

## Two new species of robber fly in the genus *Saropogon* Loew, 1847 from Southeast Asia (Diptera: Asilidae)

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### Abstract

Two new species of Asilidae, *Saropogon angkorensis* sp. nov. from Cambodia and *S. bachmaensis* sp. nov. from Vietnam are described and illustrated and *S. rubricosus* Bezzi, 1917 from the Philippines is illustrated for comparison with the latter. A key to the species of *Saropogon* from continental Southeast Asia and a distribution map are also provided. Both new species represent the first record of the genus *Saropogon* for their respective country.

**Keywords:** Angkor, Global Taxonomic Initiative, Indochina, Dasipogoninae, new species

### Introduction

The identification of Asilidae from Southeast Asia in the collections of RBINS and VNMN allowed the discovery of two species of the genus *Saropogon* Loew, 1847 new to science, which respectively represent the first data for the genus in Cambodia and in Vietnam. Most of the examined material was collected in the framework of two different Global Taxonomic Initiative projects.

The species-rich genus *Saropogon* is widely distributed in the Old World but had not been recorded from Cambodia and Vietnam to date. Nine species of *Saropogon* are recorded from the Oriental Region with only two, *S. trispiculum* Tomasovic, 2005 and *S. thailandensis* Tomasovic & Grootaert, 2003 known from Indochina (Thailand) (TOMASOVIC, 2005).

The present paper aims to describe these new species and compare them with their allies, and to provide an identification key and distribution map for the *Saropogon* species from continental Southeast Asia.

### Material and methods

The male genitalia were dissected and glued on a cardboard attached to the pin of the corresponding specimens.

For each illustration, a number of photographs were taken with a Canon camera and processed with Zerene Stacker software or with a Canon EOS 700D camera equipped with a Tamron DI SP 90 mm macro lens and stacked with CombineZ software. They were optimized with Adobe Photoshop CS3. The distribution map was produced with SimpleMappr (SHORTHOUSE, 2010).

Acronyms used for the collections:

MSNM = Museo Civico di Storia Naturale, Milano, Italy.  
RBINS = Royal Belgian Institute of Natural Sciences, Brussels, Belgium.  
VNMN = Vietnam National Museum of Nature, Hanoi, Vietnam.

### Taxonomy

Family **Asilidae** Latreille, 1802  
Subfamily **Dasypogoninae** Macquart, 1838  
Tribe **Saropogonini** Hardy, 1926

Type genus: *Saropogon* Loew, 1847.

DIKOW (2009) included only the genus *Saropogon* in the tribe *Saropogonini*.

### Genus *Saropogon* Loew, 1847

*Saropogon* LOEW, 1847: 439 (as subgenus of *Dasypogon*).

Type-species: *Dasypogon luctuosus* Wiedemann, 1820 by subsequent designation of COQUILLET (1910: 603).

### Identification key to the species of *Saropogon* of continental Southeast Asia

1. Body mostly black.....2  
- Body mostly shiny brown, with some black markings; Vietnam.....*S. bachmaensis* sp. nov.
2. Body entirely shiny black; small species (5 mm); Cambodia .....*S. angkorensis* sp. nov.  
- Thorax shiny black with mahogany spots .....3
3. Legs brown; larger size (10 mm); Thailand .....*S. trispiculum* Tomasovic, 2005  
- Legs yellow; smaller size (8 mm); Thailand ..... *S. thailandensis* Tomasovic & Grootaert, 2003

### *Saropogon angkorensis* sp. nov.

(Figs 1, 2, 3 A–B)

DIAGNOSIS. Very small, black species; legs black with one yellow ring on the tip of femora. Wings iridescent with brown patch, uniformly covered with microtrichia.

ETYMOLOGY. The species epithet refers to Angkor, the location where the type series was collected in Cambodia.

TYPE MATERIAL. Holotype ♂: Cambodia, Forest S of Angkor Wat, 26.IV.2005. Light trap. Leg K. Smets & I. Var. I.G.: 33.577 (RBINS).

Paratype: 1 ♀: same data as holotype (RBINS).

