

**THE ELATERIDAE (COLEOPTERA: ELATEROIDEA)
EXCL. CEBRIONINI AND DRILINI OF SICILY:
RECENT RECORDS AND UPDATED CHECKLIST**

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ABSTRACT. This paper compiles an updated checklist of Sicilian (including the circum-sicilian islets) species of Elateridae. Listed species came from published data along with new Sicilian material collected by the authors and other entomologists in the last few decades. Seventy-three species are reported, with new data for many rarely collected species in Sicily. Six species are recorded for the first time: *Dalopius marginatus* (Linné, 1758), *Isidus moreli* Mulsant and Rey, 1874, *Ampedus sanguineus* (Linnaeus, 1758), *Zorochochros meridionalis* (Castelnau, 1840), *Agriotes infuscatus* Desbrochers des Loges, 1870, and the invasive allochthonous species *Conoderus posticus* (Eschscholtz, 1829). *Lanelater notodonta* (Latreille, 1827) is considered extinct in Sicily.

1. Introduction

The so called “click beetles” (Elateridae) belong to a large cosmopolitan family of beetles. Worldwide some 10,000 species in 400 genera of Elateridae have been scientifically described (Slipinski *et al.* 2011). Like in many others Coleoptera families the highest species diversity is to be found in the tropics (Johnson 2002). The adults can be recognized by the characteristic shape of their pronotum and overall elongated body. Most of these beetles are capable of righting themselves from an overturned position by arching their body and then instantaneously straightening out, a process which hurls the insect into the air producing a typical sound, hence their common name of “click” beetles. Adults may be found in diverse habitat types such as in leaf litter, dead wood, under stones and on flower heads. Their larvae, commonly called wireworms, live in the soil, leaf litter, sand, or rotten wood. They mainly feed on life plant material especially roots and tubers or dead organic matter, but many are predaceous, often on other insects and some species are omnivorous as larvae and tend to be phytophagous and saprophagous in floodplain, but carnivorous in well-drained habitats (Samoylova and Tiunov 2017). For many species the diet is still unknown. Despite the strong interest as pest and, recently, as bioindicators in woody areas, very few papers deals about the presence and distribution of Elateridae of Sicily were published in the past (*e.g.*, Ragusa 1893, 1894; Vitale 1904, 1905) as more recently (Platia and Baviera 2005;

Baviera 2009b). The Fauna Europaea Database lists 66 species of Elateridae for Sicily (Cate 2013). The last “Checklist and distribution of Italian fauna” among the 236 species in 69 genera listed for Italy, reported data for 60 Sicilian species (Platia 2005). Aim of the present contribution is to provide an updated account of the presence and distribution of the family Elateridae, with the exclusion of Cebrionini and Drilini tribes recently included in Elateridae (Kundrata and Bocak 2011), in Sicily and surrounding islands as recently done for Cerambycidae (Baviera *et al.* 2017), Chrysomelidae Alticini (Baviera and Biondi 2015) and Nitidulidae and Kateretidae (Baviera and Audisio 2014).

2. Materials and methods

Sampling was carried out in the whole Sicily (with particularly effort in Mountains chains with the best preserved habitats (Sicani, Madonie, Nebrodi, Peloritani, Erei, Iblei and Etna Mount) and Sicilian surrounding islands (Eolie Archipelago: Lipari, Vulcano, Salina, Stromboli, Alicudi, Filicudi and Panarea; Egadi Archipelago: Favignana, Levanzo and Marettimo; Pelagie Archipelago: Lampedusa, Linosa and Lampione; Ustica; Pantelleria) in many different habitats. The listed taxa are partly based on the results of researches carried out by the first author aiming for a better knowledge of the Sicilian Coleoptera (Baviera and Sparacio 2002; Baviera 2006, 2007, 2009a,b,c; Baviera and Liberti 2010; Baviera and Magnano 2010; Baviera 2011; Bellò and Baviera 2011; Giachino *et al.* 2011; Magrini and Baviera 2011; Toševski *et al.* 2011; Caldara *et al.* 2012; Toševski *et al.* 2014, 2015; Baviera and Bellò 2016; Jelinek *et al.* 2016; Solano *et al.* 2016; Bellò *et al.* 2017). Sampling was carried out with sweep netting, leaf-litter sifting, pitfall traps and window traps. Data have been compared and combined with available literature records of regional presence. The systematic and the nomenclature follows the recent catalogue of Cate (2007). Genera and species are all listed in alphabetical order within each subfamily. For each species the following data are given: nomenclatural combinations, chorotype (according to the categories proposed by Vigna Taglianti *et al.* (1992, 1999) implemented by Biondi *et al.* (2013) based by Italian distributions (Platia 1994, 2005), trophic category, and feeding habits data, of adults and/or larvae, obtained through careful bibliographic screening (*e.g.*, Platia 1994; Pollini 1998), integrated with inedited observations. New records, grouped by Sicilian provinces, were reported with data written on labels pinned under the specimens, standardized as follows: locality (with municipality and province), date, collecting method and habitat, surname and initials of name of collector, collection acronym. For records taken from the literature, the source is given after the mentioned locality or the generic regional record. The acronym “FEI” reported citations from photos identified in *Forum Entomologi Italiani* (2018), the acronym “FNM” reported citations from photos identified in *Forum Natura Mediterraneo* (2018).

COLLECTIONS ACRONYMS

CBPC = C. Baviera, Private Collection, Messina

PGPC = G. Platia, Private Collection, Gatteo

COROTYPE ACRONYMS

ASE = Asiatic-European

COS = Cosmopolitan

EUM = European-Mediterranean

EUR = European

NAF = North African

MED = Mediterranean

SCO = Sub-Cosmopolitan

SEU = South-European

SIE = Sibero-European

TEM = Turanic-European-Mediterranean

TUE = Turanic-European

TUM = Turanic-Mediterranean

WPA = West-Palaearctic

ENDEMIC DISTRIBUTION TYPE ACRONYMS

SISA = Sicilian-South-Appennine Endemic

SICI = Sicilian Endemic

APP = Appenninic Endemic

FEEDING HABITS ACRONYMS

PRE = Predator

FIT = Fitophagous

ZSA = Zoosaprophagous

OMN = Omnivorus

UNK = Unknown

3. Results

FAUNISTIC LIST

FAMILY ELATERIDAE LEACH, 1815

AGRYPNINAE (Candèze, 1857)*Compsolacon crenicollis* (Ménétriés, 1832)

Chorotype – TUM

Trophic category – PRE-ZSA

New records – **Messina**: Fiume Alcantara, Mojo Alcantara, 12.V.2009, Baviera C. (BCPC); ditto, 08.IV.2013, Paladini A. (FEI)

Notes. Common species in Sicily only known from the provinces of Palermo (Casteldaccia; Madonie: Isnello; Sicani: Chiusa Scafani) in the west and Messina (Francavilla di Sicilia; Peloritani: Mandanici, Acquarone, Torrente Corsari sub *Agrypnus crenicollis* (Ménétriés, 1832) (Vitale 1905)) in the east (Platia 2005).

Agrypnus murinus (Linné, 1758)

Chorotype – ASE

Trophic category – FIT

New records – **Messina:** Peloritani, Portella Chiarino, 600 m a.s.l., 06.VI.2004, Baviera C. (BCPC); Monte Scuderi, 1200 m a.s.l., 22.V.2004, Baviera C. (BCPC); Montalbano Elicona, Bosco di Malabotta, 1300 m a.s.l., 23.V.2006, Baviera C. (BCPC); ditto, 28.V.2016, Capici S. (FEI).

Notes. Very common and widespread species in Italy (more in the north), in Sicily recorded only from Messina (Nebrodi, Mistretta: (Platia 2005)), Catania (Nicolosi: (Baron von Rottenberg 1870)), Enna (Piazza Armerina: (Ragusa 1893)) and Palermo (Gibilmanna: (Lundberg *et al.* 1987)). Never recorded before from Peloritani.

Lacon punctatus (Herbst, 1779)

Chorotype – TEM

Trophic category – PRE

New records – **Messina:** Torre Faro, contrada Granatari, 04.I.1992, Baviera C. (BCPC); ditto, 20.IV.1991, Baviera C. (BCPC); Peloritani, Vivaio Ziriò, 10.III.2004, Baviera C. (BCPC); Castanea delle Furie, 22.III.2004, Baviera C. (BCPC); Quattro Strade, 05.I.1999, Baviera C. (BCPC); Monte Antennammare, 1133 m a.s.l., in pit-fall trap, VI-07.VII.2002, Baviera C. (BCPC); ditto, 17.X.1998, Baviera C. (BCPC); Nebrodi, Biviere di Cesarò, 1200 m a.s.l., 02.VII-05.VIII.2005, Baviera C. (BCPC); **Catania:** Bosco di Santo Pietro, 17.V.1992, Sallemi M. (BCPC); Bosco di eucalipto tra Acate e San Pietro, 3.IV.2011, Deiaco C. (FEI); Etna, versante Est, Milo, Bosco Cerrita, 1600 m a.s.l., ex larva in *Betula aetnensis*, III.2004, Baviera C. (BCPC); **Agrigento:** Ribera, 4.II.2017, Amata C. (FEI); **Palermo:** Altofonte, Contrada Aglisotto, 7.X.2009, Muscarella C. (FEI).

Notes. Very common and widespread species in Italy and Sicily were is reported from Catania, Messina, Palermo, Siracusa and Ragusa provinces. Reported also for the Etna Park (Sabella and Sparacio 2004). Never recorded before from Agrigento province and Peloritani Mounts.

Lacon querceus (Herbst, 1784)

Chorotype – EUR

Trophic category – PRE

Notes. Extremely rare species in Italy with only four records in Platia (2005), reported from Sicily (Madonie) by Ragusa (1893) and only recently collected in Peloritani (Malabotta Wood: (Platia and Baviera 2005)). The larvae seem to feed predominantly on the larvae of hairy fungus beetles Coleoptera Mycetophagidae. Adult nocturnal, a typical primary forest relict species (Alexander 2002; Müller *et al.* 2005).

Lanelater notodonta (Latreille, 1827)

Notes. In Italy only reported from Palermo (Termini Imerese: (Ragusa 1893)), where seem to be common in the past (Ragusa 1893) but never recollected since many years. A single specimen is preserved in Vitale collection (Baviera, unpublished). Following the opinion of Platia (2005) the Sicilian population of this big species is now extinct.

Aeoloderma crucifer (Rossi, 1790)

Chorotype – WPA

Trophic category – ZSA

New records – **Agrigento:** Contessa Entellina, Monte Genuardo, 910 m a.s.l., 20.III.2008, Degiovanni A. (BCPC); **Enna:** Ponte Cinque Archi, F. Simeto, 550 m, 6-7.IV.2013, Degiovanni A. (PGPC); **Trapani:** RNO Saline di Trapani e Paceco, Fiume Lenzi Baiata, 29.IV.2004, Baviera C. (BCPC).

Notes. A rare species in Sicily, very locally distributed in Agrigento (Licata: (Ragusa 1893)), and Caltanissetta (Gela and Foce Simeto: (Platia 2005)). Firstly reported from Western Sicily.

Drasterius bimaculatus (Rossi, 1790)

Chorotype – WPA

Trophic category – PRE-ZSA

New records – **Messina:** Torre Faro, Contrada Granatari, 27.V.1992, Baviera C. (BCPC); ditto, alla luce, 25-30.VI.2008, Baviera C. (BCPC); Peloritani, Curcuraci, 300 m a.s.l., vaglio *Olea*, 28.X.2006, Baviera C. (BCPC); Rometta, Gimello, Eremo di San Leone, 400 m a.s.l., vaglio *Quercus*, 25.XI.2011, Baviera C. (BCPC); Castoreale, vaglio *Olea*, 03.XI.2011, Baviera C. (BCPC); Patti, Oliveri, Laghetti di Marinello, 07.VII.2008, alla luce, Infusino M. (BCPC); **Catania:** Castiglione di Sicilia, Cuba Bizantina, 04.XI.2010, Baviera C. (BCPC); Monte Etna, versante nord, Rifugio Brunek, 1500 m a.s.l., 20.VI.2006, Baviera C. (BCPC); **Siracusa:** Vendicari, vaglio *Olea*, 1.III.2013, Baviera C. and Bellò C. (BCPC); **Caltanissetta:** Niscemi, Sughereta, 85 m a.s.l., 19.III.2010, Baviera C. (BCPC); **Palermo:** Mezzojuso, 08.IV.1998, Baviera C. (BCPC); **Trapani:** Santa Ninfa, 380 m a.s.l., vaglio *Olea*, 10.III.2009, Baviera C. (BCPC); Alcamo, Pizzo Montelongo 18.III.2008, 400 m a.s.l., vaglio *Olea*, Bellò C. and Chemello S. (BCPC); Salemi, 28.XI.2005, Baviera C. and Bellò C. (BCPC).

