Two new species of the genus *Pogonoglossus* CHAUDOIR from New Guinea (Coleoptera: Carabidae: Physocrotaphinae)

by Martin BAEHR

Abstract

Two new species of the physocrotaphine genus *Pogonoglossus* CHAUDOIR are described from New Guinea: *P. giganteus* sp. nov. and *P. missai* sp. nov. Both species were sampled during a canopy fogging program carried out in the northern part of Papua New Guinea. The new species are clearly distinguished from all other species of the genus known to occur in New Guinea and the Bismarck Archipelago. A revised key to the New Guinean species of the genus is provided and a checklist of all physocrotaphine species recorded from this area is added.

Key words: Coleoptera, Carabidae, Physocrotaphinae, Pogonoglossus, new species, New Guinea, key

Introduction

The rather small carabid subfamily (or tribe) Physocrotaphinae (-ini) (according to MOORE 1998 this name has priority over the previously more commonly used name Helluodinae) is distributed in the Oriental and Australian regions from the southern and eastern parts of India and Sri Lanka, in the north-west, through Indochina, the Indonesian Archipelago, the Philippines, to New Guinea, New Britain, and northern and north-eastern Australia, in the south-east. At present the subfamily includes four genera, namely the large genus Pogonoglossus CHAUDOIR that is distributed over almost the whole range of the subfamily, the monobasic Physocrotaphus PARRY from Sri Lanka (P. ceylonicus PARRY), Helluodes WESTWOOD with two species occurring in Sri Lanka and southern India, and Schuelea BAEHR that was recently erected for two new species and for the former Pogonoglossus arfakensis BAEHR, from New Guinea. The gigantic Holoponerus godeffroyi (FAIRMAIRE) from New Britain, although originally described as a member of the subfamily Lebiinae, probably belongs also to Physocrotaphinae. Unfortunately, the unique specimen was destroyed during World War II, so its taxonomic status is not finally solved as long as no new material is available.

Altogether, about 40 physocrotaphine species were described until now (LORENZ 1998, BAEHR 2004), but the number of available but undescribed or even yet unrecorded species is perhaps quite substantial, because

specimens are rarely collected and most species seem to occupy rather restricted ranges. Both, the difficulties in sampling and the apparent local distribution, are perhaps due to the rather secrete way of life, since most species of Physocrotaphinae seem to live – or at least have been found so far – under bark or in rotten wood of rain forest trees. A number of species, however, are only known from sampling at light, and hence, virtually nothing is recorded about their way of life. Both new species described herein were sampled during a canopy fogging program which does not mean necessarily, however, that they live in the forest canopy.

From New Guinea, thus far 11 species of the genus *Pogonoglossus* CHAUDOIR and three species of the genus *Schuelea* BAEHR were described (DARLINGTON 1968, BAEHR 1987, 1995, 2004). Most species are yet recorded from few or even single specimens. Therefore, detection of two additional new species of the genus *Pogonoglossus* in New Guinea is not too surprising, even when both species are large, and one is even one of the largest species ever recorded, except for the doubtful *Holoponerus godeffroyi* mentioned above.

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, hence measurements may slightly differ from those of other authors. Some width/length ratios have been taken in the same manner as in BAEHR (1988, 1993, 1995, 2004). It should be noted that for comparison with measurements of DARLINGTON (1968) length of pronotum was measured along midline; width of apex was taken between the most advanced points of apical angles.

Location of types

The holotypes of both new species are stored in Institute Royal des Sciences naturelles de Belgique, Bruxelles (IRSNB), a paratype of *P. missai* in the working collection of the author at Zoologische Staatssammlung, München (CBM).

Genus Pogonoglossus CHAUDOIR

This genus includes species of very different size and shape. Some are so aberrant that the genus in future probably could be further divided into certain subgenera or even genera. However, this should be done only in the course of a general revision of the whole genus.

The genus is distributed through the whole range of the subfamily and occurs from southern India through much of Indochina, the Indonesian Archipelago, the Philippine Islands, to New Guinea, the Bismarck Archipelago, and northern and eastern Australia. The New Guinean species were revised by DARLINGTON (1968), the Australian ones by BAEHR (1988, 1993), and one additional species from New Guinea was described by BAEHR (1995). Another species, originally described as a *Pogonoglossus* (BAEHR 1987), recently was transferred to the genus *Schuelea* (BAEHR 2004).

