

## NOTES ON CERAMBYCIDAE, I—XIV

by

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Under the above title I intend to publish a number of short notes on Cerambycidae, including synonymies, descriptions of new species, etc. For the greater part the material on which these notes are based is from the Rijksmuseum van Natuurlijke Historie at Leiden. In other cases the collections are always indicated. Each set of notes published together will be arranged according to Aurivillius in *Coleopterorum Catalogus* (Junk-Schenkling), parts 52, 39, 73 and 74.

### I. ADDITIONAL NOTE ON RHAPHIPODUS DRESCHERI DE JONG (PRIONINAE, PRIONINI)

#### ***Rhaphipodus drescheri*** De Jong (fig. 1a and b)

*Rhaphipodus drescheri* De Jong, 1936, *Zool. Med.*, vol. 19, p. 77.

When studying some Cerambycidae in the collections of the Amsterdam Zoological Museum I found three specimens, 2 ♀♀ and 1 ♂, of the here-mentioned species from the same locality, Noesa Kembangan, and apparently belonging to the original series of specimens, all collected by Mr. F. C. Drescher. I would not have mentioned this find had not the measurements been varying from those given in the original description. Especially the male is larger than those I saw before. The data are as follows:

Sex	Locality	Date	Total length	Total breadth	Length antennae
♀	Noesa Kembangan	XI—1911	37.5 mm	16 mm	24 mm
♀	Noesa Kembangan	VIII—1917	35 mm	15 mm	22.5 mm
♂	Noesa Kembangan	VIII—1917	45 mm	18 mm	35 mm

These measurements agree in their proportions with those given before. In the ♀♀ the antennae reach the middle of the length of the elytra, in the ♂ they are longer and reach the base of the apical third.

Some details which were not given in the original description may be added here.

The prosternum (fig. 1) is finely and evenly punctulated on its whole surface except on a narrow strip along the anterior and internal margins of the coxae and the tip of the protuberance pointing backwards between the coxae. The apex of this protuberance is evenly rounded and more or less shining.

The fore border of the mesosternum is almost perpendicularly (fig. 1 b) truncated. In the central part it is slightly protruding forwards and distinctly elevated. This protrusion is faintly incised in the middle. In

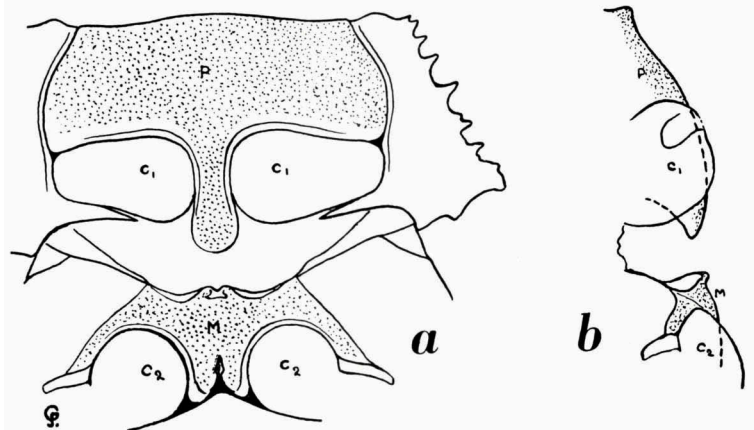


Fig. 1. *Rhaphipodus drescheri* De Jong, ♂, pro- and mesosternum. a, ventral view, b, lateral view; C<sub>1</sub>, fore coxae; C<sub>2</sub>, middle coxae; P, prosternum; M, mesosternum. × 5.

the ♂ it is somewhat broader than in the ♀. The lateral parts of the anterior border show a flat, somewhat elongated, distinctly bordered space which lies halfway turned towards the ventral surface. The lateral parts of the mesosternum are rather narrow strips which partly surround the coxal cavities. The disc of the mesosternum is prolonged between the middle coxae, not protruding beyond them. This posterior part of the mesosternum is incised medially (fig. 1 a) for about half its length. The anterior half of the incision is not very deep: its bottom can easily be seen. The surface of the mesosternum is rather evenly punctulated like that of the prosternum, only in the central part the punctulation is slightly deeper.

On the mesosternum as well as on the prosternum there is a distinct fine groove along the coxal cavities. Between this groove and the edge of the cavity there is no punctulation.

II. LOGAEUS GYMNSTETHUS HELLER = DORYSTHENUS  
(PARAPHRUS) PLANICOLLIS (BATES)  
(PRIONINAE, PRIONINI)

**Dorysthenes (Paraphrus) planicollis** (H. W. Bates) (fig. 2)

*Cyrtognathus planicollis* Bates, 1878, Ent. Monthly Mag., vol. 14, p. 272.

*Dorysthenes (Paraphrus) planicollis* Lameere, 1911, Ann. Soc. Ent. Belg., vol. 55, p. 336 (Révision des Prionides, p. 768); Aurivillius, 1913, Col. Cat., pars 52, p. 69; De Jong, 1941, Tijdschr. v. Ent., vol. 84, p. xxxi.

*Logaeus gymnostethus* Heller, 1940, Tijdschr. v. Ent., vol. 83, p. 120, figs. a and b.

Leiden Museum:

Sumatra: 2 ♂♂, Langkat, leg. C. Dixon (ex coll. Dr. H. J. Veth); 1 ♂, Serdang, Tandjong Morawa, leg. Dr. B. Hagen; 1 ♂, Ophir, Talangtalee, 1915, leg. A. de Kock; 1 ♂, Tebingtinggi, leg. F. J. Weynman; 1 ♂, Padang Sidempoean, leg. P. F. Sijthoff (ex coll. Dr. H. J. Veth); 1 ♂, Tapanoei, leg. A. L. van Hasselt (ex coll. Dr. H. J. Veth); 1 ♂, Manna, 1901, leg. M. Knappert (ex coll. Dr. H. J. Veth); 1 ♂, Soekadana, Lamongsche Distr., leg. J. C. van Hasselt; 1 ♂, Solok, leg. J. Th. Schagen van Leeuwen; 1 ♂, Solok, leg. P. O. Stolz.

Borneo: 2 ♂♂ Z.O.-Afdeeling, Boven Kapoeas, leg. S. L. Brug.

Java: 1 ♂ (ex coll. Heylaerts).

Collection Mr. A. E. Kerkhoven (in Leiden Museum):

Java: 1 ♂, Preanger, Taloen.

Collection Mr. G. van Roon (in Leiden Museum):

Sumatra: 1 ♀, W. Sumatra, 29 IV; 1 ♀, Sumatra occ., IV, leg. A. Heyne; 2 ♂♂, W. Sumatra, Kabah, 1000 m, leg. A. Heyne; 1 ♀.

Collection Mr. C. Dixon (in Leiden Museum):

Annam: 1 ♀.

Amsterdam Museum:

Sumatra: 2 ♂♂, Benkoelen, Tambang Sawah, 1924, leg. Walke (collection E. Jacobson); 3 ♂♂, N. Korintji Vallei, 5000 ft., IX 1921, leg. F. J. Pratt (collection E. Jacobson); 8 ♂♂, Boekit Barisan, Korintji, Westslope, 2500 ft., IX 1921, leg. F. J. Pratt (collection E. Jacobson); 2 ♂♂ and 3 ♀♀, Boekit Gabah, Sumatra's Westkust, 1919, leg. H. Lucht (these 5 specimens have red legs and partly red antennae, probably they are newly hatched beetles).

Collection Mr. P. H. van Doesburg:

Sumatra: 4 ♂♂ and 1 ♀, Ranau, IV 1935, leg. J. J. Th. Boom; 1 ♀, Ranau, V 1935, leg. J. J. Th. Boom; 2 ♀♀, Ranau, VI 1935, leg. J. J. Th. Boom; 1 ♀, Benkoelen, Lebong Panday.

Collection Mr. M. Hardonk:

Borneo: 1 ♂, Balikpapan, leg. M. Hardonk.

Collection Mr. J. J. de Vos tot Nederveen Cappel:

Borneo: 1 ♂.

After reading Heller's description of *Logaeus gymnostethus* (l.c.) Mr. van Doesburg found in his collection a number of specimens which

agreed fairly well with this description, but which showed remarkable differences from the figure given of thorax, head and antennae. Moreover a number of the specimens showed differences which apparently were due to sexual characteristics. He sent them to me as he doubted whether he

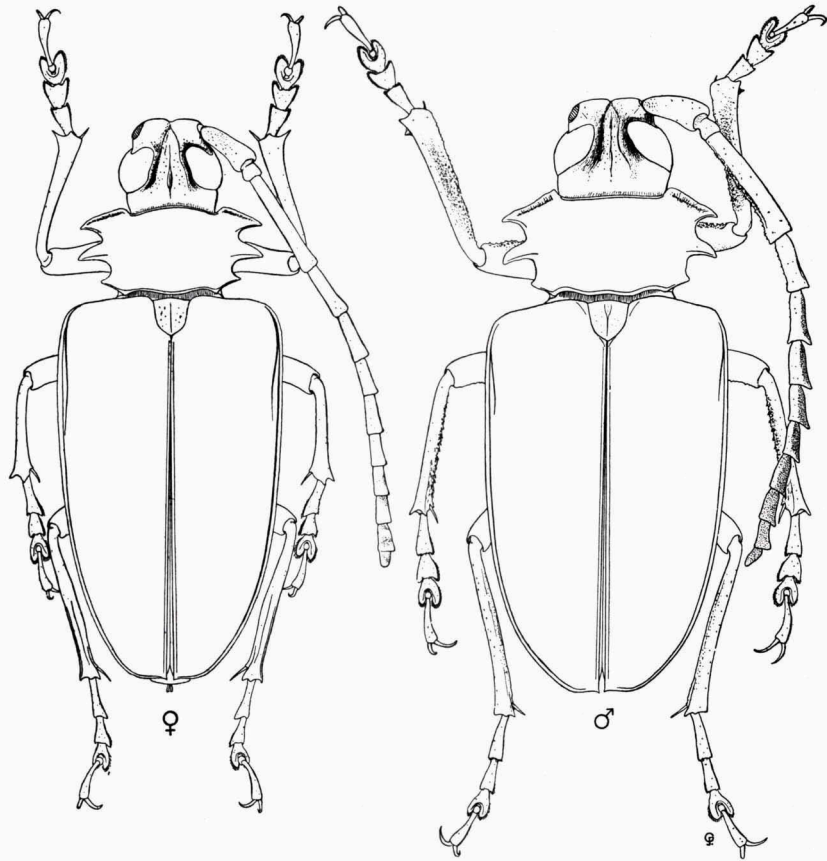


Fig. 2. *Dorysthenes (Paraphrus) planicollis* (H. W. Bates). Left: ♀ from Ranau, Sumatra; right: ♂ from Lampong Districts (leg. Van Hasselt). In both ♂ and ♀ the left antenna omitted. X 2.

really possessed so many specimens of a species that had never been described before.

After having examined the specimens and the description I can state that they really belong to the same species as Heller's type. It appears, however, that they do not belong to *Logaeus* but to *Dorysthenes (Paraphrus) planicollis* Bates. Heller perhaps made this mistake by using Gahan's key to the genera in "Fauna of British India, I, Cerambycidae",

which leads to *Logaeus*. This key, however, was made for the British Indian species only and appears to be insufficient to identify species from the adjacent countries.

The generic description of *Logaeus* Waterh. (1881, Ann. Mag. Nat. Hist. (5), vol. 7, p. 458) shows many points which leave no doubt that the present species does not belong to it. In both ♂ and ♀ of *D. planicollis* Bates the left mandible is not triangularly dilated at the base. The eyes are less approximate above. The labial palpi are rather long, nearly as long as the first antennal joint. Their apical joints are somewhat broader than the preceding ones, faintly broadening towards the apex which is obliquely truncate. The maxillary palpi are thinner than the labial palpi. Their last three joints are of about equal length. The apical joint is slightly broadened towards the top, which is obliquely truncate. In *Logaeus* the labial palpi are very short and their apical joints irregularly ovate, the maxillary palpi are moderately long and stout, their apical joints oblong.

