



A review of the *Sarcophaga* (*Heteronychia*) (Diptera: Sarcophagidae) of Sardinia*

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Abstract

An account is given of the species of *Sarcophaga* Meigen, 1826 subgenus *Heteronychia* Brauer & Bergenstamm, 1889 known from the island of Sardinia (Italy). Most of the nearly 1,400 specimens examined were collected in the SW part of the island during 2003–2006 as part of a project investigating the arthropod diversity of the Monti Marganai and Montimannu areas (respectively Carbonia-Iglesias and Medio Campidano provinces). The study resulted in the finding of eight species of *Heteronychia*, six of which are recorded from Sardinia for the first time. *Sarcophaga* (*Heteronychia*) *penicillata* Villeneuve, 1907, previously mentioned in the literature, is excluded from the fauna of the island. *Sarcophaga* (*Heteronychia*) *thirionae* (Lehrer, 1976) is recorded for the first time from Europe and North Africa (Algeria). One species, *Sarcophaga* (*Heteronychia*) *gabrielei* **sp. nov.**, from various sites in the limestone massif of Marganai, is described as new. Previously unpublished records from other Italian regions and from other countries (Algeria, Canary Islands, Greece) are also given for several species. *Sarcophaga* (*Heteronychia*) *schnabli* Villeneuve, 1911 is recognized as a junior synonym of *S. (H.) consanguinea* Rondani, 1860 **syn. nov.** The possible synanthropy of *Sarcophaga* (*Heteronychia*) *pandellei* (Rohdendorf, 1937) is briefly discussed. A key to males and females of all known Sardinian and Corsican species of *Sarcophaga* (*Heteronychia*) is provided.

Key words: *Sarcophaga*, *Heteronychia*, Sardinia, Corsica, new species, new synonymy, new records, identification key

Introduction

Compared to mainland Italy and Sicily, the flesh fly fauna of Sardinia is poorly known. Scattered records and information on Sardinian Sarcophagidae can be found in, e.g., Costa (1882, 1883, 1884), Krausse (1910), Paoli (1910), Böttcher (1912, 1913a, 1913c), Melis (1934), Séguy (1941), Saccà and Rivosecchi (1953), Venturi (1960, 1966), Delrio *et al.* (1979), Lehrer and Luciano (1979), Luciano and Prota (1981), Povolný (1997), Panu *et al.* (2000) and Povolný (2004). Pape (1995a) reported 22 species from Sardinia in the Italian checklist, and increased this number to 27 in *Fauna Europaea* (Pape 2004a).

Heteronychia Brauer & Bergenstamm, 1889, under its current definition (see Pape 1996), is the most species-rich subgenus of *Sarcophaga* Meigen, 1826, containing approximately 90 valid species distributed mainly in the Palaearctic from the Canary Islands to the Russian Far-East and Japan (Pape 1996). The Mediterranean area, from which about 50% of the described species are known, seems to be a diversity hotspot for the taxon (Pape 2009). Mainland Italy, with 30 species recorded so far (Pape 2004a; Whitmore *et al.* 2008), hosts one of the largest faunas of the subgenus in Europe. The biology of *Heteronychia* species is