Pogonoglossus missai sp. nov. (Figs. 1, 2, 4)

TYPE MATERIAL: Holotype: Male, Coll. I.R.Sc.N.B. Canopy mission P.N.G. Madang province, Baiteta, FOG AR4 5.V.1995, Leg. Olivier MISSA (IRSNB). – Paratype: female, Coll. I.R.Sc.N.B. Canopy mission P.N.G. Madang province, Baiteta, FOG AR67 18.VII.1996, Leg. Olivier MISSA (CBM).

DIAGNOSIS: Rather large species, characterized by only gently produced orbits and barely punctate and pilose head and pronotum. Distinguished from the most similar species *P. major* Darlington by considerably lesser size and by wider pronotum, and from *P. latior* Darlington by slightly lesser size and narrower pronotum that bears far narrower lateral margins.

ETYMOLOGY: Named in honour of the collector of this and of a large sample of other species in New Guinea, Mr. Olivier MISSA.

DESCRIPTION:

Measurements. Length: 13.4-13.5 mm; width: 4.7-4.8 mm. Ratios. Width/length of pronotum: 1.59-1.62; base/apex of pronotum: 0.98-1.0; width of pronotum/ width of head: 1.16-1.17; width of elytra/width of pronotum: 1.37; length/width of elytra: 1.69-1.70; length/width of 6^{th} antennomere: 2.65.

Colour. Glossy black, only the anterior margin of the labrum, the basal parts of the palpi, and the explanate lateral margins of the pronotum slightly reddish translucent. With two reddish spots on frons immediately in front of neck sulcus.

Head. Large and massive, little narrower than pronotum, wide between eyes. Frons with two rather deep, elongate,

irregularly sinuate impressions, neck separated from frons by a very deep transverse sulcus, thus upper surface of head quite uneven. Eyes medium sized, semicircular, laterally well projecting over orbits. Orbits slightly shorter than eyes, narrower than eyes, with a ridge-like convexity directly behind eyes, at posterior margin with a gently ridge and a shallow concavity behind. Inside of eye with a sulcus that becomes deeper posteriorly. Anterior supraorbital seta situated near inner margin of eye at about middle of eye, posterior supraorbital seta situated near posterior margin of eye. Clypeus bisetose. Labrum at apex gently concave, 6-setose, in paratype apparently only 4-setose, anterior margin smooth. Mandibles elongate, slightly asymmetric. Left mandible narrower than right one, and more curved, right mandible stouter and inner border almost straight for a long distance, only near apex curved inwards. Basal ridge of right mandible rather elevated. Right mandible with a slightly protruding, tiny molar teeth in middle of lower surface. Palpi narrow and elongate, basal palpomeres with sparse and short pilosity, apical palpomeres of both palpi more extensively pilose. Mentum with triangular tooth and with 2 elongate setae on either side. Submentum with a transverse row of six elongate setae and some shorter ones. Lateral and lower surface of orbits with few quite elongate setae. Glossa rather short, apically transverse, bisetose, paraglossae apically separated from glossa, membraneous, very narrow, just slightly surpassing glossa. Lacinia massive, very elongate, with a dense row of elongate teeth along inner surface and a fringe of hairs on upper surface near inner margin. Galea narrow and very elongate, inner surface slightly concave. Antenna elongate, surpassing base of pronotum by almost three antennomeres, pilose from basal antennomere, scapus elongate, 3rd antennomere slightly longer than 4th antennomere. Antennomeres 5-11 about 3 x longer than wide, depressed, with a less chagreened stripe along middle on either side. Upper surface of head glossy, devoid of microreticulation, with sparse though coarse punctuation and sparse pilosity, the short hairs being rather erect.

