

## On *Sibilocoris brongersmai* BLÖTE, 1965 from New Guinea (Insecta: Heteroptera: Aradidae)

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### Abstract

The apterous genus *Sibilocoris* BLÖTE, 1965 was erected for *S. brongersmai*, represented so far by the female holotype only. Now a male specimen is available for study, allowing to redescribe the genus and species and to figure both sexes.

**Key words:** Heteroptera, Aradidae, Carventinae, *Sibilocoris*, New Guinea.

### Zusammenfassung

Die aptere Gattung *Sibilocoris* BLÖTE, 1965, aus der Unterfamilie Carventinae, wurde für *S. brongersmai* aus Neuguinea errichtet, von der bisher nur der weibliche Holotypus bekannt war. Nun liegt ein Männchen dieser Art vor, sodaß die Gattung und Art genauer beschrieben und beide Geschlechter abgebildet werden können.

### Introduction

Since the description of *Sibilocoris brongersmai* by BLÖTE (1965), which was based on a single female specimen, no further record is known to date. Among the very rich fauna of the flat bug family Aradidae occurring in New Guinea, the subfamily Carventinae is represented so far by twelve genera of which seven share the apterous condition, showing a wide range of highly modified abdominal structures: *Biroana* KORMILEV, 1957; *Eurycoris* KORMILEV, 1957; *Libiocoris* KORMILEV, 1957; *Papuaaptera* HEISS, 1997; *Riedelaptera* HEISS, 1997; *Sibilocoris* BLÖTE, 1965; and *Trigonaptera* MATSUDA & USINGER, 1957.

Now the first additional record of *S. brongersmai*, a specimen of the unknown male sex, is available for study. Due to the concealed abdominal structures of the uncleaned female holotype, they were insufficiently mentioned in the original description. Therefore a re-description of the genus and the species is given, based on both sexes now.

### Material and methods

The unique male specimen upon which this study is based was collected by Alexander Riedel (Stuttgart) during one of his entomological expeditions to Papua New Guinea in 1992 and presented to the author. It is compared with the female holotype deposited at

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Results of the entomological expeditions of Alexander Riedel in New Guinea from 1990 - 1996.

the Nationaal Natuurhistorisch Museum Leiden, The Netherlands (RMNH), which was cleaned from debris and incrustation concealing important structural details of head and abdomen.

Measurements were taken with a micrometer eyepiece, 40 units = 1 mm, or are given in millimetres.

Abbreviations used: Deltg - dorsal external laterotergites; Mtg - mediotergite; Tg - tergite; Vltg - ventral laterotergites.

### *Sibilocoris* BLÖTE, 1965

**Type species:** *Sibilocoris brongersmai* BLÖTE, 1965

**Diagnosis:** Rather small and flat, head and appendages with long erect stiff setae. Of the above-mentioned genera, *Sibilocoris* is most closely related to *Libiocoris* by its general appearance and flat body. However the latter differs by head longer than wide, presence of distinct postocular tubercles, much longer antennae (2.4 times width of head) and lack of distinct pilosity on head and appendages.