Notes. Probably the most common and widespread species of this family in Italy and Sicily. Also known from Lipari, Vulcano and Filicudi (Lo Cascio *et al.* 2006).

Conoderus posticus (Eschscholtz, 1829)

Chorotype – SCO

Trophic category – FIT-PRE

New records – **Messina:** Torre Faro, Canneto, 07.VIII.2010, Infusino M. (BCPC); Lago Faro, alla luce, 07.VIII.2010, Infusino M. (BCPC).

Notes. This neotropical species is reported for “Sicily” without further data by the citation in *Forum Entomologi Italiani* (2018) of the specimens above reported by Wurst and Mifsud (2012). In the years 2012-2013 in the same website the species is also reported from Sardinia, Campania, Lazio and Basilicata by Platia. The genus *Conoderus* Eschscholtz was described from Brazil and recorded in many South American countries. *C. posticus* was

firstly established in the Azores islands (Portugal) (Cate 2007; Denux and Zagatti 2010) and recently in Spain (Platia 2010), Malta (Wurst and Mifsud 2012), Madeira and Crete (Platia 2013), Iran (Golestan prov.: (Mardjanian *et al.* 2013)), continental Greece (Platia and Kakiopoulos 2014)), Russia (Caucasus: (Platia 2016)). The specimens were collected not far from a garden center, this support the hypothesis that as the most probable source of introduction of this species is as larvae in potted live plants (see Wurst and Mifsud (2012)).

Anostirus (Parastirus) cerrutii (Binaghi, 1940)

Chorotype – APP

Trophic category – ZSA

New records – **Messina**: Nebrodi, Floresta, Testa dell'Acqua, 26.VI.2007, Baviera C. (BCPC); Portella dell'Obolo, 1500 m a.s.l., 09.VI.1991, Romano M. (FEI); ditto, 14.V.2017, Romano M. (FEI).

Notes. An Italian endemic species extremely rare in Sicily, recorded, until now, only by single locality from Nebrodi and Western Peloritani (Malabotta Wood: (Platia and Gudenzi 1998)). Not reported for Sicily in European Checklist (Cate 2013).

Mosotalesus impressus (Fabricius, 1792)

Chorotype – SIE

Trophic category – OMN

Notes. Extremely rare species in Sicily from where was recently recorded for the first time in Etna Mount (Linguaglossa, Piano Provenzana: (Platia and Baviera 2005)).

Selatosomus amplicollis (Germar, 1843)

Chorotype – TUM

Trophic category – FIT-PRE

New records – **Messina**: Peloritani, Musolino, 800 m a.s.l., 06.VII.2002, Baviera C. (BCPC); Montalbano Elicona, Bosco di Malabotta, 1300 m a.s.l., pitfall traps, 14.V-02.VII.2005, Baviera C. (BCPC); ditto, 25.V-25.VII.2006, Baviera C. (BCPC); ditto, Argimusco, 06.V.2013, Baviera C. (BCPC) **Catania**: Monte Etna versante nord, Piano Provenzana, 1900-2100 m a.s.l., pit fall traps, 14.VI-10.VII.2002, Baviera C. (BCPC); ditto, V-VII.2005, Baviera C. (BCPC); ditto, 24.VI.2004, Baviera C. (BCPC); versante est Milo, Bosco Cerrita, 1500 m a.s.l., 16.V-16.VII.2002, Baviera C. (BCPC).

Notes. A species until now known in Sicily from Peloritani (Malabotta Wood), Nebrodi (Portella Femmina Morta, Portella Miraglia), and Etna Mount (Sabella and Sparacio 2004; Platia 2005).

Cidnopus pilosus (Leske, 1785)

Chorotype – TEM

Trophic category – OMN

Notes. A common and widespread species in Italy, mainly in the north (Platia 2005). Reported in Sicily only from Messina (Nebrodi, Caronia: (Ragusa 1894)).

Cidnopus pseudopilosus (Platia and Gudenzi, 1985)

Chorotype – SEU

Trophic category – FIT

New records – **Messina**: Monti Nebrodi, Biviere di Cesarò, 1200 m a.s.l., 26.V.2004, Baviera C. (BCPC); ditto, 27.V.2006, Baviera C. (BCPC); ditto, 01.VI.2007, Baviera C. (BCPC); Portella Maulazzo, 1300 m a.s.l., 28.V.2011, Baviera C. (BCPC); Portella dell'Obolo, 13.VI-6.VII.2006, Rappuzzi P. and Sama G. (PGPC); Monti Peloritani, Montalbano Elicona, Bosco di Malabotta, 23.V.2006, Baviera C. (BCPC).

Notes. Rare species in Sicily recorded only from Nebrodi (Portella di Femmina Morta and Soro Mount: (Platia 2005)). Not reported for Sicily in European Checklist (Cate 2013). Newly recorded from Peloritani.

Limoniulus minutus (Linnaeus, 1758)

Chorotype – SIE

Trophic category – OMN

New records – **Messina**: Monti Nebrodi, San Fratello, 1300 m a.s.l., 20.V.2000, Baviera C. (BCPC); ditto, 17.V.2002, Baviera C. (BCPC); Portella Femmina Morta, Monzini S. (PGPC); Monti Peloritani, Montalbano Elicona, Bosco di Malabotta, 23.V.2006, Baviera C. (BCPC); **Palermo**: Piano Zucchi, 1300 m a.s.l., Diotti L. (PGPC).

Notes. Known since a long time for Sicily (Platia, 1994; Cate, 2013) reported for Madonie, Nebrodi and Etna Parks (sub *Kibunea minuta* Linnaeus, 1758 (Sabella and Sparacio 2004)). No Sicilian localities were reported in CkMap (Platia 2005).

DENTICOLLINAE Stein & J. Weise, 1877*Odontoderus antigai* (Buysson, 1895)

Chorotype – SEU

Trophic category – UNK

Notes. Extremely rare species in Italy until now listed for Sicily only from “Palermo” by Ragusa (1911) and never recollected thereafter.

Athous (Athous) ineptus (Candèze, 1860)

Chorotype – WME

Trophic category – UNK

New records – **Messina**: Torre Faro Contrada Granatari, 18-23.V.2000, Baviera C. (BCPC); Monti Peloritani, Montalbano Elicona, 1300 m a.s.l., 18-20.VII.2002, Baviera C. (BCPC); ditto, Bosco di Malabotta, 1200 m a.s.l., 03.VII.2014, Baviera C. (BCPC); ditto, 23.VI.2006, Baviera C. (BCPC); ditto, 25.VII.2006, Baviera C. (BCPC); ditto, pitfall traps, 02.VII-05.VIII.2007, Baviera C. (BCPC); ditto, pitfall traps, 30.VI-12.VII.2013, Baviera C. (BCPC); Itala, Monte Scuderi, 1200 m a.s.l., pitfall traps, 25.VI-29.XI.2005, Baviera C. (BCPC); ditto, 10.V.2014, Baviera C. (BCPC); San Pier Niceto, Torrente Niceto, 150 m a.s.l., 31.X.2013, Baviera C. (BCPC); Portella Chiarino, 600 m a.s.l., 06.VI.2004, Baviera C. (BCPC); ditto, 27.VI.2010, Baviera C. (BCPC); Portella San Rizzo, 29.V.2011, Baviera C. (BCPC); Gualtieri Sicaminò, Li Pantani, 700 m a.s.l., vaglio, 20.VI.2010, Baviera C. (BCPC); Forte S. Jachiddu, 375 m a.s.l., 29.VI.2010, Baviera C. (BCPC); ditto, 29.V.2011,

Baviera C. (BCPC); Massa San Giovanni, Campo Italia, 395 m a.s.l., 30.V.2010, alla luce, Infusino M. (BCPC); Monte Antennammare, 1133 m a.s.l., 15.V.2001, Baviera C. (BCPC); Monti Nebrodi, San Fratello, Case Cicala dint., 1300 m a.s.l., 25.VI.2001, Baviera C. (BCPC); ditto, 900 m a.s.l., vaglio *Quercus*, 27.VI.2008, Baviera C. (BCPC); Floresta, sorgente San Giacomo, 1088 m a.s.l., vaglio *Q. ilex*, 29.III.2010, Baviera C. (BCPC); ditto, 21.VII.2010, Baviera C. (BCPC); Floresta, 1100 m a.s.l., 24.VI.2007, Baviera C. (BCPC); Alcara Li Fusi, limite Bosco Scavioli, 1100 m a.s.l., vaglio *Quercus*, 02.VI.2007, Baviera C. (BCPC); Biviere di Cesarò, 1283m a.s.l., 24.VI.2006, Baviera C. (BCPC); ditto, 02.VII.2005, Baviera C. (BCPC); **Catania**: Castiglione di Sicilia, 04.IV.2013, Baviera C. (BCPC); Monte Etna versante sud, Adrano, Osservatorio, 1400 m a.s.l., pit-fall traps, 12-27.VII.2011, Biondi S. (BCPC); versante nord, Rifugio Citelli, 29.VII.2015, Baviera C. (BCPC); Zafferana Etnea, Piano del Vescovo, 1370 m, 30.VII.2010, Romano M. (PGPC); **Siracusa**: Bosco Bauli, 580 m a.s.l., vaglio *Olea*, 04.III.2012, Bellò C. (BCPC); **Palermo**: Madonie, Piano Pomieri, 1400 m a.s.l., window trap, 3-9.VIII.2015, Baviera C. (BCPC); ditto, 19.VII.2016, Baviera C. (BCPC).

Notes. A common and widespread species in Sicily known from Palermo, Madonie (Geraci, Piano Zucchi, Castelbuono), Messina, Scala and Nebrodi (Portella Femmina Morta, Monte Soro), Catania (Paternò, Etna: (Vitale 1905; Sabella and Sparacio 2004; Platia 2005)) and Siracusa (Lentini: (Ragusa 1894)). Newly recorded for Peloritani Mounts.

Athous (Haplathous) cachecticus Candèze, 1860

Chorotype – SISA

Trophic category – FIT

New records – **Messina**: Monti Nebrodi, Biviere di Cesarò, 1283 m a.s.l., 01.VI.2007, Baviera C. (BCPC); ditto, 02.VII.2005, Baviera C. (BCPC); Caronia, 1400 m a.s.l., 29.V.2011, Baviera C. (BCPC); Monte Soro, 1700 m, 7.V.2013, Baviera C. (BCPC). **Catania**: Monte Etna versante nord, Piano Provenzana, 1800 m a.s.l., 14.VI.2002, Baviera C. (BCPC); ditto, 24.VI.2004, Baviera C. (BCPC); ditto, Monte Nero dint., 2000 m in pit-fall traps, 25.VI-13.VII.2001, Baviera C. (BCPC); ditto, vaglio sub *Fagus*, 01.XI.2005, Baviera C. (BCPC); ditto, 15.VI.2003, Baviera C. (BCPC); Rifugio Brunek, 1500 m a.s.l., 20.VI.2006, Baviera C. (BCPC); versante est, Milo, Bosco Cerrita, 1500 m a.s.l., 14.VI.2002, Baviera C. (BCPC); ditto, 24.VII.2004, Baviera C. (BCPC); Milo, Fornazzo, 900 m, Baviera C. (BCPC).

Notes. An endemic appenninic species, widespread in Sicily, until now known from Messina (Nebrodi: (Sabella and Sparacio 2004; Platia 2005)) (Peloritani: (Platia 2005)) and Palermo (Madonie: (Platia 2005)) provinces. Never recorded, until now, from Catania province.