Pronotum. Large and moderately wide, slightly wider than head, cordiform, widest at anterior third. Apex rather deeply excised, excision in middle almost straight or gently concave. Apical angles protruding, rounded at tip, slightly upturned. Apical margin in middle with a dense fringe of short hairs. Lateral borders in anterior third very convex, in posterior two thirds with elongate sinuation. Base narrower than apex, in middle slightly concave, laterally straight though oblique. Basal angles markedly upturned, angulate, rectangular, with a tiny notch and a denticle near tip. Lateral explanation moderately wide and deep, narrowest in middle, lateral margin conspicuously upturned. Apex not bordered, base laterally bordered. Anterior marginal seta situated at widest diameter, just behind anterior third, inside of margin, posterior marginal seta situated at basal angle within the tiny notch. Median line well impressed, not attaining apex but reaching base. Anterior transverse sulcus moderate, oblique. Basal grooves deep, circular, in middle near base with a rather deep, slightly oblique furrow. Surface rather convex, with or without a few irregular, shallow longitudinal sulci, sparsely punctate and pilose, though punctuation denser near apical and basal margins. Pilosity slightly declined. Microreticulation virtually absent on disk, surface glossy.

Elvtra. Rather elongate, laterally parallel, with very slight sinuation in anterior third. Humerus evenly rounded, barely projecting. Apex gently sinuate, with wide membraneous area. Surface rather depressed. Marginal channel very narrow throughout. All striae well impressed, slightly punctate or crenulate throughout, intervals gently convex, irregularly 3-4-punctate and rather densely pilose. Pilosity elongate though declined. 3rd interval with three setiferous punctures, setae erect and perceptibly longer than pilosity. Microreticulation extremely fine and superficial, visible only under high magnification, consisting of more or less transverse meshes. Surface rather glossy. Lateral border finely serrate, regularly pilose, but setae short. 23-25 marginal pores and setae present, setae of very different length, some very elongate. Posterior wings fully developed.

Lower surface. Proepisternum, proepimeron, and mesepimeron impunctate and impilose, prosternum densely pilose. Metathorax and abdomen densely pilose. Metepisternum elongate, more than twice as long as wide. All abdominal sterna bisetose in middle. Terminal sternum in both sexes on either side with three or four elongate setae near margin. *Legs.* Narrow and elongate. Profemur with a tuft of very dense, reddish hairs on lower surface in basal third, also mesofemur with a slightly less dense tuft at base of posterior surface. Protibia sulcate on upper surface. 2nd-4th tarsomeres almost as wide as long. Femora more sparsely, tibiae densely setose. Upper surface of tarsi rather densely pilose, lower surface of four basal tarsomeres densely setose, 5th tarsomeres very sparsely setose underneath. Male protarsus with rather sparse adhesive squamosity on three basal tarsomeres.

Male genitalia: (Fig. 1). Genital ring elongate, slightly oval-shaped, slightly asymmetric, very strongly sclerotized. Aedeagus narrow and elongate, straight, lower surface absolutely straight. Apex rather narrow, tapering, at tip rounded. Orificium fairly elongate, symmetric, situated on upper side, bearing two elongate, sclerotized ligulae at upper surface. Inner sac without any sclerotized pieces, but with rather complex folding. Left paramere large, elongate, with convex, tapering apex that is slightly serrate towards tip and bears a tiny notch. Right paramere with narrow, rather elongate, well sclerotized upper part and elongate, wide base.

Female genitalia: (Fig. 2). Stylomere 1 triangular, without any setae at apical rim. Stylomere 2 of semilunar shape, ventro-lateral margin slightly serrate, with 2-3 very small ensiform setae along margin. Median surface near apex with an elongate groove from which a short nematiform seta arises. Lateral plate with about 10-12 elongate nematiform setae around median angle.

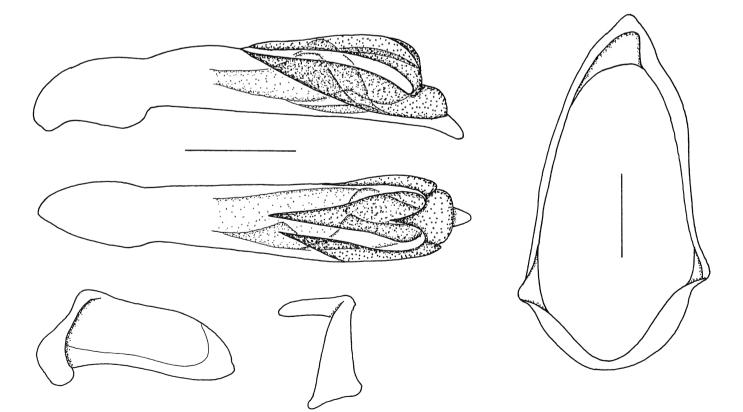


Fig. 1. — Pogonoglossus missai sp. nov. Male genitalia: aedeagus, parameres, and genital ring. Scales: 0.5 mm.

