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## A redescription of *Lundbladiolla albomaculata* (STÅL) with remarks on the genus (Heteroptera: Miridae: Cylapinae)

JACEK GORCZYCA

Department of Zoology, University of Silesia, Bankowa 9, 40-007 Katowice, Poland, e-mail:  
gorczyca@us.edu.pl

ABSTRACT. The species *Lundbladiolla albomaculata* (STÅL) is redescribed, the pictures of the male genitalia are presented for the first time. The systematic position of the genus are discussed.

Key words: entomology, taxonomy, redescription, Heteroptera, Miridae, *Lundbladiolla*, Philippines

### INTRODUCTION

The genus *Lundbladiolla* has been established by CARVALHO in his Keys to the genera of *Miridae* of the World (1955) for a single species *Psilorrhamphus albomaculatus* described by STÅL (1870) from the Philippine Islands. Earlier the genus *Psilorrhamphus* had been synonymized with *Rhinomiris* KIRKALDY by POPPIUS (1910). Two years after the genus *Lundbladiolla* was established CARVALHO (1957) again placed the type-species within the genus *Rhinomiris*. In the Catalogue of Plant Bugs of the World *Lundbladiolla* is treated as a separate genus (SCHUH 1995) although according to the former Catalogue of CARVALHO, it should be treated as a synonym of *Rhinomiris* (KERZHNER & SCHUH 2001).

In the revision of the *Rhinimiris*-complex (GORCZYCA & CHÉROT 1998) and in later works (GORCZYCA 2000, 2001) the genus *Lundbladiolla* was treated as a separate genus. A similar status was given to the genus *Rhinomiridius* POPPIUS which had earlier been synonymized earlier with *Rhinomiris* (SCHMITZ, 1970) and treated as its subgenus.

The redescrptions of the genus and species were given on the basis the holotype and two male specimens (GORCZYCA & CHÉROT 1998) but the examined material was so seriously damaged that it was impossible to measure the specimens precisely or to examine their genitalia. For this reason, a redescription, especially that of a male given by GORCZYCA & CHÉROT (1998) was insufficient. Among the material deposited in the Department of Zoology, University of Silesia I found a very well preserved male specimen of *Lundbladiolla albomaculata*. This specimen allowed me to amend the former redescription of the species with the results given below.

#### TAXONOMY

##### *Lundbladiolla* CARVALHO, 1955

*Lundbladiolla* CARVALHO, 1955: 20; SCHUH, 1995: 31; GORCZYCA & CHÉROT, 1988: 23, 24, 25, 44, 62; GORCZYCA, 2000: 27, 28, 50; 2001: 415, 416; KERZHNER & SCHUH, 2001: 269 (Type-species: *Psilorhamphus albomaculatus* STÅL, 1870, original designation).

#### DIAGNOSIS

This genus is easily distinguished from other representatives of the tribe *Rhinomirini* by vertex with two raised, posteriorly directed tubercles more or less distinctly marked, large, elongated eyes enveloping the occipital part of the head, very thin clypeus, long rostrum reaching pygophore in males, posterior lobe of pronotum and scutellum rugosae, brown membrane with large patches inside major cell and numerous smaller, irregular patches outside.

##### *Lundbladiolla albomaculata* (STÅL, 1870)

*Psilorhamphus albo-maculatus* STÅL, 1870: 670

*Psilorhamphus albomaculatus*: WALKER, 1873: 161; ATKINSON, 1890: 41

*Rhinomiris albomaculatus*: POPPIUS, 1910: 236; BERGROTH, 1920: 72; CARVALHO, 1957: 25

*Lundbladiolla albomaculata*: SCHUH, 1995: 31; GORCZYCA & CHÉROT, 1998: 26, 36, 45

