

A new species of *Aphistina* Oldroyd 1972 from Thailand (Diptera: Asilidae: Laphriinae)

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The genus *Aphistina* Oldroyd, 1972 is cited for the first time from the Indochinese peninsula and a new species *A. constanti* is described from Thailand.

Keywords: Asilidae, Laphriinae, *Aphistina*, new species, Thailand.

Le genre *Aphistina* Oldroyd, 1972 est signalé pour la première fois de la péninsule indochinoise et une nouvelle espèce *A. constanti* est décrite de Thaïlande.

Mots-clés: Asilidae, Laphriinae, *Aphistina*, nouvelle espèce, Thaïlande.

1. INTRODUCTION

This note constitutes an addendum to the study of the Asilidae collected in the Indochinese peninsula and conserved in the collections of the Royal Belgian Institute of Natural Sciences (IRSN Brussels) (Tomasovic 2005a, 2005b, 2006a, 2006b, 2007a, 2007b, 2008).

The specimens cited here have been collected by Jérôme Constant, Patrick Grootaert and Koen Smets (IRSNB) in the Field Research Station of Na Haeo, 500 km from Bangkok. The district is located in Loei Province situated at the latitude 17°29' to 17°31' North and longitude 101°04' East, just southern of the Huang River (Thai-Laos border). The area is approximately 1019 *rais* (407.6 acres) in total, comprising 1008 *rais* (403.2 acres), mostly covered with dense forest. Some areas are submitted to agroforestry. The area consists of a dry tropical forest and the soil is mainly sandy loam.

2. MATERIAL AND METHODS

External structures were examined using a stereomicroscope (Wild M3B 6-16-40) Drawings were made using a camera lucida. The pictures were realized with a Canon EOS 300D. The male genital parts were examined after soaking in KOH solution. They have been stuck on flakes of plastic and pinned together with the specimen.

The identification of the genera and the species was based on Oldroyd (1972, p. 230) and Joseph & Parui works (1983, p. 285).

3. TAXONOMY

Asilidae

Subfamily Laphriinae

Genus *Aphistina* Oldroyd 1972

Among Laphriinae, this genus is mainly characterized by the hairy metanotal callosities and the anepisternum with two strong bristles behind wing base.

The included species are rather small, stoutly built, closely looking like the *Atomosini*, but without neither the venation peculiarity of crossed veins at the apex of the discal cell nor the sclerotized metasternum. The *Aphistina* are also unusual among Laphriini in having the anatergite slopes hairy.

The genus *Aphistina* includes only two species endemic in the Oriental region (carte 1): (i) *A. partita* (Walker 1857), the genus' type species, locus typicus: Borneo, archipelago Malays, conserved in National History Museum (London); (ii) *L. balabacensis* Oldroyd 1972, locus typicus: Balabac, Balabac Islands, Philippines, conserved in Bishop Museum (Honolulu.)

It can be assumed that the ecology of the species included in *Aphistina* is like that of the other robber flies of the subfamily Laphriinae. The adults occur in forest areas and the larvae live in dead wood.

***Aphistina constanti* Tomasovic sp. nov. (photos 1-2)**



Photo 1: Habitus of *Aphistina constanti*



Photo 2: Head of *Aphistina constanti*

Type material.- Thailand, Loei, Na Haeo.
 Holotype: 1♂, (field res stat), 15-19.v.2003. Day catch. Leg. J. Constant, K. Smeets & P. Grootaert.
 Allotype: 1♀, (field res stat), 15-19.v.2003. Day catch. Leg. J. Constant, K. Smeets & P. Grootaert.
 Paratypes: 1♂ 2♀, Station 20023, 25.v.2000. Leg. P. Grootaert. 4♀, (Bio station), 5-12.v.2001. Secondary forest. Leg. J. Constant & P. Grootaert. 1♂ 1♀, Khring Nam, 12.v.2001. Leg. P. Grootaert. 3♂ 4♀, (field res stat), 15-19.v.2003. Day catch. Leg. J. Constant, K. Smeets & P. Grootaert. 1♂, Firs, 16.v.2003. (23030); 1♂ 2♀, Chang Tok, 17.v.2003. (23035); 2♂, (Malaise trap 4), 22-29.v.2003. Leg. P. Grootaert.
 All material is conserved in the collections of the Royal Belgian Institute of Natural Sciences (RBINS, Brussels).