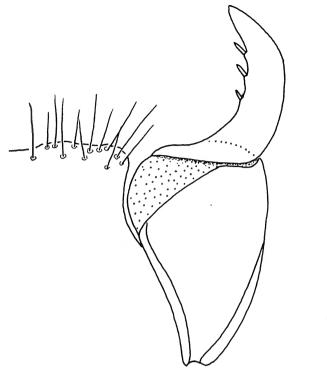


Fig. 2. — *Pogonoglossus missai* sp. nov. Female stylomeres 1 and 2, and lateral plate. Scale: 0.5 mm.

Variation: Very little variation noted in relative shape of pronotum and microstructure of surface.

DISTRIBUTION: North-eastern Papua New Guinea. Known only from the Baiteta area.

COLLECTING CIRCUMSTANCES: According to the notes of the collector both specimens were captured by 'canopy fogging' from the meliaceid tree *Dysocylum arnoldianum* in lowland rain forest rather close to the coast. It is not known, however, whether the specimens actually were fogged from the upper canopy, or from lower branches, or from tree trunks, or even from surrounding lower vegetation.

> Pogonoglossus giganteus sp. nov. (Figs. 3, 5, 6)

TYPE MATERIAL: Holotype: Male, Coll. I.R.Sc.N.B. Canopy mission P.N.G. Madang province, Baiteta - FOG XF 10.VI.1993, Leg. Olivier MISSA (IRSNB).

DIAGNOSIS. Very large species, characterized by the remarkably developed postocular ridge that distinguishes this species, at the first glance, from the almost equally large *P. major* Darlington.

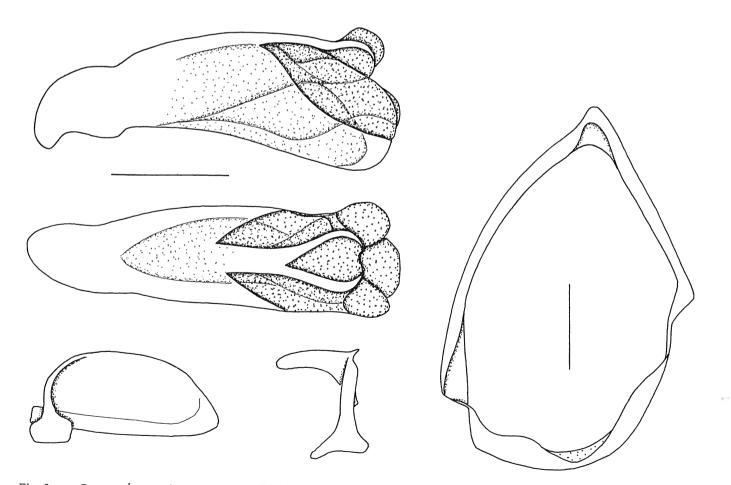


Fig. 3. - Pogonoglossus giganteus sp. nov. Male genitalia: aedeagus, parameres, and genital ring. Scales: 0.5 mm.

ETYMOLOGY: The name refers to the very large size of this species which is one of the largest species ever recorded in this genus.

DESCRIPTION:

Measurements. Length: 17.6 mm; width: 6.0 mm. Ratios. Width/length of pronotum: 1.80; base/apex of pronotum: 0.87; width of pronotum/width of head: 1.23; width of elytra/width of pronotum: 1.13; length/width of elytra: 1.66; length/width of 6^{th} antennomere: 3.0.

Colour. Glossy black, only the anterior margins of clypeus and labrum, the basal parts of antennae and palpi, and the explanate lateral margins of the pronotum slightly reddish translucent.

