

Linzer biol. Beitr.	48/2	1295-1312	19.12.2016
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**Two new species of the *Anthracus annamensis* group from Australia and New Caledonia, and notes on identity and generic placement of *Acupalpus angulatus* MACLEAY, 1871 and *Acupalpus trapezus* FAUVEL, 1882 (Coleoptera, Carabidae, Harpalini, Stenolophina, Pelmatellina)**

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**A b s t r a c t :** *Anthracus baehri* nov.sp. is described from Australia (type locality: Queensland: Mt. Maroon) and *Anthracus novaecaledonicus* nov.sp. from New Caledonia (type locality: New Calédonie: Païta). *Acupalpus angulatus* MACLEAY, 1871 and *Acupalpus trapezus* FAUVEL, 1882 are redescribed and transferred to the genus *Lecanomerus* of the Harpalini subtribe Pelmatellina.

**K e y w o r d s :** Stenolophina, Pelmatellina, *Acupalpus*, *Anthracus*, *Lecanomerus* redescrptions, new species, Australia, New Caledonia.

### Introduction

According to the most recent systematic list of Ground Beetles of the World (LORENZ 2005) and additions of JAEGER (2015a), nine species of the closely related Stenolophina genera *Acupalpus* and *Anthracus* are hitherto known from the Australian region. Five of those were described from Papua New Guinea by DARLINGTON (1968) and JAEGER (2015a), three from Australia by SLOANE (1898, 1900) and MACLEAY (1871), and one from New Caledonia by FAUVEL (1882). However, examination of the type material of *Acupalpus angulatus* MACLEAY from Australia and of *A. trapezus* FAUVEL from New Caledonia revealed that they do not belong to the genus *Acupalpus*, but to the genus *Lecanomerus* CHAUDOIR, 1850 of the Harpalini subtribe Pelmatellina. In contrast to the latter two species the taxonomic position of *Acupalpus tachioides* (SLOANE, 1900) from Australia is not yet clarified. The species was originally described as a member of the genus *Thenarotes* BATES, 1878 (junior synonym of *Lecanomerus*) by SLOANE (1900: 559-560), later listed as a species of the genus *Nemaglossa* (with *Thenarotes* and *Lecanomerus* congeneric) by CSIKI (1932: 1059), and more recently it was transferred to the genus *Acupalpus* by MOORE (MOORE et al 1987: 244). However, though the image of the "Lectotype" provided by the South Australian Museum reminds in colour and general appearance on *Acupalpus* (*Stenolophidius*) *brunnicolor* (SLOANE, 1898), SLOANE clearly indicated in the original description that *T. tachioides* differs from this species, amongst other characters, by the lack of the scutellar striole. This character is not known from the species of the genera *Acupalpus* and *Anthracus* and therefore *A. tachioides* is most likely

not a member of these genera. The final generic placement of this species must be clarified after detailed study of its type(s).

Considering these remarks, only three species of the genus *Anthracus* and three of the genus *Acupalpus*, among them only one from Australia, are so far known from the Australian region. According to DARLINGTON (1968: 72), one of the reasons, that small water-loving, primarily Oriental Acupalpina are dominant in New Guinea and partly also in the northern half of Australia but decrease or disappear in southern Australia, is that their place is taken by small Pelmatellina of the genus *Lecanomerus*, which are numerous throughout Australia, but unknown farther west in the Malay Archipelago. However, recent collections from Australia by Martin Baehr, well known expert on Australian Carabidae, include *Acupalpus brunnicolor* (SLOANE) which is rather abundant in N Australia, and two species of the genus *Anthracus*. One of these belongs to the *Anthracus angusticollis* group and is closely related or even conspecific with *A. exactus* DARLINGTON, 1968 from Papua New Guinea, while the other represents an undescribed species of *Anthracus annamensis* group, which has a great diversity in the Oriental region but was so far only represented by one species, *Anthracus furvinus* DARLINGTON from Papua New Guinea, in the Australian region.

Surprisingly, the old non-type material of "*Acupalpus trapezus*" from New Caledonia includes also one specimen, which does not belong to this species, but represents an additional undescribed species of the *A. annamensis* group.

The following contribution provides the descriptions of the new species of the *A. annamensis* group from Australia and New Caledonia, and redescriptions of "*Acupalpus angulatus*" MACLEAY and "*Acupalpus trapezus*" FAUVEL, which are transferred to the genus *Lecanomerus*.

## Material and Methods

Types and material examined are deposited in the following institutions:

QMB ..... Queensland Museum Brisbane, Australia  
 AMS ..... Australian Museum, Sydney, Australia  
 CNC ..... Canadian National Collections, Ottawa, Canada  
 IRSNB ..... Institut royal des sciences naturelles de Belgique, Brussels, Belgium  
 cBAE ..... Working Collection M. Baehr in Zoologische Staatssammlung, Munich, Germany

Citations of label data, measurements, dissection procedures, preparation of images follow methods described in JAEGER (2009, 2012).

## Results

### *Anthracus baehri* nov.sp. (Figs 1-8)

**Type material:** Holotype: ♂ (QMB, type no QMT234883) labelled "Mt. Maroon, s. Qld. / 400-700m, Austral. / 13.12.81-30.1.82 / M. Baehr", "HOLOTYPE ♂ / Anthracus / baehri nov. sp. / des. B. Jaeger 2016" [red label]. The holotype is in good condition without missing body parts.  
Paratypes: 1 ♀ (cBAE) with same locality label as the Holotype. 1 ♂ (CNC) "AUSTRALIA /

Atherton, Qld. / 12.II.1975 / H. & A. Howden". All paratypes additionally labelled "PARATYPE ♂ or ♀ / Anthracus / baehri nov. sp. / des. B. Jaeger 2016" [red label].

**E t y m o l o g y :** The species is dedicated to Dr. Martin Baehr, former curator of the Zoologische Staatssammlung Munich and famous expert on Australian Carabidae, who collected a part of the type series during his expedition to Australia.

**D e s c r i p t i o n :** General appearance as figured (Fig. 1). Body length 3.7-3.8 mm (HT 3.8 mm); width 1.4-1.5 mm.

Shiny, pronotum weakly, elytra moderately iridescent. Head reddish yellow or pale reddish brown, usually darker than pronotum, with clypeus, mandibles (inner margins and apices of the latter blackish), and labrum paler reddish yellow. Pronotum paler to darker reddish yellow, with lateral margins and base sometimes paler. Elytra reddish yellow, with each elytron having a large blackish or blackish brown central macula, expanding laterally to interval 7, and leaving base, apex and first interval reddish yellow. Legs, palpi and first two antennomeres pale yellowish brown, remaining ones moderately to markedly infuscated. Ventral surface paler to darker brown, often prosternum, and sometimes also proepisterna, epipleura, mouthparts and ventrites paler than head, meso- and metasternum.

