

Revision of the genus *Amarygmus* DALMAN, 1823 and related genera. Part LX.

Wingless species of *Amarygmus* from New Guinea

(Coleoptera: Tenebrinidae, Tenebrioninae, Amarygmini)

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Abstract

Eighteen new wingless species of *Amarygmus* DALMAN, 1823 from New Guinea are described and illustrated: *Amarygmus accretus* sp. n., *Amarygmus altiithronus* sp. n., *Amarygmus altivagus* sp. n., *Amarygmus ambiguus* sp. n., *Amarygmus annexus* sp. n., *Amarygmus athleticus* sp. n., *Amarygmus coniunctus* sp. n., *Amarygmus conveniens* sp. n., *Amarygmus convictor* sp. n., *Amarygmus globulus* sp. n., *Amarygmus intricatus* n. sp., *Amarygmus laesus* sp. n., *Amarygmus nigritus* sp. n., *Amarygmus seorsus* sp. n., *Amarygmus sphaeroides* sp. n., *Amarygmus strenuus* sp. n., *Amarygmus thoracicus* sp. n., and *Amarygmus validus* sp. n.

Besides wingless species also two winged species from New Guinea are described and illustrated: *Amarygmus balkei* sp. n. and *Amarygmus montisellae* sp. n.; these species resemble wingless species.

A determination key of the wingless *Amarygmus* of New Guinea is provided.

Key Words. Coleoptera, Tenebrionidae, Amarygmini, *Amarygmus*, New Guinea, description of new species, wingless species.

Introduction

The Papuan fauna is very rich in species of *Amarygmus* DALMAN, 1823. The genus *Amarygmus* of New Guinea alone contains 179 already described species, about the same number of species is awaiting description. This paper is mainly dealing with wingless species. In three preceding paper several wingless species from New Guinea have been described (BREMER 2001a, 2002, 2004).

Wingless species mainly occur on islands and in mountainous areas. Prior to my revision of *Amarygmus* of the Papuan fauna only one wingless species had been described and mentioned as wingless: *Amarygmus zoltani* BREMER, 2005 (nom. nov. for *Amarygmus chrysomeloides* KASZAB, 1958 from the island of Bougainville of the Solomon Archipelago because of homonymy, see also BREMER 2009a). Later-on I added *Amarygmus metallicus* (PERTY, 1831) to this group which is mainly wingless on the islands of Buru and Ambon while on other islands and within the Oriental region this species is always winged. This special wingless form from Buru was described as *A. pieti* KULZER, 1954 (BREMER 2008).

The elytra of the wingless *Amarygmus* of New Guinea are not fused to each other, and each elytron may easily be lifted up when the specimens are relaxed. There is only one amarygmine genus with fused elytra, *Dalmanius* BREMER, 2001 from the Highlands of Luzon of the Philippines (BREMER 2009b), with two species currently known. The elytra of the species of this genus cannot be lifted up separately.

In recent years I published the following wingless species from New Guinea: *Amarygmus bacchusi* BREMER, 2001 (2001a, 8) from Papua New Guinea and *A. corioipennis* BREMER, 2001 (2001b, 349), and *A. delectabilis* BREMER, 2001 (2001b, 351) from Irian Jaya. These three species are tiny with a body length of 2.6-3.5 mm. Larger species are *A. gemellus* BREMER, 2002 (2002b, 36) from Papua Neu Guinea just as *A. affinis* BREMER, 2004 (pp.27-29), *A. crassus* BREMER, 2004 (pp.29-30), *A. densepunctatus* BREMER, 2004 (pp.30-32), *A. gravidus* BREMER, 2004 (pp.32-34), *A. ignobilis* BREMER, 2004 (pp.34-36), *A. kuehbandneri*

BREMER, 2004 (pp.36-37), *A. oreas* BREMER, 2004 (pp.38-39), *A. peditatus* BREMER, 2004 (pp.39-41), *A. scherereri* BREMER, 2004 (pp.41-43), and *A. guerini* BREMER, 2005 (described as *A. velutinus* BREMER, 2004: pp.43-44; nom. praecoc.) from Irian Jaya. These species are either of medium body length or are relatively large. Additional eighteen new wingless species are described and illustrated in the current paper. Moreover, I am describing and illustrating two new winged *Amarygmus* from New Guinea which feign wingless species by their body shape.

Most of the wingless taxa with a medium or large size resemble each other, and one is questioning whether they are variations within one species, subspecies or are separated species. Because this question cannot be answered without biological or molecular investigations, I provisionally regard them as different species if I recognize one or more morphological differences between these taxa. Frequently these differences are on the underside of the body and mainly concern the prosternal apophysis. Other differences concern the length of antennae (but it has to be considered that there are differences between sexes with respect to the length of antennae), the width of frons (again it has to be considered that males may have a narrower frons than females), and the width and shape of pronotum. Frequently an examination of the genitalia is mandatory to recognize the sexual status because the external characters do not give an indication of the gender. Within the wingless species only well cleaned and mounted specimens can be determined safely. This means that legs and antennae should be mounted in such a way that legs and antennae are stretched away from body.

Morphometry

“Body length” represents the distance between the middle of anterior edge of pronotum and apices of elytra, “body width” the maximum width across the elytra; “length of elytra” the distance between the base of scutellum and apices of elytra; “length of pronotum” the distance between the middle of their anterior and posterior edges when both edges are on the same level.

Acronyms of collections

CG = Collection of Dr. R. GRIMM, Neuenbürg, Germany.

CW = Collection of A. WEIGEL, Wernburg, Germany.

BMH = Bishop Museum, Honolulu, Hawai’i, U.S.A.

BMNH = National History Museum, London, U.K.

HNHM = Hungarian National Museum of Natural History, Budapest, Hungaria

MCZ = Museum of Comparative Zoology, Harvard University, Boston, U.S.A.

MNHU = Museum für Naturkunde, Berlin, Germany

MNHN = Muséum National d’Histoire Naturelle, Paris, France

MZB = Museum Zoologicum Bogoriense, Widyahtwaloka, Cibinong, Indonesia

NHMG = Muséum d’histoire naturelle, Genève, Switzerland

SMNK = Staatliches Museum für Naturkunde, Karlsruhe, Germany

SMNS = Staatliches Museum für Naturkunde, Stuttgart, Germany

SSB = Collection of S. BEČVAR, České Budějovice, Czech Republic

ZSM = Zoologische Staatssammlung, Munich, Germany

ZSMB = Collection of author, now property of Zoologischen Staatssammlung, Munich, Germany.

Description of new species

The data on the labels are given in the original language and with the abbreviations as used by the collectors.

Amarygmus accretus sp. n.

(Fig. 1A-H)

Holotype: ♂, HNHM: P.N.G.: Bulolo [7°12’S-146°27’E], 700 m, II.74, J. SEDLACEK.

Paratypes: Edie Creek [7°19’S-146°41’E], N. Guinea, F. H. TAYLOR, 6550-7000 ft. (2 ♂ BMNH) – Same data as before, but 6550 ft. (1 ♀ BMNH) – New Guinea, Edie Creek, 2000 m, 16.II.1962, J. SEDLACEK Collector, BISHOP (1 ♂, 1 ♀ BMH) – New Guinea (NE), Edie Creek, Wau, 1900 m, 4.-10.X.’61, J. & J. H. SEDLACEK Collectors, BISHOP (1 ♀ BMH, 1 ♀ ZSMB) - New Guinea: NE, Mt. Kaindi, 16 km SW Wau, 2400 m, 27.I.1963, J. SEDLACEK Collector, BISHOP (2 ♂ BMH, 1 ♂ ZSMB, 4 ♀ BMH) – Same data as before, but 28.I.1963 (3 ♀ BMH) – Same data as before, but 8.-9.VI.1962 (4 ♂, 2 ♀ BMH) – Same data as

before, but 2300 m, 6.X.1962 (2 ♀ BMH) - Mt. Kaindi [16 km SW of Wau], NG, 2350 m, 17.VI.1964, J. L. GRESSITT Collector (1 ♀ BMH) - New Guinea: NE, Mt. Kaindi, 2250 m, 22.VIII.1968, J. SEDLACEK Collector BISHOP MUS. (1 ♂ BMH) - New Guinea: NE, Mt. Kaindi, 2350 m, 17.XI.1969, J. SEDLACEK Collector (1 ♀ ZSMB) - Same data as before, but 2400 m, 27.I.1963 (1 ♀ BMH) - NE New Guinea, Bulldog Rd. [7°48'S-146°27'E], 14 km S. Edie Ck., 2405 m, 1.V.1969, J. SEDLACEK Collector BISHOP (1 ♂ BMH, 1 ♀ ZSMB) - New Guinea (NE), 29-32 km S of Wau, Bulldog Rd. [7°48'S-146°27'E], 2300-2700 m, 31.V.1962, J. SEDLACEK (4 ♂ BMH, 1 ♂ ZSMB, 8 ♀ BMH) - Same data as before, but 28.V.1962 (1 ♂ BMH) - Same data as before, but 30.V.1962 (1 ♀ BMH) - New Guinea: NE, Bulldog Road, 29 km SW of Wau, 2500 m, 15.II.62, J. H. SEDLACEK Collector, BISHOP (1 ♂ BMH, 1 ♂ ZSMB, 1 ♀ BMH) - N. Guinea, Bulldog Road, 2700-2800 m, 40 km S Wau, 27.-31.V.1961, J. SEDLACEK Collector BISHOP (1 ♂, 1 ♀ BMH) - Same data as before, but 2100 m, 22.-31.V.1969 (1 ♀ BMH) - N. Guinea: NE, Bulldog Rd., 2070 m, 60 km S Wau, 22.-31.V.1969, J. SEDLACEK Collector, BISHOP MUS. (1 ♂, 2 ♀ BMH).

Diagnosis. Wingless. Large. Elytra highly convex, widely oval; surface with faint striae and small, inconspicuous strial punctures; intervals on disc flat or allusively convex. Frons strikingly wide and equal in both sexes. Metasternum very short. Antennae short, in males somewhat longer than in females. Metatibiae somewhat bent and shortly pilose on inner side. Prosternal apophysis posteriorly protruding, with a median groove of medium depth, its bottom is only weakly or not microreticulated. Metatarsomeres short, and metatarsomere 1 slightly longer than metatarsomere 4.

A. strenuus **sp. n.** is a very similar species. Both species possess approximately the same size, slightly incised striae on elytra, very wide frons, a similar shape of legs, a smooth bottom of prosternal apophysis, but the maximum of elytral width and height is situated in the middle or slightly in front of middle in *A. accretus*, while it is at the end of first third in *A. strenuus*, the punctures of the striae are smaller in *A. accretus*; the median groove of prosternal apophysis between procoxae of *A. accretus* is deeper than the shallow one of *A. strenuus*; the antennae of *A. accretus* are slightly shorter than those of *A. strenuus*.

A. ambiguus **sp. n.** is also similar; it occurs in the same area of New Guinea. *A. ambiguus* also displays a horizontally protruding prosternal apophysis, but its median groove is deep, the surface of prosternal apophysis is opaque and not smooth and lustrous as in *A. accretus*; the frons of *A. ambiguus* is narrower than that of *A. accretus*, the antennae of *A. ambiguus* are longer, and the metatarsomeres of *A. ambiguus* are longer and thinner than those of *A. accretus*; moreover, *A. ambiguus* is somewhat smaller than *A. accretus* (body length 8.28-9.00 mm vs. 9.87-11.0 mm).

A. annexus **sp. n.** is another similar species; it is known from an area west of *A. accretus* (surroundings of Keinantu, Eastern Highlands Province). This species is somewhat smaller than *A. accretus* (body length 8.13-9.07 mm), the shape of prosternal apophysis is different (*A. annexus* does not show a median groove in the prosternal apophysis along procoxae), moreover its surface is markedly microreticulated and decorated with small wrinkles (prosternal apophysis of *A. accretus* is smooth and possesses a median groove along procoxae).

A. validus **sp. n.** from Mount St. Mary and the Owen-Stanley Range in southeastern New Guinea is approximately as large as *A. accretus* and displays a similarly wide frons; its elytra are somewhat longer than those of *A. accretus* (length/width ratio 1.25-1.29 vs. 1.20-1.22), the elytral intervals are slightly convex in *A. validus* (in *A. accretus* flat), and they are more closely punctured than in *A. accretus*.

The smaller *A. conveniens* **sp. n.** (body length 6.85-7.56 mm) occurs within the same area as *A. accretus*; it shows a similar shape but, in contrast to *A. accretus*, the anterior margin of prosternum presents a short keel at midlength which is passing into prosternal apophysis; *A. conveniens* also displays a shallower median groove of prosternal apophysis; *A. conveniens* shows additionally longer and thinner metatarsomeres and a distinctly longer metatarsomere 1 related to metatarsomere 4.

Description. Body length: 9.87-11.0 mm. Body width: 6.67-6.80 mm.

Ratios. Pronotum: width/length 1.71-1.82; width hind corners/width front corners 1.79-1.89. Elytra: length/width 1.20-1.22; length elytra/length pronotum 2.81-3.02; maximum width elytra/maximum width pronotum 1.36-1.43.

Colouration. Pronotum and elytra black with a very faint violet tinge; antennae brown; tibiae brown. Underside in mature specimens black, lustrous; femora in immature specimens somewhat darker than underside.

Head. Frons very wide, as wide as the lengths of antennomeres 3-6 jointly. Lateral margins of genae are clearly lifted up, they are barely punctured. Frontoclypeal suture somewhat arched, very weakly impressed,

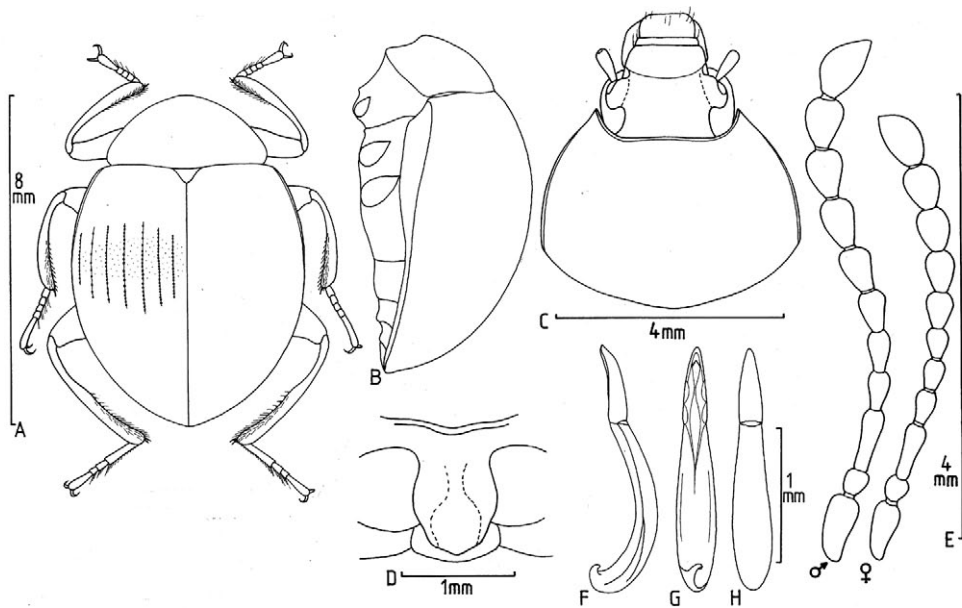


Fig. 1: *Amarygmus accretus* sp. n.: **A** Habitus, ♂; **B** Body, lateral view; **C** Head and pronotum; **D** Prosternal apophysis; **E** Antennae, ♂ and ♀; **F** Aedeagus, lateral view; **G** Aedeagus, ventral view; **H** Aedeagus, dorsal view.

but not incised. Clypeus moderately stretched forwards; its lateral parts distinctly bent downwards, its sides are narrowing anteriorly. Clypeus and frons with minute, rather closely set, indistinct punctures. Mentum reversely trapezoidal, with broad, flat, lustrous lateral margins, space in between slightly convex transversely. Underside of neck markedly microreticulated, opaque, without recognizable punctures. Mandibles with a longitudinal sulcus on their outer surface, apically bifid.

Pronotum. Wide; convex transversely and longitudinally. Lateral margins of different shape, some specimens present a clear maximum of width shortly behind middle and are roundedly convergent towards the rounded hind corners, others have a maximum of width at or near base. In front of the maximum of width the sides are narrowing towards front corners with straight or slightly concave margins. Front corners acute-angled and pointed; hind corners more or less rounded and obtuse. Borders of lateral margins strikingly narrow, border of anterior margin somewhat broader. Borders of lateral margins in dorsal view visible except shortly behind front corners. Front corners in lateral view slightly acute-angled, hind corners markedly obtuse. Surface with small, rather closely set, indistinct punctures.

Scutellum. Widely triangular, somewhat impressed.

Elytra. Widely oval; markedly convex transversally and longitudinally; maximum of width and height approximately in the middle. Apices of elytra mutually rounded. Lateral edges in dorsal view only visible at the level of shoulders. With striae with small, round to elongate, indistinct, narrowly set punctures, the punctures are connected by slightly impressed lines; approximately 45 punctures in stria 4. Intervals on disc flat, laterally slightly convex; with tiny, indistinct punctures.

Prosternum. Anterior margin continuously and narrowly bent upwards. Apophysis is widening towards the level along procoxae; along procoxae its lateral margins are somewhat lifted up; space in between with a median groove; behind procoxae the apophysis is slightly descending but on a somewhat lower level posteriorly protruding; apically rounded; bottom of apophysis smooth, lustrous and mostly with a very faint microreticulation. The shape of prosternal apophysis is somewhat variable.

Mesosternum. Hind part short, its anterior margin widely and roundedly excavated, surface of hind part smooth; its lateral margins are lower than central part.

Metasternum. Short; distance between meso- and metacoxae shorter than longitudinal diameter of a mesocoxa. Anterior margin between mesocoxae widely rounded and bordered. Disc slightly convex

transversely and longitudinally; median line in some specimens only translucent, in others slightly incised; disc with tiny, not very closely set punctures and with tiny hairs.

Sternites. Anterior margin of sternite 1 between metacoxae widely ogive, narrowly bordered. Sternites 1+2 punctured and pilose as metasternum; punctures of sternites 3-5 more sparsely set.

Antennae. Relatively short; reaching over one quarter of elytra. Length/width ratio of antennomeres 1-11 in a male equals to 17:8 / 7½:6½ / 17:6½ / 9:7 / 11:7 / 11:7½ / 13:9 / 14:10 / 14:10 / 14:10 / 20:11.

Legs. Thin, long. Femora slightly club-like thickened. Tibiae rather long; protibiae anteriorly slightly thickened, allusively bent; with an area of short, densely set, inconspicuous hairs on inner side apically. Mesotibiae nearly straight, with relatively thin bristles within apical half on inner side. Metatibiae allusively concave within the basal 70 percent straight on outer side, thence slightly incurved; with short bristles on inner side within apical half. Tarsi short; lengths of protarsomeres 1-5 as 5:5:5:5:21; lengths of mesotarsomeres 1-5 as 8:7:6:5:22; lengths of metatarsomeres 1-4 as 28:10:7:24. Protarsomeres 1-3 in males not enlarged.

Etymology. Accresco, accretum (Lat.) = coming along.

***Amarygmus altithronus* sp. n.**

(Fig. 2A-H)

Holotype: ♂, CW; Indonesia, Irian Jaya, Wamena, E. Habbema Lake, 4°07'S-138°40'E, 3300 m, 20.I.1999, leg. A. WEIGEL. – Holotype kindly donated to ZSM by Mr. WEIGEL.

Habitat: Marshy ground with dead wood and many ferns according to Mr. WEIGEL.

Diagnosis. Of medium size. Elytra globose; pronotum rather flat. Elytra with rows of very small, distantly set punctures and with flat, impunctate intervals. Frons very wide, eyes small. Prosternal apophysis descending just behind procoxae. Antennae very long. Legs long. Upperside somewhat dull. Protarsomeres 1-3 slightly enlarged in the male.

Very near to *A. coniuinctus* sp. n. which occurs nearby, but on a somewhat lower altitude. This species possesses the same size and body shape, but the punctures of elytral rows are still smaller and barely recognizable, moreover the upperside is moderately opaque, and the elytra are somewhat longer.

Concerning body shape also near to the lustrous *A. globosus* sp. n. from the Manokwari Province of Irian Jaya. This is one of the few species which occur in the lowland. This species shows larger punctures within the elytral rows and is slightly smaller than *A. altithronus*.

The much smaller *A. sphaeroides* sp. n. is also resembling *A. altithronus*. This species also occurs in Irian Jaya. However, the linear punctures of elytra of *A. sphaeroides* are connected by lines, and the lateral intervals are somewhat convex. This species is also more lustrous.

Description. Body length: 6.45 mm. Body width: 4.78 mm.

Ratios. Pronotum: width/length 2.05; width hind corners/width front corners 1.88. Elytra: length/width 1.15; length elytra/length pronotum 3.14; maximum width elytra/maximum width pronotum 1.33.

Colouration. Upperside brown, slightly microreticulated and somewhat dull (probably holotype immature). Legs brown (tibiae slightly brighter brown than upperside and femora). Underside brown.

Head. Frons very wide, flat, approximately as wide as lengths of antennomeres 2+3+4 jointly. Eyes small, laterally barely surpassing lateral margin of genae. Lateral margins of genae moderately lifted up, anteriorly terminating approximately at the level of the middle part of fronto-clypeal suture. Fronto-clypeal suture allusively incised. Clypeus stretched forwards. Upperside of head with very indistinct, minute punctures. Outer surface of mandibles with a longitudinal sulcus; apically bifid.

Pronotum. Relatively long. Moderately convex transversely, slightly convex longitudinally. Widest at base; anteriorly narrowing with nearly straight margins (behind front corners slightly concave). Hind corners angular, obtuse; front corners anteriorly protruding and acute-angled. Anterior margin markedly excavated. Lateral and anterior margins continuously bordered. Lateral borders in dorsal view very narrowly visible in their whole length. Front and hind corners in lateral view angular, front ones acute-angled, hind ones obtuse. Surface with very tiny, indistinct, sparsely set punctures.

Scutellum. Triangular, very small.

Elytra with a spherical shape. Maximum of width and height approximately in the middle. Shoulders not prominent. Apices of elytra mutually rounded. Lateral edges in dorsal view invisible. The punctures of the

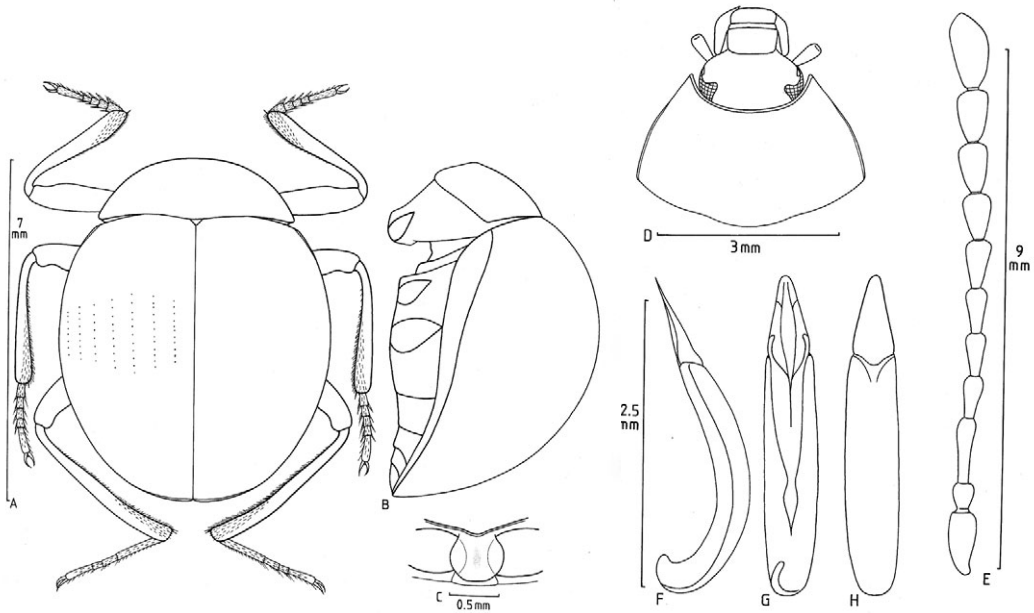


Fig. 2: *Amarygmus altithronus* sp. n.: **A** Habitus, ♂; **B** Body, lateral view; **C** Prosternal apophysis; **D** Head and pronotum; **E** Antenna; **F** Aedeagus, lateral view; **G** Aedeagus, ventral view; **H** Aedeagus, dorsal view.

rows are very small and distantly set. They are not recognizable at a glance; distances between punctures on disc in row 4 equals to 3-5-times the diameter of a puncture; approximately 30 punctures in row 4. Intervals flat; impunctate.

