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Notes on the taxonomy and genitalia of eight Cerambycinae (Coleoptera: Cerambycidae) species from the collection of the Royal Belgian Institute of Natural Sciences, with description of two new species and one new subspecies

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Abstract

Species of the tribes Callidiopini Lacordaire, 1869 and Strongylurini Lacordaire, 1869 in the collection of the RBINS were studied. Of the Callidiopini, *Teladum unicolor* **sp. nov**. and *Ceresium diversum glabrum* **ssp. nov**. are described, while *Ceresium delauneyi* Lameere, 1893, *Ceresium furtivum* Pascoe, 1869 and *Falsoibidion trimaculatum* Pic, 1923 are redescribed. Of the Strongylurini, *Omotes vanuatensis* **sp. nov**. is described, *Pseudoceresium carinatum* (Fauvel, 1906) and *Dictamnia rugosa* Pascoe, 1869 are redescribed.

Their genitalia are closely examined. In particular, the ejaculatory duct complex of endophallus is documented and illustrated in detail, in addition to the usual median lobes and tegmen. Female genitalia are alternatively documented and illustrated for four Callidiopini species. Terminalia, in particular 8th sternites and tergites of both male and female are documented and illustrated in detail as well.

Discussions on the taxonomy of the above taxa, taking their genitalia and terminalia in consideration, are attached.

Keywords: Callidiopini, genitalia, Strongylurini, terminalia

Résumé

Les espèces des tribus Callidiopini Lacordaire, 1869 et Strongylurini Lacordaire, 1869 conservées dans les collections de l'IRSNB ont été étudiées. Parmi les Callidiopini, *Teladum unicolor* **sp. nov.** et *Ceresium diversum glabrum* **ssp. nov.** sont décrits, tandis que *Ceresium delauneyi* Lameere, 1893, *Ceresium furtivum* Pascoe, 1869 et *Falsoibidion trimaculatum* Pic, 1923 sont redécrits. Parmi les Strongylurini, *Omotes vanuatensis* **sp. nov**. est décrit, *Pseudoceresium carinatum* (Fauvel, 1906) et *Dictamnia rugosa* Pascoe, 1869 sont redécrits.

Les genitalia sont examinés de près. Le complexe du conduit éjaculatoire de l'endophallus est documenté et illustré en détail, en plus des lobes médians et des tegmens habituels. Les genitalia femelles sont également documentés et illustrés pour quatre espèces de Callidiopini. Les terminalia, en particulier les 8e sternites et tergites des mâles et des femelles sont documentés et illustrés en détail également.

Des discussions sur la taxonomie des taxons ci-dessus, prenant en considération leurs genitalia et terminalia, sont jointes.

Samenvatting

Soorten van de tribi Callidiopini Lacordaire, 1869 en Strongylurini Lacordaire, 1869 in de collectie van het KBIN werden bestudeerd. Van de Callidiopini, *Teladum unicolor* **sp. nov.** en *Ceresium diversum glabrum* **ssp. nov.** worden beschreven, terwijl *Ceresium delauneyi* Lameere, 1893, *Ceresium furtivum* Pascoe, 1869 en *Falsoibidion trimaculatum* Pic, 1923 opnieuw worden beschreven. Van de Strongylurini, *Omotes vanuatensis* **sp. nov.** wordt beschreven, worden *Pseudoceresium carinatum* (Fauvel, 1906) en *Dictamnia rugosa* Pascoe, 1869 opnieuw beschreven.

Hun geslachtsdelen worden nauwkeurig onderzocht. In het bijzonder wordt het ejaculatiekanaalcomplex van endophallus in detail gedocumenteerd en geïllustreerd, naast de gebruikelijke mediane lobben en tegmen. Vrouwelijke genitaliën worden alternatief gedocumenteerd en geïllustreerd voor vier Callidiopini-soorten. Terminalia, in het bijzonder 8e sternieten en tergieten van zowel mannelijke als vrouwelijke, worden ook in detail gedocumenteerd en geïllustreerd.

Discussies over de taxonomie van de bovenstaande taxa, rekening houdend met hun genitalia en terminalia delen, zijn bijgevoegd.

Introduction

In 2019, the author of this publication was granted to study the collection of cerambycid beetles in the Royal Belgian Institute of Natural Sciences (RBINS). The subsequent observation was first concentrated on the subfamily Cerambycinae, in particular on the Callidiopini Lacordaire, 1869 and Strongylurini Lacordaire, 1869. The results are described below.

The Callidiopini is a large tribe composed of 68 genera or subgenera with around 400 species, mostly distributed in the Oriental and the Australian Regions. In this publication, a new species from Vietnam is described as the eighth member of the small genus *Teladum* Holzschuh, 2011. Further, a new subspecies of the prolific genus *Ceresium* from Moluccas is described. In addition, a morphological variation of *Ceresium furtivum* Pascoe, 1869 from Borneo, is described.

In spite of the large number of publications on the Callidiopini involving many new taxa, their genitalia and terminalia have been rather poorly explored until lately. Slipinski and Escalona included male terminalia in their description of the Callidiopini species (SLIPINSKI & ESCALONA, 2016), though the geographical scope of the observation was confined to the Australian fauna. In recent publications (YOKOI, 2019, 2021; YOKOI *et al*., 2019), the genitalia of both Oriental and Australian species were closely examined. In particular, it was observed that the endophallus is very often highly diverse and intricate in structure. In *Ceresium* Newman, 1842, *Examnes* Pascoe, 1869, *Stenodryas* Bates, 1873 and *Oxymagis* Pascoe, 1866, they are each provided with a heavily sclerotized, intricate, apical structure surrounding ejaculatory duct, while in *Callidiopis* Thomson, 1864 and *Salpinia* Pascoe, 1869, they are densely covered by sclerotized scales on surface. Further, it was revealed that the terminalia, in particular the 8th sternite and tergite, are also well diversified and specific to each species. As genitalia and terminalia accordingly provide essential characters for the taxonomy, their examination should be first intensified in the tribe. In this regard, male genitalia and terminalia of two already known species, i.e., *Ceresium delauneyi* Lameere, 1868, and *Falsoibidion trimaculatum* Pic, 1923, are additionally examined and described below. Descriptions of venter are added as they are absent in the original descriptions.

