

# A new species of *Polyrhanis* RIVALIER, 1963 from New Guinea (Coleoptera: Cicindelidae)

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**Abstract.** A new tiger beetles species, *Polyrhanis arfakensis* sp. nov. is described from West Papua (Indonesia). This new species can be distinguished by its elytral pattern and the distinctive shape of its aedeagus from similar species.

**Key words.** Coleoptera, Cicindelidae, *Polyrhanis*, New Guinea, West Irian, Indonesia, Australian Region, taxonomy, new species.

**Zusammenfassung.** Ein neuer Sandlaufkäfer aus West-Papua (Indonesia) wird beschrieben, *Polyrhanis arfakensis* sp. nov. Er ist an seiner Flügeldeckenzeichnung und der Form des Aedeagus von ähnlichen Arten zu unterscheiden.

## Introduction

*Polyrhanis* was established by RIVALIER in 1963. The geographical range of this genus includes New Guinea, numerous neighbouring small islands, and more distant islands like Buru, Aru and archipelagos, Moluccas, Bismarck (except northern islands) and Solomon Islands. New Guinea is considered the centre of diversity for *Polyrhanis* because more than 34 species are known from this island while only seven species are known from the Solomon Islands (CASSOLA 1990, WIESNER 1992). Since the last detailed reviews on the Cicindelidae (including *Polyrhanis* species) for New Guinea (CASSOLA 1986) and the Solomon Islands (CASSOLA 1987), many additional distributional records for *Polyrhanis* have been reported (CASSOLA 1989, 2004; CASSOLA & WERNER 1998, 2001), and five new species have been described meanwhile (SCHÜLE 1998; WIESNER 1999, 2000; CASSOLA & WERNER 2001). In this paper we describe yet another new species of *Polyrhanis* from Papua (Indonesia).

## *Polyrhanis arfakensis* sp. nov. (Figs 1, 4, 7, 10, 11)

**Holotype.** ♂, Indonesia, West Irian, Arfak mts., Anggi lake, 19.II.1994, leg. S. CHURKIN (coll. Sergey Saluk, Minsk, Belarus).

**Derivato nominis.** The new species is named after its type locality, the Arfak Mountains.

**Description.** Total length (without labrum). 9.2 mm.

**Head.** Bronze with deep green reflection. Clypeus with narrow purple tinged anterior margin, shallow shagreen. Front, vertex and occiput coarsely rugose, supraorbital area deeply striated, genae with distinct subparallel striae. Clypeus glabrous, supraorbital area with two pairs of setae. Mandibles pale, with dark brown teeth. Labial palpi pale except metallic blue-green apical joint, maxillary palpi dark brown, apical joint with deep blue-green reflection. Labrum 1.55 times as wide as long, trapeziform, with brownish central part and dark brown lateral edge, tridentate, with two (in left) and one (in right) marginal setae near apical tooth as well as a single lateral seta near base on each side (Fig. 7). Antennae metallic, deep blue-green, antennomeres glabrous except a single long seta on the scapus tip and short thin setae on the third and fourth antennomere (only first three antennomeres on the left and first four on the right are intact on the type specimen).

**Pronotum.** 1.16 times as wide as long; distinct shagreen on disc and transversely wrinkled in anterior and posterior margins, bronze with cupric reflection, mid-

line nearly absent. Pro-, meso- and meta-thorax deep bronze with bright purple reflection. Prothorax glabrous, proepisternum with shallow vertical wrinkles along apical margin; base of mesoepimeron and mesoepisternum as well as posterior margin of metepimeron with sparse white setae, lateral part of metathorax and anterior margin of coxae with deep white decumbent setae.

**Elytra.** 1.8 times as long as wide, chocolate-brown, with bright bronze lustral area, creating humeral lunula connected with small subsutural pit, slightly curved middle band and large apical area that connect together along lateral margin. Rest of white elytral pattern represented by small central part of humeral dot, large basal portion of middle band and basal part of apical dot. Elytral disc with eleven to twelve large bright green points in subsutural area, four of them are lower on the shoulders and four are between sutural and lateral margins in apical one third; in addition there are numerous small bright green points and deep bronze reflected area (Figs 1, 4).

**Abdominal sternites.** Dark metallic blue with light green tinge. Legs fully metallic bluish-green except narrow pale area on fore and middle femora along inner side (left tibia as well as both hind tarsus are absent).