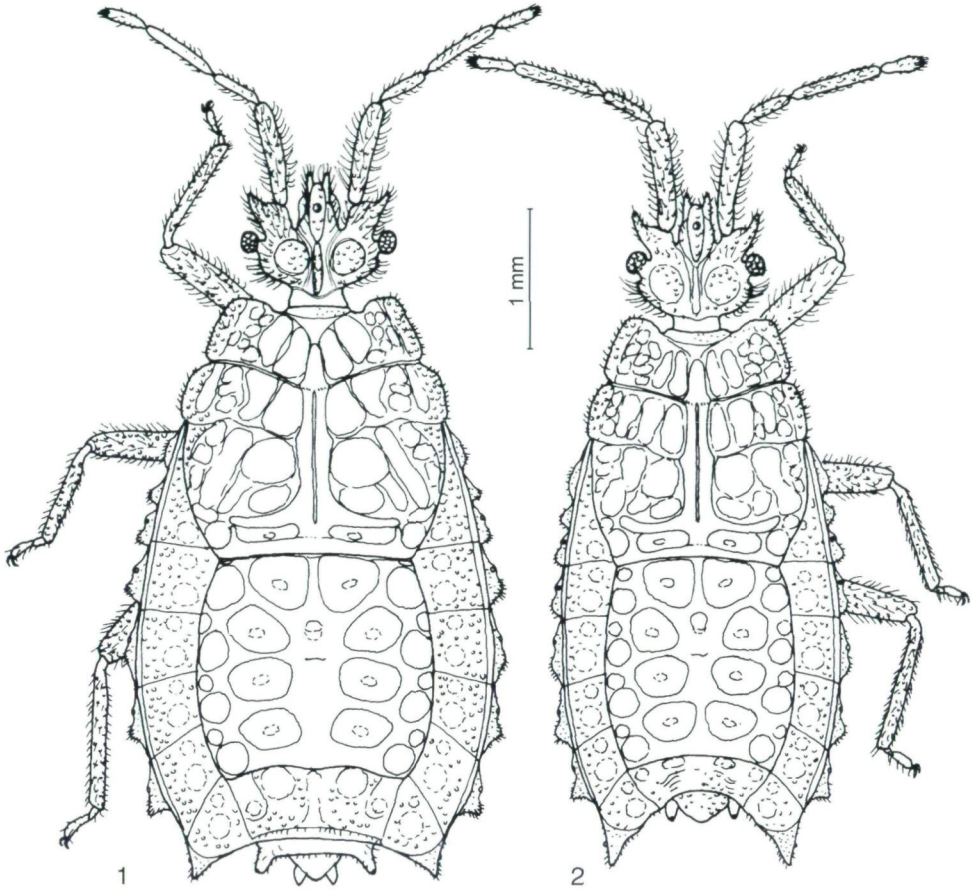
*Papuaaptera* and *Riedelaptera* are smaller and their body is strongly elevated and the fusion of the thoracal segments is different. In *Biroana*, meso-, metanotum and Mtg I + II are inflated into a prominent lobe. *Eurycoris* differs from *Sibilocoris* by generally larger size, triangularly posteriad produced mesonotum and lamellate lateral expansions of the pronotum. *Trigonaptera* is easily distinguished by its pentagonal tergal plate, small inserted eyes and fused Deltg II + III.

**Redescription:** Apterous. Body elongate ovate, attenuate posteriorly. Surface thinly incrustate, but callous structures exposed. Head, antennae and legs with long erect setae.

**Head.** Distinctly wider than long; clypeus elevated, genae narrow and produced over clypeus. Antenniferous tubercles diverging anteriorly, apex acute. Length of antennae less than twice the width of head. Eyes stalked. Postocular lobe rounded, converging posteriorly, without tubercle. Vertex with a longitudinal carina, flanked by ovate smooth callosities laterally. Rostrum arising from a slit-like atrium, shorter than head.

**Thorax.** Pronotum trapezoidal with recessed collar region. Anterolateral lobes subangularly rounded, produced over collar. Lateral margins nearly straight, converging anteriorly. Posterior margin curved towards fused longitudinal median ridge which extends from anterior 1/3 of pronotum to tergal plate. Surface with smooth ovate callosities lateral of median ridge, diminishing in size toward lateral margins, the latter granular and beset with short setae.

Meso-, metanotum and Mtg I + II fused, posterior margin of mesonotum marked by a thin suture, which is lacking between metanotum and Mtg I + II. Long median ridge with median sulcus extending from anterior margin of mesonotum approximately to posterior margin of Mtg I. Surface of mesonotum with smooth callosities and granular lateral margins as pronotum; metanotum with larger callosities, but convex lateral margin is delimited by triangular Deltg II, which extends to posterior margin of mesonotum. Mtg I + II transversally expanded, as high as median ridge with 2 (1 + 1) ovate depressions.