Further, comparative observations of genitalia and terminalia should be extended to other tribes of the subfamily. Concerning Callichromatini Swainson & Shuckard, 1840, our knowledge of the genitalia has already been substantially enlarged since endophalli of Callichromatini species have been systematically explored (SKALE, 2018a, 2018b, 2020; SKALE &WEIGEL, 2017; BENTANACHS & JIROUX, 2019).

In this regard, species of the tribe Strongylurini are additionally observed in this publication. This tribe is much smaller than the Callidiopini, composed of about 16 genera with 89 species, almost exclusively distributed in the Australian Region, with a few exceptions in the Oriental Region. It is sensible to extend the observation of genitalia to this tribe, as it is more or less affiliated to the Callidiopini. The scope or range of this tribe, or its taxonomical relation to and distinction from the Callidiopini, poses an interesting question. LACORDAIRE (1868), who first introduced this tribe, noted himself that he had extensively reflected on the distinction between these two tribes. Meanwhile, heterogeneous genera were included in the tribe, so that "the composition of the tribe is not definitively established at present" (JAQUOT, 2017).

The male genitalia of the Strongylurini were first described by ELIOT & MACDONALD (1972) in their revision of the genus *Strongyluris*, where parameres and "copulatory armour" of the endophallus of Australian species were systematically observed. In recent years, SLIPINSKI & ESCALONA (2016) included male terminalia in their descriptions of Strongylurini species from Australia. However, species and genera from other regions were not covered in these publications, whereas the consideration of these taxa may be essential for the question regarding the scope of the tribe and its inter-relationship with other tribes.

In this connection, three species of three genera of the Strongylurini, all distributed outside Australia, are described here. *Omotes vanuatensis*. **sp. nov.** from Vanuatu (formerly New Hebrides) is described, with a detailed illustration of its male genitalia. Further, male genitalia, terminalia and venter of two known species, *Pseudoceresium carinatum* (Fauvel, 1906) from New Caledonia and *Dictamnia rugosa* Pascoe, 1869 from New Guinea, are carefully described and illustrated for comparison.

Female genitalia and terminalia are less indicative than the male ones since they are less diversified, less sclerotized in general and susceptible to deformation. However, 8th and 9th abdominal segments often reveal characteristic structures and vaginal plates are sometimes specific. Female genitalia and terminalia are alternatively described when no male specimen was available.

Finally, new observations and questions on the taxonomy, beyond the individual descriptions of species, should be more broadly discussed. These substantial aspects are added at the end.

Material and methods

The material for this publication is composed of the Callidiopini and Strongylurini specimens preserved in the Royal Belgian Institute of Natural Sciences (RBINS). All labels are cited as in the original.

The specimens in question were either directly compared to the relevant holotypes or to their original descriptions and photographs. For the examination of genitalia, the specimens were softened first, then submerged in KOH solution for 12 hours and subsequently cleansed in water. They were photographed using a digital camera with a macro lens. Serial photos were stacked onto one image. Drawings were made using Adobe Illustrator. Measurements were taken with an ocular micro-meter.

Median lobe, tegmen, 8th sternite and tergite were examined for each male specimen. Endophallus was observed in natura, i.e., in pre-copulative position in abdomen. Ejaculatory duct of endophallus, together with the surrounding manifold sclerites, referred to as "ejaculatory duct complex" here, was observed in particular detail. In general, the direction, to which the ejaculatory duct itself is pointed, is referred to as "apical", the side nearer to the duct likewise "dorsal". Additionally, when relevant, 9th sternite or tergite were examined. For female, 8th and 9th sternites and tergites, spermatheca, bursa copulatrix and median oviduct were examined. In publications, 8th and 9th abdominal segments are often included in "terminalia". However, they sometimes play significant roles in copulation, as indicated by their often elaborate structures of apical parts; thus, they are often referred to as "external genitalia". In this publication, 8th and 9th abdominal segments are included in the descriptions of genitalia. For the sake of simplicity and readability, "terminalia" is nonetheless used as a collective term. Usually, their external sides are observed and described, i.e., sternites in ventral view and tergites in dorsal view. The other sides are described when relevant. In addition, 7th abdominal segment was simultaneously observed when sensible. The terminology for the description of genitalia is temporally used here, as the standardization is not yet definitely established, in particular regarding endophallus.

Holotypes and paratypes will be deposited in RBINS. The reference number of each type specimen is given under the type specification in the description concerned.

The abbreviations for the measurements in the descriptions are as follows:

EL – length of elytra;

EW – humeral width of elytra;

HW – head width across eyes;

M – arithmetic mean;

PA – apical width of pronotum;

PB – basal width of pronotum;

PL – length of pronotum;

PW – maximum width of pronotum;

TL – total length (from apical margin of clypeus to abdominal apex).

Results

Taxonomic account

Order Coleoptera Linnaeus, 1758
Suborder Polyphaga Emery, 1886
Superfamily Chrysomeloidea Latreille, 1802
Family Cerambycidae Latreille, 1807
Subfamily Cerambycinae Latreille, 1807
Tribe Callidiopini Lacordaire, 1869
Tribe Strongylurini Lacordaire, 1869

***Teladum unicolor* sp. nov.**
(Figs 1A–F, 2A–H)

MATERIAL EXAMINED. Holotype • ♀, "Saigon, 6. 03".

