



Review of the Sarcophaginae (Diptera: Sarcophagidae) of Buenos Aires Province (Argentina), with a key and description of a new species

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Abstract

Thirty-nine species of Sarcophaginae are recorded from Buenos Aires Province (Argentina). A new species, *Microcerella asymmetrica* **sp. nov.**, is described. Females of *Oxysarcodexia bicolor* Lopes, *O. marina* Hall, and *Sarcophaga (Lipoptilocnema) koehleri* Blanchard are described for the first time. Four nomenclatorial actions are reported: *Sarcohelicobia elegans* Blanchard is established as a new junior synonym of *Nephochaetopteryx cyaneiventris* Lopes, and lectotypes are designated for *Oxysarcodexia delpontei* Blanchard [a junior synonym of *Oxysarcodexia paulistanensis* (Mattos)], *Sarcophaga argentina* Brèthes [a junior synonym of *Sarcophaga (Liopygia) argyrostoma* (Robineau-Desvoidy)], and *Neobellieria brethesi* Blanchard [a junior synonym of *Sarcophaga (Neobellieria) polistensis* Hall]. *Blaesoxipha (Tephromyia) hospes* (Aldrich), *Peckia (Euboettcheria) florencioi* (Prado & Fonseca), *Ravinia advena* (Walker), *R. aureopyga* (Hall) and *Sarcodexia lambens* (Wiedemann) are newly recorded from Buenos Aires Province, and *Udamopyga percita* is newly recorded from Argentina. A key is presented to the adult males and females of 36 of the 39 species of Sarcophaginae recorded from Buenos Aires province. Notes on distribution, biology, life history and host records are also given.

Key words: Diptera, Sarcophagidae, Buenos Aires, key, new species

Introduction

The Sarcophagidae are commonly known as flesh flies because of the necrophagous habits of relatively few species. Sarcophagids actually display a wide range of life histories including a wide variety of coprophagous and parasitic species (Lopes 1969a; Pape 1996). This family exhibits its greatest diversity in the Neotropical Region (Pape 1996) with a large number of genera and species belonging to the subfamily Sarcophaginae. However, the Miltogramminae are uncommon in South America, with no endemic genera, and the Paramacronychiinae are represented by a single species (Pape 1996).

In Argentina, taxonomic studies on the Sarcophaginae began with fragmentary contributions by Weyenbergh (1875), Brèthes (1906, 1912, 1916, 1920, 1928) and Lahille (1907), focusing on parasitic species of grasshopper (Orthoptera). Later, Blanchard (1935, 1938, 1939, 1942a, 1942b, 1942c, 1954, 1955, 1966) and Hall (1937a) provided major taxonomical studies of the species existing in the country. More recently, new species and new geographic records (Mariluis 2002, 2004, 2005, 2006) and extra-taxonomic data (Mariluis *et al.* 2007; Mulieri *et al.* 2008) have been published concerning the Argentinean sarcophagid fauna. Despite all these efforts, the high species richness and the morphological uniformity of the Sarcophaginae have hampered identification efforts. The only published work useful for non-specialist users is that of Blanchard (1939), which provides a key that is only useful for male specimens. Geographic distribution and species inventories of Sarcophagidae are still incomplete in Argentina. Pape (1996) reported 15 species and 7 genera of Sarcophaginae, and 2 Miltogramminae species belonging to a single genus present in Buenos Aires in his world catalog of the Sarcophagidae. Recently, 12 species were added to this province (Mariluis 2005; Mariluis *et al.* 2007; Mulieri *et al.* 2008; Mulieri & Mariluis 2009). However, the lack of appropriate keys can lead to errors in identification, which can be especially problematic when researchers are dealing with sarcophagid species in medical, veterinary and forensic applications (Carvalho & Mello-Patiu 2008).

In an effort to advance the taxonomic work on Argentinean sarcophagids, this paper focuses on the sarcophagid fauna present in the Buenos Aires province, with special emphasis on the Sarcophaginae. This taxonomic study provides original descriptions of a new species, descriptions of three previously unknown