

MEMOIRS OF THE QUEENSLAND MUSEUM

BRISBANE

© Queensland Museum
PO Box 3300, South Brisbane 4101, Australia
Phone 06 7 3840 7555
Fax 06 7 3846 1226
Email qmlib@qm.qld.gov.au
Website www.qm.qld.gov.au

National Library of Australia card number
ISSN 0079-8835

NOTE

Papers published in this volume and in all previous volumes of the *Memoirs of the Queensland Museum* maybe reproduced for scientific research, individual study or other educational purposes. Properly acknowledged quotations may be made but queries regarding the republication of any papers should be addressed to the Editor in Chief. Copies of the journal can be purchased from the Queensland Museum Shop.

A Guide to Authors is displayed at the Queensland Museum web site

A Queensland Government Project
Typeset at the Queensland Museum

DIABOLICORIS, A NEW GENUS IN THE TRIBE PLOIARIOLINI (HEMIPTERA:
REDUVIIDAE: EMESINAE) FROM NEW CALEDONIA

M.A. WALL AND G. CASSIS

Wall, M. A. & Cassis, G. 2003 06 30: *Diabolicoris*, a new genus in the tribe Ploiariolini (Hemiptera: Reduviidae: Emesinae) from New Caledonia. *Memoirs of the Queensland Museum* 49(1): 481-483. Brisbane. ISSN 0079-8835.

Diabolicoris saicelloides new genus and new species is described and placed in the emesine tribe Ploiariolini. The species is known from a single specimen collected in New Caledonia. *Diabolicoris saicelloides* shows close affinities to *Saicella* Usinger, a flightless genus endemic to the Hawaiian Islands. □ *thread-legged bugs, assassin bugs, Diabolicoris saicelloides, new species, Reduviidae, New Caledonia.*

Michael A. Wall, Department of Ecology and Evolutionary Biology, University of Connecticut, Storrs, USA; Gerasimos Cassis, Centre for Biodiversity and Conservation Research, Australian Museum, Sydney 2000, Australia; 3 November 2002.

The Ploiariolini (Hemiptera: Reduviidae: Emesinae) is supported by several synapomorphic characters in the wings, as well as those in the male and female genitalia (Wygodzinsky, 1966). While apparently monophyletic, the position of the Ploiariolini within the Emesinae is ambiguous. Wygodzinsky (1966) considers the Ploiariolini unplaced in the Emesinae, but tentatively allied it with the Emesini, Metapterini and Deliastrini. Based on its pronotal glands, we suggest the Ploiariolini may be allied with the emesine tribe Collartidini and the subfamily Saicinae. Furthermore, *Saicella* Usinger, a flightless ploiarioline endemic to the Hawaiian Islands, shares several characters with the Saicinae (e.g. elongate spines on head, labium, procoxae and profemora; procoxae relatively short; and anterior acetabula sometimes directed ventrally) and the Ploiariolini (Wygodzinsky, 1966; Polhemus, 2000). Until now, *Saicella* has been the only ploiarioline known to possess numerous transitional characters. Here we describe a new genus of Ploiariolini from New Caledonia, *Diabolicoris*, that has many of the same transitional characters.

***Diabolicoris* Wall & Cassis gen. nov.**
(Fig. 1)

TYPE SPECIES. *Diabolicoris saicelloides* Wall & Cassis.

ETYMOLOGY. Latin for devil and bug, due to general diabolically spiny appearance of the bug.

DIAGNOSIS. Similar in appearance to *Saicella*, but with spines on trochanter of prolegs and spines absent from procoxae. Also, forewings with triangular subbasal cell, and discal cell distally not lobed.

DESCRIPTION. Macropterous. Body shining, moderately covered in golden flexuous setae. No woolly setae present.

Head short; distinctly divided into anteocular and postocular portions; anteocular region roughly parallel-sided dorsally; postocular region slightly shorter than anteocular, globular both laterally and dorsally with shallow sulcus dorsally, as wide as combined width of eyes and anteocular region; eyes small, set laterally, well below dorsum of head; antenniferous tubules large; ocelli absent; buccula with single posterior spine-like seta; gena with three spine-like setae; labium 3-segmented, segment I subcylindrical with 2 + 2 spine-like setae, equal in length to segment II and III combined, segment II inflated with 3 + 3 setae.

