

New data on the beetle fauna (Insecta Coleoptera) in the Trapani surroundings (Sicily, Italy)

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ABSTRACT

In this work, some interesting beetles (Insecta Coleoptera) collected in the surroundings of Trapani (Sicily, Italy) are reported. Among these, *Icosium (Icosium) tomentosum tomentosum* Lucas, 1854 (Cerambycidae) is a new record for Sicily.

KEY WORDS

Faunistic; biodiversity; taxonomy; checklist.

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INTRODUCTION

The research conducted in recent years on Sicilian beetles (Insecta Coleoptera) has allowed us to obtain various new or interesting taxonomic, faunal and geonomic data. In this work we report the first results of these researchs.

MATERIAL AND METHODS

The identifications were carried out directly in the field, limiting the sampling of living specimens to a minimum. The morphological study was carried out using an Optika stereomicroscope and with a Canon EOS 100D and Nikon D3100 camera. The specimens were preserved dry or in 80% alcohol in the respective authors' collections. The bibliography consulted and the determinations made by other author are cited in the text. The systematic list follows the one adopted by Stoch (2003).

RESULTS

Systematics

Familia CARABIDAE Latreille, 1802

Subfamilia HARPALINAE Linnaeus, 1758

Tribus *Harpalini* Linnaeus, 1758

Genus *Daptus* Fischer von Waldheim, 1824

Daptus vittatus Fischer von Waldheim, 1824

MATERIAL EXAMINED. ITALY • 1 specimen; Sicily (Trapani): Marsala, Isola Lunga; 24 Apr. 2022; legit V. Genna and S. Surdo.

DISTRIBUTION AND BIOLOGY. The genus *Daptus* listed five species in the world (Kataev et al., 2003): *D. acutus* Reitter, 1893, *D. afghanistanus* Jedlicka, 1965, *D. komarowi* Semenov, 1889, *D. pictus* Fischer von Waldheim, 1823 and *D. vittatus*.

Daptus vittatus is the most widely distributed species in the Palearctic region, reported also in

Korea (Choi et al., 2016). In Italy, it is reported for Veneto, Friuli Venezia Giulia, Emilia Romagna, Apulia, Sicily, Sardinia (Magistretti, 1965; Casale et al., 2021).

It lives in clayey or salty soils, in coastal lagoons or in salt marshes. During the day it remains hidden in a vertical tunnel dug into the ground, and is rarely found at the base of halophilous plants or under debris; active at night, it flies and is attracted by artificial lights (Sparacio, 1995).

REMARKS. In Sicily, this species was reported only by Gridelli (1944) for Trapani.

This finding confirms the presence of *D. vittatus* in western Sicily and represents a new record for Isola Lunga.

Subfamilia PTEROSTICHINAE Bonelli, 1810
Tribus PTEROSTICHINI Bonelli, 1810

Genus *Percus* Bonelli, 1810

Subgenus *Percus* Bonelli, 1810

Percus (Percus) lineatus Solier, 1835

MATERIAL EXAMINED. ITALY • 2 specimens; Sicily (Trapani): Marsala, Mothia Island, 5 May 2022, legit I. Sparacio.

DISTRIBUTION AND BIOLOGY. W-Mediterranean chorotype: Algeria, Tunisia and Sicily (Sicilian-Maghrebian). Species known from various localities in the Trapani area (Palumbo, 1889–1896; Ragusa, 1883–1887; Magistretti, 1965; Aliquò & Castelli, 1991; Sparacio, 1995) also reported for Pantelleria (Magistretti, 1965; Vigna Taglianti, 1995) and Favignana (Magistretti, 1967, 1968, 1971).

It lives at low and medium altitudes, under stones and debris, apparently euriecan but presumably silvicolous of relict forest formations (Vigna Taglianti, 1995).

REMARKS. *Percus lineatus* was found in Mothia Island under stones. New report for this island.

Subfamilia DRYPTPTINAE Bonelli, 1810
Tribus DRYPTINI Bonelli, 1810

Genus *Drypta* Latreille, 1796

Subgenus *Drypta* Latreille, 1796

Drypta (Drypta) dentata (Rossi, 1790)

MATERIAL EXAMINED. ITALY • 13 specimens;

Sicily (Trapani), mouth of Birgi river; 6 Nov. 1993, 12 Dec. 2019; legit I. Sparacio.

DISTRIBUTION AND BIOLOGY. Europe, West Asia, Africa (Baehr, 2003) including all of Italy (Casale et al., 2021).

It lives in sandy coasts and moist soils close to fresh water.

REMARKS. Aliquò & Castelli (1991) reported for Trapani province only the record of Ragusa (1883–1887: Trapani). This species was found at the mouth of the Birgi river under stones and debris, near the beach.