Head (Figs 1-3) including eyes 0.80-0.82 times as wide as pronotum, with eyes moderately prominent (head 1.56 times as wide as head between eyes). Labrum almost rectilinear at apical margin. Mandibles medium sized, not distinctly prolonged and curved, left mandible moderately obtuse at apex, not thickened or truncate. Antennae 2.46-2.50 times as long as pronotum and 0.80-0.82 times as long as elytra. Microsculpture on labrum almost isodiametric, on clypeus weakly transverse to isodiametric, on anterior half of head with lightly (paratypes) or very lightly (holotype) impressed isodiametric meshes, on posterior half with lightly to moderately impressed isodiametric meshes, becoming weakly to moderately transverse in front of pronotal anterior margin.

Pronotum (Figs 1-3) 1.30-1.34 times as wide as long, 1.21-1.25 times as wide as head, widest in second quarter, lateral seta inserted about at beginning of second quarter. Apical margin weakly concave. Anterior angles narrowly rounded at tips, moderately projecting forward. Sides convex in anterior half, rectilinearly narrowed to posterior angles, which are widely rounded. Basal margin almost rectilinear or weakly arcuate medially, slightly to moderately oblique to posterior angles. Lateral channels evenly narrow or gradually widened in apical half, becoming markedly widened at posterior third, where they are fused with the baso-lateral impressions. Baso-lateral impressions medium sized and somewhat oblique, clearly delimited from pronotal disc and median part of base, flattened to basal and lateral margins. Basal impressions and other surface of pronotum impunctate. Median line fine, disappearing before reaching basal and apical margins. Anterior transverse impression obliterated or at least suggested. Microsculpture on disc partly obliterated, partly with very lightly impressed strongly transverse meshes, at baso-lateral impressions and in lateral channels with distinctly impressed isodiametric to weakly transverse meshes.

Elytra (Fig. 1) 1.58-1.60 times as long as wide, 2.75-2.90 times as long and 1.31-1.37 times as wide as pronotum with sides weakly to moderately widened posteriorly, widest about at middle. Elytral striae distinctly impressed and impunctate, scutellar striole long. Intervals rather flat to weakly convex on disc, becoming narrowed and moderately convex at apex. Basal pore at beginning of scutellar striole present, interval 3 in third quarter

with one setiferous pore, adjoining stria 2. Microsculpture on scutellum almost isodiametric, on elytral intervals almost obsolete, only here and there with traces of very lightly impressed transverse lines. Macropterous.

Metepisterna at inner margin about 1.5-1.6 times longer than wide at basal margin. Prosternum medially with 6-7, and in front of apical margin with a row of 6-8 longer setae. Prosternal process posteriorly with 2-4 distinct setae. Ventrites 4-6 with distinct and dense pubescence, in ventrite 4 often reduced laterally. Last visible ventrite of males faintly emarginated and that of females almost rectilinear or very faintly convex at apex, at apical margin with two longer setae in males and four in females.

Protarsomeres 1-4 of males markedly dilated and with distinct, biserially arranged adhesive hairs on ventral surface. Protarsomere 4 markedly bilobed. Mesotarsomeres 1-4 of males moderately dilated and with adhesive hairs on ventral surface, mesotarsomere 4 moderately bilobed. In females pro- and mesotarsomeres unmodified. Male profemora somewhat thickened in relation to females and with a row of 7-8 closely arranged, long and fine setae at upper inner margin.

Median lobe of aedeagus (Figs 4-8) rather large, with general appearance as figured. Apical plateau rather long, with a distinct keel distally. Internal sac composed of two large apical teeth, one very large subapical tooth, and in medial portion with a row of 5-6 large, ventrally arranged teeth, and a row of about 15 medium sized, dorsally arranged teeth.

**C o m p a r i s o n s :** *A. baehri* belongs to the *Anthracus annamensis* group and represents the first maculate species of this group from the Australian region. In colour and general appearance, it is similar to various species with maculate elytra from the Oriental region which were recently revised (JAEGER 2015b, c). However, it differs from all these taxa by the markedly thickened male profemora with a row of 7-8 longer setae at upper inner margin and the peculiar shape of the aedeagus and its internal structures (Figs 4-8). Externally, it differs from most Oriental species also by some body proportions.

Regarding the modified male profemora *A. baehri* is similar and probably related to *A. furvinus* DARLINGTON, 1968 from Papua New Guinea and to *A. novaecaledonicus* n.sp. from New Caledonia. However, *A. baehri* can be easily distinguished from both species by the different colour of upper surface with head, pronotum and elytra reddish yellow, the latter with a dark macula on each elytron, instead of upper surface more or less uniformly blackish brown with only margins of pronotum and first elytral interval paler reddish brown. Besides, the median lobe of the aedeagus is smaller, with very different external shape and internal structures. From *A. furvinus* it differs also by the fewer setae on upper inner margin of the profemora, which are more scattered.

From *Anthracus exactus* (DARLINGTON, 1968), a member of the *A. angusticollis* group and the only other species of the genus so far known from Australia, *A. baehri* can be easily distinguished by the completely different general appearance with pronotal hind angles widely rounded instead of markedly angulate, the unmodified pronotal median line instead of median line markedly widened in posterior third, and smaller and less prominent eyes, shorter mandibles, and shorter and less parallel elytra.

**D i s t r i b u t i o n :** *A. baehri* is known only from Queensland.

***Anthracus novaecaledonicus* nov.sp. (Figs 9-14)**

Type material: Holotype: ♂ (IRSNB) with original labels as figured (Fig. 11) and "HOLOTYPE ♂ / *Anthracus / novaecaledonicus* n.sp. / des. B. Jaeger 2016" [red label]. The holotype is in good condition with left antennomeres 4-11 missing.

**E t y m o l o g y** : The species name refers to the known distribution of the species.

**R e d e s c r i p t i o n** : General appearance as figured (Fig. 9). Body length 4.2 mm; width 1.6 mm.

Shiny, pronotum weakly, elytra moderately iridescent. Upper surface almost black, with clypeus, labrum and mandibles (inner margins and apices blackish), medial part of pronotal basal margin, first elytral interval and apex paler to darker reddish or reddish brown. Antennomeres 1 and 2 pale reddish brown, 2-8 dark and 9-11 paler brown. Legs and palpi dark yellowish brown. Ventral surface with head (mouthparts reddish) pro-, meso and metasternum and elytral epipleura dark reddish brown, pro-, mes-, and metepisterna darker blackish brown, and ventrites blackish brown with apical margins of ventrites 3-5 narrowly, and of ventrite 6 widely paler brown.