Pronotum covering mesonotum, anterior and posterior lobes present, deeply constricted before midline; anterior lobe subglobular, deeply divided into two elevated lobes by deep median longitudinal sulcus, ostiole of pronotal gland present on sulcus; anterior acetabula directed slightly forward; posterior lobe subquadrate, lateral margins weakly divergent posteriorly. Scutellum barely exposed, semicircular, slightly raised medially. Metanotum as long as hind lobe of pronotum, with a short, stout, apical spine.

Forewings broadly rounded distally with small notch at M and wing margin. Discal cell large, truncate proximally, curved apically. M and Cu fused basally of discal cell forming a triangular subbasal cell. Pterostigma narrow, short, barely surpassing the costal margin of the discal cell. Hindwings present.

Prolegs stout; coxae simple, less than 4 × longer than wide; trochanters armed with two

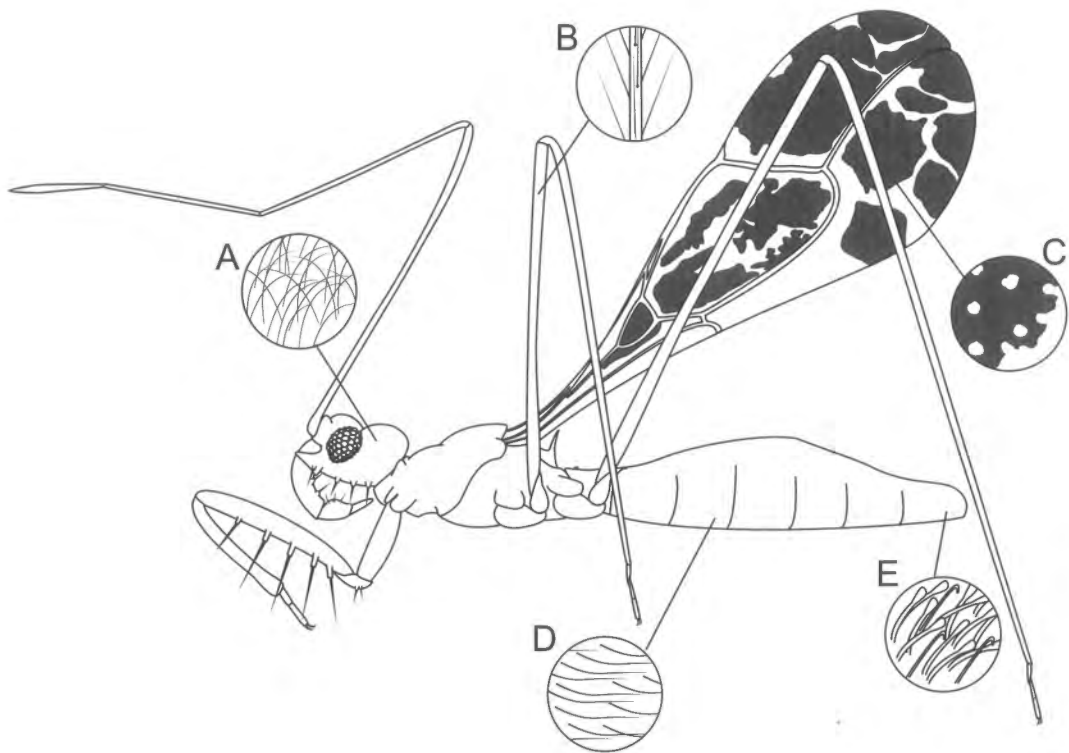


FIG. 1. Lateral view of holotype of *Diabolicoris saicelloides* with selected detail. A, flexuous setae of head and pronotum; B, distally oriented stiff setae of meso- and metalegs; C, areolated pattern elements of forewing; D, appressed setae of abdomen; E, capitate setae covering female genitalia.

obvious spines set on tuberculate bases; femora with row of five enlarged elongate spines set on large tuberculate bases along exterior lateral face, length of longest spine half as long as femur, also with row of six slightly smaller spines along interior lateral surface, angle between interior and exterior rows of spines greater than 90° , distal third of femur with minute dark papillae; tibia with two parallel rows of numerous spinelike setae on ventral surface; tarsus 2-segmented, second segment $2\times$ longer than first; paired claws minute. Middle and hind legs slender with distally angled stiff setae, tarsi 3-segmented, first segment tapered distally, shorter than other segments, junction of second and third segment difficult to discern.

