

The first record of the genus *Pseudoptilolepis* SNYDER (Diptera: Muscidae) in Argentina

[Erstnachweis der Gattung *Pseudoptilolepis* SNYDER
(Diptera: Muscidae) in Argentinien]

by
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Abstract	The genus <i>Pseudoptilolepis</i> SNYDER, 1949 and the species <i>P. confusa</i> SNYDER, 1949 are recorded for the first time in Argentina, extending the Neotropical distribution of both taxa. The specimens were collected in Corrientes province, flying around the fruiting body of a stinkhorn fungus (Phallaceae). A modification to the key to Argentine Muscidae is given.
Key words	Muscidae, <i>Pseudoptilolepis</i> , Neotropical, Argentina, first record, key
Zusammenfassung	Ein Fund von <i>Pseudoptilolepis confusa</i> SNYDER, 1949 in der Provinz Corrientes ist der erste Nachweis dieser Gattung und Art in Argentinien. Damit erweitert sich die bislang bekannte Verbreitung in der Neotropis. Exemplare von <i>P. confusa</i> wurden gesammelt, als sie den Fruchtkörper einer Stinkmorchel (Phallaceae) umflogen. Der Bestimmungsschlüssel für die Muscidae Argentiniens wird modifiziert, um diesen Neufund aufzunehmen.
Stichwörter	Muscidae, <i>Pseudoptilolepis</i> , Neotropis, Argentinien, Erstnachweis, Bestimmungsschlüssel

Introduction

The Muscidae is a large family of calyptrate Diptera, represented in all biogeographic regions. In Argentina, this family currently comprises 44 genera with 172 species, of which 64 are endemic (CARVALHO et al. 2005, NIHEI & DOMÍNGUEZ 2008). However, this number may be higher because there have been no revisions of Muscidae in Argentina since the work of SHANNON & DEL PONTE (1926, 1928). Some specialists have made important additions to the knowledge of this family (MALLOCH 1934, SNYDER 1957), but a general revision of the Muscidae of Argentina is still lacking. Many species are associated with man, human habitations or livestock; some of them are important pollinators.

Pseudoptilolepis SNYDER, 1949 is a Neotropical genus of the muscid subfamily Cyrtoneurinae. SCHUEHLI & CARVALHO (2005), however, suggest that *Pseudoptilolepis* is closely related to *Chaetagenia* MALLOCH, 1928 and that both genera should be placed in Azeliini.

Pseudoptilolepis includes at present 10 species: *P. centralis* SCHUEHLI & CARVALHO, 2005 in Costa Rica; *P. chrysell* SCHUEHLI & CARVALHO, 2005 in Brazil; *P. confusa* SNYDER, 1949 in Brazil, Costa Rica and Venezuela; *P. crocina* SCHUEHLI & CARVALHO, 2005 in Brazil; *P. elbida* SCHUEHLI & CARVALHO, 2005 in Paraguay; *P. fluminensis* ALBUQUERQUE, 1954 in Brazil and Panama; *P. fulvapoda* SNYDER, 1949 in Brazil, Nicaragua and Venezuela; *P. latipalpis* (STEIN, 1918) in Brazil; *P. nigripoda* SNYDER, 1949 in Brazil, Costa Rica, Nicaragua, Panama and Venezuela; and *P. nudapleura* SNYDER, 1949 in Brazil and Paraguay.

Pseudoptilolepis confusa can be distinguished from other *Pseudoptilolepis* by the following combination of characters: three postsutural dorsocentral setae, proepisternum bare, lower

calypter yellowish and fore tibia without anterodorsal seta. There is no published information about the habits of this species.

The purpose of this work is to report the genus *Pseudoptilolepis* for the first time in Argentina, with the species *P. confusa*, thus extending the Neotropical distribution of the genus, to add this genus to the key of Muscidae for Argentina by NIHEI & DOMÍNGUEZ (2008), and to report some new biological information on this species.

Material and methods

A collecting trip was carried out during 10–20 December 1997 in the Mburucuyá National Park (28°03'S 58°14'W), Corrientes province, Argentina. The specimens were taken with a net at 19:50 hours, near sunset, as they were flying around a stinkhorn fruiting body (Basidiomycetes: Phallales: Phallaceae), and they are deposited in the collection of the Museo Argentino de Ciencias Naturales “Bernardino Rivadavia”, Laboratorio de Entomología Forense (MACN–EF). It was not possible to collect the fungus as stinkhorns deliquesce when mature.

Results

After careful examination of the specimens reported here, we have identified the species from the characters given by SNYDER (1949) in the original description as this species was not included in the revision of *Pseudoptilolepis* by SCHUEHLI & CARVALHO (2005).

Pseudoptilolepis confusa SNYDER, 1949

Literature: *Pseudoptilolepis confusa* SNYDER – SNYDER (1949): 19 (key, male, female); PONT (1972): 49 (in catalog); LOPES & CARVALHO (1985): 55 (notes); CARVALHO et al. (1993): 64 (in catalog); COURI & CARVALHO (2002): 157 (key); CARVALHO et al. (2005): 101 (in catalog).

Material examined: 2 ♀♀ 1 ♂, ARGENTINA: Corrientes: Parque Nacional Mburucuyá, 14.xii.1997, OLIVA coll.

Neotropical Distribution. Recorded from Brazil, Costa Rica and Venezuela by CARVALHO et al. (2005). New to Argentina.

In order to include *Pseudoptilolepis* in the key to the Muscidae of Argentina by NIHEI & DOMÍNGUEZ (2008), we propose a modification to couplet 11 as follows:

- 11 Hind coxa with setulae on posterior side.
..... *Pseudoptilolepis* SNYDER, 1949 [only one species in Argentina]
- 11' Hind coxa bare on posterior side. 11a
- 11a Hind tibia with a strong posterodorsal seta (calcar) along its apical 1/3, presutural acrostichal seta developed; female: with one proclinate orbital seta; male: ventral surface of the cercal plate with spiny processes.
..... *Polietina* SCHNABL & DZIEDZICKI, 1911 [two species in Argentina]
- 11a' Hind tibia without a strong posterodorsal seta (calcar), presutural acrostichal seta not developed; female: proclinate orbital seta absent; male: ventral surface of cercal plate without processes. *Philornis* MEINERT, 1890 [seven species in Argentina]

Discussion

Since the genus was established, little biological information has been acquired. Some papers record *P. fluminensis*, *P. fulvopoda* and *P. nigripoda* from dwellings and rural environments, associated with human faeces and with animal and plant remains (CARVALHO et al. 1984, LINHARES 1981, MENDES & LINHARES 1993). The species *P. nigripoda* is responsible for the pollination of *Metrodorea nigra* SAINT-HILAIRE (Rutaceae). The flower odour (excremental scents) and colour (brown-purple to yellow) established the relationship with this fly (POMBAL & MORELLATO 2000).

Excremental scents attract flies to flowers (POMBAL & MORELLATO 2000). Other organisms that mimic faecal/carrion odours to attract flies include the macrofungus *Phallus impudicus* LINNAEUS (KOPONEN 2008), although in this case the flies disperse spores. Other winged insects such as wild bees have been recorded as visitors to fungi with the smell of carrion or faeces (BURR et al. 1996). We suggest that *P. confusa* may act as a spore disperser of this fungus.

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