Head (Fig. 6). Large and massive, little narrower than pronotum, wide between eyes. Frons with two deep, elongate, irregularly sinuate impressions, neck separated from frons by a very deep transverse sulcus, thus upper surface of head very uneven. Eyes medium sized, semicircular, laterally well projecting. Orbits slightly shorter than eyes, laterally projecting over eyes, with a very peculiar sharp ridge ending in a triangular tooth, at posterior margin with a ridge and a deep concavity behind. Anterior supraorbital seta situated near inner margin of eye at about middle of eye, posterior supraorbital seta situated near posterior margin of eye. Clypeus bisetose. Labrum 6-setose, anterior margin distinctly crenulate. Mandibles extremely elongate, asymmetric. Left mandible narrow and elongate, almost semicircular, right mandible much shorter, more massive, inner border almost straight for a long distance, only near apex curved inwards. Basal ridge of right mandible markedly elevated, ending abruptly anteriorly. Right mandible with a distinct, protruding molar teeth in middle of lower surface. Palpi narrow and elongate, basal palpomeres with sparse and short pilosity, apical palpomeres of both palpi more extensively pilose. Mentum with triangular tooth, with 3 elongate setae on either side. Submentum with a transverse row of six elongate setae and some shorter ones. Lateral and lower surface of orbits with few quite elongate setae. Glossa rather short, apically transverse, bisetose, paraglossae apically separated from glossa, membraneous, very narrow, just slightly surpassing glossa. Lacinia massive, very elongate, with a dense row of elongate setae along inner surface. Galea narrow and very elongate, inner surface slightly concave. Antenna elongate, surpassing base of pronotum by almost three antennomeres, pilose from basal antennomere, scapus elongate, 3rd antennomere slightly longer than 4th antennomere. Antennomeres 5-11 about 3 x longer than wide, depressed, with a less chagreened stripe along middle on either side. Upper surface of head glossy, devoid of microreticulation, very sparsely punctate and pilose, the short hairs quite erect.

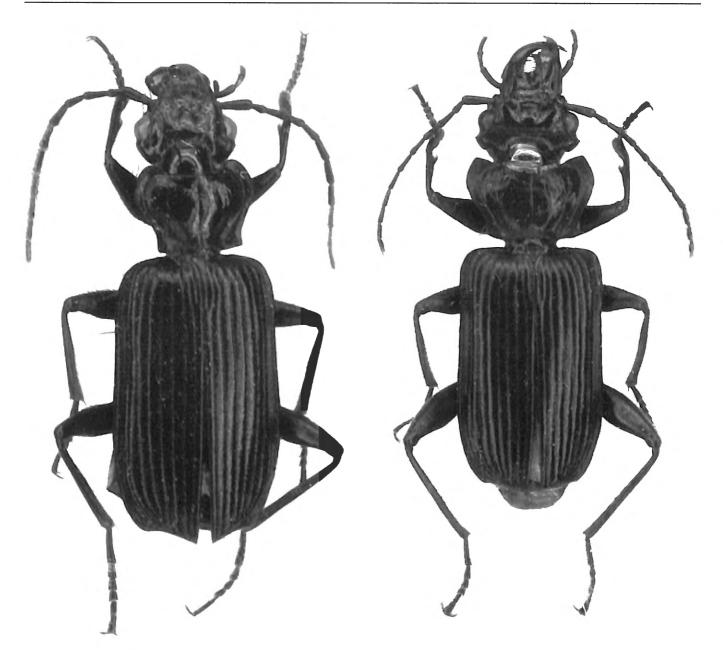
Pronotum. Large and very wide, slightly wider than head, widest at anterior third, though little narrowed towards apical angles. Apex moderately excised, but excision quite irregular. Apical angles slightly upturned, angulate, apical margin of angles gently convex. Apical