Harminius spiniger (Candèze, 1860)

Chorotype – MED

Trophic category – FIT

New records – **Messina**: Patti, Mongiove, Galice, 15.VIII.2000, Baviera C. (BCPC); Monti Peloritani, Patti, Gioiosa Guardia, Monte Meliuso, 700 m a.s.l., 04.VII.1999, Baviera C. (BCPC); Monte Antennammare, 1133 m a.s.l., 27.VII.1999, Baviera C. (BCPC); ditto, 23.VII.2000, Baviera C. (BCPC); Colle San Rizzo, 600 m a.s.l., pit-fall traps, 31.VII-13.VIII.2004, Baviera C. (BCPC); Salice, 500 m a.s.l., 13-31.VIII.2004, Baviera C. (BCPC); ditto, 31.VII-13.VIII.2004, Baviera C. (BCPC); Musolino, 700 m a.s.l., 13-31.VIII.2004, Baviera C. (BCPC); ditto, 08.VIII.1998, Baviera C. (BCPC); Itala, Monte Scuderi, 1200 m a.s.l., pit-fall traps, 18.VI.2004-18.III.2005, Baviera C. (BCPC); ditto, 25.VI-29.XI.2005, Baviera C. (BCPC); Castoreale, Cavallaro, 400 m a.s.l., pit-fall traps, 16-28.VII.2014, Valenti V. (BCPC); Curcuraci, 300 m a.s.l., Ligth trap, 05.VIII.2010, Infusino

M. (BCPC); Campo Italia, 476 m a.s.l., Ligth trap, 07.VIII.2010, Infusino M. (BCPC); Massa San Giovanni, 287 m a.s.l., Light Trap, 07.VIII.2010, Infusino M. (BCPC); ditto, 29.VIII.2011, Infusino M. (BCPC); Monti Nebrodi, Ucria, 1000 m a.s.l., 25-28.VII.2002, Baviera C. (BCPC); **Catania**: Monte Etna versante sud, Adrano, Osservatorio, 1400 m a.s.l., pit-fall traps, 14-30.IX.2011, Biondi S. (BCPC); Belpasso, c.da Pescheria 29.VIII.2015, Altadonna G., (FEI); **Caltanissetta**: Monte Mimiani, 750 m a.s.l., 11-VIII-2009, Falci A. (FNM); **Siracusa**: Fiume Anapo presso Cassaro, 17.VIII.1985, Pavesi M. (PGPC); Palazzolo Acreide, 600 m a.s.l., Angelini F. (PGPC); **Palermo**: Monti di Palermo, 03.XI.2012, Ferrante M. (FEI); Madonie, Piano Battaglia, 1600 m, 15.VIII.2016, Baviera C. (BCPC); Piano Zucchi, dint. 1100 m a.s.l., 06.VIII.2015, Baviera C. (BCPC); ditto, 1300 m a.s.l., window trap, 06.VIII.2015, Baviera C. (BCPC).

Notes. A common and widespread species until now known from Messina (Tono: sub *Athous castaneus* Fairmaire, 1851 (Vitale 1905); Palermo (Capaci, Cefalù, Termini Imerese: (Ciofalo 1886; Platia 2005)); Siracusa (Cassaro, Noto: (Assenza 1892; Platia 2005)); Agrigento (Porto Empedocle: (Ragusa 1894)) and Enna (Nicosia: (Platia 2005)), also recorded in Lipari Island (Lo Cascio *et al.* 2006). Not listed from Sicily in European Checklist (Cate 2013). Never recorded, until now, from Caltanissetta, and Catania provinces.

Megathous ficuzzensis (Buysson, 1912)

Chorotype – SICI

Trophic category – PRE

Notes. An endemic Sicilian species very rare even if widespread, known from Palermo (Sicani, Ficuzza), Catania (Zafferana Etnea) (Platia 1994, 2005), and Messina (Peloritani: (Platia and Baviera 2005)). This is the only Sicilian endemic click-beetles reported as Critical Endagerent (CR) in the Red List of Italian Saproxyllic Beetles (Platia and Liberto 2014; Carpaneto *et al.* 2015).

Hemicrepidius hirtus (Herbst, 1784)

Chorotype – TEM

Trophic category – OMN

New records – **Messina**: Monti Peloritani, Monte Antennamare, 23.VI.2007, Baviera C. (BCPC); Pizzo Chiarino, 800 m a.s.l., 27.VI.2010, Baviera C. (BCPC); ditto, pit-fall traps, 19.VI-03.VII.2004, Baviera C. (BCPC); Colle San Rizzo, 600 m a.s.l., 21.V-02.VI.2004, Baviera C. (BCPC); Monti Nebrodi, Floresta, 1100 m a.s.l., 29.VI.2007, Baviera C. (BCPC); Lago Tre Arie, 1435 m a.s.l., 02.VII.2005, Baviera C. (BCPC); Sella Tre Arie 1200 m a.s.l., 04.VI.2009, Baviera C. (BCPC); **Catania**: Fiume Alcantara, 11.VI.2004, Baviera C. (BCPC); Randazzo, 800 m a.s.l., Landi L. (PGPC).

Notes. A quite widespread species in Sicily, known from Palermo (Madonie: Polizzi Generosa, Piano Zucchi); Ragusa, and Messina (Peloritani: Malabotta Wood; Nebrodi: Colle del Contrasto, Portella Femmina Morta) (Platia 2005). Never recorded before for Catania province.

Stenagostus rhombeus (Olivier, 1790)

Chorotype – EUR

Trophic category – PRE

New records – **Messina**: Peloritani, Montalbano Elicona, Bosco di Malabotta, 1300 m a.s.l., light

trap, 08.VIII.2007, Baviera C. (BCPC).

Notes. An European species very rare in Italy, only known in Sicily from Nebrodi and Madonie (Sabella and Sparacio 2004; Platia 2005), newly recorded from Peloritani.

Adrastus limbatus (Fabricius, 1776)

Chorotype – SIE

Trophic category – FIT

Notes. A Sibiric-European species, widespread in Italy but more common in the North (Platia 1994; Gobbi and Platia 1995), only recently confirmed for Sicily (Messina, Nebrodi: (Platia and Baviera 2005)) after the first record for Catania by Sapuppo (2001).

Adrastus rachifer (Fourcroy, 1785) Chorotype – TUE

Trophic category – FIT

New records – **Messina:** Città, SS.ma Annunziata, 28.VI.1997, Baviera C. (BCPC); Monti Peloritani, Antillo, 500 m a.s.l., 29.V.2010, Baviera C. (BCPC); Monte Scuderi, 1100 m a.s.l., 25.VI.2005, Baviera C. (BCPC); **Catania:** Castiglione di Sicilia, Fiume Alcantara, Cuba Bizantina, 19.V.2010, Baviera C. (BCPC); ditto, 29.VI.2010, Baviera C. (BCPC); Calatabiano, San Marco, Foce Alcantara, 19.V.2010, Baviera C. (BCPC); ditto, 29.VI.2010, Baviera C. (BCPC).

Notes. A very common and widespread species in Italy recorded from Sicily, until now, only from “Messina” (Platia 2005).

Synaptus filiformis (Fabricius, 1781)

Chorotype – SIE

Trophic category – FIT

New records – **Messina:** Monti Peloritani, Massa San Giorgio, 01.V.1993, Baviera C. (BCPC); **Catania:** Calatabiano, San Marco, Foce Alcantara, 19.V.2010, Baviera C. (BCPC); **Ragusa:** Giarratana, 500 m a.s.l., 04.V.2010, Baviera C. (BCPC).

Notes. An uncommon even if widespread species in Sicily, recorded until now from Messina (Colla: (Vitale 1905)), Siracusa (Lentini: (Baron von Rottenberg 1870)); Sortino: (Platia 2005)); Ragusa (Marina di Ragusa: (Platia 2005)), Caltanissetta (Gela: (Platia 2005)) and Trapani (Segesta: (Platia 2005)). Newly recorded for Catania province.

ELATERINAE Leach, 1815

Agriotes aequalis Schwarz, 1891

Chorotype – APP

Trophic category – FIT

Notes. Species described generically from “Sicily” (type coll. Schwarz, DEI) without further data. Reported for Madonie, Nebrodi and Etna Sicilian Parks by Sabella and Sparacio (2004).

Agriotes brevis Candèze, 1863

Chorotype – EUM

Trophic category – FIT

New records. **Palermo**: Munciarrati, SW Isnello, m 740, 27.V.2015, Frenzel D. (Mus. Erfurt).

Notes. A very common species in the Italian mainland, only recently recorded from Sicily (Platia 2017).

Agriotes corsicus Candèze, 1863

Chorotype – SEU

Trophic category – FIT

Notes. An european species very rare in Italy, only known in Sicily from Palermo (Madonie, Sferracavallo: (Ragusa 1894); “Palermo”: (Ragusa 1911)).

Agriotes infuscatus Desbrochers des Loges, 1870

Chorotype – TUM

Trophic category – FIT

New records – **Messina**: Monti Peloritani, Curcuraci, 250-300 m a.s.l. vaglio *Olea*, 06.II.2011, Baviera C. (BCPC).

Notes. A species never recorded before for Sicily, until now know in southern Italy to Calabria (Platia 2005).

Agriotes lineatus (Linnaeus, 1767)

Chorotype – COS

Trophic category – FIT

New records – **Messina**: Monti Nebrodi, Biviere di Cesarò, 1283 m a.s.l., 26.V.2004, Baviera C. (BCPC); ditto, 7.V.2013, Baviera C. (BCPC); ditto, 05.VIII.2005, Baviera C. (BCPC); ditto, 01.VI.2007, Baviera C. (BCPC); Lago Tre Arie, 1435 m a.s.l., 02.VII.2005, Baviera C. (BCPC); Mistretta, Urio Quattrocchi, 1000 m a.s.l., 30.IV.2003, Baviera C. (BCPC); **Palermo**: Madonie, Piano Battaglia, 16.V.2008, Baviera C. and Rando A. (BCPC); Portella Colla, 1450 m a.s.l., 03.VI.2000, Baviera C. (BCPC).

Notes. A very widespread species in Italy recorded from many localities in Sicily from the provinces of Messina (Nebrodi, Milazzo), Enna (Monte Sambughetti), Siracusa and Palermo (Madonie, Sicani) (Ragusa 1893; Platia 2005).

Agriotes litigiosus (Rossi, 1792)

Chorotype – SEU

Trophic category – FIT

Notes. An uncommon even if widespread species in Sicily, recorded until now from Messina (Nebrodi, Caronia: (Ragusa 1894)), Ragusa (Platia 2005) and Palermo (Castelbuono: (Platia 2005)) provinces.

Agriotes siciliensis Pic, 1912

Chorotype – SICI

Trophic category – FIT

Notes. A very rare Sicilian endemic species, recorded until now only from Palermo province (Capaci, Passo di Rigano and “Palermo”: (Platia 2005)).