Head (Figs 9-10) including eyes 0.80 times as wide as pronotum, with eyes moderately prominent (head 1.55 times as wide as head between eyes). Labrum with apical margin almost rectilinear, but obliquely bent to right side. Mandibles medium sized, not distinctly prolonged and curved, left mandible markedly obtuse at apex, but not thickened or truncate. Antennae 2.33 times as long as pronotum and 0.82 times as long as elytra. Microsculpture on labrum isodiametric, on clypeus weakly transverse, on anterior half of head almost obliterated or with lightly impressed isodiametric meshes, on posterior half with lightly impressed isodiametric meshes, becoming weakly transverse in front of pronotal anterior margin.

Pronotum (Figs 9-10) 1.30 times as wide as long, 1.25 times as wide as head, widest in second quarter, lateral seta inserted just posterior to beginning of second quarter. Apical margin markedly concave, anterior angles narrowly rounded at tips, moderately projecting forward. Sides convex in anterior half, rectilinearly narrowed to posterior angles, which are rather widely rounded. Basal margin weakly arcuate medially, slightly oblique to posterior angles. Lateral channels evenly narrow in apical two thirds, becoming markedly widened at posterior third, where they are fused with the baso-lateral impressions. Baso-lateral impressions medium sized, clearly delimited from pronotal disc and median part of base, fused with basal and lateral margin. Basal impressions and other surface of pronotum impunctate. Median line fine, disappearing before reaching basal and apical margins. Anterior transverse impression suggested. Microsculpture on disc almost obliterated, only here and there with very faintly impressed rudimentary lines and strongly transverse meshes, more distinct at medial part of base and in front of pronotal apical margin, at basal-lateral impressions with distinct isodiametric to weakly transverse meshes.

Elytra (Fig. 9) 1.62 times as long as wide, 2.85 times as long and 1.35 times as wide as pronotum with sides very weakly widened posteriorly, widest at middle. Elytral striae distinctly impressed and impunctate, scutellar striole long. Intervals weakly convex on disc, becoming narrowed and moderately convex at apex. Basal pore at beginning of scutellar striole present, interval 3 in third quarter with one setiferous pore, adjoining stria 2. Microsculpture on scutellum almost isodiametric, on elytral intervals almost obsolete, only here and there traces of very lightly impressed transverse lines visible. Macropterous.

Metepisterna at inner margin about 1.5 times longer than wide at basal margin. Prosternum medially with 6-9, and in front of apical margin with 4-5 longer setae. Prosternal process posteriorly with at least 6 long and distinct setae. Ventrites 4-6 with distinct and rather dense pubescence, in ventrite 4 reduced laterally. Last visible ventrite of the male holotype weakly emarginated and at apical margin with two longer setae.

Protarsomeres 1-4 of males markedly dilated and with distinct, biserially arranged adhesive hairs on ventral surface. Protarsomere 4 markedly bilobed. Mesotarsomeres 1-4 of males moderately dilated and with adhesive hairs on ventral surface, mesotarsomere 4 moderately bilobed. Male profemora somewhat thickened and with a row of 7-8 closely arranged long and fine setae at upper inner margin.

Median lobe of aedeagus (Figs 12-14) large with apex very broad and widely rounded. Internal sac composed of three large apical/subapical teeth, and about 14 small to medium sized teeth whose arrangement is not yet clear, because of the partly everted internal sac.

**C o m p a r i s o n s :** *A. novaecaledonicus* nov.sp. belongs to the *Anthracus annamensis* group according to the chaetotaxy of the ligula and the prosternum and other characters. Within this species group it is similar to species with immaculate elytra, particularly to *A. furvus* (ANDREWES) and *A. wrasei* JAEGER from the East Asian continent, and to *A. furvinus* (DARLINGTON) from Papua New Guinea. Though *A. novaecaledonicus* is close to these species in general appearance, it differs from them markedly, not only by the different shape and internal structures of the median lobe of the aedeagus, but also by the different shape and chaetotaxy of the male profemora. Regarding the latter characters, the species is similar and obviously closely related to *A. furvinus* from Papua New Guinea and to *A. baehri* from Australia. However, it can be separated from the former by the different shape and internal structure of the aedeagal median lobe, less numerous setae on male profemora and some body proportions, particularly those of the elytra, which are longer relative to width and longer relative to pronotal length. From *A. baehri* nov.sp. it can be easily distinguished by characters given under this species.

**D i s t r i b u t i o n :** *A. novaecaledonicus* is known only from New Caledonia, Païta.

***Lecanomerus angulatus* (MACLEAY, 1871), comb. nov. (Figs 15-17)**

*Acupalpus angulatus* MACLEAY, 1871: 104 (type locality: Australia: Gayndah)

*Acupalpus angulatus* MACLEAY: MASTERS 1885: 421 [catalogue]

*Acupalpus (Acupalpus) angulatus* MACLEAY: CSIKI (1932: 1243) [catalogue]; LORENZ 1998: 337, 2005: 359 [catalogues]

**Type material:** Syntype: 1♀ (AMS) with original labels as figured (fig. 15) and "*Lecanomerus / angulatus / (MacLeay, 1871) / det. B. Jaeger 2016*". In addition to the attached labels there is a handwritten notice (in the collection obviously arranged close to the specimen) "*No Acupalpus / a Lecanomerus /id. M. Baehr '07*".

**Remarks:** Although the specimen bears a label "Holotype" [a subsequent label, obviously attached by museum staff] it should be regarded a syntype because in the original description MacLeay neither designated a holotype nor stated that he studied only one specimen. The syntype has the left antennomeres 4-11 and the right antennomeres 2-11 missing but is otherwise in good condition.

**Redescription:** General appearance as figured (Fig. 16). Body length 4.9 mm; width 2.2 mm.

Shiny, pronotum and elytra weakly iridescent. Head and pronotum mainly blackish

brown, with labrum and mandibles (apex and inner margin darkened) paler and clypeus, posterior part of head, lateral margins and medial part of base darker reddish brown. Elytra paler than pronotum, mainly dark brown with first elytral interval paler reddish brown. Legs and antennae, at least the first three antennomeres (others missing) yellowish to pale reddish brown. Ventral surface blackish to dark reddish brown, with mouth-parts and epipleura paler.

Head (Fig. 17) very small relative to pronotum, including eyes 0.62 times as wide as pronotum, with eyes moderately prominent (head 1.54 times as wide as head between eyes). Clypeal suture moderately, clypeo-ocular prolongations deeply impressed reaching supraorbital ridge. Mandibles rather long and sharp at apices. Labrum rather long, with apex weakly emarginated. Antennomeres 1 and 2 with few setae apically, antennomere 3 moderately pubescent. Microsculpture on labrum, clypeus, frons and vertex distinct, consisting of isodiametric meshes.