Prosternum. Anterior margin continuously and narrowly bent upwards, retracted trough-like towards apophysis in the middle. Prosternal apophysis short and descending just behind procoxae; lateral margins along procoxae markedly lifted up; space in between with a deep median groove.

Mesosternum. Hind part very short, convex longitudinally, with a few recumbent hairs.

Metasternum. Very short. Distance between meso- and metacoxae much shorter than longitudinal diameter of a mesocoxa. Anterior margin between mesocoxae rounded, bordered. Disc with a few small punctures and with short, recumbent hairs. Median line markedly incised and impressed within the hind half; oblique wrinkles are directed to this incised and impressed median line.

Sternites. Anterior margin between metacoxae widely ogive, bordered. Disc of sternites with tiny, sparsely set punctures and with tiny, recumbent hairs.

Antennae. Long. Reaching over to the hind third of elytra. Length/width ratio of antennomeres 1-11 equals to 11:6½ / 8:5 / 14:4½ / 9:4½ / 11:4½ / 10:5 / 11:6 / 10:6 / 11:6½ / 11:6½ / 15:7.

Legs. Long. Femora markedly surpassing the lateral margins of body. Femora towards second third slightly thickened; profemora on their ventral part with coarse punctures and with medium-sized, semi-erect hairs. Protibiae very long, somewhat concave on outer side, clearly thickened within the apical half and somewhat convex on inner side, on inner side with an area of very densely set, nearly medium-sized, recumbent hairs within the apical third (probably only in the male). Mesotibiae nearly straight and anteriorly slightly thickened, within apical half with an area of short, recumbent hairs on inner side (probably only in males). Metatibiae straight within apical half, slightly incurved in apical half. Lengths of protarsomeres 1-5 as 6:4:3:3:14; lengths of mesotarsomeres 1-5 as 6:5:4:3:14; lengths of metatarsomeres 1-4 as 18:8:3:14. Soles of protarsomeres 3+4 with relatively long, anteriorly directed hairs (character of males?).

Etymology. *Altithronus* (Lat.) = sitting on the highest throne (it is the highest altitude where an *Amarygmus* has been found).

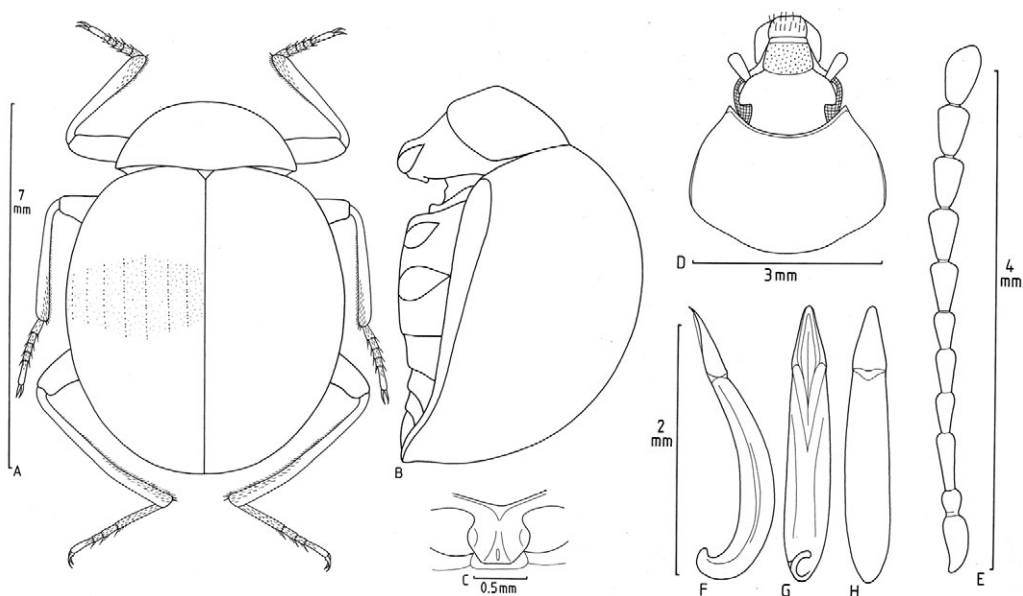


Fig. 3: *Amarygmus altivagus* sp. n.: **A** Habitus, ♂; **B** Body, lateral view; **C** Prosternal apophysis; **D** Head and pronotum; **E** Antenna; **F** Aedeagus, lateral view; **G** Aedeagus, ventral view; **H** Aedeagus, dorsal view.

***Amarygmus altivagus* sp. n.**

(Fig. 3A-H)

Holotype: ♂, MZB: W.-Papua, Baliem Valley, Jiwika, 1875 m, 24.XI.2007, sample 1, sifted, 03°57'161''S-138°57'35.7''E, leg. A. RIEDEL.

Paratypes: W.-Papua, Baliem Valley, Jiwika, 2070 m, 26.XI.2007, sample 3, sifted, 03°56'48.1''S-138°57'07.3''E, leg. A. RIEDEL (1 ♀ SMNK) – Irian Jaya, Baliem Tal, Jiwika, 1700-2300 m, 1.-2.IX.1990, leg. A. RIEDEL (1 ♀ SMNS).

Diagnosis. Small. Elytra globose, with rows of small, inconspicuous punctures. Elytral intervals relatively closely punctured with inconspicuous, minute punctures. Pronotum with clearly projecting front corners. Prosternal apophysis descending just behind procoxae. Frons very wide. Antennae of medium length. Metatarsomere 1 longer than metatarsomere 4. Protarsomeres 1-3 not enlarged in males. Male and female specimens do not show essential ektoskeletal differences except a closer pilosity on soles of protarsomeres 1-4.

Resembling *A. altithronus* sp. n. In contrast to *A. altivagus* this species presents a dull upper- and underside; the punctures of elytral rows are also small, but better recognizable.

Concerning further differential diagnosis, see *A. altithronus* sp. n.

Description. Body length: 5.89-6.69 mm. Body width: 4.62 and 4.94 mm respectively.

Ratios. Pronotum: width/length 1.82+1.85; width hind corners/width front corners 1.70-1.80. Elytra: length/width 1.10-1.14; length elytra/length pronotum 3.20-3.21; maximum width elytra/maximum width pronotum 1.55-1.57.

Colouration. Upper- and underside black, lustrous. Femora, tibiae and antennae dark brown. Tarsi brown.

Head. Upside of head slightly microreticulated, flat. Frons very wide, nearly as wide as lengths of antennomeres 2+3+4 jointly, with very tiny, sparsely set punctures. Eyes small, laterally only slightly wider than genae. Genae clearly lifted up, anteriorly terminating at the level of middle part of fronto-clypeal suture. Fronto-clypeal suture arched, slightly incised. Clypeus stretched forwards, with a few minute punctures. Mentum reversely trapezoidal; with flat, lustrous lateral margins; space in between less lustrous, convex transversely. Outer side of mandibles with a longitudinal sulcus, apically bifid.

Pronotum. Relatively long and narrow. Shape differs somewhat between specimens, sides either narrowing anteriorly with straight margins or bent in the hind part; anterior part always straight or very slightly concave. Pronotum convex transversely, very slightly convex longitudinally. Hind corners either rounded or very obtuse and angular; front corners acutely projecting forwards. Anterior margin deeply excavated. Lateral and anterior margins continuously bordered. Borders of lateral margins in dorsal view narrowly visible in the hind 60 percent. Front corners in lateral view either rectangular or acute-angled, hind corners obtuse and rounded. Surface impunctate.

Scutellum. Tiny, triangular.

Elytra. Short; very convex transversely and longitudinally. Maximum of width and height approximately in the middle. Shoulders not recognizable, angle between lateral margins and base angular, obtuse. Apices of elytra mutually rounded. Lateral edges in dorsal view invisible. With rows of minute, inconspicuous punctures which are not very much larger than the indistinct, minute punctures of elytral intervals; the punctures of the rows are not easy to count. Intervals flat.

Prosternum. Anterior margin narrowly bent upwards, at midlength with a short triangular process towards apophysis. Apophysis short, wide, terminating roundedly just behind procoxae, lateral margins along procoxae lifted up; space in between with a deep median groove.

Mesosternum. Hind part short; its anterior margin barely excavated in the middle; with a few short, semi-erect hairs.

Metasternum. Very short. Distance between meso- and metacoxae much narrower than longitudinal diameter of a mesocoxa. Anterior margin between mesocoxae rounded, bordered. Behind anterior border with a few oblique wrinkles. Otherwise surface of metasternum smooth and lustrous, with a few short, semi-erect hairs.

Sternites. Anterior margin between metacoxae ogive, bordered. Disc of sternites smooth, impunctate, with a few short, semi-erect hairs.

Antennae. Of medium length, reaching over to middle of elytra. Length/width ratio of antennomeres 1-11 equals to 11:6 / 5:4 / 11:4 / 8:4 / 9:4 / 7:4 / 9:5 / 10:5½ / 11:6 / 10:6 / 13:6½.

Legs. Of medium length. Femora towards second third moderately club-like thickened; profemora with coarse punctures and short, semi-erect hairs on outer side. Protibiae straight on outer side and allusively concave within apical half, moderately thickened on inner side. Mesotibiae straight. Metatibiae straight within basal 60 percent, thence slightly incurved. Lengths of protarsomeres 1-5 as 4:4:3:3:12; lengths of mesotarsomeres as 4:5:4:4:12; lengths of metatarsomeres 1-4 as 16:8:4½:13.

Etymology. altivagus (Lat.): altus = high; vagor, vagari, vagum = to roam about.

***Amarygmus ambiguus* sp. n.**

(Fig. 4A-H)

Holotype: ♂, ZSMB: Papua New Guinea, Morobe Prov., Range between Aseki–Menyamy, 2000-2200 m, 12-IV.1998, leg. A. RIEDEL.

Paratypes: Papua N. G., Morobe Prov., Aseki-Oiwa, 12.III.1998, leg. RIEDEL (2 ♀ ZSM) - Kaindi, Edie Ck., N. Guinea, F. H. TAYLOR, 6550-7000 ft., Brit. Mus. 1962-728 (1 ♀ BMNH) – New Guinea: NE, Mt. Kaindi, 2350 m, 17.XI.1969, J. SEDLACEK Collector, BISHOP (1 ♂ BMH) - New Guinea: NE, Mt. Kaindi, 2350 m, 22.VIII.1968, J. SEDLACEK Collector, BISHOP MUS. (1 ♀ BMH) - New Guinea: (NE), Edie Creek, Wau, 1900 m, 4.-10.X.1961, J. SEDLACEK Collector, BISHOP (1 ♂, 4 ♀ BMH) – New Guinea (NE), Edie Cr., 2000-2100 m, 5.-10.X.1961, J. & J. H. SEDLACEK Collectors (1 ♀ ZSMB) – New Guinea: (NE), Wau, Morobe Distr., 1200 m, 11.-15.X.1961, J. SEDLACEK Collector, BISHOP (4 ♀ BMH) - New Guinea, (NE), Wau, Morobe Distr., 1250-1700 m, 15.-16.VI.1962, J. SEDLACEK Collector (1 ♂ ZSMB) – New Guinea: (NE), 29-32 km S Wau, Bulldog Rd., 2500-2700 m, 31.V.1962, J. SEDLACEK Collector BISHOP (1 ♂, 1 ♀ BMH).

Diagnosis. Wingless. Distinctly convex transversely and longitudinally, elytra laterally markedly rounded; elytra with small, closely set punctures within not incised striae. Long, thin legs with relatively thin metatarsomeres. Antennae of medium length. Metasternum very short. Prosternal apophysis with a distinct median groove which is more or less strongly microreticulated; it is protruding posteriorly. Frons of medium width. Metatarsomere 1 as long as metatarsomere 4.

Concerning its relationship to *A. accretus* sp. n., see *A. accretus*.

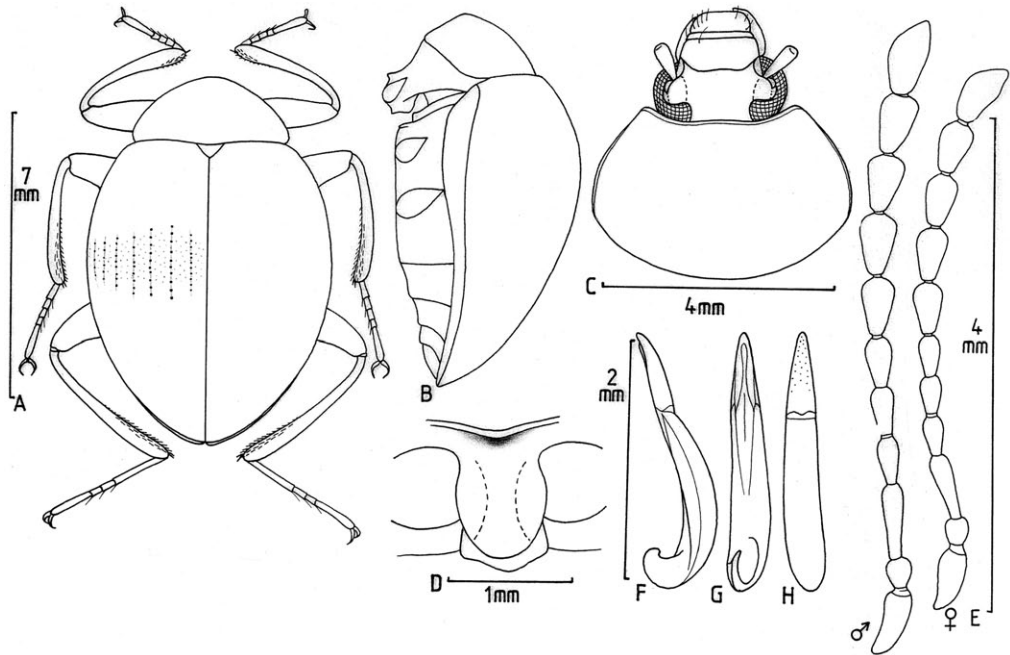


Fig. 4: *Amarygmus ambiguus* sp. n.: **A** Habitus, ♂?; **B** Body, lateral view; **C** Head and pronotum; **D** Prosternal apophysis; **E** Antennae, ♂ and ♀; **F** Aedeagus, lateral view; **G** Aedeagus, ventral view; **H** Aedeagus, dorsal view.

The body shape of *A. ambiguus* resembles also *A. annexus* sp. n. However, *A. annexus* does not show a median groove within the prosternal apophysis; the number of punctures in the striae of *A. ambiguus* is less than that of *A. annexus*; the elytral intervals of *A. ambiguus* are not convex, those of *A. annexus* mostly weakly convex.

Description. Body length: 8.28-9.00 mm. Body width: 5.49-5.89 mm.

Ratios. Pronotum: width/length 1.66-1.72; width hind corners/width front corners 1.78-1.91. Elytra: length/width 1.19-1.23; length elytra/length pronotum 2.93-3.03; maximum width elytra/maximum width pronotum 1.44-1.51.

Colouration. Upperside black, with a very weak reddish tinge; slightly lustrous. Underside brown. Metasternum lustrous; sternites less lustrous. Legs including tarsi, and antennae dark brown to black.

Head. Frons of medium width, width corresponds to lengths of antennomeres 3+4 jointly (like 29:28). Lateral margins of genae somewhat lifted up. Fronto-clypeal suture arched, very weakly incised. Clypeus is situated on the same level as frons; it is stretched forwards and anteriorly its lateral margins are somewhat narrowing. Frons and clypeus with minute, indistinct punctures, dull because of microreticulation. Mentum reversely trapezoidal; slightly convex transversely. Underside of neck barely punctured. Mandibles with a longitudinal sulcus on outer side, apically bifid.

Pronotum. Markedly and uniformly convex. Lateral and anterior margin continuously bordered. Lateral borders in dorsal view narrowly visible in hind half. Lateral margins are narrowing towards front corners, they are bent. Anterior margin distinctly excavated, however, the front corners are not acutely protruding. Hind corners obtuse, in dorsal view rounded. Front corners in lateral view rounded, about rectangular, hind corners angular, markedly obtuse. Surface with minute, indistinct, rather closely set punctures.

Scutellum. Triangular, impunctate.

Elytra. Shortly ovate. Distinctly convex transversely and longitudinally; maximum of width and height shortly in front of middle. No shoulders recognizable. Apices of elytra mutually rounded. Lateral edges in dorsal view very narrowly visible down to the hind third of elytra. Surface with barely incised striae with closely set punctures; distances between punctures on disc in stria 4 correspond to 1- to 1½-time the diameter

of a puncture; in stria 4 approximately 32 punctures. Intervals not convex, with minute, indistinct, relatively closely set punctures.

Prosternum. Anterior margin distinctly and narrowly bent upwards, at midlength not retracted towards apophysis. Lateral margins of apophysis are approximately straight between anterior margin and the level along procoxae; along procoxae they are lustrous and raised upwards; space in between with a deep, wide median groove; behind procoxae apophysis is somewhat horizontally protruding, however the lateral margins are at this level not lifted when compared with the median space; apically rounded; bottom of apophysis distinctly microreticulated and with minute granulae.

Mesosternum. Anterior margin of hind part slightly and roundedly excavated in the middle; margin of excavation somewhat bulging, and their front corners are looking alike a tubercle. Hind part with an allusive sulcus on each side.

Metasternum. Short. Distance between meso- and metacoxa markedly shorter than longitudinal diameter of a mesocoxa. Anterior margin between mesocoxae widely rounded, bordered. Disc impunctate or with extremely tiny punctures, without a recognizable median line.

Sternites. Microreticulated; with longitudinally wrinkled structures on sternites 1+2, impunctate. Anterior margin between metacoxae widely rounded, bordered. Sternites 3-5 with tiny punctures.

Antennae. Of medium length, reaching over elytra towards their middle; in males somewhat longer than in females. Length/width ratio of antennomeres 1-11 in a male equals to 15:6 / 7:4½ / 15½:4 / 9:4½ / 10:5 / 10:5 / 13:7 / 13:7 / 13:7 / 12½:7 / 16:7½, in a female to 15:6 / 6:4½ / 14:4 / 9:4 / 9:4½ / 9:4½ / 11:6 / 11:6½ / 10:6½ / 10:6½ / 14:7.

Legs. Strikingly thin and relatively long. Femora very slightly club-like thickened. Tibiae basally thin, anteriorly slightly thickened; protibiae slightly bent; mesotibiae more bent than protibiae, on inner side with bristles; metatibiae in basal half approximately straight, thence slightly incurved and also with projecting bristles. Lengths of protarsomeres 1-5 as 4:4:4:4:20; lengths of mesotarsomeres 1-5 as 10:7:5:5:21; lengths of metatarsomeres 1-4 as 21:9:5.5:21. Protarsomeres 1-3 in males not enlarged.

Etymology. Ambiguus (Lat.) = undecided.

Amarygmus annexus sp. n.

(Fig. 5A-H)

Holotype: ♂, ZSMB: Papua New Guinea, Eastern Highlands Prov., Umg. [surroundings] of Kainantu, Onerunka, XI.1979, Dr. W. G. ULLRICH leg.

Paratypes: Same data as holotype (1 ♂ MNHN, 1 ♂, 1 ♀ ZSMB) – Same data as holotype, but 22.IV.1979 (2 ♂ ZSMB) – Same data as holotype, but 29.III.1979 (1 ♀ ZSMB) – Same data as holotype, but 7.IV.1979 (1 ♀ ZSMB) – Same data as holotype, but VI.1979 (3 ♂, 2 ♀ ZSMB, 1 ♀ CG, 1 ♂, 1 ♀ BMNH) - Nouv. Guinée, Onerunka nr. Kainantu, XI.79, W. G. ULLRICH (6 ♂ NHMG, 4 ♀ NHMG) – Same data as before, but IV.79 (4 ♂ NHMG) – Same data as before, but V.79 (7 ♂, 5 ♀ NHMG) – Same data as before, but VI.79 (2 ♂, 3 ♀ NHMG) – Same data as before, but VIII.79 (5 ♂, 3 ♀ NHMG) – Same data as before, but X.79 (5 ♂, 2 ♀ NHMG) – Same data as before, but XII.79 (8 ♂, 5 ♀ NHMG) – Same data as before, but I.80 (2 ♂, 2 ♀ NHMG) – Same data as before, but II.80 (5 ♂, 7 ♀ NHMG) – Same data as before, but III.80 (1 ♀ NHMG) – Same data as before, but II.81 (1 ♂ NHMG) – Same data as before, but IV.81 (1 ♂ NHMG) – Same data as before, but XII.81 (2 ♂, 1 ♀ NHMG) – New Guinea:NE, E. Highlands, Purosa, 1700 m, 17.-25.V.1966, GRESSITT & TAWI Collectors, BISHOP (2 ♀ BMH) – New Guinea. E. Highlands Dist., Okapa, c. 5.000 ft., 20.XII.1964, R. H. HORNABROOK, M. E. BACCHUS, B.M.1965-120 (1 ♀ BMNH) - Papua New Guinea, Morobe Prov., Range between Aseki-Menyama, 2000-2200 m, 12.IV.1998, leg. A. RIEDEL (1 ♀ ZSMB) – Nouvelle Guinée, Daulo Pass [Morobe Prov., 5°55'S-145°18'E] entre Goroka et Chuave, 2300 m, III.1968, JOLIVET (2 ♂, 2 ♀ MNHN) – Nouvelle Guinée, Dolo Pass, Moss River, 23.II.1969, P. JOLIVET leg. (1 ♂, 1 ♀ MNHN) – Nouvelle Guinée, Mt. Otto [Mt. Otto, 6°00'S-145°25'E] près Goroka, 6.IV.1968, P. JOLIVET leg. (1 ♀ MNHN) – Papua New Guinea, Simbu [Chimbu] Prov., Mu Village, near Kundiawa [4°42'S-145°02'E], 1900 m, 17.-20.III.2001, LUKAŠ ČIŽEK leg. (10 ♀ ZSMB, 1 ♀ SSB, 1 ♀ BMNH, 16 ♂ ZSMB, 1 ♂ SSB).

Diagnosis. Wingless. Shortly oval. Elytra markedly convex, short, with striae with small, closely set punctures, however, in a few specimens not all linear punctures are connected by lines. Frons of medium width. Antennae of medium length, nearly of the same length in both sexes, only penultimate antennomeres slightly longer in males. Prosternal apophysis protruding posteriorly, without a median groove, opaque,

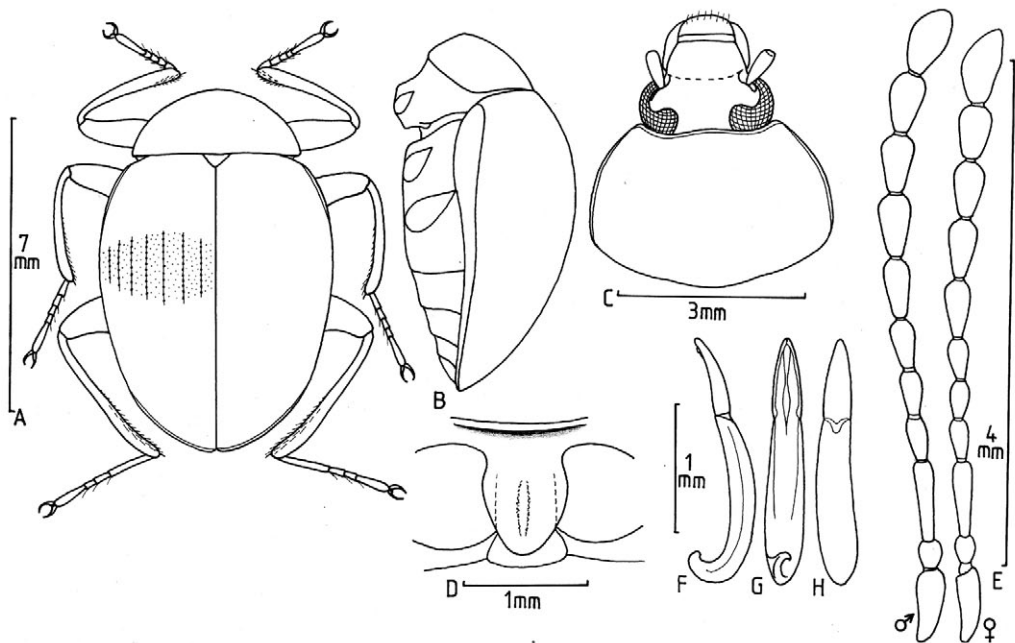


Fig. 5: *Amarygmus annexus* sp. n.: **A** Habitus, ♂; **B** Body, lateral view; **C** Head and pronotum; **D** Prosternal apophysis; **E** Antennae, ♂ and ♀; **F** Aedeagus, lateral view; **G** Aedeagus, ventral view; **H** Aedeagus, dorsal view.

rough caused by many tiny wrinkles which mostly are arranged transversely. Protarsomeres 1-3 slightly enlarged in males. Metatarsomere 1 as long as metatarsomere 4.