Familia SCARABAEIDAE Latreille, 1802
Subfamilia MELOLONTHINAE Samouelle, 1819
Tribus RHIZOTROGINI Burmeister, 1855

Genus *Geotrogus* Guérin-Ménéville, 1842
Geotrogus pellegrinensis (Brenske, 1893)

MATERIAL EXAMINED. ITALY • 2 specimens; Sicily (Trapani): Marsala, Mothia Island; 5 May 2022, legit V. Genna and S. Surdo.

DISTRIBUTION AND BIOLOGY. Endemic to North-western Sicily: Palermo and Trapani surroundings (Sparacio, 2014; Carpaneto et al., 2021).

Geotrogus pellegrinensis lives in open areas, under stones, on soil or (males only) flying during the spring months. The larvae are rhizophagous and are found underground.

REMARKS. This species is becoming increasingly rare in the Palermo surroundings while it is more common in the Trapani province. New record for Mothia island.

Familia BUPRESTIDAE Leach, 1815
Subfamilia CHRYSOCHROINAE Lacordaire, 1857
Tribus POECILONOTINI Jacobson, 1913

Genus *Lamprodila* Motschulsky, 1860
Subgenus *Palmar* C.F.A. Schaeffer, 1949
Lamprodila (Palmar) festiva festiva (Linnaeus, 1767)

MATERIAL EXAMINED. ITALY • 1 specimen; Sicily (Trapani), Marsala; 12 Jun. 2021; legit V. Genna.

DISTRIBUTION AND BIOLOGY. Mediterranean chorotype (Kubáň et al., 2006; Curletti, 2021) but

new records of this species in the Central, Eastern Europe and in Russia (Nitzu et al., 2016; Volkovitsh & Karpun, 2017) suggest expansion of its range.

It develops in Cupressaceae as *Juniperus* but adapted to new host plants like *Chamaecyparis*, *Cupressus*, *Platycladus*, *Thuja*, etc.

REMARKS. This species was not yet reported for Sicily until recently (Curletti, 1994), however lately there have been occasional online reports, as one individual has been photographed by Brancato (2007) in Mondello (Palermo), by Messana (2020) on 21.VI.2020 in Marsala and one by Asta (2019) on 22.VI.2019 in Porticalazzo, Trapani.

Subfamilia BUPRESTINAE Lacordaire, 1857
Tribus CHYSOBOTHRINI Gory et Laporte, 1838

Genus *Chrysobothris* Eschscholtz, 1829
Subgenus *Chrysobothris* Eschscholtz, 1829
Chrysobothris (Chrysobothris) dorsata dorsata (Fabricius, 1787)

MATERIAL EXAMINED. ITALY • 1 specimen; Sicily (Trapani): Mazara del Vallo; 21 Jun. 2022; legit A. Ditta.

DISTRIBUTION AND BIOLOGY. *Chrysobothris (C.) dorsata* is of Afrotropical origin but reported in other regions such as Spain, Sicily and Portugal (Cobos, 1949; Arnáiz Ruiz & Ibañez, 2001; Bella et al., 2001; Verdugo, 2005; Kuban, 2006; Curletti, 2021).

The larva of *Chrysobothris (C.) dorsata* is polyphagous, feeding on wood of *Acacia*, *Albizia*, *Caesalpinia*, *Casuarina*, *Morus*, citrus crops, fig trees, apricot trees, peach trees or mangoes (Batt et al., 2020). In the Iberian Peninsula it has been detected on *Ceratonia siliqua* L., *Citrus* spp. and *Celtis australis* L. (Verdugo, 2005; Molina Molina & Verdugo, 2012).

REMARKS. Reported for the first time in Sicily for San Gregorio di Catania (Bella et al., 2001), this species was subsequently found in Cinisi near Palermo (Sparacio et al., 2003). In recent years other specimens have been regularly found in the city of Palermo and its surroundings (personal data) as confirmed also by Brancato (2014).

Famiglia ELATERIDAE Leach, 1815

Subfamilia AGRYPNINAE Candèze, 1857

Genus *Lacon* Laporte, 1838
Lacon punctatus (Herbst, 1779)

MATERIAL EXAMINED. ITALY • 1 specimen; Sicily (Trapani): Marsala, Mothia Island, 5 May 2022, legit I. Sparacio.

DISTRIBUTION AND BIOLOGY. Turanian-European-Mediterranean including continental and insular Italy (Platia, 1994; Cate, 2007; Pulvirenti & Platia, 2021, 2022).

Saproxylic species, typically associated with old trees.

REMARKS. Common species in Sicily especially in woods under bark and in old trees. It is not known from the province of Trapani (Baviera & Platia, 2018) where it was found in Mothia under *Pinus* bark.