Agriotes sordidus (Illiger, 1807)

Chorotype – NAF

Trophic category – FIT

New records – **Messina:** Monti Nebrodi, Cesarò, 03.VII.1999, Baviera C. (BCPC); Cesarò 22.III.2015, Colacurcio L. and Degiovanni A. (PGPC); **Agrigento:** Rocca d’Entella 500 m a.s.l., 04.I.2007, Baviera C. (BCPC); Bivona dint., 18.III.2008, Baviera C., Bellò C. (BCPC); Sant’Angelo Muxaro, vaglio *Olea*, 125 m, Baviera C. and Bellò C. (BCPC); Sambuca di Sicilia Lago Arancio, 18.III.2015, Colacurcio L. and Degiovanni A. (PGPC); Monte Cammarata, 20.III.2015, Colacurcio L. and Degiovanni A. (PGPC); **Caltanissetta:** Cozzo Campana, 20.III.2015, Colacurcio L. (PGPC); **Siracusa:** Pachino, Buonomini, 9.XII.2016, Baviera C. and Bellò C. (BCPC); Pachino, Punta delle Formiche, vaglio *Olea*, 9.XII.2014, Baviera C. and Bellò C. (BCPC); Vendicari, vaglio *Olea*, 1.III.2013, Baviera C. and Bellò C. (BCPC); **Palermo:** Pizzo Cozzo di Monaci, 07.III.1981, Baviera C. (BCPC); San Cipirello, 07.XI.2010, Bellò C. (BCPC); Bivio Gallitello, 10-13.III.2009, Bellò C., Baviera C. (BCPC); Lago Caccamo, dint., 23.I.2012; Muscarella C. (FEI); Monti Sicani, Palazzo Adriano, 900 m a.s.l., vaglio *Olea*, 10-13.III.2009, Bellò C., Baviera C. (BCPC); ditto, 27-29.V.2007, Baviera C., Rando A. (BCPC); ditto, 18.III.2008, Baviera C., Rando A. (BCPC); Chiusa Sclafani, 720 m a.s.l., 11.III.2009, Baviera C. (BCPC); Bisacquino, 535 m a.s.l., 25.XI.2009, Baviera C. (BCPC); Monte Genuardo, 1200 m a.s.l., 28.V.2007, Baviera C., Rando A. (BCPC); Madonie, Piano Battaglietta, 1700 m a.s.l., vaglio, 23.VI.2009, Baviera C. (BCPC); ditto, 16.V.2008, Baviera C., Rando A. (BCPC); ditto, 24.IV.2008, Baviera C., Rando A. (BCPC); Piano Battaglia, 6.IV.2013, Colacurcio L. and Paladini A. (FEI); Monti Sicani, Ficuzza, Alpe Cucco, 1020 m, 22.X.2013, vaglio, Baviera C. and Bellò C. (BCPC); ditto, 29.I.2011, Muscarella C. (FEI); Roccamena, Camporeale, 9.IV.2014, (BCPC); Lago Jato, San Cipriello, 16.III.2009, A. Degiovanni; Mt Genuardo, Contessa Entellina, 910 m a.s.l., 20.III.2008, A. Degiovanni; Monte Maganoce, 19.III.2015, L. Colacurcio (PGPC); **Trapani:** RNO Saline di Trapani e Paceco, Salina “Vecchia”, 28.IV.2004, Baviera C. (BCPC); Alcamo, 100 m a.s.l., 09.III.2014, Baviera C. (BCPC); Castellammare incr. Terme Segestane, vaglio *Olea*, 10.III.2009, Bellò C., Baviera C. (BCPC); ditto, 29.XI.2015, Bellò C., Baviera C. (BCPC); Santa Ninfa, 380 m s.l.m., vaglio *Olea*, 10.III.2009, Bellò C., Baviera C. (BCPC); ditto, 365 m a.s.l., 27.IX.2009, Bellò C., Baviera C. (BCPC); Salemi, 28.XI.2015 (BCPC); Custonaci, loc. Purgatorio, 250 m, 17.III.2009, Degiovanni A. (FEI); ditto, 15.III.2010, Degiovanni A. (PGPC); Bruca, 350 m, 18.III.2009, Degiovanni A. (PGPC); Santa Ninfa, 250 m, 20.III.2009, Degiovanni A. (PGPC); Monte Bonifato, Alcamo, 320 m, vaglio *Olea*, 3.IV.2011, Bellò C. (BCPC); Mazara del Vallo, 25.X.2015, Ditta A. (FEI).

Notes. Probably the most common species of the genus in Sicily, widespread in the Island (Ciofalo 1886; Assenza 1892; Ragusa 1894; Vitale 1905; Ragusa 1911; Platia 2005), also reported from Lipari Island (Lo Cascio *et al.* 2006).

Dalopius marginatus (Linnaeus, 1758)

Chorotype – SIE

Trophic category – OMN

New records – **Siracusa**: Buscemi 600 m a.s.l., vaglio *Olea*, 14.IV.2010, Baviera C. and Bellò C. (BCPC).

Notes. A Sibiric europaean species, more common in Italy in the north, never collected before in Sicily (Platia 2005).

Ampedus cardinalis (Schiödte, 1865)

Chorotype – EUR

Trophic category – PRE

New records – **Messina**: Nebrodi, Sella Tre Arie, 1400 m a.s.l., 26.V.2009, Baviera C. (BCPC); Monti Peloritani, Montalbano Elicona, Bosco di Malabotta, pit-fall trap in *Quercus*, 14.V-02.VII.2005, Baviera C. (BCPC); Monte Antennammare, 1133 m a.s.l., 04.VI.2000, Baviera C. (BCPC); Castanea, 22.III.2004, Baviera C. (BCPC); **Palermo**: Monti Sicani, Bosco Ficuzza, 08.X.2015, Brancato L. (FEI).

Notes. Probably the widest distributed species of this genus in Sicily, until now known from all Sicilian Parks (Madonie, Nebrodi and Etna: (Sabella and Sparacio 2004)); Enna (Nicosia: (Platia 2005)); Ragusa (Vittoria: (Platia 2005)), Palermo (Castelbuono: (Ragusa 1894); Gibilmanna: (Lundberg *et al.* 1987)). Never recorded before from Sicani and Peloritani Mounts.

Ampedus cinnaberinus (Eschscholtz, 1829)

Chorotype – SIE

Trophic category – PRE

New records – **Catania**: Monte Etna, Versante nord, Linguaglossa, Pineta di Ragabo, 1500-1700 m a.s.l., 22.IV.2004, Baviera C. (BCPC); Piano Provenzana, 1800 m a.s.l., 12.VII.2011, Baviera C. (BCPC); Versante est, Milo, Bosco Cerrita, 1500 m a.s.l., 12.V.2006, Baviera C. (BCPC); **Enna**: Troina, 27.XII.2016, Amata C. (FEI).

Notes. A rare species in southern Italy and Sicily, reported from Palermo (Ficuzza: (Platia 2005); Gibilmanna: (Lundberg *et al.* 1987)) and from all Sicilian Parks (Madonie, Nebrodi and Etna: (Sabella and Sparacio 2004)). Newly recorded for Enna province.

Ampedus coenobita (A. Costa, 1881)

Chorotype – SIE

Trophic category – PRE

New records – **Catania**: Monte Etna, Versante nord, Linguaglossa, Pineta di Ragabo, 1500-1700 m a.s.l., 22.IV.2004, Baviera C. (BCPC); Piano Provenzana, 1800 m a.s.l., 20.VI.2006, Baviera C. (BCPC); Versante est, Milo, Bosco Cerrita, 1500 m a.s.l., 12.V.2006, ex larva in *Betula aetnensis*, Baviera C. (BCPC); ditto, III.2004, Baviera C. (BCPC).

Notes. A rare species in Italy and Sicily, reported only from Catania (Etna, Maletto: (Platia 2005)).

Ampedus praeustus (Fabricius, 1792)

Chorotype – SIE

Trophic category – PRE

New records – **Messina**: Monti Peloritani, Montalbano Elicona, Bosco di Malabotta, in *Quercus*, 03.VI.2008, Baviera C. (BCPC).

Notes. A very rare, although widespread species in Italy, reported for Sicily since a long time only from Madonie (Castelbuono: (Ragusa 1893; Sabella and Sparacio 2004)) and recently from Enna province (Nicosia: (Platia 2005)). Newly recorded from Messina province.

Ampedus quercicola (Buysson, 1887)

Chorotype – TUE

Trophic category – PRE

New records – **Messina**: Monti Nebrodi, Monte Soro, 18.IV.1971, Romano M. (BCPC); San Fratello, 1300 m a.s.l., 17.V.2001, Baviera C. (BCPC); Monti Nebrodi, Portella dell'Obolo, 1400-1500 m, 16.VI.2006, Rapuzzi P. and Sama G., (PGPC); **Palermo**: Gibilmanna, 31.V.2007, vaglio, Baviera C. (BCPC); Monti Sicani, Bosco Ficuzza, 800 m, 14.IV.2011, Sama G., (PGPC); ditto, 29.I.2011, Muscarella C. (FEI); Madonie, Piano Torre, 6.IV.2013, Colacurcio L., (PGPC); **Siracusa**: Buccheri, m 650 m a.s.l., Angelini F., (PGPC).

Notes. A rare, although widespread species in Italy, reported for Sicily only from Messina (Peloritani: Bosco di Malabotta) and Palermo (Madonie: Piano Zucchi) (Platia 2005). Never recorded before for Siracusa province.

Ampedus rufipennis (Stephens, 1830)

Chorotype – TUE

Trophic category – PRE

New records – **Messina**: Monti Nebrodi, Biviere di Cesarò, 1200 m a.s.l., pit-fall traps, 25.V-05.VII.2004, Baviera C. (BCPC); Monti Nebrodi, Portella dell'Obolo, 1400-1500 m a.s.l., 16.VI.2006, Rapuzzi P. and Sama G. (PGPC); **Palermo**: Madonie, Piano Zucchi, 1300 m a.s.l., 18.VI.-5.VII.2006, Rapuzzi P. and Sama G. (PGPC).

Notes. A very rare, although widespread species in Italy, reported for Sicily only in Messina (Peloritani: Bosco di Malabotta) (Platia 2005) and Palermo (Madonie Park: (Sabella and Sparacio 2004)) provinces.

Ampedus sanguineus (Linnaeus, 1758)

Chorotype – SIE

Trophic category – PRE

New records – **Messina**: Taormina, without further data (PGPC); **Enna**: Centuripe, 11.IV.2011, Sama G. (PGPC).

Notes. A common and widespread species in the Italian mainland, never recorded before for Sicily.

Ampedus sanguinolentus (Schrank, 1776)

Chorotype – SIE

Trophic category – PRE

Notes. A rare, although widespread species in Italy, reported, with the nominal subspecies, for the first time for Sicily in Ficuzza Wood (Ragusa 1893) recently cited also from Messina (Nebrodi: Portella di Femmina Morta) (Platia 2005).

Reitterelater dubius Platia and Cate, 1990

Chorotype – TUE

Trophic category – PRE

New records – **Messina:** Monti Nebrodi, Portella Maulazzo, 1400 m a.s.l., 27.V.2006, Baviera C. (BCPC).

Notes. A very rare species, known in Italy only for Sicily in Messina (Peloritani, Malabotta Wood; Nebrodi, Biviere di Cesarò: (Platia and Baviera 2005)) and Palermo (Gibilmanna: (Platia 2005)).

Ischnodes sanguinicollis (Panzer, 1793)

Chorotype – SIE

Trophic category – PRE

Notes. A rare, although widespread species in Italy, reported for Sicily, reported, with the nominal subspecies, only from Palermo (Madonie: (Sabella and Sparacio 2004); Gibilmanna: (Lundberg *et al.* 1987)). In the Red List of Italian Saproxylous Beetles (Platia and Liberto 2014; Carpaneto *et al.* 2015) this species is reported as vulnerable (VU).

Ectamenogonus montandoni (Buysson, 1888)

Chorotype – TUE

Trophic category – PRE

Notes. A very rare species in Italy, known until now only from Lazio (Platia unpublished) and Sicily in Palermo (Gibilmanna: (Platia 2005)).

Megapenthes lugens (Redtenbacher, 1842)

Chorotype – TEM

Trophic category – PRE

New records – **Messina:** Monti Nebrodi, Biviere di Cesarò, 1278 m a.s.l., 31.V.2005 Baviera C. (BCPC); ditto, 7.V.2013, Baviera C. (BCPC); San Fratello, Casa Forestale dint., 1300 m a.s.l., 20.V.2000, Baviera C. (BCPC).

Notes. A very rare, although widespread species in Italy, reported for Sicily only from Palermo (Castelbuono, Ficuzza: (Ragusa 1893); Gibilmanna: (Platia 2005)). Newly reported from Messina province.

Prokraerus tibialis (Lacordaire, 1835)

Chorotype – TEM

Trophic category – PRE

New records – **Messina**: Monti Peloritani, Montalbano Elicona, Bosco di Malabotta, pit-fall trap in *Quercus*, 14.V-02.VII.2008, Baviera C. (BCPC); Monti Nebrodi Sella Trearie, 1400 m a.s.l., 4.VI.2009, Baviera C. (BCPC).

