Biodiversity Journal, 2018, 9 (3): 237–240 DOI: 10.31396/Biodiv.Jour.2018.9.3.237.240

On the presence of *Cyphosoma lawsoniae lawsoniae* (Chevrolat, 1838) (Coleoptera Buprestidae) in Sicily, Italy

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ABSTRACT *Cyphosoma lawsoniae lawsoniae* (Chevrolat, 1838) (Coleoptera Buprestidae) had already been reported in the past for Sicily (Italy). However, its presence on the island is doubted due to the lack of recent records. In the present paper, the occurrence of this species in Sicily is confirmed by one finding in Catania's Plain (Catania province, East Sicily). A short description of the finding locality is given.

KEY WORDS Distribution; Buprestidae; *Cyphosoma*; Sicily.

Received 06.08.2018; accepted 19.08.2018; printed 30.09.2018; published online 05.10.2018

INTRODUCTION

The genus *Cyphosoma* Mannerheim, 1837 (Coleoptera Buprestidae) comprises a dozen palaearctic taxa (Kubáň, 2006), of which two occour in Italy: *C. euphraticum euphraticum* (Gory et Laporte, 1839), with Turanic-Eastern Mediterranean geonemy, reported for Apulia, Basilicata, and Calabria, and *C. lawsoniae lawsoniae* (Chevrolat, 1838), a widely diffused in Southern Mediterranean species present only in Sicily and Sardinia (Porta, 1924; Luigioni, 1929; Curletti, 1994; Sparacio, 1997; Curletti et al., 2003; Kubáň, 2006). In particular, *C. lawsoniae lawsoniae* is reported in Sicily only on generic indications, without any specific location. In addition, three specimes conserved in collections of the Entomological Department of the National Museum, Praha-Kunratice, are generically labelled as "Sicilia" (Trojan, 2009).

In this paper, a recent finding of *C. lawsoniae* in Sicily (Catania province) is signaled and the locality of the finding is shortly described.

ABBREVIATIONS. CA: G. Altadonna collection; CS: I. Sparacio collection; ex: specimen; leg.: legit.

Cyphosoma lawsoniae lawsoniae (Chevrolat, 1838)

EXAMINED MATERIAL. Italy, Sicily, Catania province, Belpasso, Simeto river (20 m a.s.l.), Lat. 37°27'00.7"N, Long. 14°55'48.7"E, 6.IX.2015, on *Tamarix* sp., 1 ex, G. Altadonna leg. (CA).

OTHER EXAMINED MATERIAL. *Cyphosoma lawsoniae lawsoniae.* Spain, Cádiz, Chiclana, 2.V.1995, leg. P. Coello, 1 ex (CS); Tunisia, Bizerta, 15.V.1987, leg. I. Sparacio, 1 ex (CS); Italy, Sardinia, Oristano, Sinis, Is. Arutas, 5.VII.1991, leg. M. Romano, 1 ex (CS); Sardinia, Cagliari, Assemini, 17.VI.1993, leg. L. Fancello (CS).

Cyphosoma euphraticum euphraticum. Greece, SE Larissa, Kalamaki, 6.VI.1997, leg. I. Sparacio (CS): Italy, Apulia, Taranto, Marina di Ginosa, 7.VII.2016, 1 ex, leg. G. Cancelliere (CS).

DESCRIPTION. Female. Length from vertex to elytral apex: 14 mm, Convex, bronze, bright. Head with eyes protruding and vertex wide; holes of the antennae without frontal tubercles. Pronotum with deep and dense punctures rounded to the sides and forward. Scutellum visible. Elytra sub-parallel on the sides, restricted to the apex, with bands of deep punctures and two oblique and longitudinal bands of short and dense white pubescence. Legs relatively short, first tarsomere of the rear legs slightly longer than the second one. Prosternal process lodged in a cavity formed in the anterior part from the mesosternum and in the posterior one from the metasternum.

DISTRIBUTION AND BIOLOGY. *Cyphosoma lawsoniae lawsoniae* is a jewel beetle with a South Mediterranean distribution: it is present in Algeria, Egypt, France (Corse), Italy (Sardinia, Sicily), Libya, Morocco, Portugal, Spain, Tunisia (Bellamy, 2008; Kubáň, 2006). Locus typicus is in North East Algeria, near the Mediterranean Sea, close to Annaba municipality, near Bône (Chevrolat, 1838): "*Barbaria. Trouvé par M. Wagner sur les bords de la Seybouse sur le* Lawsonia inermis". Other subspecies of *C. lawsoniae* are recorded coming from East Asia and Central Africa: *C. lawsoniae kalalae* (Obenberger, 1929) for Iraq, Israel and Jordan (Jordan river valley); *C. lawsoniae ennediana* (Descarpentries & Mateu, 1965) for Chad and *C. lawsoniae orientalis* (Bílý, 1983) for Iran (Bellamy, 2008; Kubáň, 2006; see also Trojan, 2009).