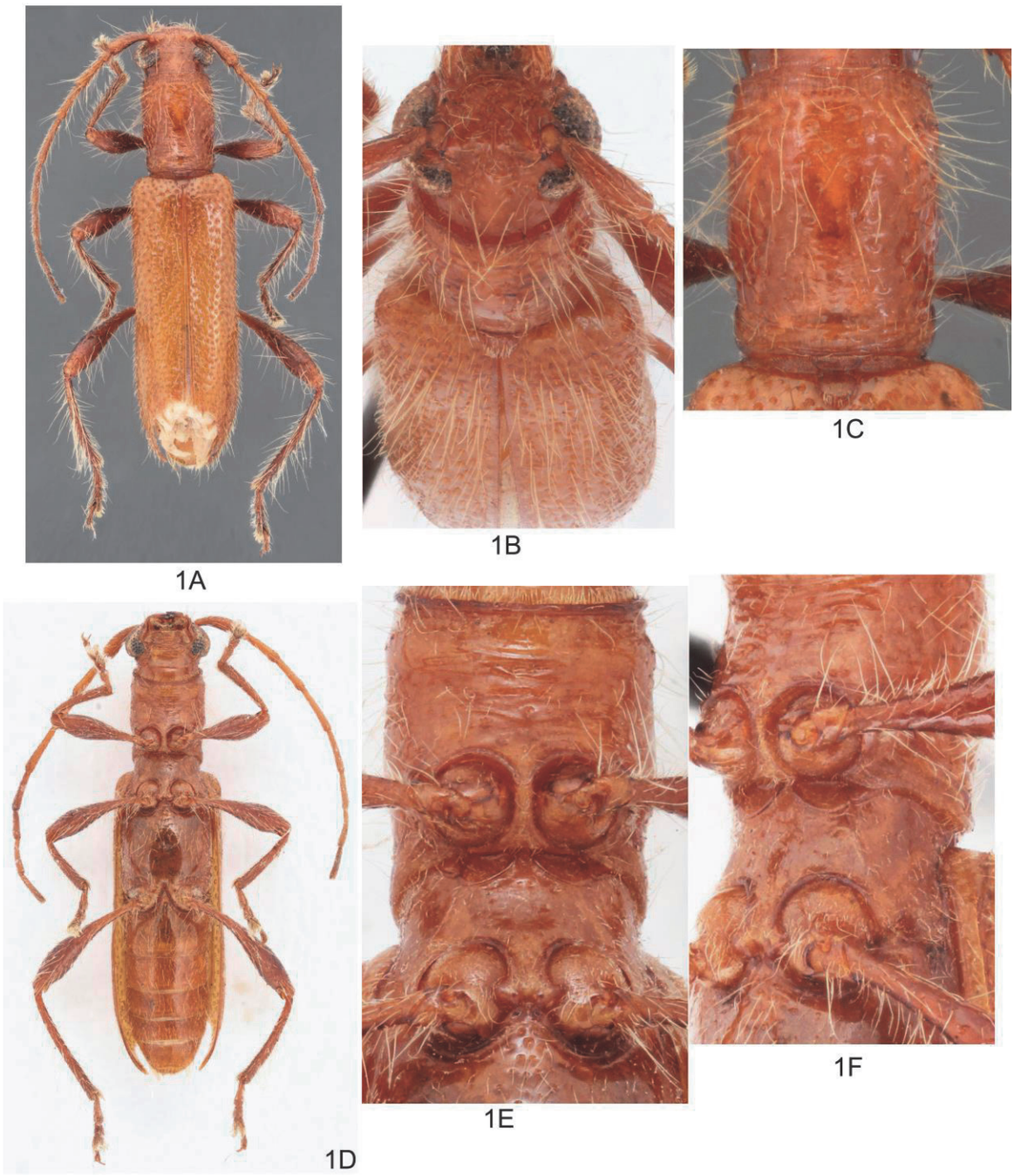


Fig. 1A–1F. *Teladum unicolor* **sp. nov.** Holotype female. 1A, habitus; 1B, ditto, fronto-dorsal view: 1 C, pronotum; 1D, venter: 1E, pro-and mesosternum; 1F, ditto, latero-ventral view.

DIAGNOSIS. Reddish brown; strongly pilose, setae mostly long, erect or flying; pronotum sub-cylindrical, evenly, sparsely punctured.

ETYMOLOGY. The name of this species refers to its uniform coloration.

MEASUREMENTS FOR HOLOTYPE FEMALE. TL=7.0 mm; EL/EW=3.20; HW/PW=1.10; PL/PW=1.36; PA/PW=0.94; PB/PW=0.94.

