

# A new species of the genus *Adpiasus* CARVALHO & SCHAFFNER, 1973 (Insecta, Heteroptera, Miridae, Mirini) from French Guyana\*

FRÉDÉRIC CHÉROT & DIEGO LEONARDO CARPINTERO

## Abstract

The authors describe *Adpiasus riegeri* sp. nov. (Insecta, Heteroptera, Miridae, Mirini), a new species of the genus from French Guyana. It is compared with the three existing species of the genus *Adpiasus* CARVALHO & SCHAFFNER, 1973, *A. punctatus* CARVALHO & SCHAFFNER, 1973, and *A. mayanus* CARVALHO & SCHAFFNER, 1973, from Mexico, as well as *A. ecuadorianus* CARVALHO & CARPINTERO, 1986, from Ecuador. The characteristic features of the new species are described in detail and illustrated by photographs. *Adpiasus mayanus* is recorded for the first time from French Guyana.

## Kurzfassung

**Eine neue Art der Gattung *Adpiasus* CARVALHO & SCHAFFNER, 1973 (Insecta, Heteroptera, Miridae, Mirini) aus Französisch Guyana**

Die Autoren beschreiben *Adpiasus riegeri* sp. nov. (Insecta, Heteroptera, Miridae, Mirini) als neue Art von Französisch Guyana. Sie wird mit den drei bisher bekannten Arten der Gattung *Adpiasus* CARVALHO & SCHAFFNER, 1973, *A. punctatus* CARVALHO & SCHAFFNER, 1973, und *A. mayanus* CARVALHO & SCHAFFNER, 1973, von Mexico sowie *A. ecuadorianus* CARVALHO & CARPINTERO, 1986, von Ecuador verglichen. Die Merkmale der neuen Art werden detailliert beschrieben und als Fotos abgebildet. *Adpiasus mayanus* wurde erstmals in Französisch Guyana nachgewiesen.

## Authors

Dr. FRÉDÉRIC CHÉROT, Service Public de Wallonie, DGO3, DEMNA, Av. Maréchal Juin, 23, BE-5030 Gembloux, Belgium, U. E.;

E-Mail: frederic.cherot@spw.wallonie.be

Dr. DIEGO LEONARDO CARPINTERO, División Entomología, Museo Argentino de Ciencias Naturales "Bernardino Rivadavia", Av. Ángel Gallardo 470 (1405), Ciudad Autónoma de Buenos Aires, Argentina;

E-Mail: dcarpint@macn.gov.ar

## Introduction

The genus *Adpiasus* (Insecta, Heteroptera, Miridae, Mirini) was erected by CARVALHO & SCHAFFNER (1973) to accommodate two new species

from Mexico, the type-species *A. punctatus* (fig. 1) and the related *A. mayanus* (fig. 2). Subsequently, a third species was described by CARVALHO & CARPINTERO (1986) from Ecuador as *A. ecuadorianus* (fig. 3). In a rich collection of plant bugs from French Guyana sent for identification to the first author by ARMAND MATOCQ, a fourth species of *Adpiasus* was found and is described hereafter.

## Material and methods

Depositories of the examined specimens are abbreviated in the text as follows: ISNB: Institut Royal des Sciences Naturelles de Belgique, Brussels, Belgium, MACN: Museo Argentino de Ciencias Naturales "Bernardino Rivadavia", Buenos Aires, Argentina, MNHN: Museum National d'Histoire Naturelle, Paris, France, USNM: United States National Museum, Washington DC, United States of America.

## *Adpiasus riegeri* n. sp. (fig. 4, figs 5-12)

Examined specimen: Holotype, ♀: Guyane Française: Kourou, Piste Soumourou [approximate coordinates according to Google Earth: 05°06'N, 52°46'W], 13.6-20.7.2002, Malaise trap, D. FAVRE leg.; coll. A. MATOCQ in MNHN.

The following specimens were examined for comparison:

*Adpiasus punctatus* CARVALHO & SCHAFFNER, 1973: Holotype, ♀: Mexico: Veracruz, 8 min. N(orth) Catemaco, 9.6.1965, BURKE, MEYER & SCHAFFNER leg. (USNM) [approximate coordinates according to Google Earth: 18°25'N, 95°06'W].

