

# **A new species of *Protilema Aurivillius*, 1908 (Coleoptera: Cerambycidae, Morimopsini) from Waigeu Island, New Guinea**

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*Summary:* *Protilema papus* **spec. nov.** (Coleoptera: Cerambycidae) is described from the Waigeu Island (Indonesia, West Papua). Observations regarding congener species and other genera of the tribe Morimopsini Lacordaire, 1869 from New Guinea are provided.

*Ikhtisar:* Satu spesies baru dari *Protilema* yang dinamai *Protilema papus* **spec. nov.** (Coleoptera: Cerambycidae) ditemukan di Pulau Waigeu, Provinsi Papua Barat, Indonesia. Penemuan-penemuan spesies yang dekat dan genera lain dari Tribus Morimopsini Lacordaire, 1869 asal New Guinea disajikan pula.

*Key-words:* Lamiinae, Indonesia, West Papua

## **Introduction**

The tribe Morimopsini Lacordaire, 1869 includes more than 150 wingless species especially widespread in the tropical regions of the world. Most species exhibit terreous colours and spines or tubercles on the body. Their apteral condition has led to the evolution of several endemic taxa, many of which are probably still undiscovered.

The beetle hereafter described has been collected with a pitfall trap located among rotten foliage and wood at 120 m AMSL, inside a primary forest near Waisai. It is the first species of Morimopsini recorded in the Raja Ampat Islands (Bigger & Schofield, 1983).

## Results

### *Protilema papus spec. nov.*

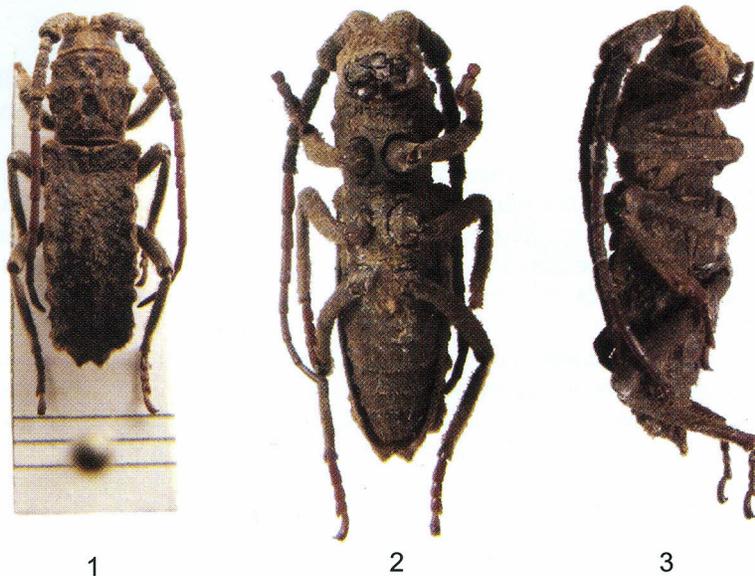
**Description.** Male; length 15 mm; pitch brown, palpi, part of elytra, apical half of tibiae, tarsi and antennae (starting from the apical half of the joint IV) reddish. Margins of the eyes, antennal tubercles, pronotal tubercles, base and lateral ridge of the elytra covered with very short and dense reddish yellow erect pubescence incorporating mud. Legs, antennomeres I-IV, elytral disc and visible urosternites covered with long sparse yellow erect pubescence.

Head not reclinable, smooth, covered with sparse short erect setae; labrum transverse, smooth except for a transverse row of fine points; forehead squared, convex; antennal tubercles very prominent, inflated, narrowly approached and leaving a fairly long parallel space between them; inter-antennal furrow deep and wide; eyes coarsely faceted, strongly reniform; inferior eye-lobes only a bit wider of the upper ones, evidently shorter than cheeks, their margins covered by appressed pubescence; temples feebly enlarged posteriorly narrower than upper eyes-lobes. Antennae eleven-segmented, reaching the apical fifth of elytra, densely covered with a very fine recumbent pubescence, antennomeres I-IV with sparse elevated setae; scape fairly bowed, feebly inflated in the middle and strongly inflated at apex; pedicel one-fifth as long as scape; antennomere III one-fifth shorter than scape, nearly twice as long as IV; antennomere IV less than one-half as long as scape; antennomere V nearly one-half as long as scape; antennomere VI as long as IV; antennomeres VI-X progressively decreasing in length; antennomere XI as long as V (antennomere proportions according to the formula: 5.8: 1.2: 4.6: 2.6: 3.0: 2.6: 2.5: 2.3: 2.2: 2.1: 3.0).