The specimens from Daulo Pass have allusively shorter penultimate antennomeres.

A similar shape of prosternal apophysis is present in the wingless *A. zoltani* BREMER, 2005 from the Solomon Island Bougainville. But this species shows a low median keel within the prosternal apophysis. The shape of the species is similar, but the punctures of the very faint striae are smaller in *A. zoltani*.

Description. Body length: 8.13-9.07 mm. Body width: 5.46-5.80 mm.

Ratios. Pronotum: width/length 1.68-1.75; width hind corners/width front corners 1.73-1.78. Elytra: length/width 1.25-1.32; length elytra/length pronotum 3.11-3.32; maximum width elytra/maximum width pronotum 1.44-1.49.

Colouration. Upperside black. Antennae, femora dark brown to black, tibiae black, tarsi dark brown. Underside dark brown, markedly microreticulated.

Head. Frons of medium width, approximately as wide as lengths of antennomeres 2+3 jointly. Lateral margins of genae slightly lifted, anteriorly terminating approximately at the level of the middle part of fronto-clypeal suture. Fronto-clypeal suture slightly impressed in the middle. Clypeus stretched forwards, apically slightly narrowing, its lateral margins somewhat bent downwards. Upperside of head with rather closely set, small, indistinct punctures. Underside of neck with indistinct, transverse wrinkles, otherwise impunctate. Mentum anteriorly widening, with broad, flat, lustrous and somewhat bent lateral margins, space in between microreticulated, slightly convex transversely and with long hairs which are directed to the front. Mandibles on the outer surface with a longitudinal sulcus, apically bifid.

Pronotum. Markedly convex transversely, slightly convex longitudinally. Lateral margins narrowing towards front corners; front corners in view from the front rectangular (and not clearly projecting); hind corners rounded, obtuse. Anterior margin excavated. Lateral margins continuously bordered; anterior margin also bordered but at medially border nearly evanescent. Lateral borders narrowly visible in dorsal view except that part which is situated just behind front corners. Front corners in lateral view rectangular, hind corners markedly obtuse. Surface with small, indistinct, closely set punctures.

Scutellum. Triangular, impunctate.

Elytra. Short, oval; markedly convex transversely, distinctly convex longitudinally. Maximum of width and height at the end of the first third, between maximum of width and height and apex the convexity is clearly decreasing. Shoulders not recognizable. Apices of elytra mutually rounded, but they are slightly projecting backwards like a mucro. Lateral edges in dorsal view narrowly visible at the anterior and posterior parts of elytra (but not at apex). Surface with striae with small, round, not knurling punctures, these punctures are slightly impressed; distances between punctures on disc are equal to diameter of a puncture in row 4; about 36 punctures in row 4. Intervals everywhere faintly convex, in a few specimens flat; punctured with indistinct punctures which are smaller than those of pronotum, but the punctuation is somewhat different between specimens.

Prosternum. Anterior margin narrowly bent upwards, at midlength slightly retracted towards apophysis, but at medially border not interrupted. Apophysis with lateral margins posterior to procoxae subparallel or slightly bent, along procoxae the lateral margins are slightly widened and lustrous; in between without a median groove; posterior to procoxae the apophysis is horizontally protruding, apically it is broadly rounded; its surface opaque caused by a strong microreticulation and by many tiny wrinkles, but in the posterior part medianly, in other specimens also in the anterior part (but never continuously) with narrow, lustrous areas, these lustrous areas are not found in all specimens.

Mesosternum. Anterior margin of hind part vertically descending to anterior part, it is excavated in the middle; margins along excavation and lateral margins bulging; medial to the lateral margins with a longitudinal sulcus; centre of the hind part smooth.

Metasternum. Very short; distance between meso- and metacoxae distinctly shorter than the longitudinal diameter of a mesocoxa. Anterior margin between mesocoxae rounded, bordered; inner rim of this border with medium-sized punctures. Median line slightly incised. Disc of metasternum nearly flat and impunctate..

Sternites. Sternites 1+2 with a rough surface because of closely set punctures on discs and because of finely striolated structures laterally. Sternites 3-5 only with minute, less closely set punctures.

Antennae. Of medium length and not just reaching over elytra to their middle, antennomere 7-11 with a short, close pilosity. Length/width ratio of antennomeres 1-11 in a male equals to 17:7½ / 8:6 / 22:5½ / 13:5½ / 14:5½ / 14:5½ / 17:8 / 17:9 / 16:9 / 16:9 / 20:9.

Legs. Relatively long. Femora towards middle somewhat thickened. Protibiae slightly bent and thickened anteriorly. Mesotibiae straight in basal half, slightly incurved in apical half and anteriorly thickened; with oblique bristles within this apical part on inner side. Metatibiae straight in the basal three quarter, allusively incurved in the apical quarter and thickened anteriorly. Lengths of protarsomeres 1-5 as 6:6:6:6:26; lengths of mesotarsomeres 1-5 as 13:9:8:6:28; lengths of metatarsomeres 1-4 as 30:12:8:29.

Etymologie. Annecto, annexum (Lat.) = to attach.

Amarygmus athleticus sp. n.

(Fig. 6A-I)

Holotype: ♂, BMH: N. Guinea: SE, Mt. St. Mary, 2500 m, 1.-7.VIII.1968, ABID BEG MIRZA Collector.

Paratypes: Same data as holotype (2 BMH, 1 ZSMB) – N. Guinea: Mt. St. Mary, 1900 m, 22.-31.VIII.1968, MENA Collector (2 ♂, 1 ♀ BMH) - Papua, Brown R., 12.-23.X.68, TAWI MENA collectors (1 ♂ ZSMB) – New Guinea: Papua, Owen Stanley Range, Goilala: Bome, 1950 m, 30.IV.30-2.V.1958, W. W. BRANDT Collector, BISHOP (1 ♀ BMH) – New Guinea, Tapini [SE New Guinea, Owen-Stanley Range: 8°19'S-147°00'E, about 1200 m], VII.1968, loc. collector (2 ♂, 4 ♀ ZSMB).

Diagnosis. Large, wingless; widely oval, markedly convex transversely and longitudinally. Elytra with slightly impressed striae and with small, closely set punctures within striae. Frons of medium width. Prosternal apophysis is protruding posteriorly. Antennae of medium length, somewhat longer in males than in females. Metatarsomere 1 slightly longer than metatarsomere 4. Back side of metafemora with small tubercles in males (see Fig. 6C).

Differs from other wingless species, e. g. *A. accretus*, especially by metafemora which are somewhat laced near apex (like in *Plesiophthalmus* species); this induces a club-like thickening of the middle part of metatibiae alike a biceps; moreover, the metatibiae are bent. Moreover, species different from *A. athleticus* do not possess small tubercles on the back of metafemora.

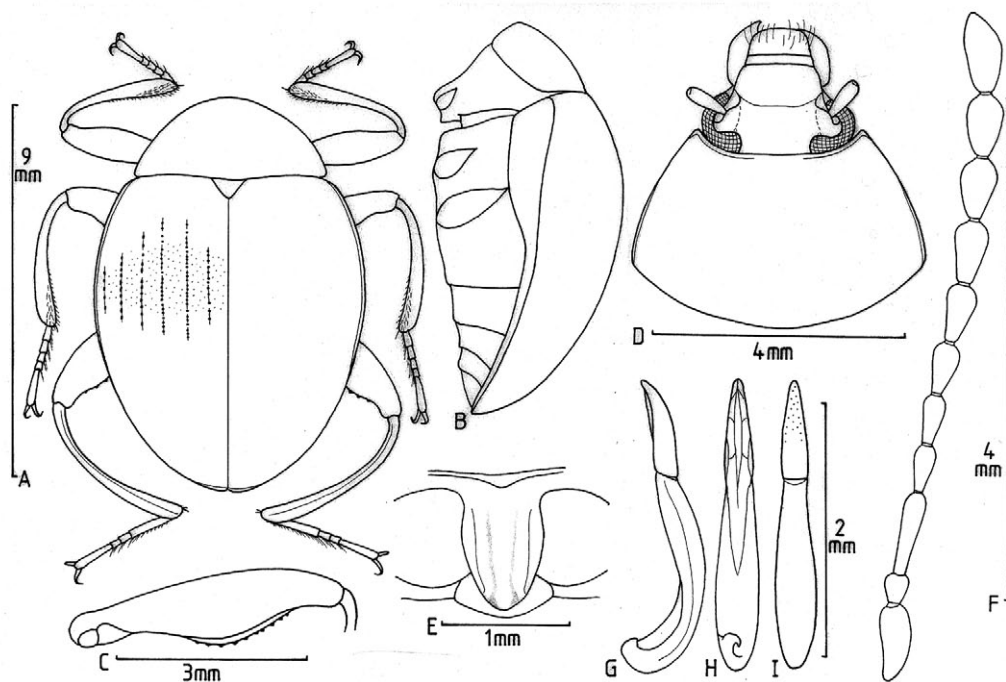


Fig. 6: *Amarygmus athleticus* sp. n.: A Habitus, ♂; B Body, lateral view; C Metafemur right side ♂; D Head and pronotum, E Prosternal apophysis; F Antenna; G Aedeagus, lateral view; H Aedeagus, ventral view; I Aedeagus, dorsal view.

Description. Body length: 9.07-10.5 mm. Body width: 5.93-6.70 mm.

Ratios. Pronotum: width/length 1.70-1.78; width hind corners/width front corners 1.76-1.79. Elytra: length/width 1.19-1.30; length elytra/length pronotum 2.84-3.19; maximum width elytra/maximum width pronotum 1.40-1.41.

Colouration. Upperside black, with a faintly reddish tinge; slightly lustrous. Legs and antennae dark brown to black. Underside dark brown to black, with a greasy lustre.

Head. Frons of medium width, slightly narrower than the lengths of antennomeres 2+3+4 jointly (like 32:34 in female, like 39:35 in male). Lateral margins of genae moderately lifted up. Fronto-clypeal suture arched, slightly incised. Clypeus stretched forwards; its sides are somewhat narrowing anteriorly; slightly convex transversely and longitudinally. Upperside moderately dull, with minute, indistinct punctures. Mentum reversely trapezoidal. Mandibles on its outer surface with a longitudinal sulcus, apically bifid.

Pronotum. Markedly convex transversely, slightly convex longitudinally. Lateral margins of hind half slightly bent, of anterior half narrowing towards front corners with straight margins. Anterior margin slightly excavated. Lateral and anterior margins narrowly bordered; lateral borders in dorsal view narrowly visible within hind half. In view from the front the angles of front corners are slightly smaller than 90°, the hind corners are obtuse. Front corners in lateral view rectangular, hind corners obtuse. Surface with small, indistinct punctures.

Scutellum. Triangular, impunctate.

Elytra. Widely oval; distinctly convex transversely and longitudinally; maximum of width and height somewhat in front of middle; towards shoulders markedly retracted. Apices of elytra mutually rounded. Lateral edges in dorsal view narrowly visible within the anterior third and near apex. Surface with striae in which small, narrowly set punctures are included; the lines between punctures are somewhat impressed; distances between punctures on disc in stria 4 equal to the diameter of a puncture; approximately 47 punctures in stria 4. Intervals allusively convex, slightly microreticulated, no punctures visible at 25-fold magnification.

Prosternum. Anterior margin narrowly bent upwards; in one specimen with a keel towards apophysis at midlength, in another specimen from the same collection site the anterior margin is continuously bent upwards and without a keel. Apophysis of medium width, with subparallel margins between anterior margin and level along procoxae; lateral margins along procoxae slightly lifted and widened; posterior to procoxae the apophysis is horizontally protruding, and the lateral margins are slightly narrowing; apex rounded; the median area posterior to procoxae somewhat higher than the lateral margins.

Mesosternum. Anterior margin of hind part moderately excavated in the middle; the front corners of this excavation are hook-like lifted ventrad; hind part uniformly raised ventrad; with an allusive sulcus on each side.

Metasternum. Very short; distance between meso- and metacoxae shorter than longitudinal diameter of a mesocoxa. Anterior margin between mesocoxae rounded, broadly bordered. Median line weakly incised in the hind part, translucent in the front part. Disc with tiny, sparsely set punctures.

Sternites. Anterior margin between metacoxae ogive, bordered. The first three sternites with a chagreened surface. Postero-median margin of sternite 5 straight in males, rounded in females.

Antennae. Of medium length. Length/width ratio in a female equals to 17:8 / 8:6 / 16:6 / 10:6 / 10:6 / 10:6 / 13:8 / 13:8 / 12:8 / 12:8 / 17:9; in a male to 18:8 / 8:7 / 20:7 / 11:6,5 / 11:6½ / 12:7 / 13:8½ / 14:8½ / 14:9 / 15:9 / 20:9½.

Legs. Of medium length. Femora towards midlength distinctly thickened like a biceps, especially striking in the metafemora, less marked in mesofemora; lateral of this “biceps” towards apex shortly thinned. Pro- and mesotibiae somewhat bent; metatibiae thin and more clearly bent. Lengths of protarsomeres 1-5 as 6:6:6:6:26; lengths of mesotarsomeres 1-5 as 10:7:6:6:27; lengths of metatarsomeres 1-4 as 31:11:9:28.

Etymology. Athleticus (Lat.) = athletic.

Amarygmus coniunctus sp. n.

(Fig. 7A-E)

Holotype: ♀, SMNS: Irian Jaya, Jayawijaya, zw. [between] Theila u. [and] Habbema-See [Lake Habbema: 4°08'S-138°40'E], 2800-2950 m, 22.X.1993, leg. A. RIEDEL.

Diagnosis. Wingless. Of medium size. Slightly elongate and markedly oval. Convex transversely and longitudinally. The punctures of the elytral rows are so small and indistinct that they are barely recognizable; elytral intervals indistinctly punctured. Frons very wide. Eyes very small. Prosternal apophysis short, terminating just behind procoxae. Antennae and legs of medium length. Upperside, femora, tibiae tarsi, antennae black, upperside somewhat opaque. Metatarsomere 1 longer than metatarsomere 4.

Very near to *A. altithronus* sp. n. which also occurs near Lake Habbema but on a higher altitude. This species is also opaque. Elytra of *A. altithronus* present rows of very small punctures which are more distinct than those of *A. coniunctus*. The elytra of *A. altithronus* are shorter.

Description. Body length: 6.85 mm. Body width: 4.62 mm.

Ratios. Pronotum: width/length 1.77. Elytra: length/width 1.26; length elytra/length pronotum 3.32; maximum width elytra/maximum width pronotum 1.48.

Colouration. See “Diagnosis”. Underside black.

Head. Frons very wide, nearly as wide as the lengths of antennomeres 2+3+4 jointly, slightly convex longitudinally, covered with tiny, distantly set punctures. Eyes very small. Genae markedly lifted up; anteriorly terminating approximately at the level of the middle part of fronto-clypeal suture. Fronto-clypeal suture slightly arched, narrowly depressed and incised. Clypeus moderately stretched forwards, sides anteriorly somewhat narrowing, distinctly convex transversely and longitudinally, striking by the closer and coarser punctation than on frons. Mentum reversely trapezoidal, with flat, lustrous lateral margins, space in between slightly convex transversely; with small punctures and hairs of short length. Underside of neck with a few medium-sized punctures. Mandibles with a longitudinal sulcus on outer surface, apically bifid.

Pronotum. Not very wide; convex transversely and longitudinally. Widest slightly behind middle, only slightly converging towards the widely rounded hind corners, clearly converging towards front corners with nearly straight margins; in the middle part the lateral margins are bent. Front corners rectangular in dorsal view, they are somewhat protruding anteriorly. Anterior margin markedly excavated. Posterior margin distinctly and roundedly stretched backwards. Lateral and anterior margins bordered. Lateral borders in dorsal

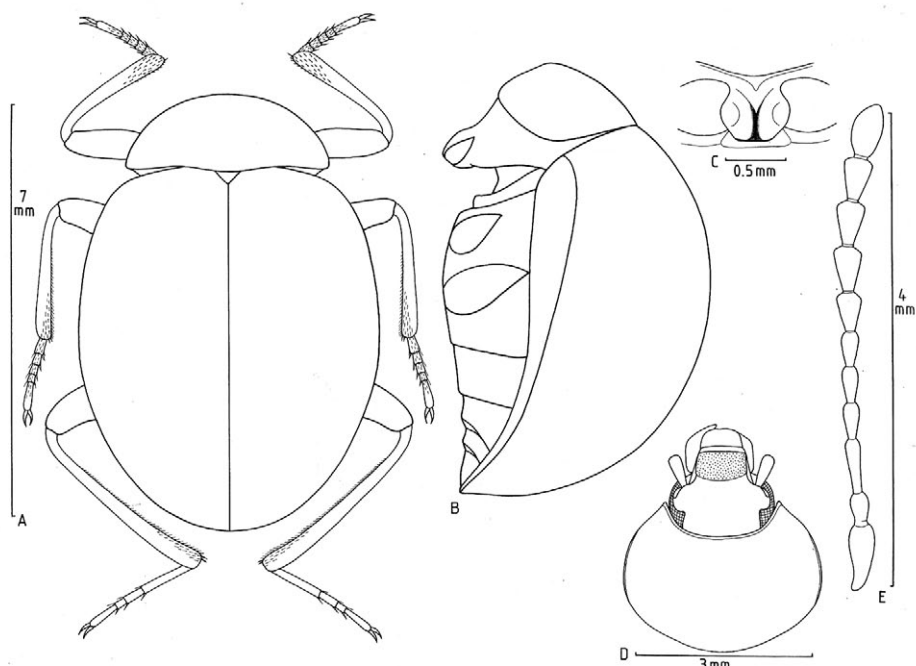


Fig. 7: *Amarygmus coniunctus* sp. n.: **A** Habitus, ♀; **B** Body, lateral view; **C** Prosternal apophysis; **D** Head and pronotum; **E** Antennae.

view very narrowly visible in their whole length. Front corners rectangular in lateral view, hind corners obtuse, rounded. Surface with tiny, distantly positioned punctures.

Scutellum. Very small; triangular.

Elytra. Not very long, slightly elongately oval. Elytra markedly convex transversely and longitudinally. Maximum of width and height approximately in the middle. Shoulders not delineated. Apices of elytra mutually rounded. Lateral edges invisible in dorsal view. Surface with rows of tiny punctures which are so indistinct and so badly demarcated from the also tiny and indistinct punctures of intervals that one barely can recognize them as a row. Elytral intervals flat.

Prosternum. Anterior margin continuously bent upwards, not retracted towards apophysis in the middle. Apophysis short; terminating just behind procoxae with a straight apex; lateral margins distinctly lifted up; a deep, wide median groove in between; surface with a few hairs of short and medium-sized lengths.

Mesosternum. Hind part short; its anterior margin not excavated in the middle; with several projecting hairs of medium length.

Metasternum. Short. Distance between meso- and metacoxae distinctly shorter than longitudinal diameter of a mesocoxa. Anterior margin between mesocoxae rounded, bordered. Disc with small, indistinct punctures and with oblique wrinkles along the incised median line. On disc with several recumbent hairs of short length.

Sternites. Anterior margin of sternite 1 ogive, bordered. Surface of sternites smooth, with a few recumbent hairs.

Antennae. Of medium length, reaching over 40 percent of elytra. Length/width ratio of antennomeres 1-11 equals to 10:6 / 6:4½ / 12:4 / 8:4 / 9:4 / 7½:4 / 9:5 / 9:5½ / 9:6 / 9:6 / 12:7.

Legs. Of medium lengths. Femora towards second third moderately club-like thickened. Pro- and mesotibiae straight on outer side, moderately thickened on inner side within apical 60 percent. Metatibiae straight within basal 40 percent, thence moderately incurved. Lengths of protarsomeres 1-5 as 3:3:3:3:10; lengths of mesotarsomeres 1-11 as 6:4½:4½:3:11; lengths of metatarsomeres 1-4 as 19:7:4:11.

Etymology. Coniunctus (Lat.) = related.

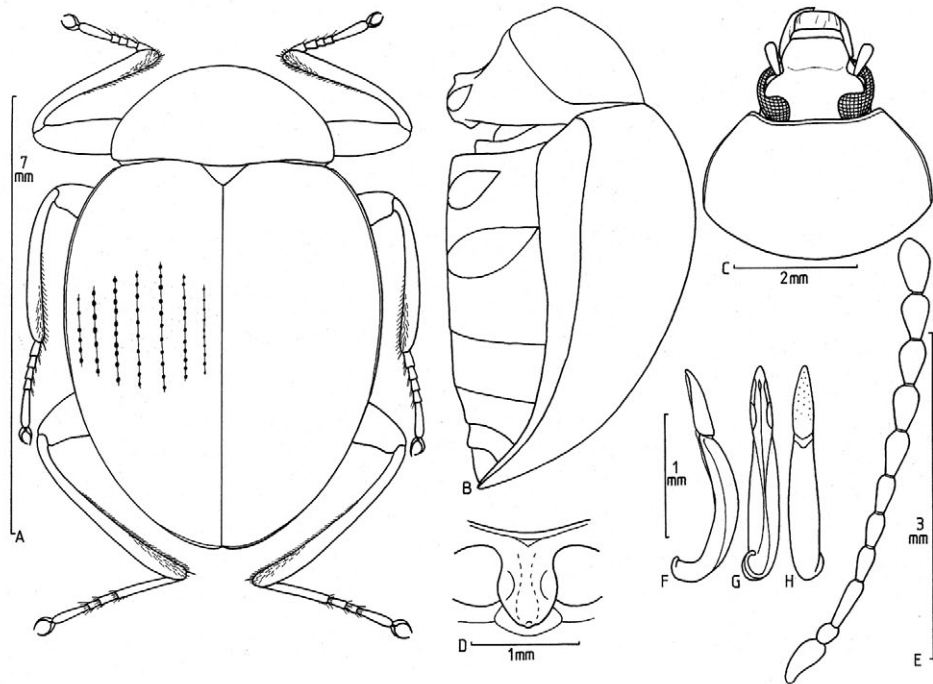


Fig. 8: *Amarygmus conveniens* sp. n.: A Habitus, ♂; B Body, lateral view; C Head and pronotum; D Prosternal apophysis; E Antenna; F Aedeagus, lateral view; G Aedeagus, ventral view; H Aedeagus, dorsal view.

***Amarygmus conveniens* sp. n.**

(Fig. 8A-H)

Holotype: ♂, BMH: New Guinea (NE), Wau, Morobe District, 1200 m, 26.VII.1961, J. & L. SEDLACEK Collectors, BISHOP.

