ab. *fulvosororcula* from specimens of Zappulla, VI. (Zukowsky 1936).

Sicilian records. TRAPANI: Isola di Pantelleria, Tracino, Cala di Levante, Lago di Venere 7.–13.IX.1995 (de Freina 1997, Aistleitner & Aistleitner 1998); Pelagie, Isola di Lampedusa, Cala Pisana 26.V.1997 (Aistleitner & Aistleitner 2001). PALERMO: Monte Cuccio VII.1859 (Bellier de La Chavignerie 1861, Curò 1874–1880, 1885, Perlini 1905, Le Cerf 1922, Ragusa 1923, Prola & Beer 1991); VI. (Minà-Palumbo & Failla-Tedaldi 1887–1889, Mariani 1939); mounts near Palermo 22.VII.1859 (Ragusa 1923, Prola & Beer 1991, de Freina 1997); Monti Madonie (de Freina 1997); Piana degli Albanesi (Bertaccini & Fiumi 2002); VI.1995 (Pinzari & Prola 2003). AGRIGENTO: San Leone, 1.VI.1993 (de Freina 1997). MESSINA: Francavilla di Sicilia (Pinzari & Prola 2003); Zappulla, 5.IX.1934 (Mariani 1939, Špatenka 1992, de Freina 1997). SIRACUSA: Sortino, 17.VI.1995, 22.VI.2000 (Bertaccini & Fiumi 2002, Pinzari & Prola 2003). **General citations from Sicily:** (Boisduval 1875, Staudinger 1901, Perlini 1903–1904, Ragusa 1905, Krausse 1907); VII. (Pionneau 1908–1909, Bartel 1912, Mariani 1940–1943, 1957, Zangheri 1968, Balletto et al. 1995, Karsholt & Razowski 1996, Laštůvka & Laštůvka 2001, Parenzan & Porcelli 2007).

New records. PALERMO: Lago Fanaco 6.VI.2013 (larva in *Anthyllis vulneraria*, 1 ♀ emerged 26.VII.2013); Polizzi Generosa 15.V.2007 (larva in *A. vulneraria*, 1 ♂ emerged 3.VII.2007) (DB). SIRACUSA: fiume Anapo 16.VI.1996, 1 ♂; 7.VII.1997, 1 ♂; 13.VII.1998, 1 ♂; Monte Santa Venere 19.V.2007 (larvae in *A. vulneraria*, 9 ♂♂, 9 ♀♀ emerged 18.VI.–1.VIII.2007) (DB).

****Bembecia ichneumoniformis***
(Denis & Schiffermüller, 1775)

Distribution. The species has a wide western Palaearctic distribution.

Host plants. *Lotus*, *Anthyllis*, *Dorycnium*, *Hippocrepis*, *Tetragonolobus* spp. (Fabaceae) (Špatenka & Laštůvka 1990, Bertaccini & Fiumi 2002).

Remark. The old records of this species require confirmation. They may well belong to *Bembecia sirphiformis* or *B. albanensis*, which was previously unknown or ignored.

Sicilian records. PALERMO: Palermo (Riggio 1884); VI. (Minà-Palumbo & Failla-Tedaldi 1887–1889, Ragusa 1923); Parco della Favorita, V.1881 (Gianelli 1881); VI. (Minà-Palumbo & Failla-Tedaldi 1887–1889). MESSINA: Zappulla (Nebrodi) (Prola & Beer 1991); 11.IX.1934 (de Freina 1997). CATANIA: Catania, 1839 (Ghiliani

1842); VI. (Minà-Palumbo & Failla-Tedaldi 1887–1889, Ragusa 1923). **General citations from Sicily:** (Bellier de La Chavignerie 1861, Curò 1874–1880, 1885, Ragusa 1905, Mariani 1939, Laštůvka 1990b, Prola & Beer 1991, Balletto et al. 1995, Karsholt & Razowski 1996, de Freina 1997, Laštůvka & Laštůvka 2001, Parenzan & Porcelli 2007).

New records. SIRACUSA: fiume Anapo 21.VII.1996, 1 ♀; 15.IX.1996, 1 ♂; 7.VII.1997, 1 ♂.

****Bembecia albanensis* (Rebel, 1918)**

Distribution. Central, southern and eastern parts of Europe and Asia Minor.

Host plants. *Ononis spinosa* (= *O. repens*) and *Bituminaria bituminosa* (Špatenka & Laštůvka 1990, Laštůvka & Laštůvka 2001).

Remark. We consider *Bembecia albanensis* and *B. sirphiformis* as two distinct species, which sympatrically occur in Sicily (and very likely in southern Italy). They can be well separated by their morphology, ecology and DNA (“Barcode” = 658 base pair sequences of mitochondrial COX1 gene). The genitalia of both sexes, particularly the crista sacculi in males and the ostium bursae in females, show small but well recognisable differences (Bartsch 2012). Specimens of *B. albanensis* recorded as *B. a. tunetana* from Sardinia (Bertaccini & Fiumi 2002) do not belong to *B. sirphiformis*; they differ distinctly in barcode, genital structure, and host plant(s). Old records of both species and of *B. ichneumoniformis* require revision, with the exception of specimens reared from early instars and with records of the host plant.

Sicilian records. PALERMO: Castelbuono and Gangi (Bertaccini & Fiumi 2002); Piana degli Albanesi, 23.VI.1996 (Parenzan & Porcelli 2007). MESSINA: Francavilla, Mandanici and San Fratello (Bertaccini & Fiumi 2002). SIRACUSA: Sortino (Bertaccini & Fiumi 2002). **General citations from Sicily:** (Laštůvka & Laštůvka 1995, 2001, Karsholt & Razowski 1996, de Freina 1997, Parenzan & Porcelli 2007).

New records. PALERMO: Valle di San Nicola 15.V.2007 (larvae in roots of *Bituminaria bituminosa*, 3 ♂♂, 8 ♀♀ emerged 4.VI.–24.VII.2007); Campofelice di Roccella 30.V.2013 (larvae in roots of *B. bituminosa*, 2 ♂♂ emerged 9 and 22.VIII.2013) (DB).

***Bembecia sirphiformis* (Lucas, 1849)**
(= *B. tunetana* Le Cerf, 1920)

Distribution. Sicily and northern Africa (Algeria and Tunisia).

Host plant. *Hedysarum coronarium* (Fabaceae) (Le Cerf 1920, Bartsch 2012).

Remark. Comparison of the newly investigated specimens of *Bembecia sirphiformis* with those typical from Tunisia confirms the conspecificity of both populations. The relationship with the Malta population requires further investigation. Specimens of *B. sirphiformis* from Morocco, erroneously listed by Bartsch (2012), belong to *B. handiensis* Rämisch, 1997.

Sicilian records. TRAPANI: Salemi (as *albanensis*) (Bertaccini & Fiumi 2002) [reared from *Hedysarum coronarium*]. PALERMO: Principato near Petralia Soprana (larva in roots of *H. coronarium*) (De Stefani Perez 1910).

New records. PALERMO: Corleone 31.V.2013 (larvae in roots of *H. coronarium*, 3 ♂♂, 4 ♂♂ emerged 30.VI.-14.VII.2013); Lercara Friddi 16.V.2007 (larvae in roots of *H. coronarium*, 3 ♂♂, 3 ♂♂ emerged 27.V.-30.VI.2013); Castronovo 3.VI.2013 (larvae in roots of *H. coronarium*, 8 ♂♂, 7 ♂♂ emerged 9.VI.-17.VII.2013) (DB); Petralia Sottana 17.VI.2000 (larvae in roots of *H. coronarium*), 4 ♂♂, 3 ♂♂ emerged VII.2000 (ZL).

Bembecia flavida (Oberthür, 1890)

Distribution. Sicily and Northern Africa (Morocco and Algeria).