Notes. A very rare, although widespread species in Italy, reported as present in all Sicilian Parks (Sabella and Sparacio 2004) but very few localities from Catania and Palermo (Castelbuono, Gibilmanna: (Platia 2005)). This species is considered endangered (EN) in the Red List of Italian Saproxylous Beetles (Platia and Liberto 2014; Platia, Liberto and Mazzei, 2015). Never reported from Peloritani Mountains.

Mulsanteus guillebelli (Mulsant and Godart, 1853)

Chorotype – TEM

Trophic category – PRE

New records – **Messina**: Torre Faro, contrada Granatari, alla luce, 20-25.VI.2008, Baviera C. (BCPC); ditto, 06.VIII.2002, Baviera C. (BCPC); Lago di Faro, light trap, 12.VII.2010, Infusino M. (BCPC); ditto, 07.VII.2010, Infusino M. (BCPC); Monti Peloritani, Massa San Giovanni, 287 m a.s.l., light trap, 29.VIII.2011, Infusino M. (BCPC); Salice Urni, 380 m a.s.l., 27.VI.2010, Baviera C. (BCPC); Campo Italia, 395 m a.s.l., 12.VII.2010, alla luce, Infusino M. (BCPC); Itala, Croce, 12.IX.2004, Camino F. (CFPC); Patti, Gioiosa Guardia, Monte Meliuso, 04.VII.1999, Baviera C. (BCPC); Montalbano Elicona, Bosco di Malabotta, 1300 m a.s.l., alla luce, 22.VIII.2007, Baviera C. (BCPC); **Catania**: Reitano A. (FEI); Monte Etna, Versante est, Milo, Bosco Cerrita, 1500 m a.s.l., 01.VII.2004, Baviera C. (BCPC); Etna, Randazzo, Montelaguardia 730 m a.s.l., VII.2012, Altadonna G. (FEI); Caltanissetta: Gela, Biviere, 29-30.V.2006, Baviera C. (BCPC); **Siracusa**: Grotta Monello, Angelini F. (PGPC); **Ragusa**: Modica, 12.VII.2017, Avola V. (FEI); **Palermo**: Madonie, 20.VII.2014, Baviera C. (BCPC); **Trapani**: Castelvetro, Vallone Zangara, 28.V.2007, Baviera C. and Bellò C. (BCPC).

Notes. A very common and widespread species in Sicily (Ciofalo 1886; Ragusa 1894; Platia 2005), also reported from Lipari (Lo Cascio *et al.* 2006). Never recorded before for Trapani and Ragusa provinces.

Idolus picipennis (Bach, 1852)

Chorotype – TUM

Trophic category – UNK

Notes. A very common and widespread species in Italy reported for Sicily only from Ragusa (Platia 2005).

Betarmon bisbimaculatus (Fabricius, 1803)

Chorotype – TUM

Trophic category – UNK

New records – **Catania**: Monte Etna, Versante nord, Linguaglossa, Piano Provenzana, 1800 m a.s.l., 14.VII.1999, Baviera C. (BCPC).

Notes. A very rare species in Sicily reported only by two localities (Messina, Spadafora: (Vitale 1904, 1905); Catania, Calatabiano: (Platia 2005)),

Idiotarmon quadrivittatus (Ragusa, 1893)

Chorotype – APP

Trophic category – UNK

New records – **Messina**: Monti Peloritani, Montalbano Elicona, Bosco di Malabotta, pit-fall trap in *Quercus*, 24.V-25.VII.2006, Baviera C. (BCPC); **Palermo**: Madonie, Bosco Pomieri, 1450 m a.s.l., 17.-21.VII.2016, C. Baviera, window trap, (PGPC).

Notes. A very rare Italian endemic species described from Madonie (Castebuono: (Ragusa 1893)), also reported from Nebrodi (Castell'Umberto: (Platia 2005)) and from Catania (Etna Park: (Sabella and Sparacio 2004)). Never reported before from Peloritani Mounts.

Isidus moreli Mulsant and Rey, 1874

Chorotype – TUM

Trophic category – ZSA

New records – **Messina**: Casabianca, spiaggia, alla luce, 07.VIII.2010, Infusino M. (BCPC).

Notes. A very rare psammobic species in Italy, known only for few scattered localities, never recorded before for Sicily (Platia 2005).

MELANOTINAE Candeze, 1859*Melanotus castanipes* (Paykull, 1800)

Chorotype – COS

Trophic category – PRE-ZSA

Notes. A species reported in Sicily, with the nominal subspecies, only for “Messina” (Binaghi, 1939) and never recollected.

Melanotus crassicollis (Erichson, 1841)

Chorotype – TUM

Trophic category – FIT-ZSA

New records – **Messina**: Molti Peloritani, Massa San Giovanni, Campo Italia, 395 m a.s.l., 12.VII.2011, alla luce, Infusino M. (BCPC); ditto, 14.VII. 2010, Infusino M. (BCPC); Pizzo Chiarino, 815 m a.s.l., 28.VI.2010, Baviera C. (BCPC); Salice, 500 m a.s.l., pit-fall trap, 31.VII-13.VIII.2004, Baviera C. (BCPC); ditto, 03-17.VII.2004, Baviera C. (BCPC); Musolino, 700 m a.s.l., pit-fall trap, 20.VI-05.VII.2005, Baviera C. (BCPC); Monte Scuderi, 1200 m a.s.l., pit-fall trap, 25.VI-29.IX.2005, Baviera C. (BCPC); Castoreale, Cavallaro, 400 m a.s.l., pit-fall traps, 16-28.VII.2014, Valenti V. (BCPC); ditto, 28.VII-11.VIII.2014, Valenti V. (BCPC); Rometta Superiore, Gimello, Eremo San Leone, alla luce, 15.VI.2008, Baviera C. (BCPC); Monti Nebrodi, Frazzanò, Contrada Fragalà, 17.VI.2011, Baviera C. (BCPC); **Catania**: Etna, Randazzo, Montelaguardia 730 m a.s.l., VII.2012, Altadonna G. (FEI); Zafferana Etnea, 1000 m a.s.l., 20.VIII.2010, Reitano A. (FEI); Tremestieri Etneo, 15.V.2010, Reitano A. (FEI); Ragalna, 900 m a.s.l., 20.VIII.2010, Reitano A. (FEI); **Palermo**: Madonie, Piano Zucchi, 1100 m, 18.V.2013, Baviera C. (BCPC).

Notes. A very common and widespread species in Italy and Sicily, where is known from Messina (Cavaliere, Catarratti, Malabotta Wood, Castanea delle Furie in Peloritani Mounts;

Cantoniera Cicogna in Nebrodi Mounts), Catania (Pedara) and Palermo (Castelbuono Madonie) (Ragusa 1894; Vitale 1905; Binaghi 1939; Platia 2005).

Melanotus dichrous (Erichson, 1841)

Chorotype – EUM

Trophic category – FIT-ZSA

New records – **Messina**: Torre Faro, Granatari, 20.VII.1996, Baviera C. (BCPC); ditto, alla luce, 20-30.VI.2008, Baviera C. (BCPC); ditto, 03.VII.2002, Baviera C. (BCPC); Torre Faro, Lago Faro, 12.VII.2010, alla luce, Infusino M. (BCPC); Mortelle, 12.VII.2010, alla luce, Infusino M. (BCPC); Patti, Oliveri, Laghetti di Marinello, 07.VII.2008, alla luce, Infusino M. (BCPC); ditto, 23.VII.2008, Infusino M. (BCPC); Patti, Mongiove, Galice, 14.VII.2002, Baviera C. (BCPC); Monti Peloritani, Patti, Gioiosa Guardia, Monte Meliuso, 700 m a.s.l., 09.VII.2002, Baviera C. (BCPC); Massa San Giovanni, Campo Italia, 395 m a.s.l., 12.VII.2011, alla luce, Infusino M. (BCPC); ditto, 07.VIII.2010, Infusino M. (BCPC); Massa San Giovanni, in ruscello, 366 m a.s.l., 29.VIII.2011, alla luce, Infusino M. (BCPC); ditto, 05.VIII.2010, Infusino M. (BCPC); Curcuraci, 308 m a.s.l., 12.VII.2011, alla luce, Infusino M. (BCPC); ditto, 14.VII.2010, Infusino M. (BCPC); Salice, 500 m a.s.l., pit-fall trap, 13-31.VIII.2004, Baviera C. (BCPC); Dinnamare, 1130 m, VIII.2014, P. Fabbri. (PGPC); Montalbano Elicona, Bosco di Malabotta, 08.VIII.2007, alla luce, Baviera C. (BCPC); ditto, 22.VIII.2007, Baviera C. (BCPC); ditto, 12.VIII.2014, Baviera C. (BCPC); Nebrodi, Ucria, 1000 m a.s.l., 25-28.VII.2002, Baviera C. (BCPC); **Catania**: Etna sud, 1200 m a.s.l., 20.VIII.2010, Reitano A. (FEI); **Siracusa**: Grotta Monello, Angelini F. (PGPC); **Palermo**: Balestrate, Torrente Calatubo, 04.VII.1972, Romano M. (BCPC); Bosco della Ficuzza, Scali I. (PGPC).

Notes. Another common and widespread species in Italy and Sicily. Probably the most common species of this genus in Sicily (Platia 2005), also reported from Lipari, Vulcano and Stromboli (Lo Cascio *et al.* 2006).

Melanotus punctolineatus (Pelerin, 1829)

Chorotype – EUM

Trophic category – FIT-ZSA

New records – **Messina**: Monti Peloritani, Salice Urni, 380 m a.s.l., 25.XI.2011, Baviera C. (BCPC); **Catania**: Monte Etna, Versante nord, Linguaglossa, Provenzana, 1800 m a.s.l., pit-fall trap, 25.VI-13.VIII.2001, Baviera C. (BCPC); Randazzo, 600 m a.s.l., Landi L. (PGPC).

Notes. A widespread species in Sicily, known for Nebrodi (Floresta, Cesarò, Portella Zilla, Sambughetti Mount), Peloritani (Malabotta Wood), Madonie (Petralia Sottana) (Platia 2005) and Sicani (Ficuzza Wood: (Binaghi 1939)). Never recorded before for Etna Mount and Catania province.

Melanotus tenebrosus (Erichson, 1841)

Chorotype – EUR

Trophic category – FIT-ZSA

New records – **Messina**: Monti Peloritani, Monte Antennammare, 1133 m a.s.l., 15.VI.2009, Baviera C. (BCPC); Monte Ciccica, 500 m a.s.l., vaglio *Quercus*, 23.II.2009, Baviera C. (BCPC); Musolino dint. 700 m a.s.l., 04.VI.2000, Baviera C. (BCPC); Monte Scuderi, 1100 m a.s.l., 31.V.2005, Baviera C. (BCPC); ditto, 25.VI.2005, Baviera C. (BCPC); Rocca Novara, 1200 m a.s.l., 25.VI.2011, Reitano A. (FEI); Montalbano Elicona, 28.V.2016, Capici S. (FEI); **Catania**: Monte Etna, Versante nord, Linguaglossa, Rifugio Brunek, 1500 m a.s.l., 20.VI.2006, Baviera C. (BCPC); Versante Est, Milo,

Bosco Cerrita, 1500 m a.s.l., 01.VII.2004, Baviera C. (BCPC); Etna sud-est, Valle del Bove, 1500 m a.s.l., 28.V.2011, Reitano A. (FEI); **Ragusa**: Modica, VII.2009, Risoldi V. (FEI).

Notes. A widespread species in Sicily, known for Catania (“Monte Etna”), Nebrodi (Cesarò, Soro Mount), Madonie (Piano Battaglia: (Platia 2005)), Peloritani (Castanea delle Furie, “Messina”: Binaghi, 1939) and Eolie (Vulcano: (Lo Cascio *et al.* 2006)).