In *D. planicollis* Bates the anterior margin of the prothorax is slightly prolonged laterally along the occiput towards the eyes, then sloping down obliquely backwards and ending into a broad thorn. The second thorn which is situated in the middle of the lateral margin is directed more or less parallel with the first. The hind margin of the prothorax is slightly bisinuate, the lateral angles are obtuse and are prolonged obliquely forward into the short, third lateral thorn. In *Logaeus* the first lateral thorn forms almost a straight line with the anterior margin and ends into a strong spine; the second thorn is doubled near the apex.

A further characteristic is the almost equally opaque surface of the pronotum. In *Logaeus* some distinct shining spots are always present.

The metasternum in *Logaeus* is clothed with a dense pile. In most specimens of *D. planicollis* Bates this pubescence is very thin or lacking. Lameere too mentions this fact for specimens from Sumatra. The specimens he saw from Borneo (from: Deutsches National Museum, Berlin) had "la poitrine très pubescente et couverte d'une ponctuation très serrée". The specimens which he examined from Sumatra had a thinner pubescence and the middle of the metasternum shining, without a dense punctulation in the middle and a less intense punctulation at the lateral parts. In my opinion the specimens mentioned by Lameere from Borneo should be considered as a separate race, probably even as a separate species.

Lameere did not know the female of *D. planicollis* Bates as he states in his elaborate description and he gives no details from Bates' original description (which I had not the opportunity to consult) on the sexual differences. As is said before, I had the opportunity to compare ♂ and ♀.

The ♂♂ are at once distinguished by the distinct small thorns and warts which are found at the ventral surface of the fore and middle femora and tibiae and on the inner (ventral) surface of the third, fourth and in some cases also the fifth joints of the antennae. Further they possess a very minute punctulation on the elytra (Lameere: "punctuation sexuelle peu serrée"). This punctulation is found in addition to the somewhat coarser punctuations which occur in both ♂ and ♀ and which are connected by small wrinkles so as to give the elytra a leather-like appearance. In the ♂♂ the upper surface of the antennal joints is dull, due to a minute punctation (poriferous), except that of the third, fourth and fifth joints which are glabrous. Sometimes the sixth joint too is for the greater part glabrous. In the ♀♀ the antennae are glabrous to the ninth or tenth joint, the thorns on the antennae and legs are lacking as well as the sexual punctulation of the elytra. An examination of the genitals expelled all doubt.

From the above mentioned secondary sexual characters it is clear that Heller described a ♂ instead of a ♀ as he writes: "... das 3. Glied und etwas auch die Wurzel des 4., so wie die Vorder- und Mittelschienen unterseits fein gedörnelt."

Mr. P. H. van Doesburg kindly presented 1 ♀ from Ranau, Sumatra to the Leiden Museum.

A number of specimens have the legs, the ventral surface and the antennae from the fifth joint of a more reddish brown colour, whereas in the other specimens these parts are dark brown or nearly black. As I found no structural differences I believe this to be of little importance and probably due to the fact that these animals were newly hatched when killed.

### III. NOTE ON MONOCHAMUS ABERRANS (RITSEMA) (LAMIINAE, MONOCHAMINI)

#### **Monochamus aberrans** (Ritsema)

*Anhammus aberrans* Ritsema, 1881, Notes Leyden Mus., vol. 3, p. 46; Aurivillius, 1921, Col. Cat., pars. 73, p. 76.

*Monochamus aberrans* Breuning & De Jong, 1941, Zool. Med., vol. 23, p. 48.

Leiden Museum:

Borneo: 1 ♀, leg. 's Gravesande Guicherit (holotype).

Locality unknown: 1 ♀, don. Dr. E. Dubois.

Till a short time ago this species was represented in the Leiden Museum by the type only. When assorting a number of still unidentified Cerambycidae I found a second ♀ specimen which is nearly in all details conform

with the type. Unfortunately we know nothing about the place from where the specimen originated. Dr. E. Dubois worked on Sumatra and Java. It is, however, not impossible that the insects which in later years came into possession of the Leiden Museum, had been given to him by persons who came from other islands. The fact remains that the specimen without any doubt belongs to *aberrans*. Unfortunately this second specimen is slightly damaged as the left antenna is broken off at the top of the 5th joint. For the rest it is in perfect condition. The pubescence is of a beautiful cinnamon brown. The type ♀ has grown dark, probably in consequence of fat.

IV. MONOCHAMUS GRANULOSUS BREUNING & DE JONG  
= MONOCHAMUS REGULARIS (AURIVILLIUS)  
(LAMIINAE, MONOCHAMINI)

**Monochamus regularis** (Aurivillius)

*Anhammus regularis* Aurivillius, 1924, Zool. Med., vol. 8, p. 26.

*Monochamus granulatus* Breuning & De Jong, 1941, Zool. Med., vol. 23, p. 48, fig. 2.

Leiden Museum:

Sumatra: 1 ♂, Gunung Teleman, V 1917, leg. E. Jacobson.

When we described *M. granulatus* last year *Anhammus regularis* Aurivillius had escaped our attention. From his description it is clear that the same species is meant. Aurivillius described the species on two ♂ specimens from Sumatra, Gunung Teleman, V, leg. E. Jacobson. Though no year is mentioned it is probable that the specimens belong to the same lot. It is even not altogether impossible that the ♂ in the Leiden Museum is the smaller of Aurivillius' types. The lengths of these types are given as 27 and 30 mm. Our specimen measures 26 mm, a slight difference which may be caused by a different manner of measuring.

V. ON ANHAMMUS DALENI GUÉRIN AND ITS VARIETIES  
(LAMIINAE, MONOCHAMINI)

**Anhammus daleni** Guérin (Pl. I)

*Anhammus daleni* Guérin, 1844, Icon. Règne Anim. Ins., p. 242; Pascoe, 1866, Trans.

Ent. Soc. Lond. (3), vol. 3, p. 290; Lacordaire, 1869, Gen. Col., vol. 9, p. 307;

Heyne-Taschenberg, 1906, Exot. Käfer, p. 241, pl. 37 fig. 4; Aurivillius, 1921, Col.

Cat., pars 73, p. 76; De Jong, 1941, Tijdschr. v. Ent., vol. 84, p. xxxi.

*Anhammus dejeani* Thomson, 1857, Arch. Ent., p. 295.

Leiden Museum:

Java: 1 ♂, leg. C. L. Blume; 2 ♂♂ and 1 ♀, leg. S. Müller; 1 ♂, Tjinjiroean, Gouvernements Kina Onderneming, Malabar Geb., 1700 m, IV 1910, leg. Dr. H. W.

van der Weele; 1 ♂, Dr. J. C. Koningsberger; 2 ♂♂ and 2 ♀♀, Java occ., Pengalengan, 4000 ft., 1893, leg. H. Fruhstorfer; 1 ♀, Java occ., Mons Tjikorai, 4000 ft., 1892, leg. H. Fruhstorfer; 3 ♂♂, Java occ., Toegoe, leg. J. D. Pasteur; 2 ♂♂ and 6 ♀♀, Java occ., Toegoe, Poentjak, Megamendoeng, leg. J. D. Pasteur; 6 ♂♂ and 8 ♀♀, Preanger, leg. P. F. Sijthoff; 1 ♀, Tjibodas, leg. Dr. H. Boschma (ex coll. Blöte).

Collection Mr. G. van Roon (in Leiden Museum):

Java: 1 ♂ and 2 ♀♀, Preanger, leg. P. F. Sijthoff.

Locality unknown: 1 ♀.

Collection Mr. A. E. Kerkhoven (in Leiden Museum):

Java: 2 ♂♂, Preanger, leg. P. F. Sijthoff.

Amsterdam Museum:

Java: 1 ♂ and 1 ♀, Preanger, leg. P. F. Sijthoff; 2 ♂♂ and 1 ♀, Gn. Goentoer, III 1915, leg. F. C. Drescher.

Locality unknown: 1 ♂ and 1 ♀ (from Collection Natura Artis Magistra, labelled: *Tessellatus* Am. B.).

Collection Dr. D. MacGillavry:

Java: 4 ♂♂ and 3 ♀♀, Preanger, leg. P. F. Sijthoff; 1 ♂, Banjoewangi, leg. Th. H. MacGillavry.

Collection Mr. J. J. de Vos tot Nederveen Cappel:

Java: 2 ♂♂ and 2 ♀♀, Preanger, leg. P. F. Sijthoff.

This species which is found in Java, Sumatra and Borneo has a rather intricate design on the elytra, which, at a superficial sight, shows considerable individual variation. Notwithstanding this variation three forms can be distinguished after the white (or yellowish) pattern of the elytra, together with other characters:

a. The typical form from Java (Pl. I) as figured by Heyne and Taschenberg. It is dark brown or black, more or less shining, the posterior half nearly without punctulations. On the elytra there are two transverse bands of rather large yellowish white spots. The borders of the elytra are covered with a great many smaller spots which interrupt the transverse bands at the suture. The transverse bands are not straight, but the spots are situated obliquely behind each other. The remaining parts of the elytral discs before, between and behind the transverse bands are nearly devoid of spots and shining.

b. The Sumatra form (Pl. II) described by Heller as *daleni tessellatus* (1916). The elytra are less shining than in *daleni*. The punctulation is more extended towards the apex of the elytra. The yellowish spots are larger in number but as a whole smaller than in *daleni*. The larger spots are arranged almost in the same way as in *daleni*, they never lie in straight transverse rows or bands. The parts of the elytra between the transverse bands for the greater part are filled with small yellowish spots.



c. The Bornean form (Pl. III) which is described below as var. *borneensis* nov. var. This third form strongly resembles the Sumatran form in almost all details, but it is distinguished at once by the situation of the large spots on the elytra, which lie in broad, almost straight transverse bands or rows. This character is chiefly found in the anterior transverse band.

The species varies in size. The normal length of the ♂♂ lies between 30 and 40 mm, but the Leiden Museum also possesses 2 ♂♂ just reaching 20 mm and 1 ♂ of 25 mm. The ♀♀ vary between 27 and 40 mm.

A character which is useful to distinguish ♂♂ and ♀♀ of the species as well as of the varieties, is that of the antennal length though this length is rather variable. In the ♂♂ the antennae can reach a length of  $2\frac{1}{2}$  to 3 times that of the body, in the ♀♀ it is only twice that length. Further in the ♂♂ the apical part of the 5th joint surpasses the apex of the elytra. In the ♀♀ it is the top of the 6th joint which surpasses this region. There is, however, a slight individual variation in this character but not in such a degree that ♂♂ and ♀♀ could be confused.

**Anhammus daleni** Guér. var. **tessellatus** Heller (Pl. II)

*Anamus daleni tessellatus* Heller, 1916, Tijdschr. v. Ent., vol. 58, Suppl., p. 105.

*Anhammus daleni* var. *tessellatus* Aurivillius, 1921, Col. Cat., pars. 73, p. 76; De Jong, 1941, Tijdschr. v. Ent., vol. 84, p. xxxi.

Leiden Museum:

Sumatra: 1 ♂ and 1 ♀, leg. S. Müller; 1 ♀, Sipirok, leg. A. L. van Hasselt (Pl. II, left); 1 ♀, Benkoelen, leg. K. E. Keil; 1 ♂, Lampongsche Distr., Hoogvlakte van Liwa, 1000 m, leg. K. E. Keil (Pl. II, right); 1 ♂, Benkoelen, Manna, 1901, leg. M. Knappert (ex coll. Dr. H. J. Veth).

Collection Mr. G. van Roon (in Leiden Museum):

Sumatra: 1 ♀, leg. W. Morton (wrongly labelled *A. aberrans* Rits.).

Amsterdam Museum:

Sumatra: 7 ♀♀ and 6 ♂♂, Sumatra's Westkust, Boekit Gaban, 1919, leg. H. Lucht; 1 ♀, Sumatra's Westkust, Boekit Gaban, 1919 (coll. F. C. Drescher).

Collection Mr. J. J. de Vos tot Nederveen Cappel:

Sumatra: 1 ♀, Dolok, Baros.

Collection Mr. P. H. van Doesburg:

Sumatra: 1 ♀, Ranau, 500-700 m, VI 1935.

Under the name *tessellatus* (in litt.) De Haan already knew the Sumatran specimens in the Leiden Collection. Ritsema separated them under this name from the Javanese form in this collection. Heller (1916) described the variety and gave full details about the colour pattern and structure. It is, however, useful to figure this variety to show distinctly the differ-

ences in the general aspect from the species as well as from the new variety from Borneo.