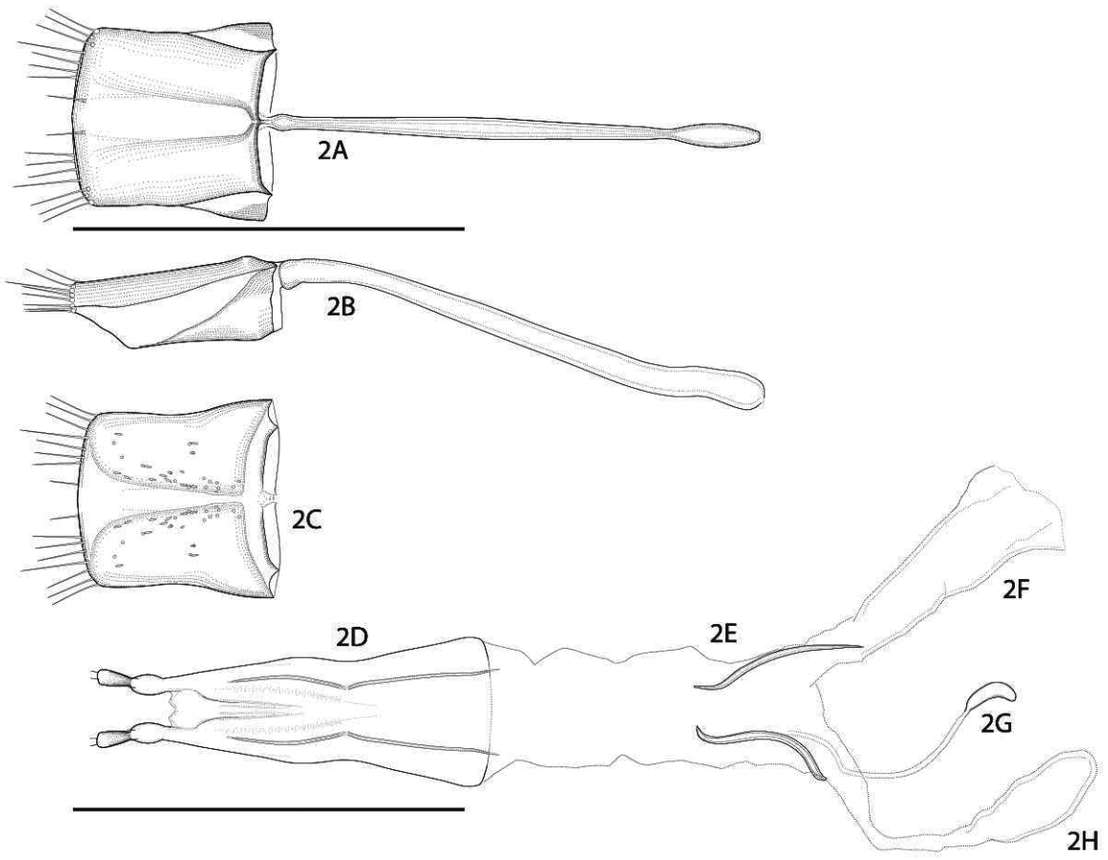


Fig. 2A–2H. *Teladum unicolor* **sp. nov.** Holotype female. Genitalia and terminalia. 2A, 8th sternite, ventral view; 2B, 8th sternite and tegrite, lateral view; 2C, 8th tergite, dorsal view; 2D, 9th sternite; dorsal view; 2E, vagina with vaginal plates; 2F, median oviduct; 2G, spermatheca; 2H, bursa copulatrix. Scale bar: 1 mm.

DESCRIPTION. *Colour*. Light reddish brown, though femora and pronotum a little darker. Eyes grey. Setae pale yellowish to whitish.

Head (Figs 1A–B). Broader than pronotum; with large, regular punctures; setae sparse. Frons rather steep, transverse, reversed trapezoidal, moderately convex in middle; latero-apical corner each deeply impressed. Vertex broadly concave, with a narrow median furrow. Occiput with a few long erect setae. Eyes small, separated from one another nearly by 3/5 the width of occiput or 3 times the width of the upper eye-lobes. Antennal supports flattened, moderately produced at the posterior corners. Antennae rather slender; 3rd, 4th, 5th and 6th antennomeres each 3/4, 3/4, 11/10 and 10/10 as long as scape; 2–5 fringed with long hairs on the underside; 2–4 additionally with long apical setae. Scape arcuate and clavate, with regular though shallow punctures and with medium to long erect-flying hairs.

Pronotum (Fig. 1C). Longer than broad, sub-cylindrical, with large regular though sparse punctures and with long erect setae. Disc well convex, elevated in middle. Sides sub-parallel-sided, feebly bi-sinuate, weakly constricted just before apex and base. Scutellum bell-shaped, fringed with short hairs on sides.

Elytra (Figs 1A–B). Rather long, parallel-sided; disc widely flattened, with large regular setiferous punctures; setae thereof long and erect near base, shorter and recumbent toward apex.

Legs. Rather long, clothed with long erect or flying hairs; femora moderately clavate, moderately pedunculate near basal third, weakly flattened. Tibiae arcuate and flattened, gradually thickened toward apex. Tarsi slender.

Venter (Figs 1D–F). Shiny, sparsely clothed with recumbent, partly erect hairs of varying length. Prosternum concave in profile; surface strigate to scabrous punctate, with several very large coarse punctures near base. Prosternal process narrow, well bordered, apically expanded, impressed in the apical middle; apex truncated. Mesosternum saddle-shaped, shallowly, coarsely punctured. Mesosternal process moderately broad, well bordered, apically bi-lobed, each lobe apically elevated with a diminutive tubercle. Metasternum sub-parallel-sided, well convex in middle; basal middle with large, coarse punctures. Abdominal segments attenuating in length and width toward 7th sternite; 7th sternite about 2/5 as long as 3rd, with apex weakly emarginated.

Female genitalia and terminalia (Figs 2A–H). 8th sternite sub-squared, though base a little narrower than apex; latero-basal corners acute; peduncle more than 5/2 as long as blade. 8th tergite sub-squared though latero-basal corners a little produced. Sternite and tergite connected with a thick membrane; both apices fringed with several long hairs. 9th sternite broad; coxite about as long as paraproct; styli each furnished with a few setae. Vaginal plates bi-sinuate-flagellar. Bursa copulatrix connected to apical vagina with a thick tube. Spermatheca kidney-shaped, composed of a thick membrane, connected to apical vagina with a long winding duct.

DISTRIBUTION. South Vietnam.

DIFFERENTIAL DIAGNOSIS. This new species is comparable to *Teladum atripes* (Pic, 1935), from which it is distinguishable by the uniform coloration, whereas the latter is provided with distinctly black femora. In addition, the pronotal surface is sparsely punctate instead of densely punctate or corrugated. It is also more strongly pilose.