Diagnose.- Small dark species with the mystax white, the femora and tibiae yellow but this last have the distal part brown like the tarsomeres. The abdomen is dull black with thin lateral marginal bristle mixed with the hairs.

Description.- Male: length of body 6-9mm.

Head: Frons and face with greyish tomentum; frons with two short black setae along each eye margin; face with sparse white hairs. Mystax compact, white. Antennae: scape shorter as the pedicel, black with white setae; pedicel pale brown with black setae; postpedicel as long as the combined length of scape and pedicel, dull orange on the lower part and black at upper part. Proboscis and palpi black with white chaetotaxy. Ocellar tubercle with two stout and long black setae. Occiput with whitish tomentum, setae at the side white, two stout long black setae in each upper half.

Thorax: black; scutum entirely covered with tomentum and fine black hairs mixed with smaller yellowish hairs; bristles: 2 notopleurals, 2 supra-alars, 2 postalar. Scutellum with fine white hairs on disc and 4 scutellar bristles. Pleura with dense greyish tomentum; 2 posterior strong whitish anepisternal bristles. Katatergal bristles fine, long and yellowish.

Legs with whitish hairs and bristles, femora yellow, tibiae yellow and darker at apex, with very long, conspicuous bristles, tarsomeres brown. Wings iridescent, venation not remarkable.

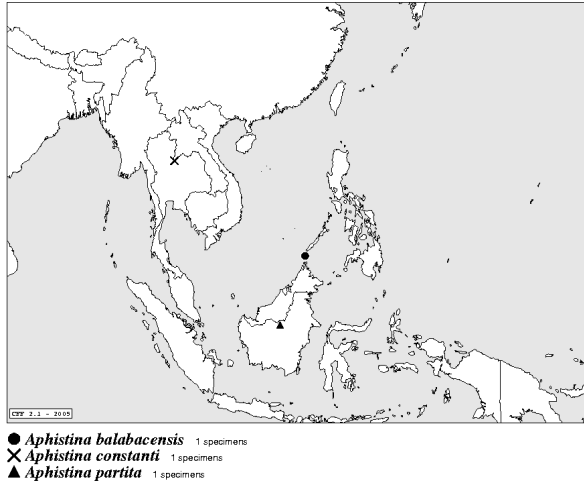
Halteres slightly yellowish.

Abdomen: compact, bright black, pilosity yellow, very thin. 3-5 yellow, thin lateral marginal bristle mixed with thin hairs. Sternites black dull with sparse thin yellow hairs.

Male genitalia: gonocoxites with thin white hairs, without setae. Aedeagus with three thin tubes. Apical process parallel-sided, slightly curved. Dististylus slender, slightly swelling with a point at the apex (figs. 1-2).



Photo 3: Difference between the corpulence of species *Aphistina constanti*



Map 1: Distribution of genus *Aphistina*

Female: like the male.

Etymology.- The species is dedicated to Mr Jérôme Constant (RBINS) for his interest in Entomology.

Comments: Unusual in Laphriinae, a strong allometry is observed between individuals. This is also observed in the other *Aphistina*, which can differ in size by ~one third (photo 3).

Key to the Oriental species of *Aphistina*

Legs black, knees and extreme bases of femora orange, abdomen blue-black.....
*balabacensis* Oldroyd (Philippines)

Legs tawny, tarsomeres and tips of the tibia black, abdomen purplish-black.....
*partita* (Walker) (Borneo)

Legs, femora and tibia yellow, tips of tibia and tarsomeres brown, abdomen bright black.....
 *constanti* sp. n. (Thailand)

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Figure 1: Gonocoxite and dististylus of *Aphistina constanti*



Figure 2: Aedeagus of *Aphistina constanti*

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