*Adpiasus mayanus* CARVALHO & SCHAFFNER, 1973: 1 ♂: Salvador: San Salvador, 13.6.1959, J. BEYCHNÉ leg. (ISNB) [approximate coordinates according to Google Earth: 13°42'N, 89°12'W]. 1 ♂, 1 ♀: Guyane Française: Espérance, jardin carbet, 3.2.2004, J. C. STREITO leg. (collection STREITO, J. C.) [approximate coordinates according to Google Earth: 04°40'N, 54°19'W].

*Adpiasus ecuadorianus* CARVALHO & CARPINTERO, 1986: Holotype, ♂: Ecuador: Quevedo, 5.5.1978,

\* Dr. CHRISTIAN RIEGER, honouring his 70<sup>th</sup> birthday.



Habitus of *Adpiasmus*-species in dorsal view. – fig.1. *Adpiasmus punctatus* CARVALHO & SCHAFFNER, 1973, female holotype (USNM). – fig. 2. *Adpiasmus mayanus* CARVALHO & SCHAFFNER, 1973, a male specimen from Salvador, identified by CARVALHO (ISNB). – fig. 3. *Adpiasmus ecuadorianus* CARVALHO & CARPINTERO, 1986, male holotype (MACN). – fig. 4. *Adpiasmus riegeri* n. sp., female holotype (MNHN). Scales = 1 mm.

FRITZ leg. (MACN) [approximate coordinates according to Google Earth: 01°02'S, 79°27'W].

Description (female)

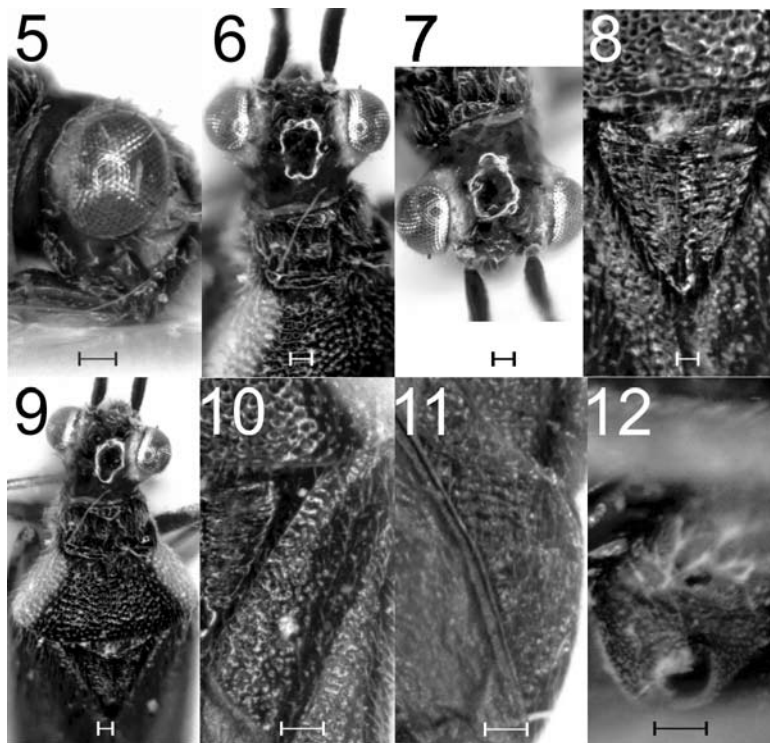
Total length in dorsal view (all measurements mm): 5.70, total width (middle of hemelytra): 1.55, vertex width: 0.5, eye width: 0.27, length of antennal segments: I: 0.27, II: 1.85, III: 0.80, IV: 0.65, length of pronotum: 1.10, width of pronotum (posterior margin): 1.50, length of scutellum: 1.00, width of scutellum: 0.8, length of cuneus: 0.85, width of cuneus: 0.40.

Head short, rounded in dorsal view. Juges yellowish, reduced. Lora shiny black, small. Tylus red brown to black, shiny, covered with short, erect setae. Eyes brown with a silvery strip on their inner and posterior margins two or three ommatidia wide, occupying more than half of head height in lateral view. Frons and vertex shiny black, with a yellowish strip edging the silvery parts of the eyes, covered with short, adpressed to semi-erect setae, devoid of sulcus or carina. First antennal segment thick, slightly curved, red brown to black except on its yellowish basal part. Second antennal segment club-like, laterally flattened, totally black, bearing numerous semi-erect brown setae. Third and fourth antennal segment notably narrower, the third basally and apically red brown

to black, the fourth completely red brown. Rostrum brown, its apex darker, reaching middle of thorax.