Abdomen broadly attached to thorax, elliptical; connexival margins curved inward; first visible sternite subquadrate, posterior margin shallowly concave, spiracle distinctly stalked.

REMARKS. *Diabolicoris* represents a unique combination of character states, some shared

with *Saicella*, others with *Emesopsis* Uhler, and others are possessed by all three genera. *Diabolicoris* resembles the Hawaiian endemic genus, *Saicella*, in the possession of elongate spines on the profemora, labium, and venter of the head. Unlike *Saicella*, *Diabolicoris* is macropterous. The proximally truncated discal cell of the forewing allies *Diabolicoris* with *Emesopsis* and related genera. Wygodzinsky (1966) concluded that *Saicella* and *Emesopsis* are closely related based on characters associated with the phallus, vestiture, and abdomen. Although the question bears further phylogenetic analysis, *Diabolicoris* appears closely related to the *Saicella-Emesopsis* clade proposed by Wygodzinsky (1966).

DISTRIBUTION. Currently only known from the type locality in southern New Caledonia.

***Diabolicoris saicelloides* Wall & Cassis sp. nov.**
(Fig. 1)

MATERIAL. Holotype. ♀, NEW CALEDONIA 22 14 S 166 52 E, Chute Madeleine, 230m, 12 November 2000,

GB Monteith, pyrethrum, trunks and logs, 9917. (Muséum National d'Histoire Naturelle - Paris; don no. 1097 du 23.05.2003)

ETYMOLOGY. Named for the genus *Saicella* which it resembles.

DESCRIPTION. (All measurements in mm). Length: 2.4. Ground color aureous to stramineous; antenniferous tubercles and tarsi white; antennae testaceous; meso- and metalegs becoming testaceous distally. Wing with conspicuous testaceous pattern elements.

Head length/width: 0.48/0.28; covered with appressed and upright flexuous golden setae; eyes small, elliptical, longest along dorsoventral axis, approximately 25 ommatidia each; antennal segments length: 1.14/0.84/0.48/0.32, first segment widest distally.

Pronotum length/width: 0.42/0.36, procoxae length/width: 0.28/0.08, profemora length: 0.62, protibiae length: 0.46, protarsi length: 0.12, mesofemora length: 1.28, mesotibiae length: 1.66, mesotarsi length: 0.14, metafemora length: 1.74, metatibiae length: 2.44, metatarsi length: 0.14, and forewing length: 2.14.

Abdomen elliptical in dorsal view, length: 1.5; external female genitalia obscured by thick hyaline capitate hairs; male unknown.

DISTRIBUTION. Known only from Chute Madeleine, New Caledonia. Although this area is primarily dry/sclerophyllous maquis-type vegetation, *Diablicoris saicelloides* was collected from tree trunks in a nearby pocket of rainforest. Subsequent pyrethrum collecting at the same location by the same collector in November 2002 failed to yield more specimens.

ACKNOWLEDGEMENTS

Sincere thanks to Geoff Monteith of the Queensland Museum, who collected and loaned this material to us. This project was completed while the senior author was in Australia on a U.S. Department of State Fulbright Fellowship and supported by the Australian-American Fulbright Commission. The Australian Museum Trust is thanked for supporting this work.

LITERATURE CITED

- POLHEMUS, D.A. 2000. A revision of the endemic Hawaiian reduviid genus *Saicella* Usinger, with descriptions of four new species (Heteroptera: Reduviidae: Emesinae). Proceedings of the Entomological Society of Washington. 100: 1-20.
- WYGODZINSKY, P. 1966. A monograph of the Emesinae (Reduviidae, Hemiptera). Bulletin of the American Museum Natural History. 133: 1-614.