### DESCRIPTION.

Length: ♂: body: 5 mm; wings: 5 mm

*Head.* Face narrow with white tomentum. Mystax with 9, long and very fine setae. Antennae black; scape twice as long as pedicel, both with some fine black setae ; postpedicel twice as long as scape and pedicel combined. Frons and ocellar tubercle shiny black. Occiput with greyish tomentum and two shiny black circles; chaetotaxy weak. Proboscis shiny black. Palpi black with 1–2 fine and short black setae.



Fig. 1. *Saropogon* spp. from continental Southeast Asia: distribution map.

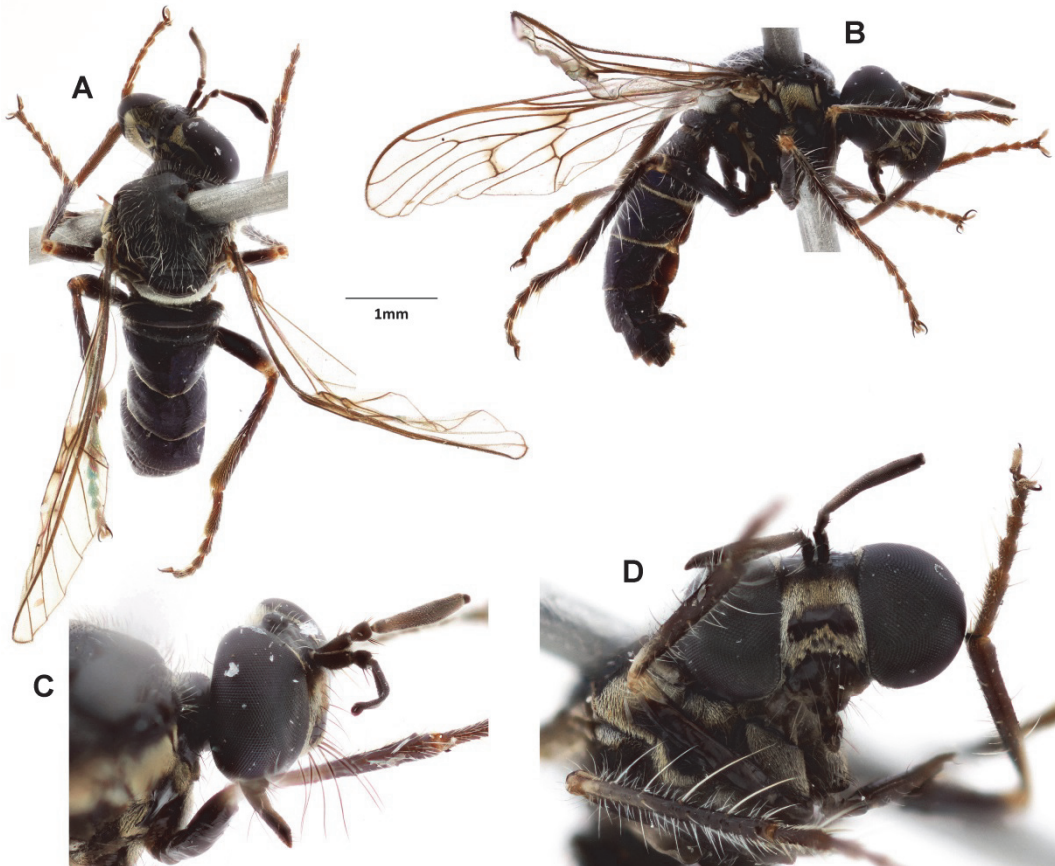


Fig. 2. *Saropogon angkorensis* sp. nov., paratype ♀. A, habitus, dorsal view. B, habitus, lateral view. C, head, lateral view. D, face. (photographs by C. Locatelli, RBINS).

