

First record of *Melaloncha (Udamochiras)* bee-killing flies from French Guiana with description of a new species (Diptera : Phoridae)

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Abstract

A long term survey in the vicinity of Saül (French Guiana) allowed the first record of the Neotropical genus *Melaloncha (Udamochiras)* bee-killing flies for French Guiana. A new species is described here : *Melaloncha (U.) centroguiana* sp. nov.

Keywords : Diptera, Phoridae, parasitoid, Neotropical.

Résumé

Une étude de longue durée dans les environs de Saül (Guyane française) a permis, pour la première fois, de signaler la présence du genre *Melaloncha (Udamochiras)* connu comme des mouches tueuses d'abeilles. Une nouvelle espèce est décrite ci-dessous : *Melaloncha (U.) centroguiana* sp. nov.

Samenvatting

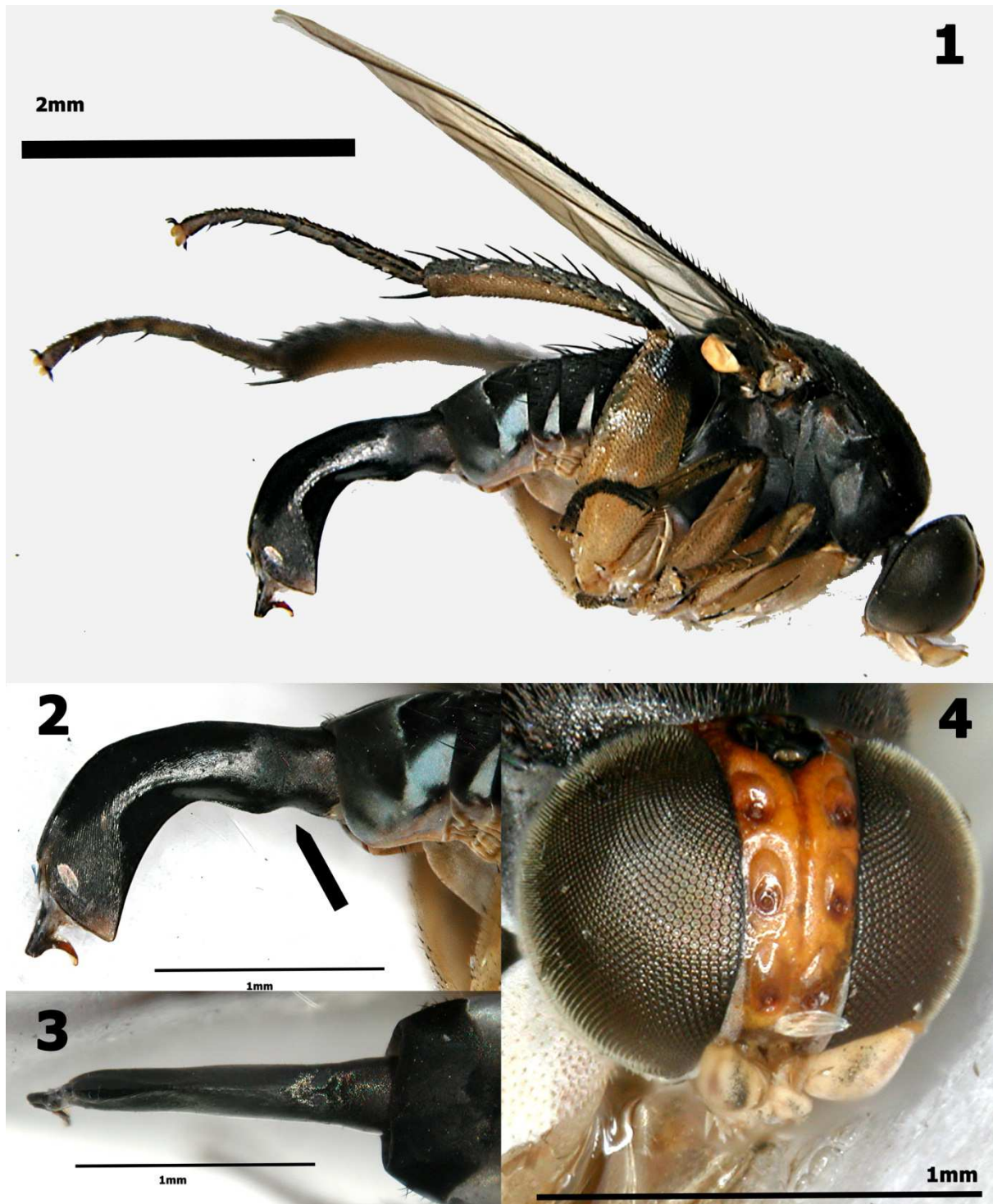
Langetermijn onderzoek in de omgeving van Saül (Frans-Guyana) leverde de eerste record van het Neotropische genus *Melaloncha (Udamochiras)* bijendodende vliegen voor Frans-Guyana. We beschrijven hier een nieuwe soort: *Melaloncha (U.) centroguiana* sp. nov.