Despite various information, the biology of *C. lawsoniae* is little known. In Algeria (Thery, 1928), this species was found in swampy environments on *Schoenus* (Cyperaceae). In Morocco (Cobos, 1955, 1969), it has been reported on *Scirpus maritimus* L. and on other plants with submerged root systems. In Spain, Cobos (1986) reports that the larva is both root-eating and exophyte, while the adults are found on Cyperaceae of the genus *Schoenus* and *Scirpus* or on *Phragmites* (Poaceae). Gobbi (1986), in a work on the hosts plants of Italian buprestids, reports almost all these data and it recalls that the type of this species was collected on *Lawsonia inermis* L. (Lythraceae), a plant native to India, but widely naturalized and cultivated in the Mediterranean area (see also Chevrolat, 1838 and Thery, 1928). Sparacio (1997) indicates this species lives in coastal environment and near river mouths and that its larva is probably rhyzophagous, maybe on Cyperaceae and *Phragmites* sp., on which the adults are often found. According to Curletti et al. (2003), the larva of this species develops on *Scirpus* plants (Cyperaceae). Finally, Trojan (2009) reports the *Bolboschoenus* (*Bolboschoenus*) *maritimus* (L.) Palla (= *Scirpus maritimus*) (Cyperaceae) as the host plant of this species, relying on biological observation conducted in northern Tunisia.

A single Sicilian specimen was found in the early morning (7:00 a.m.) on a low bush of *Tamarix* sp., near the Simeto river. The finding locality is localized in the territory of the Belpasso Municipality (Catania province), in Catania's Plain, over 10 kilometers far from the coast of the Ionian Sea. This riparian environment, surrounded by citrus groves and other crops, is characterized by a warm and very dry climate. Among the plant essences, there are: *Saccharum officinarum* L., *Phragmites australis* (Cav.) Trin. ex Steud, *Glycyrrhiza glabra* L., *Tamarix* sp., and few specimens of *Populus* sp. and *Eucalyptus* sp. Moreover, Cyperaceae and other hygrophilous vegetation are localized in the most wet points.

STATUS AND CONSERVATION. Two Italian species of the genus *Cyphosoma* have very small or restricted populations and they are decreasing due to the degradation or disappearance of the natural environments in which they live because of human activities. According to the IUCN Red List of Threatened Species Categories (2017), they can be classified as Vulnerable (VU).

REMARKS. The morphology of the Sicilian specimen does not differ from what is known for this species (Thery, 1928; Porta, 1929; Cobos, 1986). Particularly, it appears easily distinguishable from *C. euphraticum*, present in Italy, for the presence of two net pubescent longitudinal bands on the elytra. In *C. euphraticum*, the elytra are adorned by irregular, not-contigous pubescent spots.

The occurrence of this species in Sicily was first reported by Ghiliani (1839: Catania, sub *Cyphonota inflata* Dej.), subsequently by Steck (1886, Sicilia, sub *Coeculus gravidus* Lap.) and Ragusa (1893: "... *Questa specie è riportata di Sicilia in tutti i cataloghi*"). *Cyphosoma lawsoniae* is mentioned, generically for Sicily, in the subsequent catalogues on the Italian entomofauna (Porta, 1924; Luigioni, 1929; Curletti, 1994; Gobbi, 1995; Curletti at al., 2003; Kubáň, 2006).

Figure 1. *Cyphosoma lawsoniae lawsoniae* from Sicily.

Figure 2. *Tamarix* near the Simeto river (Sicily), place of the *Cyphosoma lawsoniae lawsoniae*.

Therefore, indeed, the first reporting of this species for Sicily by Ghiliani (1839) also quoted the only locality known in bibliography for this species in the island, ignored by the subsequent entomological literature until today, and which overlaps, as geographical area, with the specimen object of this paper.

The presence of *C. lawsoniae* in Sicily is thus confirmed, after almost two hundreds years.

ACKNOWLEDGMENTS

The authors would like to deeply thank Marcello Romano (Capaci, Italy). We dedicate this work to the memory of Giuseppe Cancelliere (Policoro, Italy), a young entomologist that recently died.

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