



<http://dx.doi.org/10.11646/zootaxa.3731.4.5>

<http://zoobank.org/urn:lsid:zoobank.org:pub:49B64CDA-07E8-473C-AD85-83C0F7ADEC63>

## Revision of *Taxigramma pseudaperta* Séguéy, 1941 and comparisons with sympatric *T. multipunctata* (Rondani, 1859) (Diptera: Sarcophagidae)

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### Abstract

The identity of the nominal taxon *Taxigramma pseudaperta* Séguéy, 1941 [type locality: France, Corse] is revised and an improved circumscription based partly on reared material of both sexes is presented through comparison with the very similar and sympatric species *T. multipunctata* (Rondani, 1859). A table is provided to separate first instars, puparia, males and females of these two taxa.

**Key words:** Diptera, Sarcophagidae, *Taxigramma*, morphology, taxonomy, nomenclature

### Introduction

*Taxigramma* Perris, 1852 in the broader circumscription of Pape (1996), which equals the subtribes Taxigrammina [as Taxigrammatina] and Hilarella *sensu* Rohdendorf (1967, 1970) and Taxigrammina *sensu* Verves (1989, 2006) with its three closely related genera *Hilarella* Rondani, 1856, *Paragusia* Schiner, 1861, and *Taxigramma*, is a taxon including some 19 species of flesh flies in the subfamily Miltogramminae. The centre of diversity for *Taxigramma* (*sensu lato*) [or subtribe Taxigrammina] is the warm, dry parts of the Palaearctic and Afrotropical regions, with a few of the more widespread species reaching into the Nearctic and Oriental regions. Revisionary taxonomic work is much needed but is impeded by a low number of specimens of several species in the major museums and what appear to be complexes of very similar species. Several biological observations can be found in the literature (Table 3), and it seems reasonable to suppose that all *Taxigramma* spp. are kleptoparasites in the nests of solitary aculeate wasps, and of digger wasps (Sphecidae) in particular. The record in Arnaud (1954) of several specimens of *T. hilarella* bred from a living rhabdophorid orthopteran is noteworthy but would seem to be an exception. Spofford & Kurczewski (1990) included the two Nearctic species of *Taxigramma* in their guild of ‘stalkers and lurkers’, the members of which are characterised by trailing wasps that are constructing/provisioning nests and perching near the nest at a discrete distance, with larviposition behaviour triggered only when the wasp is active in or around the provisioned nest. Larvae are deposited either on the sand or debris closing the nest, in the open nest entrance, or within the nest itself. Observations of European species document that the fly larva is sometimes deposited near the wasp egg, and that it devours this before continuing with the paralysed prey (e.g., Maneval 1929).

A gravid female of *Taxigramma* was captured in France, Vallée de Fressinières, in 2009 by the first author, and larvae were bred on freshly collected, chopped flies (Asilidae, Syrphidae) resulting in a series of adults of both sexes plus associated puparia. This single-female rearing has allowed an unambiguous definition and circumscription of the nominal taxon *Taxigramma pseudaperta* Séguéy, 1941, a species which has previously been largely overlooked or misidentified in the European fauna. The identity of this species is herewith revised through re-examination of the holotype, and diagnostic features are given in a succinct form as a table to separate *T. pseudaperta* from its most similar and sympatric congener *T. multipunctata* (Rondani, 1859) in most life stages (Table 1). A complete redescription of the adult is considered not essential as this would overlap broadly with the

## Acknowledgements

Dr C. Daugeron, MNHN, kindly facilitated access to the type series of *Taxigramma pseudaperta* for RR. Our thanks to Prof. A. Freidberg, TAU, for a loan of Israeli specimens, and to Mr A. Raspi and Mr R. Giannotti, Pisa, for photographs allowing us to identify the female of *T. multipunctata* from the Venturi collection.

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