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NEW DATA ON *PROTAETIA (POTOSIA) OPACA*
(*Coleoptera Cetoniidae*)
FROM PANTELLERIA ISLAND (SICILIAN CHANNEL, ITALY)

SUMMARY

Protaetia (Potosia) opaca (Fabricius 1787) (*Coleoptera Scarabaeoidea Cetoniidae*) is here being reported for the first time from the island of Pantelleria (Sicilian Channel, Central Mediterranean Sea, Italy). Taxonomic, distribution and biological data on this species are presented.

Key-words: West Mediterranean, distribution, biology, new record, Tunisia, Portugal, *Quercus*

RIASSUNTO

Nuovi dati su Protaetia (Potosia) opaca (Coleoptera Cetoniidae) nell'isola di Pantelleria (Canale di Sicilia, Italia). Gli autori segnalano la presenza di *Protaetia (Potosia) opaca* (Fabricius 1787) nell'isola di Pantelleria (Canale di Sicilia, Mediterraneo centrale, Italia). Essi inoltre forniscono ulteriori osservazioni tassonomiche, biologiche e sulla distribuzione di questa specie.

Parole chiave: Mediterraneo occidentale, distribuzione, biologia, nuova segnalazione, Tunisia, Portogallo, *Quercus*

INTRODUCTION

The naturalistic research carried out on the island of Pantelleria (Sicilian Channel, Central Mediterranean Sea, Italy) in recent years, allowed us to obtain new data and to make some new taxonomic, distributional and bio-

logical observations on the beetle populations living on the island. In the present work, we report the new record of *Protaetia (Potosia) opaca* (Fabricius 1787) (Coleoptera Scarabaeoidea Cetoniidae) from Pantelleria, and additionally, new data on this species.

MATERIALS AND METHODS

Provenance of the material examined

Several specimens of *Protaetia* collected by the authors from different countries (France, Spain, Portugal, Tunisia, Italy, Greece) were examined.

Acronyms and abbreviations

M. Bellavista collection, Palermo, Italy (CB); I. Sparacio collection, Palermo, Italy (CS); ex/x: specimen/s; leg.: legit. Unless otherwise stated, the collector of the beetles in the field is the owner of the collection.

RESULTS

Systematics

Ordo COLEOPTERA Linnaeus, 1758
Familia CETONIIDAE Leach, 1815
Subfamilia CETONIINAE Leach, 1815
Tribus CETONIINI Leach, 1815
Genus *Protaetia* Burmeister, 1842
Subgenus *Potosia* Mulsant & Rey, 1871

***Protaetia (Potosia) opaca* Fabricius 1787**

Material examined

Protaetia opaca. France, Var, Cogolia, 18.VII.1987, 1 exx (CS). Spain. Andalusia, Siviglia surr., 25.IV.1992, leg. W. Pagliacci, 2 exx (CS). Catalonia, Val d'Aran, 18.VI.1989, 1 ex (CS). Portugal, Cabeça Gorda, 3 exx, ex *Quercus suber*, leg. T. La Mantia (CB). Morocco, Kenitra f.te de Mamora, 20-30.V.2006, leg. M. Malmusi, 4 exx (CS). Tunisia, Sousse surr., 5.VI.1992, 15 exx (CS); Capo Bon, Korbous, 26-29.IV.1998, 2 exx (CS). Tabarka, 3/9.VI.1996, 44 exx (CS). Italy, Sardinia. Baunei (Nuoro), 30.VI.1987, leg. Pavanello, 1 ex (CS). Dintorni di Baunei, 4.VII.1987, legit M. Romano, 1 ex (CS). Capoterra (Cagliari), 16.VIII.2012, leg. M. Bellavista, 1 ex (CS). Sicily.

Palermo, Stadio delle Palme, 24.VIII.1996, 1 ex (CS). Palermo, Villa Bonanno, 4.X.1996, 1 ex (CS). Palermo, Orto Botanico, 4.VI.1999, 1 ex (CS). Palermo, 14.VIII.2003, 1 ex (CS). Palermo, 20.IX.2005, on *Ficus carica*, 1 ex (CS). Cefalù, 20.XI.2005, 1 ex (CS). Palermo, via A. De Gasperi, 11.VIII.2010, leg. M. Bellavista, 1 ex (CS). Palermo, via Notarbartolo, 13.VIII.2010, on *Ficus carica*, 1 ex (CS). Palermo, via Ariosto, 14.VIII.2010, 1 ex (CS). Pantelleria, c.da San Vito on *Ficus carica*, 6.VIII.2017, 3 females, leg. T. La Mantia (CS); idem, 21.VIII.2018, 2 males and 2 females, leg. T. La Mantia (CS).

Protaetia cretica. Greece, Crete. Strovles, V.1990, 2 exx (CS). Agia marina, 29.V.2016, 1 ex (CS). Gole di Tupolia: Mili, 30.V.2016, 4 exx (CS). Mounries: Aletrouvari, 31.V.2016, 3 exx (CS). Zaros surr., 1.VI.2016 11 exx (CS).