#### DIAGNOSIS

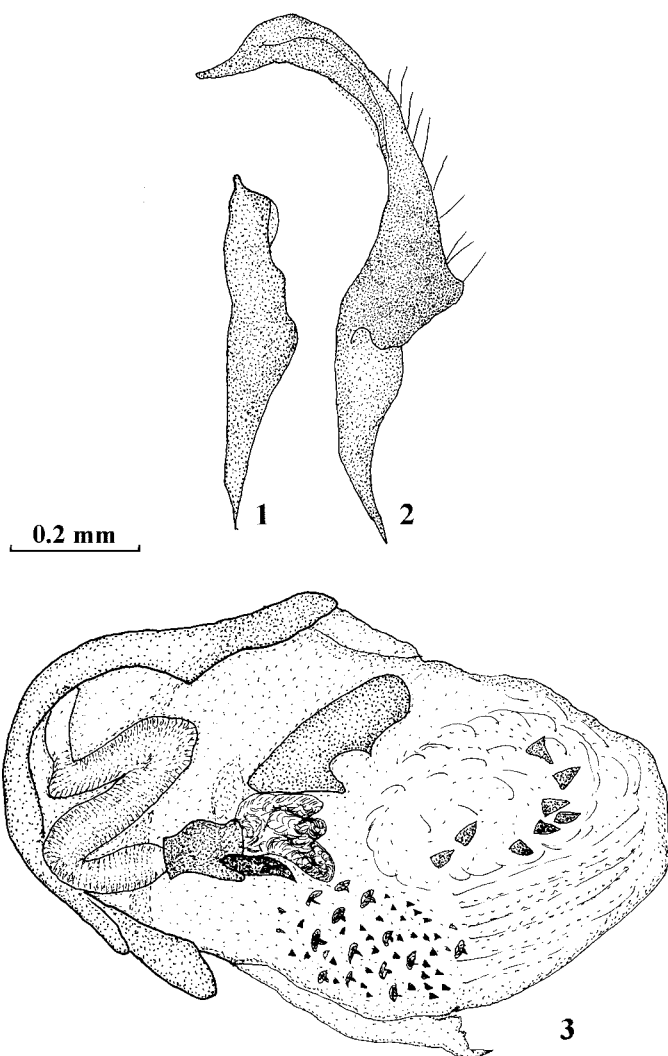
Only one known species.

#### REDESCRIPTION

Female. Body brown with pale spots and patches. Length of body 8 mm, width in distal part 2.5 mm. Head yellow with dark patches, length from above 1.64 mm, width 1.32 mm, diameter of eye 0.48 mm, length in lateral view 1.5 mm, height 1.2 mm. First antennal segment dark yellow, darker at base and apex, length 0.8 mm, remaining segments broken. Vertex brown, tubercles yellow, frons with a large brown patch occupying almost whole surface. Clypeus yellow with a reddish brown patch at base and tinged with red at apex. Mandibular plate small, reddish,

maxillary plate yellow, concave in the middle, buccula brown, gula yellow with a red patch contiguous with pronotal margin. Rostrum broken in the examined holotype.

Pronotal collar distinctly thickened and pale in the middle, pronotum reddish brown with a pale longitudinal line in the middle and a pale pattern on anterior lobe. Posterior lobe brown, humeral angles pale, slightly raised. There are three pale patches contiguous with posterior margin of pronotum. Length of pronotum



1-3 *Lundbladiolla albomaculata*: 1 - right paramere, 2 - left paramere, 3 - aedeagus

1.12 mm, anterior margin 1 mm, lateral margins 1.24 mm, posterior margin 2.25 mm. Mesoscutum uniformly dark brown, slightly paler on carina, scutellum dark brown with a pale longitudinal stripe in the middle, apex pale.

Hemelytra brown with pale spots and patches, clavus brown, irregularly spotted, pale at apex, corium covered with dense, pale swellings, medial fracture reddish. There are two large, pale patches on both sides of claval apex. Apex of corium dark brown with a pale area above. Membrane brown with a pale pattern, venation pale.

Underside of body brown to dark brown, with a pale pattern. Femora reddish brown with pale patches and rings. Tibiae covered with short, dark setae, reddish brown, with a pale ring in the middle. Tarsi brown.

Male. Slightly smaller than female, colour pattern of body similar to female. Length of body 6.0-7.50 mm, width 2.20-2.35 mm, length of head from above 1.50 mm, width 1.20 mm, diameter of eye 0.35-0.36 mm. Antennae very thin, inserted on tubercles contiguous with margin of eye. First antennal segment pale brown, paler at base, sparingly covered with very short setae, slightly thickened and darkened at apex. Second segment pale brown at base, then darkened and slightly thickened towards apex, covered with dense setae in apical part, apex white. Third segment white at base then dark brown, covered with dense, pale setae, slightly narrowed towards apex. Fourth segment dark brown, covered with dense, pale setae, very thin in apical part (divided?). Length of antennal segments in mm: 0.75-0.8: 2.20-2.22: 2.80: 1.25 (broken in apical part?). Rostrum reaching genital capsule, uniformly dark brown, only first segment with a white ring in the middle. Length of rostral segments in mm: 1.2: 2.2: 1.2: 0.8.