Host plants. *Ononis natrix*, *O. repens* and *Medicago suffruticosa* (Fabaceae) (Bläsius & Bartsch, unpublished). Records of *Anthyllis vulneraria* and *Lotus* spp. by Bertaccini & Fiumi (2002) are a misinterpretation of the listing by Laštůvka & Laštůvka (2001), which explicitly stated “host plant unknown”.

Sicilian records. SIRACUSA: Sortino, 16.-18.VI.1995 (de Freina 1997, Pinzari & Prola 2003); 1995 and 2000 (Laštůvka & Laštůvka 2001); Pedagoggi, Monte Santa Venere, VI.2000, 13.-15.VI.2001 (Bertaccini & Fiumi 2002). **General citations from Sicily:** (Karsholt & Razowski 1996, Parenzan & Porcelli 2007).

**Bembecia uroceriformis* (Treitschke, 1834)

Distribution. Europe (Balearic Is., Portugal, Spain, France, Corsica, Switzerland, Italy, Sardinia, Sicily, Slovenia, Croatia, Albania, Greece, Crete, Turkey, Hungary, Romania, Bosnia and Herzegovina, former Yugoslavia, Slovakia, Macedonia, and Russia), and northern Africa (Morocco).

Host plants. Fabaceae shrubs and subshrubs: *Cytisus procumbens*, *Chamaecytisus hirsutus*, *Ulex europaeus*, *Spartium junceum*, *Genista* spp., *Calicotome* spp., and *Hippocrepis* (= *Coronilla*) *emerus*.

Remarks. *Sesia mamertina* (synonym of *S. uroceriformis*) is described from one male specimen from Messina: Castellaccio 22.VII.1846 (Zeller 1847b). *Dipsosphesia uroceriformis* var. *nigricornis* is described from specimens from Zappulla (Nebrodi) V-VI, IX-X (Mariani 1937).

Sicilian records. PALERMO: Aquileia (Madonie), VI. (Minà-Palumbo & Failla-Tedaldi 1887-1889); 1.VII. (Ragusa 1923); Bocca di Falco (recte Boccadifalco), VI.1859 (Bellier de La Chavignerie 1861, Minà-Palumbo & Failla-Tedaldi 1887-1889, Ragusa 1923); Castelbuono 1.-27.VII.1889 (Calberla 1889); Gerace (recte Monte Gerace) and Palermo, VII. (Ragusa 1923); Petralia Sottana, near Imera stream 24.VIII.1938 (Schwingenschuss 1942). CALTANISSETTA: Caltanissetta (Prola & Beer 1991). MESSINA: Messina, Castellaccio (as *mamertina*) (Speyer & Speyer 1858, Curò 1874-1880, 1885, Minà-Palumbo & Failla-Tedaldi 1887-1889, Bartel 1912, Špatenka 1992, Parenzan & Porcelli 2008); Buon Ritiro, VII. (Zeller 1854, Ragusa 1923); Francavilla, 26.VI.2000 (Bertaccini & Fiumi 2002); Messina, Castellaccio (as *mamertina*), 20.IV.-22.VII. (Zeller 1847b, 1854; Ragusa 1923); Zappulla (Nebrodi) (as *nigricornis*), V-VI, IX-X (Mariani 1939). CATANIA: Pedara (Etna) (Prola & Beer 1991); Randazzo (Etna) (Bertaccini & Fiumi 2002). SIRACUSA: Sortino (Bertaccini & Fiumi 2002). **General citations from Sicily:** (Staudinger 1856, 1901, Ragusa 1905, Pionneau 1908-1909, Mariani 1940-1943, Laštůvka 1990b, Balletto et al. 1995, Karsholt & Razowski 1996, de Freina 1997, Laštůvka & Laštůvka 2001, Parenzan & Porcelli 2007).

New records. CATANIA: Santa Maria La Stella 7.VII.1996, 1 ♂; Milia 17.VII.1997, 1 ♀ (GFT).

**Pyropteron chrysidiforme siculum* Le Cerf, 1922

Distribution. *Pyropteron chrysidiforme* Esper, 1782 is a western European species; subspecies *siculum* occurs in Sicily and southern half of Italy (up to Romagna).

Host plants. *Rumex* spp. (Polygonaceae).

Remarks. *Pyropteron chrysidiforme* var. *siculum* and *P. ch. siculum* ab. *melanoxanthia* have been described from Sicily (Le Cerf 1922), similarly as *P. ch. ab. foeniformoides* (Ragusa 1923); the ab. *albotarsata* Rebel (recte Staudinger), 1901 is reported by Bartel (1912) from Sicily, but it is a damaged specimen of *P. ch. siculum* ab. *melanoxanthia* Le Cerf, 1922 (Ragusa 1923). *P. siculum* was considered a separate species by Špatenka (1992), Balletto et al. (1995), and Laštůvka & Laštůvka (1995). At present, *P. siculum* is usually considered a subspecies of *P. chrysidiforme* (Laštůvka & Laštůvka 2001, Parenzan & Porcelli 2007, Pühringer 2015). *P. chrysidiforme* is a highly variable species; *P. ch. siculum* differs only by the 2 white-bordered abdominal tergites and by minor characters of the genitalia.

Sicilian records. TRAPANI: Trapani, V., VI., VIII. (Mariani 1939). PALERMO: Busambra, 15.VI.-27.VII.1889 (Calberla 1889); Caronia, Moglia, Medda, and Castelbuono (Calberla 1889); VI.1889 (Laštůvka, 1990a); 10.-11.VI.1995 (de Freina 1997, Parenzan & Porcelli 2007); Castelbuono, Ponte Nocilla, 10.VI.1982 (Laštůvka et al., 1990); Corleone, 15.VI.-27.VII.1889

(Calberla 1889); Ficuzza, 15.VI.–27.VII.1889 (Calberla 1889); Gangi, 1995 (Parenzan & Porcelli 2007); Geraci, 15.VI.–27.VII.1889 (Calberla 1889); Madonie, 1859 (Bellier de La Chavignerie 1861); V.–VII. (Minà-Palumbo & Failla-Tedaldi 1887–1889, Calberla 1889, Bartel 1902); 1995 (Parenzan & Porcelli 2007); Mandanici and Monte Cuccio, 7.VI.1995 (de Freina 1997); 4.VI.2001 (Bertaccini & Fiumi 2002); Palermo, 1859 (Bellier de La Chavignerie 1861); V.–VII. (Minà-Palumbo & Failla-Tedaldi 1887–1889, Bartel 1902); Parco della Favorita, V.1881 (Gianelli 1881, Ragusa 1923); Piana degli Albanesi, 1995 (Parenzan & Porcelli 2007); Prizzi, 1995 (Parenzan & Porcelli 2007); Valle Corta (Ölim Valle Palla-Gutta), VI.1858 (Mann 1859, Bartel 1902). ENNA: Cerami and Nicosia, 1995 (Parenzan & Porcelli 2007). SIRACUSA: Sortino (Laštůvka 1990a); 1995 (Parenzan & Porcelli 2007). CATANIA: between Giarre and Taormina (Etna), 13.V.1975 (Valletta 1976); Ragalna, 30.V.1994 (de Freina 1997, Bertaccini & Fiumi 2002); Monte Arso (Etna) 1995 (Parenzan & Porcelli 2007). MESSINA: Messina (Peloritani) (Laštůvka 1990a); VII.1918 (Laštůvka et al. 1990); Mistretta (Nebrodi) (Calberla 1889); Novara (recte Novara di Sicilia), 1995 (Parenzan & Porcelli 2007); Antillo, Francavilla, and Mandanici, 1995 (Parenzan & Porcelli 2007). **General citations from Sicily:** (Staudinger 1856, Calberla 1889, Ragusa 1905); V.–VI.1906 (Mayer 1909, Mariani 1940–1943, Laštůvka 1990a, Prola & Beer 1991, Špatenka 1992, Balletto et al. 1995, Karsholt & Razowski 1996, Laštůvka & Laštůvka 2001, Parenzan & Porcelli 2007).