Paratypes: Same data as holotype (1 ♂ BMH) – Same data as holotype, but 13.VI.1962 (1 ♂ ZSMB) - New Guinea (NE), Wau, Morobe District, 1300 m, 21.VIII.1961, J. SEDLACEK Collector, BISHOP (1 ♀ ZSMB) – Same data as before, but 16.-22.VII.1962 (1 ♀ BMH) – New Guinea (NE), Wau, Morobe Distr., 1700 m, 16.-19.V.1962, J. SEDLACEK Collector, BISHOP (1 ♂ BMH) – New Guinea: NE, Wau, 1750 m, 14.V.1969, J. SEDLACEK, BISHOP MUS. (1 ♂ BMH, 1 ♂ ZSMB) – New Guinea: (NE), Wau, Morobe Distr., 1400 m, 27.VIII.1961, J. SEDLACEK Collector, BISHOP (1 ♂ BMH) - New Guinea: NE, Wau, Morobe Distr., Mt. Missim, 1800 m, 22.III.1966, GRESSITT leg., BISHOP (1 ♂ BMH) - New Guinea (NE), 6 km W of Wau, Nami Creek, 1700 m, 13.VI.1962, J. SEDLACEK Collector, BISHOP (1 ♂ BMH) – Same data as before, but 12.VI.1962 (1 ♀ BMH) - Same data as before, but 15.VI.1962 (1 ♂ BMH) – N. Guinea: NE, Kaindi-Nami, 1700 m, 15.I.1969, J. SEDLACEK Collector, BISHOP (1 ♀ BMH) – NE New Guinea, Morobe District, Mt. Kaindi, Nami Cr., 1700 m, 22.-30.VI.1968, J. SEDLACEK Collector, BISHOP (1 ♂ BMH) - New Guinea-NE, 7°19'S-145°48'E, Mt. Chapman, 2000 m, 5.V.1966; T. L. GRESSITT Collector (2 ♂ BMH) – N. Guinea: NE, Garaina, 800 m, 16.I.1958, J. & M. SEDLACEK Collectors, BISHOP (1 ♀ BMH) – N. Guinea: NE, Bulldog Rd., 40 km S. Wau, 2100-2200 m, 22.-31.V.1969, J. SEDLACEK Collector (1 ♂ BMH).

Diagnosis. Wingless; of medium width; with a very short metasternum. Elytra markedly convex, short, and nearly hemispherical, with rows of medium-sized, closely set punctures which are mostly linked by slightly incised lines; elytral intervals slightly convex. Pronotum wide. Frons of medium width, in males wider than in females. Prosternal apophysis is protruding posteriorly. Antennae of medium length. Metatarsomere 1 clearly longer than metatarsomere 4.

A. conveniens is clearly smaller than *A. accretus* sp. n. and *A. ambiguus* sp. n. which occur in the same area.

A. intricatus sp. n. is very similar and of the same size as *A. conveniens*, but this species has a narrower and longer pronotum, and its front corners are more acute than those of *A. conveniens*; the punctures of the elytral rows are closer set than those of *A. conveniens*, moreover *A. intricatus* presents longer antennae and a more closely punctured pronotum.

Another wingless species with some similarity is *A. gemellus* BREMER, 2002. This species is still smaller than *A. conveniens*, and its antennae are longer.

A. consentaneus BREMER, 2008, *A. cheesmanae* BREMER, and *A. additus* BREMER are also resembling *A. conveniens*, but these species are winged, possess no shortened metasternum and distinctly longer antennae.

Description. Body length: 6.85-7.56 mm. Body width: 4.54-5.02 mm.

Ratios. Pronotum: width/length 1.80-1.93; width hind corners/width front corners 1.72-1.79. Elytra: length/width 1.19-1.21; length elytra/length pronotum 3.00-3.26; maximum width elytra/maximum width pronotum 1.42-1.44.

Colouration. Upperside, femora, tibiae black, lustrous; tarsi dark brown; antennae black. Underside dark brown; mentum and palps brown.

Head. Head somewhat more microreticulated than pronotum. Frons of medium width; in females a little wider than in males; width of frons in males equals to lengths of antennomeres 3+4 jointly. Lateral margins of genae raised upwards. Fronto-clypeal suture somewhat impressed, not incised, slightly arched. Clypeus stretched forwards; somewhat convex transversely. Frons and clypeus covered with small, indistinct, closely set punctures. Lateral margins of mentum markedly rounded and with a rounded transition between sides and base; with flat lateral margins; space in between only slightly convex. Underside of neck with microscopically small flutes laterally, medial to them with large, transversely aligned punctures. Outer surface of mandibles with a longitudinal sulcus, apically bifid.

Pronotum. Rather wide. In most specimens lustrous, in a few with a reduced lustre. Uniformly and distinctly convex transversely and longitudinally. Sides subparallel in hind half, increasingly narrowing and bent in the frontal half. Front corner in view from the front slightly acute-angled, hind corners in dorsal view rounded and markedly obtuse. Anterior margin somewhat excavated. Lateral and anterior margins continuously bordered. Borders of lateral margins in dorsal view visible except a short part behind front corners. Front corners in lateral view rectangular, hind corners obtuse and angular. Surface with small, rather narrowly set and indistinct punctures.

Scutellum. Triangular; impunctate.

Elytra. Short. Markedly convex transversely and longitudinally; maximum of width and height shortly in front of middle. Shoulders not distinct. Apices of elytra very slightly retracted towards median suture. Lateral edges in dorsal view very narrowly visible within the frontal fifth. Elytra with rows of medium-sized punctures which are linked by faint incisions; distances between punctures on disc in row 4 equal to 1- to 2-times the diameter of a puncture; approximately 32 punctures in row 4. Intervals on disc slightly convex; barely punctured (at 25-fold magnification).

Prosternum. Anterior margin narrowly and strongly bent upwards; not retracted towards apophysis at midlength. Apophysis of medium width; along procoxae slightly widened, and lateral margins only slightly lifted up; a shallow, wide median groove is found in between; posterior to procoxae the apophysis protruding backwards, with margins somewhat puffed up and roundedly narrowed; in the middle of apex with a slightly lifted tip.

Mesosternum. Hind part very short; its anterior margin vertically descending to the anterior, depressed part; it is roundedly excavated in the middle; lateral margins of hind part somewhat puffed up.

Metasternum. Very short; distance between meso- and metacoxae narrower than longitudinal diameter of a mesocoxa. Anterior margin between mesocoxae wide, outlined angular, broadly bordered; the anterior margins in their median and lateral parts impunctate; the anterior apophysis is slightly raised. Disc nearly flat, covered with minute, sparsely set punctures and very short hairs; median line slightly impressed in its posterior part.

Sternites. Anterior margin between metacoxae widely ogive. Sternites with minute punctures. In males sternite 5 without any impression.

Antennae. Of medium length, reaching not just to the middle of elytra. Length/width ratio of antennomeres 1-11 in a male equals to 13:7 / 6:6½ / 15½:5 / 10:5½ / 10:6 / 10:6 / 13:7 / 13:8 / 13:8½ / 13:9 / 16:9½. Antennae of females somewhat shorter.

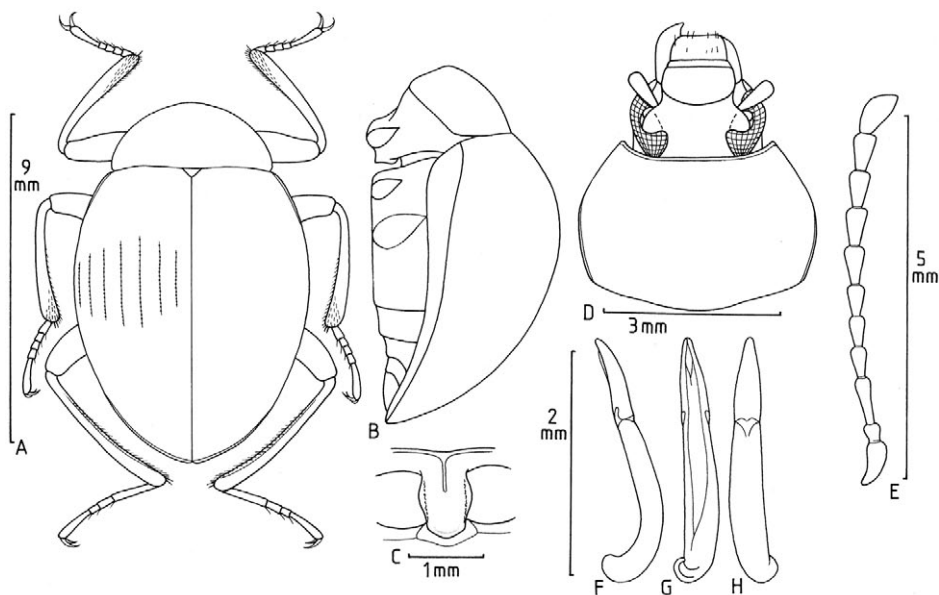


Fig. 9: *Amarygmus convictor* sp. n.: **A** Habitus, ♂; **B** Body, lateral view; **C** Prosternal apophysis; **D** Head and pronotum; **E** Antenna; **F** Aedeagus, lateral view; **G** Aedeagus, ventral view; **H** Aedeagus, dorsal view.

Legs. Relatively tender, but not long. Femora towards middle somewhat thickened. Tibiae anteriorly thickened. Protibiae basally slightly bent, thence anteriorly straight; mesotibiae slightly bent, their inner side with not very closely set bristles within apical half; metatibiae longer than mesotibiae, basally approximately straight over a long distance, thence slightly incurved, with not very closely set bristles on inner side in apical half. Lengths of protarsomeres 1-5 as 3:3:3:3:15; lengths of mesotarsomeres 1-5 as 6:5:4:4:15; lengths of metatarsomeres 1-4 as 21:6:4:5:15. Protarsomeres 1-3 in males not enlarged.

Etymology. Conveniens (Lat.) = linking up.

Amarygmus convictor sp. n.

(Fig. 9A-H)

Holotype: ♀, ZSMB: Papua New Guinea, Morobe Prov., ca 10 km S. of Garaina, Saureri, 1650-1800 m, 23.-27.III.1998, leg. A. RIEDEL.

Paratype: Same data as holotype (1 ♂ ZSMB) – N. Guinea: NE, S. Garaina, 900-1800 m, J. SEDLACEK Collector, BISHOP MUS. (1 ♀ BMH) – N. Guinea: NE, Garaina, 800 m, 16.I.1968, J. & M. SEDLACEK Collectors, BISHOP (1 ♀ BMH) – Same data as before, but 18.I.1968 (1 ♀ BMH).

Diagnosis. Relatively large. Oval. Moderately convex transversely and longitudinally. Frons of medium width. Prosternal apophysis with a sharp median keel between anterior margin and mid of apophysis; it is protruding posteriorly. Antennae of medium length. Elytra with barely incised striae with small, round punctures; intervals flat. Legs of medium length. Metatarsomere 4 nearly as long as metatarsomere 1. Especially characterized by the form of prosternal apophysis (see Fig. 9C).

I do not know another wingless species with a narrow, distinct, median keel in the anterior part of apophysis. Concerning body shape and punctuation of upperside somewhat similar to *A. laesus* sp. n., but the elytral intervals of *A. laesus* are more convex than those of *A. convictor*; antennae of *A. laesus* are shorter.

Description. Body length: 9.00-9.47 mm. Body width: 5.65-6.25 mm.

Ratios. Pronotum: width/length 1.63-1.67; width hind corners/width front corners 1.68-1.69. Elytra: length/width 1.20-1.28; length elytra/length pronotum 3.03-3.13; maximum width elytra/maximum width pronotum 1.45-1.55.

Colouration. Upperside dark brown to black, slightly lustrous. Underside black. Femora and tibiae black, tarsi dark brown. Antennomeres 1+2 dark brown, 3-11 black.

Head. Frons of medium width, approximately as wide as lengths of antennomeres 3+4 jointly. Genae short, terminating anteriorly behind the level of the middle part of fronto-clypeal suture; they are slightly lifted up. Fronto-clypeal suture arched, allusively incised. Clypeus stretched forwards, laterally bent downwards. Clypeus and frons covered with tiny, indistinct, relatively closely set punctures. Mentum reversely trapezoidal, with flat, lustrous lateral margins, space in between slightly opaque, convex transversely. Outer surface of mandibles with a longitudinal sulcus, apically bifid.

Pronotum. Not very wide. Markedly convex transversely, moderately convex longitudinally. Nearly of the same width within the hind half, but allusively rounded; in the middle the lateral margins are bent, within anterior 30 percent they are narrowing with straight margins. Hind corners angular, but markedly obtuse; front corners nearly rectangular; accentuated. Anterior margin excavated. Lateral margins narrowly bordered; border of anterior margin broader. Lateral borders in dorsal view narrowly visible in their whole length. Front and hind corners in lateral view angular, front ones rectangular, hind ones markedly obtuse. Surface with tiny, indistinct, relatively closely set punctures.

Scutellum. Widely triangular, impunctate.

Elytra. Slightly elongately oval. Convex transversely and longitudinally. Maximum of width and height near middle. Towards shoulders narrowing, but angle between lateral margins and base angular, obtuse. Apices of elytra mutually rounded. Lateral edges in dorsal view narrowly visible within anterior two third. With slightly striae with rather small punctures, their distances on disc in stria 4 equal about one to two times the diameter of a puncture; approximately 52 punctures in row 4. Intervals on disc and laterally slightly convex, impunctate.

Prosternum. Anterior margin narrowly bent upwards. At midlength a narrow, distinct keel is branching off the anterior margin and passing into prosternal apophysis towards the level where the posterior end of procoxae is terminating. Prosternal apophysis narrow, subparallel; along procoxae its lateral margins are lifted up, space in between with a median groove which is split up by the median keel into two lateral grooves; posterior to procoxae the apophysis is somewhat descending and protruding backwards on a lower level; the apex is somewhat lifted in the middle.

Mesosternum. Anterior part depressed to a much lower level, and hind part is vertically descending between hind and anterior part. Anterior margin of the short hind part somewhat excavated in the middle. Hind part with a shallow longitudinal sulcus on each side.

Metasternum. Short, distance between meso- and metacoxae narrower than longitudinal diameter of a mesocoxa. Anterior margin between mesocoxae rounded, bordered. Anterior apophysis with many tiny wrinkles which are directed towards centre. Disc with minute, spaciouly set punctures. Median line allusively incised.

Sternites. Anterior margin between metacoxae widely ogive, bordered. Sternites 1-3 with many tiny wrinkles which are arranged longitudinally. Sternites 4+5 only with tiny punctures.

Antennae. Of medium length, reaching over the first third of elytra. Length/width ratio of antennomeres 1-11 equals to 14:5½ / 7:5 / 15:4½ / 9:4½ / 9:5 / 9:5 / 11:6 / 11:6½ / 11:6½ / 11:6½ / 15:8.

Legs. Femora towards second third slightly thickened. Pro- and mesotibiae slightly bent; metatibiae nearly straight in basal 60 percent, slightly incurved in apical 40 percent. Lengths of protarsomeres 1-5 as 4:4:4:4:19; lengths of mesotarsomeres 1-5 as 6:5:5:4:20; lengths of metatarsomeres 1-4 as 34:7:6:21.

Etymology. Convictor (Lat.) = friend of the family.

Amarygmus globulus sp. n.

(Fig. 10A-E)

Holotype: ♀, ZSM: Westpapua, Prov. Manokwari, 6 km N Manokwari, Desa Pami, 160 m, 0°48'34''S-134°03'15''E, 9.III.2007, leg. A. WEIGEL, cut. area/sec. forest (holotype devoid of right hind leg).

Diagnosis. Of medium size. Wingless. Elytra very short, nearly hemisphaeric; with rows of small punctures; intervals flat, impunctate. Frons relatively wide. Prosternal apophysis short, terminating just behind procoxae. Antennae long. Legs long; metatarsomere 4 as long as metatarsomere 1. Upperside and legs (except tarsi) black. Prosternal apophysis only with a very shallow median groove.

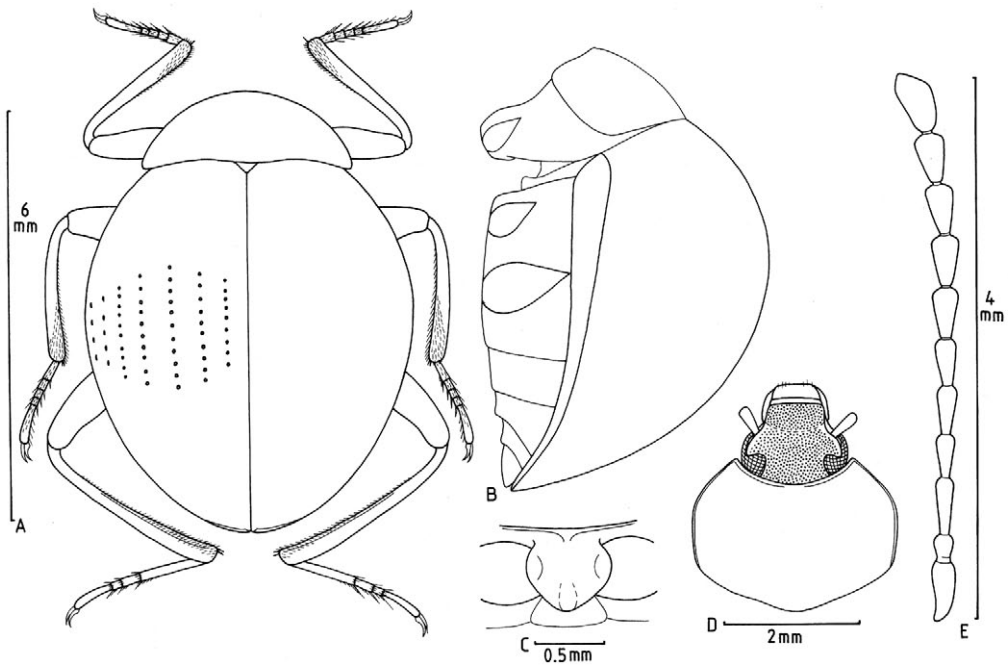


Fig. 10: *Amarygmus globulus* sp. n.: **A** Habitus, ♀; **B** Body, lateral view; **C** Prosternal apophysis; **D** Head and pronotum; **E** Antenna.

Belongs to a group of wingless species with very short, globose elytra and short prosternal apophysis like *A. sphaeroides* sp. n., *A. coniunctus* sp. n., *A. altivagus* sp. n., *A. altithronus* sp. n., *A. crassus* Bremer, 2004, and *A. gravidus* Bremer, 2004. The prosternal apophysis is barely grooved medianly which differentiates *A. globulus* from the other species mentioned.

Description. Body length: 5.97 mm. Body width: 4.38 mm.

Ratios. Pronotum: width/length 1.89; width hind corners/width front corners 1.80. Elytra: length/width 1.12; length elytra/length pronotum 3.26; maximum width elytra/maximum width pronotum 1.53.

Colouration. Upperside black except the brown scutellum, lustrous. Femora brown, tibiae black; tarsi brown. Antennomeres 1-6 dark brown, 7-11 black. Underside black.

Head. Frons and clypeus flat. Frons relatively wide, slightly narrower than the combined lengths of antennomeres 3+4 (like 36:39). Genae raised upwards, anteriorly terminating slightly in front of the level of the middle part of fronto-clypeal suture. Fronto-clypeal suture slightly incised. Clypeus stretched forwards. Clypeus and frons covered with small, distinct, closely set punctures. Mentum anteriorly widening, with somewhat bent lateral margins; lateral margins flat, lustrous, space in between opaque, convex transversely. Mandibles with a longitudinal sulcus on outer surface, apically bifid.

Pronotum. Convex transversely, slightly convex longitudinally. Widest at middle, barely contract to hind corners; clearly narrowing towards front corners with straight sides. Front corners projecting forwards, acute-angled, anterior margin broadly bordered, but this border is interrupted at midlength. Lateral borders in dorsal view very narrowly visible in their whole length. Front and hind corners in lateral view angular, front ones rectangular, hind ones obtuse in dorsal view. Punctures on surface are so tiny that they are barely visible at 50-fold magnification.

Scutellum. Small. Triangular, impunctate.

Elytra. Short. Markedly convex transversely and longitudinally. Maximum of width and height in the middle. Shoulders not accentuated. Apices of elytra mutually rounded. Lateral edges in dorsal view invisible. Elytra with rows of small punctures, their distances on disc in row 4 equal to 2- to 3-times the diameter of a puncture; about 30 punctures in row 4. Intervals flat, impunctate.

Prosternum. Anterior margin continuously and narrowly bent upwards; only very slightly retracted towards apophysis at midlength. Apophysis wide and short, just behind procoxae bent downwards; between procoxae with only a negligible median groove, surface with a few short, nearly recumbent hairs.

Mesosternum. Hind part very short, its anterior margin not excavated at midlength.

Metasternum. Very short; distance between meso- and metacoxae shorter than longitudinal diameter of a mesocoxa. Disc covered with medium-sized, not too closely set punctures and with very short, semi-erect hairs. Median line slightly incised.

Sternites. Anterior margin between metacoxae widely ogive, bordered. A few small punctures behind anterior margin at midlength, otherwise sternites 1-4 impunctate; sternite 5 with a few recumbent hairs of medium length.

Antennae. Reaching over elytra to the middle. Length/width ratio of antennomeres 1-11 equals to 19:9 / 9:7 / 23:7 / 16:6½ / 18:6 / 17:6 / 20:8 / 21:9 / 19:9 / 19:9 / 24:11.

Legs. Relatively long. Femora moderately club-like widened towards second third. Protibiae straight; mesotibiae very slightly bent; metatibiae straight in the basal half, thence slightly incurved. Lengths of protarsomeres 1-5 as 8:8:6:5:27; lengths of mesotarsomeres 1-5 as 13:9:7:7:28; lengths of metatarsomeres 1-4 as 35:13:6:24.

Etymology. Globulus (Lat.) = diminution of globus = ball, sphere.

Amarygmus intricatus sp. n.

(Fig. 11A-H)

Holotype: ♂, ZSMB: Papua New Guinea, Morobe Prov., ca. 10 km S. Garaina, Saureri, 1550-1800 m, 23.-27.III.1998, leg. A. RIEDEL.

Paratypes: Same data as holotype (1 ♀ ZSMB) – New Guinea: NE, S. Garaina, 900-1800 m, 8.-14.I.1968, J. SEDLACEK Collector, BISHOP MUS (1 ♂ BMH) - New Guinea: NE, Wau, 1700 m, 8.8.1968, J. & M. SEDLACEK Collectors, BISHOP (1 ♀ BMH).

Diagnosis. Of medium length; wingless; oval; markedly convex. Legs rather long. Frons of medium width. Pronotum relatively narrow and lustrous. Elytra with rows of small, closely set punctures which are linked by very faint lines, with flat intervals. Prosternal apophysis protruding posteriorly, its surface is smooth. Antennae relatively long, but in females shorter than in males. Metatarsomere 1 longer than metatarsomere 4.

Related to *A. conveniens* sp. n., from which our species can be distinguished by the narrower pronotum. *A. oreas* Bremer, 2004 from the Highlands of Irian Jaya is also resembling *A. intricatus*; however, *A. oreas* presents an opaque pronotum, moreover, the punctures of the elytral rows are larger than those of *A. intricatus*.

The likewise large *A. absconditus* Bremer, 2004 is also known from the Highlands of Irian Jaya; it also presents a lustrous, narrow and long pronotum as *A. intricatus* does; but also *A. absconditus* presents rows with larger elytral punctures than *A. intricatus*, and this species is winged and has not a shortened metasternum.

Description. Body length: 7.88-8.36 mm. Body width: 4.70-5.25 mm.

Ratios. Pronotum: width/length 1.52-1.64; width hind corners/width front corners 1.60-1.71. Elytra: length/width 1.15-1.25; length elytra/length pronotum 2.72-2.86; maximum width elytra/maximum width pronotum 1.44-1.50.

Colouration. Upperside black, with a slightly brownish shimmer, lustrous. Legs and antennae black. Underside dark brown to black, lustrous.

Head. Frons of medium width; in males as wide as the lengths of antennomeres 3+4 jointly (like 23:21), flat. Lateral margins of genae moderately lifted upwards. The fronto-clypeal suture is allusively incised in the middle and somewhat impressed. Clypeus stretched forwards; slightly convex transversely and longitudinally. Clypeus and frons covered with minute, indistinct punctures. Mentum reversely trapezoidal, its middle part only slightly convex transversely. Underside of neck only spaciouly punctured. Outer surface of mandibles with a longitudinal sulcus, apically bifid.

Pronotum. Not very wide, strongly convex transversely, also distinctly convex longitudinally. Lateral margins moderately bent, behind front corners slightly concave; hind corners obtuse. Anterior margin excavated. Front corners rectangular (not protruding). Lateral and anterior margins continuously bordered.