REMARK. Antennae and elytral apex of the holotype are partly damaged.

Ceresium diversum glabrum **ssp. nov.**
(Figs 3A–G, 4A–B)

Diatomocephala diversa PASCOE, 1869; type locality: ”Menado”.
Ceresium diversum: YOKOI, 2015: 198.
Ceresium diversum: YOKOI, 2021: 363–396.

MATERIAL EXAMINED. Holotype • ♀, “ Molucca’’.

DIAGNOSIS. Dorsum only rudimentarily setose; visible setae reduced, pale, sub-transparent.

ETYMOLOGY. The name of this subspecies refers to its dorsal surface, which is very sparsely clothed with reduced setae.

MEASUREMENTS FOR HOLOTYPE FEMALE. TL=15.7 mm; EL/EW=3.18; HW/PW=0.82; PL/PW=1.15; PA/PW=0.76; PB/PW=0.90.

DESCRIPTION. Differences from the nominotypical *Ceresium diversum* (Pascoe, 1869) are noted below and undescribed characters added.

Head and *pronotum* mostly hairless; the several visible hairs reduced, sub-transparent. Elytra sparsely clothed with similar hairs; each hair shorter than 3/2 the diameter of its setiferous puncture in basal half, shorter in the apical half. Setae on the ventral side of thorax much sparser than of the nominotyical subspecies *Ceresium diversum diversum*. Mesosternal process almost naked, thickly bordered (Fig. 3D).

Female genitalia and terminalia (Figs 3E–G, 4A–B). Blade of 8th sternite longer than broad, sub-rectangular; apex sub-truncated, a little broader than base, fringed with several medium-sized stout hairs; peduncle more than 5/2 as long as blade. 8th tergite with sides weakly bi-

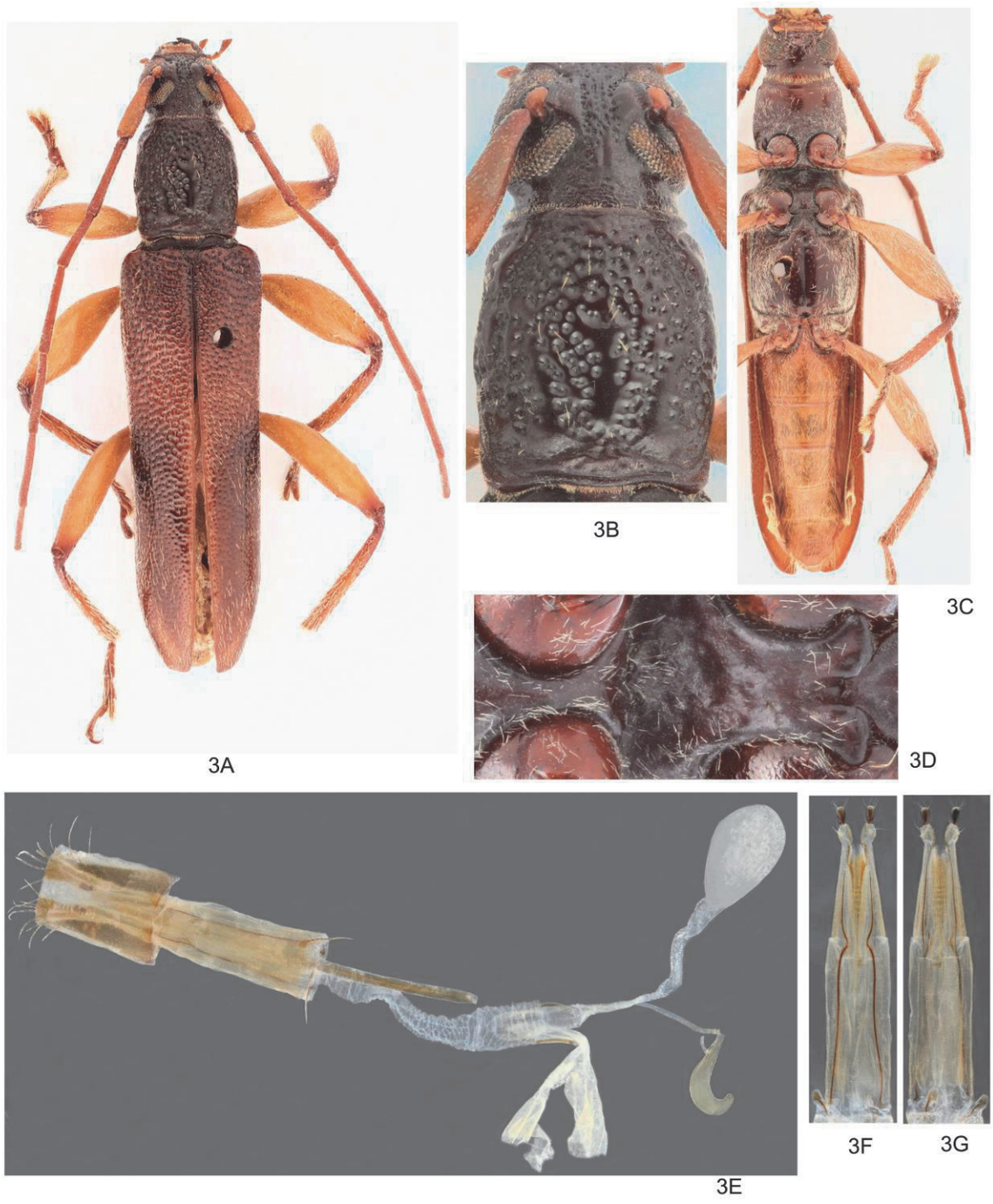


Fig. 3A–3G. *Ceresium diversum glabrum* **ssp. nov**. Holotype female. 3A, habitus; 3B, head and pronotum; 3C, venter; 3D, pro-and mesosternal processes; 3E, genitalia and terminalia: from left: 8th tergite; 9th tergite; vagina with vaginal plates; median oviduct; spermatheca; bursa copulatrix; 3F, 9th sternite, ventral view; 3G, 9th tergite, dorsal view.

sinuate; base broader than apex; setae similar to those of the sternite. 9th sternite rather long; coxite shorter than paraproct; coxite lobes and styli each furnished with several short hairs; baculi each extended to a free flagellum. Vaginal plates arcuate-flagellar. Bursa copulatrix oval. Spermatheca "?"-shaped. Both sub-contiguously connected to apical vagina, each with a long duct.