New records. PALERMO: Isnello 1.VI.2013, 13 ♂♂, 2.VI.2013, 9 ♂♂, 7.VI.2013, 3 ♂♂; Monte Ferro 5.VI.2013, 1 ♂; Collesano 7.VI.2013, 4 ♂♂ (DB). CATANIA: Bosco Massannunziata 10.VI.1995, 1 ♀ (GFT); Bronte 31.V.2000, 1 ♂; Milia 10.VII.1992, 2 ♂♂; 28.VI.1997, 27.VI.2000, 6 ♂♂; Linguaglossa 9.VI.1997, 1 ♂ (GC); Fontana Murata 29.VI.1997, 1 ♂ (GFT); Monte San Leo 9.VII.1992, 1 ♂. SIRACUSA: fiume Anapo 19.V.1996, 1 ♂; fiume San Leonardo 11.V.1969, 1 ♂ (Di3A); fiume Vizzini 2.V.1999, 30.V.2000, 1 ♂, 1 ♀; Monte Santa Venere 19.V.2007, 2 ♂♂ (DB).

***Pyropteron dorylifforme icteropus Zeller, 1847**

Distribution. *Pyropteron dorylifforme* (Ochsenheimer, 1808) with the nominotypical subspecies occurs in southern parts of the Iberian Peninsula and in northern Africa. Specimens from Sicily belong to ssp. *icteropus*. Records from the Italian mainland and Sardinia are questionable. Two specimens labeled “Brindisi” in coll. ZSM, illustrated by de Freina (1997), belong to the nominotypical subspecies, which is not to be expected there.

Host plants. *Rumex* spp. (Polygonaceae).

Remarks. *Sesia icteropus* has been described from specimens from Syracuse: fiume Anapo 30–31.V., *Sesia schmidtii* (unjustified emendation of *Sesia schmidtiformis* Freyer, 1836 and misidentification of the female of his *S. icteropus*) from specimens

from Syracuse: fiume Anapo 19.V., 6.VI.1846 (Zeller 1847b), and *Sesia dorylifforme* ab. *unicolor* from a female from Ficuzza: Lupò (recte Bivio Lupò – Palermo) (Ragusa 1904).

Sicilian records. TRAPANI: Salemi and Montagna Grande (Isola di Pantelleria) (Bertaccini & Fiumi 2002). PALERMO: Ficuzza, Lupò (recte Bivio Lupò) (*Sesia dorylifforme* ab. *unicolor*) (Ragusa, 1904, 1923; Le Cerf 1920); VI. (de Freina 1997); Alia, 28.VI.2000 (Bertaccini & Fiumi 2002, Parenzan & Porcelli 2007); Busambra, 15.VI.–27.VII.1889 (Calberla 1889); Campofelice di Fitalia (Bertaccini & Fiumi 2002); Caronia, Moglia, 15.VI.–27.VII.1889 (Calberla 1889); Castelbuono 15.VI.–27.VII.1889 (Calberla 1889, de Freina 1997); 1995 (Parenzan & Porcelli 2007); Castelbuono, Ponte Nocilla, 10.VI.1982 (Laštůvka et al. 1990, Bertaccini & Fiumi 2002); Corleone, 15.VI.–27.VII.1889 (Calberla 1889); Ficuzza, 28.VI.2000 (Bertaccini & Fiumi 2002); Ficuzza 15.VI.–10.VI. (Le Cerf 1920); 15.VI.–27.VII.1889 (Calberla 1889, Ragusa 1923, de Freina 1997); Gangi (Bertaccini & Fiumi 2002, Parenzan & Porcelli 2007); Geraci (Madonie), 15.VI.–27.VII.1889 (Calberla 1889); Madonie (Minà-Palumbo & Failla-Tedaldi 1887–1889); VII (Ragusa 1923, de Freina 1997); Monte Pellegrino (Mariani 1939, Prola & Beer 1991); 16.V. (de Freina 1997); Palermo, Monte Cuccio, 7.VI. (de Freina 1997); Paradiso (recte Valle Paradiso), 1.–10.V. (Le Cerf 1920, de Freina 1997); Mezzoiuso (Bertaccini & Fiumi 2002); Palermo (Riggio 1884, Minà-Palumbo & Failla-Tedaldi 1887–1889); V (Ragusa 1923, Prola & Beer 1991); VI.1903 (Laštůvka et al. 1990, de Freina 1997); Parco La Favorita, V.–VI. (Le Cerf 1920); V.–VI.1859 (Bellier de La Chavignerie 1861); 7.–14.VI.1885 (Struve 1885); V.1881 (Gianelli 1881, Minà-Palumbo & Failla-Tedaldi 1887–1889, Ragusa 1923); Passo Recattivo (recte Portella di Recattivo) (Prola & Beer 1991); Piana degli Albanesi, 14.VI.1995 (Bertaccini & Fiumi 2002, Parenzan & Porcelli 2007); Valle Corta (Ölim Valle Palla-Gutta), VI.1858 (Mann 1859). AGRIGENTO: Santo Stefano Quisquina, Pizzo dell’Apa, 11.VI.1996 (Ippolito & Parenzan 1998). CALTANISSETTA: Babaurra and Caltanissetta (Prola & Beer 1991). MESSINA: Mistretta (Nebrodi), 15.VI.–27.VII.1889 (Calberla 1889); Medda, 15.VI.–27.VII.1889 (Calberla 1889); Zappulla and Mirto, VI (Mariani 1939, Prola & Beer 1991, Bertaccini & Fiumi 2002); San Fratello, 1993 (Laštůvka & Laštůvka 1995, Bertaccini & Fiumi 2002); Messina (Peloritani), VII.1907 (Laštůvka et al. 1990, Bertaccini & Fiumi 2002); Francavilla (Bertaccini & Fiumi 2002, Parenzan & Porcelli 2007); Taormina, Cesarò and Margio Soprano (Nebrodi), VII.1974 (Bertaccini & Fiumi 2002). CATANIA: Catania, Plaia Pineta (Prola & Beer 1991); Catania, Fontanarossa, 10.V.2000 (Bertaccini & Fiumi 2002); Castiglione di Sicilia, Nicolosi, Randazzo and Milo (Etna) (Bertaccini & Fiumi 2002). SIRACUSA: Siracusa (Minà-Palumbo & Failla-Tedaldi 1887–1889, Bartel 1902, de Freina 1997); fiume Anapo, 19.–31.V., 6.VI.1846 (*Sesia schmidtii*) (Zeller 1847b, Staudinger 1856, Le Cerf 1920, Ragusa 1923); V.1853 (Zeller 1854, Ragusa 1923); Palazzolo (recte Palazzolo Acreide) (Bertaccini & Fiumi 2002); Sortino, 17.VI.1995 (Bertaccini & Fiumi 2002, Parenzan & Por-

celli 2007). RAGUSA: (Bertaccini & Fiumi 2002). **General citations from Sicily:** (Herrich-Schäffer 1845–1851, Rambur 1866, Curò 1874–1880, 1885, Boisduval 1875, Staudinger 1901, Ragusa 1905, Pionneau 1908–1909, Mayer 1909, Bartel 1912, Caffi 1938, Mariani 1939, 1940–1943, Laštůvka 1990b, Laštůvka & Laštůvka 1995, 2001, Balletto et al. 1995, Karsholt & Razowski 1996, Parenzan & Porcelli 2007).

