

Faunistic updates of some Scarabaeoidea species of the Corso-Sardinian region (Insecta Coleoptera)

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ABSTRACT

New records concerning three species of Scarabaeoidea beetles recently collected in Corsica and Sardinia are given: *Anoplotrupes stercorosus* (Hartmann in Scriba, 1791) new to Corsica, *Amphimallon solstitiale tropicum* (Gyllenhal, 1817) and *Anomala dubia dubia* (Scopoli, 1763) definitively confirmed for Sardinia.

KEY WORDS

New faunistic records; insular fauna; woodland environment; Scarabaeoidea; Corsica; Sardinia.

Received 10.03.2025; accepted 30.04.2025; published online 20.05.2025

INTRODUCTION

Faunistic knowledge concerning the Scarabaeoidea beetles of Corsica and Sardinia can be considered sufficiently satisfactory in the light of the numerous research projects carried out by entomologists in recent decades, which have deepened and delineated a picture of exceptional biodiversity present in these two Mediterranean islands. Nevertheless, there are still some gaps concerning certain species with limited phenology or particularly elusive ecological habits. Some of the authors of this note have conducted specific research projects for many years (and still in progress) in certain inland areas of the two islands. The results of these researches have made it possible to identify three new faunistic records to be added to the list of the entomofauna of these two islands.

MATERIAL AND METHODS

Systematics follows the latest edition of the

Palearctic Catalogue (Löbl & Löbl, 2016). The authorship of *Anoplotrupes stercorosus* is according to the recent work of Ziani et al. (2021).

ABBREVIATIONS AND ACRONYMS. CAP = Angelo Pennisi collection, Foligno, Perugia (Italy); CDC = Davide Cillo collection, Cagliari (Italy); CGC = Giuseppe Cuboni collection, Cagliari (Italy); CMGA = Maria Grazia Atzori collection, Cagliari (Italy). L = length of specimens measured from the anterior margin of clypeus to the apex of elytra.

RESULTS

Familia GEOTRUPIDAE Latreille, 1802
Subfamilia GEOTRUPINAE Latreille, 1802
Genus *Anoplotrupes* Jekel, 1865

Anoplotrupes stercorosus (Hartmann in Scriba, 1791)

MATERIAL EXAMINED. FRANCE • 2 specimens; Haute Corse, Velone-Orneto, Pont De l'Enfer; 16

Aug. 2020; A. Marata legit; 1 male and 1 female; CDC.

REMARKS. Widely distributed species in Europe, Turkey and Siberia (Nikolajev et al., 2016), known from almost all continental departments of France (Lumaret, 1990:376; Montreuil, 2021:330) but not reported from Corsica (Dellacasa M., 2003; Jiroux, 2020). *Anoplotrupes stercorosus* has sapro-coprophagous habits and inhabits wooded areas from sea level to the tree line and beyond (Lumaret, 1990; Ballerio et al., 2014). The species has a summer and autumn phenology and is often attracted to decaying mushrooms and pitfall traps set with vinegar or beer. The pair of specimens from Corsica (Fig.1) was collected under fresh donkey dung in a deciduous mixed wood of *Quercus ilex* L. and *Castanea sativa* Mill. on a hill in a narrow valley.

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

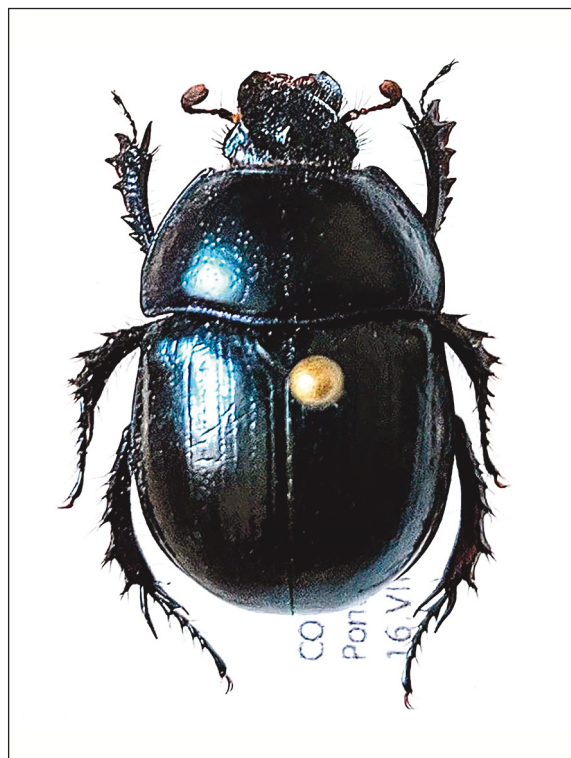


Figure 1. One of the specimens of *Anoplotrupes stercorosus* (Hartmann in Scriba, 1791) from Pont De l'Enfer, Velone-Orneto (Haute Corse). L = 19 mm.