DISTRIBUTION. Indonesia: Moluccas (no further specification).

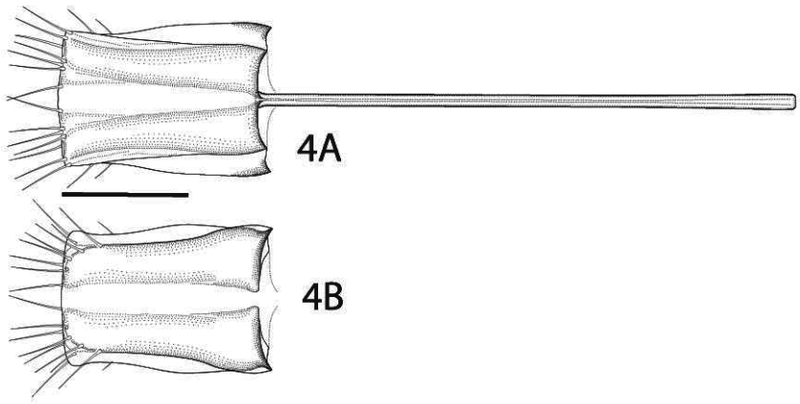


Fig. 4A–4B. *Ceresium diversum glabrum* **ssp. nov**. Holotype female. Terminalia. 4A, 8th sternite, ventral view; 4B, 8th tergite, dorsal view. Scale bar: 1 mm.

DIFFERENTIAL DIAGNOSIS. Compared to the nominotypical subspecies, the newly described subspecies *Ceresium diversum glabrum* appears peculiarly naked and shiny. It lacks the regular stout, whitish-grey hairs which can be observed in all the geographical variations of the nominotyical subspecies *Ceresium diversum diversum* (YOKOI, 2015, 2021). Question arises if this absence of regular hairs is not an essential character but rather an individual or abnormal phenomenon. However, the abdominal setae are normal. Further, the nature of the reduced sub-transparent setae observed on other parts differs from the longer, stouter, whitish hairs on the nominotype. Thus, it is treated as a subspecies here. However, its position is temporal and it may prove to be a distinct species. A male specimen, its genitalia in particular, must be observed for the final classification. More specific information on the location is also necessary for biogeography.

Ceresium delauneyi Lameere, 1893
(Figs 5A–F, 6A–K)

Ceresium delauneyi LAMEERE, 1893: 282. Type locality: "Hue".

EXAMINED SPECIMEN. • 1♂, "Hue", "Collection A. Lameere", "*Ceresium Delauneyi*".

MEASUREMENTS. TL=10.3 mm; EL/EW=3.0; HW/PW=1.0; PL/PW=1.26; PA/PW=0.76; PB/PW=0.84.

ADDITIONAL DESCRIPTION. Venter (Figs 5B–C). Shiny; thorax dark brown; sides with thick, whitish, recumbent hairs. Prosternum moderately concave in profile; middle with large punctures and whitish recumbent hairs. Prosternal process rather narrow, moderately declivous and expanded toward apex; apex sub-truncated. Mesosternum with sparse, small setiferous punctures, saddle-shaped and steeply elevated toward the process. Mesosternal process broad, rather flattened, moderately clothed with whitish hairs; apically bi-lobed; each lobe sub-rectangular. Metasternum with sub-parallel sides; middle with medium-sized coarse punctures.

Abdominal segments reddish brown; segments gradually attenuating in length and width toward 7th sternite. 7th sternite about 1/3 as long as 3rd, with apex broadly and shallowly emarginated (Fig. 5E).

Male genitalia (Figs 5F; 6A–I). Median lobe about 3/10 the length of abdomen; bullet-shaped in dorsal view, in profile moderately curved just before middle; dorsal plate slightly constricted near middle, dehiscent in basal 11/20; ventral plate longer than the dorsal, dehiscent in basal 3/4, with apex pointed. Tegmen 9/10 as long as median lobe; in profile hardly arcuate.

Fig. 5A–5F. *Ceresium delauneyi* Lameere, 1893. Male from Vietnam. 5A, habitus; 5B, venter; 5C, pro-and mesosternal processes; 5D, pronotum; 5E, 7th and 8th sternite, 8th tergite, ventral view; 5F, ejaculatory duct complex, ventral view.

Parameres about 2/5 as long as tegmen; apical 3/10 bi-lobed; lobes each clothed with several short to elongated apical setae; ring part widely sub-parallel-sided. Ejaculatory duct complex large, about 9/20 as long as median lobe, sub-monolithic; sclerites closely combined, intricate in structure; dorsal sclerite horn-shaped, with a lingulate cavity on dorsum, attached by a basal extension in triangular-spatulate form; latero-ventral sclerite longer than the dorsal, laterally dilated near middle, with a pair of semi-spherical dorsal cavities on the dilation; base shallowly