New records. PALERMO: Giacalone 23.VI.1996 (PP); Ficuzza 16.V.2007 (larvae in roots of *Rumex obtusifolius*, 1 ♂, 4 ♀♀ emerged 6.–15.VI.2007); Lago Fanaco 6.VI.2013, 1 ♂; Sclafani Bagni 4.VI.2013, 1 ♂; Scillato 6.VI.2013, 7 ♂♂; Caltavuturo 4.VI.2013, 5 ♂♂; Collesano 7.VI.2013, 1 ♂; Monte Ferro 5.VI.2013, 1 ♂ (DB). CATANIA: fiume Simeto 3.VI.1995, 1 ♂; Valle San Giacomo 26.VI.1996, 1 ♂, 1 ♀; Bronte 31.V.2000, 2 ♂♂. SIRACUSA: fiume Anapo 18.V.1996, 1 ♂, 16.VI.1996, 1 ♂. MESSINA: fiume Alcantara 13.VI.2000, 1 ♂ (GFT).

****Pyropteron triannuliforme* (Freyer, 1843)**

Distribution. Central and eastern Europe and the eastern half of southern Europe (from SE France to the east and southeast); the Middle East.

Host plants. Larvae feed in the roots of different species of *Rumex* (Polygonaceae), occasionally on *Geranium sanguineum* (Geraniaceae).

Sicilian records. PALERMO: Palermo (Ragusa 1923). MESSINA: Mandanici (Bertaccini & Fiumi 2002). CATANIA: Mt. Etna, Montagnola (Prola & Beer 1991); Rifugio Sapienza (Bertaccini & Fiumi 2002); Randazzo (Bertaccini & Fiumi 2002, Parenzan & Porcelli 2007). **General citations from Sicily:** (Mariani 1939, 1940–1943, Wolfsberger 1971, Laštůvka 1990b, Balletto et al. 1995, Karsholt & Razowski 1996, de Freina 1997, Laštůvka & Laštůvka 2001, Parenzan & Porcelli 2007).

New records. CATANIA: Bosco Massannunziata 10.VI.1993, 1 ♀; Randazzo 1995 (ZL); Rifugio Sapienza 27.VI.2000, 1 ♂ (adult on leaves of *Rumex scutatus aetnensis*); Rifugio Galvarina 3.VI.2013 (larvae/pupae in roots of *Rumex scutatus aetnensis*, 3 ♂♂, 1 ♀ emerged 14.VI.–1.VII.2013) (DB).

****Pyropteron meriaeforme* (Boisduval, 1840)**

Distribution. SW Europe (Portugal, Spain, France, Corsica, Italy, Sardinia, and Sicily).

Host plant. *Rumex acetosella* (Polygonaceae) is the principal host plant (Bertaccini & Fiumi 2002).

Sicilian records. TRAPANI: Ummari (Bertaccini & Fiumi 2002). PALERMO: Palermo (Prola & Beer 1991); Trabia, VI. (Mariani 1939); Madonie, Monte San Salvatore, VI. (Mariani 1939); San Martino delle Scale (Prola & Beer 1991). CALTANISSETTA: Caltanissetta (Prola & Beer 1991). MESSINA: Taormina, VI.1907 (Ragusa 1908, 1923); Zappulla (Nebrodi) (Prola & Beer 1991). CATANIA: Etna, 20.VI.1907 (Ragusa 1923); slopes of

the Etna (Bertaccini & Fiumi 2002). **General citations from Sicily:** (Bartel 1912, Mariani 1940–1943, Racheli 1980, Laštůvka 1990b, Balletto et al. 1995, Karsholt & Razowski 1996, de Freina 1997, Laštůvka & Laštůvka 2001, Parenzan & Porcelli 2007).

New records. CATANIA: Milia 9.VI.1996, 4 ♂♂, 10.VII.1992, 1 ♀ (GFT); Valle San Giacomo 26.VI.1996, 2 ♂♂. SIRACUSA: fiume Anapo 15.VI.1996, 2 ♂♂.

***Pyropteron leucomelaenum* (Zeller, 1847)**

Distribution. Widespread in southern Europe; the Middle East and northern Africa.

Host plant. Larvae on *Poterium sanguisorba* (= *Sanguisorba minor*) (Rosaceae), and *Geranium sanguineum* (Geraniaceae) (Bertaccini & Fiumi 2002).

Sicilian records. PALERMO: Castelbuono (Bertaccini & Fiumi 2002); 1995 (Parenzan & Porcelli 2007); surroundings of Palermo (as f. *cyrnea* Le Cerf 1920) (Ragusa 1923, Prola & Beer 1991); Palermo, Valle di Sant' Anna, VI.1859 (Bellier de La Chavignerie 1861, Minà-Palumbo & Failla-Tedaldi 1887–1889, Ragusa 1923); Piana degli Albanesi (Bertaccini & Fiumi 2002). SIRACUSA: Pedagaggi (Bertaccini & Fiumi 2002); Siracusa (Speyer & Speyer 1858); fiume Anapo (Iblei), 30.–31.V.1846 (Zeller 1847b, Curò 1874–1880, 1885); Sortino (Bertaccini & Fiumi 2002); 1995 (Parenzan & Porcelli 2007). CALTANISSETTA: Babaurra and Caltanissetta (Prola & Beer 1991). ENNA: Capo Darso (recte Monte Capodarso) (Prola & Beer 1991). MESSINA: 1995 (Parenzan & Porcelli 2007); Francavilla di Sicilia, Novara di Sicilia, and San Fratello (Bertaccini & Fiumi 2002). CATANIA: Pedara (Etna), 1.VI.1994 (Bertaccini & Fiumi 2002). **General citations from Sicily:** (Staudinger 1856, 1901, Snellen 1862, Boisduval 1875, Ragusa 1905, Bartel 1912, Wagner 1937, Mariani 1940–1943, Laštůvka 1990b, Balletto et al. 1995, Karsholt & Razowski 1996, de Freina 1997, Laštůvka & Laštůvka 2001, Parenzan & Porcelli 2007).

****Pyropteron affine* (Staudinger, 1856)**

Distribution. Southern parts of central and southern Europe; the Middle East and northern Africa.

Host plants. *Helianthemum* spp., and *Fumana procumbens* (Cistaceae) (Bertaccini & Fiumi 2002).

Sicilian records. PALERMO: Madonie, 15.–23.VI.1889 (Calberla 1889, Ragusa 1923, Prola & Beer 1991, Bertaccini & Fiumi 2002). **General citations from Sicily:** (Ragusa 1905, Mariani 1939, 1940–1943, Balletto et al. 1995, Karsholt & Razowski 1996, de Freina 1997, Laštůvka & Laštůvka 2001, Parenzan & Porcelli 2007).

New records. PALERMO: Cozzo Luminario 5.VI.2013, 1 ♂; Monte Ferro 5.VI.2013, 1 ♂; Piano Battaglietta 30.V.2013, 1 ♂; Vallone Madonna degli Angeli 6.V.2007 (larvae in roots of *Helianthemum* sp., adults emerged 31.V. and 15.VI.2007) (DB).

**Chamaesphexia maurusia* Püngeler, 1912
(= *C. anthrax* Le Cerf, 1916)

Distribution. Portugal, Spain, Sicily, Algeria, and Morocco.

Host plants. *Nepeta* spp., in Sicily only known from *Nepeta apulei* (Lamiaceae).

Sicilian records. PALERMO: near Palermo (Špatenka et al. 1999, as *C. anthrax*); (Laštůvka & Laštůvka 2001); Piana degli Albanesi, 2.VI.1993, 13.-14.VI.1995, 4.-8.VI.2001 (Bertaccini & Fiumi 2002, Pinzari & Prola 2003).