Length of pronotum 1.20 mm, anterior margin 0.80-1.0 mm, lateral margins 1.20-1.25 mm, posterior margin 2.0-2.15 mm.

Underside of body similar to female, ostiolar peritreme pale. Aedeagus membranous but in contrast to the other genera in *Rhinomiris*-group equipped with sclerotised elements. On its surface there are numerous, small sclerotised tubercles and bigger nodules, resembling placoid scales. Opening of second gonopore distinctly sclerotised, with a characteristic, toothed band. A few distinct, relatively large, sclerotised conical teeth in front of the second gonopore (Fig. 3). Parameres relatively small, left paramere curved, with a very small sensory lobe, right paramere thin, almost straight with a small, apical process (Figs 1-2).

#### TYPE MATERIAL EXAMINED

Holotype (female): Ins. Philipp.; Semper; Allotypus [red label]; L; R. M. prep. 4/58 [yellow label]; No 677/142; 244, 67 [red label]; G. Schmitz dat. 1967, *Rhinomiris albomaculatus* (Stål); 258, 81 [red label]; Riksmuseum Stockholm [green label]; Naturhistoriska Riksmuseet Stockholm, Loan no 99/97 [blue label]. Housed in the Swedish Museum of Natural History, Stockholm, Sweden.

## OTHER MATERIAL EXAMINED:

Male: *Psilorhamphus albomaculatus* Stål [handwritten old label]; Ins. Philipp.; holotype [pink label]; no 677/141; B. M. prep., 4/59 [yellow label]; 243, 67 [red label]; G. Schmitz det. 1967, *Rhinomiris albomaculatus* (Stål); 257, 81 [red label]; Riksmuseum Stockholm [green label]; Naturhistoriska Riksmuseet Stockholm, Loan no 98/97. [blue label]. Housed in the Swedish Museum of Natural History, Stockholm, Sweden. Male: Malinao, Tayabas, Baker; 5267; *Lundbladiolla albomaculata* (Stål), det. J. Gorczyca, 1997. Housed in the National Museum of Natural History, Washington, USA. Male: Malinao, Tayabas, Baker; *Lundbladiolla albomaculata* (Stål), det. J. Gorczyca. Housed in the Department of Zoology, University of Silesia, Katowice, Poland.

## DISTRIBUTION

The Philippine Islands.

## DISCUSSION

In the revision of the Afrotropical Cylapinae (GORCZYCA 2000) I raised the *Rhinomiris*-complex to the tribal rank. The new tribe *Rhinomirini* contained two groups of genera: *Rhinocylapus*-group and *Rhinomiris*-group. The former with Oriental genera *Rhinocylapus* POPPIUS and *Rhinocylapidius* POPPIUS. The latter with the genera *Lundbladiolla* CARVALHO and *Rhinomiris* KIRKALDY from Oriental Region and the Afrotropical genus *Rhinomiridius* POPPIUS.

Recently, a new genus and species *Rhinomiriella tuberculata* GORCZYCA was described on the basis of one female from Australia (GORCZYCA 2001). It was presented as the first report of the tribe *Rhinomirini* outside the Afrotropical and Oriental Regions. In fact the species *Rhinomiridius bioculatus* had been described from Australia by GIRAULT (1934) but because GIRAULT's description was largely insufficient, the name was treated as a nomen dubium (GORCZYCA & CHÉROT, 1998). The new genus *Rhinomiriella* was compared with *Lundbladiolla albomaculata* and with the genus *Rhinomiridius* but because of its unique characters, it was treated as a separate *Rhinomiriella*-group.

The morphological comparison within *Rhinomiris*-group shows that the genera *Rhinomiris* KIRKALDY and *Rhinomiridius* POPPIUS are closely related, whereas the *Lundbladiolla* constitutes probably a more distinctly related lineage (GORCZYCA & CHÉROT, 1998). The male genitalia of *Lundbladiolla* also indicate that in fact *Rhinomiris*, *Rhinomiridius* and *Lundbladiolla* are, in fact, closely related but still should be treated as separate genera.

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