Pronotum (Fig. 17) 1.32 times as wide as long, 1.62 times as wide as head, widest in second quarter, lateral seta inserted just posterior to beginning of second quarter. Apical margin markedly concave (character not well seen in figures), with anterior angles rather widely rounded and moderately projecting forward. Sides convex in anterior half, rectilinearly narrowed to posterior angles, which are distinct and moderately sharp. Basal margin weakly convex medially, and very weakly oblique to posterior angles. Lateral channels rather evenly narrow in apical half, becoming gradually widened posterior to middle and markedly widened in posterior third, where they are fused with the baso-lateral impressions. Baso-lateral impressions medium sized, clearly delimited from the markedly convex pronotal disc and somewhat depressed median part of base, flattened to basal and lateral margin. Basal impressions and other surface of pronotum impunctate. Median line fine, disappearing before reaching basal and apical margins. Anterior transverse impression suggested. Microsculpture distinct consisting of strongly transverse meshes on disc and at sides, and of weakly transverse to isodiametric meshes at medial portion in front of apical margin, at medial part of base and at baso-lateral impressions.

Elytra (Fig. 16) strongly convex and rather short with sides moderately widened posteriorly, widest about at middle, 1.40 times as long as wide, 2.68 times as long and 1.47 times as wide as pronotum. Elytral striae distinctly impressed and impunctate, scutellar striole lacking. Intervals rather flat, becoming narrowed and weakly convex at apex. Basal pore at beginning of second stria present, interval 3 in third quarter with one setiferous pore, adjoining stria 2. Microsculpture on scutellum isodiametric, on elytral intervals distinct, consisting of very dense, markedly transverse meshes and/or lines. Macropterous.

Ventral side: Penultimate segment of labial palpi bisetose, ligula bisetose, mentum with a distinct medial dent, mentum and submentum divided by a distinct suture. Prosternum, proepisterna and prosternal process, meso- and metasternum, mes- and metepisterna impunctate, without setae. Metepisterna long. Ventriles smooth, without pubescence, but with the usual pair of ambulatory setae, and last visible ventrite of the female type with one additional pair of setae at apical margin.

**R e m a r k s :** MACLEAY (1871: 104) described *Acupalpus angulatus* from an unknown number of specimens collected by Masters in Gayndah, a town on the Burnett River, in SE Queensland. The short description includes few characters, such as length, colour, shape of head, pronotum and elytra, used to differentiate the species from the "*Acupalpus*

*mastersi*" [= junior synonym of *Lecanomerus vestigialis* (ERICHSON, 1842)] described by MacLeay on the same page, but no other characters which allow verification of the generic placement of the species. After the description, the species was only listed in catalogues (MASTERS 1885: 421, CSIKI 1932: 1243, MOORE et al. 1987: 243, LORENZ 1998: 337, 2005: 359) but was not taxonomically revised. Thus, the generic placement of *Acupalpus angulatus* has remained doubtful.

Study of the syntype reveals that the species neither belongs to the genus *Acupalpus* nor to the related genus *Anthracus*. Although most of the important characters of the female type specimen, such as penultimate segment of labial palpi bisetose, ligula bisetose, mentum dentate, mentum and submentum divided by a distinct suture, prosternum and prosternal process without any seta, abdomen without any pubescence, clypeo-ocular prolongations fully developed and scutellar striole lacking, occurs also in some genera of the subtribe Stenolophina, *Acupalpus angulatus* does obviously not belong to this subtribe. Though the type of arrangement of adhesive hairs of the ventral surface of male pro- and mesotarsomeres remain unknown, other important characters match modern definitions of the genus *Lecanomerus* of the subtribe Pematellina given by DARLINGTON (1968: 45) and LAROCHELLE & LAVRIERE (2005: 60-61). Thus, I follow here M. Baehr (according to his note on the type specimen) and place the species into the genus *Lecanomerus*. However, further studies, particularly on the arrangement of adhesive on ventral surface pro- and metatarsomeres of male specimens are necessary to confirm this placement.

#### ***Lecanomerus trapezus* (FAUVEL, 1882) (Figs 18-24)**

*Stenolophus trapezus* FAUVEL, 1882: 272 (Type locality: Nouvelle Calédonie: Koné.)

*Acupalpus trapezus* FAUVEL 1903: 227 [fauna]

*Acupalpus (Acupalpus) trapezus* FAUVEL: CSIKI 1932: 1254 [world catalogue], LORENZ 1998: 338, 2005: 360 [world catalogues]

Type material: **Holotype**: ♂ (IRSNB) labelled "Coll. R. I. Sc. N. B. / Nouvelle Calédonie / Koné rec Deplanche / ex. Coll. Fauvel" [large pale reddish label, with "Koné" on a white label, glued on the large label], "Coll. et det. A. Fauvel / Acupalpus / trapezus Fvl." [last two lines hw Fauvel]; "TYPE" [red label with black border] and "Lecanomerus / trapezus / (Fauvel, 1882) / det. B. Jaeger 2016". The holotype is in good condition without missing body parts.

Additional material: 2♂♂, 2♀♀ (Coll. Fauvel, IRSNB) from "Nouvelle Calédonie" identified as *Acupalpus trapezus* by Fauvel. One of the females with reduced yellowish colouration on apical part of elytral intervals bears the two handwritten labels of Fauvel: "trapezus Fvl. var. ?" and "Elytres apice aliter coloratis".

A third male of "*Acupalpus trapezus*" from "Païta" deposited in the coll. Fauvel, does not belong to *L. trapezus* but to a new species of the *Anthracus annamensis* group which is described earlier in this paper.

**Redescription**: General appearance as figured (Fig. 18). Body length 4.1-5.0 mm (HT 4.3); width 1.6-2.0 mm.

Shiny. Head blackish brown with labrum and mandibles (inner margin and apex darker) reddish, palpi pale yellowish brown. Pronotum dark brown with lateral margins, base and sometimes also apex paler reddish brown. Elytra dark brown or blackish brown, with first, seventh and eighth interval and apex yellowish. Usually also the apical parts of interval 2, 3, 4 and 6 yellowish. Antennae yellowish or pale reddish brown, sometimes antennomeres 1-4 partly infuscated. Ventral surface mainly blackish or dark reddish brown, but epipleura of pronotum weakly and those of elytra moderately paler reddish brown, and ventrites laterally with a yellowish patch at sides.



Head (Fig. 18-20) moderately large, including eyes 0.72-0.74 times as wide as pronotum, with eyes moderately prominent (head 1.54-1.64 times as wide as head between eyes). Clypeal suture only very weakly impressed, clypeo-ocular prolongations deeply impressed reaching supraorbital ridge. Mandibles rather long and sharp at apices. Labrum rather long, with apex weakly emarginated. Antennomere 1 smooth, except for usual seta, 2 with few setae apically, and antennomeres 3-11 densely pubescent. Microsculpture on labrum, clypeus, frons and vertex distinct, consisting of isodiametric meshes.