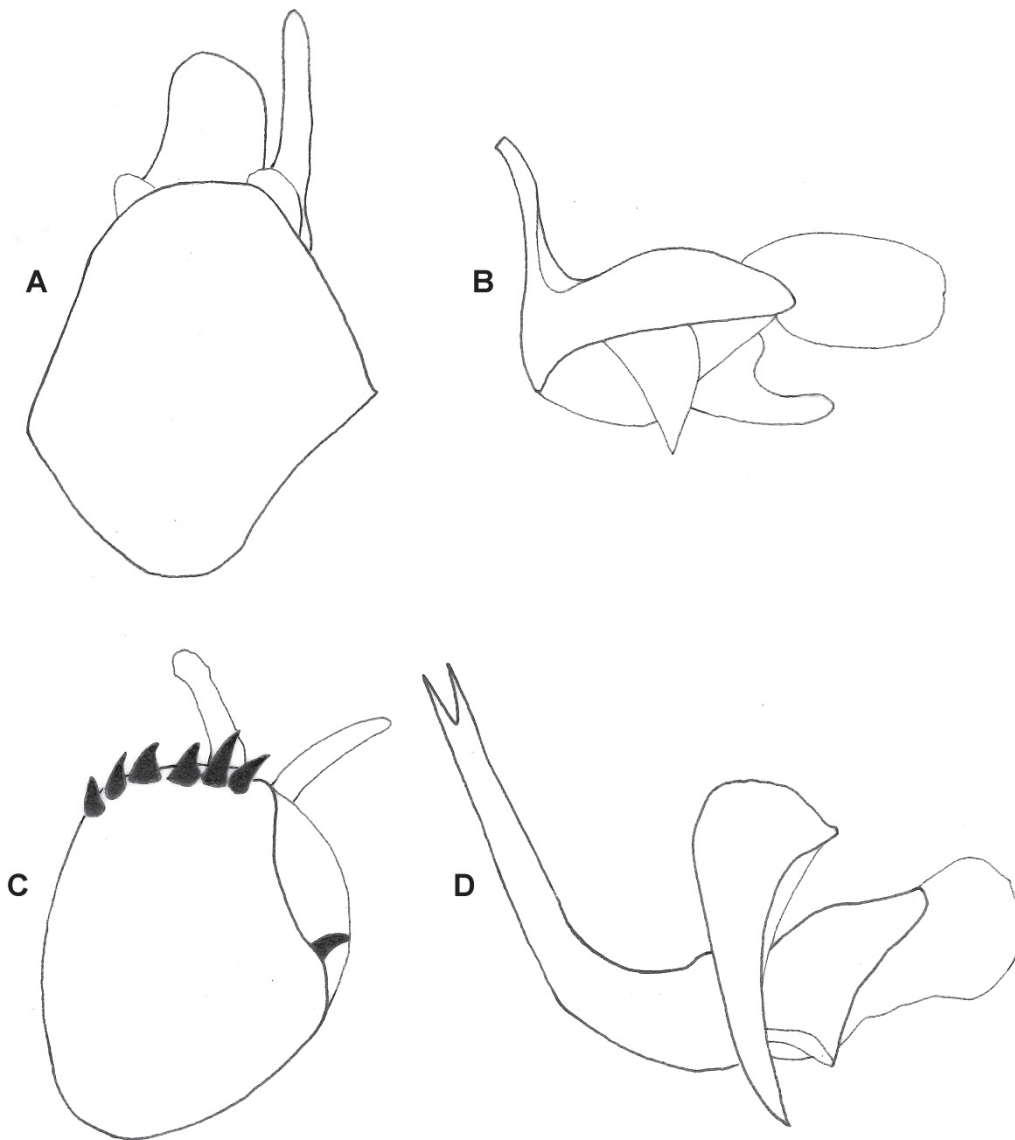


Fig. 3. *Saropogon* spp., male genitalia. A–B, *S. angkorensis* sp. nov. A, gonocoxite. B, phallus. C–D, *S. bachmaensis* sp. nov. C, gonocoxite. D, phallus.

*Thorax.* Shiny black. Pronotum with long, fine and white setae. Scutum covered with white hairs; setae hardly distinct between hairs. Scutellum with fine white hairs on disc and on edge. Pleura, mediotergite and anatergite with thick and greyish tomentum. Long, white and fine katatergal setae. Halteres white.

*Legs:* femora shiny black with fine and white chaetotaxy and one distal yellow ring. Protibiae with small twisted spine distally; pro- and mesotibiae black on internal face and yellow on external face; metatibiae black; all tibiae with long and fine white setae and hairs. Tarsi brown with white chaetotaxy.

*Wings:* iridescent, transparent and spotted.

*Abdomen.* Tergites shiny black and punctate with white, fine and short setae laterally and very short hairs on the disc. Sternites mat, black with a broad posterior white stripe.