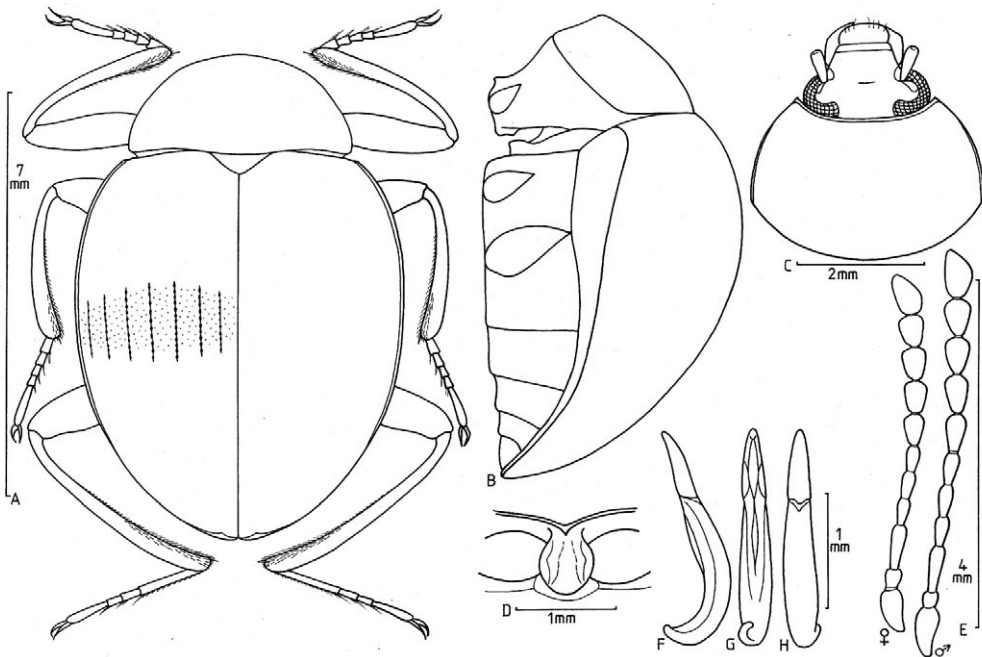


Fig. 11: *Amarygmus intricatus* sp. n.: **A** Habitus, ♂?; **B** Body, lateral view; **C** Head and pronotum; **D** Prosternal apophysis; **E** Antennae, ♀? and ♂; **F** Aedeagus, lateral view; **G** Aedeagus, ventral view; **H** Aedeagus, dorsal view.

Lateral margins in dorsal view narrowly visible within the hind $\frac{3}{4}$. Front corners in lateral view rectangular, the angular hind corners obtuse. Surface with minute, indistinct, mostly closely and irregularly set punctures.

Scutellum. Triangular, impunctate.

Elytra. Oval, strongly convex transversely, distinctly convex longitudinally. Maximum of width and height at the end of first third. Shoulders not accentuated. Apices of each elytron slightly retracted towards median suture. Lateral edges in dorsal view visible in the anterior part of elytra and at apex. Surface with striae with small, rather closely set and slightly impressed punctures which are linked by faint lines; in stria 4 approximately 44 punctures. Intervals flat, with tiny, indistinct, rather closely set punctures.

Prosternum. Anterior margin continuously and narrowly bent upwards, at in the middle slightly retracted towards apophysis and with a narrow, short keel projecting into apophysis. Apophysis not very wide; the lateral margins along procoxae are broadened and lifted up; there with a rather wide, not very deep, median groove; the apophysis is horizontally protruding posteriorly, and with a half-oval shape, moreover, postero-medially with a somewhat lifted tip; surface of apophysis smooth, slightly microreticulated; with a few tender hairs of medium length.

Mesosternum. Hind part short; its anterior margin with a wide, median excavation and with a few projecting hairs of medium length.

Metasternum. Short. Distance between meso- and metacoxae shorter than longitudinal diameter of a mesocoxa. Anterior margin between mesocoxae rounded, broadly bordered; within the rim of the inner side of border with large punctures. Disc with minute, sparsely set punctures and a median line which is incised in its full length.

Sternites. Anterior margin between metacoxae ogive, only laterally bordered. Sternites 1+2 distinctly wrinkled, microreticulated, with a few minute punctures. Hind sternites not microreticulated, with a few tiny punctures.

Antennae. Of medium length, reaching not fully to the middle of elytra in males; shorter in females. Length/width ratio of antennomeres 1-11 in a male equals to 13:6 / 5½:4½ / 13:4 / 8:4 / 9:4 / 8:4 / 11:5½ / 11:6 / 11:6 / 11:6 / 14:6, in a female to 13:6 / 5½:4½ / 13:4 / 8:4 / 8:4 / 8:4 / 9½:5½ / 9½:6 / 9½:6 / 9½:6 / 12:6.

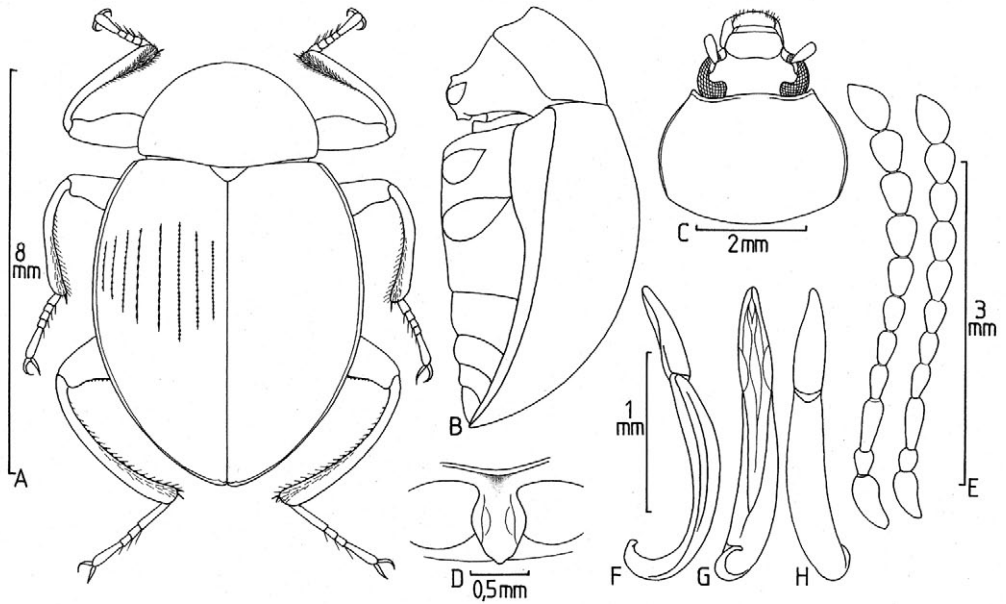


Fig. 12: *Amarygmus laesus* sp. n.: **A** Habitus, ♂; **B** Body, lateral view; **C** Head and pronotum; **D** Prosternal apophysis; **E** Antennae, ♂ and ♀; **F** Aedeagus, lateral view; **G** Aedeagus, ventral view; **H** Aedeagus, dorsal view.

Legs. Rather long, tender. Femora somewhat club-like thickened. Tibiae anteriorly slightly thickened; protibiae somewhat bent, with short, obliquely projecting bristles within apical half on inner side. Mesotibiae similar to protibiae. Metatibiae straight within basal 60 percent, thence apically slightly incurved; with short, obliquely projecting bristles on inner side within apical 70 percent. Metatarsomeres rather thin. Lengths of protarsomeres 1-5 as 3:3:3:3:16; lengths of mesotarsomeres 1-5 as 6:5:4½:4½:16; lengths of metatarsomeres 1-4 as 21:7:5:16. Protarsomeres 1-3 not enlarged in males.

Etymology. Intrigo, intricavi, intricatum (Lat.) = confuse.

***Amarygmus laesus* sp. n.**

(Fig. 12A-H)

Holotypus: ♀, BMNH: Papua: Mt. Tafa, 8,500 ft., III.1934, L. E. CHEESMAN, B.M.1934-244 [Mt. Tafa: 8°38'S-147°07'E].

Paratypes: dito (3 ♀ BMNH, 1 ♀ ZSMB, 1 ♂ BMNH) (most of the paratypes more or less damaged).

Diagnosis. Of medium length. Wingless. Elytra with somewhat impressed striae which incorporate small, closely set punctures; intervals slightly convex. Pronotum laterally rounded, with acutely projecting front corners. Prosternal apophysis oval, somewhat protruding posteriorly. Antennae short, in males slightly longer than in females. Frons of medium width. Metatarsomere 1 shorter than metatarsomere 4.

The oval shape of prosternum points to a relationship with *A. validus* sp. n.; this species also occurs in the Southeast of New Guinea. *A. validus* is larger, presents also a laterally bent pronotum; its surface however is covered with small, closely set punctures (in *A. laesus* covered with minute and sparsely set punctures); the punctuation of elytral striae and the slightly convex intervals are present in both species, but elytra in *A. validus* are opaque, in *A. laesus* lustrous, and elytral intervals in *A. validus* are closely covered with minute punctures, in *A. laesus* they are nearly impunctate; the maxima of height and width of elytra of *A. laesus* is anterior to those of *A. validus*.

Description. Body length: 8.67-8.91 mm. Body width: 5.33-5.49.

Ratios. Pronotum: width/length 1.39-1.48; width hind corners/width front corners 1.53-1.65. Elytra: length/width 1.28-1.29; length elytra/length pronotum 2.61-2.92; maximum width elytra/maximum width pronotum 1.39-1.47.

Colouration. Upperside dark coppery, lustrous (pronotum somewhat darker than elytra). Underside and legs dark brown, less lustrous; tarsi brown. Antennomeres 1-4 brown, 5-11 increasingly black.

Head. Frons of medium width, wider than lengths of antennomeres 3+4 jointly (like 28:24). Lateral margins of genae somewhat lifted upwards, anteriorly terminating approximately at the level of the middle part of fronto-clypeal suture. Fronto-clypeal suture arched, distinctly impressed. Clypeus stretched forwards, convex transversely and longitudinally, its lateral margins moderately converge anteriorly. Clypeus and frons microreticulated, closely covered with small punctures. Mentum very wide, reversely trapezoidal; with broad, flat, lustrous lateral margins; space in between only slightly convex. Outer surface of mandibles with a longitudinal sulcus, apically bifid. Pronotum. Relatively narrow and rather elongate. Markedly convex transversely, convex longitudinally. Lateral margins rounded and also narrowing posteriorly, this induces an obtuse angle between lateral margins of pronotum and elytra; maximum of width approximately in the middle. Front corners are projecting, and they are acute-angled; the lateral margins are mostly slightly concave posterior to front corners. Anterior margin distinctly excavated. Lateral margins narrowly and continuously bordered; border of the anterior margin mostly evanescent in the middle, in some specimens continuously bordered. Lateral borders very narrowly visible in dorsal view. Front corners in lateral view slightly acute-angled, hind corners rounded and obtuse. Surface with very minute and sparsely set punctures.

Scutellum. Triangular, impunctate.

Elytra. Ovate; markedly convex transversely and longitudinally. Maximum of width and height at the beginning of second third; towards shoulders retracted. Shoulders not recognizable. Apices of elytra slightly retracted towards median suture. Lateral edges in dorsal view narrowly visible in the anterior half. With somewhat impressed striae with small, closely set, round to slightly elongate punctures which are well visible towards the apex; approximately 42 punctures in row 4. Intervals somewhat convex, allusively chagreened, barely punctured.

Prosternum. Anterior margin continuously bent upwards. Apophysis ovate, not very wide; along procoxae somewhat widened and lateral margins lifted upwards; space in between with a not very deep, median groove; posterior to procoxae somewhat descending.

Mesosternum. Hind part short, its anterior margin weakly excavated in the middle; the lateral margins of this excavation bulging. Posterior to excavation somewhat lifted.

Metasternum. Short; distance between mesocoxa and metacoxa shorter than longitudinal diameter of a mesocoxa. Anterior margin between mesocoxae rounded and broadly bordered. Anterior margin behind mesocoxae distinctly punctured. Disc with minute, sparsely set punctures and without hairs in males. Median line narrowly incised towards anterior apophysis.

Sternites. Anterior margin between metacoxae broadly ogive; very faintly and inconspicuously bordered. Anterior margins behind metacoxae with punctures. Sternites 1 and 2 with faint wrinkles and with sparsely set, indistinct, tiny punctures. Sternite 5 weakly impressed in the male postero-laterally.

Antennae. Short. Length/width ratio of antennomeres 1-11 in a male equals to 15:7 / 7½:5½ / 15:5 / 9:5 / 9:5 / 9:5½ / 11:6 / 11:7 / 11:7½ / 11:7½ / 16:8, in the female to 12:7 / 6½:4½ / 13:5 / 8:5 / 8:5 / 8:5 / 10:6 / 10:6½ / 10:7 / 10:7 / 14:8.

Legs. Long. Femora surpass distinctly lateral margins of body. Mesofemora towards middle slightly club-like thickened, pro- and metafemora somewhat more thickened. Protibiae moderately bent in basal half, straight in apical half. Mesotibiae markedly bent basally, nearly straight within the apical two-third. Metatibiae moderately bent, especially within basal parts. Protarsomeres in the male not enlarged. Lengths of protarsomeres 1-5 as 4:4:4:4:16; lengths of mesotarsomeres 1-5 as 5:5:5:5:17; lengths of metatarsomeres 1-4 as 19:7:6:21.

Etymology. Laesus (Lat.) = damaged (most specimens of the type series are damaged).

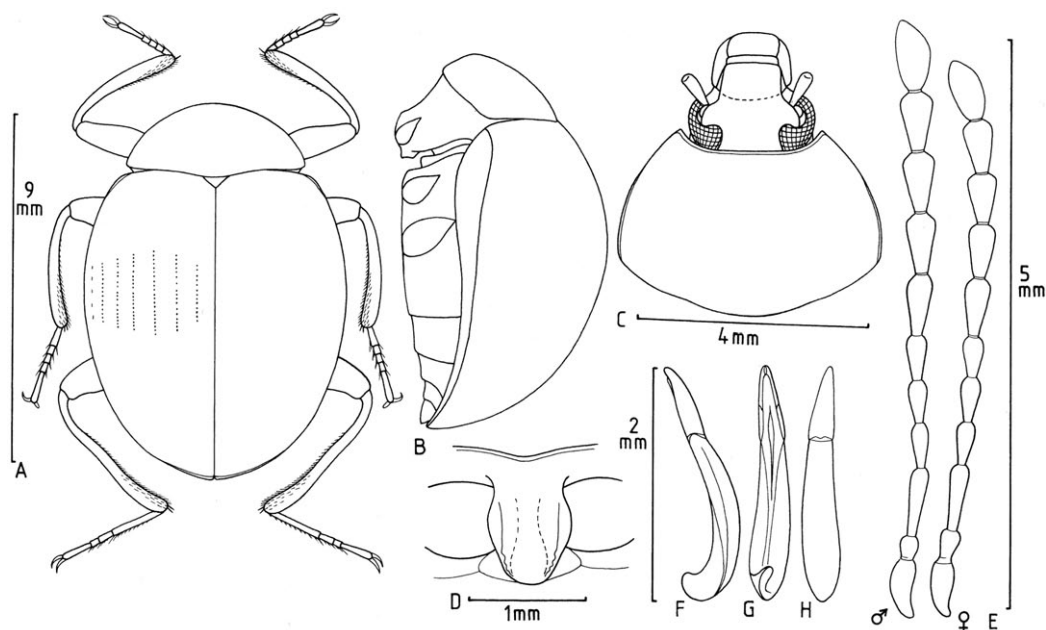


Fig. 13: *Amarygmus nigratus* sp. n.: **A** Habitus, ♂; **B** Body, lateral view; **C** Head and pronotum; **D** Prosternal apophysis; **E** Antennae, ♂ and ♀; **F** Aedeagus, lateral view; **G** Aedeagus, ventral view; **H** Aedeagus, dorsal view.

***Amarygmus nigratus* sp. n.**

(Fig. 13A-H)

Holotype: ♂, BMH: N. Guinea: NE, U. Watut S.W. [Watut R., upper, 24 km W. Bulolo, 7°11'S-143°39'E], 1100-1600 m, 30.IV.1968, J. L. GRESSITT Collector.

Paratypes: Same data as holotype (1 ♀ BMH) - N. Guinea: NE, U. Watut SW, 1300-1600 m, 1.V.1963, J. L. GRESSITT Collector (1 ♂ ZSMB).

Diagnosis. Of medium size. Wingless. Elytra wide, short, markedly convex; with rows of small punctures, intervals flat, with barely visible, tiny punctures. Frons of medium width, in females as wide as in males. Prosternal apophysis protruding posteriorly. Antennae of medium length, of the same length in both sexes. Legs of medium length, upperside black, moderately lustrous. Femora and tibiae black, tarsi dark brown. Protarsomeres 1-3 not enlarged in males. Metatarsomere 1 longer than metatarsomere 4.

Similar to *A. ambiguus* sp. n. which also may present elytral rows of small punctures (but sometimes also presents faint lines between these punctures), but elytral intervals less punctured than in *A. nigratus*, and prosternal apophysis along procoxae with a less deep median groove; antennae longer.

Description. Body length: 8.23-9.08 mm. Body width: 5.65-6.29 mm.

Ratios. Pronotum: width/length 1.60-1.63; width hind corners/width front corners 1.78-1.82. Elytra: length/width 1.21-1.23; length elytra/length pronotum 2.93-3.00; maximum width elytra/maximum width pronotum 1.48-1.52.

Colouration: Upperside, legs, see "Diagnosis". Underside dark brown, lustrous.

Head. Upperside flat. Frons of medium width, punctures on frons tiny and so indistinct that frons looks like impunctate; width slightly narrower than lengths of antennomeres 3+4 jointly (like 22:24). Genae short, anteriorly terminating posterior to the level of the middle part of fronto-clypeal suture; they are raised upwards. Fronto-clypeal suture barely incised. Clypeus stretched forwards, only its lateral margins bent downwards; with minute, indistinct, sparsely set punctures. Mentum reversely trapezoidal, with broad, flat lateral margins, space in between slightly convex transversely. Outer side of mandibles with a longitudinal sulcus, apically bifid.

Pronotum. Relatively long. Convex transversely and longitudinally. Widest at base, anteriorly narrowing. In dorsal view hind corners widely rounded; front corners slightly acute-angled, pointed. Anterior half of sides straight or very slightly concave. Anterior margin excavated. Lateral and anterior margins continuously bordered. Lateral borders in dorsal view very narrowly visible in hind half, invisible in front half. Front corners in lateral view rectangular, hind corners widely rounded, obtuse. Surface with very indistinct, minute, closely set punctures.

Scutellum. Triangular, impunctate.

Elytra. Short; markedly convex transversely and longitudinally. Maximum of width and height at the beginning of second third of elytra. Lateral margins converging towards shoulders, slightly concave, shoulders angular, obtuse. Apices of elytra mutually rounded. Lateral edges in dorsal view narrowly visible in hind third. With rows of small, relatively closely, but irregularly set punctures, distances between punctures on disc in row 4 about 1- to 2-times diameter of a puncture; approximately 40 punctures in row 4. Intervals everywhere flat, with tiny punctures which are so indistinct that they look alike impunctate.

Prosternum. Anterior margin continuously bent upwards, at midlength not retracted towards apophysis. Apophysis of medium width, behind procoxae protruding backwards and very slightly descending; lateral parts of apophysis microgranulated, median bottom smooth; along procoxae slightly widened and lateral margins slightly raised upwards; median space in between with a wide, shallow groove which is transversely slightly vaulted, lateral margins posterior to procoxae slightly narrowing; apex widely rounded; median part behind procoxae with a smooth surface.

Mesosternum. Hind part short, with a short longitudinal sulcus on each side; its anterior margin widely, shallowly excavated at midlength.

Metasternum. Short, distance between meso- and metacoxae shorter than longitudinal diameter of a mesocoxa. Anterior margin rounded, bordered. Disc impunctate, with tiny hairs. Median line allusively incised.

Sternites. Anterior margin ogive, bordered. Disc of sternite 1 with tiny hairs; all sternites impunctate.

Antennae. Of medium length, reaching over 40 percent of elytra. Length/width ratio of antennomeres 1-11 equals to 17:6 / 5½:4½ / 15:4½ / 9:4½ / 10:4½ / 10½:5 / 12:5½ / 13:6 / 13:6½ / 12:6½ / 16:6½.

Legs. Of medium length. Femora moderately thickened towards second third and thence gradually thinned towards apex. Protibiae nearly straight and anteriorly slightly thickened. Mesotibiae basally slightly bent and straight within apical half, slightly thickened anteriorly; with bristles of medium length within apical half, not too closely set. Metatibiae relatively long, straight in basal half and allusively concave on outer side; thence slightly incurved apically; with bristles of medium length within apical half, not too closely set. Lengths of protarsomeres 1-5 as 5:5:5:5:19; lengths of mesotarsomeres 1-5 as 9:7:6:5:19; lengths of metatarsomeres 1-4 as 25:9:6:20.

Etymology. Nigritus (Lat.) = blackish.

Amarygmus seorsus sp. n.

(Fig. 14A-H)

Holotype: ♂, BMH: N. Guinea: NE, Kuper Ra., 100-700 m, 24.I.1969, J. SEDLACEK Collector, BISHOP.

Paratypes: N. Guinea: NE, Garaina, 800 m, 16.I.1968, J. SEDLACEK Collector (1 ♀ BMH) – New Guinea, Morobe Dist., Mt. Misim, STEVENS (1 sex not determined MCZ).

Diagnosis. Wingless. Of medium size, elytra short and markedly convex. Frons of medium width. Antennae very long, in males longer than in females. Elytra with rows of large punctures which are distinctly impressed; elytral intervals convex. Front corners pointed. Prosternal apophysis short, slightly protruding posteriorly. The brown legs are contrasting with the black colour of upperside of body.

Related to two wingless species from the Western Highlands of New Guinea (Irian Jaya), *A. crassus* BREMER, 2004 (p.29) and *A. gravidus* BREMER, 2004 (p.32) which have a similar shape, very long antennae and a posteriorly barely projecting prosternal apophysis. Both species however display markedly smaller punctures in the elytral rows than *A. seorsus*, moreover, in both species the front corners of pronotum are not pointed as in *A. seorsus*.

Concerning body shape, punctures of the elytral rows and size also similar to *A. montisellae* sp. n.. This species is winged, its antennae are distinctly shorter than those of *A. seorsus*, moreover, the colour of femora and tibiae is black.

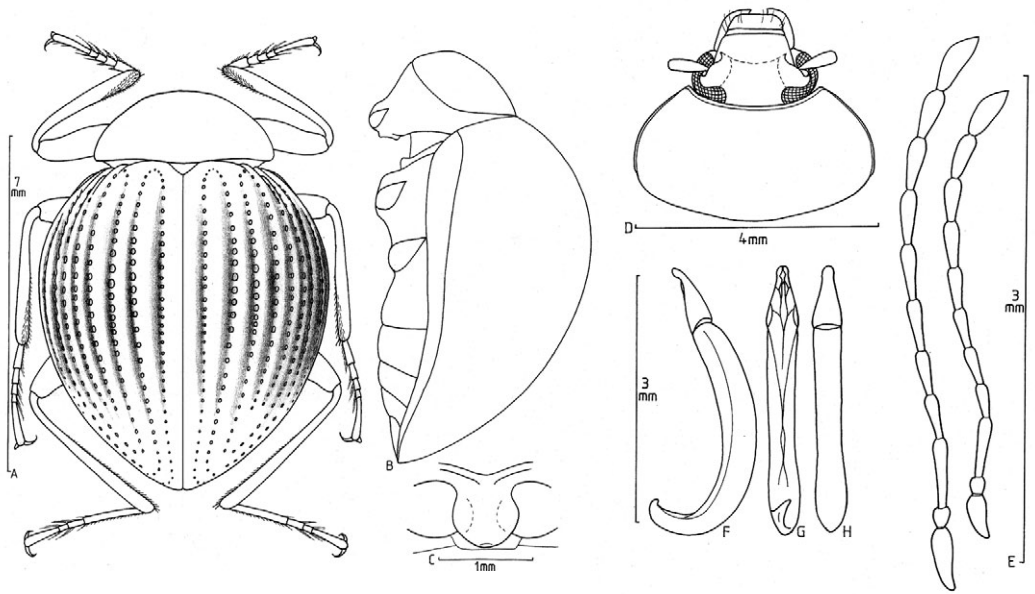


Fig. 14: *Amarygmus seorsus* sp. n.: **A** Habitus, ♂; **B** Body, lateral view; **C** Head and prothorax; **D** Prosternal apophysis; **E** Antennae, on left side ♂, on right side ♀; **F** Aedeagus, lateral view; **G** Aedeagus, ventral view; **H** Aedeagus, dorsal view.