Prothorax as long as wide, sub-cylindrical; sides vertically declivous, each armed with an apical tubercle and a median obtusely conical tooth; disc smooth, with a premedian elongate tubercle in the middle, six similar tubercles, two apical and four basal, longitudinally disposed on two rows along the middle, and a small tubercle at each basal angle. Scutellum extremely reduced, squared, partially covered by the pubescence of the elytral base.

Elytra elongated, parallel-sided, twice as long as wide at humeri, evidently wider than prothorax at base; base concave, humeri prominently lobed; sides with a lateral ridge formed with about ten lobed tubercles reaching the apical fifth, vertically declivous laterally; apex separately acuminate forming a squared tooth; disc uneven, covered with sparse impressed points at the bottom of each depression.

Legs relatively long, sublinear; femora very feebly fusiform; pro- and mesotibiae feebly bowed; metatibiae feebly sinuate; tarsi narrow; metatarsomere I as long as V, nearly twice as II or III; claws widely divergent.



**Figs 1-3.** *Protilema papus spec. nov.*, Holotype:  
1. upperside; 2. ventral view; 3. lateral view.

Ventral side smooth; procoxal cavities posteriorly closed, mesocoxal cavities exteriorly open; visible urosternites sparsely covered with elevated fairly high hook-shaped pubescence.

**Holotype:** ♂, Indonesia, West Papua, Raja Ampat Is., Waigeu I., Waisai, 17.XI.2009, leg.: H. Menufandu, Koleksi Serangga Papua (KSP), Jayapura.

The beetle misses both protarsi (except for both first two articles) and the left metatarsus. Moreover it is throughout covered with dried mud, but it is unclear whether it derives from the liquid of the trap or it is a camouflage, as it occurs to some terricolous beetles, as weevils or darkling beetles.

**Etymology.** The specific epithet "*papus*" (noun in apposition) is a word of the Biak language indicating the dirt adhering on the body, so that it looks as a part of it.

**Differential diagnosis.** The majority of the six species of the genus *Protilema* has been described on a few number of specimens, some of which incomplete (*P. granulatum*), possibly lost (*P. montanum*), or with generic collecting data (*P. strandi* and *P. granulatum*). Besides Breuning's monograph no further observations have been provided; hence, it is unknown whether and which species are present in Papua.

*Protilema papus* **spec. nov.** is characterised by small size; inferior eye-lobes shorter than cheeks; antennomeres I-IV with erect pubescence; antennomere III scarcely shorter than scape and nearly 2 times as long as IV; pronotum unpunctuated, with elevated pubescent tubercles; elytra with lobed humeral tooth, lateral ridge fragmented in tubercles, not reaching the apex, and toothed apex. The dense erect pubescence on the tubercles seems to be a peculiar character of this species. The other species of the genus can be distinguished from the new species as follows:

*P. rotundipennis* Breuning, 1947 from Fergusson I. (Papua New Guinea) differs from all its congeners in the rounded elytral apex.

*P. gigas* Aurivillius, 1908 from Sattelberg Mts (Papua New Guinea) differs in the larger size (~3 cm), the wider body, the antennae without erect setae, the antennomere III twice as long as scape and 2.5 times as long as IV, the elytral lateral ridge not fragmented in tubercles.

*P. humeridens* Aurivillius, 1926 from Bolan Mt (Papua New Guinea) differs in the antennomere III scarcely longer than scape and 1.5 times as long as IV, the elytra with long and acute humeral teeth, and the lateral ridge not fragmented in tubercles, becoming dorsal in the apical fifth.

*P. montanum* Kriesche, 1923 from Sepik Mts (Papua New Guinea) differs in the inferior eye-lobes longer than cheeks, the antennae as long as body, and the elytral

lateral ridge much less prominent at humeri and reaching the apical teeth. *P. strandi* Breuning, 1940 differs in the antennomere III twice as long as scape, and the elytra with a longitudinal series of discal tubercles.

*P. granulosum* Breuning, 1942 differs in the shorter obtuse elytral teeth and the different sculpture on the elytral disc (basal ridge located beside the scutellum, longitudinal series of discal and sutural tubercles).

Among the already described species, *Protilema papus* **spec. nov.** seems to be more closely related to *P. strandi*.

**Remarks.** New Guinea is inhabited by only three endemic genera of Morimopsini: *Protilema Aurivillius*, 1908, *Protilemoides* Kriesche, 1923 and *Spinocentruropsis* Minet, 1987, the last two being monobasic. This last genus has been confronted with the Chinese *Centruropsis* Breuning, 1950, but the characters provided in the original description (antennae longer than body, antennomere III longer than IV, long pronotal spines, pronotal bulges, spined elytral apex, etc.) imply that this species has very little to do with such genus. Actually, it seems to be closely related to *Protilemoides*, whose type was unknown to Breuning (1950) and to Minet (1987).

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