Melanotus villosus (Geoffroy, 1785)

Chorotype – ASE

Trophic category – PRE-ZSA

New records – **Messina**: Monti Peloritani, Montalbano Elicona, Bosco di Malabotta, 1300 m a.s.l., 23.V.2006, Baviera C. (BCPC); ditto, 25.VII.2006, Baviera C. (BCPC); ditto, 16.IV.2005, Baviera C. (BCPC); ditto, in pit-fall trap, 14.V-02.VII.2005, Baviera C. (BCPC); ditto, 24.VI-25.VII.2006, Baviera C. (BCPC); Monti Nebrodi, Biviere di Cesarò, in pit-fal trap, 14.V-01.VII.2005, Baviera C. (BCPC); ditto, 01.VI.2002, Baviera C. (BCPC); tra Maulazzo e Biviere di Cesarò, 27.IV.2016, vaglio *Fagus*, Baviera C. (BCPC); San Fratello, 1200 m, 7.V.2013, Baviera C. (BCPC); Monte Soro, 1760 m a.s.l., 28.V.2017, Capici S. (FEI); **Catania**: Monte Etna, Versante nord, Linguaglossa, Pineta di Ragabo, 1600 m a.s.l., 22.VII.1995, Romano M. (BCPC); ditto, 24.VII.2005, Baviera C. (BCPC); Piano Provenzana, Monte Nero, 2000 m a.s.l., 08.VI.2000, Baviera C. (BCPC); Piano Provenzana, 1800 m a.s.l., 28.VI.2011, Baviera C. (BCPC); Rifugio Brunek, 1500 m a.s.l., 20.VI.2006, Baviera C. (BCPC); Versante Est, Milo, Bosco Cerrita, 1500 m a.s.l., 24.VII.2004, Baviera C. (BCPC); ditto, 01.VII-18.VIII.2004, Baviera C. (BCPC); ditto, 16.V-10.VII.2002, Baviera C. (BCPC); ditto, 16.V-15.VI.2003, Baviera C. (BCPC); ditto, 01.VII-18.VIII.2004, Baviera C. (BCPC); ditto, IV-16.V.2002, Baviera C. (BCPC); Randazzo, Maletto, 1000 m a.s.l., 12.V.2009, Baviera C. (BCPC).

Notes. A common and widespread species in Sicily, known for Catania (“Monte Etna”, Adrano), Messina, Nebrodi (Portella di Femmina Morta, Mount Soro), Palermo, Madonie (Piano Battaglia, Castelbuono, Piano Zucchi) (Platia 2005) and Siracusa, Iblei (Buccheri, Roccalta: (Binaghi 1939)).

NEGASTRIINAE Nakane et Kishii, 1956

Quasimus liliputanus (Germar, 1844)

Chorotype – NAF

Trophic category – UNK

New records – **Palermo**: Piana degli Albanesi, 18.III.2017, Baviera C. (BCPC; PGPC).

Notes: This species, is reported from Palermo (Casteldaccia, Castelbuono, Ficuzza Wood) province, Enna (Nicosia) and Catania (Nicolosi: (Ragusa 1894; Platia 2005)). It is considered as present in all the Sicilian Parks (Sabella and Sparacio 2004).

Quasimus minutissimus (Germar, 1817)

Chorotype – SIE

Trophic category – UNK

Notes. A very rare species in Sicily known only from a locality of Messina Province (Fiume di Tusa) (Platia 2005).

Zorochros curtus (Germar, 1844)

Chorotype – TUM

Trophic category – UNK

New records – **Messina:** Monti Nebrodi, Sella Tre Arie, 1400 m a.s.l., 04.VI.2009, Baviera C. (BCPC); Antillo, Angelini F. (PGPC); Capo d'Orlando, Scali I. (PGPC); Santo Stefano di Camastra, Scali I. (PGPC); **Catania:** Castiglione di Sicilia, Fiume Alcantara, Cuba Bizantina, 29.VI.2010, Baviera C. (BCPC); ditto, 8.IV.2013, Colacurcio L. (PGPC); **Enna:** Torrente Cimarosa, dint. Nicosia, 6.V.2011, Degiovanni A. (PGPC).

Notes. A widespread species in Sicily, known for Catania (Randazzo), Messina (Acquarone, Villafranca Tirrena, Milazzo, Mazzarrà Sant' Andrea) and Palermo (Altavilla Milicia, Castelbuono) (Platia 2005). Vitale reported this species (sub *Cryptohynus curtus* Germar, 1844) as common in Passo Badia (San Pier Niceto, Messina) in August (Vitale 1905). Never reported before for Nebrodi Mounts.

Zorochros demustoides (Herbst, 1806)

Chorotype – TUM

Trophic category – UNK

New records – **Messina:** San Pier Niceto, Torrente Niceto, 150 m a.s.l., 31.III.2013, Baviera C. (BCPC); Pace del Mela, Torr. Mela, 215 m, 20.IV.2013, Baviera C. (BCPC); Castiglione, F. Alcantara, 8.IV.2013, L. Colacurcio (PGPC); Antillo, Angelini F. (PGPC); **Catania:** Castiglione di Sicilia, Fiume Alcantara, Cuba Bizantina, 19.V.2010, Baviera C. (BCPC); Calatabiano, San Marco, Foce Fiume Alcantara, 29.VI.2010, Baviera C. (BCPC); Bronte, Torrente Cutò, 15.IV.2005, Baviera C. (BCPC); **Enna:** Torrente Cimarosa, dint. Nicosia (EN), 6.V.2011, Degiovanni A. (PGPC).

Notes. A widespread species in Sicily, known for Messina (Francavilla di Sicilia), Enna (Cerami) and Palermo (Madonie, Piano Zucchi: (Platia 2005); and Gibilmanna: (Lundberg *et al.* 1987)). Never reported before for Catania province.

Zorochros meridionalis (Castelnau, 1840)

Chorotype – SEU

Trophic category – UNK

New records – **Palermo:** Bosco della Ficuzza, loc. Pulpito del Re, 865 m a.s.l., Nardi G. (Coll. Ris. Nat. Bosco Fontana).

Notes. New species for Sicily, common in the Italian mainland. Probably the citation of “*Cryptohynus meridionalis*” for Messina (Acquarone, Corsari and Tono: (Vitale 1905)), need to be referred to another species.

Zorochros pumilio (Kiesenwetter, 1858)

Chorotype – SEU

Trophic category – UNK

New records – **Messina:** Mojo Alcantara, Fiume Alcantara, 15.IV.2005, Baviera C. (BCPC); San Pier

Niceto, Torr. Niceto, 15.II.2014, Baviera C. (BCPC).

Notes. A quite rare specie in Sicily, known only for Enna (Cerami) and Palermo (Madonie, Piano Zucchi) (Ragusa 1894; Platia 2005). Never reported before for Messina province.

Zoroachros trigonochirus (Binaghi, 1933)

Chorotype – SEU

Trophic category – UNK

Notes. An uncommon widespread species in Italy, only recently reported for Sicily (Messina, Torre Faro: (Baviera 2009b)).

CARDIOPHORINAE Candèze, 1859

Cardiophorus albofasciatus Schwarz, 1893

Chorotype – SICI

Trophic category – PRE

New records – **Messina:** Bosco di Malabotta, 3.VII.2014, Baviera C. (BCPC).

Notes. An endemic and rare Sicilian species previously known only from Palermo (Madonie: Castelbuono, Santuario di Gibilmanna, Sicani: Bosco della Ficuzza) (Platia 2005). Newly recorded for eastern Sicily.

Cardiophorus aetnensis Platia and Baviera, 2005

Chorotype – SICI

Trophic category – ZSA

Notes. A recently described Sicilian endemic species known until now only from Etna Mount (Platia and Baviera 2005).

Cardiophorus anticus Erichson, 1840

Chorotype – TUE

Trophic category – PRE

Notes. A rare species in Sicily recorded only from Palermo Province (Sicani: Bosco della Ficuzza, Madonie: Monticelli, Santuario di Gibilmanna) (Ragusa 1894; Platia 2005).

Cardiophorus collaris Erichson, 1840

Chorotype – APP

Trophic category – ZSA

New records – **Messina:** Torre Faro, contrada Granatari, 02.V.1993, Baviera C. (BCPC); Milazzo, Capo, 01-02.V.2000, Baviera C. (BCPC); Monti Peloritani, Salice Urni, 380 m a.s.l., 31.V.2011, Baviera C. (BCPC); Forte San Jachiddu, 375 m a.s.l., 28.IV.2010, Baviera C. (BCPC); Pizzo Chiarino, 845 m a.s.l., 27.IV.2010, Baviera C. (BCPC); ditto, 27.V.2010, Baviera C. (BCPC); ditto, 06.VI.2004, Baviera C. (BCPC); ditto, 29.V.2011, Baviera C. (BCPC); Monte Antennammare, 1133 m a.s.l., 27.VI.1997, Baviera C. (BCPC); ditto, 29.V.2011, Baviera C. (BCPC); ditto, 04.VI.2010, Baviera

C. (BCPC); ditto, 04.VI.2000, Baviera C. (BCPC); ditto, 18.V.2000, Baviera C. (BCPC); ditto, 15.VI.2009, Baviera C. (BCPC); ditto, 16.V.2007, Baviera C. (BCPC); ditto, pit-fall trap, VI-07.VII.2002, Baviera C. (BCPC); Rometta, Gimello, Eremo di San Leone, 29.IV.2000, Baviera C. (BCPC); Monte Scuderi, 1200 m a.s.l., 22.V.2004, Baviera C. (BCPC); ditto, 18.III.2005, Baviera C. (BCPC); ditto, 31.V.2005, Baviera C. (BCPC); ditto, 25.VI.2005, Baviera C. (BCPC); Montalbano Elicona, Bosco di Malabotta, 1300 m a.s.l., 23.V.2006, Baviera C. (BCPC); ditto, 12.XI.2005, Baviera C. (BCPC); Francavilla di Sicilia, Fiume Alcantara, Le Gurne, 19.IV.2010, Baviera C. (BCPC); ditto, 19.V.2010, Baviera C. (BCPC); Graniti, Ponte Fiume Alcantara, 01.V.2015, Altadonna G. (FEI); Monti Nebrodi, Sella Tre Arie, 1400 m a.s.l., 04.VI.2009, Baviera C. (BCPC); Lago di Tre Arie, 1435 m a.s.l., 02.VII.2005, Baviera C. (BCPC); San Fratello, Casa Forestale, 2.V.2000, Baviera C. (BCPC); Capizzi, Tassita, 1450 m a.s.l., 05.V.2015, Baviera C. (BCPC); Mistretta, Scali I.; Monti Nebrodi, Portella dell'Obolo, m 1400-1500, 16.VI.2006, Rapuzzi P. and Sama G. (PGPC); **Catania**: Castiglione di Sicilia, Cuba Bizantina, Fiume Alcantara, 19.V.2010, Baviera C. (BCPC); Monte Etna, c.da Milia, Etna sud-occidentale, 25.V.2010, Reitano A. (FED); **Enna**: Piazza Armerina, Angelini F. (PGPC); **Palermo**: Monti Sicani, Bosco della Ficuzza, 25.V.1997, Romano M. (BCPC); Madonie, Piano Zucchi, 1100 m a.s.l., 03.VI.2000, Baviera C. (BCPC); Portella Colla, 03.VI.2000, Baviera C. (BCPC); Piano Battaglietta, 23.VI.2009, Baviera C. (BCPC); Bosco della Ficuzza, Pulpito del Re, 865 m, 15.V.2004, G. Nardi; Bosco della Ficuzza, Gorgo del Drago, 904 m, 18.V.2004, G. Nardi (PGPC).

Notes. A very common and widespread species in Sicily, in Messina, Catania, Enna, Ragusa, Palermo (Platia 2005). Not reported among Sicilian species in the European Checklist (Cate 2013).