General citations from Sicily: (Karsholt & Razowski 1996, Špatenka et al. 1996, de Freina 1997, Parenzan & Porcelli 2007).

New records. PALERMO: Isnello 7.VI.2013, 2 ♂♂; Polizzi Generosa 28.V.2013, 1 ♀, 2 ♀♀ (larvae/pupae in roots of *Nepeta apulei*, 3 ♂♂, 3 ♀♀ emerged 1.-7.VI.2013) (DB).

**Chamaesphexia aerifrons* (Zeller, 1847)

Distribution. SW central (Germany and Switzerland) and SW Europe up to Croatia, and Bosnia and Herzegovina to the east; northern Africa.

Host plants. Larvae in numerous Lamiaceae: *Origanum vulgare*, *Calamintha nepeta*, *Thymus* spp., *Satureja* spp., *Mentha* spp., *Salvia officinale*, *Hyssopus officinalis* and *Lavandula angustifolia* (= *L. vera*).

Remarks. *Sesia aerifrons* has been described from specimens caught near Syracuse: Convento dei Cappuccini, fiume Anapo and Tempio di Giove, Rio Cassibile (type), VI.1846 (Zeller 1847b).

Sicilian records. PALERMO: Castelbuono, 1995 (Parenzan & Porcelli 2007); Favorita, 7.-14.VI.1845 (Struve 1885, Ragusa 1923); Ficuzza, 15.-23.VI.1889 (Calberla 1889, Ragusa 1923); Ficuzza, Lupo (recte Bivio Lupo), VI (Ragusa 1923); Monte Cuccio, 8.VI. (de Freina 1997); Palermo (Riggio 1884); Palermo (Kalchberg 1872, de Freina 1997); Piana Degli Albanesi, 1995 (Parenzan & Porcelli 2007); Partinico and San Martino delle Scale (Prola & Beer 1991); Valle Corta (Ölim Valle Palla-Gutta), VI.1858 (Mann 1859). CALTANISSETTA: Babaurra and Caltanissetta (Prola & Beer 1991). SIRACUSA: Convento dei Cappuccini, fiume Anapo, Tempio di Giove and Rio Cassibile, VI.1846 (Zeller 1847b, Le Cerf 1920, Ragusa 1923, Laštůvka 1990b); Siracusa, V.-VI.1853 (Zeller 1854); Anapo (Iblei), V.1853 (Zeller 1854); Sortino, 1995 (Parenzan & Porcelli 2007). MESSINA: Monte Soro (Nebrodi), VII (Mariani 1939); Novara di Sicilia, 1995 (Parenzan & Porcelli 2007); Taormina (Prola & Beer 1991). **General citations from Sicily:** (Bellier de La Chavignerie 1861, Curò 1874-1880, 1885); Madonie, Nebrodi, Etna, VI. (Minà-Palumbo & Failla-Tedaldi 1887-1889, Staudinger 1901, Ragusa 1905, Mayer 1909, Bartel 1912, Wagner 1937, Caffi 1938, Mariani 1940-1943, Laštůvka 1990b, Balletto et al. 1995, Karsholt & Razowski 1996, Bertaccini & Fiumi 2002, Parenzan & Porcelli 2007).

New records. PALERMO: Isnello 2.VI.2013, 1 ♂, 7.VI.2013, 1 ♂; Sclafani Bagni 4.VI.2013, 2 ♂♂ (DB). AGRIGENTO: Santa Margherita Belice 19.VI.1996, 2 ♂♂. CATANIA: Valle San Giacomo 26.VI.1996, 4 ♂♂; Milia 9.VI.1996, 1 ♂; Santa Maria La Stella 26.V.1996, 1 ♂. SIRACUSA: fiume Anapo 18.V., 16.VI.1996, 2 ♂♂; fiume Vizzini 30.V.1999, 3 ♂♂.

**Chamaesphexia osmiaeformis*
(Herrich-Schäffer, 1848)

Distribution. Europe (Corsica, Italy, Sardinia, and Sicily) and northern Africa (Morocco, Algeria, Tunisia, and possibly Egypt).

Host plants. Larvae on different species of *Salvia* (Lamiaceae).

Remarks. *Sesia osmiaeformis* has been described from Sicilian specimens (Herrich-Schäffer 1845-1851). *Sesia stelidiformis* given from Syracuse: Magnisi Peninsula 14.V.1846, Convento dei Cappuccini, 14.V.1846 and Latomie del Casale, 28.-31.V.1846 by Zeller (1847b: (VI) 406-408) was a misidentification of *S. osmiaeformis*, still undescribed at that time.

Sicilian records. TRAPANI: Salemi and Ummari (Bertaccini & Fiumi 2002). PALERMO: Castelbuono (Bertaccini & Fiumi 2002); VI.1995 (Pinzari & Prola 2003); Ficuzza, VI. (Ragusa 1923); Madonie, V.-VI. (Minà-Palumbo & Failla-Tedaldi 1887-1889, Ragusa 1923); Monreale, VI.1858 (Mann 1859); Monte Pellegrino, V. 1881 (Gianelli 1881); V.-VI. (Minà-Palumbo & Failla-Tedaldi 1887-1889, Ragusa 1923); 28.V. (de Freina 1997); Palermo (Curò 1874-1880, 1885, Riggio 1884, Perlini 1903-1904, 1905, Prola & Beer 1991, de Freina 1997); Piana degli Albanesi, 13.-14.VI.1995 (de Freina 1997, Pinzari & Prola 2003); Prizzi (Bertaccini & Fiumi 2002); VI.1995 (Pinzari & Prola 2003); Valle Corta (Prola & Beer 1991); Vicari (Prola & Beer 1991). CALTANISSETTA: Babaurra and Caltanissetta (Prola & Beer 1991). ENNA: Capo Darso (recte Monte Capodarso) (Prola & Beer 1991). MESSINA: Francavilla (Bertaccini & Fiumi 2002); VI.1995 (Pinzari & Prola 2003). CATANIA: Monte Arso and Randazzo (Etna) (Bertaccini & Fiumi 2002). SIRACUSA: Magnisi Peninsula, 14.V.1846 (as *stelidiformis*) (Zeller 1847b); Convento dei Cappuccini, Siracusa and Latomie del Casale, 28.-31.V.1846 (as *stelidiformis*) (Zeller 1847b); Palazzolo (recte Palazzolo Acreide) (Bertaccini & Fiumi 2002); Siracusa, V.-VI.1853 (Zeller 1854, Curò 1874-1880, 1885, Perlini 1903-1904, 1905); V.-VI (Minà-Palumbo & Failla-Tedaldi 1887-1889, Ragusa 1923); V.1914 (de Freina 1997); Sortino, 22.VI.2000 (Bertaccini & Fiumi 2002); VI.1995 (Pinzari & Prola 2003). **General citations from Sicily:** (Bellier de La Chavignerie 1861, Boisduval 1875, Ragusa 1905, Krausse 1907, Pionneau 1908-1909, Bartel 1912, Wagner 1937, Mariani 1939, Balletto et al. 1995, Karsholt & Razowski 1996, de Freina 1997, Laštůvka & Laštůvka 2001, Parenzan & Porcelli 2007).



Fig. 2. *Chamaesphecia staudingeri*. Sicily (Palermo, Castelbuono), larva 9.V., imago emerged 3.VI.2007.

New records. PALERMO: Isnello 1.VI.2013, 3 ♂♂, 7.VI.2013, 1 ♂ (DB); Piana degli Albanesi 23.VI.1996, 1 ♂. SIRACUSA: fiume Anapo 19.V.1996, 7 ♂♂.

****Chamaesphecia staudingeri* (Failla-Tedaldi, 1890)**

Distribution. Endemic species from Italy.

Host plant. *Stachys germanica* ssp. *dasyanthos* (Lamiaceae) (DB).