Introduction

The bee-killing fly genus *Melaloncha* is a group of Neotropical Phorids that have been recently revised (BROWN 2001, 2004a, 2004b). BROWN (2004a) presented the synonymy, a standard description and a key for species of the subgenus *Udamochiras*. This work is also supported by additional information, photos and keys found on Brown's web site, currently at www.phorid.net/phoridae/melaloncha/udamochiras.

They are relatively colourful Diptera which parasitize mostly stingless bees (Hymenoptera: Apidae: Meliponini), but also bumble bees (*Bombus* sp.) and introduced honey bees (*Apis mellifera* L.). In this sense, they could be of economical interest for the South American beekeepers. The females are also characterised by the presence of a sclerotized oviscapte at the apex of the metasoma.

Although the members of this genus are widely distributed (from Mexico to Argentina) only fifty species have been described but the actual number is estimated to be around 200-300 species (GONZALEZ & BROWN, 2004) showing our lack of knowledge in this group. To overcome this apparent rarity, Dr. Brown has developed a trap using spray of a honey-water mix on a "bee screen" described here : <http://www.phorid.net/phoridae/news/pnews9a.html>.



Figs 1-4. *Melaloncha (Udamochiras) centroguiana*, holotype : 1. Full body, lateral ; 2. Oviscapte, lateral (the arrow show the ventrobasal concavity) ; 3. Oviscapte, dorsal ; 4. Head, frontal.

Material and Methods

This work is based on two females specimens collected during a long survey inventory of Saül (3°37'N-53°12'W) (French Guiana) realized by the “Société entomologique Antilles-Guyane” (SEAG). The material is curated in the collection of the “Institut royal des Sciences naturelles de Belgique” (IRSNB, Brussels).

Taxonomy

Melaloncha BRUES, 1904, subgenus *Udamochiras* ENDERLEIN, 1912

Type species: *Udamochiras colossia* ENDERLEIN, 1912, by original designation.

Melaloncha centroguiana sp. nov.

(Figs 1-4)

DIAGNOSIS : In the existing keys, this species runs to *Melaloncha* (*Udamochiras*) *colossia* (Enderlein, 1912) which shares also an oviscapte deeply widened near the apex. But it is easily distinguished by the obvious ventrobasal concavity followed by a bump on its oviscapte (Fig. 2) (absent in *M. (U.) colossia*); the fore tarsomere 5 is yellowish (dark-brown in *M. (U.) colossia*); the combined length of fore tarsomeres equal to the tibial length (0.7x in *M. (U.) colossia*).

HOLOTYPE : Female, Guyane, Saül, 13.XII.2011, piège Malaise, SEAG rec. (IRSNB).

PARATYPE : Female, Guyane, Saül, 1.IX.2011, piège Malaise, SEAG rec. (IRSNB).

DESCRIPTION.

Female (male unknown). Body length 3 mm (paratype 3.5 mm). Frontal width 0.28 head width. Frons orange, except for black ocellar triangle; smooth; median furrow faint but present. Dorsal interfrontal setae absent. Palpus unmodified. Ocular and genal setae flattened, whitish (missing on holotype). Fore coxa yellow whitish, foreleg brownish yellow. Combined length of fore tarsomeres approximately equal to tibial length. Tarsal claws on all legs finely bifurcate. Mid and hind legs brownish yellow. Hind femur apically darkening. Posterior dorsal side of hind tibia darkened. Costa 0.57 wing length. Vein R₂₊₃ absent. Abdominal tergites black, with silver pollinosity medially. Tergites 2-6 ventrolaterally with large grey-bluish patches. Venter of abdomen brownish yellow. Oviscapte in lateral view with a obvious ventrobasal concavity followed by a bump, strongly curved medially, laterally compressed to its medioapical parts, greatly widened near apex. Lateral setae of ovipositor absent ventrally and dorsally. Surface of ovipositor apically with fine, slightly transverse, striae.

HOST. Unknown.

DISTRIBUTION. French Guiana.

ETYMOLOGY : The name refers to the central position of the town Saül in French Guiana.

Discussion

This is the first record of this subgenus in French Guiana. This subgenus is probably more common but went unnoticed by the collectors because of the lack of one effective method of collect. For the current state of art and a key of all known species, also look at the Brian Brown website : <http://www.phorid.net/phoridae/melaloncha/udamochiras.html>.

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