*Male genitalia.* Shiny brown with white chaetotaxy. Gonocoxite with one row of strong spines. Phallus with curved sheat; distiphallus with two tubes pointed distally.

*DISTRIBUTION.* Cambodia, Siem Reap province (Fig. 1).

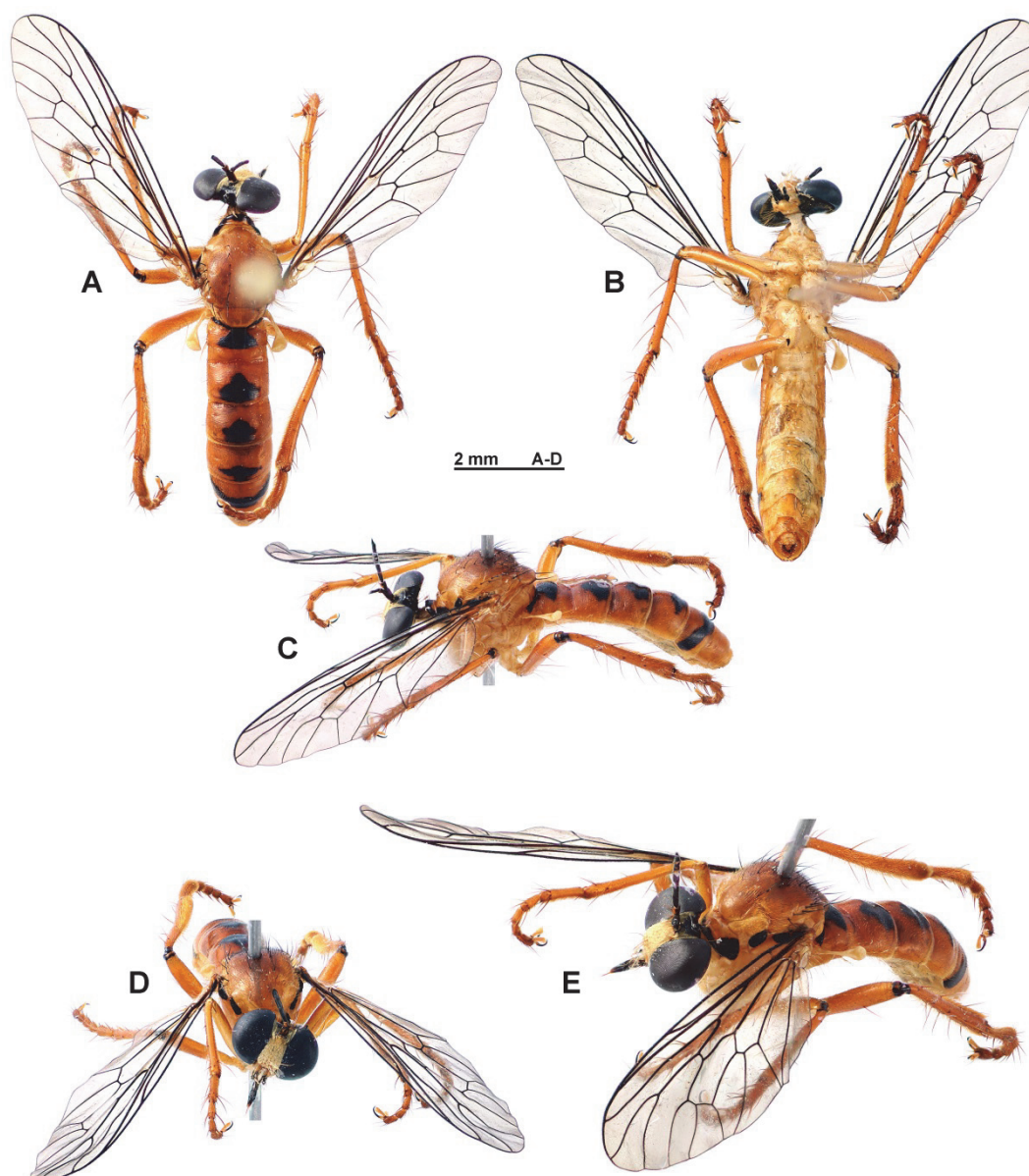


Fig. 4. *Saropogon bachmaensis* sp. nov., paratype ♀. A, habitus dorsal view. B, habitus ventral view. C, habitus, lateral view. D, habitus, frontal view. E, habitus, laterodorsal view. (photographs by J. Constant, RBINS).

