

An overview of the South African tangle-veined flies (Diptera: Nemestrinidae), with an annotated key to the genera and a checklist of species

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Abstract

The South African Nemestrinidae are reviewed. Regional family characteristics, biology and the importance of long-proboscid species in pollination biology are discussed. Long-proboscid species (proboscis 15 mm or longer) are important pollinators in most provinces, but particularly in the Western Cape; all have specialised pollination interactions with long-tubed flower species. Five pollination guilds centered on long-proboscid species are briefly discussed.

A detailed, annotated key to the six genera is presented; in it particular attention is given to the problematic distinction between *Prosoeca* Schiner and *Stenobasipteron* Lichtwardt. A checklist of all described species considered to have a South African provenance is provided. A total of 43 described species is recorded in the following genera: *Moegistorhynchus* Macquart (4 species); *Prosoeca* (35 species); *Stenobasipteron* (1 species); *Atriadops* Wandolleck (1 species); *Nycterimya* Lichtwardt (1 species); *Trichopsidea* Westwood (1 species).

Moegistorhynchus is restricted to the west coast (Western Cape, Northern Cape). Three of its species have a remarkably elongate proboscis, the best known and most widespread being *M. longirostris* (Wiedemann, 1819). Its proboscis reaches 90 to 100 mm in length in some specimens, this being the longest proboscis of all known Diptera. Two new species have been identified in the fauna.

Prosoeca dominates the fauna, and is the only genus likely to be represented in all nine provinces. It appears to occur in all habitats except closed-canopy forest. *Prosoeca major* Bezzi, 1924 is newly synonymised with *P. robusta* Bezzi, 1924. The likely South African provenance of *P. nigripes* (Macquart, 1840) is confirmed. *Nemestrina obscura* Westwood, 1835, previously referred to *Prosoeca*, is considered not to be an Afrotropical species. *Prosoeca rhodesiensis* Bequaert, 1925a, is recorded from South Africa for the first time.

Although *Stenobasipteron* is restricted to only one named South African species, namely *S. wiedemanni* Lichtwardt, 1910 from the Eastern Cape and KwaZulu-Natal, several undescribed species occur in Mpumalanga and Limpopo. *Stenobasipteron wiedemanni* occurs in closed-canopy forest, but species from Mpumalanga may occur in other habitats such as grassland and savanna.

There are at least two species of *Atriadops*, one almost certainly being *A. vespertilio* (Loew,