Subfamilia ELATERINAE Leach, 1815
Tribus POMACHILIINI Candèze, 1859
Genus *Isidus* Mulsant et Rey, 1874

Isidus moreli (Mulsant et Rey, 1874)

MATERIAL EXAMINED. ITALY • 1 specimen; Sicily, Siracusa: Vendicari; 5 Mar. 2011; legit I. Sparacio; 1 specimen; Trapani: Marsala; 10. Jun. 2018; legit I. Sparacio.

DISTRIBUTION AND BIOLOGY. Turanian-Mediterranean chorotype. It is widespread in France, Italy, Malta, Spain, Ukraine, Morocco, Tunisia, Algeria, Egypt, Cyprus and Turkey (Cate, 2007; Delnatte, 2010; Alonso-Zarazaga & Cate, 2023; Pulvirenti & Platia, 2021, 2022). In Sicily, it is reported for Casabianca near Messina (Baviera & Platia, 2018); mouth of Simeto River near Catania (Altadonna, 2015), provinces of Trapani, Agrigento, Ragusa and Messina without a precise location (Pulvirenti & Platia, 2022). Recently, Muscarella et al. (2024) document the presence of this species in Sicily in numerous localities (Trapani: mouth of Modione river, mouth of Belice river; Agrigento: mouth of Platani river, Siculiana Marina, Torre Salsa; Caltanissetta: Marina di Butera; Ragusa: Marina di Ragusa, mouth of Irminio river, mouth of Petrarco river, Santa Maria del Focallo; Siracusa: mouth of Tellaro river; Catania: mouth of Simeto River).

The larvae of *I. moreli* are saproxylophagous in dead wood (*Platanus* and *Populus*) which are found on beaches near the river mouths. Usually, the larvae live in the part of the wood directly in contact with the sandy substrate and can move between the roots of the dune plants (Leseigneur, 1972; Giordan Soika, 1992; Platia, 1994; Delnatte, 2010; Muscarella et al., 2024).

REMARKS. To the numerous Sicilian localities reported by Muscarella et al. (2024) for this species we add those recorded by us to confirm a greater presence of *Isidus moreli* in the Sicilian sandy coasts.

Famiglia CERAMBYCIDAE Latreille, 1802
Sottofamiglia CERAMBYCINI Latreille, 1802

Genus *Icosium* Lucas, 1854

Icosium (Icosium) tomentosum tomentosum Lucas, 1854

MATERIAL EXAMINED. ITALY • 1 specimen; Sicily (Trapani): Valderice; 18 Jun. 2021; legit S. Surdo.

DISTRIBUTION AND BIOLOGY. *Icosium (Icosium) tomentosum tomentosum* is widespread in Western Mediterranean and reported for Italy in Tuscany, Latium and Sardinia; introduced in California (Bohne, 2006); *Icosium (I.) tomentosum atticum* Ganglbauer, 1882 is the subspecies from Eastern Mediterranean and reported for Italy in Emilia-Romagna, Molise, Apulia and Basilicata (Sama, 1988; Rapuzzi, 2021).

Larvae live on *Juniperus* ssp., *Thuya*, *Cupressus*, *Callitrix*.

REMARKS. A specimen of this species was found attracted by the light in the evening hours. New species for Sicily (Baviera et al., 2017; Rapuzzi, 2021).

Familia CURCULIONIDAE Latreille, 1802
Subfamilia SCOLYTINAE Latreille, 1807
Tribus CRYPHALINI Lindemann, 1876

Genus *Hypocryphalus* Hopkins, 1915
Hypocryphalus scabricollis (Eichhoff, 1878)

MATERIAL EXAMINED. ITALY • 14 specimen; Sicily (Trapani): Valderice; 12 Jun. 2022; legit S. Surdo; • 2 specimens; Mazara del Vallo; 8 May 2022; legit A. Ditta.

DISTRIBUTION AND BIOLOGY. This species is native to Asia and is present in India, Sri Lanka, Bangladesh, Burma, China, Vietnam as well as in the Philippines (Wood & Bright, 1992). In Europe, *H. scabricollis* was recorded for the first time in 1991 in Malta (Mifsud & Knížek, 2009; Mifsud et al. 2012) and subsequently in Sicily (Campo et al., 2016; Faccoli et al., 2016); it was also found in Tunisia (Gaaliche et al., 2018).

In its native area, *H. scabricollis* is polyphagous on numerous plants. In Malta, it was recorded on *Ficus retusa* (Mifsud & Knížek 2009) and on *F. carica* (Mifsud et al., 2012). In Sicily, *H. scabricollis* has been found on *F. carica* (Campo et al., 2016; Faccoli et al., 2016; Di Silvestro et al., 2021).

REMARKS. The Sicilian reports refer mainly to the territory of Syracuse (Campo et al., 2016; Faccoli et al., 2016) and the surroundings of Catania (Di Silvestro et al., 2021).

In these new records from Trapani province, *H. scabricollis* has been found on *F. carica*.

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