Comparative notes

The specimens collected from Pantelleria (Figs. 1A, 1B) show the main morphological characters and the shape of the aedeagus as reported in the

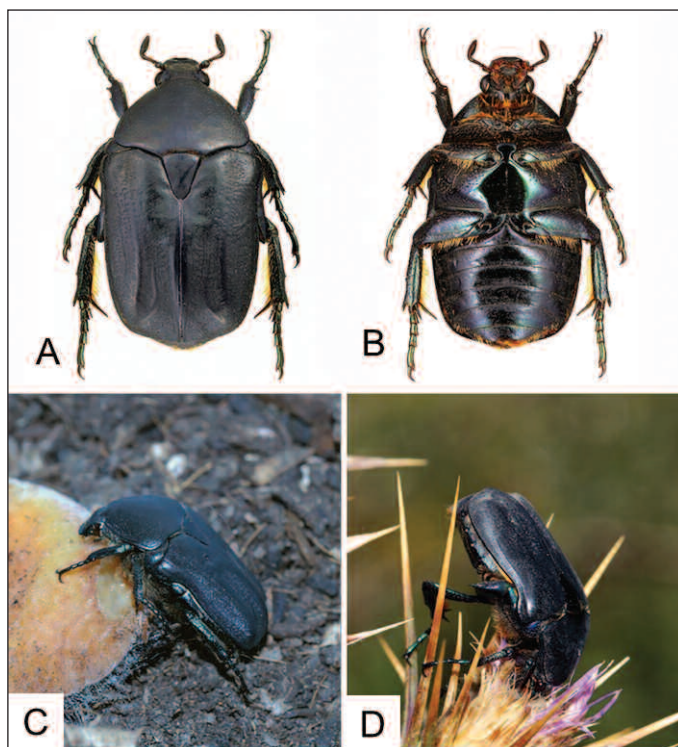


Fig. 1 — (A, B) *Protaetia opaca* from Pantelleria Island; (C) *P. opaca* from Cabeça Gorda (Portugal), ex *Quercus suber*. (D) *P. cretica* from Greece, Crete: Zaros.

descriptions of BARAUD (1977, 1985, 1992). The color is black, opaque on the back, glossy with greenish reflections on the legs and on the ventral surface. Length 18-24 mm. Metasternal plate very wide and protruding forward, smooth and flat. Aedeagus with apex elongated, robust, converging, forward-extended parameres. These specimens do not seem to show particular morphological differences with the other populations of *P. opaca* examined (Fig. 1). In particular, they appear similar to *P. opaca* collected from Tunisia near Capo Bon. The other *P. opaca* of Tunisia that we examined, and originating from the surroundings of Tabarka, appear larger and bluish-green in color.

Protaetia opaca shows, in fact, a good morphological variability that has led to the formation of different taxa, currently considered as synonymous (BARAUD, 1977, 1985, 1992; TAUZIN, 2007; SMETANA, 2006; BEZDĚK, 2016). *Protaetia cretica* of Crete (Fig. 1D) has long been considered a variety of *P. opaca*, distinct species (see SMETANA, 2006), or subspecies of *P. opaca* (see BEZDĚK, 2016). We consider this taxon a distinct species, characterized by its smaller size (length 18-22 mm), less convex body shape on the back, less wide metasternal plate; apex of the shortest and thinner parameres.

Distribution and Biology

Corotype: CW-Mediterranean. Widespread species in Libya, Tunisia, Algeria, Morocco, Canary Islands, Iberian Peninsula, Balearic Islands, Southern France, Corsica and Italy (BARAUD, 1977, 1985, 1992; SMETANA, 2006; BEZDĚK, 2016). In Italy, *P. opaca* is reported for almost all regions including the islands of Sicily and Sardinia (CARPANETO & PIATTELLA, 1995; BALLERIO *et al.*, 2010). In Sicily, recent new localities for this species have been provided by BAVIERA & SPARACIO (2002) and LAPIANA & SPARACIO (2006). It is considered absent in the islands of the Sicilian Channel (ARNONE *et al.*, 1995), except for Malta (PIVOTTI *et al.*, 2011).

Protaetia opaca is a saproxylic species with larvae that have been found in decaying wood of *Quercus*, *Ficus carica* L., *Ceratonia siliqua* L. and *Phoenix dactylifera* L. (MICÓ & GALANTE, 2003; DUTTO, 2005, 2006; TAUZIN, 2007); also on *Phoenix canariensis* Hort. ex Chabaud in Tunisia (BEN JAMÂA *et al.*, 2017). Adults active in summer, feeding at flowers and more often on fruits; they also feed on honey and pollen collected by bees (VIDANO & ONORE, 1971; SPARACIO, 1995). It is present in open forests, gardens and parklands. Our observations confirm that the larva develops on *Quercus suber* L. in Portugal and on *Phoenix dactylifera* in Tunisia (Capo Bon). The adults were observed on the flowers of *Echinops* sp. in Tunisia and on ripe fruits of *Ficus carica* in Sicily and Pantelleria.

Status and Conservation

Protaetia opaca is classified as Last Concern (LC) in the IUCN Red List of Threatened Species at European level (NIETO & ALEXANDE, 2010; NIETO *et al.*, 2010) and in the IUCN Red List of Italian saproxylic beetles (CARPANETO *et al.*, 2014).

REMARKS

A recent molecular genetic study on *Protaetia* (*Potosia*) *cuprea* (Fabricius, 1775) species complex in the Western Palearctic (VONDRÁEK *et al.*, 2018) shows how individuals of *P. opaca*, *P. fieberi* (Kraatz, 1880) and *P. angustata* (Germar, 1817) each formed a distinct monophyletic group. *Protaetia angustata* was identified as a sister group of the entire *P. cuprea* species complex. The highest genetic divergence was observed between *P. opaca* and the remaining taxa. However, the *P. opaca* clade was separated into two clusters corresponding with the geographical origin of the samples (Morocco and Tunisia). Considering the morphological variability of *P. opaca* and these preliminary data, a study of molecular genetics that includes a greater number of populations would be desirable.

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