Pronotum (Fig. 18-20), 1.23-1.27 times as wide as long, 1.35-1.38 times as wide as head. Lateral seta inserted just at, or just anterior to beginning of second quarter. Apical margin moderately concave, with anterior angles weakly projecting forward (characters not well seen in figures) and rather narrowly rounded at apices. Sides weakly convex in anterior two thirds, rectilinearly narrowed at posterior third with a short sinuation in front of hind angles, which are distinct with apices slightly projecting laterad. Basal margin rectilinear medially, and weakly oblique to posterior angles. Lateral channels very thin, evenly narrow from anterior to posterior angles. Lateral bead very fine, becoming more distinct in front of hind angles, prolonged around hind angles reaching medial third of base. Baso-lateral impressions very flat and indistinct, weakly delimited from the moderately convex pronotal disc and the slightly depressed medial part of base. Basal impressions and other surface of pronotum impunctate. Median line fine, disappearing before reaching basal and apical margins. Anterior transverse impression weak to moderate. Microsculpture distinct consisting of weakly transverse meshes on disc and at sides, and of isodiametric meshes at medial portion in front of apical margin, at medial part of base and at baso-lateral impressions.

Elytra (Fig. 18) weakly convex, with sides weakly to moderately widened posteriorly, widest about at middle, 1.50-1.55 times as long as wide, 2.67-2.86 times as long and 1.44-1.48 times as wide as pronotum. Elytral striae weakly impressed and impunctate, scutellar striole lacking. Intervals rather flat from base to apex, becoming weakly narrowed in front of the latter. Basal pore at beginning of second stria present, interval 3 in third quarter with one setiferous pore, adjoining stria 2. Microsculpture on scutellum isodiametric, on elytral intervals distinct, consisting of weakly to moderately transverse meshes. Macropterous.

Ventral side: Penultimate segment of labial palpi bisetose, ligula bisetose, mentum with a distinct medial dent, mentum and submentum divided by a distinct suture. Prosternum, with two or three larger punctures, proepisterna and prosternal process, meso- and metasternum, mes- and metepisterna impunctate, without setae. Metepisterna at inner margin about 1.6 times longer than wide at basal margin. Ventriles smooth, without pubescence, but with the usual pair of ambulatory setae, and last visible ventrite of the males with two and that of females with four setae at apical margin.

Pro- and mesotarsomeres 1-4 markedly (the former) or moderately dilated (the latter), protarsomeres 1-4 and mesotarsomeres 2-4 with spongy vestiture on ventral surface.

Median lobe of aedeagus (Figs 21-24) with general appearance as figured. Apex with characteristic shape in lateral (Fig 21a) and dorsal aspect (Fig 24). Internal sac without larger apical teeth or sclerites but with characteristic fine structures (fig. 24).

**R e m a r k s :** FAUVEL (1882: 272) described the species from one specimen from Koné, New Caledonia, collected by Deplanche, and placed it in the genus *Stenolophus*

DEJEAN, including *Amphibia* MONTROUSIER (now a junior synonym of *Stenolophus* subgenus *Egadroma*). According to Fauvel's "Obs." and his key of New Caledonian *Stenolophus* (species, which partly belong to the genus *Stenolophus* and partly to genus *Lecanomerus*), *S. trapezus* differs from other members of the genus by its small size, its cordate, non-transverse pronotum, and metatarsomeres not carinate at outer margin. Later, in his "Fauna Analytique des coléoptères de la Nouvelle-Calédonie" FAUVEL (1903: 227) listed the species as a member of the genus *Acupalpus* and quoted "Deux exemplaires". In subsequent catalogues (CSIKI 1932: 1254, LORENZ 1998: 338, 2005: 360) *S. trapezus* was also listed as a member of the genus *Acupalpus*. Because FAUVEL's original description did not include characters which allow verification of the generic assignment of *S. trapezus*, its placement within the genus *Acupalpus* has remained doubtful. The recent examination of the holotype and additional specimens revealed that the species displays the diagnostic characters, including the spongy ventral surface of pro- and mesotarsomeres of males, of the genus *Lecanomerus* of the Harpalini subtribe Pelmatellina and is therefore transferred to this genus.

### Acknowledgements

I thank Martin Baehr of the Zoologische Staatssammlung Munich for the opportunity to study his interesting *Acupalpus* and *Anthracus* material collected during several expeditions to Australia. I am also very grateful to Chris Reid and Derek Smith from the Australian Museum, Sydney and to Wouter Dekoninck and Alain Drumont from the Institut royal des sciences naturelles de Belgique, who provided the type material of MacLeay and Fauvel for study. I am also very grateful to Chris Reid for the linguistic improvement of the manuscript.