**Anhammus daleni** Guér. var. **borneensis** nov. var. (Pl. III)

Leiden Museum:

Borneo: 1 ♂, Mt. Liang Gagang, Borneo Expedition, III 1894, leg. Dr. H. Hallier (holotype); 1 ♂, Balikpapan, Z.O.-Afdeeling, leg. J. M. Kampmeinet (paratype).

Collection Mr. G. van Roon( in Leiden Museum):

Borneo: 2 ♂♂, Borneo occ., Pontianak, 1900 (wrongly labelled: *A. aberrans* Rits.) (paratypes).

Amsterdam Museum:

Locality unknown: 1 ♂, labelled: "Misool, 1872, N<sup>o</sup>. A. M.?" (paratype).

This new variety differs from *daleni* in nearly the same way as var. *tessellatus*. Here too the pattern of yellowish white spots generally is more intricate and extended over a larger part of the elytra. There are more and smaller spots than in *daleni*. The larger spots which are found about in the middle of the elytra are situated in straight transverse rows or bands, whilst in *daleni* and in var. *tessellatus* they lie obliquely behind each other.

The surface of the elytra is darker and, in consequence of a more extended punctulation, less shining still than in var. *tessellatus*. Moreover, the punctuation of the basal third of the elytra is somewhat coarser and the points on the middle of the disc are more distinct than in the two other forms. The other structural characters are the same as those of *daleni*.

The specimen in the Amsterdam Museum, which undoubtedly belongs to the variety described here, first offered some difficulty, but apparently its label is wrong. The label is written in pencil and the point of interrogation is written in the same handwriting. The person who wrote it, evidently was not certain whether the specimen originated from Misool, but I am convinced that it did not, though the real locality is unknown now.

Measurements of the holotype and the figured paratype in mm:

	holotype	paratype
Length of the body	40	27
Breadth at the shoulders	12	8.5
Length of antennae	99	68

VI. EPEPEOTES DIVERSEMACULATUS SCHWARZER  
 = EPEPEOTES SCHLEGELII VAN LANSBERGE  
 (LAMIINAE, MONOCHAMINI)

**Epepeotes schlegelii** Van Lansberge (Pl. IV)

*Epepeotes schlegelii* Lansb., 1884, Notes Leyden Museum, vol. 6, p. 90; 1892, Midden Sumatra, vol. 4, 1, Aanhangsel, p. 12; Aurivillius, 1921, Col. Cat., pars 73, p. 80; De Jong, 1941, Tijdschr. v. Ent., vol. 84, p. xxxi.  
*Epepeotes diversemaculatus* Schwarzer, 1927, Suppl. Ent., vol. 15, p. 60.

Leiden Museum:

Sumatra: 1 ♀, Solok, leg. J. H. Schagen van Leeuwen (holotype); 1 ♂, Sumatra's Westkust, Gunung Singgalang, 1800 m, VII 1925, leg. E. Jacobson (plesioallotype) (holotype of *E. diversemaculatus* Schwarz.); 2 ♀♀ and 1 ♂, Gunung Teleman, VI 1917, leg. E. Jacobson; 1 ♀, Air Njuruk Dempu, 1400 m, VIII 1916, leg. E. Jacobson; 1 ♀, Solok, leg. P. O. Stolz.

Collection Mr. G. van Roon (in Leiden Museum):

Sumatra: 1 ♀, Piek van Korintji, 1500 m, VI 1920, leg. Bünnemeyer.

Amsterdam Museum:

Sumatra: 1 ♀, Sumatra's Westkust, Gn. Singalang, 2000 m, 1918, leg. S. Leefmans; 2 ♀♀, N. Korintji Vallei, 5000 ft., IX/X 1921, leg. F. J. Pratt (collection E. Jacobson).

Collection Mr. J. J. de Vos tot Nederveen Cappel:

Sumatra: 1 ♀, Padangsche Bovenlanden.

As the types of the two species *schlegelii* and *diversemaculata* are present in the Leiden Museum a comparison was at once possible. From the total material examined the here stated synonymy is very obvious. As Schwarzer described the ♂ rather extensively I indicate his holotype to be the plesioallotype of *E. schlegelii*. In the upper row the photograph (Pl. IV) shows from left to right: the holotype and the plesioallotype. The lower figure shows a ♀ from Gunung Teleman (the antennae are curved downwards apically, not damaged!).

The character for an easy identification of the sexes is that of the length of the anterior legs which are longer in the ♂, and that of the length of the antennae which are about  $2\frac{1}{3}$  times as long as the body in the ♂ and  $1\frac{3}{4}$  times in the ♀. In the ♂ the apex of the 5th joint reaches the apex of the elytra and in the ♀ the top of the 7th joint just reaches this point. In the ♀ the 4th joint of the antennae is broadly ringed with white.

As is seen in the photograph the type specimen of *schlegelii* is slightly rubbed off and the white spots are partly damaged and have become dark.

VII. ON PELARGODERUS SIJTHOFFII RITSEMA  
(LAMIINAE, MONOCHAMINI)

**Pelargoderus sijthoffii** Ritsema (Pl. V, left side)

*Pelargoderus Sijthoffii* Ritsema, 1901, Notes Leyden Museum, vol. 23, p. 94; Aurivillius, 1921, Col. Cat., pars 73, p. 81; De Jong, 1941, Tijdschr. v. Ent., vol. 84, p. xxxi. *Pelargoderus diversemaculatus* Schwarz, 1926, in litt. Mus. Leiden<sup>1)</sup>.

Leiden Museum:

Sumatra: 1 ♀, Padang Sidempoean, leg. P. F. Sijthoff (ex coll. Dr. H. J. Veth) (type ♂ *P. sijthoffii* Rits.); 1 ♀, Padang Sidempoean, leg. P. F. Sijthoff (type ♀ *P. sijthoffii* Rits.); 1 ♂ and 1 ♀, Manna, leg. M. Knappert; 1 ♀, Air Njuruk Dempu, 1400 m, VII 1916, leg. E. Jacobson (holotype *P. diversemaculatus* Schwarz, 1926 (in litt.)); 8 ♂ ♂ and 3 ♀ ♀, Air Njuruk Dempu, 1400 m, VII 1916, leg. E. Jacobson. Locality unknown: 1 ♀.

The species indicated in the collection of the Leiden Museum as *P. diversemaculatus* Schwarz, appears to be the same as *P. sijthoffii* Rits. The types of both species are before me and leave no doubt as to their synonymy.

The species is characterized as follows: General characters of *Pelargoderus*. Rather slender. Colour dorsally havana-brown intermingled on head, thorax and base of the elytra with yellow. Elytra each with one black spot in the middle, one longitudinal streak of yellowish white near the apex, more or less parallel with the external margin, and speckled rather widely with yellowish white. The ventral surface, the legs, the face and the first antennal joints are black, marmored with a yellow tomentation. The tarsae are of the same colour as the elytra. The antennae from the second joint to the apex are dark brown, covered with a yellowish tomentation. Apically the elytra are not rounded but obliquely truncate. The external angle is slightly protruding, forming an almost right angle. The oblique hind margins meet at the suture in a right angle.

As Ritsema gives no details as to sexual differences it is necessary to give a short description of these characters, based on all ♂ specimens in the collection.

I selected one ♂ from the material collected by Jacobson, which I indicate as the plesioallotype and the measurements of this specimen are given below. I indicate as holotype the specimen in the Leiden Museum, which was described by Ritsema as the ♀ type.

In the ♂ the femora and tibiae of the fore legs are relatively longer than in the ♀. Moreover the tibiae are distinctly curved in their apical part. In the ♂ the antennae are stronger than in the ♀, and they are nearly twice

1) I mentioned in Tijdschr. v. Ent., vol. 84, p. XXXI that Schwarz described the species. Afterwards I found that no description has been published.

as long as the whole animal. The apical part of the fifth joint nearly reaches the apex of the elytra whereas in the ♀ the apical part of the 8th joint reaches this region. There is, however, some slight individual variation.

To his description Ritsema added the following: "Two males and one female from Padang Sidempoean (West-Sumatra) belonging to Mr. P. F. Sijthoff's collection. One of these males is now in the collection of Dr. H. J. Veth, the female in that of the Leyden Museum."

According to the above-mentioned sexual characters it appears to me that the specimen, referred to as a ♂ in the collection of Dr. Veth (which collection has been added to that of the Leiden Museum) is not a ♂ but a ♀.

Measurements of the specimens (in mm):

	holotype ♀	2nd ♀ type	other ♀ ♀	plesio- allotype ♂	other ♂ ♂
Total length, without antennae	26	32	24 - 29	31	21-30
Breadth of body	9	10	7 - 9½	10	6½- 9
Length of elytra	17½	21½	16½-20½	20½	13-19½
Length of antennae	30½	41½	29 - 36	73	38-78

#### VIII. ARISTOBIA VARIEFASCIATA SCHWARZER = ARISTOBIA UMBROSA (THOMSON) (LAMIINAE, MONOCHAMINI)

##### *Aristobia umbrosa* (Thomson) (fig. 3)

*Celosterna umbrosa* Thomson, 1865, Syst. Ceramb., p. 552; Ritsema, 1881, Notes Leyden Mus., vol. 3, p. 83 (= *Eumithera viduata* Pasc.).

*Thysia viduata* Pascoe, 1868, Proc. Ent. Soc. London, p. xiii; 1869, Ann. Mag. Nat. Hist. (4), vol. 4, p. 208; 1875, Ann. Mag. Nat. Hist. (4), vol. 15, p. 65, pl. 8 fig. 4 (as type of genus *Eumithera*).

*Eumithera viduata* Pascoe, 1875, Ann. Mag. Nat. Hist. (4), vol. 15, p. 73, pl. 8 fig. 4.

*Aristobia umbrosa* Thomson, 1878, Rev. Mag. Zool. (3), vol. 6, p. 51, Obs.; Aurivillius, 1921, Col. Cat., pars 73, p. 110.

*Aristobia variefasciata* Schwarzer, 1926, Ent. Mitt., vol. 15, nr. 1, p. 16; 1927, Suppl. Ent., vol. 15, p. 61.

(*Aristobia semivelutina* Van Vollenhoven, in litt. in Museum Leiden).

Leiden Museum:

Sumatra: 1 ♀, Fort de Kock, 920 m, I 1924, leg. E. Jacobson (cotype of *Aristobia variefasciata* Schwarz.) (32 mm, fig. 3 b); 1 ♂, Fort de Kock, 920 m, XII 1922, leg. E. Jacobson (cotype of *A. variefasciata* Schwarz.) (25½ mm, fig. 3 c); 1 ♀, Sumatra Expedition, Solok, IV 1877 (ex coll. Dr. H. J. Veth) (28½ mm, fig. 3 d); 2 ♀ ♀, Sumatra occ., Padang Sidempoean, leg. J. D. Pasteur (31 and 30½ mm, figs. 3 e and f respectively); 1 ♀ and 2 ♂ ♂, Soepajang, IV 1877, Sumatra Expedition (♀ 30½ mm, ♂ 25½ mm, ♂ 24 mm, figs. 3 g-i respectively); 1 ♂, Solok, IV 1877, Sumatra Expedition (27 mm, fig. 3 j); 2 ♂ ♂, Mt. Bongson, leg. H. Royer (24 and 25 mm, figs. 3 k and l respectively); 1 ♀ and 3 ♂ ♂, Solok, Padangsche Bovenlanden, leg. P. O. Stolz (♀ 28½ mm, ♂ ♂ 25, 23½ and 23 mm, figs. 3 m-p respectively);

2 ♀♀, Fort de Kock, leg. G. J. F. Biegman (31 and 25 mm, figs. 3 q and r respectively); 1 ♀ and 1 ♂, Klein Mandalin, leg. J. van Hasselt (♀ 27½ mm, ♂ 24 mm, figs. 3 t and u respectively); 1 ♀, Sumatra occ., Loeboek Bangkoe, leg. J. Menzel (32½ mm, fig. 3 v); 1 ♀, leg. Ludeking (33 mm, fig. 3 w).

Amsterdam Museum:

Sumatra: 1 ♂, Fort de Kock, 920 m, 1926, leg. E. Jacobson (det. Schwarzer: *A. umbrosa*) (26 mm); 1 ♂ and 2 ♀♀ from the same locality and date, leg. E. Jacobson (det. Schwarzer: *A. variefasciata* Schwarz.) (26, 32 and 32 mm respectively).