Description. Body length: 7.40-8.13 mm. Body width: 5.37-5.73 mm.

Ratios. Pronotum: width/length 1.86-1.90; width hind corners/width front corners 1.70-1.81. Elytra: length/width 1.16-1.22; length elytra/length pronotum 3.25-3.47; maximum width elytra/maximum width pronotum 1.40-1.48.

Colouration. Pronotum and elytra black, markedly lustrous; antennae reddish brown; legs brown. Underside black, lustrous, distinctly contrasting with the brown femora; tarsi light-brown. Mentum and palpes light-brown.

Head. Upperside of head rather flat, lateral margins of clypeus only slightly bent downwards. Frons of medium width, wider than the length of antennomere 3 (like 26-27:22). Genae short, their lateral margins somewhat convex. Fronto-clypeal suture weakly incised in the middle. Clypeus stretched forwards, with minute, indistinct punctures. Mentum anteriorly widened, with flat, somewhat bent lateral margins; space between lateral margins slightly convex transversely. Mandibles on outer side with a longitudinal sulcus, apically bifid.

Pronotum. Wide; relatively short. Uniformly but not strongly convex transversely, slightly convex longitudinally. Lateral margins uniformly bent, maximum of width shortly behind middle, towards hind corners slightly converging with allusively rounded hind corners; front corners pointed in view from the front. Anterior margin excavated. Lateral and anterior margins continuously bordered. Lateral borders in dorsal view narrowly visible in their whole length. Front corners in lateral view rectangular, hind corners obtuse. Surface with indistinct, minute, not very closely set punctures.

Scutellum. Wide, shortly triangular.

Elytra. Short; in the hind half slightly oval. Markedly convex transversely and longitudinally. Maximum of width and height at the end of first quarter. Shoulders not apparent. Apices of elytra slightly protruding backwards. Lateral edges in dorsal view very narrowly visible in the anterior two third. With rows of large, markedly impressed punctures which inconstantly are connected by faint lines in rows two and three; the punctures of the rows are also present in the apical part of elytra, but do not touch the elytral base; approximately 18 punctures in row 4. Intervals distinctly convex, impunctate.

Prosternum. Anterior margin continuously and narrowly bent upwards, at midlength somewhat retracted and with a short keel towards apophysis. Apophysis short, rather wide, only slightly protruding posteriorly,

apically broadly rounded; along procoxae somewhat widened, and their broad lateral margins are only slightly lifted; the median space in between with a rather wide, shallow groove; surface of apophysis smooth.

Mesosternum. Anterior margin of hind part only slightly excavated in the middle; the wide centre smooth and somewhat lifted towards its lateral margins.

Metasternum. Very short; distance between meso- and metacoxae distinctly shorter than longitudinal length of a mesocoxa. Anterior margin between mesocoxae rounded, broadly bordered. Between anterior margin and mid of disc distinctly impressed, with oblique wrinkles which are directed towards the mid of disc; median line slightly impressed in the hind half. Disc with tiny, sparse punctures.

Sternites. Anterior margin between metacoxae widely ogive, anteriorly not bordered. Sternites impunctate, lustrous.

Antennae. Long, tender; reaching to the hind third of elytra. Antennomere 11 apically pointed. Length/width ratio of antennomeres 1-11 equals in the male to 13:6 / 6:4 / 22:4 / 12:4 / 14:4 / 13:4 / 16:4½ / 16:5 / 16:5½ / 15:5½ / 19:5½, in the female to 13:6 / 5½:4 / 19:4 / 10:4 / 12:4 / 11:4 / 13½:4½ / 14:4½ / 14:5 / 13:5 / 17:5.

Legs. Long. Femora surpass laterally distinctly the margins of pronotum and elytra. Femora somewhat club-like thickened towards middle. Tibiae rather thin; protibiae approximately straight, apically with short, closely set, slightly projecting hairs on inner side; mesotibiae slightly concave on outer side, slightly thickened within apical half; metatibiae approximately straight within basal three quarter, slightly incurved within apical quarter, with oblique bristles within apical half on inner side. Protarsomeres 1-3 slightly enlarged in males. Lengths of protarsomeres 1-5 as 8:6:4:4:20; lengths of mesotarsomeres 1-5 as 11:7:6:4:21; lengths of metatarsomeres 1-4 as 24:9:5:22. Soles of pro- and mesotarsomeres 3 and 4 as well of metatarsomeres 3 with strikingly long, anteriorly directed hairs.

Etymology. Seorsus (Lat.) = separated from others.

Amarygmus sphaeroides sp. n.

(Fig. 15A-H)

Holotype: ♂, MZB: W.-Papua, Jayapura, Sentani, Gn. Cyclops, 1095 m, sample 10, sifted, 02°31'60.3''S-140°30'43.4''E, 28.XI.2007, A. RIEDEL leg.

Diagnosis. Small; short; elytra markedly convex transversely and longitudinally. Elytra with somewhat incised striae with medium-sized, slightly impressed punctures; intervals on disc allusively, postero-laterally clearly convex. Frons of medium width. Prosternal apophysis short, descending just behind procoxae. Antennae long. Legs of medium length. Upperside brown, lustrous, pronotum somewhat darker than elytra. Legs, antennae brown. Metatarsomere 1 longer than metatarsomere 4. Protarsomeres 1-3 not enlarged in males.

Concerning size and striae on elytra I currently do not know any other wingless species which may be confounded with *A. sphaeroides*.

Description. Body length: 4.55 mm. Body width: 3.58 mm.

Ratios. Pronotum: width/length 1.94; width hind corners/width front corners 1.81. Elytra: length/width 1.04; length elytra/length pronotum 2.82; maximum width elytra/maximum width pronotum 1.39.

Colouration. See "Diagnosis".

Head. Frons and clypeus nearly flat and covered with tiny, indistinct, not very closely set punctures. Frons of medium width; wider than length of antennomere 3 (like 25:20). Genae slightly raised, anteriorly terminating approximately at the level of the middle part of fronto-clypeal suture. Fronto-clypeal suture distinctly incised in its medium part. Clypeus stretched forwards. Mentum reversely trapezoidal, in its anterior part the sides are slightly rounded, lateral margins flat, lustrous; space in between more opaque, moderately convex transversely. Mandibles with a longitudinal sulcus on outer surface, apically bifid.

Pronotum. Wide. Convex transversely, slightly convex longitudinally. Widest slightly behind middle, towards base only slightly converging, towards front corners converging with allusively concave margins. Hind corners in dorsal view angular, very obtuse; front corners somewhat projecting forwards, acute-angled. Anterior margin markedly excavated. Lateral and anterior margins bordered. Lateral borders in dorsal view narrowly visible in their whole length. Front and hind corners in lateral view angular, front ones rectangular, hind ones obtuse. Surface with tiny, indistinct, not too closely set punctures.

Scutellum. Triangular; impunctate.

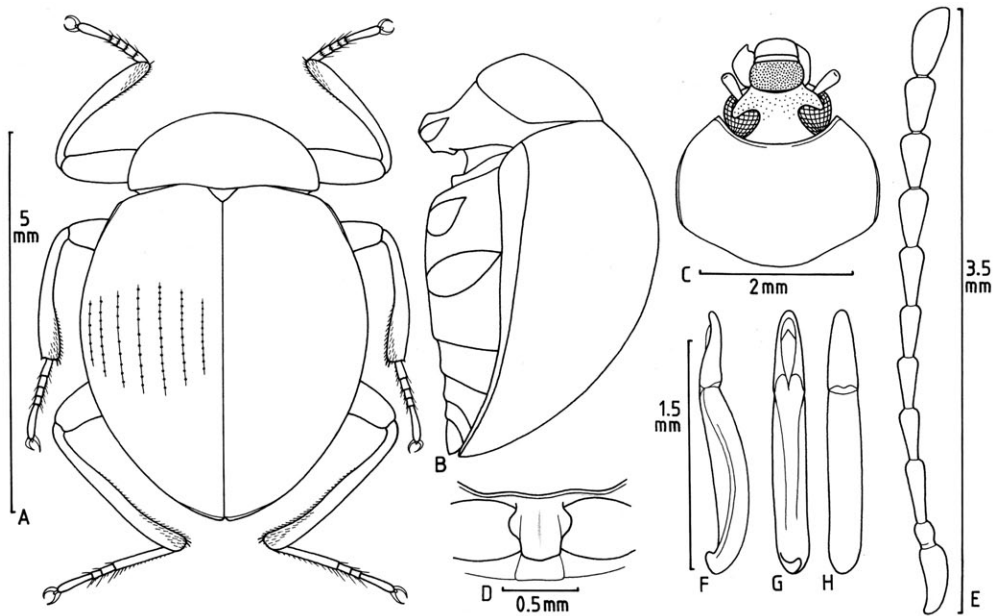


Fig. 15: *Amarygmus sphaeroides* sp. n.: **A** Habitus, ♂; **B** Body, lateral view; **C** Head and pronotum; **D** Prosternal apophysis; **E** Antenna; **F** Aedeagus, lateral view; **G** Aedeagus, ventral view; **H** Aedeagus, dorsal view.

Elytra. Nearly spherical; markedly convex transversely and longitudinally. Maximum of width and height at the beginning of second third. Lateral margins converge to base straightly, the shoulder angle angular, slightly obtuse. Apices of elytra mutually rounded. Lateral edges in dorsal view only narrowly visible near shoulders. Elytra with slightly incised striae with medium-sized, slightly impressed punctures; distances between punctures on disc in stria 4 equals approximately to 2- to 4-times the diameter of a puncture; about 26 punctures in row 4. Intervals allusively convex on disc, clearly convex laterally; impunctate.

Prosternum. Anterior margin continuously and narrowly bent upwards, not retracted towards apophysis at midlength. Apophysis descending just behind procoxae, apex nearly straight; lateral margins along procoxae widened and lifted ventrad, space in between with a wide median groove; bottom of apophysis lustrous, with a few short, recumbent hairs.

Mesosternum. Hind part short, with a smooth surface, its anterior margin very slightly excavated in the middle.

Metasternum. Short; distance between meso- and metacoxae distinctly shorter than longitudinal diameter of a mesocoxa. Anterior margin between mesocoxae rounded, bordered. Disc covered with large, closely set punctures; some of them are the origion of very small, recumbent hairs. Median line slightly incised.

Sternites. Anterior margin between metacoxae ogive, bordered. Sternites with tiny, spaciouly set punctures and short, recumbent hairs.

Antennae. Long; reaching somewhat beyond middle of elytra. Length/width ratio of antennomeres 1-11 equals to 19:8 / 9:7 / 20:6 / 16:6 / 17:6½ / 17:6½ / 18½:7½ / 19:8½ / 18:9 / 17:9 / 22:9.

Legs. Of medium length. Femora club-like thickened towards second third. Protibiae slightly bent, with an area of recumbent to semi-erect, closely set hairs of medium length on inner side within apical 40 percent (certainly only in males). Mesotibiae somewhat more bent than protibiae, with an area of recumbent to semi-erect, closely set hairs of medium length on inner side within apical 40 percent (certainly only in males). Metatibiae straight within basal half, thence clearly incurved. Lengths of protarsomeres 1-5 as 6:5:4:4:22; lengths of mesotarsomeres 1-5 as 10:8:6:6:21; lengths of metatarsomeres 1-4 as 33:11:5:22.

Etymology. Sphaeroides (Greek.) = spherical.

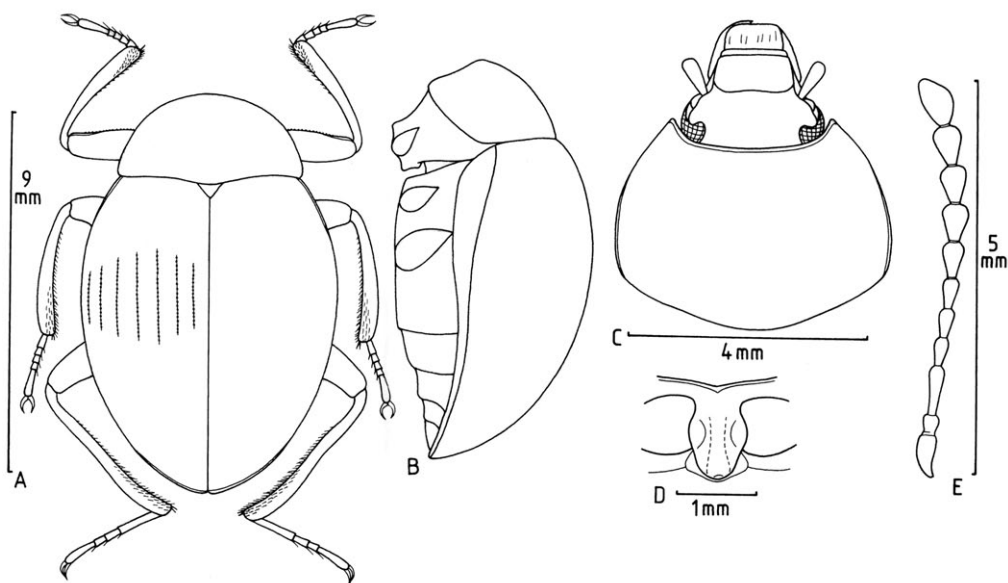


Fig. 16: *Amarygmus strenuus* sp. n.: **A** Habitus, ♀; **B** Body, lateral view; **C** Head and prothorax; **D** Prosternal apophysis; **E** Antenna.

***Amarygmus strenuus* sp. n.**

(Fig. 16A-E)

Holotype: ♀, ZSM: Papua New Guinea, Morobe Prov., Range between Aseki-Menyamya [Menyamya: 7°10'S-146°00'E], 2000-2200 m, 13.IV.1998, A. RIEDEL.

Paratypes: Same data as holotype (2 ♀ ZSM),

Diagnosis. Wingless. Large. With wide, rounded, highly convex elytra which are distinctly wider than pronotum, without recognizable shoulders. Elytra with slightly incised striae with small, distinct punctures. Pronotum relatively narrow and long, with acute-angled, projecting front corners. Frons very wide. Prosternal apophysis is protruding posteriorly. Antennae of medium length. Legs of medium length, tender; on the front side of profemora with tiny tubercles. Metatarsomere 1 somewhat longer than metatarsomere 4.

Very near to *A. accretus* sp. n.; concerning delimitation of both species, see *A. accretus*. Tubercles on femora in males are found in *A. athleticus* sp. n., but in *A. athleticus* they are on the back side of metafemora and not on the front side of profemora as in *A. strenuus*.

Description: Body length 8.99-9.16 mm. Body width: 5.81-6.10 mm.

Ratios. Pronotum: width/length 1.58-1.65; width hind corners/width front corners 1.65-1.74. Elytra: length/width 1.16-1.23; length elytra/length pronotum 2.64-3.00; maximum length elytra/maximum length pronotum 1.44-1.47.

Colouration. Upperside black, with a slight golden tinge; moderately lustrous. Upperside of head black, opaque. Underside black. Legs black. Antennomeres 1+2 brown, 3-11 black. Anterior part of mesosternum brown.

Head. Frons very wide; wider than the lengths of antennomeres 3+4+5 jointly (like 34:31). Lateral margin of genae slightly raised upwards, anteriorly terminating at the level of the middle part of fronto-clypeal suture. Fronto-clypeal suture arched, very slightly incised. Clypeus stretched forwards, slightly convex transversely. Clypeus and frons covered with minute, closely set, indistinct punctures. Mentum reversely trapezoidal; its lateral margins flat, lustrous; space in between opaque, convex transversely. Underside of neck with indistinct, transverse wrinkles and some short hairs. Outer surface of mandibles with a longitudinal sulcus; apically bifid.

Pronotum. Not very wide. Markedly convex transversely, somewhat less convex longitudinally. Widest in the middle; towards the rounded hind corners only slightly convergent; towards the pointed, acute-angled front corners somewhat more convergent with nearly straight margins. Anterior margin markedly excavated. Lateral margins with narrow, continuous borders; anterior margin with a broader border than the lateral margins. Lateral margins in dorsal view very narrowly visible in their whole length. Front corners in lateral view with an angle of about 80°, hind corners widely rounded, obtuse. Surface with minute, closely set punctures.

Scutellum. Widely triangular; impunctate.

Elytra. Widely oval, with marked convexity transversally and longitudinally; maximum of width and height approximately at the end of first third. Apices of elytra mutually rounded. Lateral edges in dorsal view narrowly visible within the basal half. On surface striae with small, round to elongate, relatively distinct, narrowly set punctures, the punctures are connected by slightly impressed lines, approximately 46 punctures in stria 4. Intervals on disc flat to slightly convex, laterally slightly convex; with tiny, sparsely set punctures.

Prosternum. Anterior margin continuously bent upwards, not retracted towards apophysis in the middle. Apophysis is widening towards level along procoxae; along procoxae its lateral margins are somewhat raised upwards; space in between with a shallow, relatively wide median groove; behind procoxae slightly descending but on a somewhat lower level posteriorly protruding, on apex with a somewhat lifted, tiny tubercle; apically rounded; bottom of apophysis smooth, lustrous and mostly with a very little microreticulation.

Mesosternum. Anterior part of mesosternum on a lower level than hind part, with a rough surface consisting of tiny granulae, punctures and recumbent hairs. Anterior margin of hind part slightly excavated in the middle, margins of excavation bent upwards like a ridge. Hind part laterally with a longitudinal sulcus on each side.

Metasternum. Anterior margin between mesocoxae rounded, bordered. Metasternum short; distance between meso- and metacoxae distinctly shorter than longitudinal length of mesocoxa. Disc with minute, distinct, rather closely set punctures. Median line neither incised nor impressed, but anteriorly with a small pit just behind apophysis.

Sternites. Anterior margin between metacoxae widely ogive, bordered. Within the ogive area of sternite 1 with oblique wrinkles; rest of sternite 1 and sternites 2-5 with tiny, indistinct punctures.

Antennae. Of medium length, reaching over one third of elytra. Length/width ratio of antennomeres 1-11 equals to 14:7 / 6½:5½ / 14:5½ / 8:5½ / 9:5½ / 9:5½ / 11:6½ / 12:8 / 11½:8 / 15:9,

Legs. Of medium length, tender. Femora slightly thickened towards middle, with tiny tubercles on the front side of profemora. Protibiae straight. Mesotibiae moderately bent, on inner side within apical 60 percent with oblique, medium-sized bristles. Metatibiae straight within basal 70 percent, apically thence slightly incurved; Lengths of protarsomeres 1-5 as 4:4:4:4:18; lengths of mesotarsomeres 1-5 as 6:5:5:5:19; lengths of metatarsomeres 1-4 as 23:8:6:19.

Etymology. Strenuus (Lat.) = strenuous.

Amarygmus thoracicus sp. n.

(Fig. 17A-H)

Holotype: ♂, BMH: New Guinea, NE, 7°19'S-146°48'E, Mt. Chapman, 2000 m. 5.V.1966.

Paratypes: New Guinea, NE, Mt. Missim, 2400-2800 m, 22.-30.IV.1968, J. L. GRESSITT, R. C. A RICE, J. SEDLACEK, BISHOP (6 BMH, 2 ZSMB) – Same data as before, but 2400 m (5 BMH).

Diagnosis. Wingless. Large. Wide. Flat species with a striking shape of pronotum; it is in its middle more convex than on its lateral parts (gives the impression of a hump in the centre of pronotum);, and the lateral parts of pronotum partly look as they are somewhat bent upwards. Elytra short, with punctured striae. Frons of medium width. Prosternal apophysis protruding posteriorly. Antennae not very long, in males somewhat longer than in females. Metatarsomere 1 as long as metatarsomere 4.

The only other species with a convexity in the middle of pronotum is *A. gibbicollis* Gebien, 1920, also from New Guinea. This species presents longer elytra than *A. thoracicus*, and it is winged.

Description. Body length: 10.13-10.93 mm. Body width: 6.13-6.93 mm. Ratios. Pronotum: width/length 1.61-1.69; width hind corners/width front corners 1.74-1.81. Elytra: length/width 1.19-1.26; length elytra/length pronotum 2.60-2.82; maximum width elytra/maximum width pronotum 1.32-1.37.

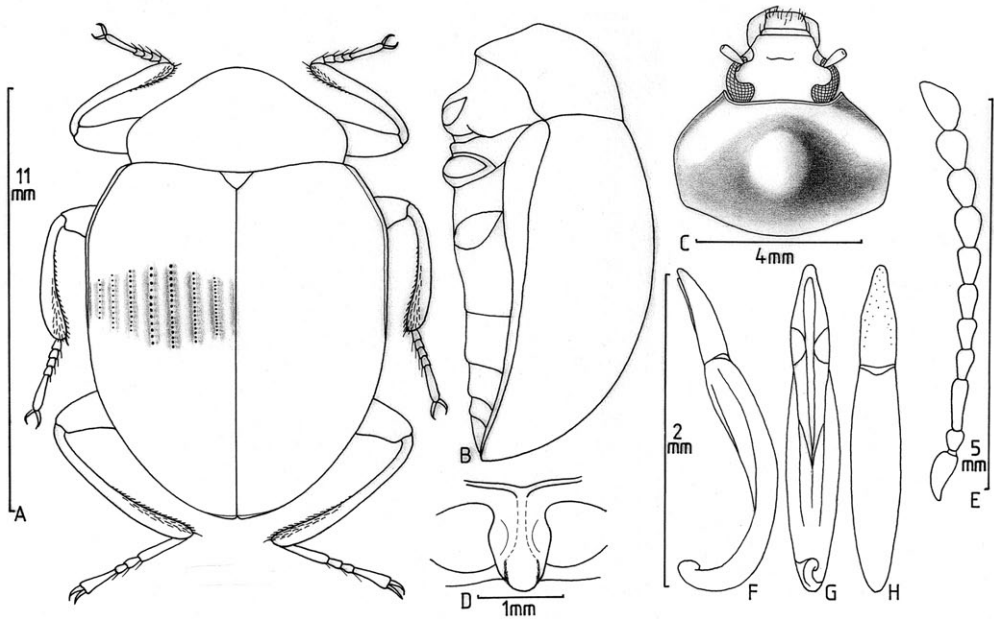


Fig. 17: *Amarygmus thoracicus* sp. n.: **A** Habitus, ♂; **B** Body, lateral view; **C** Head and pronotum; **D** Prosternal apophysis; **E** Antenna; **F** Aedeagus, lateral view; **G** Aedeagus, ventral view; **H** Aedeagus, dorsal view.

Colouration. Upside black, with somewhat reduced lustre; legs, antennae black. Underside dark brown.

Head. Frons of medium width, slightly wider than the lengths of antennomeres 3+4 jointly (like 34:31); covered with tiny, indistinct, closely set punctures. Genae small, moderately raised upwards; anteriorly terminating behind the level of the middle part of fronto-clypeal suture. Fronto-clypeal suture somewhat arched, narrowly and shallowly incised. Clypeus stretched forwards, nearly flat, only the lateral margins are slightly bent downwards; covered with minute, partly indistinct, scattered punctures. Mentum reversely trapezoidal; with flat, lustrous lateral margins; in between slightly convex transversely. Mandibles on outer surface with a longitudinal sulcus, apically bifid.

Pronotum. See “Diagnosis”, Widest in the middle where the lateral margins are clearly bent, towards hind corners very slightly convergent, towards front corners narrowing with straight margins. Hind corners narrowly rounded, obtuse; front corners protruding, acute-angled, pointed. Anterior margin markedly excavated. Lateral and anterior margins narrowly bordered. The lateral parts of hind margin also narrowly bordered. Lateral borders in dorsal view narrowly visible in their whole length. Front and hind corners in lateral view angular, front ones acute-angled, hind ones obtuse. Surface with tiny, indistinct punctures.