Genus *Amphimallon* Latreille, 1825

Amphimallon solstitialis tropicum (Gyllenhal, 1817)

MATERIAL EXAMINED. ITALY • 1 specimen; Sardinia (Nuoro), Torpè, Oasi Sa Dea Torpè; 11 Jun. 2023; A. Pennisi legit; male; CFF.

REMARKS. Polytypic species known from all of Europe and part of Palaearctic Asia, with numerous forms, some of which deemed to be of subspecific rank. The nominal subspecies occurs in most of central and northern temperate Europe (Ballerio et al., 2014). In France, Switzerland and continental Italy the ssp. *tropicum* (Bezdek, 2016; Patacchiola & Fabriciani, 2022; Carpaneto et al., 2022) occurs. Only the historical record by Bargagli (1872:285) sub *R. solstitialis* L. and the more recent one by Carpaneto et al. (2011) referring to two female specimens collected on the Marganai Mounts (Iglesias) are known for Sardinia. This latter record has been rectified by Rattu et al. (2020:48), since the aforementioned specimens turned out to be two females of *Firminus fossulatus* (Mulsant et Rey, 1859) with antennomeres IV and V partially fused. Finally, the recent citation for Sardinia appeared in Cornacchia & Scaglioni (2024) must also be considered incorrect because it was directly borrowed from Carpaneto et al. (2011). The species has a late from Spring to early Summer phenology and the adults fly during the twilight hours with grazing flights over uncultivated land and are attracted to light sources. The Sardinian specimen (Figs. 2, 3) was found alive during the day under a stone in a wide clearing near Torpè Lake (Nuoro province), a situation common to many Rhizotrogini with crepuscular or nocturnal activity. The examination of some peculiar characters such as the pubescence of pronotum, elytra and pygidium as well as the aedeagus and the everted endophallus confirmed the correct identification of the species on the basis of conspicuous comparative material from Italian peninsular regions.

Subfamilia RUTELINAE MacLeay, 1819
Tribus ANOMALINI Streubel, 1839
Genus *Anomala* Samouelle, 1819

Anomala dubia dubia (Scopoli, 1763)

MATERIAL EXAMINED. ITALY • 3 specimens; Sardinia, Dolianova (SU), Rio Giorgi Porru, 17 Jun.