Cardiophorus eleonorae (Géné, 1836)

Chorotype – SEU

Trophic category – ZSA

New records – **Messina**: Isole Eolie, Lipari, Monte Giardino, 257 m a.s.l., pit-fall trap, 26.V-13.VI.2014, Merlino S. (BCPC); Vulcano, vaglio *Quercus ilex*, 09.V.2007, Baviera C. (BCPC); Monti Peloritani, Monte Antennammare, 1133 m a.s.l., 15.VI.2009, Baviera C. (BCPC); ditto, 29.VI.2010, Baviera C. (BCPC); ditto, 04.VI.2000, Baviera C. (BCPC); ditto, 18.V.2000, Baviera C. (BCPC); Monte Scuderi, 1100 m a.s.l., 25.VI.2005, Baviera C. (BCPC); ditto, 31.V.2005, Baviera C. (BCPC); Musolino dint., 700 m a.s.l., Baviera C. (BCPC); Pizzo Chiarino, 845 m a.s.l., 29.V.2011, Baviera C. (BCPC); **Catania**: Monte Etna versante nord, Piano Provenzana, Monte Nero, 2000 m a.s.l., 08.VI-2000, Baviera C. (BCPC); Linguaglossa, Bosco misto, 1000 m a.s.l., 20.VI.2006, Baviera C. (BCPC); ditto, Pineta di Ragabo, 1500 m a.s.l., 20.VI.2006, Baviera C. (BCPC); Piedimonte, 26.XI.2009, Baviera C. (BCPC); Randazzo, 950 m a.s.l., 12.V.2009, vaglio *Olea*, Baviera C. (BCPC); versante sud, Adrano, 1500 m a.s.l., 23.VI.2011, Baviera C. (BCPC).

Notes. Widespread species in Sicily, known from Messina, Catania, Enna, Siracusa and Palermo provinces (Ragusa 1894; Vitale 1905; Platia 2005), also known for Lipari, Salina and Stromboli (Lo Cascio *et al.* 2006), never reported before for Vulcano.

Cardiophorus exaratus Erichson, 1840

Chorotype – WME

Trophic category – ZSA

New records – **Messina**: Santo Saba, spiaggia, 04.II.2006, Baviera C. (BCPC); ditto, pit-fall trap, 10.III-02.IV.2004, Baviera C. (BCPC); Torre Faro, Lago di Faro, Canale degli Inglesi, pit-fall trap, 10.III-02.IV.2004, Baviera C. (BCPC); Timpazzi, Lido Sabbia D'Oro, pit-fall trap, 10.III-02.IV.2004,

Baviera C. (BCPC); **Catania**: Mazzarrone loc. Santo Pietro (Coll. Gazurek, Poland); **Trapani**: Foce F. Belice, 6.IV.2013, M. Romano (PGPC).

Notes. A psammobic species previously known from many Sicilian localities: Agrigento (Capo Bianco, Eraclea Minoa, Porto Palo, Sciacca), Caltanissetta (Gela), Catania, Ragusa (Marza), Palermo (Mondello), Trapani (Granitola, Marinella, Mazara del Vallo) (Ragusa 1894; Platia 2005). Never recorded before for Messina province.

Cardiophorus italicus Platia and Bartolozzi, 1988

Chorotype – APP

Trophic category – ZSA

New records – **Messina**: Monti Peloritani, Fiumedinisi, Piano Margi, 800 m a.s.l., 10.VI.2006, Baviera C. (BCPC); **Catania**: Monte Etna, versante nord, Linguaglossa, Pineta di Ragabo, 1500 m a.s.l., 23.VI.2001, Baviera C. (BCPC).

Notes. Common species in the central-south Italy. In Sicily known only from Messina (Peloritani: Ciccìa Mount), Catania (Etna Mont: Nicolosi) and Palermo (Madonie: Castelbuono, Geraci Siculo) (Platia 2005).

Cardiophorus ulcerosus (Géné, 1836)

Chorotype – MED

Trophic category – ZSA

New records – **Messina**: Isole Eolie, Lipari, Pirrera, 21.V.2007, vaglio, Baviera C. (BCPC); ditto, Valle Maria, 163 m a.s.l., pt-fall trap, 22.IV-10.V.2014, Merlino S. (BCPC); Stromboli, 07-09.IV.2006, Baviera C. (BCPC); Acqualadrona, 30.V.2000, Baviera C. (BCPC); ditto, 09.V.2009, Baviera C. (BCPC); Città, SS. Annunziata, Vaglio, III.2005, Baviera C. (BCPC); Monti Peloritani, Monte Antennammare, 1133 m a.s.l., 15.VI.2009, Baviera C. (BCPC); ditto, 29.V.2011, Baviera C. (BCPC); Pizzo Chiarino, 845 m a.s.l., 29.V.2011, Baviera C. (BCPC); Salice Urni, 380 m a.s.l., 31.V.2011, Baviera C. (BCPC); Rometta, Gimello, San Leone, 29.VI.2000, Baviera C. (BCPC); Monte Scuderi, 1100 m a.s.l., 22.V.2004, Baviera C. (BCPC); ditto, 31.V.2005, Baviera C. (BCPC); Francavilla di Sicilia, Fiume Alcantara, Le Gurne, 19.V.2010, 30.IV.2016, Baviera C. (BCPC); Milazzo, Capo, 01.V.2000, Baviera C. (BCPC); Nebrodi, San Fratello, 1200 m a.s.l., vaglio *Q. ilex*, 08.VIII.201, Baviera C. (BCPC); Raccuja, Monte Gianni 1300 m a.s.l., 25.IV.2015, Altadonna G. (FEI); Villafranca Tirrena, 5 km E San Saba 26-30.IV.2004, J. and A. Podlussany (PGPC); **Catania**: Calatabiano, San Marco, Foce Alcantara, 19.V.2010, Baviera C. (BCPC); Monte Etna, Passopisciaro Via Guardiola, 30.IV.2016, Baviera C. (BCPC); Monte Etna versante nord, Piano Provenzana, Monte Nero, 2000 m a.s.l., 08.VI.2000, Baviera C. (BCPC); Linguaglossa, Bosco misto, 22.VI.2000, Baviera C. (BCPC); ditto, 08.VI.2000, Baviera C. (BCPC); ditto, 28.IV.2000, Baviera C. (BCPC); ditto, Pineta di Ragabo, 1500 m a.s.l., 23.VI.2001, Baviera C. (BCPC); versante Est, Sant'Alfio, 1200 m a.s.l., 02.VII.1999, Baviera C. (BCPC); versante Est, Milo, Bosco Cerrita, 1600 m a.s.l., 01.VII.2004, Baviera C. (BCPC); versante sud, Adrano, 1400 m a.s.l., Osservatorio, 12.VI.2011, Baviera C. (BCPC); Caltagirone, 560 m, 21.III.2015, A. Degiovanni; Adrano, 12.IV.2011, Sama G.; Linguaglossa 450 m, 8.IV.2013, A. Paladini; dint Regalia, Etna, 1250 m, 26.V.2009, G.L. Agnoli; pendici S Mt Etna, 28.V.2010, L. Diotti (PGPC); **Siracusa**: Lentini, su Citrus, 10.V.2000, ISA (BCPC); Buccheri, Angelini F.; Carlentini, Monzini S.; **Caltanissetta**: Gela, Biviere, 29-30.V.2006, Baviera C. (BCPC); **Palermo**: Madonie, Piano Battaglietta, 1700 m a.s.l., vaglio, 30.V.2007, Baviera C. (BCPC); Monti Sicani, Alia, 10-13.III.2009, vaglio *Olea* and *Quercus*, Baviera C. and Bellò C., (BCPC); Bosco Ficuzza, 800 m a.s.l., 20.VI.2001, Baviera C. (BCPC); **Enna**: Piazza Armerina, 27.IV.2007, F. Angelini (PGPC); **Palermo**: Montemaggiore Belsito, dint. Stazione, 8.IV.2011 Muscarella C. (FEI); **Trapani**: Selinunte,

Foce Torrente Morone, 09.IV.1998, Baviera C. (BCPC); RNO Saline di Trapani e Paceco, Salina Anselmo, 28.IV.2004, Baviera C. (BCPC); Castellammare del Golfo, Monte Sparagio, 900 m a.s.l., vaglio, 09.III.2009, Baviera C. and Bellò C., (BCPC); Isole Egadi, Levanzo, 23.IV.2007, Baviera C. (BCPC); Santa Ninfa, 250 m, 20.III.2009, Degiovanni A. (PGPC); Isola di Pantelleria, loc. Mursia, 25.IV.2009, L. Diotti (PGPC).

Notes. One of the most common and widespread species in Sicily, known from Messina (Peloritani, San Rizzo; Lipari, Vulcano, Stromboli, Panarea), Catania (San Gregorio, Santa Caterina, Randazzo, Zafferana), Palermo (Capaci, Piana Albanesi, Piano Zucchi), Siracusa (Pantano Longarini, Noto), Trapani (Favignana) never reported before for: Levanzo Island, Nebrodi, Etna, Caltanissetta and Trapani province mainland (Platia 2005; Lo Cascio *et al.* 2006).

Cardiophorus vestigialis Erichson, 1840

Chorotype – TUE

Trophic category – ZSA

New records – **Messina:** Monti Peloritani, Monte Scuderi, 1100 m a.s.l., 31.V.2005, Baviera C. (BCPC); Musolino, 700 m a.s.l., 04.VI.2000, Baviera C. (BCPC); Montalbano Elicona, Bosco di Malabotta, 1300 m a.s.l., 29.X.2006, Baviera C. (BCPC); ditto, 05.III.2006, Baviera C. (BCPC); Monte Antennammare, 1133 m a.s.l., 19.II.2006, Baviera C. (BCPC); Castiglione-F. Alcantara (ME), 8.IV.2013, L. Colacurcio.(PGPC). **Catania:** Fiume Alcantara, Castiglione di Sicilia, Cuba Bizantina, 19.IV.2010, Baviera C. (BCPC); Monte Etna, Passopisciaro Via Guardiola, 30.IV.2016, Baviera C. (BCPC); Monte Etna versante nord, Linguaglossa, Piano Provenzana, 1900-2100 m a.s.l., pit fall traps, 16.V-14.VI.2002, Baviera C. (BCPC); Linguaglossa, dint., 22.IV.2000, Baviera C. (BCPC); versante sud, Adrano, Osservatorio, 1400 m a.s.l., pit-fall traps, 12-26.VI.2011, Biondi S. (BCPC); versante Est, Milo, Bosco Cerrita, 1600 m a.s.l., 12.V.2006, Baviera C. (BCPC); Linguaglossa, 450 m, 8.IV.2013, A. Paladini; Adrano, 12.IV.2011, Sama G. (PGPC); Albergo Mareneve, Diotti L. (PGPC); **Siracusa:** Sortino, Valle dell'Anapo, vaglio *Rubus* e *Olea*, 14.IV.2010, Baviera C. Bellò C. (BCPC); Lentini, su agrumi, 17.V.2000, ISA (BCPC); ditto, 10.V.2000, ISA (BCPC); Lentini, 7.IV.2013, L. Colacurcio (PGPC); Buccheri, Angelini F. (PGPC); Noto Antica, Angelini F. (PGPC).

Notes. Common species widespread in all Sicily, from Messina (Peloritani, Nebrodi), Catania (many localities), Enna (Piazza Armerina), Ragusa, Siracusa, Palermo (Piano Zucchi) also reported from Lampedusa, Pantelleria, Lipari (Lo Cascio *et al.* 2006).

Paracardiophorus musculus (Erichson, 1840)

Chorotype – SIE

Trophic category – ZSA

New records – **Catania:** Monte Etna versante nord, Linguaglossa, Piano Provenzana, Monte Nero, 2100 m a.s.l., 15.VI.2003, Baviera C. (BCPC).

Notes. Uncommon species in Sicily known only from Trapani province, until now (Segesta: (Platia 2005)).

TABLE 1. Updated checklist of Sicilian Elateridae with Red List category and criteria as adopted in the Italian Red List (ITRL) (Rapuzzi et al., 2014; 2015) and European Red List (EURL) (Nieto and Alexander, 2010). Introduced and established allochthonous species in Sicily are reported by "I"; Sicilian and Italian endemic taxa are in bold.