Remarks. *Sesia staudingeri* was described from specimens from the Madonie Mts. (Failla-Tedaldi 1890). The holotype is a female and not a male (Püngeler 1891). Only 7 historical specimens (3 males and 4 females) were known for a long time. They were caught around 1900 and are kept in the Püngeler collection in the NHMB. Newly discovered specimens of *Chamaesphecia staudingeri* agree perfectly with the type series recorded as *C. thracica* from mainland Italy and western Greece, but appear stronger and more compact with broader anal tufts than the “real” *C. thracica* from Michurin, Bulgaria. Records of *C. thracica* from the Italian mainland undoubtedly belong to *C. staudingeri*.

Sicilian records. PALERMO: Madonie, Miliuni (Castelbuono) (1 ♂) and Ficuzza station (1 ♂ and 1 ♀), VI. (Failla-Tedaldi 1890, Perlini 1905, Bartel 1912, Ragusa 1923, Laštůvka 1990b, Prola & Beer 1991, Laštůvka & Laštůvka 1995, de Freina 1997, Bertaccini & Fiumi 2002). **General citations from Sicily:** (Staudinger 1901, Perlini 1903–1904, Ragusa 1905, Krausse 1907, Pionneau 1908–1909, Mariani 1939, 1940–1943, Balleto et al. 1995, Karsholt & Razowski 1996, Laštůvka & Laštůvka 2001, Parenzan & Porcelli 2007).

New records. PALERMO: Monte dei Cervi 6.V.2007 (larvae in *Stachys germanica* ssp. *dasyanthos*, 8 ♂♂, 6 ♀♀ emerged 30.V.–16.VI.2007); Cozzo Luminario 9.V.2007 (larvae in *S. germanica* ssp. *dasyanthos*, 4 ♂♂, 4 ♀♀ emerged 29.V.–5.VI.2007); Piano Battaglia 6.V.2007 (larvae in *S. germanica* ssp. *dasyanthos*, 5 ♂♂, 5 ♀♀ emerged 30.V.–17.VI.2007); Piano Battaglia 30.V.2013 (larvae in *S. germanica* ssp. *dasyanthos*, 10 ♂♂, 8 ♀♀ emerged 10.VI.–30.VI.2013), 7.VI.2013 (larvae in *S. germanica* ssp. *dasyanthos*, 13 ♂♂, 20 ♀♀ emerged 12.VI.–26.VI.2013) (DB). MESSINA: Portella dell’Obolo 11.V.2007 (2 larvae in *S. germanica* ssp. *dasyanthos*, no adults) (DB).

ged 29.V.–5.VI.2007); Piano Battaglia 6.V.2007 (larvae in *S. germanica* ssp. *dasyanthos*, 5 ♂♂, 5 ♀♀ emerged 30.V.–17.VI.2007); Piano Battaglia 30.V.2013 (larvae in *S. germanica* ssp. *dasyanthos*, 10 ♂♂, 8 ♀♀ emerged 10.VI.–30.VI.2013), 7.VI.2013 (larvae in *S. germanica* ssp. *dasyanthos*, 13 ♂♂, 20 ♀♀ emerged 12.VI.–26.VI.2013) (DB). MESSINA: Portella dell’Obolo 11.V.2007 (2 larvae in *S. germanica* ssp. *dasyanthos*, no adults) (DB).

****Chamaesphecia masariformis* (Ochsenheimer, 1808)**

Distribution. The species has a wide distribution, from SE central Europe and Italy to the east and southeast, up to the Middle East and central Asia.

Host plants. *Verbascum* spp. and *Scrophularia* spp.; in Sicily *Verbascum sinuatum* and *Scrophularia canina* (Scrophulariaceae).

Remarks. Parenzan & Porcelli (2007) erroneously reported that *Sesia loewii* [synonym of *masariformis*] was described from specimens from Sicily, Syracuse (Zeller 1847b), but it is described from Asia Minor (Zeller 1847a). Zeller (1847b) only reports: “... ein ziemlich verflrogenes Weibchen am 9. Juny [9.VI.1846] bei Syracus auf dürren, niederen Gewächsen des Kalkbodens von Acradina”.

Sicilian records. CALTANISSETTA: Babaurra and Caltanissetta (Prola & Beer 1991). ENNA: Capo Darso (recte Monte Capodarso) (Prola & Beer 1991). MESSINA: Francavilla, 1.VI.1994 (Bertaccini & Fiumi 2002); Mandanici, 13.VI.2000 (Bertaccini & Fiumi 2002). CATANIA: Pedara, Ragalna, and Randazzo (Etna), 1.VI.1994 (Bertaccini & Fiumi 2002). SIRACUSA: Acradina, 9.VI.1846 (Zeller 1847b); VI.1853 (Zeller 1854, Minà-Palumbo & Failla-Tedaldi 1887–1889, Curò 1874–1880, 1885, Mariani 1939); Acradina (nec Acrabina) (Ragusa 1923). **General citations from Sicily:** (Lederer 1853, Staudinger 1856, Speyer & Speyer 1858, Ragusa 1905, Mariani 1940–1943, Balleto et al. 1995, de Freina 1997, Laštůvka & Laštůvka 2001, Parenzan & Porcelli 2007).

New records. PALERMO: Lercara Friddi 3.VI.2013 (larvae/pupae in roots of *Verbascum sinuatum*, 2 ♂♂ emerged 2. and 5.VII.2013) (DB). ENNA: Villadoro 18.V.2007 (larva in root of *V. sinuatum*, 1 ♀ emerged 6.VI.2007) (DB). CATANIA: Vallone degli Zappini 3.VI.2013 (larva in root of *Scrophularia canina*, 1 ♀ emerged 5.VII.2013) (DB).

****Chamaesphecia anthraciformis* (Rambur, 1832)**

Distribution. Europe (Corsica, Italy, Sardinia, Sicily, and Malta) and northern Africa (Morocco, Algeria, and Tunisia).

Hostplants. Various species of *Euphorbia*: in Sicily found on *E. ceratocarpa* and *E. characias* (Euphorbiaceae).

Remarks. Repeatedly described from Sicily as *Sesia foeniformis* Herrich-Schäffer, [1846], lectotypus

(female) in coll. Kaden (BMNH), and from Corsica as *Sesia oryssiformis* Rebel, 1901.

Sicilian records. PALERMO: Castelbuono, VII. (Mariani 1939, Bertaccini & Fiumi 2002); Ficuzza, 10.VII.1888 (Ragusa 1889, 1923, Bartel 1912); Ficuzza, Cascina Reale, VII. (Perlini 1905); Godrano (Bertaccini & Fiumi 2002); Monticelli and Pedogni (recte Pedagni) (Madonie), VI. (Minà-Palumbo & Failla-Tedaldi 1887–1889, Bartel 1902, 1912); Piano della Noce and Roccazzo (Madonie), VI. (Failla-Tedaldi 1880, 1883, Minà-Palumbo & Failla-Tedaldi 1887–1889, Bartel 1902, 1912, Bertaccini & Fiumi 2002); Piana degli Albanesi, 1993 (Laštůvka & Laštůvka 1995, Bertaccini & Fiumi 2002). MESSINA: Francavilla and Novara di Sicilia, 26.VI.2000 (Bertaccini & Fiumi 2002); Mandanici, 7.VI.1995 (de Freina 1997); San Fratello, 1993 (Laštůvka & Laštůvka 1995). CATANIA: Etna, 6.VI. (Ragusa 1923, Mariani 1939); Monte Arso and Intraleo (Etna) (Bertaccini & Fiumi 2002). RAGUSA: Acate, 15.VI.1995 (de Freina 1997); Ragusa (Bertaccini & Fiumi 2002). SIRACUSA: Noto, V. (Ragusa 1889, 1923, Bartel 1912); Palazzolo (recte Palazzolo Acreide) (Bertaccini & Fiumi 2002); Siracusa (Prola & Beer 1991); 10.VI.1931 (de Freina 1997); Sortino, 17.VI.1995, 22.VI.2000 (Bertaccini & Fiumi 2002). **General citations from Sicily:** (Curò 1885, Struve 1885); (as *oryssiformis*) (Staudinger 1901, Bartel 1902, 1912, Perlini 1903–1904, Ragusa 1905, Krausse 1907, Wagner 1937, Mariani 1939, 1940–1943, Zangheri 1968, Laštůvka 1990b); (as *foeniformis*) Sicilia (Prola & Beer 1991, Balletto et al. 1995, Karsholt & Razowski 1996, de Freina 1997, Laštůvka & Laštůvka 2001, Parenzan & Porcelli 2007).