Scutellum. Triangular; impunctate.

Elytra. Moderately convex transversely and longitudinally. Maximum of elytral width and height slightly in front of middle. Shoulders angular, with a clearly obtuse angle. Apices of elytra mutually rounded. Lateral margins in dorsal view narrowly visible in their whole length. Elytra with somewhat impressed, punctured striae, these punctures are small, not notching intervals, in stria 4 approximately 50 punctures; intervals very slightly convex, with tiny, indistinct punctures.

Prosternum. Lateral margins of prosternal apophysis subparallel, along procoxae only slightly widened and only slightly raised upwards, there with a wide, shallow, median groove; posterior to procoxae apophysis is horizontally protruded, apically rounded.

Metasternum. Very short; distance between meso- and metacoxae distinctly shorter than longitudinal diameter of a mesocoxa.

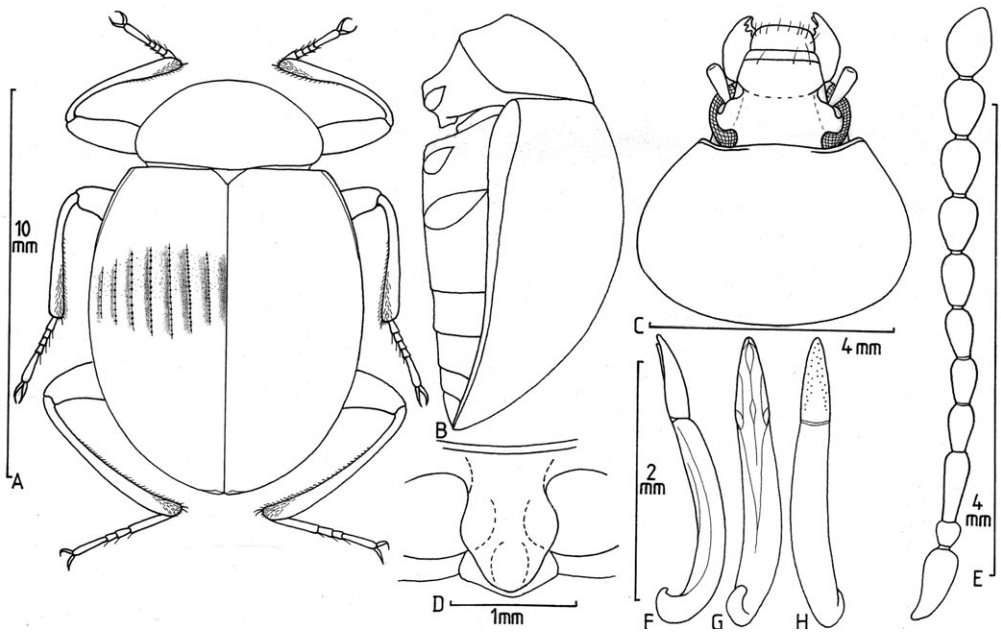


Fig. 18: *Amarygmus validus* sp. n.: **A** Habitus, ♂?; **B** Body, lateral view; **C** Head and pronotum; **D** Prosternal apophysis; **E** Antenna; **F** Aedeagus, lateral view; **G** Aedeagus, ventral view; **H** Aedeagus, dorsal view.

Antennae. Relatively short, in males reaching over one third of elytra. Length/width ratio of antennomeres 1-11 in a male equals to 16:9 / 10:7 / 20:7 / 11:7 / 12:7,5 / 12:9 / 12:10 / 14:11 / 14:11 / 15:11 / 20:11, in a female to 15:7½ / 8:5 / 16:5 / 10:5½ / 9:6 / 10:6½ / 11:7 / 12:7½ / 11:7½ / 11:7½ / 15:9.

Legs. Femora towards middle club-like thickened Pro- and mesotibiae slightly bent, metatibiae somewhat more bent; tarsi rather short. Lengths of protarsomeres 1-5 as 6:6:5:5:24; lengths of mesotarsomeres 1-5 as 10:8:7:6:25; lengths of metatarsomeres 1-4 as 32:11:8:27.

Etymology. Thoracicus (Lat.) *adj.* of thorax = chest, also for prothorax.

***Amarygmus validus* sp. n.**

(Fig. 18A-H)

Holotype: ♂, BMH: N. Guinea: SE, Mt. St. Mary, 2300 m, 1.-7.VIII.1968, ABID BEG MIRZA Collector, BISHOP Museum.

Paratypes: (in most specimens sex not determined by genitalia preparation): Same data as holotype (24 BMH, 5 ZSMB) – Same data as before, but 15.-21.VIII.1968, MENA Collector (1 ♂, 1 ♀ BMH) – N. Guinea, Mt. St. Mary, 2500 m, 22.-31.III.1968 (1 ♀ BMH) - Papua, Brown R., 12-23.X.68, TAWI MENA Collectors (1 BMH) – New Guinea: Papua, Owen Stanley Range, Goilala: Bome, 1950 m, IV-1-15-1958, W. W. BRANDT Collector (1 BMH) - Same data as before, but 24.II.-7.III.1958, W. W. BRANDT Collector (18 BMH, 5 ZSMB).

Diagnosis. Wingless. Large. Widely oval; convex transversely and longitudinally, but disc of elytra not so distinctly convex as in most wingless species. Pronotum strikingly narrow; widest in the middle; pronotum moderately converging between middle and hind corners. Frons very wide. Antennae of medium length. Elytra long; elytra not very wide but clearly wider than pronotum. Prosternal apophysis protruding posteriorly. Legs long and tender, with distinctly bent metatibiae. Elytra with distinctly incised punctured striae, their punctures are small and inconspicuous; elytral intervals slightly convex.

A. athleticus sp. n. occurs in the same area and resembles *A. validus*. *A. athleticus* is contrasting with *A. validus* sp. n., by the apically markedly thinned metafemora, while in *A. validus* there are apically gradually thinned metafemora; in *A. athleticus* there is a strong club-like thickening of femora with tubercles on ventral side of metafemora; *A. validus* only presents a slight thickening, and it is without tubercles on the ventral side of metafemora.

Description. Body length: 9.47-10.13 mm. Body width: 6.30-6.90 mm.

Ratios. Pronotum: width (hind corners)/length 1.42-1.51; width hind corners/width front corners 1.58-1.63. Elytra: length/width 1.25-1.29; length elytra/length pronotum 2.81-3.01; maximum width elytra/width pronotum at hind corners 1.50-1.57.

Colouration. Upperside black, not very lustrous, in a few specimens also coppery. Head and pronotum distinctly microreticulated. Many specimens immature, then with a clearly darker pronotum than elytra. Underside black in mature specimens; femora black, tibiae and tarsi brown; antennomeres 1-6 brown, 7-11 black.

Head. Clypeus and frons are situated on the same level. Frons very wide, width corresponds to lengths of antennomeres 2+3+4 jointly. Genae slightly raised upwards. Fronto-clypeal suture somewhat incised in the middle, laterally only translucent. Clypeus stretched forwards, its lateral margins are narrowing apicad. Upperside of frons and clypeus covered with small, closely set, indistinct punctures. Mentum reversely trapezoidal, with flat lateral margins, space in between slightly convex transversely. Underside of neck dull, impunctate. Mandibles on their outer surface with a longitudinal sulcus, apically bifid.

Pronotum. Relative narrow, uniformly convex transversely, slightly convex longitudinally. Maximum of width and height approximately in the middle, towards hind corners only moderately convergent, towards front corners narrowing with straight margins, shortly behind the acute-angled front corners in most specimens slightly concave. Anterior margin excavated. Lateral margins narrowly bordered, border of anterior margin broader. Front corners in lateral view rectangular, hind corners more obtuse. Surface with small, indistinct, closely set punctures.

Scutellum. Triangular, with a few minute punctures.

Elytra. Oval; slightly elongate; no shoulders recognizable. Concerning related species the convexity of elytra is not as striking than those of most other species. Maximum of width and height at or shortly in front of middle. Apices of elytra mutually rounded. Lateral edges in dorsal view narrowly visible behind middle of elytra. Elytra with distinctly incised striae in which small, closely set punctures are not well recognizable; in stria 4 about 50 punctures. Intervals slightly convex; covered with small, very indistinct, closely set punctures.

Prosternum. Anterior margin distinctly, but narrowly bent upwards. Anterior part of prosternal apophysis somewhat raised, with subparallel margins; along procoxae lateral margins are broad, and they are moderately lifted upwards; space in between with a median, not too deep groove, bottom of apophysis smooth; apophysis is somewhat horizontally protruding backwards (this part does not show delimitating lateral margins); apex widely rounded or widely pointed; its median part is slightly convex transversely.

Mesosternum. Anterior margin of hind part roundedly excavated in the middle, anterior to this margin the hind part of mesosternum is obliquely descending to this depressed front part.

Metasternum. Short. Distance between meso- and metacoxae distinctly shorter than longitudinal length of a mesocoxa. Anterior margin between mesocoxae widely rounded, bordered. Median line over a short distance narrowly incised. Disc nearly impunctate.

Sternites. Anterior margin between metacoxae ogive, bordered. The first three sternites with longitudinal wrinkles. Sternites 4+5 nearly impunctate, without wrinkles.

Antennae. Of medium length, reaching over the first quarter of elytra. Length/width ratio of antennomeres 1-11 equals to 16:8 / 9:6 / 20:6½ / 12:7 / 12:7 / 13:7½ / 14:8½ / 16:10 / 15:10 / 15:10 / 20:10½.

Legs. Relatively long and well surpassing lateral margins of body. Femora somewhat thickened at midlength, from the maximum of thickness it is gradually thinned towards apex. Tibiae anteriorly slightly thickened; protibiae nearly straight on outer side, apically with an area of partially recumbent, partially projecting bristles on inner side; mesotibiae slightly bent, similarly pilose as protibiae on inner side; metatibiae thin and uniformly bent, with not too closely set bristles on inner side within apical half. Lengths of protarsomeres 1-5 as 5:5:5:5:24; lengths of mesotarsomeres 1-5 as 10:8:7:6:26; lengths of metatarsomeres 1-4 as 31:12:9:29.

Etymology. *validus* (Lat.) = sturdy.

Description of two new winged species which probably mimic wingless species

Amarygmus balkei sp. n.

(Fig. 19A-E)

Holotype: ♀, ZSM: Neuguinea, Paniai, Wanggar b. [near] Nabire, 30.IX.-1.X.90, leg. BALKE & HENDRICH [Nabire: 3°22'S-135°29'E].

Diagnosis. Winged, metasternum not shortened. Small; elytra short and very convex. Pronotum narrow relative to elytra. Elytra with rows of medium-sized, distinct punctures which are relatively closely set. Frons of medium width. Antennae of medium length. Legs of medium length. Upperside black, very lustrous, legs, antennae brown.

Amarygmus balkei belongs to a group of small to medium-sized, winged species with short, convex elytra like *A. horni* Kaszab, 1939, *A. fallax* Bremer, 2002, and *A. concameratus* Bremer, 2002. Species of this group have been revised recently (Bremer 2008).

These species have longer antennae than *A. balkei*. They are somewhat larger.

Amarygmus horni shows a body length of 5.90-6.50 mm. The punctures of the elytral rows are smaller than those of *A. balkei*. Moreover, *A. horni* presents semi-erect lamellae on the posterior margin of sternite 5, and the apex of each elytron is slightly prominent posteriorly and retracted towards median suture.

Amarygmus concameratus has a body length of 6.27-7.53 mm. The elytral intervals are closely punctured, this is in contrast with *A. balkei*. The tip of aedeagus is abruptly bent dorsad. The apices of elytra are mutually rounded as in *A. balkei*.

The body length of *Amarygmus fallax* is 6.27-6.93 mm. This species displays very short upbendings on the posterior margin of sternite 5 in males. The tip of aedeagus is abruptly bent ventrad. The apex of each elytron is slightly prominent posteriorly and retracted towards median suture.

Description. Body length: 4.59 mm. Body width: 3.04 mm.

Ratios. Pronotum: width/length 1.66; width hind corners/width front corners 1.63. Elytra: length/width 1.24; length elytra/length pronotum 3.03; maximum width elytra/maximum width pronotum 1.47.

Colouration. See "Diagnosis", antennomeres 1+2 brown, 3-11 black. Underside dark brown, somewhat lustrous, contrasting with the lighter brown femora.

Head. Upperside lustrous. Frons of medium width, width approximately equals to lengths of antennomeres 2+3 jointly; closely punctured, punctures small. Genae lifted up, anteriorly terminating approximately at the level of the middle part of fronto-clypeal suture. Fronto-clypeal suture somewhat arched, slightly incised. Clypeus moderately stretched forwards, slightly convex transversely and longitudinally; its small punctures are somewhat closer set than those of frons. Mentum anteriorly widened, with bent lateral margins and a rounded transition between lateral margins and base; lateral margins flat, lustrous; space in between with small punctures, slightly convex transversely. Underside of neck with small, relatively closely set punctures. Mandibles with a longitudinal sulcus on external side, apically bifid.

Pronotum. Not very wide. Convex transversely, slightly convex longitudinally. Maximum of width approximately in the middle, very slightly narrowing towards hind corners; more narrowing towards front corners. Front corners somewhat protruding, about rectangular in dorsal view; hind corners angular, very obtuse. Anterior margin excavated. Lateral and anterior margins continuously bordered. Lateral borders very narrowly visible in dorsal view. Front corners in lateral view narrowly rounded, with an angle of about 100°, hind corners angular, very obtuse. Surface with minute, indistinct, not very closely set punctures.

Scutellum. Triangular, impunctate.

Elytra. Somewhat elongate, oval. Convex transversely and longitudinally. Maximum of width and height in the middle. Shoulders not prominent. Apices of elytra mutually rounded and not mucro-like protruded. Lateral edges in dorsal view narrowly visible only at shoulders. Elytra with rows of medium-sized, distinct punctures which are becoming evanescent near apex; their distances on disc in row 4 equal to the diameter of a puncture, about 40 punctures in row 4. Intervals flat on disc, postero-laterally slightly convex, with very tiny, spaciouly set punctures which just become visible at 50-fold magnification.

Prosternum. Anterior margin narrowly bent upwards, in the middle this border is interrupted. Apophysis short, descending just behind procoxae; lateral margins along procoxae narrowly lifted upwards; space in between with a wide, relatively shallow, median groove; with a few short hairs.

Mesosternum. Hind part short, its anterior margin slightly excavated at midlength.

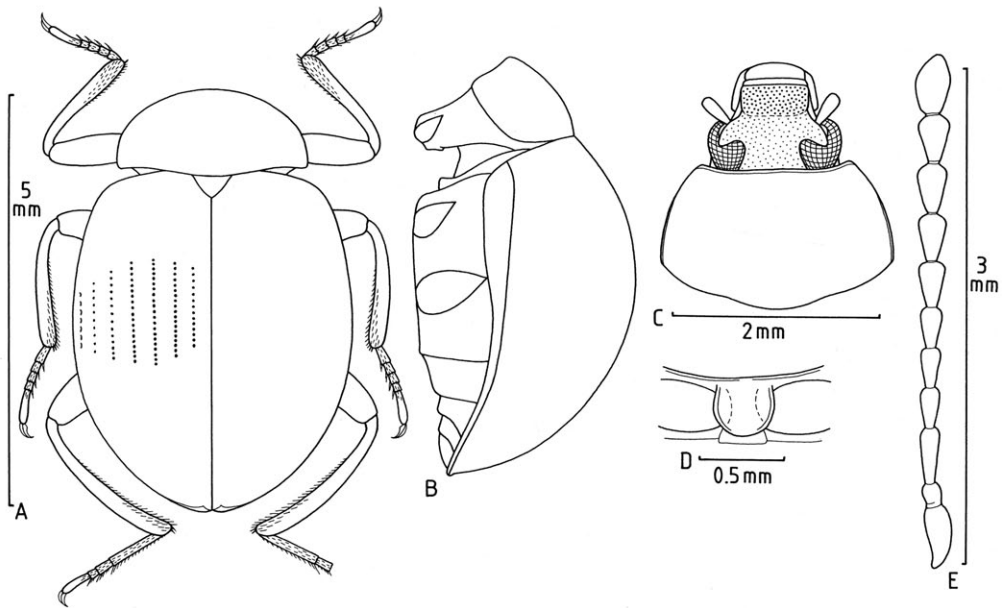


Fig. 19: *Amarygmus balkei* sp. n.: **A** Habitus, ♀; **B** Body, lateral view; **C** Head and pronotum; **D** Prosternal apophysis; **E** Antenna.

Metasternum. Anterior margin between mesocoxae rounded, bordered. Distance between meso- and metacoxae longer than longitudinal diameter of a mesocoxa. Disc densely punctured with small, distinct punctures and with a few short hairs. Median line incised in its whole length.

Sternites. Anterior margin between metacoxae widely ogive, faintly bordered. Disc of all sternites covered with small punctures and recumbent short hairs.

Antennae. Of medium length, reaching to the middle of elytra. Length/width ratio of antennomeres 1-11 equals to 16:8 / 8:6 / 16:6 / 12:6 / 12:6 / 14:7 / 14:7½ / 15:8 / 14:8½ / 13½:8½ / 18:9.

Legs. Of medium length. Femora towards second third club-like thickened. Protibiae straight, slightly thickened on inner side within apical half. Mesotibiae very slightly bent. Metatibiae bent. Lengths of protarsomeres 1-5 as 6:5:5:4:19; lengths of mesotarsomeres 1-5 as 8:8:6:4:19; lengths of metatarsomeres 1-4 as 27:10:6:18.

Etymology. Dedicated to Dr. M. Balke, Zoologische Staatssammlung, Munich, who collected the type specimen.

Amarygmus montisellae sp. n.

(Fig. 20A-H)

Holotype: ♂, MNHU: D. [Deutsch] N. Guinea, Sattelberg [Sattelberg: 6°30'S-147°45'E].

Paratypes: dito (1 ♂ ZSMB, 3 ♀ MNHU, partially with missing antennae or legs).

Diagnosis. Of medium size, markedly oval; distinctly convex, winged. Elytra with somewhat incised striae in which coarse punctures are incorporated; elytral intervals slightly convex on disc. Frons of medium width. Antennae of medium length. Protibiae (and less so mesotibiae) in males moderately arcuate in the middle. Protarsomeres 1-3 not enlarged in males. Metatarsomere 1 short. Upperside black, lustrous.

Amarygmus montisellae shows some similarity with *A. seorsus* sp. n. concerning size, shape of elytra and pronotum, punctuation of elytra, shape of aedeagus, colouration. The elytral punctures of *A. seorsus* are larger than those of *A. montisellae*, the metasternum of *A. seorsus* is definitely shorter.

Amarygmus contractus presents smaller punctures in the elytral rows than *A. montisellae*; they are additionally inconstantly connected by faint lines (*A. montisellae* shows incised striae); their elytral intervals are not convex on disc; the mesotibiae of *A. contractus* are less bent than in *A. montisellae* in males.

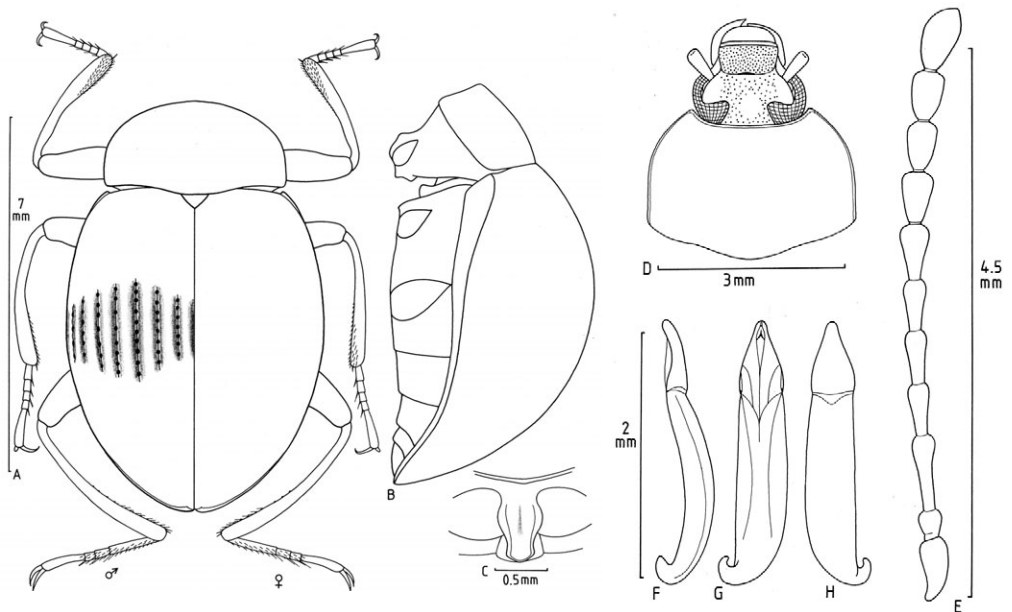


Fig. 20: *Amarygmus montisellae* sp. n.: **A** Habitus, left side legs of ♂, right side legs of ♀; **B** Body, lateral view; **C** Prosternal apophysis; **D** Head and pronotum; **E** Antenna, ♂; **F** Aedeagus, lateral view; **G** Aedeagus, ventral view; **H** Aedeagus, dorsal view.

Description. Body length: 7.09-7.72 mm. Body width: 4.66-4.86 mm.

Ratios. Pronotum: width/length 1.65-1.74; width hind corners/width front corners 1.62-1.67. Elytra: length/width 1.19-1.26; length elytra/length pronotum 3.04-3.30; maximum width elytra/maximum width pronotum 1.46-1.56.

Colouration. Upperside black, lustrous (also pronotum), elytra with a slight metallic shimmer; in immature specimens the pronotum is somewhat darker brown than the elytra; legs dark brown to black; antennomeres 1-6 dark brown, 7-11 black. Underside dark brown.

Head. Frons of medium width, about as wide as antennomere 3 long; covered with minute, relatively closely set punctures. Genae distinctly lifted upwards; anteriorly terminating somewhat in front of the level of the medium part of fronto-clypeal suture. Fronto-clypeal suture slightly incised in the middle part. Clypeus stretched forwards; slightly convex transversely and longitudinally; with a similar punctation as frons.

Pronotum. Convex transversely, less convex longitudinally. Lateral margins subparallel in the hind half, anteriorly somewhat bent, within anterior 30 percent converging with straight margins. Hind corners narrowly rounded, obtuse; front corners acute-angled, pointed. Anterior margin markedly excavated. Lateral and anterior margins bordered. Lateral borders narrowly visible in the whole length. Front and hind corners in lateral view angular, front corners with an angle of about 80 percent, hind corners clearly obtuse. Surface with tiny, indistinct, irregularly and sparsely set punctures.

Scutellum. Triangular. Impunctate

Elytra. Oval. Convex transversely and longitudinally. Maximum of width and height somewhat in front of middle. Shoulders not accentuated. Apex of each elytron slightly retracted towards median suture. Lateral edges in dorsal view narrowly visible. With somewhat incised striae which contain medium-sized, distinctly impressed punctures; striae and punctures are evanescent apically; distances of the punctures on disc in row 4 about ½- to 1½-time the diameter of a puncture; about 30 punctures in stria 4. Intervals on disc slightly convex, laterally clearly convex; impunctate.

Prosternum. Anterior margin continuously and narrowly bent upwards; not retracted towards apophysis at midlength. Apophysis not very wide; slightly ascending between anterior margin and the level between procoxae, and slightly descending posterior to procoxae; along procoxae lateral margins moderately raised

upwards; in between with a relatively wide, shallow median groove; lateral margins posterior to procoxae subparallel; apex widely rounded.

Mesosternum. Hind part short, wide; its anterior margin excavated at midlength.

Metasternum. Anterior margin between mesocoxae rounded, bordered. Anterior apophysis with narrow, oblique wrinkles which are directed towards a centrally positioned small hole. Disc with tiny, indistinct, sparsely set punctures which just become visible at 50-fold magnification. Median line translucent.

Sternites. Anterior margin between metacoxae ogive, bordered; inner rim of anterior margin behind metacoxae with coarse punctures. Sternites somewhat opaque, impunctate.