excision with a slight notch inside of apical angles, towards middle gently concave. Apical margin in middle with a dense fringe of short hairs. Lateral borders in anterior half convex, in posterior half with elongate sinuation. Base narrower than apex, in middle slightly concave, laterally straight though oblique. Basal angles markedly upturned, angulate, almost rectangular, with a tiny notch and a denticle near tip. Lateral explanation wide and deep, lateral margin conspicuously upturned. Apex not bordered, base laterally bordered. Anterior marginal seta situated just behind anterior third, inside of margin, posterior marginal seta situated at basal angle within the tiny notch. Median line well impressed, neither attaining apex nor base. Anterior transverse sulcus deep, oblique. Basal grooves deep, circular, in middle near base with a rather deep, slightly oblique furrow. Surface rather depressed, with some irregular, shallow longitudinal sulci and bosses. Punctuation and pilosity fairly dense, except for anterio-median area, punctures fairly coarse, in some places slightly confluent to form shallow transverse furrows. Microreticulation extremely fine, superficial, barely perceptibly, surface rather glossy.

Elytra. Fairly elongate, laterally parallel, with very slight sinuation in anterior third. Humerus evenly rounded, barely projecting. Apex gently sinuate, with wide membraneous area. Surface rather depressed. Marginal channel very narrow throughout. All striae well impressed, very slightly punctate in basal third, impunctate posteriorly, intervals gently convex, fairly densely, irregularly 2-3-punctate and pilose. Pilosity elongate though declined. 3rd interval with three setiferous punctures, setae erect and distinctly longer than pilosity. Microreticulation extremely fine and superficial, visible only under high magnification, consisting of rather transverse meshes. Surface rather glossy. Lateral border finely serrate, regularly pilose, but setae short. 23-24 marginal pores and setae present, setae of very different length, some very elongate. Posterior wings fully developed.

Lower surface. Proepisternum, proepimeron, and mesepimeron impunctate and impilose, prosternum densely pilose. Metathorax and abdomen densely pilose. Metepisternum elongate, more than twice as long as wide. All abdominal sterna bisetose in middle. Terminal sternum in male on either side with two elongate setae near margin. *Legs.* Narrow and elongate. Profemur with a tuft of very dense, reddish hairs on lower surface in basal half. Protibia sulcate on upper surface. Except for metatarsus 2nd-4th tarsomeres almost as wide as long. Femora more sparsely, tibiae densely setose. Upper surface of tarsi rather densely pilose, lower surface of four basal tarsomeres densely setose, 5th tarsomeres very sparsely setose underneath. Male protarsus with rather sparse adhesive squamosity on three basal tarsomeres.

Male genitalia (Fig. 3). Genital ring very wide, oval shaped, rather asymmetric, well sclerotized. Aedeagus remarkably small, short and very stout, straight, lower surface very gently concave, with several shallow transverse furrows. Apex wide, gently convex, almost transverse. Orificium moderately elongate, almost symmetric,



Figs 4, 5. — Habitus. 4. Pogonoglossus missai sp. nov. Length: 13.5 mm. 5. Pogonoglossus giganteus, sp. nov. Length: 17.6 mm.

situated on upper side, bearing two moderately elongate, sclerotized ligulae at upper surface that are united halfways. Inner sac without any sclerotized pieces, simply folded. Left paramere very large, with oblique apex. Right paramere with very elongate, narrow upper part and narrow and elongate, well sclerotized base. *Female genitalia:* Unknown. *Variation:* Unknown.

DISTRIBUTION: North-eastern Papua New Guinea. Known only from type locality.

COLLECTING CIRCUMSTANCES: According to the notes of the collector the holotype was captured by 'canopy fogging' from the elaeocarpid tree *Sloanea sogerensis* in lowland rain forest close to the coast. It is not known, however, whether the specimen actually was fogged from the upper canopy, or from lower branches, or from the trunk of the tree, or even from surrounding lower vegetation.

Key to the New Guinean species of the genus *Pogonoglossus* CHAUDOIR (partly based on the key of DARLINGTON 1968: p. 223)

- 1. Elytral striae distinct, impressed.....2.
- Orbits conspicuously angulate or tuberculate8.
- 3. Entire upper surface including much of head rather closely punctate or (on elytra) roughened.....4.
- Part or all of surface sparsely punctate or impunctate ...6.