SPECIES	AUTORS	ITRL	EURL
<i>Adrastus limbatus</i>	(Fabricius, 1776)		
<i>Adrastus rachifer</i>	(Fourcroy, 1785)		
<i>Aeoloderma crucifer</i>	(Rossi, 1790)		
<i>Agriotes aequalis</i>	Schwarz, 1891		
<i>Agriotes brevis</i>	Candèze, 1863		
<i>Agriotes corsicus</i>	Candèze, 1863		
<i>Agriotes infuscatus</i>	Desbrochers des Loges, 1870		
<i>Agriotes lineatus</i>	(Linnaeus, 1767)		
<i>Agriotes litigiosus</i>	(Rossi, 1792)		
<i>Agriotes siciliensis</i>	Pic, 1912		
<i>Agriotes sordidus</i>	(Illiger, 1807)		
<i>Agrypnus murinus</i>	(Linnaeus, 1758)		
<i>Ampedus cardinalis</i>	(Schiodte, 1865)	LC	NT
<i>Ampedus cinnaberinus</i>	(Eschscholtz, 1829)	LC	LC
<i>Ampedus coenobita</i>	(Eschscholtz, 1829)	NT	NT
<i>Ampedus praeustus</i>	(Fabricius, 1792)	NT	LC
<i>Ampedus quercicola</i>	(Buysson, 1887)	LC	LC
<i>Ampedus rufipennis</i>	(Stephens, 1830)	VU	LC
		B2ab(i,ii,iii,iv,v)	
<i>Ampedus sanguineus</i>	(Linnaeus, 1758)	LC	LC
<i>Ampedus sanguinolentus</i>	(Schrank, 1776)	LC	LC
<i>Anostirus cerrutii</i>	Binaghi, 1940		
<i>Athous ineptus</i>	Candèze, 1860		
<i>Athous cachecticus</i>	Candèze, 1860		
<i>Betarmon bisbimaculatus</i>	(Fabricius, 1803)		
<i>Cardiophorus albofasciatus</i>	Schwarz, 1893		
<i>Cardiophorus anticus</i>	Erichson, 1840	NT	
<i>Cardiophorus aetnensis</i>	Platia and Baviera, 2005	DD	
<i>Cardiophorus collaris</i>	Erichson, 1840		
<i>Cardiophorus eleonorae</i>	(Gene, 1836)		
<i>Cardiophorus exaratus</i>	Erichson, 1840		
<i>Cardiophorus italicus</i>	Platia and Bartolozzi, 1988		
<i>Cardiophorus ulcerosus</i>	(Gene, 1836)		
<i>Cardiophorus vestigialis</i>	(Erichson, 1840)		
<i>Cidnopus pilosus</i>	(Leske, 1785)		
<i>Cidnopus pseudopilosus</i>	Platia and Gudenzi, 1985		
<i>Compsolacon crenicollis</i>	(Ménétriés, 1832)		
<i>Conoderus posticus</i>	(Eschscholtz, 1829)	I	
<i>Dalopius marginatus</i>	(Linné, 1758)		
<i>Drasterius bimaculatus</i>	(Rossi, 1790)		

Continued on next page

Table 1 – Continued from previous page

<i>Ectamenogonus montandoni</i>	(Buysson, 1881)		
<i>Harminius spiniger</i>	(Candèze, 1860)		
<i>Hemicrepidius hirtus</i>	(Herbst, 1784)		
<i>Idiotarmon quadrivittatus</i>	(Ragusa, 1893)		
<i>Idolus picipennis</i>	(Bach, 1852)		
<i>Ischnodes sanguinicollis</i>	(Panzer, 1793)	VU B2ab(ii,iii)	VU
<i>Isidus moreli</i>	Mulsant and Rey, 1874	VU B1ab(iii)+2ab(iii)	NT
<i>Lacon querceus</i>	(Herbst, 1784)	EN B1ab(iii)+2ab(iii)	NT
<i>Lacon punctatus</i>	(Herbst, 1779)	LC	LC
<i>Limonius minutus</i>	(Linnaeus, 1758)		
<i>Megapenthes lugens</i>	(L. Redtenbacher, 1842)	VU B1ab(iii)+2ab(iii)	
<i>Megathous ficuzensis</i>	(Buysson, 1912)	CR B1ab(iii)+2ab(iii)	
<i>Melanotus castanipes</i>	(Paykull, 1800)	LC	LC
<i>Melanotus crassicollis</i>	(Erichson, 1841)		
<i>Melanotus dichrous</i>	(Erichson, 1841)		
<i>Melanotus punctolineatus</i>	(Pelerin, 1829)		
<i>Melanotus tenebrosus</i>	(Erichson, 1841)		
<i>Melanotus villosus</i>	(Fourcroy, 1785)	LC	LC
<i>Mulsanteus guillebelli</i>	(Mulsant and Godart, 1853)		
<i>Odontoderus antgai</i>	(Buysson, 1895)		
<i>Paracardiophorus musculus</i>	(Erichson, 1840)		
<i>Procræus tibialis</i>	(Lacordaire in Boisduval and Lacordaire, 1835)	EN B2ab(ii,iii)	LC
<i>Quasimus liliputanus</i>	(Germar, 1844)		
<i>Quasimus minutissimus</i>	(Germar, 1822)		
<i>Reitterelater dubius</i>	(Germar, 1822)	CR B1ab(iii)+2ab(iii)	DD
<i>Mosotalesus impressus</i>	(Fabricius, 1792)		
<i>Selatosomus amplicollis</i>	(Fabricius, 1792)		
<i>Stenagostus rhombeus</i>	(Olivier, 1790)	VU B1ab(iii)+2ab(iii)	LC
<i>Synaptus filiformis</i>	(Fabricius, 1781)		
<i>Zorochros curtus</i>	(Germar, 1844)		
<i>Zorochros demustoides</i>	(Herbst, 1806)		
<i>Zorochros meridionalis</i>	(Castelnau, 1840)		
<i>Zorochros pumilio</i>	(Kiesenwetter, 1858)		
<i>Zorochros trigonochirus</i>	(Binaghi, 1933)		

4. Conclusions and final remarks

With the report of six new species: *Dalopius marginatus*, *Isidus moreli*, *Ampedus sanguineus*, *Zorochochros meridionalis*, *Agriotes infuscatus* and the alloctonous *Conoderus posticus*, seventy-three species of Elateridae are confirmed to Sicily. Only two species, *Odontoderus antigai* (Buysson, 1895) and *Agriotes (Agriotes) aequalis* Schwarz, 1891 (this one described from “Sicily”) was never recollected in the Island. Four species are Sicilian endemic: *Megathous ficuzzensis*, *Agriotes siciliensis*, *Cardiophorus albofasciatus*, *Cardiophorus aetnensis*. Seven species reported from Sicily in Fauna Europea Database need

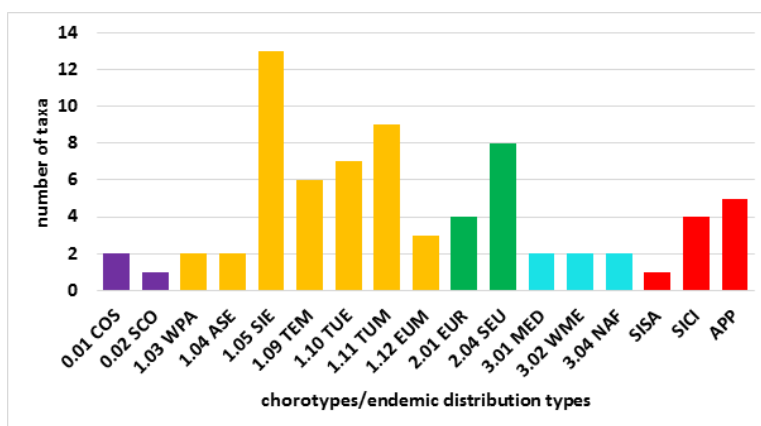


FIGURE 1. Number of Sicilian click-beetles taxa subdivided in the different chorotype or endemic distribution types categories (see Sec. 2 for abbreviations).

to be excluded from Sicilian fauna: *Dicronychus cinereus* (Herbst, 1784), *Athous vittatus* (Gmelin, 1790), *Elater ferrugineus* Linnaeus, 1758, *Zorochochros alysidotus* (Kiesenwetter, 1858), *Cardiophorus goezei* Sanchez-Ruiz, 1996, and *Lanelater notodonta* (Latreille, 1827) an old naturalized species in Sicily, now considered extinct. The click-beetles species of Sicily constitute about 31% of the whole Italian click-beetles fauna (Platia 2005). Seventeen different chorotypes and endemic distribution types are represented; 57% of the species show a widespread distribution in the Palaearctic Region (PAL s.l.), including mainly the Sibiric-European chorotype (13 species; 17.8% of the total) (see Figs. 1 and 2). The European component (EUR s.l. 21%) and the endemic distribution types (END s.l. 14%) are well represented. Very few are the Mediterranean s.l. species (only 8%). This data suggests that the click-beetles Sicilian fauna origins by the range shifts caused by the cyclic climatic changes during the Pleistocene glaciations. Differs from many others beetles groups during the “climatic optimum” after the last glaciation, the increase in dominance of woody vegetation strongly increased the presence of high altitude refugia, causing the survive of Nordic species on isolated Mediterranean mountain massifs. As for the endemism, Sicily has nine endemic and subendemic species of Elateridae, amounting to 5% of the entire Italian endemic click-beetles component, comprising four strictly endemic Sicilian species (SICI), and five endemic south-appenine species (APP). After analyzing the trophic categories, it emerges that the predators species represent the 27% of the total (see Fig. 3), followed by

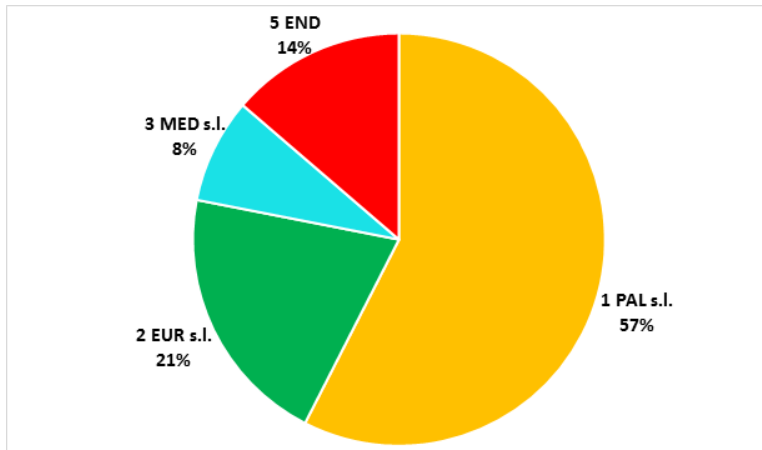


FIGURE 2. Percentage of Sicilian click-beetles taxa with chorotype categories without cosmopolite ad subcosmopolite taxa (see Sec. 2 for abbreviations).

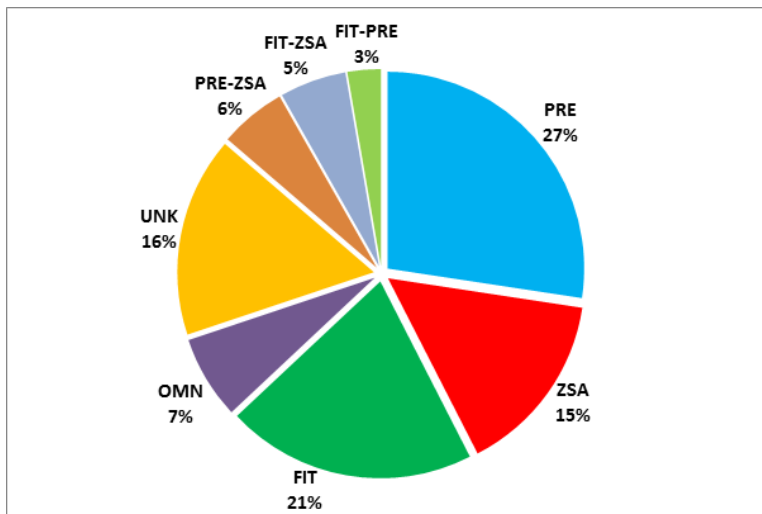


FIGURE 3. Percentage of Sicilian click-beetles species per trophic category (see Sec. 2 for abbreviations).

phytophagous (21%) and zoosaprophagous (15%). For the 16% of the species the feeding habits is still unknown. Twenty Sicilian Elateridae species were reported in the Red List of Saproxyllic Beetles (Platia and Liberto 2014; Carpaneto *et al.* 2015), half of which are in risk categories (two as Critical Risk (CR), two as Endagerent (EN), and six as Vulnerable (VU)). This is the first organic checklist of this family in Sicily, so others specialized researches should probably confirm old distribution data for some clik-beetles species and perhaps found also undescribed taxa.

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