Collection Dr. D. MacGillavry.

Sumatra: 1 ♀, Padang, 1914, leg. De Groot (32½ mm).

Thomson's original description of the species reads as follows: "*Celosterna Umbrosa*. Sumatra. Long. 31 Mill. Lat. 11½ Mill. Fusca, supra obscure viridis; antennae singulae 3-nigro-cristatae; prothorax dorso 3-tuberculatus; elytra fasciis nigro-velutinis irregularibus transversis ornata; pedes fuscii; staturae *C. Reticularis* sed vestimento diverso distinctissima est."

Ritsema (1881) already established the synonymy of *Eumithera viduata* Pascoe and *Celosterna umbrosa* Thoms. To these I can add *Aristobia variefasciata* Schwarz. as another synonym.

Schwarzer described the species as *A. variefasciata*. He thought it different from *C. umbrosa* as Thomson said: "prothorax dorso 3-tuberculatus". As the species fits into Thomson's description in all other characters as well as into Pascoe's diagnosis of *Thysia viduata* I suppose that the character under consideration has been wrongly interpreted or that it is subject to some variation. After all I am convinced that both these factors were acting together. In the Amsterdam collection I found 4 specimens from the same locality and apparently from the same series. One of them shows three faint elevations on the prothorax and Schwarzer identified it as *A. umbrosa*. The other specimens were identified as *A. variefasciata*. When studying also the specimens in the Leiden collection on this point it appeared to me that this character is subject to some variation. In all probability Thomson's type specimen had rather distinct tubercles.

Two of Schwarzer's type specimens are present in the Leiden Museum together with a fine series of *Aristobia umbrosa* (Thoms.). These specimens agree in nearly all respects with Pascoe's descriptions and figure of *Eumithera viduata* (the figure is partly copied in fig. 3 a). Pascoe's diagnosis, when amplified with that by Schwarzer, gives a nearly complete description of the species. To these must be added the fact that the prothorax on its disc bears three more or less distinct rather flat elevations

which sometimes are failing. In fig. 3 s I figured the shape of the mesosternum, seen from the left. The shape of the central protuberance of the mesosternum is one of the characters of the genus *Aristobia*. Further the ♂ genitalia never had been examined. Fig. 3 x, y and z show the penis of specimen 3 o, seen from above, from the right and from below respectively. The edges of both dorsal and ventral parts of the penis are smooth. The surface too is smooth except the middle of the ventral valve which shows some minute wrinkles.

In fig. 3 I figured the whole material of the species, which is present in the Leiden Museum to show the variation of the elytral design. I did so because one could suggest that the present species in reality consisted of two or more. When, however, we consider the variation of the different transverse bands, we see that there are all intermediate forms which link up the most extreme cases. Pascoe already mentions 5 or 6 jet black bands, the first at the base. We find these numbers in figs. 3 r and m respectively.

The drawings are not placed in any "system". Their order of succession is that of the list of material. All elytra are drawn at the same size. The real length of the animals is given in the same list.

The length of Pascoe's type is 12 lines = 27 mm.

When considering the material before me I find that not all bands in the same degree are liable to splitting up or reduction. Those in the basal third of the elytra and those at the apex show the strongest variation. Especially the second band from the base appears to be responsible for the transition from the 5-band form towards the 6-band form. As specimens with 5 bands I regard g and r. In g and u the 2nd band begins to split up. This process of forming an additional second band out of one is shown in different stages in the following figures: c, q and v, where the two new bands are still in contact with each other, and b, e, h, l and w. The almost perfect 6-band form is shown in m. The newly formed band 2A shows a tendency to disappearing which is seen in figs. d, h, i, k, o and p. It has altogether disappeared in j.

The first or basal band as a whole is rather constant. Only in a few cases it shows an interruption, e.g., in c, i and w.

The third band which is situated on the middle of the elytra also is rather constant, as well as the fourth. Only in few specimens it shows some irregularities, e.g., 3 in a, which shows a stage further than in t, n which shows abnormalities in nearly all bands and f where we see the phenomenon which I call "swinging over" of the band to the region of the following, also present in n and o.

The fifth band often forms appendices, pointing in various directions.

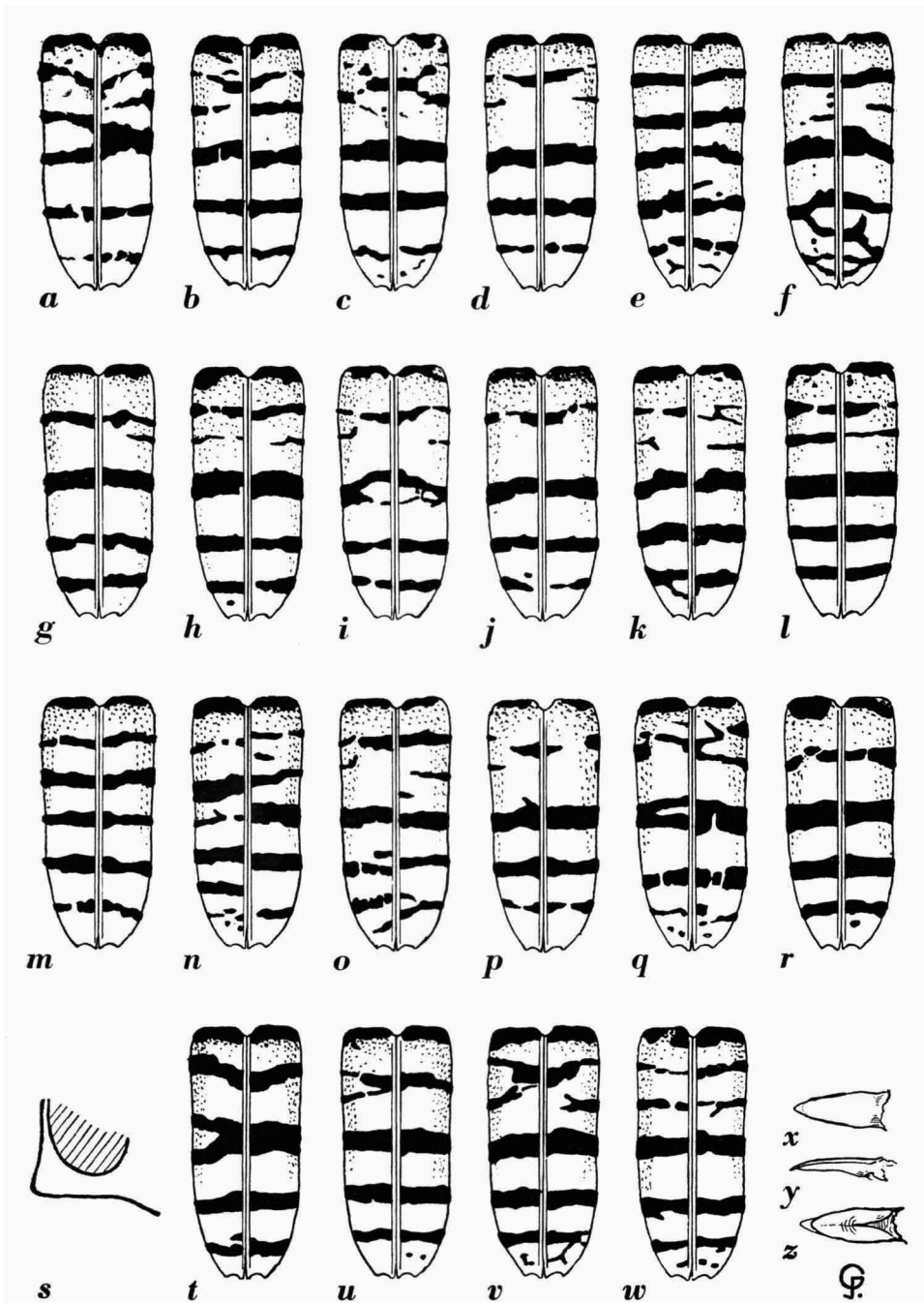


Fig. 3. *Aristobia umbrosa* (Thomson). Variability of the elytral pattern, explanation and measurements in the text. a has been copied from Pascoe's figure. s, mesosternal projection, lateral view; x, y, z, penis of specimen 7 o, from above, from the right and from below respectively. a  $\times 1\frac{1}{2}$ ; s, x, y, and z  $\times 5\frac{1}{4}$ .



Generally no distinct 5A-band is formed but traces are found in c, e, f, left half of n, q, v and w.

The only conclusion which can be taken from the above data is that the forms which at first sight are rather different, e.g., m and j, are linked together in different ways by series of intermediate stages.

In a number of specimens I examined the genitals and further characters to find whether any reliable secondary sexual character could be found. It proved that the length of the antennae can be used as such. In the ♀♀ the antennae do not reach the apex of the elytra, in the ♂♂, however, they surpass this region at least with their terminal joint.

The specimens from the Amsterdam Museum and that from Dr. Mac Gillavry's collection have not been figured as these came only to my attention when the drawing had already been finished, moreover they do not affect what I discussed above.

In the list of synonyms I mentioned the never published museum name *A. semivelutina* Van Vollenhoven as probably specimens seen by Van Vollenhoven may be present in some museum under this name.

#### IX. ON CEREOPSIUS LUHUANUS HELLER AND ITS VARIETIES (LAMIINAE, MONOCHAMINI)

##### ***Cereopsius luhuanus* Heller (fig. 4a)**

*Cereopsius luhuanus* Heller, 1896, Abh. Mus. Dresden, vol. 6, art. 3, p. 23, pl. fig. 18; Aurivillius, 1921, Col. Cat., pars. 73, p. 114.

Collection Mr. P. H. van Doesburg:

Celebes: 1 ♀ and 2 ♂♂, Todjamboe, Central Celebes, VIII 1939, leg. native collectors; 1 ♀ and 1 ♂, same locality, XI 1939.

From Mr. P. H. van Doesburg I received a number of Cerambycidae from Celebes for identification. At first sight I thought one of the species to be *Cereopsius luctuosus* Pascoe (fig. 4 c), and it fits into the description, even in minor details, but there is a distinct difference in the situation of the white transverse bands on the elytra. On a closer investigation I found that the specimens belong to the closely allied species, described by Heller on a single specimen from Celebes as *C. luhuanus*. The description is rather exclusive as Heller did not know whether there would be any variation in the colour pattern and if so in which way. He did not mention whether his type specimen was a ♀ or a ♂.

The whole series of 15 specimens (the varieties included) before me, all from the same locality, shows some variation in the elytral pattern

and in that of the antennae. The fore border of the anterior white transverse band is nearly straight. In a number of specimens it is slightly protruding in the sutural part. In this area the band is narrowest. It broadens towards the lateral borders of the elytra. Its hind border is somewhat wavy. Comparing the whole lot with our specimens of *C. luctuosus* it is clearly to be seen that in *luhuanus* the anterior white transverse band lies more towards the base and is broader, especially at the sides, and that the posterior white band is situated more towards the apex of the elytra (fig. 4 a). The anterior white band is never interrupted at the suture. The posterior white band, situated halfway between the

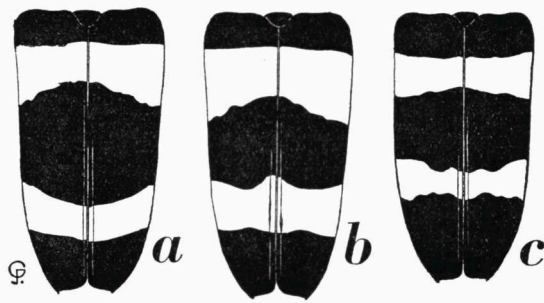


Fig. 4. a. *Cereopsius luhuanus* Heller var. *annulatus* nov. var. ♀, allotype; b. *Cereopsius luhuanus* Heller var. *aequifasciatus* nov. var., ♀ holotype; c. *Cereopsius luctuosus* Pasc., ♀.

middle and the apex of the elytra, which according to Heller's description should not be interrupted at the suture, shows some variation in this respect. However, I do not believe that this points to a confusion of two or more species. One ♀ specimen (fig. 5 b) possesses a broad posterior band so different from the other specimens that I am inclined to consider it as a distinct variety which I describe below. In the other 14 specimens the posterior band varies from almost parallel sided to a perfect division into two spots. This state is found in 3 specimens. In most specimens the fore border of this band gives way posteriorly near the suture. As in this series all intermediate stages are present I do not think it probable that it consists of more than one species.

