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A new species of *Phorticosomus* SCHAUM from Australia (Coleoptera: Carabidae: Harpalinae)

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Abstract

Phorticosomus franzi sp.n. (Coleoptera: Carabidae) from northern Queensland is described. It is distinguished from all other species of the genus by the enlarged number of labral, clypeal, and marginal pronotal setae, the presence of setiferous punctures on elytral intervals 5 and 7, and the very dense fringe of setae on femora and tibiae.

Key words: Coleoptera, Carabidae, Harpalinae, *Phorticosomus*, Australia, taxonomy, new species.

Introduction

Within a sample of Carabidae from Naturhistorisches Museum, Wien (NMW) sent for identification, I discovered a small series of the harpaline genus *Phorticosomus* SCHAUM that represents a new species. This genus of formerly uncertain relationships had been recently included into the Ditomi-group of the subtribe Harpalina (NOONAN 1976), in which it is the single extra-Palearctic representative.

In spite of the urgent need for revision of the difficult genus *Phorticosomus*, the new species is so distinctive that the description is justified. At present, the genus includes 17 species (MOORE et al. 1987), all of which - except for *P. rotundatus* MOORE - have been described before 1915. The genus has been never revised, because even the "review" of SLOANE (1915) was merely an enumeration of the described species with some remarks, followed by the description of additional species. Since most species are very similar in body shape and structure and, on the other hand, intraspecific variation (size, proportions) is generally considerable, the bulk of the named species is very difficult to differentiate. However, few species are distinguished by striking features (e.g. *P. gularis* SLOANE, *P. zabroides* SLOANE, *P. rotundatus* MOORE) and can be therefore immediately recognized. The new species described below is another example and is distinguished by a general augmentation of chaetotaxy that is most striking on labrum and clypeus, pronotum, elytra, and tibiae.

Measurements

Measurements have been taken under a stereo microscope using an ocular micrometer. Length has been measured from tip of labrum to apex of elytra. Prothorax has been measured from mid of apex to a line that links the basal angles. Measurements may therefore vary from those of other authors.

Phorticosomus franzi sp.n.

Holotype: ♂, AUSTRALIA: N. Queensld. Richmond 1917/1918 (NMW). **Paratypes:** 1 ♂, 3 ♀♀, same data (NMW, working collection of author); 1 ♂, AUSTRALIA: N. Queensld. 1917/1918 (NMW).

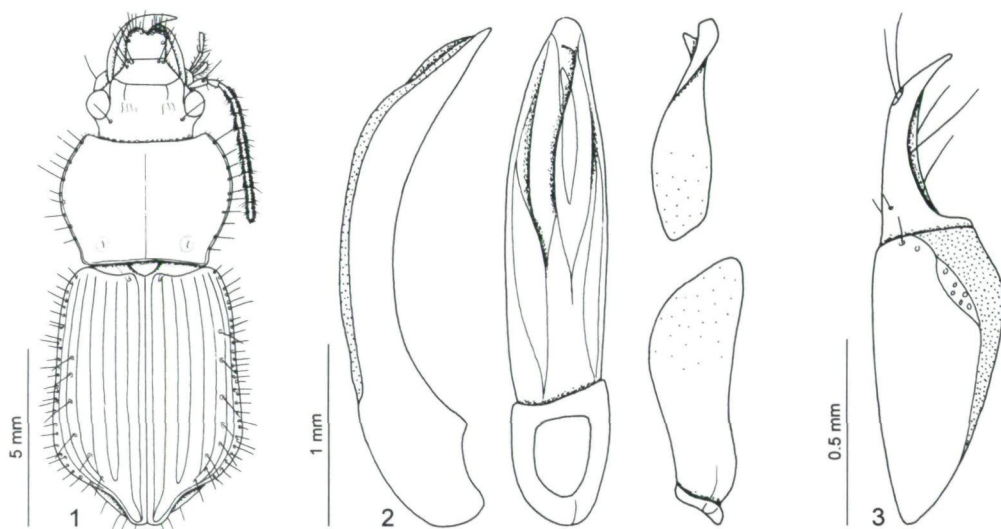


Fig. 1: *Phorticosomus franzi* sp.n., habitus.

Figs. 2 - 3: *Phorticosomus franzi* sp.n. 2) aedeagus and parameres, 3) stylomeres 1 and 2.

DIAGNOSIS: A medium sized, black, convex species, distinguished at the first glance from all other species by the presence of 10 - 20 setae along the anterior border of labrum, 2 - 3 setae on either side of clypeus, a row of setae along the whole lateral margin of pronotum, 1 seta near apex of 5th interval and a row of 3 - 5 setae along 7th interval.

DESCRIPTION: Measurements: Length: 13.0 - 16.5 mm; width: 5.2 - 6.8 mm. Width/length of pronotum: 1.32 - 1.37; width of base/width of apex of pronotum: 0.92 - 0.98; width of pronotum/width of head: 1.40 - 1.49; length/width of elytra: 1.31 - 1.39; width of elytra/width of pronotum: 1.10 - 1.17.

Colour: Upper surface black or very dark piceous, lower surface dark piceous. Palpi and lower mouth parts reddish-piceous, three basal antennomeres dark piceous with reddish apex, apical antennomeres reddish with dark centre. Legs black, tarsi piceous.