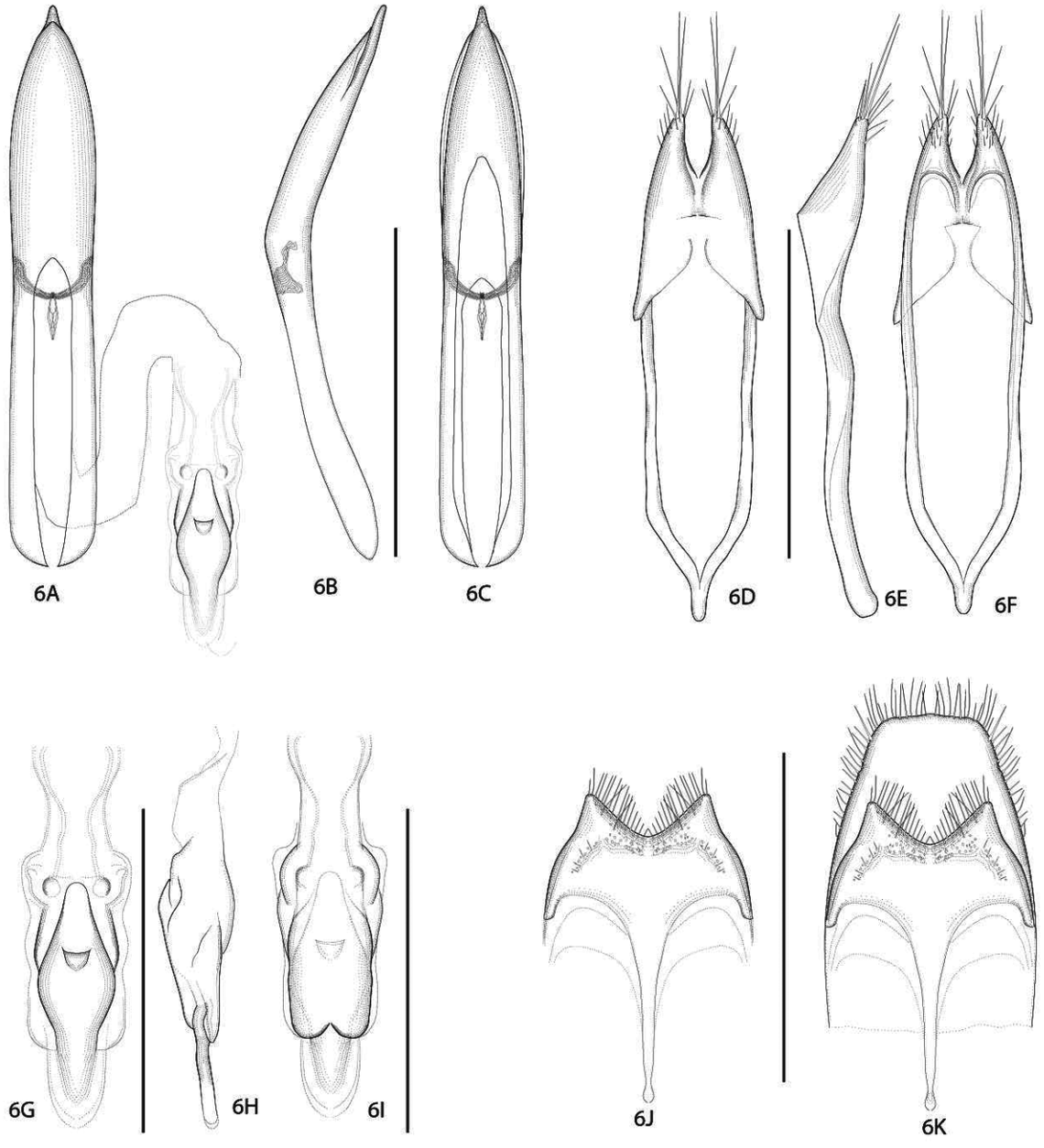


Fig. 6A–6K. *Ceresium delauneyi* Lameere, 1893. Male from Vietnam. Genitalia and terminalia. 6A, median lobe with endophallus, dorsal view; 6B, median lobe, lateral view; 6C, ditto, ventral; 6D, tegmen, dorsal view; 6E, ditto, lateral; 6F, ditto, ventral; 6G, endophallus, ejaculatory duct complex, dorsal view; 6H, ditto, lateral; 6I, ditto, ventral; 6J, 8th sternite, ventral view; 6K, ditto, with 8th tergite in the background. Scale bar: 0.5 mm for 6G–6I; 1 mm for the others.

bi-lobed; sclerites surrounded by a thick membrane structure with multiple-sinuate margin; membrane gradually merging into endophallus tube.

Terminalia (Figs 5E; 6J-K). Blade of 8th sternite stout; transverse, sub-cotyledonary in outline, with sharp corners; apex much narrower than base, deeply, widely emarginated, fringed with a row of medium-sized setae; peduncle longer than blade. 8th tergite trapezoidal, as broad as 8th sternite, much longer, setae on apex and sides as on the sternite.

DISTRIBUTION. Vietnam (Hue).

DIFFERENTIAL DIAGNOSIS. The examined specimen was collected in the same locality as the holotype, included in Lameere's collection and, most probably, determined by the author himself. Compared to the holotype, it is darker, especially on head and pronotum. *Ceresium delauneyi* is possibly related to *C. indigum* Holzschuh, 2011 from Borneo and Sumatra, from which it differs in outline and integument of pronotum. The difference in genitalia and terminalia are more obvious: ejaculatory duct complexes of both species are similarly large and intricate in structure; however, the details of architecture differ distinctly. In addition, tegmen and 8th sternite show a different structure, even though similarly setose (YOKOI, 2019).