Antennae. Of medium length, reaching over elytra to the middle (the female specimens which I evaluated do no longer have antennae). Length/width ratio of antennomeres 1-11 equals to 11:6 / 6:5 / 16:5 / 10:5 / 11:5 / 10:5 / 11:6 / 11:6½ / 10:6½ / 10:6½ / 14:7.

Legs. Of medium length. Femora towards second third moderately thickened. Pro- and mesotibiae in males basally narrow and straight, somewhat bent at midlength on inner side; thence straight and somewhat thickened on inner side. Metatibiae within 30 percent basally and apically straight, in between somewhat bent; altogether anteriorly slightly thickened. Lengths of protarsomeres 1-5 as 4:4:4:19; lengths of mesotarsomeres 1-5 as 8:5:4½:4:20; lengths of metatarsomeres 1-4 as 19:7:4:20.

Etyymology. Montisellae (Lat.), noun, from sella (Late Latin) saddle; mons (Lat.) mountain.

Determination key of wingless species of New Guinea

All wingless species inhabit restricted areas and, therefore, it is helpful to consider the location of the respective species while determining these species. Additionally, several species from a prevailing area show a high degree of similarity which frequently separate them from species of a different area, e. g. the elongate body shape in several large species from the Highlands of the Province of Jajawijaya.

One should always inspect the prosternal apophysis while determining wingless *Amarygmus* because it separates several species in which the upperside of body is very similar, especially it separates two groups of species, one with a short apophysis which is terminating just behind procoxae, and a second one with a posteriorly protruding apophysis.

Characters in petit give additional hints, they are not mentioned in the alternative path.

- 1 Body length of species shorter than 3.5 mm 2
- Body length more than 5.0 mm 4
- 2 Antennomere 1 indented from the back side, antennomeres 7-11 indented from the front side; antennomeres 1-9 black, 10+11 yellowish white. Antennae short, reaching barely over first quarter of elytra; elytra short, very convex, with rows of small punctures; upperside black with a faint bluish tinge. Body length 3.49 mm (Papua New Guinea, Madang Prov., Finisterre Mts.) *A. bacchusi* BREMER, 2001
- Markedly smaller species (body length <3 mm); antennomeres not indented; antennomeres 9-11 uniformly yellow coloured 3
- 3 Wrinkled, leathery or chagreened surface of elytra; elytra very short, hemispherical (length/width ratio 1.08-1.10:1); antennomeres 1+2 yellow, antennomeres 3-8 black, 9-11 yellow. Upperside, underside, legs (except tarsi) black, tarsi yellow. Body length 2.7-2.9 mm (Irian Jaya: Prov. Jayawijaya, Baliem Valley) *A. corioipennis* BREMER, 2001
- Upperside of elytra smooth; head, pronotum, elytra black with a somewhat metallic shine, shoulders of elytra reflecting blue; markedly lustrous. Legs dark brown; tarsi yellowish brown. Antennomeres 1-5 yellowish brown, 6 brown, 7+8 black, 9-11 light yellow. Body length 2.63 mm (Papua New Guinea, env. Kokoda) *A. delectabilis* BREMER, 2001
(There are several similarly looking but winged species of the same size in New Guinea. They also possess some uniformly yellow antennomeres).

- 4 Elongate oval species, large to medium-sized, from the Western Highlands of Irian Jay 5
- Species with shorter elytra, elytra often hemispherical, from Irian Jaya or Papua New Guinea 11
- 5 Elytral intervals clearly convex. Elongate oval, and, concerning body shape, similar to *A. metallicus* (PERTY, 1831). Length/width ratio of elytra 1.49:1. Elytra with clearly incised striae with elongate, slightly notching, small to medium-sized punctures, distances between punctures on disc in row 4 approximately equal to diameter of a puncture; maximum width and height of elytra at the end of first third, between maximum of width towards base distinctly converging; elytral intervals clearly convex. Prosternal apophysis relatively narrow, between procoxae with a deep median groove, lateral margins posterior to procoxae descending, but a median cone is projecting dorsad and ventrad. Frons wide, somewhat wider than length of antennomere 3 (like 25:21). Antennae reaching over towards the mid of elytra. Upperside black, with a weak purple tinge, legs (including tarsi), antennae black. Body length 9.20 mm (Irian Jaya, Baliem Dist.) *A. ignobilis* BREMER, 2004
- Elytral intervals either flat or slightly convex 6
- 6 Pronotum opaque. Punctuation of metasternum tiny and surface of metasternum smooth 7
- Pronotum lustrous. Punctuation of metasternum either tiny or surface of metasternum in its anterior part uneven by finely oblique or transverse wrinkles 8
- 7 Relatively large (body length \approx 10.5 mm). Pronotum distinctly opaque, with maximum of width situated somewhat in front of base; towards base slightly retracted. Front corners of pronotum acute and lateral border behind the corners somewhat concave; width/length ratio of pronotum 1.60:1. Related to pronotum the elytra are not markedly widened (maximum width elytra/maximum width pronotum 1.35:1; length/width ratio of elytra 1.32:1; Punctures of elytral striae 1-3 are faintly connected by lines, the punctures of the following rows are larger, distinctly impressed and not connected by lines; approximately 35 punctures in row 4. Prosternal apophysis clearly protruded and only slightly descending posteriorly, along procoxae with a median, very wide and shallow groove. Elytra black, not very lustrous; legs including tarsi black (Irian Jaya, Jayawijaya Prov., Wamena) *A. guerini* BREMER, 2005
- Smaller (body length 9.00-9.73 mm). Pronotum opaque; maximum of width at base; anterior margin excavated, therefore front corners are somewhat prominent, but they are not acutely projecting as in the preceding species, and sides behind front corners not concave; front corners depressed downwards and not visible in dorsal view. Punctures of elytral rows mostly connected by faint lines; in row 4 approximately 26 punctures. Prosternal apophysis protruding horizontally posteriorly, apically pointed and with a somewhat lifted tip; along procoxae with a median, wide, moderately deep groove (Irian Jaya, Jayawijaya Prov., Wanuga) *A. oreas* BREMER, 2004
- 8 Punctures of the elytral rows not connected by lines; elytral intervals flat; elytra dark reddish brown. 9
- At least punctures of elytral rows 1-3 connected by lines; elytral intervals flat or slightly convex; front corners of pronotum either rounded or, if acute, lateral borders not concave behind front corners; elytra coppery, dark reddish brown or black 10
- 9 Minute punctures in the elytral rows. They disappear near apex; approximately 33 punctures in row 4; in lateral view one is recognizing that elytra are uniformly and roundedly descending; length/width ratio of elytra 1.25-1.33:1; front corners of pronotum slightly pointed; prosternal apophysis posterior to procoxae somewhat descending, but on a lower level; it is clearly protruded posteriorly; apically narrowly rounded, with a clear median groove along procoxae. Head, pronotum black, elytra dark reddish brown; legs (except tarsi) dark brown to black, tarsi brown. Body length 9.83-10.7 mm (Irian Jaya, Paniai Prov., Sinak) *A. affinis* BREMER, 2004
- Punctures of the elytral rows distinctly larger, well visible near apex; approximately 38 punctures in row 4; elytral intervals impunctate; length/width ratio of elytra 1.24-1.26:1; in lateral view one is recognizing that elytra towards apex are descending much steeper. Front corners of pronotum slightly accentuated and pointed. Prosternal apophysis is not descending posterior to procoxae, it is horizontally protruding, apically narrowly rounded, with a median sulcus. Body length 9.44-10.30 mm (Irian Jaya, Paniai Prov., Bilogay) *A. kuehbandneri* BREMER, 2004

- 10 Intervals of elytra on disc slightly convex, laterally convex; striae with deeply depressed, large punctures. Length/width ratio of elytra 1.25:1. Anterior margin of pronotum about as wide as maximum width of head. Upperside markedly lustrous, black with a slight reddish tinge; underside, legs, antennae black. Prosternal apophysis wide, behind procoxae descending, apically widely rounded and without a pointed tip. Body length 10.1 mm. (Irian Jaya, Paniai Prov., Sinak) *A. schereri* BREMER, 2004
- Elytral striae with small punctures which are closer set than in the preceding species; elytra longer (length/width ratio 1.32-1.37:1). Anterior margin of pronotum wider than maximum of width of head. Upperside black, with reduced lustre. Body length: 10.7-11.7 mm (Irian Jaya, Baliem Distr., Ilugwa) *A. peditatus* BREMER, 2004
- 11 Elytral striae with large punctures; intervals distinctly convex, impunctate. Elytra short (length/width ratio 1.16-1.22:1). Legs and antennae reddish brown; pronotum and elytra black, lustrous. Antennae very long, reaching to the hind third of elytra. Prosternal apophysis terminating shortly behind procoxae. Body length 7.40-8.13 mm. (NE Papua New Guinea, Mt. Missim, near Geraina; Kuper Range). (Fig. 14) *A. seorsus* **sp. n.**
- Within striae there are no large, clearly impressed punctures as shown in Fig. 14A; the punctures are markedly smaller 12
- 12 Pronotum in its centre stronger convex than in its lateral parts; maximum of width of pronotum mostly in the middle, however in a few specimens the hind half has subparallel sides. Elytra with striae with small, closely set punctures (in row 4 approximately 50 punctures). Upperside black, somewhat reduced lustre. Body length 10.1-11.0 mm (NE Papua New Guinea, Mt. Chapman, Mt. Missim) (Fig. 17) *A. thoracicus* **sp. n.**
- Pronotum uniformly convex transversely 13
- 13 The prosternal apophysis terminates shortly behind procoxae or is bent downwards just behind procoxae. Antennae tender, long, reaching to the middle of elytra or beyond middle 14
- Prosternal apophysis is markedly projecting posteriorly beyond procoxae; species from Papua New Guinea 22
- 14 Intervals of elytra covered with very closely set punctures, and punctures of intervals nearly as large as punctures of elytral rows. Short elytra (length/width ratio 1.12-1.16:1). Prosternal apophysis wide, with a deep, wide median groove between procoxae, just behind procoxae prosternal apophysis is bent downwards; apex straight. Antennae very long and tender, reaching beyond middle of elytra. Upperside black, in a few specimens also coppery, with reduced lustre because of microreticulation. Species relatively small with a body length of 5.67-6.80 mm; Irian Jaya (Prov. Jayawijaya) *A. densepunctatus* BREMER, 2004
- Intervals of elytra not as closely punctured 15
- 15 Body length >5.90 mm. Species from Irian Jaya 17
- Body length <5.5 mm. Species from Irian Jaya and Papua New Guinea 16
- 16 Body length 5.36-5.43 mm. Species from Papua New Guinea (Morobe Prov., env. of Garaina). Elytra short (length/width ratio 1.07-1.15:1), with rows of small, relatively widely separated punctures, their distances on disc in row 4 equal to 2- to 4-times the diameter of a puncture; elytral intervals flat, nearly impunctate. Hind corners of pronotum widely rounded, front corners about rectangular; anterior margin markedly excavated. Frons very wide in both sexes and eyes small. Upperside, femora and tibiae black, slightly lustrous. Protibiae, mesotibiae straight, metatibiae in basal half straight, in apical half slightly incurved; metatarsomere 1 as long as metatarsomere 4 *A. gemellus* BREMER, 2002
- Body length 4.55 mm. Species from Irian Jaya (Jayapura Prov., Cyclops Mts., near Sentani). Elytra very short (length/width ratio 1.04:1); with faint striae in which small medium-sized, not very closely set punctures are incorporated, their distances on disc in row 4 equal to 2- to 4-times the diameter of a puncture; elytral intervals impunctate, on disc slightly, laterally somewhat convex. Hind corners of pronotum rectangular, obtuse. Frons of medium width. Protibiae slightly bent, mesotibiae somewhat more bent, metatibiae in basal half straight, in apical half slightly incurved; metatarsomere 1 longer than metatarsomere 4. Body dark brown, lustrous (Fig. 15) *A. sphaeroides* **sp. n.**

- 17 Species from the Eastern Highlands of Irian Jaya, Prov. Jayawajija. 18
- Species from the lowlands of Western Irian Jaya (Prov. Manokwari, vic. Manokwari, 160 m). Body relatively short, markedly convex, but with shortly protruding apices of elytra alike a mucro (length/width ratio of elytra 1.12:1). Elytra with rows of medium-sized punctures which show distances on disc around 2- to 4-times diameter of a puncture; elytral intervals flat, impunctate. Upperside of head closely punctured; punctures larger and closer than in the preceding species; frons wider than that of preceding species. Body black, lustrous. Body length: 5.97 mm (Fig. 10) *A. globulus* **sp. n.**
- 18 Body length >7.60 mm 19
- Body length 5.89-6.85 mm 20
- 19 Metasternum with large and closely set punctures. Length/width ratio of elytra 1.21-1.24:1; intervals flat, nearly impunctate; elytra with rows of small to medium-sized punctures which are well separated from each other, about 38 punctures in row 4. Frons of medium width. Antennae long, tender, reaching over two third of elytra. Upperside black with a certain golden tinge, markedly lustrous; underside brown, moderately lustrous; legs dark brown; protarsomeres 1-3 not widened but somewhat prolonged in males; antennae brown, only the last 5 antennomeres dark brown (I cannot exclude that the brown colour is caused by immaturity). Body length 7.60-8.00 mm (Irian Jaya, Prov. Jayawijaya, Borme)
- *A. crassus* BREMER, 2004
 - Disc of metasternum with small, indistinct, spaciouly set punctures. Length/width ratio of elytra 1.19-1.20:1, elytra with rows of small, closely set punctures, smaller and less distinct than of those of the preceding species, about 54 punctures in row 4; elytral intervals flat, with inconspicuous, minute punctures. Frons relatively wide. Antennae reaching over elytra towards their middle. Antennomeres black. Protarsomeres 1-3 slightly enlarged in males. Upperside black, lustrous, only weakly microreticulated; underside black, greasily lustrous. Legs and antennae black, tarsi light brown. Body length 8.66-8.70 mm (Irian Jaya, Baliem Valley) *A. gravidus* BREMER, 2004
- 20 Species of high altitudes (>2900m. near Lake Habbema). Upperside microreticulated and more or less dull 21
- Species of Baliem Valley (altitude 1875 m, near Jiwika). Elytra short, very convex (length/width ratio 1.10-1.14:1); elytral intervals closely but inconspicuously punctured; punctures of the elytral rows are small, more spaciouly set, one can recognize them well. Frons very wide and eyes small. Antennae of medium length. Metatarsomere 1 somewhat longer than metatarsomere 4. Upperside black, lustrous. Body length: 5.89-6.69 mm (Fig. 3) *A. altivagus* **sp. n.**
- 21 Elytra slightly elongate oval, markedly convex (length/width ratio of elytra 1.26:1). Punctures of the elytral rows are so small and indistinct that they are barely recognizable; elytral intervals flat. Upperside black, barely lustrous. Body length 6.85 mm (between Theila and Lake Habbema, 2800-2950 m) (Fig. 7) *A. coniunctus* **sp. n.**
- Elytra more spherical (length/width ratio of elytra 1.15:1). Punctures of the elytral rows minute, but well recognizable, not very closely set; elytral intervals flat, impunctate. Upperside brown (immature?), opaque. Body length: 6.45 mm (eastern cote of Lake Habbema, 3300 m) (Fig. 2) *A. altithronus* **sp. n.**
- 22 Prosternal apophysis with an opaque bottom, markedly microreticulated, with non-directional wrinkles 23
- Prosternal apophysis with lustrous bottom mostly without wrinkles 26
- 23 Prosternal apophysis without a median groove between procoxae; its lateral margins along procoxae barely lifted upwards; in the median part there are usually outlined elevations over a short distance; elytral intervals slightly convex; approximately 36 punctures in elytral stria 4; length/width ratio of elytra 1.25-1.32:1. Metatarsomere 1 nearly as long as metatarsomere 4. Upperside black, antennae, femora dark brown to black, tibiae black, tarsi dark brown. Body length 8.13-9.07 mm (Papua New Guinea, Eastern Highlands Prov., env. Kainantu) (Fig. 5) *A. annexus* **sp. n.**
- Prosternal apophysis with a shallow or with a deep median groove between procoxae; its lateral margins along procoxae markedly or slightly lifted up 24

- 24 Prosternal apophysis with a narrow, distinct, median keel in the anterior half (see Fig. 9C), it is branching off the anterior margin of prosternum. Relatively large, oval, moderately convex transversely and longitudinally. Elytra with barely incised striae with small, round punctures; elytral intervals flat. Frons of medium width; antennae of medium length. Metatarsomere 4 nearly as long as metatarsomere 1. Body length 9.00-9.47 mm (Papua New Guinea, Morobe prov., env. of Saueri) (Fig. 9) *A. convictor* **sp. n.**
 – Prosternal apophysis without keel. 25
- 25 Prosternal apophysis along procoxae with a shallow, wide, median groove, lateral parts of apophysis microreticulated and microgranulated, central part smooth. Elytra with rows of small punctures. Metatarsomere 1 longer than metatarsomere 4. Upperside only black. Body length 8.36-9.08 mm (Papua New Guinea, Morobe Prov., Upper Watut R., near Bulolo) (Fig. 13) *A. nigritus* **sp. n.**
 – Prosternal apophysis between procoxae with a deep, median groove, either markedly microreticulated or microgranulated. Elytra with slightly impressed striae or with rows of small, sometimes somewhat elongate punctures, approximately 32 in stria 4; intervals with minute, indistinct, relatively closely set punctures. Upperside black, with a slight purple to coppery tinge; moderately lustrous. Body length 8.20-9.07 mm (Papua New Guinea, Morobe Distr., env. Wau) (Fig. 4) *A. ambiguus* **sp. n.**
- 26 Species from the Provinces (Districts) Morobe and Eastern Highlands of Papua New Guinea 27
 – Species from the Owen-Stanley Range and around Mt. Saint Mary and Mt. Tafa (Southeastern part of Papua New Guinea) 30
- 27 Maximum of width and height of elytra in the middle or slightly in front of middle. Elytra with striae with small, round to elongate, indistinct, closely set punctures; these punctures are connected by slightly impressed lines (approximately 45 punctures in stria 4); intervals on disc flat, laterally slightly convex, covered with tiny, indistinct punctures. Length/width ratio of elytra 1.20-1.22:1. Different shapes of pronotum: some have the maximum of width shortly behind the middle, some near or at the hind corners; if the maximum of width is near the middle the sides are roundedly convergent towards the rounded, obtuse hind corners, if the maximum of width is near the base, the sides are subparallel in the hind 40 percent; the anterior part of the margins is straight or slightly concave behind the acute-angled, mostly pointed front corners. Similar to the preceding species but the bottom of prosternal apophysis of *A. accretus* is lustrous and less medianly grooved than that of the preceding species, its frons is wider, the antennae are shorter, the metatarsomeres are shorter and thicker, and *A. accretus* is larger than the preceding species (body length 9.87-11.0 mm). Pronotum and elytra black, in some specimens with a slightly violet tinge; antennae tibiae brown (Papua Neu Guinea, Morobe Prov., env. Wau) (Fig. 1) *A. accretus* **sp. n.**
 – The combination of these charcters is not present or the species are smaller 28
- 28 Only a very shallow median groove is present along the procoxae in prosternal apophysis. Length/width ratio of elytra 1.16-1.23:1. Very similar to the preceding species, but the maximum width of elytra is at the end of first third, antennae are slightly longer, the punctures of the elytral rows are slightly larger, and the elytral intervals are somewhat more convex. Body length 8.99-9.16 mm (Papua New Guinea, Morobe Prov., Range between Aseki-Menyamya) (Fig. 16) *A. strenuus* **sp. n.**
 – Body length 7.00-8.30 mm 29
- 29 Antennae longer, ratio of length/width of antennomeres 10 ca. 1.75:1. Pronotum relatively narrow: width/length 1.52-1.64:1; pronotum more closely punctured (but punctures minute). Punctures of the elytral striae smaller, they are only slightly incised, connected by tender lines, in stria 4 approximately 44 punctures; intervals on disc not convex. Upperside black, with a slight brownish shimmer, lustrous. Legs black. Body length 7.47-8.27 mm (Papua New Guinea, Prov. Morobe, env. Wau and Garaina) (Fig. 11) *A. intricatus* **sp. n.**
 – Antennae shorter, ratio of length/width of antennomere 10 <1.44:1. Elytral intervals on disc slightly convex, they are barely punctured. Pronotum wider: width/length 1.80-1.93:1, less closely punctured. Punctures of the elytral rows larger, they are mostly connected by faint lines; distances between punctures in row 4 on disc equal to 1- to 2-times diameter of a puncture; in row 4 about 32 punctures; elytral

- intervals slightly convex, also on disc; barely punctured (at 25-fold magnification). Upperside, legs black, lustrous; tarsi dark brown. Body length 7.00-7.93 mm (Papua New Guinea, Morobe District, env. Wau) (Fig. 8) *A. conveniens* **sp. n.**
- 30 Ventral side of metafemora in males with small tubercles. Metafemora with a clear thickening in the mid of metafemora; this club-like thickening is suddenly thinned towards apex, therefore this thickening presents the shape of a biceps; the apical tenth of meta- and mesofemora is nearly subparallel. Elytra with small, closely set punctures, their distances on disc in the rows correspond about to the diameter of a punctures, approximately 47 punctures in row 4. Elytral intervals not convex on disc; length/width ratio of elytra 1.19-1.30:1. Pronotum wider, slightly opaque. Body length 9.07-10.5 mm (SE Papua New Guinea, Stanley-Owen Range, Mt. St. Mary) (Fig. 6) *A. athleticus* **sp. n.**
- Ventral side of metafemora in males without a row of small tubercles; elytral intervals more convex slightly convex; pronotum narrower. 31
- 31 Somewhat smaller and narrower: body length 8.6-8.9 mm. Elytra with somewhat incised striae with small, closely set, round to elongate punctures which are well visible towards apex; approximately 42 punctures in stria 4, intervals somewhat convex, allusively chagreened, barely punctured; maximum of elytral width and height approximately at the beginning of second third. Upperside dark coppery, lustrous (pronotum somewhat darker than elytra). (Papua New Guinea, Mt. Tafa) (Fig. 12) *A. laesus* **sp. n.**
- Larger: body length 9.47-10.13 mm. Elytra oval (length/width ratio 1.25-1.29:1) and relatively little convex, with somewhat incised striae and with small, closely set stria punctures (approximate 50 in row 4), moderately convex intervals; maxima of width and height of elytra posterior to those of preceding species. Prosternal apophysis somewhat horizontally protruding backwards, with a moderately deep, median groove along procoxae; bottom of apophysis smooth. Upperside black, frequently with a slight metallic tinge, in some specimens coppery, all specimens with a reduced lustre. (Papua New Guinea, Owen Stanley Range, Mt. St. Mary) (Fig. 18) *A. validus* **sp. n.**

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Zusammenfassung

Achtzehn neue flügellose Arten der Gattung *Amarygmus* DALMAN, 1823 aus Neu Guinea werden beschrieben und abgebildet: *Amarygmus accretus* **sp. n.**, *Amarygmus altithronus* **sp. n.**, *Amarygmus altivagus* **sp. n.**, *Amarygmus ambiguus* **sp. n.**, *Amarygmus annexus* **sp. n.**, *Amarygmus athleticus* **sp. n.**, *Amarygmus coniunctus* **sp. n.**, *Amarygmus conveniens* **sp. n.**, *Amarygmus convictor* **sp. n.**, *Amarygmus globulus* **sp. n.**, *Amarygmus intricatus* **sp. n.**, *Amarygmus laesus* **sp. n.**, *Amarygmus nigritus* **sp. n.**, *Amarygmus seorsus* **sp. n.**, *Amarygmus sphaeroides* **sp. n.**, *Amarygmus strenuus* **sp. n.**, *Amarygmus thoracicus* **sp. n.** und *Amarygmus validus* **sp. n.**

Daneben werden zwei neue geflügelte *Amarygmus*-Arten aus Neu Guinea beschrieben und abgebildet, da sie wegen ihrer Gestalt ungeflügelte Arten vortäuschen: *Amarygmus balkei* **sp. n.** und *Amarygmus montisellae* **sp. n.**

Eine Bestimmungstabelle der ungeflügelten *Amarygmus*-Arten Neu Guineas wird vorgelegt.

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