- 4. Outer apical angles of elytra obtuse but distinct; body size medium (length 9.0-11.5 mm) papua DARLINGTON
 Outer apical angles of elytra rounded; body size either
- 5. Body size larger, length 12.3-13.0 mm. . taylori DARLINGTON
- Body size smaller, length 7.6-8.7 mm. . minor DARLINGTON
- 6. Body size larger, length c. 17.0 mm; prothorax narrower, ratio w/l c. 1.5, margins narrow major DARLINGTON
- Body size smaller, length <15.5 mm; prothorax wider, ratio w/l >1.6; margins wider.....7.
- 7. Prothorax wider, ratio w/l >1.85, margins very wide; body size slightly larger, length >14.5 mm . . *latior* DARLINGTON
- Prothorax narrower, ratio w/l c.1.6, margins less wide; body size slightly smaller, length <13.5 mm *missai* sp. nov.
- 8. Prothorax not cordate, margins oblique near basal angles; body size medium, length c. 13 mm. . *obliquus* DARLINGTON
- Prothorax distinctly cordate, margins sinuate near basal angles; body size either much larger or definitively smaller, length >17 mm or < 11.5 mm9.
- 9. Body size smaller, length <11.5 mm; orbits less conspicuously protruding10.
- Body size very large, length >17.0 mm; orbits remarkably protruding, ridge-like (Fig. 6). giganteus sp. nov.
- 10. Gena **behind** eye tuberculate, without a deep furrow between eye and tubercle(s); lateral margin of elytra distinctly serrate and setulose; intervals punctulate and setose; colour brownish to piceous, vertex always with light markings......11.
- Gena below eye angulate, with a deep furrow between eye and tubercle; lateral margin of elytra not distinctly serrate, not setulose; intervals not punctulate, asetose; colour glossy black, vertex without light markings....laevissimus BAEHR
- 11. Body size larger, length 9.5-11.5 mm; prothorax very wide, ratio w/l c. 1.95..... grossulus DARLINGTON
- Body size smaller, length 7.0-9.0 mm; prothorax narrower, ratio l/w <1.6 parvus DARLINGTON
- 12. Pronotum densely punctulate and pubescent *unicolor* (MACLEAY)
- Pronotum impunctate and glabrousglabricollis VAN EMDEN



Fig. 6. — Pogonoglossus giganteus sp. nov. Head.

Remarks

Including the two species described herein, now 16 physocrotaphine species are recorded from New Guinea, and this island more and more proves as one of the strongholds of the subfamily. However, even the more recent samplings included, we still know rather few species and likewise few records from the western half of this large island. And moreover, of only one lowland species (*Pogonoglossus papua* DARLINGTON) more than a handful specimens are recorded so far. All other species are known from few or even single specimens only. Hence, even now the New Guinean physocrotaphine fauna is quite inadequately known and it requires much more intensive sampling efforts to get a more extensive and well balanced knowledge.

Originally, as BAEHR (1988) and MOORE (1998) stated, Physocrotaphinae is an Oriental subfamily that probably originated somewhere in southern Asia and for a long time was believed to possess its highest degree of taxonomic diversity in Sumatra and Java (BOUCHARD 1903, ANDREWES 1937), whereas the Asiatic mainland and also Borneo and the Philippine islands apparently are much less speciose (JEDLICKA 1963, STORK 1986). However, any statements about species diversity, ranges, and centres of origin of these rain forest living, mainly subcorticolous animals are premature due to the most probably very inadequate sampling efforts in most parts of the range of the group. Some preliminary considerations about relationships and biogeographic history of the subfamily can be found in MOORE (1998) and BAEHR (2004), but the reader should be aware that due to the inadequate knowledge about distribution and ecology and of the probable great number of species to be sampled and described any further comments should be postponed to a general revision of this genus that in particular must include the examination of the types of the Oriental species.

Checklist of the Physocrotaphinae recorded from New Guinea and New Britain

(PNG: Papua New Guinea; IJ: former Irian Jaya, now likewise called "Papua")

? Holoponerus godeffroyi (FAIRMAIRE) New Britain Pogonoglossus giganteus sp. nov. PNG: Madang Prov. Pogonoglossus glabricollis VAN EMDEN

whole New Guinea

 Pogonoglossus grossulus DARLINGTON

 e. PNG: Morobe Prov., Central Prov.,

 Eastern Highlands Prov.