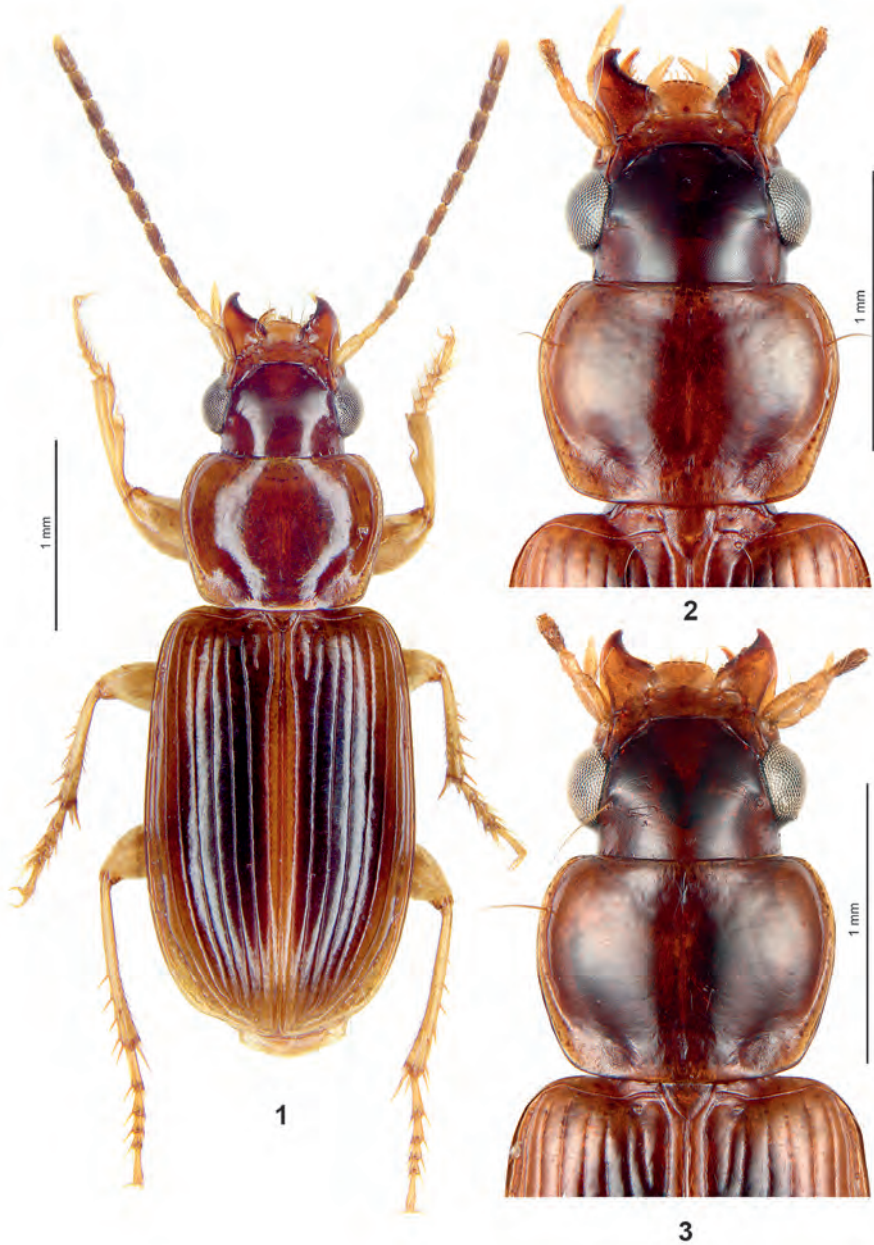
### Zusammenfassung

*Anthracus baehri* n.sp. (locus typicus: Australia: Queensland: Mt. Maroon) und *Anthracus novaecaledonicus* n.sp. (locus typicus: Nouvelle Calédonie: Paita) werden neu beschrieben. Redeskriptionen werden für *Acupalpus angulatus* MACLEAY, 1871 und *Acupalpus trapezus* FAUVEL, 1882 vorgelegt. Beide Arten werden in die Gattung *Lecanomerus* CHAUDOIR, 1850 der Harpalini subtribus Pelmatellina umgesetzt.

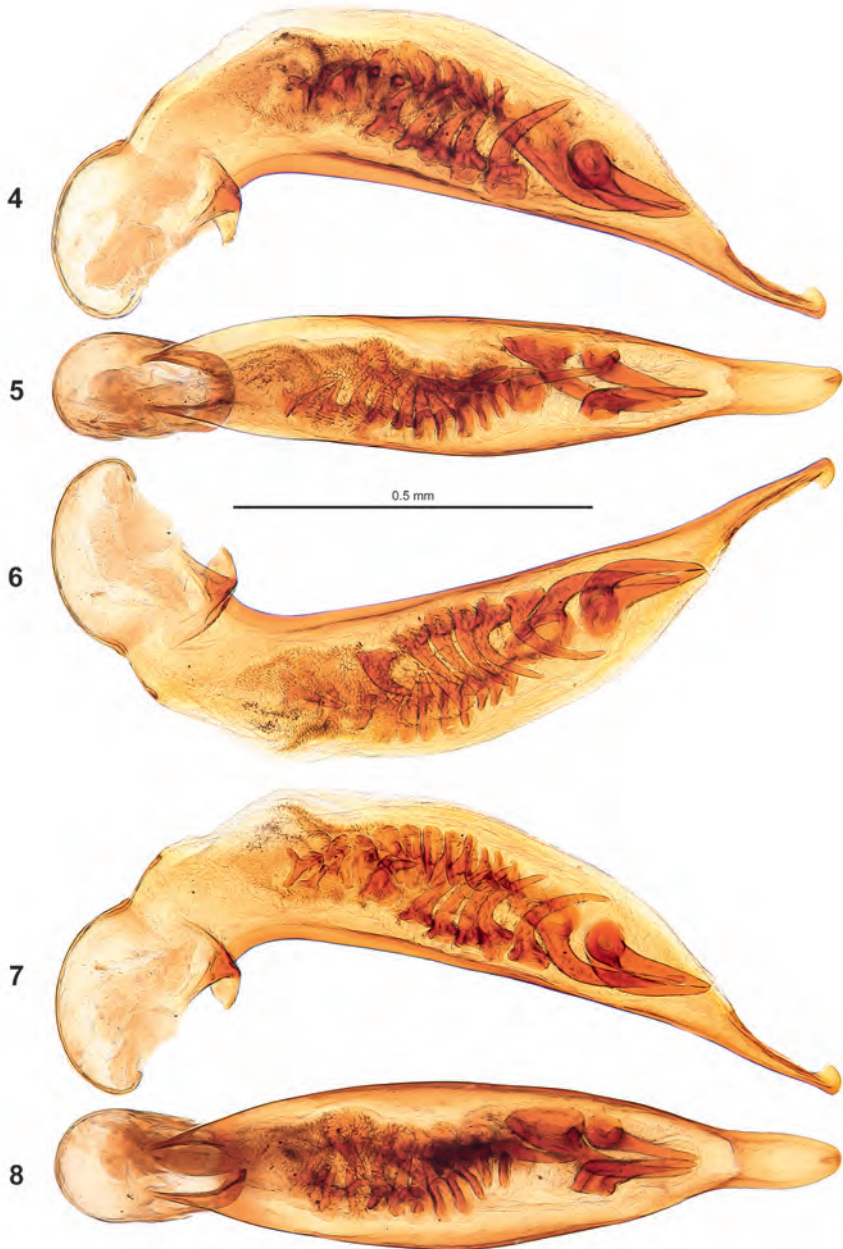
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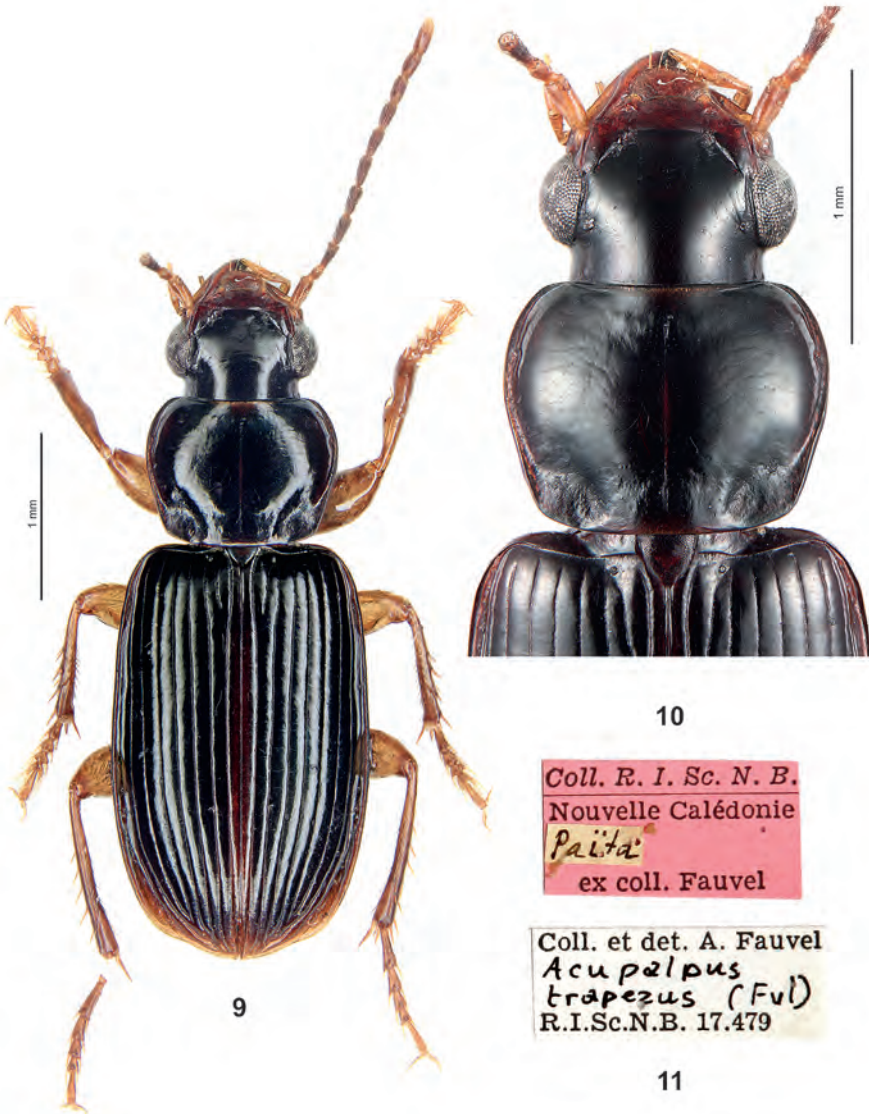




