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Pogonoglossus arfakensis sp. nov. from New Guinea
(Coleoptera, Carabidae, Helluodinae)

By

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With 2 figures in the text

Abstract

Pogonoglossus arfakensis sp. nov. from northwestern New Guinea is described and compared with the other large *Pogonoglossus* species of New Britain and New Guinea.

Zusammenfassung

Pogonoglossus arfakensis sp. nov. aus dem Nordwesten Neuguineas wird beschrieben und mit den anderen großen *Pogonoglossus*-Arten Neubritanniens und Neuguineas verglichen.

While checking the *Pogonoglossus* (Helluodinae) of the Museum für Naturkunde, Berlin, for a revision of the Australian species of that genus, under the label *Pogonoglossus horni* SLOANE a specimen from New Guinea was found which certainly does not belong to this species. It is apparently not covered by the revisions of ANDREWES (1937) for the Indomalaysian Islands nor of DARLINGTON (1968) for New Guinea, hence it is being described as a new species.

Acknowledgements

Thanks are due to Dr. F. HIEKE (Berlin) for kind loan of specimens.

Measurements

Measurements were made under a stereo microscope using an ocular micrometer. Length was measured from apex of labrum to tip of elytra. Length of pronotum (for width/length ratio) was measured from extreme tip of anterior angle to extreme tip of base (not to tip of posterior angle!).

Pogonoglossus arfakensis sp. nov.
(Figs 1, 2)
Holotype: ♀, Arfakgebg. Siwi, 800 m, 4.6.28, E. MAYR S. G. (Museum für Naturkunde, Berlin).
Type locality: Arfak Mountains, northwestern New Guinea, Indonesia.

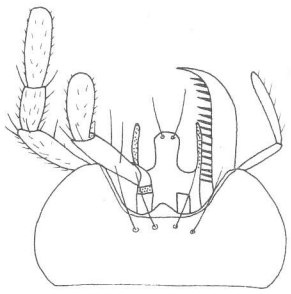

Fig. 1
Pogonoglossus arfakensis sp. nov., mouthparts.

Diagnosis

Characterized by heavy build, extremely short antennae, short and stout legs, palpi, and mandibles, unarmed orbits, and indistinct constriction of neck.

Description

Measurements:

Length: 16.8 mm; width: 6.1 mm; ratio width/length of pronotum: 1.56; ratio width of head/width of pronotum: 0.87; ratio length/width of elytra: 1.61; ratio width of pronotum/width of elytra: 1.24; ratio length/width of 7th antennal segment: 1.15.

Colour

Surface glossy black, labrum and tip of palpi dark piceous.
Legs, antennae, and lower surface black.

Head

Very wide and stout, not much narrower than pronotum. Neck indistinctly constricted, surface between eyes deeply impressed. Mandibles very stout and — for a *Pogonoglossus* — disproportionately short. Maxillary and labial palpi short, terminal segments not widened. Palpi very sparsely setose, terminal segments nearly smooth. Glossa bisetose at apex, paraglossae membraneous, free, straight, elongate. Antennae very short, barely attaining base of pronotum, terminal segments about as wide as long, nearly moniliform. Glandular areas on upper and lower rim of antennal segments conspicuous, reddish. Eyes rather small, though laterally projecting. Orbits shorter than eyes, without any tooth or protuberance. Orbits apparently without a row of conspicuous elongate setae behind eye. Lower surface of head posteriorly without elongate setae. Neck very wide. Surface smooth, glossy, finely and sparsely punctate and pilose.

Pronotum

Very wide, widest at anterior third. Base about as wide as apex. Surface uneven, behind apex a transverse impression. Circular basal grooves very deep. Apex deeply sinuate, anterior angles projecting, though rounded off. Sides gently sinuate in front of posterior angles which are about 95°. Base laterally slightly oblique, medially nearly straight. Sides explanate, slightly upturned. Surface glossy, finely and irregularly punctate and pilose.

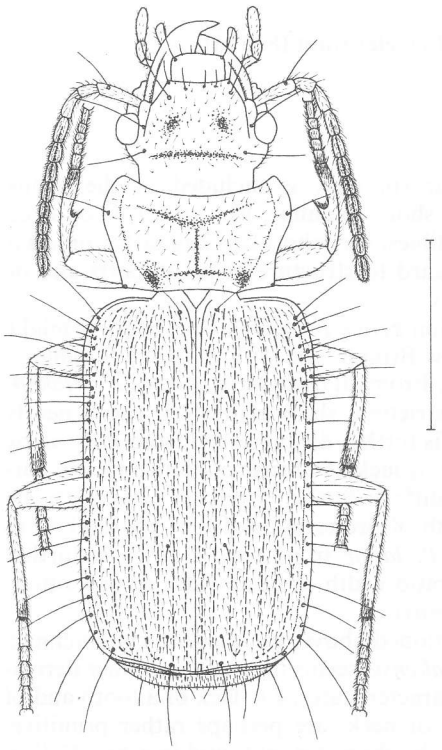

Fig. 2
Pogonoglossus arfakensis sp. nov., ♀ holotype (Museum für Naturkunde, Berlin). Scale; 5 mm.