 Pogonoglossus horni SLOANE

 New Britain

 Pogonoglossus laevissimus BAEHR

 IJ: Panai Prov.

 Pogonoglossus latior DARLINGTON

 IJ: Panai Prov.

 Pogonoglossus major DARLINGTON

 Pogonoglossus minor DARLINGTON

Pogonoglossus missai sp. nov.

e. PNG: Morobe Prov.; ne. IJ: Jayapura Prov. PNG: Madang Prov.

11

Pogonoglossus obliquus DARLINGTON

w. PNG: Sandaun Prov. Pogonoglossus papua DARLINGTON whole New Guinea Pogonoglossus parvus DARLINGTON

e. PNG: Oro Prov., Morobe Prov.;

ne. IJ: Jayapura Prov.;

ne. Australia: Cape York Peninsula

Pogonoglossus taylori DARLINGTON

PNG: Eastern Highland Prov., Sandaun Prov.; IJ: e. Manokwari Prov.

References

ANDREWES, H.E., 1937. On the species of Pogonoglossus found in Java and Sumatra. Bulletin de la Société entomologique de France 42: 152-156.

BAEHR, M., 1987. Pogonoglossus arfakensis sp. nov. from New Guinea (Coleoptera, Carabidae, Helluodinae). Deutsche entomologische Zeitschrift, Neue Folge 34: 363-366.

BAEHR, M., 1988. Revision of the Australian species of the genus Pogonoglossus Chaudoir (Insecta: Coleoptera: Carabidae: Helluodinae). Invertebrate Taxonomy 2: 961-972.

BAEHR, M. 1993 A new species of Pogonoglossus Chaudoir from Australia (Insecta, Coleoptera, Carabidae, Helluodinae). Spixiana 16: 141-144.

BAEHR, M., 1995. A peculiar new species of the genus Pogonoglossus Chaudoir from New Guinea (Insecta, Coleoptera, Carabidae, Helluodinae). Spixiana 18: 255-258.

BAEHR, M., 2004. A new genus and two new species of Physocrotaphini from New Guinea (Insecta, Coleoptera, Carabidae). Spixiana 27: 107-113.

BOUCHARD, J., 1903. A l'étude des Carabiques de Sumatra. Annales de la Société entomologique de France 72: 177-180.

DARLINGTON, P.J. Jr., 1968. The Carabid beetles of New Guinea. Part III. Harpalinae continued. Perigonini to Pseudomorphini. Bulletin of the Museum of Comparative Zoology 139: 1-253.

Pogonoglossus unicolor (MACLEAY)

PNG: Western Prov. (probably) Schuelea arfakensis (BAEHR) IJ: Manokwari Prov. PNG: Madang Prov. Schuelea drumonti BAEHR Schuelea monstrosa BAEHR IJ: Fakfak Prov.

Acknowledgements

I am very grateful to Mr. A. Drumont (Bruxelles) for the kind loan of the material and for information about collecting circumstances.

JEDLICKA, A., 1963. Monographie der Truncatipennen aus Ostasien. Lebiinae - Odacanthinae - Brachyninae (Coleoptera, Carabidae). Entomologische Abhandlungen und Berichte des Staatlichen Museum für Tierkunde Dresden 28: 269-579.

LORENZ, W., 1998. Systematic List of extant Ground Beetles of the World (Insecta Coleoptera "Geadephaga": Trachypachidae and Carabidae incl. Paussinae, Cicindelinae. Rhysodidae). Tutzing, printed by the author, 502 pp.

MOORE, B.P., 1998. The enigmatic tribe Physocrotaphini Chaudoir (Helluodini auct.) (Coleoptera: Carabidae). In: Ball, G.E., A. Casale & A. Vigna Taglianti (eds): Phylogeny and classification of Caraboidea. Atti di Museo regionale di Scienze naturali, Torino V: 369-380.

STORK, N.E., 1986. An annotated checklist of the Carabidae (including Cicindelinae, Rhysodinae and Paussinae) recorded from Borneo. Occasional Papers on Systematic Entomology 2: 1-24.

> Martin BAEHR Zoologische Staatssammlung Münchhausenstr. 21 D-81247 München Germany e-mail: martin.baehr@zsm.mwn.de

12