**Figs 1-3:** *Anthracus baehri* nov.sp. Habitus, head and pronotum. (1) Holotype; (2) Paratype, Australia, Mt. Maroon; (3) Paratype, Australia, Atherton.



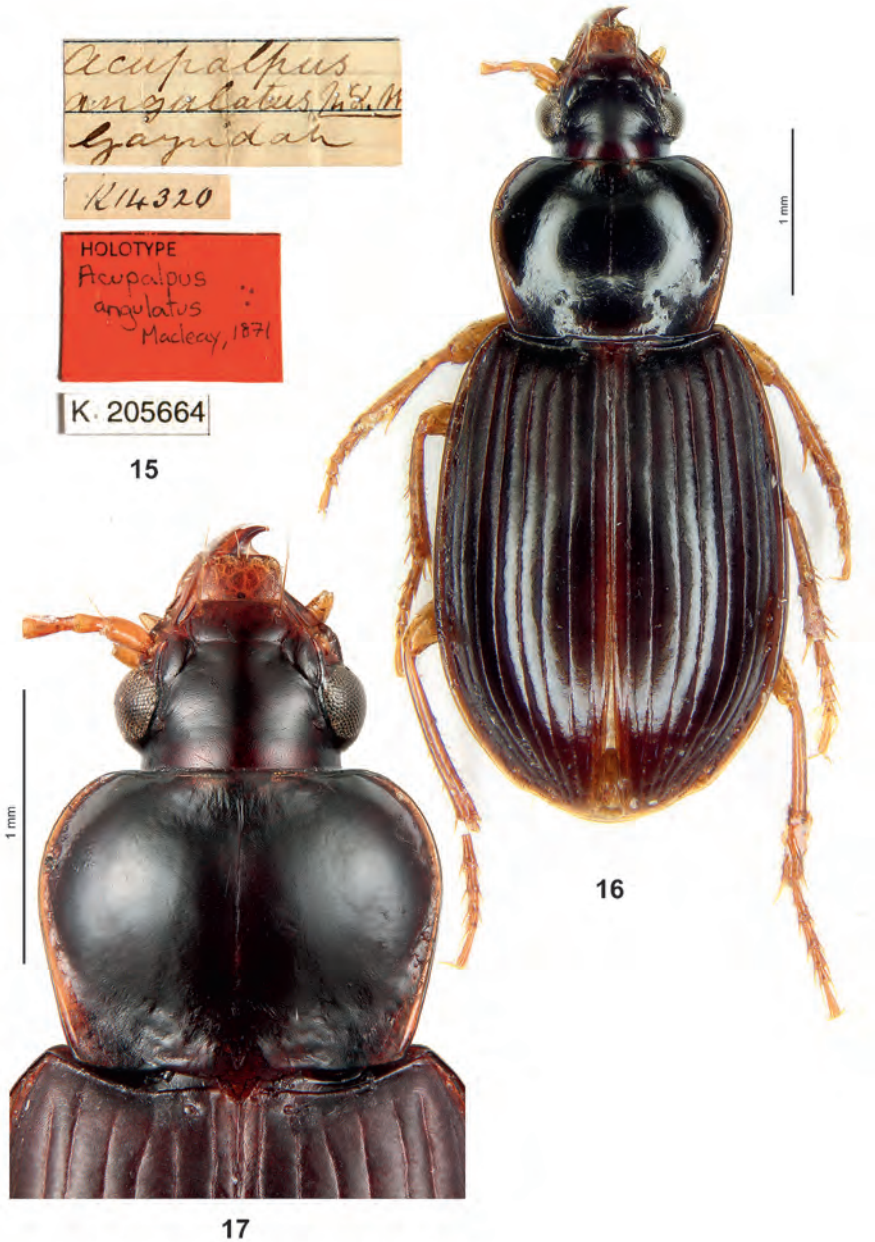
**Figs 4-8:** *Anthracus baehri* nov.sp. Median lobe of aedeagus, lateral and dorsal aspect. (4-6) Holotype; (7, 8) Paratype, Australia, Atherton.