Another character under consideration is the pattern of the antennae. Heller writes: "Das fünfte Glied der schwarzen Fühler ist in den basalen zwei Dritteln schneeweiss behaart." In two of the ♀♀ before me this occurs in exactly the same way. In the 6 other ♀♀ (included the one separated before) the basal third of the 4th joint too is covered with greyish white hairs. In the ♂♂ the white basal part of the 5th joint only

reaches from  $\frac{1}{3}$  to  $\frac{1}{2}$  of the length of the joint (1 ♂ has lost its antennae). In 2 ♂♂ the fourth joint is all black. In the remaining 4 ♂♂ the 4<sup>th</sup> joint too, like in the ♀♀, shows a ring of greyish white pubescence from the base to about  $\frac{1}{4}$  or  $\frac{1}{3}$  of the length of the joint. From Heller's description and from the here mentioned facts I deduce that his type specimen was a ♀.

There is, however, no specimen in the material before me, which shows all characters exactly in the same way as the type ♀. Either the posterior white band is interrupted at the suture or the antennae possess a white base at the 4<sup>th</sup> joint.

The presence or absence of the greyish white base of the 4<sup>th</sup> antennal joint appears to be a character which justifies the separation of the var. *annulata* nov. var. described below.

The ♂♂ generally are slightly smaller than the ♀♀ and they appear more slender. Apart from this there are distinct secondary sexual characters in the length of the antennae. In the ♂♂ the antennae are about  $1\frac{3}{4}$  times as long as the body, the top of the 5<sup>th</sup> or the base of the 6<sup>th</sup> joint surpasses the apex of the elytra. In the ♀♀ the antennae are  $1\frac{1}{3}$  to  $1\frac{1}{2}$  times as long as the body and the top of the 7<sup>th</sup> or the base of the 8<sup>th</sup> joint surpasses the elytral apex.

**Cereopsius luhuanus** Heller var. **annulatus** nov. var.

Collection Mr. P. H. van Doesburg:

Celebes: 1 ♂ and 1 ♀, VI 1939; 2 ♂♂ and 2 ♀♀, VIII 1939; 1 ♂ and 2 ♀♀, XI 1939; all these specimens from: Tadjamboe, Central Celebes, leg. native collectors (holotype: ♂, VIII 1939; allotype: ♀, XI, 1939; other specimens: paratypes).

This variety differs from *luhuanus* only by the greyish white basal ring at the 4<sup>th</sup> joint of the antennae. In the ♀♀ it reaches  $\frac{1}{3}$  of the length of the joint, in the ♂♂ about  $\frac{1}{4}$  to  $\frac{1}{3}$  of that length. The posterior white band of the elytra varies in the same way as in *luhuanus*.

**Cereopsius luhuanus** Heller var. **aequifasciatus** nov. var. (fig. 4 b)

Collection Mr. P. H. van Doesburg:

Celebes: 1 ♀, Tadjamboe, Central Celebes, VIII 1939, leg. native collectors (holotype).

The holotype of this variety differs from *luhuanus* in having the black transverse band on the middle of the elytra of equal breadth as the apical black band, measured along the suture. In *luhuanus* and var. *annulatus* the middle black band is two times as broad as the apical, measured in the same way. The postmedial white transverse band is slightly broader than in all other specimens of *luhuanus*, and situated more towards the

middle of the elytra. The anterior border is slightly prolonged along the suture.

The antennae show the characters of var. *annulatus*.

The shape of the anterior black transverse band as well as that of the first white band which widens backwards to the sides, make me place the specimen without any hesitation as a variety to *luhuanus*.

As an additional note to *Cereopsius luhuanus* Heller together with the two here described varieties I give the following remark. Below the pubescence the elytra are not of the same colour over their whole surface. Partly rubbed specimens distinctly show that they are reddish brown below the white bands and dark brown or black below the black portions of the elytral pattern.

1 ♂ caught VIII 1939, which has lost its antennae, could not be identified with certainty. I therefore placed it to *luhuanus*.

Mr. Van Doesburg kindly presented a pair of *C. luhuanus* and a pair of the var. *annulatus* nov. var. to the Leiden Museum.

#### X. PSEUDAGNIA TIGRINA AURIVILLIUS = ERYALUS POLYSPILUS PASCOE (LAMIINAE, MONOCHAMINI)

##### **Eryalus polyspilus** Pascoe (Pl. V, right side)

*Eryalus polyspilus* Pascoe, 1888, Trans. Ent. Soc. Lond., p. 501, pl. 14 fig. 10;

Aurivillius, 1921, Col. Cat., pars 73, p. 116.

*Pseudagnia tigrina* Aurivillius, 1916, Tijdschr. v. Ent., vol. 59, p. 217, pl. 8 fig. 4

*Eryalus tigrinus* Aurivillius, 1921, Col. Cat., pars 73, p. 116.

*Eryallus polyspilus* Schwarzer, 1927, Suppl. Ent., vol. 15, p. 61.

Collection Mr. G. van Roon (in Leiden Museum):

Borneo: 1 ♂ (holotype of *Pseudagnia tigrina* Auriv.).

Amsterdam Museum:

Sumatra: 1 ♂ Anei Kloof, Sumatra's Westkust, 500 m, 1926, leg. E. Jacobson (det. Schwarzer: *E. polyspilus* Pascoe).

According to the drawing of the type of *Pseudagnia tigrina* Aur. by R. van Eecke this species should possess two black spots, one on each elytron near the base. These spots, however, are due to the pubescence being rubbed off. This is distinctly visible in the photograph (Pl. V) where the specimen is figured together with that caught by Jacobson and mentioned by Schwarzer. The last-mentioned specimen has no such black shining spots. As no specific differences are found between these specimens and as both of them agree with Pascoe's description and figure I place *P. tigrina* Aur. as a synonym to *E. polyspilus* Pasc. The only point in

which the here mentioned specimens do not agree with Pascoe's description is the colour of the elytra which is ochraceous grey whereas Pascoe described his specimen as "pale greyish". I suppose that either Pascoe's specimen was slightly discoloured or Pascoe did interpret the colour in another way than I do.

From the specimens before me and from Pascoe's figure I deduce a useful sexual character. In the ♂♂ the antennae are nearly twice as long as the body, the top of the sixth joint surpassing the apex of the elytra. In the specimen figured by Pascoe the antennae are only one and a half times as long as the body and the top of the seventh joint just reaches the apex of the elytra. From this fact I deduce, in comparison with that found in other similar Cerambycidae, that his figure is that of a female specimen. Pascoe did not mention its sex.

As to the figure of *P. tigrina* Aur. mentioned above I must add the following remark. In reality the antennae were longer than they are figured. In the specimen the apical joints are missing. In the figure, however, 11 joints are drawn in the length of the remaining 10. The photograph shows the real length of those 10 joints compared with the length of the body.

If the locality of the type specimen of *P. tigrina* is correct, this species may emphasise the supposition, already expressed by Aurivillius (1924, Zool. Med., vol. 8, p. 24) and Schwarzer (1926, Ent. Mitt., vol. 15, p. 14) that the fauna of Borneo is nearer connected to that of Sumatra and the Malay Peninsula than the Javanese fauna. The fact that *Anhammus daleni* Guér. var. *tessellatus* Heller from Sumatra and *A. daleni* Guér. var. *borneensis* mihi from Borneo are nearer related to each other than to *A. daleni* Guér. from Java may also contribute to support this.

#### XI. PERIBASIS ALBISPARSA RITSEMA = PERIBASIS PUBICOLLIS PASCOE (LAMIINAE, PTEMNEMINI)

##### **Peribasis pubicollis** Pascoe

*Peribasis pubicollis* Pascoe, 1866, Trans. Ent. Soc. Lond. (3), vol. 3, p. 231; Aurivillius, 1921, Col. Cat., pars 73, p. 119.

*Peribasis albisparsa* Ritsema, 1888, Notes Leyd. Mus., vol. 10, p. 203; Aurivillius, 1921, Col. Cat., pars 73, p. 119.

Leiden Museum:

Borneo: 1 ♂, Elopura, leg. W. B. Pryer (holotype of *Peribasis albisparsa* Rits.); 1 ♀, Long Bloec-oe, Mahakkam, Borneo Expedition Dr. A. W. Nieuwenhuis.

A close comparison of Ritsema's type specimen with Pascoe's description of *Peribasis pubicollis* shows that it fits so well that in my

opinion it should be assigned to this species. Ritsema himself believed his species to be nearest allied to *P. pubicollis* but specifically different from it as the elytra of his specimen are "with a metallic gloss, the outer three fourth of the basal two thirds bright greenish blue" ..... "subnitid on the bright coloured portion. Nearly glabrous but varied with scattered short hairs and spots of a pale fulvous or white pubescence" whereas in Pascoe's description the elytra are indicated as "dark steel blue spotted with fulvous, covered with a short scattered pubescence" ... "elytra irregularly punctured, shining". I do not believe there is a principal difference in the two diagnoses. I studied Ritsema's type and found that in light from a certain direction this specimen too shows a dark steel blue gloss. So I conclude that Ritsema's species should be added as a synonym to *P. pubicollis* Pasc.

The second specimen in the Leiden collection is a ♀. The general characters are the same as those of the ♂. A slight difference from the white spots on the elytra, which are slightly smaller and more numerous in the ♀. Further the antennae are different in both sexes. Those of the ♂ are about 2 times as long as the body and their 5th joint reaches the apex of the elytra, whereas those of the ♀ are slightly longer than the body and pass the apex of the elytra only to begin with the 9th joint. This character is useful to know the sex. A further difference is found in the colour of this pubescence of the antennae. In the ♂ the base of the fourth joint (according to Pascoe, not mentioned by Ritsema) and the fifth joint except at the apex are ashy gray. In Ritsema's type only traces of the gray pubescence are found on the fourth joint, it has probably been rubbed off or always been very faint. In the ♀ specimen the 4th joint shows no traces of a gray pubescence, the 5th and 6th joint are gray except at their tops and the 7th joint bears a gray pubescence which diminishes from the base to end at about half the length of the joint.

The last abdominal segment of the ♀ is not rounded at the apex like that of the ♂, but slightly truncated. As a whole it is relatively longer than that of the ♂.

## XII. APRIONA DURGA KRIESCHE = APRIONA NEGLECTA RITSEMA (LAMIINAE, BATOCERINI)

### ***Apriona neglecta* Ritsema (fig. 5 b, c)**

*Apriona tigris* Ritsema (nec Thomson), 1885, Notes Leyden Museum, vol. 7, p. 128; 1886, Midden Sumatra, vol. 4 nr. 6, p. 135; Aurivillius (partim), 1921, Col. Cat., pars 73, p. 132.

*Apriona neglecta* Ritsema, 1911, Notes Leyden Museum, vol 34, p. 6; Aurivillius, 1921, Col. Cat., pars 73, p. 132; De Jong, 1936, Zool. Meded. vol. 19, p. 76.  
*Apriona durga* Kriesche, 1920, Arch. Naturg., vol. 85 A nr. 5, p. 195; Schwarzer, 1927, Suppl. Ent., vol. 15, p. 61.

Leiden Museum:

Sumatra: 1 ♀, Sumatra Expedition, Renkiang Loeloes, IV (ex coll. Dr. H. J. Veth) (cotype); 1 ♀, Padang Sidempoean, leg. J. D. Pasteur (cotype); 1 ♂, Padangsche Bovenlanden, Soerian near Solok, leg. P. O. Stolz (cotype); 1 ♂, leg. S. Müller (cotype); 1 ♀, Deli, leg. Dr. L. P. de Bussy (ex coll. Dr. H. J. Veth); 1 ♀, Padang, Lawas, Sosa, leg. A. L. van Hasselt.

Amsterdam Museum:

Sumatra: 1 ♂, Fort de Kock, 920 m, 1926, leg. E. Jacobson (labelled: *A. durga* Kriesche ♂).

Collection Dr. D. MacGillavry:

Sumatra: 2 ♂♂, Deli, leg. Dr. L. P. de Bussy.

Collection Mr. J. J. de Vos tot Nederveen Cappel:

Sumatra: 1 ♀, Dolok, Baros.