Elytra

Wide, rather short, sides parallel. Shoulders rounded, apex laterally completely rounded, medially obtuse. Apical fringe narrow. Completely and deeply striate, striae barely punctate. Intervals convex with irregular, biseriate punctation and pilosity. Surface very glossy, microsculpture in middle of intervals obsolete. 3rd interval with three slightly larger punctures and setae, 2nd and 3rd situated far behind middle. Laterally about 19 elongate tactile setae present, and additional 7 shorter setae behind shoulders.

Lower surface

Densely pilose. last abdominal sternite at apex with 4 and 5 setae on each side (♀).

Legs

Short and stout, especially tibiae and tarsi. Femora without conspicuous dense brush of hairs beneath. Apex of tibiae densely pilose at lower and inner surface. Tarsi, especially posterior tarsi, very short, 2nd segment not much longer than 3rd or 4th segments. Lower surface of all tarsal segments (apart from 5th) with a dense, biseriate border of hairs curved inside.

♂ aedeagus

Unknown.

Distribution

So far known only from type locality in Arfak Mountains, Vogelkop, extreme northwestern New Guinea.

Habits
Unknown, holotype collected in June at rather low elevation (800 m).

Discussion

With some hesitation *Pogonoglossus arfakensis* sp. nov. is included in the genus *Pogonoglossus*, since several character states, e. g. short antennae, lack of a row of setae behind eye, indistinct neck constriction, short mandibles, very short legs, are rather unusual for a *Pogonoglossus* species. Nevertheless, with regard to structure of mouthparts and of elytra *P. arfakensis* sp. nov. is a real *Pogonoglossus*.

The new species is one of the largest known within genus *Pogonoglossus*, hence it might be confounded only with *P. horni* SLOANE from New Britain, and with *P. major Darlington* and *P. latior* DARLINGTON, both from New Guinea. From all three large species *P. arfakensis* is at once distinguished by indistinct neck constriction, short mandibles, short, nearly moniliform antennae, and short legs. *P. arfakensis* is further distinguished from *P. horni* by the lack of a tooth or protuberance on the orbit and by lack of a brush of hairs on lower surface of femora. *P. major* from New Guinea differs further from *P. arfakensis* by possessing a much narrower pronotum (ratio width of pronotum/width of elytra: 1.44 in *P. major* instead of 1.24 in *P. arfakensis*), and *P. latior* from New Guinea is further distinguished by its far less stout and wide head (ratio width of head/width of pronotum: 0.67—0.74 in *P. latior* instead of 0.87 in *P. arfakensis*).

With regard to most of the character states mentioned above, e.g. moniliform antennae, short mandibles, short palpi, and short legs, *P. arfakensis* seems to occupy a rather derivative position within genus *Pogonoglossus*. Other character states, e.g. lack of a tooth and of a row of bristles on orbit, indistinct constriction of neck, are perhaps rather primitive. This opinion is supported by the comparision with the character set found in genus *Helluodes*. Certainly, *P. arfakensis* is one of the most unusual *Pogonoglossus* species and it might be representative of an own subgenus or even a genus.

DARLINGTON (1968) stated that in New Guinea *Pogonoglossus* species are very rarely collected, with the consequence that most species are known from single or from very few specimens. With 10 species recorded (DARLINGTON 1968) and the additional new *P. arfakensis* New Guinea has a fairly rich *Pogonoglossus* fauna and is perhaps a maior faunal centre of Helluodinae. Here, and in New Britain, perhaps the largest members of the subfamily occur. Most species, especially most of the large species, seem to be restricted to special mountain ranges, where they live like insular species. This, and perhaps also unusual habits (though the habits of no Helluodine beetle are actually known!) is presumably the reason for the diversity of the fauna in New Guinea.

Literature

ANDREWES, H. E. (1937): On the species of *Pogonoglossus* found in Java and Sumatra (Col. Carabidae). — Bull. Soc. ent. Fr. **42**: 152—156.

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