**Figs 9-11:** *Anthracus novaecaledonicus* nov.sp. Habitus, head and pronotum, original labels. (9-11) Holotype.

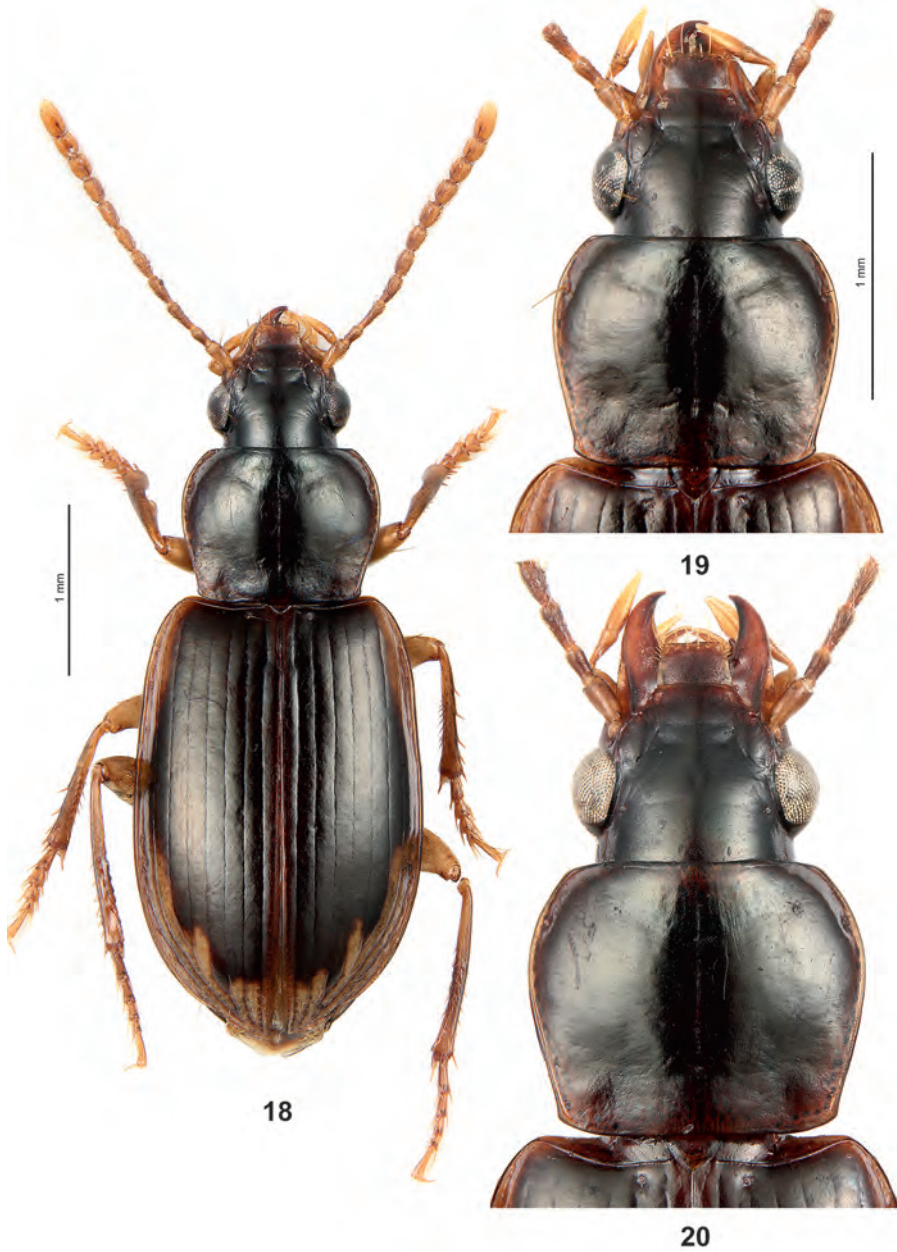


**Figs 12-14:** *Anthracus novaecaledonicus* nov.sp. Median lobe of aedeagus, lateral and dorsal aspect. (12-14) Holotype.

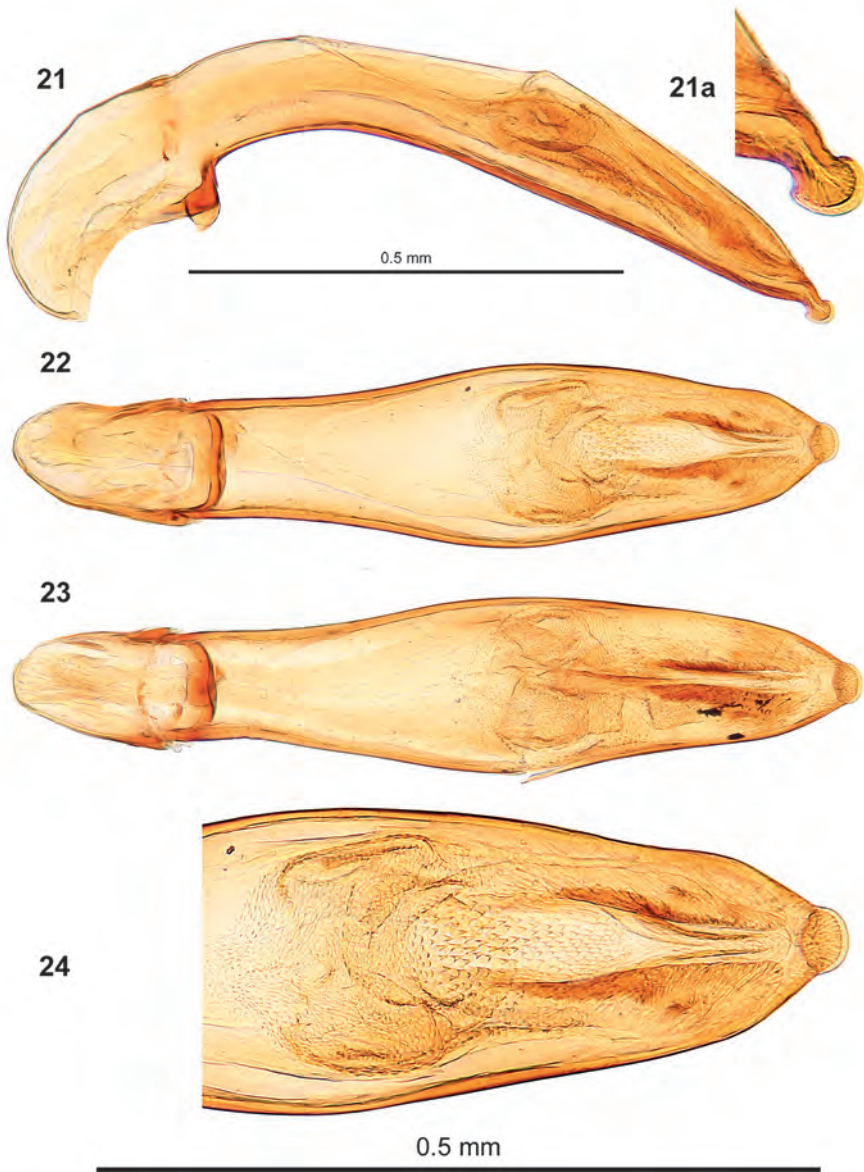


**Figs 15-17:** *Lecanomerus angulatus* (MACLEAY, 1871). Original labels, Habitus, head and pronotum. (15-17) Syntype.





**Figs 18-20:** *Lecanomerus trapezus* (FAUVEL, 1882). Habitus, head and pronotum. **(18)** Holotype; **(19, 20)** "Nouvelle Calédonie".



**Figs 21-24:** *Lecanomerus trapezus* (FAUVEL, 1882). Median lobe of aedoeagus, lateral and dorsal aspect. (23) Holotype; (21, 21a, 22, 24) "Nouvelle Calédonie".

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Autor(en)/Author(s): Jaeger Bernd

Artikel/Article: [Two new species of the Anthracus annamensis group from Australia and New Caledonia, and notes on identity and generic placement of Acupalpus angulatus MACLEAY, 1871 and Acupalpus trapezus FAUVEL, 1882 \(Coleoptera, Carabidae, Harpalini, Stenolophina, Pelmatellina\) 1295-1312](#)