***Saropogon bachmaensis* sp. nov**  
(Figs 1, 3 C–D, 4)

DIAGNOSIS. Slender species of medium length with remarkable coloration, shiny brown. Head black. Legs shiny brown. Wings transparent hyaline. Abdomen with black spots. The species is superficially rather similar to the Philippine species *S. rubricosus* Bezzi, 1917 (Fig. 5) but can be separated easily from the latter by the black spots on the abdomen (abdomen entirely bright brown in *S. rubricosus*).

ETYMOLOGY. The species epithet refers to Bach Ma National Park, the location where the type series was collected in Central Vietnam.

TYPE MATERIAL. Holotype ♂: Vietnam, Thia Thien Huê prov., Bach Ma N.P. 16°17'N 107°52'E, 10-16.IV.2017. Leg J. Constant & J. Bresseel. I.G.: 33.447 (RBINS).



Fig. 5. *Saropogon rubricosus* Bezzi, 1917, holotype ♀. A, habitus dorsal view. B, abdomen lateral view. C, habitus lateral view. D, head lateral view. E, Labels. (photographs by M. Zilioli, MSNM).

Paratypes: 1♀: same data as holotype (RBINS); 1♀: C Vietnam, Thua Thien Hue Prov, Bach Ma Park, surr Hotel Morin (1350-1400 m), 16.2°N 107.85°E, 23-28.V.2015. legit. L. Bartolozzi, G. Chelazzi, A. Babinolli, S. Bambi & F. Fabiano. N° Magazz 2978 (VNMN).

#### DESCRIPTION.

Length: ♂: body: 12 mm; wings: 11 mm.

*Head.* Face with white tomentum and short white hairs. Mystax with 6–8 long, fine and white bristles. Antennae black; scape twice as long as pedicel, both with yellowish setae; postpedicel long, more than twice as long as scape and pedicel combined. Ocellar tubercle large and black with 2 fine yellowish setae. Occiput with greyish tomentum and yellowish chaetotaxy. Proboscis shiny black with tuft of white hairs on ventral part. Palpi black with fine and long yellow setae.

*Thorax.* Anteprenotum with yellowish bristles. Scutum covered with short yellowish hairs on anterior part and black hairs on the rest. Bristles black: 2 notopleurals, 3 supra-alar, 2 postalar, 6 pairs of dorsocentral surpassing transverse joint. Scutellum with 2 long and strong scutellar bristles; fine black hairs on disc. Pleura yellow; long and fine katatergal setae. Halteres yellow with brown knob.

*Legs:* yellow, not swollen, with long and fine bristles. Protibiae with twisted spine distally and metatibiae with sandy yellow brush.

*Wings:* translucent, slightly smoky and iridescent.

*Abdomen.* Tergites shiny brown with one large posterior black spot and covered with very short yellowish hairs; hairs longer laterally. Tergite I with white, short and fine setae and pale hairs. Sternites mat, pale yellow with relatively long yellow hairs.

Male genitalia. Shiny brown with yellowish chaetotaxy. Gonocoxites rounded, dististylus moderately wide, slightly curved. Phallus short, sheath slightly curved with a broad base.

DISTRIBUTION. Central Vietnam, Thia Thien Huê province (Fig.1).

***Saropogon rubricosus* Bezzi, 1917**  
(Fig. 5)

*Saropogon rubricosus* BEZZI, 1917: 121 (described).

*Saropogon rubricosus* – DELFINADO, 1969: 167 (recognition of holotype).

MATERIAL EXAMINED. Holotype ♀: [Mt. Banahao, P. I., Baker] [3889] [*Saropogon rubricosus* Ty. Bezzi] [Lectotype ♀ M. Delfinado '69] (MSNM).

NOTE.

The lectotype label on the specimen does not match with DELFINADO's (1969) correct statement that she recognized the unique female as the holotype of the species.

DISTRIBUTION. Philippines.

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