Ritsema (1885) categorically denied at first the synonymy of *Apriona tigris* Thoms. (1878, Revue Zool. (3), vol. 6, p. 59) and *A. punctatissima* Kaup (1866, Einige Cerambyciden, p. (7), pl. 3 fig. 5) which had been established by Oberthür (1879, Ann. Mus. Civ. di Genova, vol. 14, p. 572) as the specimens before him, 1 ♂ collected by Müller from Sumatra and 1 ♀ collected at Renkiang Loeloes by the Sumatra Expedition, which he thought to be *A. tigris*, differed distinctly from those presented to the Leiden Museum by R. Oberthür as *A. punctatissima* Kaup.

In consequence he also wrongly applied the name *tigris* to the specimen mentioned in "Midden Sumatra", this being the specimen from Renkiang Loeloes.

In 1911 he found that he had been wrong and described the new species as *A. neglecta* on four specimens, i.e., the two specimens mentioned before and 1 ♀ from Padang Sidempoean (leg. J. D. Pasteur) and 1 ♂ from Soerian near Solok (leg. P. O. Stolz).

The specimen in the Zoological Museum at Amsterdam, which without any doubt belongs to the same species, has been identified by Schwarzer in 1926 as a ♂ of *A. durga* Kriesche. Kriesche's description (1920) leaves no doubt as to the identity of his species with *A. neglecta* Rits.

The sexual characters are found in the shape of the abdominal apex, as already mentioned by Ritsema, and in the length of the antennae. In the ♂♂ the ventral plate of the last abdominal segment is broadly emarginated apically (fig. 5 c), in the ♀♀ it is incised broadly at the top, forming nearly equal angles inwards and outwards (fig. 5 b).

The second character is the length of the antennae. In the ♂♂ they are about  $1\frac{1}{2}$  times as long as the body and the 7th joint reaches the top of the elytra whereas in the ♀♀ they are only slightly longer than the body and the 10th joint just reaches the top of the elytra.

### XIII. ON APRIONA PUNCTATISSIMA KAUP

#### *Apriona punctatissima* Kaup (fig. 5 a, d, e)

*Batocera (Apriona) punctatissima* Kaup, 1866, p. (7), pl. 3 fig. 5; Zernin, 1895, Reproduction of "Kaup, 1866", p. (7), pl. 3 fig. 5.

*Apriona punctatissima* Oberthür, 1879, Ann. Mus. Civ. Genova, vol. 14, p. 572, pl. 1 fig. 3; Neervoort van de Poll, 1887, Notes Leyden Museum, vol. 9, p. 272; Ritsema, 1911, Notes Leyden Museum, vol. 34, p. 6; Aurivillius, 1921, Col. Cat., pars 73, p. 132.

Leiden Museum:

Sangir Islands: 1 ♀, leg. Bruyn (presented by Mr. Oberthür); 1 ♂ and 1 ♀, leg. W. J. E. Hekmeyer.

When visiting Darmstadt in 1936 the director of the Landesmuseum, Dr. Heldmann, kindly allowed me to study some Cerambycidae of that museum. Some time before he wrote me that Kaup's type specimens were not to be found and that much of the old material had got lost. Moreover he did not know the species and no labels had been placed on the pins. To my great joy I found that Kaup's types for the greater part were still present and I succeeded in finding two types which had my special interest: *A. punctatissima* and *A. flavescens*. Especially about *A. punctatissima* the opinions had been rather divergent. Kaup's original description runs as follows:

"*Batocera (Apriona) punctatissima*. Taf. III., fig. 5

L. 39, Br. 12 mm. Celebes.

Auf der Oberlippe an jeder Ecke eine kurze Borste und zwischen diesen 2 kurze haaraehnliche. Die Antennen wie die Füße sind einfarbig schwaerzlich. Die Grundfarbe der Flügel gelblich, an dem Anfang mit schwarzen glaenzenden Koernchen, die nach hinten in kleine vertiefte glaenzend schwarze Grübchen übergehen, die durch ihre unregelmässige Stellung den Flügeln eine sehr unregelmässige schwarze Punktzeichnung verleihen.

Unten hellgraubraeunlich mit dem gelblichen Streifen der echten Batoceraarten, der bis zum vorderen Rand des Prothorax geht.

Die Stirn ist breiter, allein das Auge kleiner, als bei der folgenden Art." (In his paper the following species is *A. flavescens*).

The point in this description which caused much trouble is: "Die Grundfarbe der Flügel gelblich". As the specimens in the Leiden Museum



are of a greyish white I first supposed that Oberthür had made a mistake in establishing the synonymy *tigris* Thoms. = *punctatissima* Kaup. One specimen, however, shows a faint yellow tinge on the elytra, which when strongly magnified appeared to be due to fat. So when I found Kaup's type-specimen in the Darmstadt Collection I at once looked for the origin of the yellow colour. As I expected it was also due to fat which had

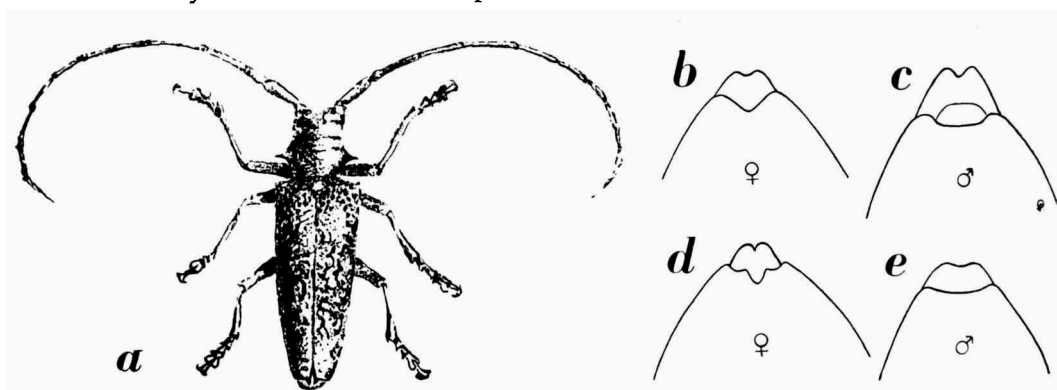


Fig. 5. a, d and e, *Apriona punctatissima* Kaup; a, copy of Kaup's plate; d, terminal abdominal sternite ♀; e, terminal abdominal sternite ♂. b and c, *Apriona neglecta* Rits.; b, terminal abdominal sternite ♀; c, terminal abdominal sternite ♂. a, natural size; b-e,  $\times 3\frac{1}{2}$

flown from the animal between the hairs on the whole surface. Neervoort van de Poll who visited the Darmstadt Museum about 1886 already mentioned the deplorable condition of the Batocerid collection: "Moreover the greater part of the specimens are broken, gummed, rubbed, dirty and oily."

After all this we must conclude that the original colour of *A. punctatissima* is not yellow, but greyish white on the dorsal surface. The ventral surface is light greyish brown with a white lateral band which is broadest at the thorax and grows narrower towards the apex of the abdomen.

#### ***Apriona punctatissima* Kaup var. *tigris* Thomson**

*Apriona tigris* Thomson, 1878, Revue et Magasin de Zoologie (3), vol. 6, p. 59; Ritsema, 1911, Notes Leyden Museum, vol. 34, p. 6; Aurivillius, 1921, Col. Cat., pars 73, p. 132.

*Apriona punctatissima* Oberthür, 1879, Ann. Mus. Civ. Hist. Nat. Genova, vol. 14, p. 572, pl. 1 fig. 3.

Amsterdam Museum:

Celebes: 3 ♀♀, Minahassa, leg. A. Koller.

Concerning *Apriona tigris* Thomson opinions have been rather differing.

For a better understanding I quote the original description from *Revue et Magasin de Zoologie* (3), vol. 6, 1878, p. 59:

"APRIONA TIGRIS Thomson. Java. *Long.* 47 mill. *Lat.* 16 mill. Supra nigra, nitida; caput prothoraxque flavo-pubescentia; antennae brunneo-nigrae, nec cinereo-annulatae; elytra pilis flavis in cristis dispositis ornata; corpus subtus utrinque fascia albo-tomentosa a capite usque ad apicem currente; pedes flavo-pubescentes. Sat ampla. CAPUT leave, linea media longitudinale instructum. PROTHORAX antice posticeque transverse sulcatus, medio transverse rugosus et punctis nigris aliquot impressus. ELYTRA ad humeros valde spinosa, basi tuberculis nigris valde sparsis post 4<sup>am</sup> partem anteriorem evanescentibus, instructa, deinde sat valde et irregulariter punctata, apice subtruncata et 4-spinosa, spinis externis obsoletis. CORPUS SUBTUS PEDESQUE laevia.

Obs. Une des espèces les plus distinctes de ce genre, et qui nous paraît devoir être rangée avant l'*A. gracilicornis* Buquet."

In this description special attention should be paid to the yellow pubescence of the head, the prothorax, the elytra and the legs.

Kaup in his description of *Batocera (Apriona) punctatissima* (see above, p. 41) also mentions a yellow colour of the elytra, which, as I pointed out above, is due to fat, not to pigments.

So Oberthür is wrong when he writes (l.c., p. 572) concerning *Apriona punctatissima* Kaup:

"Il est difficile de reconnaître cette espèce dans la mauvaise figure donnée par Kaup (Einig. Ceramb. Samml. Darmstadt, 1866, t. 3, fig. 5). M.r Thomson dans ses "Typi Cerambycidarum", 1878, pag. 80, lui donne le nom de *A. Tigris*.

Le type de Sanghir est beaucoup plus blanchâtre que celui de Célèbes."

He adds a figure of an *Apriona* which is of a light yellowish sandy colour and very regularly dotted with black on the whole surface.

The 3 specimens of *A. punctatissima* Kaup in the Leiden Museum, which are quoted above from Sangir, had been labelled: *tigris* Thoms. = *punctatissima* Kaup sec. Oberthür.

From the above quoted descriptions and remarks I deduce that Oberthür knew *A. punctatissima* from the description only and established the synonymy with *A. tigris*, of which he obviously has seen the type. The type, according to Thomson, is from Java, but as no animal fitting into his description was found on Java ever since, I am convinced that this locality was wrong, especially as Oberthür, who saw the type, reports it from Celebes. Obviously a second specimen, belonging to *punctatissima*,

was present in the Paris collections as Oberthür refers to it as originating from Sangir and it being more whitish than the other specimen.

As to Kaup's figure (fig. 5a) I cannot agree with Oberthür that it is altogether bad and not well recognizable. I have seen the type specimen in the Darmstadt Collection myself and even in minor details I could recognize it from the figure of which I possessed a reproduction only. On the contrary I could not strongly appreciate Oberthür's figure. A few months ago, however, I found three specimens in the Amsterdam collection, which undoubtedly belong to the genus *Apriona* but which I could not identify at once as one of the species known to me. When reexamining the various descriptions I conclude that these three specimens, which are of about the same shape as *A. punctatissima*, belong to *A. tigris* Thoms.

The animals are for the greater part black, but covered with a dense pubescence. On the head, the dorsal part of the pronotum and the elytra the colour of this pubescence is light orange brown, a shade towards the colour of wet sand, the lateral borders of the elytra are of an olive grey. The ventral surface is covered with a light olive grey pubescence. The lateral parts of the abdomen and of the pronotum are creamy white. The legs and the antennae are dark chestnut brown. The legs are covered for the greater part with a pubescence of the same colour as that on the ventral surface of the body. The antennae are only thinly covered with a flat, short yellowish grey pubescence. Along the internal margin of the eyes the pubescence is ferruginous.

The dorsal part of the terminal abdominal segment is of the same colour as the ventral surface of the body.

The elytra are covered with many shining granules on their basal fourth and the shoulders terminate in a distinct though blunt tooth. The apical three quarters of the elytra are irregularly spotted with black. These spots are those where no yellowish pubescence is found. In two of the three specimens the black spots are flown together in different directions so as to form a more or less marble like pattern. In the third specimen, however, the pattern resembles that of Oberthür's figure, which convinced me that really this species is meant. In the specimen from Amsterdam, in consideration here, the speckling of the elytra is somewhat more dense than in Oberthür's figure, the individual spots arranged in a more or less marble like pattern.

In the shape of the terminal abdominal segments no essential differences are to be found with the ♀♀ of *punctatissima*. In other respects too I cannot find any difference of specific value. My opinion on the whole case is that *tigris* from Celebes should be considered as a colour-variation

of *punctatissima*, which species should occur mainly in the Sangir Islands and probably in the northern part of Celebes. Dr. S. Breuning in Vienna, whom I consulted about this question, wrote me that he is of the same opinion.