New records. PALERMO: Piana degli Albanesi 23.VI.1996, 2 ♂♂ (PP); Sclafani Bagni 4.VI.2013, 4 ♂♂; Caltavuturo 4.VI.2013, 5 ♂♂; Isnello 1.VI.2013, 2 ♂♂, 2.VI.2013, 13 ♂♂ (DB).

Taxa erroneously or equivocally reported for Sicily

Tinthia brosisiformis (Hübner, 1813)

Remark. This species is present only in eastern and southeastern Europe (Balkans), and southwestern and central Asia; the record of *Microsphaea tineiformis* var. *brosisiformis* for Sicily by Curó (1874–1880) refers to *Tinthia tineiformis* (Parenzan & Porcelli 2007).

General citations from Sicily: Sicilia (Curò 1874–1880).

Synanthedon tipuliformis (Clerck, 1759)

Remark. The “Currant Borer” has a widespread western and central Palaearctic distribution and is, together with its host plants, introduced in several world regions. For Italy, Bertaccini & Fiumi (2002) list only findings of this species in the northern parts. Citations of *S. tipuliformis* for Sicily by Parenzan & Porcelli (2007) requires confirmation, they may be confused with *S. spuleri*.

General citations from Sicily: (Bellier de La Chavignerie 1861, Curò 1874–1880, 1885, Riggio 1884, Minà-Palumbo & Failla-Tedaldi 1887–1889, Calberla 1889, Ragusa 1905, 1923, Samoggia 1933, Mariani 1939, 1940–1943, Zuccherelli 1970, Laštůvka 1990b, Karsholt & Razowski 1996).

Pyropteron muscaeforme (Esper, 1783)

Remark. Incorrect determination (Parenzan & Porcelli 2007). This species is known from central Italy. Its occurrence in Sicily is quite possible, because the host plant (*Armeria* spp.) is present.

General citations from Sicily: 1839 (Ghiliani 1842).

Chamaesphaeria chalciformis (Esper, 1804)

Remarks. “I have only a specimen with label Sicily give me by Le Cerf” (Ragusa 1923). Incorrect citation (Parenzan & Porcelli 2007). Strong doubts about its occurrence in Italy: records probably refer to *C. anthraciformis*, *C. schmidtiformis* or *P. chrysidiforme*.

General citations from Sicily: (as *chalcidiformis*) (Speyer & Speyer 1858, Curò 1874–1880, 1885, Staudinger 1901, Bartel 1902, 1912). To clear the presence in Sicily (Prola & Beer 1991, de Freina 1997).

Chamaesphaeria schmidtiformis (Freyer, 1836)

Remark. All the below records belong to *Pyropteron doryliforme*, see there (Parenzan & Porcelli 2007).

General citations from Sicily: (as *chalcidiformis* var. *schmidtii* Lederer, 1853) (Staudinger 1856, 1871, Ragusa 1905, 1923, Mariani 1939, 1940–1943); (as *chalcidiformis* var. *schmidtiformis*) (Curò 1874–1880, 1885); (as *schmidtiformis*) (Bartel 1902, 1912).

Chamaesphaeria thracica Z. Laštůvka, 1983

Remarks. Given by a misprint in Karsholt & Razowski (1996) from Sicily, but see *C. staudingeri* in the text.

Chamaesphaeria euceraeformis (Ochsenheimer, 1816)

Remark. This species is not reliably documented on the island; misidentifications of *C. osmiaeformis* in all known cases, see (Bertaccini & Fiumi 2002, Parenzan & Porcelli 2007).

Citations for Sicily: SIRACUSA: (as *stelidiformis*) Siracusa, Magnisi, 14.V. and Convento dei Cappuccini, 28.V.–VI.1846 (Zeller 1847b, Minà-Palumbo & Failla-Tedaldi 1887–1889). PALERMO: Madonie, Monte Pellegrino, V–VI (Minà-Palumbo & Failla-Tedaldi 1887–1889). **General citations from Sicily:** (as *stelidiformis*) (Mariani 1940–1943).

Zoogeographic attribution

Holarctic species: *Paranthrene tabaniformis*.

Eurosiberian species: *Eusphesia melanocephala*, *Synanthedon formicaeformis*.

European or Westpaleartic species: *Sesia apiformis*, *Paranthrene insolita*, *Synanthedon conopiformis*, *S. loranthis*, *S. spuleri*, *S. vespiformis*, *Bembecia ichneumoniformis*, *B. albanensis*, *Pyropteron affine*.

European-Turanian species: *Paranthrene diaphana*, *Pyropteron triannuliforme*, *Chamaesphesia masariiformis*.

Atlantomediterranean species (subspecies): *Pyropteron meriaeforme*, *P. chrysidiforme chrysidiforme*, *Chamaesphesia aerifrons*.

Westmediterranean species: *Bembecia hymenopteriformis*, *Chamaesphesia maurusia*, *C. osmiaeformis*, *C. anthraciformis*.

Holomediterranean species: *Tinthia tineiformis*, *Bembecia uoceriformis*, *Pyropteron leucomelaenum*.

Circumadriatic-transionic species: *Brachodes nana*.

Italian endemics: *Chamaesphesia staudingeri*.

Siculo-Maghrebic species: *Bembecia flavida*, *B. sirphiformis*.

Siculo-Appenninic + Malta: *Synanthedon myopaeformis cruentata*.

Siculo-Appenninic: *Pyropteron chrysidiforme siculum*.

Sicilian endemics: *Pyropteron doryliforme icteropus*.

Concluding considerations

Based on current knowledge, 5 species of the family Brachodidae and 60 species of the family Sesiidae are reliably known from Italy; no Brachodidae and 17 Sesiidae species are reported from Sardinia (Bertaccini & Fiumi 2002, Predovnik 2008, Kallies 2013, Laštůvka, 2013). One Brachodidae and 30 Sesiidae species are reported from Sicily. This report cites new records for 21 species of Sesiidae, with an examination of 422 specimens. *Brachodes nana*, *Paranthrene diaphana*, *Bembecia flavida*, *B. sirphiformis*, and *Chamaesphesia maurusia* are currently not known from other areas of Italy. *Paranthrene diaphana* is recorded in Sicily and Italy for the first time, *Synanthedon formicaeformis* and *S. loranthis* are new for Sicily. Occurrence of *Bembecia sirphiformis* in Sicily is confirmed. Some other species have previously been reported for the Sicilian fauna, but their presence is to be ex-

cluded (*Tinthia brosiiformis*, *Synanthedon tipuliformis*, *Pyropteron muscaeforme*, *Chamaesphesia chalciformis*, *C. schmidtiiiformis*, *C. thracica*, and *C. euceraeformis*).

Further research is required to clarify the status of more taxa, the presence/absence of others (especially those with northern African origins), and the true distribution of those known only from a few isolated locations.