Figs. 1 - 2: *Sibilocoris brongersmai*, (1) holotype ♀, dorsal view, (2) ♂, dorsal view.

Abdomen. Tergal plate formed by Mtg III - VI, flat and with typical carventinae arrangement of ovate depressions. Anterior margin straight, lateral margins convex, posterior margin sinuate. Deltg II - VI delimited laterally by a longitudinal sulcus from visible reflexed Vltg's, which are granulate and beset with short setae. Deltg VII angularly projecting posteriorly. Surface of Deltg's granular. Venter flat, with 2 + 2 + 1 arrangement of glabrous impressions. Rostral groove wide, open posteriorly. Spiracles II + III dorsal on reflexed Vltg II and III, IV - VII lateral on Vltg IV - VII but visible from above, VIII terminal.

Legs slender, femora and tibiae cylindrical, beset with long erect setae. Claws with long and thin pseudopulvilli.

### *Sibilocoris brongersmai* BLÖTE, 1965

**Holotype**, ♀ (Fig. 1): cleaned and remounted on card labelled " Museum Leiden \Neth. New Guinea Exp. \Star Range \Sibil 1260m \ 14 - V - 1959" (white, printed); "Holotype" (red, printed); "*Sibilocoris* \brongersmai \

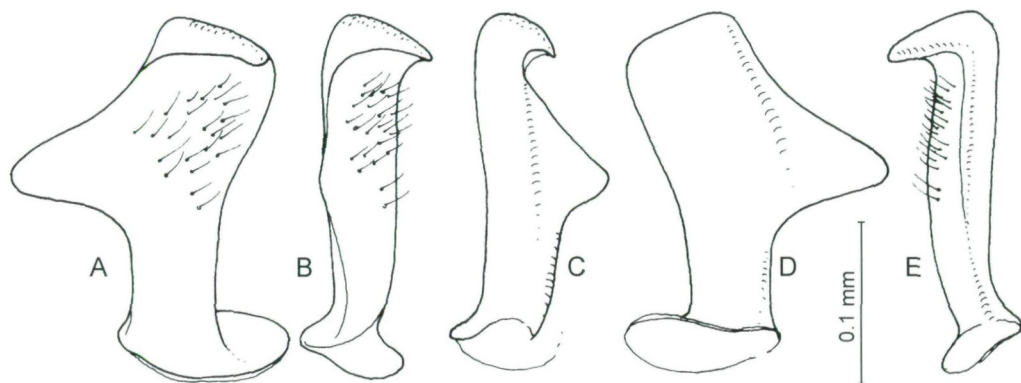


Fig. 3: *Sibilocoris brongersmai*, left paramere in different positions.

BLÖTE 1965" (white, printed and handwr.), RMNH. **Additional material:** 1 ♂, labelled "NG - Irian Jaya \ Jayawijaya - Prov.\leg. A. Riedel 1992"; "Borne (to Omban) \ 1000 - 1300 m \ 13 - 18. VIII", in the collection of the author.

**Redescription:** Apterous, body elongate ovate, widest across Tg IV. Measurements: Length 4.9 mm; pronotum width / length 61/22; width of abdomen across Tg IV 108.

Head. Distinctly wider than long (43/37). Apex of genae produced over elevated clypeus which bears a conical subapical tubercle. Antenniferous tubercles acute, diverging. Antennae 1.79 x as long as width of head (77/43), relative length of segments I : II : III : IV = 29 : 13 : 23 : 12. Eyes stalked, granular. Postocular lobe of head rounded. Vertex with a longitudinal carina and ovate depressions laterad.

Thorax. Pronotum strongly transverse and converging anteriorly, lateral margins nearly straight, anterolateral angles blunt and produced anteriorly. Structure of fused meso- and metanotum, Mtg I and Mtg II as described for the genus.