XIV. NEW LAMIINAE  
MESOSINI

**Choeromorpha** (**Choeromorpha** s. str.) **murina** Breuning & De Jong var.  
**batuensis** nov. var.

Amsterdam Museum:

Batu Islands: 1 ♂, Tanah Masa, IX 1896, leg. Kannegieter (holotype); 1 ♀ from same locality (allotype); 1 ♀ from same locality (paratype).

The difference of the variety from the species (Breuning & De Jong, 1941, Zool. Med., vol. 23, p. 59, fig. 6b) is principally found in the pubescence, which is much thinner in the variety. In consequence the animals appear darker, the white spots are more distinctly visible and the black spots are less striking. This character is found not only on the head, thorax and elytra, but also on the ventral surface and the legs. Anatomically there are no differences between the ♀♀ of var. *batuensis* and the holotype ♀ of *murina*.

The ♂ is somewhat larger than the ♀♀. The antennae are about  $1\frac{1}{4}$  times as long as the body. The first joint is very long, distinctly longer than the fourth joint and about two times as long as the third. The third joint is shorter than the fourth. The fore femora of the ♂ are comparatively longer and stronger than those of the ♀. Like in the ♀ (and that of *murina*) the face and the dorsal part of the head are finely punctulated, but with more strong punctulations in addition, and, at the antennal bases and between the eyes, some longitudinal ridges. On the centre of the pronotal disc a small number of thin but distinct transverse ridges are found. The terminal abdominal sternite has no longitudinal impression.

In both sexes the antennae are pilose in nearly the same way. Ventrally they bear long black hairs (fringes). The first joint is minutely punctulate, intermixed with stronger points. The following parts of the antennae are clothed with a faint, light grey pubescence: the inner surface of the first joint, the base and the apex of the third joint, the basal third of the fourth joint, the basal half of the fifth joint, the basal half of the sixth and seventh joint except their utmost base, which bears black piles. The rest of the antennae is black.

Length of the ♂  $18\frac{1}{2}$  mm, ♀  $14\frac{1}{2}$  mm.

Breadth of the ♂  $8\frac{3}{4}$  mm, ♀ 7 mm.

## TMESISTERNINI

**Tmesisternus websteri** nov. spec.

Leiden Museum:

Melanesia: 1 ♀ and 3 ♂♂ from Neu Hannover (= Lavongai), II/III 1897, leg. Webster (received from Mr. R. Oberthür, ex Musaeo W. Rothschild 1899) (♂ holotype, ♀ allotype and 2 ♂♂ paratypes).

Two of the specimens before me have recently been identified as *T. schaumi* (Pascoe 1867, Trans. Ent. Soc. London (3) vol. 3, p. 462, pl. 19 fig. 2). When reviewing this part of the collection I found that the specimens did not agree with the specimens of *T. schaumi* already present in the Leiden Museum, which originated from the Key Islands (leg. W. R. van Hoëvell), the same locality as the type of that species. The new species is very closely related to *schaumi*. The most distinct difference between the new species and *schaumi* is found in the elytra. In *schaumi* these are "dark chalybeate-blue, very glossy, eight or ten small punctures on each near the shoulders, the rest with a few minute scattered punctures, a band composed of short white, very distinct, stripes before the middle, and a narrower band of the same character behind it", whereas in the new species the elytra are dark metallic blue with a greenish hue and finely, rather densely, punctured all over the surface so as to give them a less glossy appearance than in *schaumi*. Like in that species there are a number of more distinct punctures near the shoulders, which lie in more or less distinct longitudinal rows. The elytral bases, more distinctly than in *schaumi*, bear three longitudinal impressions each, filled with a yellow pubescence, from which these rows of punctures run backwards. The white transverse bands are situated at nearly the same place as in *schaumi*, one before and one behind the middle of the elytra, but in two of the specimens they are less distinctly developed. The anterior band consists of a number of short white longitudinal stripes, the second band, however, in *websteri* is sometimes reduced and consists of 3 white dots in the one specimen and of one only in another. Besides these two bands a white spot is found on each elytron obliquely against the suture at about one sixth of the length before the apex. The part from this spot towards the apex of the elytra is covered with a faint short ashy grey pile.

A further description of the species follows here:

The head is black, coarsely punctured. The face has a median impression running from the clypeus to between the eyes, which proceeds from there backwards as a thin line. On top of the head it widens again into a longitudinal impression. The face is thinly pilose. The clypeus is brown and

bears a number of brown bristles. The mandibles and the labrum are black. The other mouth-parts are dark brown. The antennae are about  $\frac{3}{4}$  of the length of the body in the ♀, nearly as long as the body in the ♂. They are black and are covered with a thin greyish brown pubescence which is more intense on from the fourth joint. The first joint is nearly smooth, thickened towards the apex with few punctulations. The third joint is about as long as the fourth. Ventrally the antennae are distinctly fringed.

The pronotum is black and bears a number of rather deep punctures; this punctulation is somewhat stronger than in *schaumi*. A longitudinal stripe on the middle of the disc is devoid of punctures and shining. Towards the sides the punctulation is growing more intense. Near the sides of the disc a yellow pubescence is found, just as in the basal impressions of the elytra.

The scutellum is broadly triangular with rounded sides and base. Its disc is shining black, without impression in the middle as is found in *schaumi*.

The under side of the body is glossy black, the sides of the prothorax with a greyish brown pubescence, the middle shining, the mesothorax with a brown pubescence, the middle also smooth, the metathorax for the greater part devoid of pubescence except at the hind margin and the sides which as well as the episterna of the metathorax are covered with a yellow pubescence. The lateral parts of the sternites of the abdomen are covered with a greyish brown pile. The apical half of the terminal sternite in the ♂♂ is very distinctly punctulate, each punctulation bearing a strong black hair. In the ♀ specimen the punctulate zone is restricted to the apical quarter of the sternite. This zone shows a more or less triangular impression which is continued anteriorly as a somewhat deepened line to the base of the sternite. This is a distinct sexual character, found in many Cerambycidae. The hind margin is straightly cut off in both sexes, with a strong thorn on each corner, which is directed backwards.

The legs are black. The femora are smooth except a very thin pubescence and some punctulations, especially on the ventral half. The tibiae bear a distinct orange-brown pile along the ventral ribs, especially on the apical half. The pubescence of the tarsi is light grey.

In the ♂ specimens the intermediate and posterior femora are broadened in their apical halves, broadest at one third from the apex. The basal third is of normal width.

Length: 21-22 mm, breadth: 7 mm.

## EXPLANATION OF THE PLATES

## PLATE I

*Anhammus daleni* Guérin. Left: ♀ from Preanger, Java (leg. Sijthoff); right: ♂ from Megamendoeng, Poendjak, W. Java (leg. Pasteur).

× 1.5.

## PLATE II

*Anhammus daleni* Guér. var. *tessellatus* Heller. Left: ♀ from Sipirok; right: ♂ from Sumatra (leg. Müller).

× 1.7.

## PLATE III

*Anhammus daleni* Guér. var. *borneensis* nov. var., ♂♂. Left: holotype from Mt. Liang Gagang, Borneo (leg. Dr. Hallier); right: paratype from Balikpapan, Borneo (leg. Kampmeindert).

× 1.6.

## PLATE IV

*Epepeotes schlegelii* Van Lansberge. Upper left: ♀ holotype *E. schlegelii* Lansb.; upper right: ♂ plesioallotype (holotype of *E. diversemaculatus* Schwarz.); lower figure: ♀ from Gg. Teleman (leg. Jacobson).

× 1.6.

## PLATE V

Left side:

*Pelargoderus sijthoffii* Ritsema, ♀♀. Upper figure: type of *P. diversemaculatus* Schwarz. (in litt.); lower left: cotype ♀ of *P. sijthoffii* Rits.; lower right: cotype ♀ of *P. sijthoffii* Rits. (formerly described as ♂).

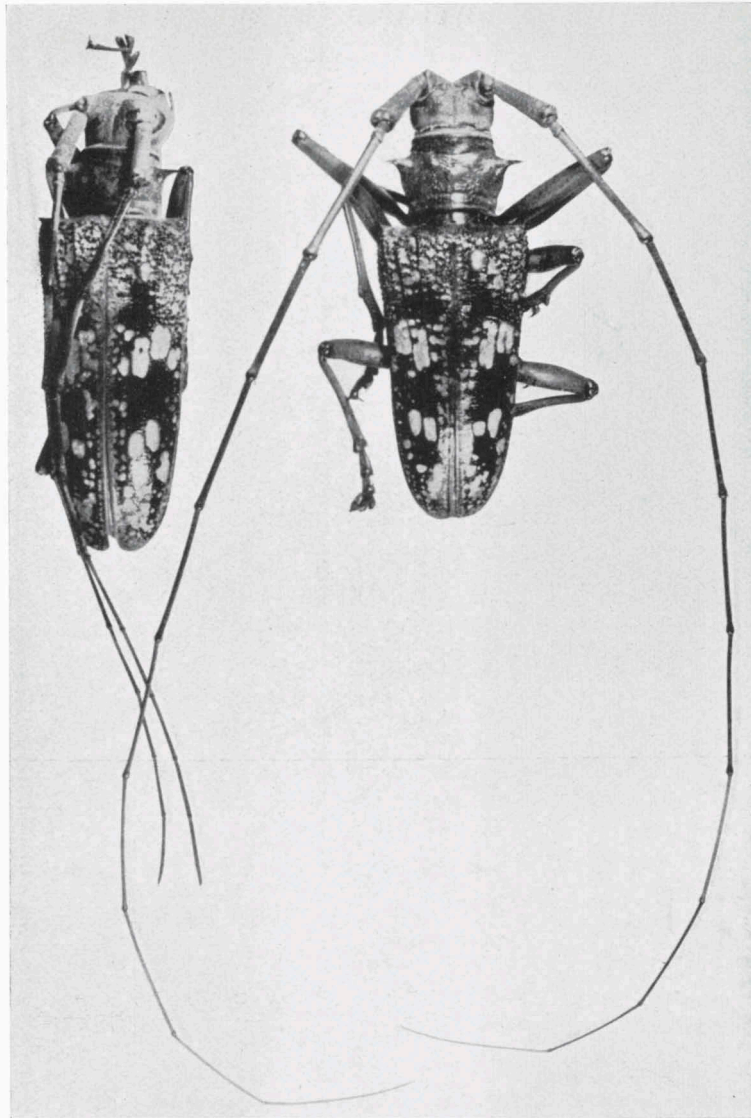
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Right side:

*Eryalus polypilus* Pascoe, ♂♂. Left: specimen in the Leiden Museum, holotype of *Pseudagnia tigrina* Aurivillius; right: specimen in the Amsterdam Museum.