Head: Massive and stout. Eyes small, gently protruding, orbits slightly shorter than eyes. Neck parallel behind eyes. Labrum anteriorly fairly deeply incised, border with 5 - 10 setae on either side. Clypeus with 2 - 3 setae on either side, surface with some longitudinal wrinkles. Frons smooth, behind clypeal suture with a deep, about circular impression on either side, prolonged posteriorly into a longitudinal furrow that bears some conspicuous wrinkles. Mandibles stout, rather short, angulate. Both palpi elongate and thin, preapical palpomere of labial palpus much longer than apical palpomere. Glossa narrow, slightly widened to apex, apex rounded, plurisetose on upper surface. Paraglossae divided from glossa, far surpassing glossa. Mentum with tiny median tooth. Below eye with a group of punctures and short setae. Antenna rather stout, not attaining base of pronotum, both basal antennomeres sparsely setose, antenna from mid of 3rd antennomere densely pilose, but antennomeres with glossy centre. Median antennomeres ca. 1.5 x as long as wide.

Pronotum: Large and convex, surface evenly convex. Apex either gently concave, or almost straight, but then anterior angles distinctly produced. Lateral margins anteriorly evenly rounded,

near basal angles slightly sinuate, basal angles obtuse. Base faintly concave. Middle line barely impressed, basal grooves deep, circular, far removed from basal border. Apex not margined, lateral margin narrow, becoming slightly wider towards base, basal margin narrow, complete. Lateral margin with ca. 8 - 10 elongate marginal setae arising in marginal channel, lateral part of apical margin with some pilosity. Surface impunctate, glossy, with some very fine transverse wrinkles. Microreticulation extremely fine and superficial, isodiametric, visible only under high magnification.

Elytra: Short and wide, widened behind middle, rather convex. Humeri rounded without any denticle, lateral margin slightly oblique in anterior half, then markedly rounded, deeply sinuate in front of apex, apex conspicuously tailed, transversely cut off at the very tip. Scutellum wide, roundly triangular. Basal margin complete, conspicuous, lateral margin fairly wide, widened towards apex, marginal channel distinct. Apex with conspicuous margin and marginal channel. Striae complete, deep, impunctate, intervals convex, though scutellar stria almost completely reduced. Scutellar pore situated just medially of base of 2nd stria. 3rd interval without setiferous puncture, though 7th interval with a series of 3 - 5 conspicuous, foveiform punctures which bear very elongate setae, and usually also 5th interval near apex with a similar foveiform puncture and seta. Lateral margin with up to 30 marginal setae in an almost uninterrupted series. Striae and intervals impunctate, surface with extremely fine and superficial isodiametric microreticulation, glossy.

Lower surface: Proepipleura shortly pilose, proepisternum and prosternum anteriorly coarsely punctate, setose. Also sternal process setose. Metepisternum comparatively short, length of inner margin ca. 1.25 x width of anterior margin. Metasternum and anterior third of metepisternum with coarse punctures and elongate setae, whole abdomen very densely and coarsely punctate and setose. Apical margin of terminal sternite in both sexes with 2 - 4 setae on either side.

Legs: All legs rather stout and in comparison very densely punctate and setose, all femora with fringes of setae at inner and outer part of ventral surface. Protibia markedly widened, apex externally without tooth, though obliquely cut and with dense tuft of short setae. No additional short teeth or any serration on external margin visible. Internal spur short and stout. Dorsal surface densely punctate and setose on whole length. Male with biseriate vestiture on 3rd and 4th tarsomeres of protarsus. Mesocoxa densely punctate and setose. Mesotibia and metatibia with very dense fringes of setae on internal and external surfaces. Metacoxa coarsely and densely punctate and setose, lower surface of metafemur with many elongate setae that are less regularly set than usual. Trochanter reniform.

Male genitalia (Fig. 2): Aedeagus rather narrow and elongate, fairly symmetric. Lower surface gently curved throughout, upper surface membranous for almost its whole length. Apex wide, somewhat spatulate. Internal sac without any sclerotized parts, rather simply folded. Both parameres large and elongate, with feebly sclerotized apical margin.

Female genitalia (Fig. 3): Both stylomeres narrow and elongate, stylomere 2 gently curved. Apical rim of stylomere 1 with 1 - 2 setae, laterally with several (broken) setae. Stylomere 2 with acute, elongate, moderately curved apex, without dorsal and ventral ensiform setae, but with one long nematiform seta at the place of the ventral ensiform seta(e), and one or two moderately elongate setae at the place of the dorsal ensiform seta(e). Apical part in middle with two elongate nematiform setae originating in a groove. Lateral plate with many setae.

Variation: There is some variation in size and proportions of prothorax and elytra. One female has only remnants of the setiferous puncture at the end of 5th interval. Otherwise little variation noted.

DISTRIBUTION: North Queensland. Known only from type locality.

HABITS: Unknown, though presumably this species has the same way of life as related species: probably it lives on the ground in fairly dry areas where it digs small holes and feeds on seeds.

RELATIONSHIPS: In spite of its peculiar chaetotaxy, this species is perhaps rather closely related to the main branch of the genus. However, since the genitalia of most *Phorticosomus* species never have been examined, the actual relationships are yet unknown.

ETYMOLOGY: The species is named in honour of Univ.Prof. DI DDr. h.c. Herbert Franz, well known Austrian coleopterologist and biogeographer.

Zusammenfassung

Porticosomus franzi sp.n. aus Nordqueensland wird beschrieben. Die Art unterscheidet sich von allen Gattungsgenossen durch die vermehrte Anzahl der Setae auf Labrum und Clypeus sowie auf dem Seitenrand des Pronotum, ferner durch den Besitz von Setae auf den Intervallen 5 und 7, und durch die sehr dichte Behaarung der Beine.

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