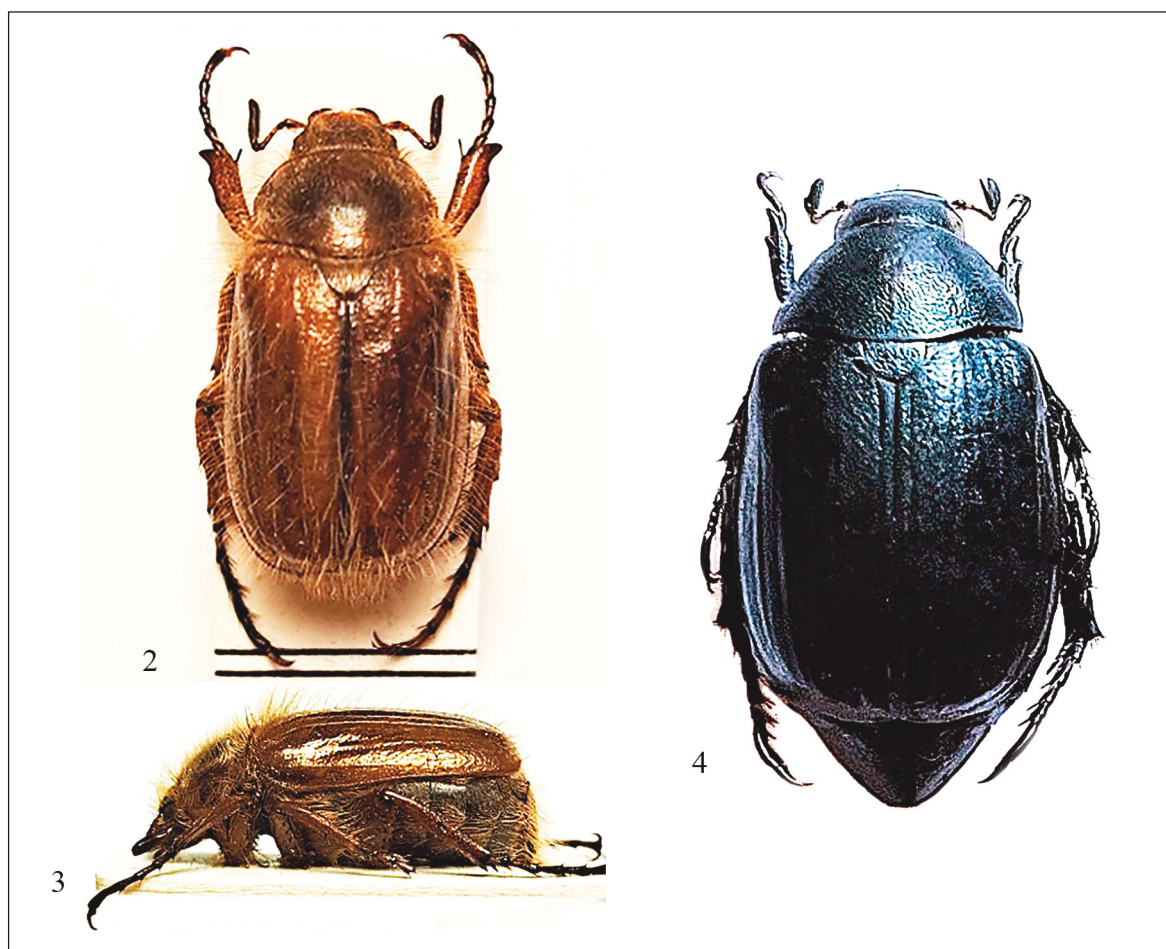


Fig. 2. Male in dorsal view of *Amphimallon solstitiale tropicum* (Gyllenhal, 1817) collected in Sa Dea Torpè, Torpè (NU). L = 16 mm. Fig. 3. Male of *A. solstitiale tropicum* from Sa Dea Torpè in lateral view. L = 16 mm. Figure 4. Specimen of *Anomala dubia dubia* (Scopoli, 1763) from Rio Giorgi Porru, Dolianova (SU). L = 14 mm.

2021, D. Cillo and G. Cuboni legit; 2 males and 1 female; CDC. • 1 specimen; idem; female; CGC. • 1 specimen; idem; 15 Jul. 2021; M.G. Atzori & D. Cillo legit; male (remains); CMGA.

REMARKS. The species is reported to be widespread throughout Europe up to the Caucasus and in Turkey and Western Siberia (Zorn & Bezděk, 2016). In Italy, the taxon is known from all peninsular regions and Sicily (Ballerio et al., 2014). The presence of *A. dubia dubia* in Sardinia, although no records are known so far, is considered probable by Carpaneto et al. (2011) due to the ascertained presence in all other Italian regions. Rattu et al. (2020) report for North-Eastern Sardinia the congeneric *A. devota* (Rossi, 1790) assuming that any historical reports of *A. dubia dubia* mentioned in Carpaneto

et al. (2011), without further clarification, could instead refer to *A. devota*. Other catalogues and checklists follow this line, considering the presence of this species as probable (Ballerio et al., 2014; Carpaneto et al., 2022).

The species has diurnal activity and a phenology limited to June and prefers riparian areas of streams, rivers or lakes. (Dellacasa G., 1970). The Sardinian specimens (Fig. 4), some of which were found in trophic activity on fronds of *Alnus glutinosa* (L.) Gaertn, 1790, were collected on the bank of a stream (Fig. 5) in a hilly wooded area (between 400 and 500 m. a.s.l.) located north-western of the inhabited area of Dolianova (South Sardinia province). These specimens were collected during a research campaign still in progress, conducted by



Figure 5. Sampling environment of *A. dubia dubia*, banks of Rio Giorgi Porru, Dolianova (SU). Photo by Jan Matějčiček.

one of the authors (DC) and other colleagues, aiming at the knowledge of the entomofauna of the area (preliminary results and detailed information about the vegetation of the collection site and geographical overview are provided in Cillo et al., 2020).

ACKNOWLEDGEMENTS

The authors would like to thank their colleagues Maria Grazia Atzori (Cagliari, Italy), Giuseppe Cuboni (Cagliari, Italy) and Jan Matějčiček (Hradec Králové, Czech Republic) for the photo of the sampling environment of *A. dubia dubia*. Finally, they are grateful to Stefano Ziani (Meldola, Forlì, Italy) and Alberto Ballerio (Brescia, Italy) for valuable advice on the final draft.

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