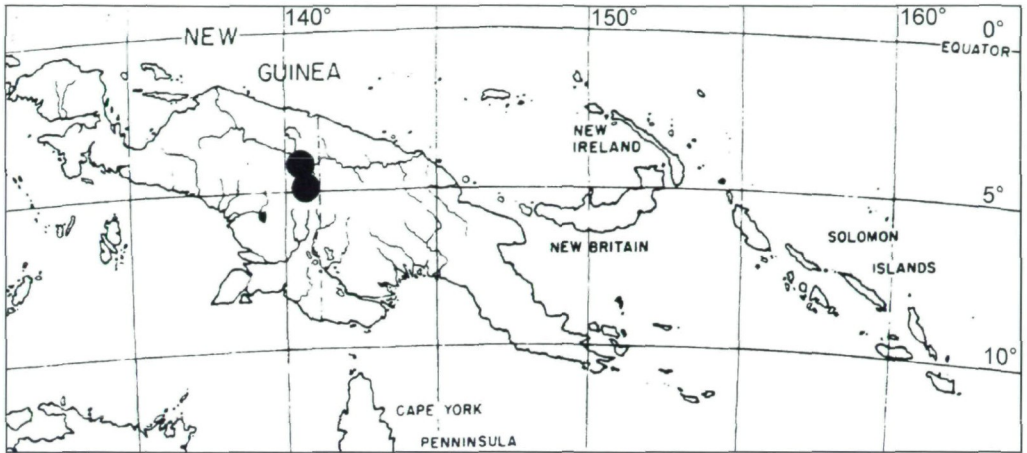
Abdomen. Tergal plate subrectangular with convex lateral margins. Surface only slightly elevated along midline with usual pattern of ovate depressions. Surface of Deltg's coarsely granulate, with round callosities on inner half, their lateral margin marked by a deep sulcus separating the reflexed and laterally expanded triangular ventral laterotergites. The latter bearing spiracles II + III dorsally and IV - VII laterally. Posterior margin of abdomen concave, Tg VIII strongly transverse with small lateral lobes bearing the spiracles; Tg IX triangular with two small sublateral projections.

♂ (Figs. 2, 3): Generally as female, but abdomen narrower, antennae relatively longer, reflexed triangular Vltg VII larger and with pointed apex, strongly produced posteriorly. Measurements: Length 4.7 mm; head w/l 40/38; pronotum w/l 52/18; relative length of antennal segments I : II : III : IV = 30 : 14 : 23 : 12; ratio length of antennae / width of head  $79/40 = 1.97$ ; width of abdomen across Tg IV 80.

Genitalic structures. Pygophore small, posterior margin sinuate; paratergites VIII club shaped, as long as pygophore. Parameres as Fig. 3 A-E.

**Distribution** (Map 1): The only specimens known to date are from Irian Jaya's central highland where the genus is most probably endemic.





Map 1: Distribution of *Sibilocoris* in New Guinea. The lower circle indicates the type locality, the upper one that of the male record.

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#### References

- BLÖTE H.C., 1965: Catalogue of the Aradidae in the Rijksmuseum van Natuurlijke Historie. – Zoologische Verhandlungen 75: 1-41.
- HEISS E., 1997: Two genera of apterous Carventinae from New Guinea (Heteroptera, Aradidae). – Mitteilungen der Münchner Entomologischen Gesellschaft 87: 73-79.
- KORMILEV N.A., 1957: Notes on Aradidae from the Eastern Hemisphere, XI (Hemiptera). On some apterous Mezirinae from New Guinea. – The Philippine Journal of Science 85 (3): 389-403 (1956).
- MATSUDA R. & USINGER R.L., 1957: Insects of Micronesia Heteroptera: Aradidae. – Bernice P. Bishop Museum, Insects of Micronesia 7: 117-172.