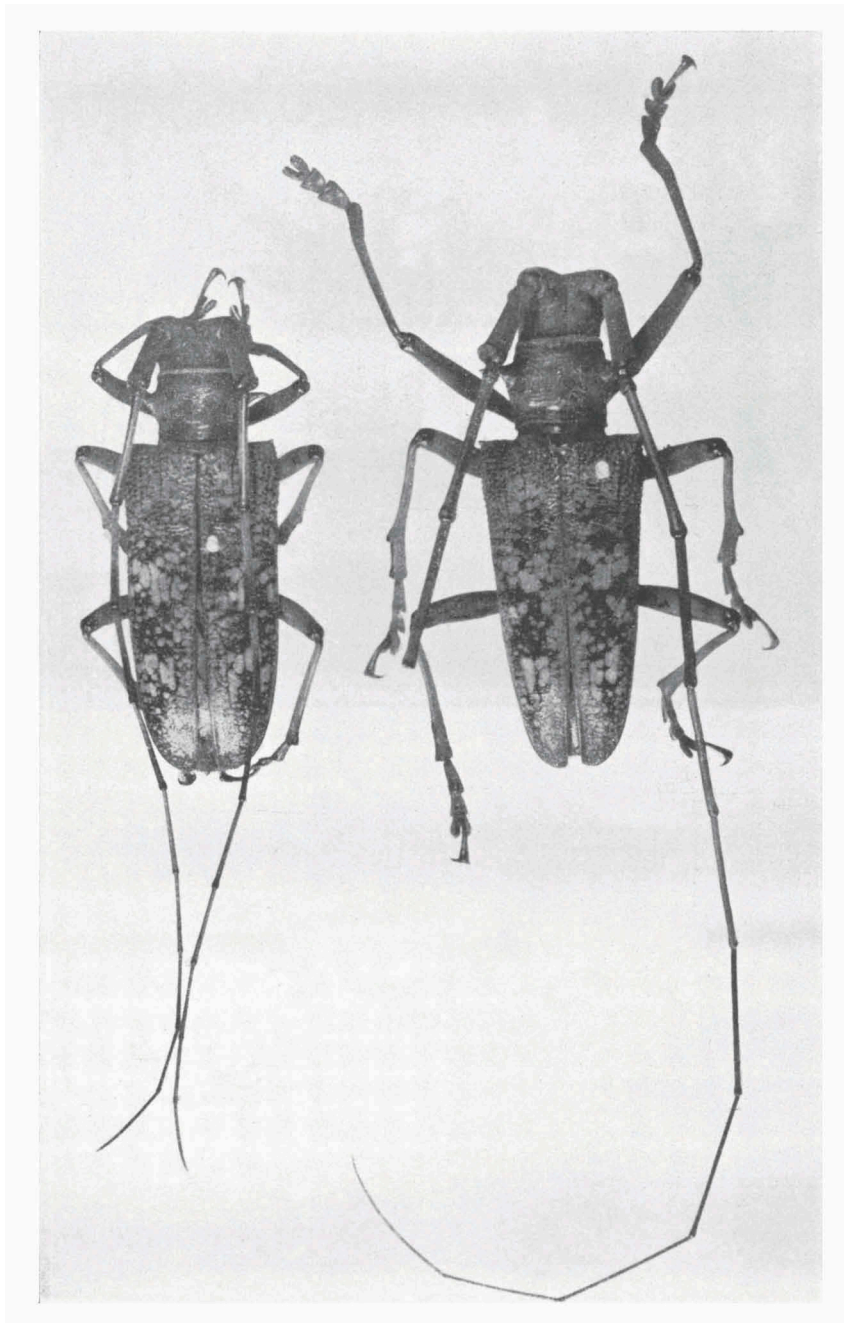
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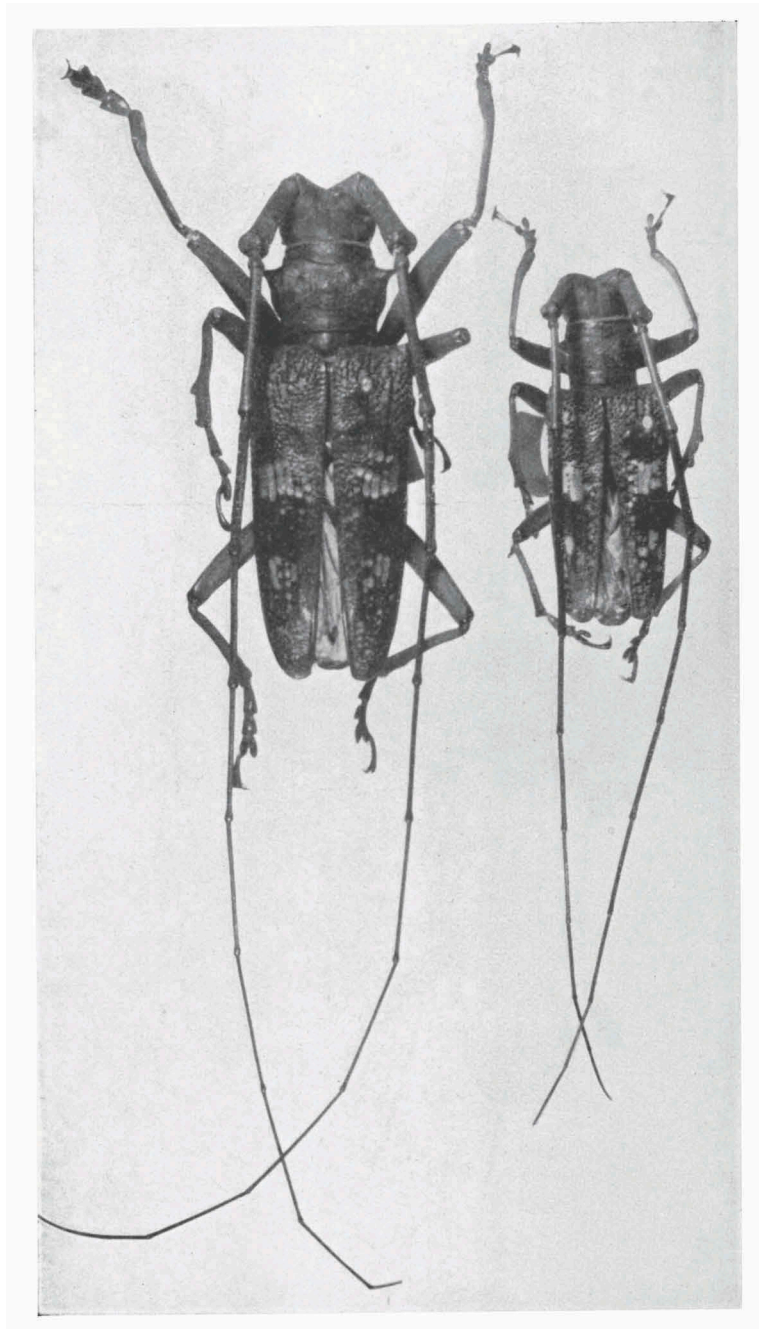


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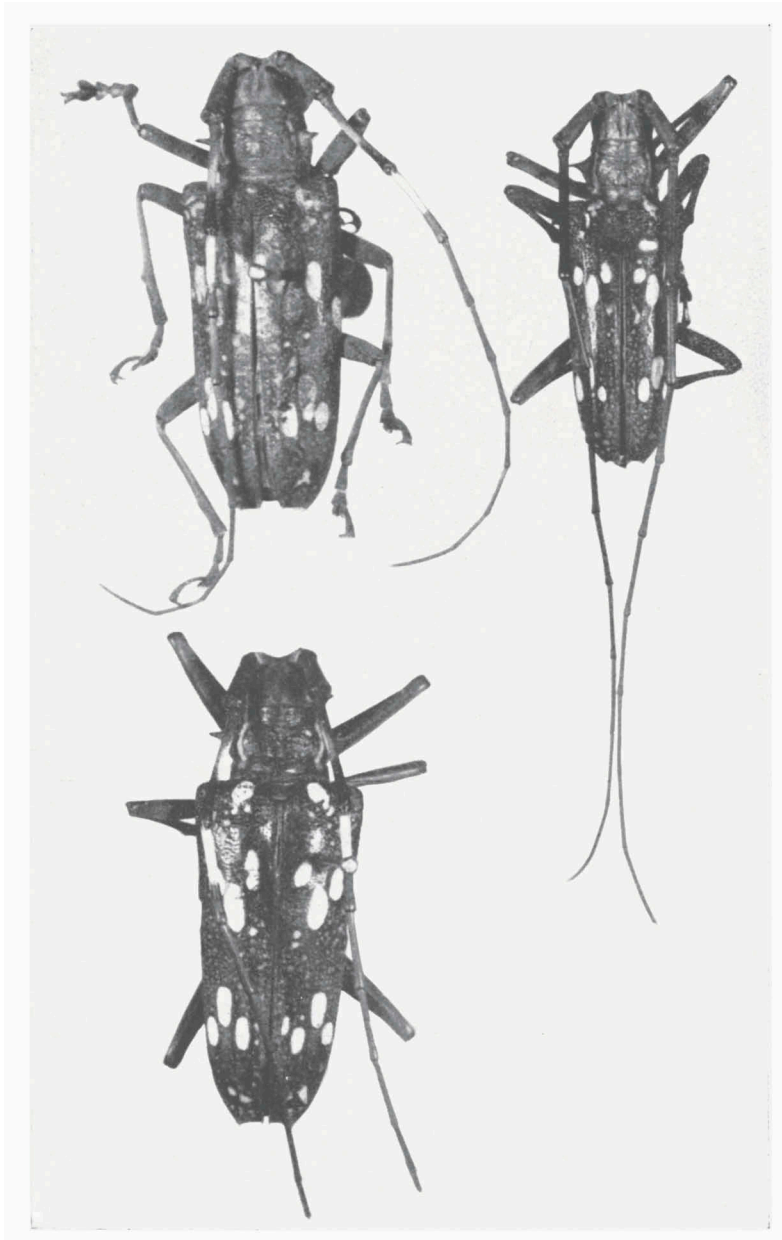




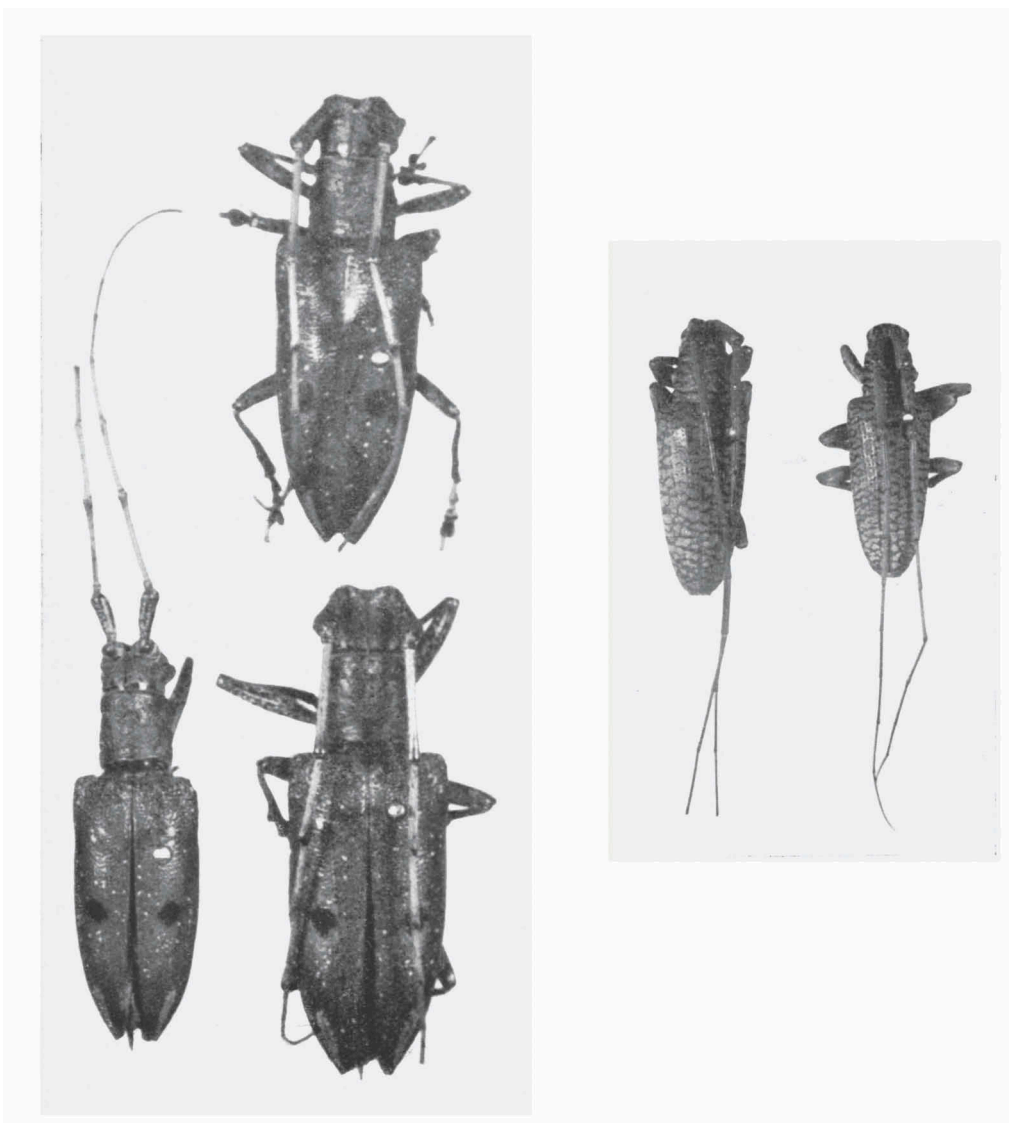
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