

## **Article**



# A new species of *Fillus* Navás, 1919 (Neuroptera: Ascalaphidae) from the Brazilian Amazon Basin

### RENATO JOSÉ PIRES MACHADO & JOSÉ ALBERTINO RAFAEL

Instituto Nacional de Pesquisas da Amazônia —INPA, Coordenação de Pesquisas em Entomologia, Caixa Postal 478, 69011–970, Manaus, Amazonas, Brazil. E-mails: rjpmachado@gmail.com and jarafael@inpa.gov.br

#### **Abstract**

*Fillus* Navás, 1919 is a genus with two species: *F. brethesi* Navás, 1919 from Argentina and *F. paradoxus* (Weele, 1908) from Paraguay. Here we describe *F. amazonicus* **n. sp.**, from Itapiranga, Amazonas, the first genus record for Brazil, extending its geographical distribution to the Amazon Basin.

Key words: Ascalaphinae, Brazil, lacewings, owlflies, Suhpalacsini

#### Introduction

Ascalaphidae, generally known as owlflies, are a cosmopolitan family of the myrmeleontiform Neuroptera which comprises around 430 species (Grimaldi & Engel 2005). They are large insects which resemble dragonflies, but with long clubbed antennae (Penny 2002). Adults of the Amazonian species are crepuscular aerial predators (Penny 1981b), and larvae are active predators of small insects (Penny 2002).

Fillus belongs to Ascalaphinae and is the only genus of the poorly understood tribe Suhpalacsini in the New World (Penny 1981a—although see 'Discussion' below about a possible other neotropical Suhpalacsini genus described by Navás).

*Fillus* comprises two species, *F. brethesi* Navás, 1919 from north of Argentina and *F. paradoxus* (Weele, 1908) from Paraguay (Penny 1981a). The genus is characterized by a transverse sulcus or depression separating each eye into a dorsal and ventral part, the relatively short antenna, the well-developed fork of CuA vein in the hind wing, and for the dorsal projection on the males' first abdominal segment (Navás 1919; Penny 1981a).

Here we describe the third species of the genus, based on two male and two female specimens collected in Itapiranga, Amazonas state, in the Brazilian Amazon Basin.

#### Material and methods

All specimens were collected using a light trap and are currently held in the Invertebrate Collection of the Instituto Nacional de Pesquisas da Amazônia (INPA) and Texas A&M University Insect Collection (TAMU). Images were taken using a stereomicroscope with a digital camera attached. Terminalia, when dissected, were macerated in hot 85% lactic acid according to Cumming (1992), then placed in glycerin and illustrated using a stereomicroscope with a camera lucida. After examination detached parts were placed in microvials with glycerin and pinned with their associated specimen. Terminology follows Tjeder (1992) except for wings which follow New (1984).

#### Fillus amazonicus n. sp.

**Diagnosis.** Wings hyaline; eyes with a weakly developed impression; male first abdominal tergite with a dorsal conical projection with only few scattered black setae at apex; male pulvinus elongate and placed upper to gonarcus, parameres elongate, curving and acuminate.