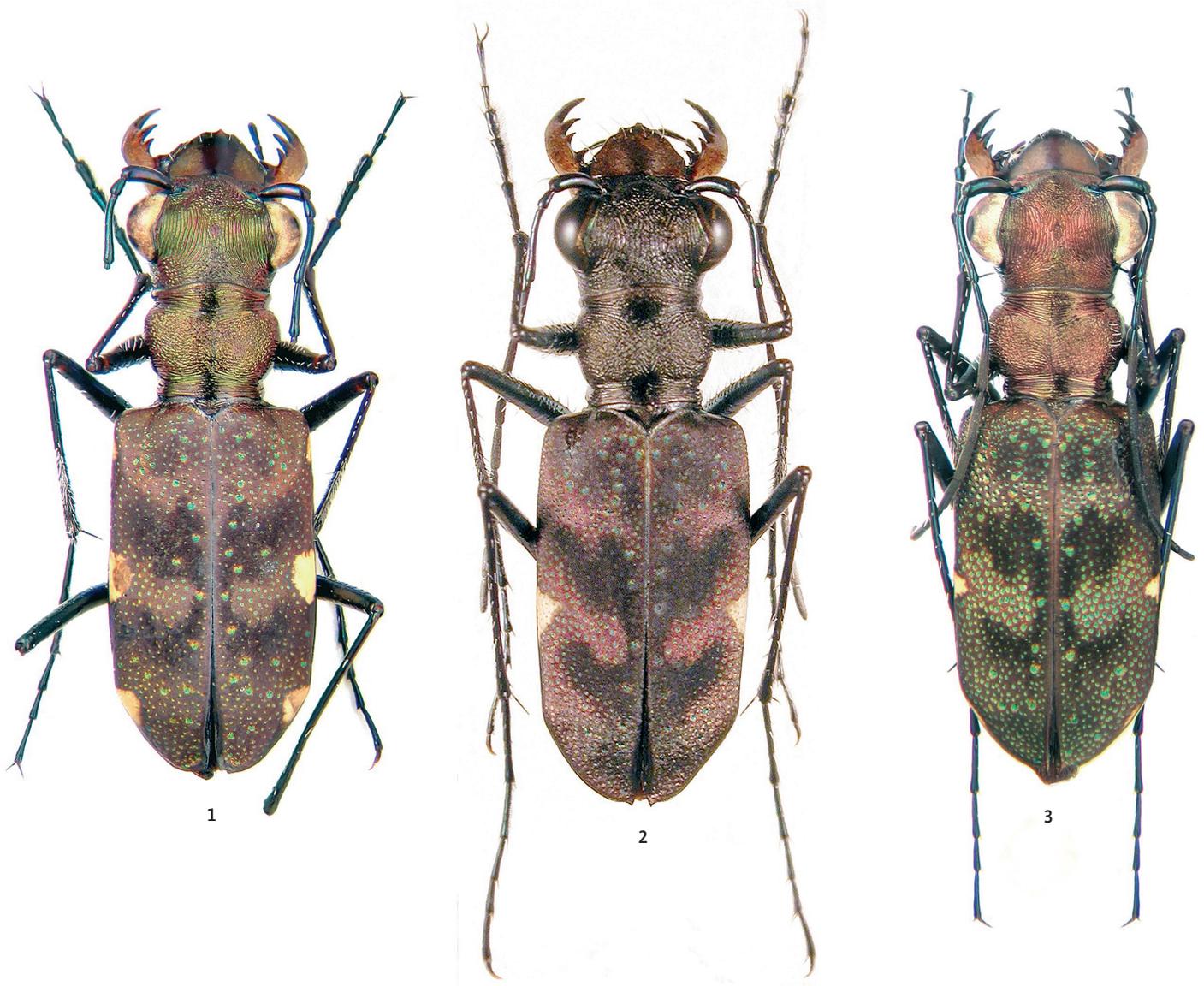
**Aedeagus.** 0.55 times as long as elytra, relatively broad and short, more dilated slightly lower of middle part (Fig. 10) and lanceolate apical lobe: with deep notch and short but distinct lateral carina in the left and shallow excavation and indistinct lateral carina in the right (Fig. 11).

Female unknown.

**Diagnosis.** Most similar to *P. korupuncola* WIESNER, 1999 and *P. ancorifera* (HORN, 1897).

From *P. korupuncola* most readily distinguishable by white elytral pattern, since

\* 98<sup>th</sup> contribution towards the knowledge of Cicindelidae



Figs 1–3. *Polyrhaxis* species, habitus, ♂. – 1. *Polyrhaxis arfakensis* sp. nov., holotype. 2. *Polyrhaxis korupuncola* WIESNER, 1999, holotype. 3. *Polyrhaxis ancorifera* (HORN, 1897).

in *P. korupuncola* only the basal part of the middle band is present (Figs 2, 5) while in *P. arfakensis* distinct portions of humeral and basal lunules as well as basal part of middle band are developed (Figs 1, 4). Number of anterior-lateral setae on labrum are three in *P. arfakensis* sp. nov. and six in *P. korupuncola* (Figs 7, 8). Pronotum is 1.29 times as wide as long in *P. korupuncola* but only 1.16 times in *P. arfakensis* sp. nov. The aedeagus is relatively long (0.55 times as long as elytra) in *P. arfakensis* sp. nov. while only 0.32 times in *P. korupuncola* as well as its shape is different: in *P. korupuncola* aedeagus slightly broader (Fig. 12) with smaller, accurate oval apical lobe (Fig. 13) while in *P. arfakensis* sp. nov. aedeagus slightly narrower (Fig. 10) with large, lanceolate apical lobe (Fig. 11). From *P. ancorifera* the new species can