Updated list of Italian Brachodidae and Sesiidae

Data on Brachodidae and Sesiidae species from mainland Italy, Sardinia and Sicily are reported in the following works: Špatenka et al. 1999, Laštůvka & Laštůvka 2001, Bertaccini & Fiumi 2002, Parenzan & Porcelli 2007, 2008, Bąkowski et al. 2010, here published records.

Published findings of *Chamaesphesia chalciformis* and *C. annellata* (Zeller, 1847) in Italy are insufficiently documented, therefore these two species are not included in the list. On the other hand, occurrence of three other species is very probable in northern Italy, viz *Synanthedon soffneri* Špatenka, 1983, *Bembecia megillaeformis* (Hübner, [1813]) and *Chamaesphesia nigrifrons* (Le Cerf, 1911) (cf., e.g. Predovnik 2001, 2005). For more precise delimitation of distribution is the Italian mainland divided into three parts (north, center and south).

Abbreviations: IN, northern Italy (up to Emilia-Romagna); IC, central Italy (from Tuscany up to Molise); IS, southern Italy (from Campania and Apulia up to Calabria); SI, Sicily; SA, Sardinia.

Brachodidae Agenjo, 1966

Brachodes Guenée, 1845

<i>pumila</i> (Ochsenheimer, 1808)	IN IC
<i>appendiculata</i> (Esper, 1783)	IN IC
<i>powelli</i> (Oberthür, 1922)	IN IS
<i>flavescens</i> (Turati, 1919)	IN IC IS
<i>nana</i> (Treitschke, 1834)	SI

Sesiidae Boisduval, 1828

Tinthiinae Le Cerf, 1917

Tinthiini Le Cerf, 1917

Tinthia Walker, [1865]

<i>tineiformis</i> (Esper, [1789])	IN IC IS SI SA
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Pennisetiini Naumann, 1971

Pennisetia Dehne, 1850

<i>hylaefiformis</i> (Laspeyres, 1801)	IN IC IS
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Sesiinae Boisduval, 1828

Sesiini Boisduval, 1828

Sesia Fabricius, 1775

<i>apiformis</i> (Clerck, 1759)	IN IC IS SI SA
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<i>bembeciformis</i> (Hübner, [1806])	IN			
Eusphacia Le Cerf, 1937				
<i>melanocephala</i> Dalman, 1816	IN		SI	
Paranthrenini Niculescu, 1964				
Paranthrene Hübner, [1819]				
<i>tabaniformis</i> (Rottensburg, 1775)	IN	IC	IS	SI SA
<i>insolita</i> Le Cerf, 1914				
<i>i. polonica</i> Schnaider, [1939]	IN	IC	IS	SI
<i>diaphana</i> Dalla Torre & Strand, 1925				SI
Synanthedonini Niculescu, 1964				
Synanthedon Hübner, [1819]				
<i>scoliaeformis</i> (Borkhausen, 1789)	IN			
<i>sphēciformis</i>	IN	IC		
([Denis & Schiffermüller], 1775)				
<i>stomoxiformis</i> (Hübner, 1790)	IN	IC		
<i>culiciformis</i> (Linnaeus, 1758)	IN	IC	IS	
<i>flaviventris</i> (Staudinger, 1883)	IN			
<i>formicaeformis</i> (Esper, 1783)	IN	IC	IS	SI
<i>polaris</i> (Staudinger, 1877)	IN			
<i>andrenaeformis</i> (Laspeyres, 1801)	IN	IC		
<i>melliniiformis</i> (Laspeyres, 1801)	IN	IC		
<i>myopaeformis</i> (Borkhausen, 1789)				
<i>m. myopaeformis</i> (Borkhausen, 1789)	IN			
<i>m. typhinaeformis</i> (Borkhausen, 1789)	IN	IC	IS	SA
<i>m. cruentata</i> (Mann, 1859)			IS	SI
<i>vespiformis</i> (Linnaeus, 1761)	IN	IC	IS	SI SA
<i>codeti</i> (Oberthür, 1881)				SA
<i>conopiformis</i> (Esper, 1782)	IN		IS	SI SA
<i>tipuliformis</i> (Clerck, 1759)	IN			
<i>spuleri</i> (Fuchs, 1908)	IN	IC	IS	SI
<i>cephiformis</i> (Ochsenheimer, 1808)	IN		IS	
<i>loranthi</i> (Králíček, 1966)	IN			SI
Bembecia Hübner, [1819]				
<i>hymenopteriformis</i> (Bellier, 1860)			IC	IS SI
<i>ichneumoniformis</i>	IN	IC	IS	SI SA
([Denis & Schiffermüller], 1775)				
<i>albanensis</i> (Rebel, 1918)	IN	IC	IS	SI SA
<i>sirphiformis</i> (Lucas, 1849)				SI
= <i>tunetana</i> (Le Cerf, 1920)				
<i>psoraleae</i> Bartsch & Bettag, 1997	IN			
<i>pavicevici</i> Toševski, 1989	IN			
<i>scopigera</i> (Scopoli, 1763)	IN	IC		
<i>iberica</i> Špatenka, 1992	IN	IC		SA
<i>astragali</i> (Joannis, 1909)	IN	IC		
<i>flavida</i> (Oberthür, 1890)				SI
<i>himmighoffeni</i> (Staudinger, 1866)	IN	IC	IS	
<i>uroceriformis</i> (Treitschke, 1834)	IN	IC	IS	SI SA
Pyropteron Newman, 1832				
<i>chrysidiforme</i> (Esper, 1782)				
<i>c. chrysidiforme</i> (Esper, 1782)	IN	IC		SA
<i>c. siculum</i> Le Cerf, 1922			IC	IS SI
<i>doryliforme</i> (Ochsenheimer, 1808)				
<i>d. icteropus</i> (Zeller, 1847)				SI

<i>triannuliforme</i> (Freyer, 1842)	IN	IS	SI	
<i>meriaeforme</i> (Boisduval, 1840)			IC	IS SI SA
<i>muscaeforme</i> (Esper, 1783)	IN	IC		
<i>leucomelaenum</i> (Zeller, 1847)	IN	IC	IS	SI SA
<i>affine</i> (Staudinger, 1856)	IN	IC	IS	SI
Chamaesphacia Spuler, 1910				
<i>mysiniiformis</i> (Boisduval, 1840)	IN			
<i>schmidtiiiformis</i> (Freyer, 1836)	IN			
<i>maurusia</i> Püngeler, 1912				SI
= <i>anthrax</i> Le Cerf, 1916				
<i>aerifrons</i> (Zeller, 1847)				
<i>a. aerifrons</i> (Zeller, 1847)	IN	IC	IS	SI
<i>a. sardoa</i> (Staudinger, 1856)				SA
<i>osmiaeformis</i> (Herrich-Schäffer, 1848)			IS	SI SA
<i>doleriiformis</i> (Herrich-Schäffer, 1846)	IN	IC	IS	
<i>dumonti</i> Le Cerf, 1922	IN	IC		
<i>staudingeri</i> (Failla-Tedaldi, 1890)			IS	SI
<i>masariiformis</i> (Ochsenheimer, 1808)	IN	IC	IS	SI
<i>bibioniiformis</i> (Esper, 1800)	IN			
<i>anthraciformis</i> (Rambur, 1832)			IC	IS SI SA
= <i>foeniformis</i> (Herrich-Schäffer, 1846)				
= <i>oryssiformis</i> (Herrich-Schäffer, 1846)				
<i>palustris</i> Kautz, 1927	IN			
<i>euceraeformis</i> (Ochsenheimer, 1816)	IN		IS	
<i>leucopsiformis</i> (Esper, 1800)	IN	IC		
<i>empiformis</i> (Esper, 1783)	IN	IC		
<i>tenthrediniiformis</i>	IN			
([Denis & Schiffermüller], 1775)				

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