Pronotum bell-shaped, constricted on its anterior third, obviously separated into two asymmetrical parts, the anterior very typical and unusual for a Mirini. Pronotal collar rounded, unpunctuated, shiny black, covered with white semi-erect setae. Area directly posterior to the collar flat, grey, unpunctuated, bearing posteriorly the elongated callosities and the same pilosity. Callosities rounded, elongated, longitudinally and transversally separated by a furrow, their anterior parts dark red brown, their posterior parts black. Posterior parts of callosities joining the lateral margins of pronotum, where they bend forward to edge the pronotal margins. In dorsal view, callosities and pronotal collar delimit a practically closed anterior area of the pronotum, though in lateral view callosities are totally separated from the collar. Pronotal disk widely and deeply punctuated, shining black in its median part, yellow in its lateral parts. Posterior margin medially straight, the humeral angles rounded.

Mesoscutum totally covered. Scutellum shiny black, slightly striated, covered with adpressed to semi-erect setae. Femora and tibia yellowish with red brown to dark brown patches, a short



*Adpiasus riegeri* n. sp. Details of anatomy. – fig. 5. Head in lateral view. – fig. 6. Head in dorsal view. – fig. 7. Head in fronto-dorsal view. – fig. 8. Scutellum. – fig. 9. Pronotum. – fig. 10. Right clavus. – fig. 11. Right cuneus. – fig. 12. Evaporative area. Scales = 0.1 mm.

yellowish pilosity, numerous dark spinulae and some brown spines. Tarsal segment brown, the first relatively short. Lateral part of thorax: pro- and metapleuron grey, tomentose, mesopleuron black, all three pleura with numerous, semi-erect white setae.

Hemelytra dark brown, the narrow embolium yellowish, unpunctate clavus and corium widely and superficially punctate, with numerous, semi-erect white setae. Cuneus elongated, brown, with the same pilosity. Membrane brown, except its white and translucent apex, the veins darker.

Abdomen black, with a yellowish patch in middle of each pleuron. Ovipositor black.

Male: Unknown.

**Etymology:** The new species is dedicated to CHRISTIAN RIEGER to celebrate his seventieth birthday.

### Discussion

*Adpiasus riegeri* sp. nov. largely conforms to CARVALHO & SCHAFFNER (1973) original description of the genus *Adpiasus*, particularly to the diagnostic characters of the genus i.e. the

elongate body, the sides of hemelytra more or less parallel, the short rostrum, the coarsely punctated pronotum and hemelytra, the constricted anterior part of the pronotum and the prominent callosities. However, the new species can easily be distinguished from the three other known species (1) by its dark coloration, (2) by its head structure – (a) the carina of vertex, completely absent in *A. riegeri* sp. nov., weakly developed in *A. punctatus*; (b) the frons and vertex are separated in both species, but a shallow punctate furrow, present in *A. punctatus* is lacking in *A. riegeri* sp. nov. and *A. mayanus*, (c) the frons is smooth in *A. riegeri* sp. nov., while striated in *A. punctatus* – (3) by its pronotal structure (notably by the callosities), and (4) by its scutellar structure (striolated in *A. riegeri* sp. nov., coarsely punctated in *A. punctatus*, *A. mayanus* and *A. ecuadorianus*).

With the genus *Adpiasus*, the new species and the species *Adpiasus mayanus* are mentioned for the first time from French Guyana. The specimens of *A. mayanus* from the STREITO collection perfectly conform to the original description, including the male genital structures.

### Acknowledgements

The authors are grateful to H. GÜNTHER for the invitation to contribute to this Festschrift in honor of C. RIEGER, to A. MATOCQ and J.-C. STREITO for the loan of these interesting *Adpiasus* specimens from French Guyana and to the curators of listed collections, especially Dr. P. GROOTAERT (ISNB) and Dr. T. HENRY (USNM) for working facilities.

### References

- CARVALHO, J. C. M. & CARPINTERO, D. L. (1986): Mirídeos Neotropicais 224: Descrições de Quatro Espécies novas da América do Sul. – Anais da Academia Brasileira de Ciências **58**(2): 291-296.
- CARVALHO, J. C. M. & SCHAFFNER, J. C. (1973): Neotropical Miridae 157: *Adpiasus* and *Mexicomiris*, new Genera of Mirinae. – Revista Brasileira de Biologia **33** (suppl.): 39-46.