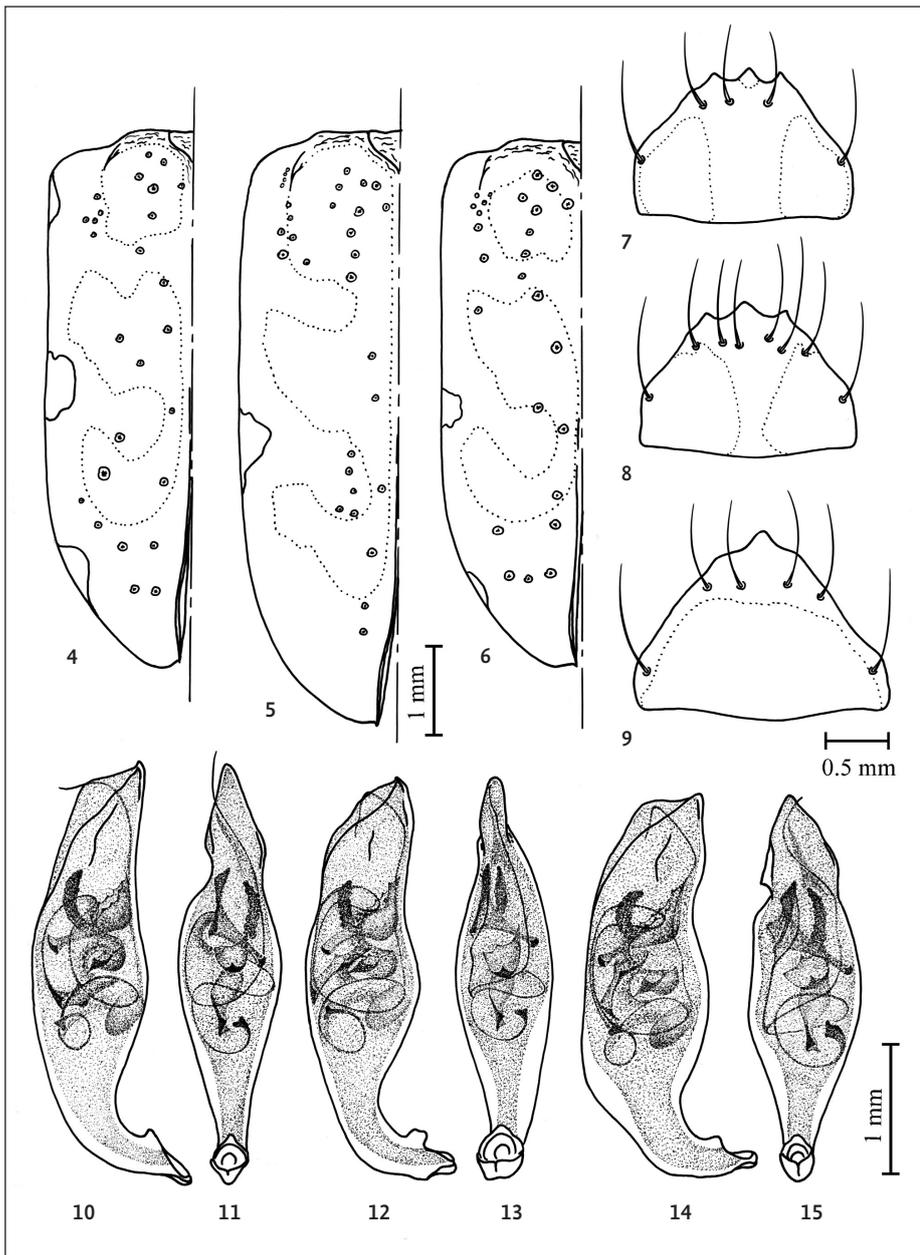
be easily distinguished by the tridentate labrum (Figs 7, 9), less pointed elytral disk and portion of humeral lunula (Figs 1, 3 and 4, 6), relatively long aedeagus (0.55 times as long as elytra in *P. arfakensis* sp. nov. while 0.35 times only in *P. ancorifera*), and its shape, since the aedeagus in *P. ancorifera* is with distinct projection of the dorsal surface in apical part (Fig. 14) and wide apical lobe (Fig. 15), while in *P. arfakensis* the aedeagus is narrower with straight dorsal surface in apical part (Fig. 10) and narrow apical lobe (Fig. 11).

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Figs 4–15. *Polyrhanis* species, ♂. – 4–6. left elytra. 7–9. labrum. 10–15. aedeagus (10, 12, 14. left, lateral view; 11, 13, 15. dorsal view). – 4, 7, 10, 11. *Polyrhanis arfakensis* sp. nov., holotype. 5, 8, 12, 13. *Polyrhanis korupuncola* WIESNER, 1999, holotype. 6, 9, 14, 15. *Polyrhanis ancorifera* (HORN, 1897).

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