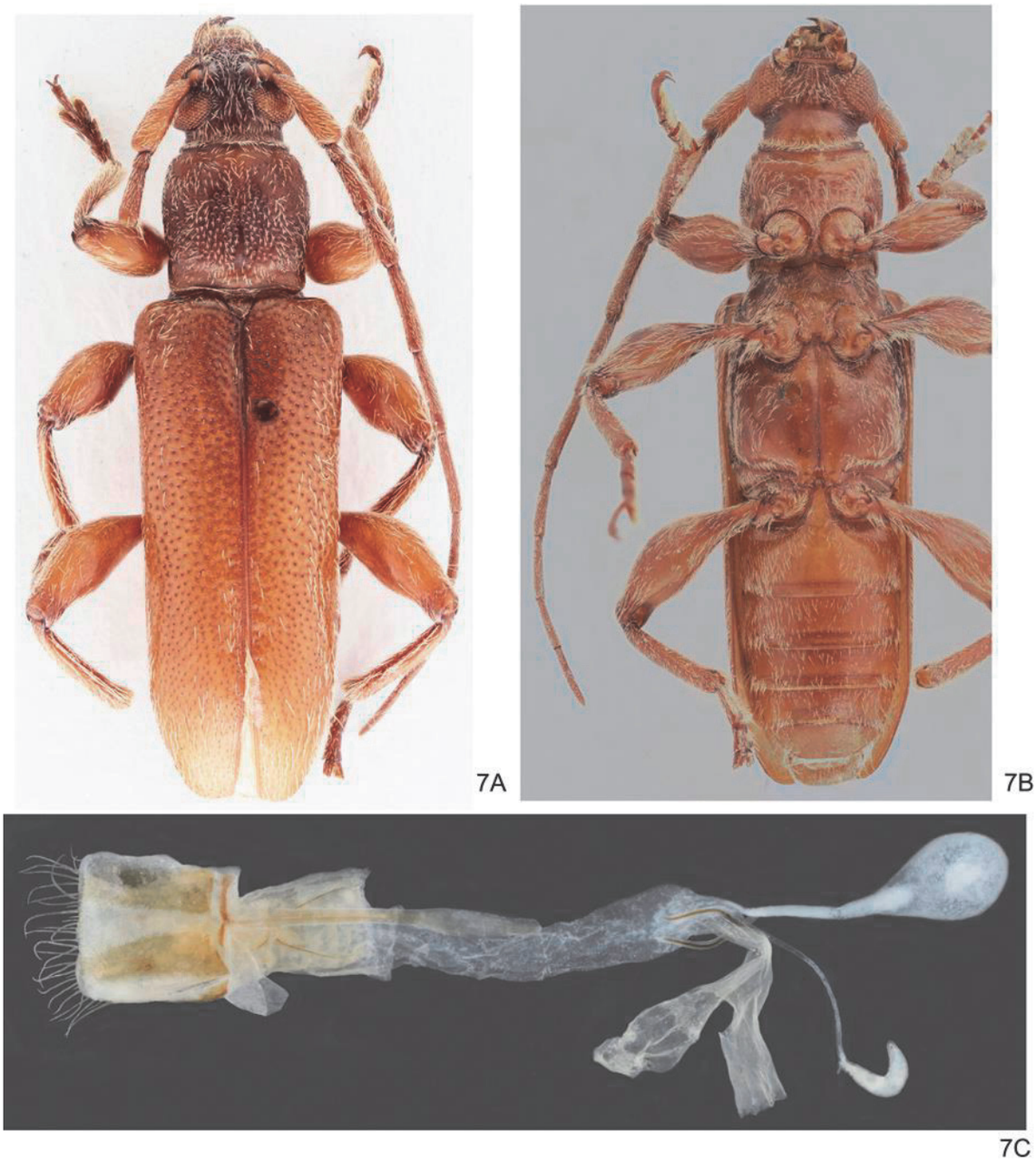


Fig. 7A–7C. *Ceresium furtivum* Pascoe, 1869. Female from Borneo. 7A, habitus; 7B, venter; 7C, genitalia and terminalia: from left to right: 8th sternite; 9th sternite (part); vagina with vaginal plates; median oviduct; spermatheca; bursa copulatrix.

Ceresium furtivum Pascoe, 1869
(Figs 7A–C, 8A–B)

Ceresium furtivum PASCOE, 1869: 538.
Ceresium furtivum: GRESSITT & RONDON, 1970: 100.

EXAMINED SPECIMEN. • 1♀, "Coll. R.I.Sc.N.B., Borneo, ex coll. de MOFFARTS". "Angustulum Borneo Gahan, ex. coll. de MOFFARTS".

DIAGNOSIS. The examined individual differs from the holotype in colour. In addition, pronotum is less strongly rounded.

MEASUREMENTS FOR HOLOTYPE FEMALE. TL=12.5 mm; EL/EW=2.50; HW/PW=0.86; PL/PW=1.02; PA/PW=0.70; PB/PW=0.92.

DESCRIPTION. Body similar to the holotype, reddish brown; pronotum less strongly rounded than in the holotype; sides less arcuate; the nitid median stripe larger (Fig. 7A).

Female genitalia and terminalia (Figs 7C, 8A–B). Blade of 8th sternite sub-squared; apex fringed with long stout hairs; peduncle a little more than twice as long as blade, dorsally keeled in basal 2/3, clavate in apical third. 8th tergite similar to the sternite in outline, though base narrower than apex; setae similar. 9th sternite rather short and broad; coxite shorter than paraproct; coxite lobes and styli each furnished with several short hairs. Vaginal plates arcuate-flagellar. Bursa copulatrix oval; spermatheca ?-shaped; both sub-contiguously connected to apical vagina, each with a long duct.

DISTRIBUTION. Indonesia, Borneo (Sarawak), Laos and Cambodia.

DIFFERENTIAL DIAGNOSIS. The examined specimen is rather peculiar in colour, being reddish brown, in contrast to the blackish colour of the holotype. In addition, the structure of its pronotum is different. As the other external characters are essentially similar, it is identified as a morphological variation of *C. furtivum*. Male genitalia of this variation should be examined for further taxonomical consideration of this species.

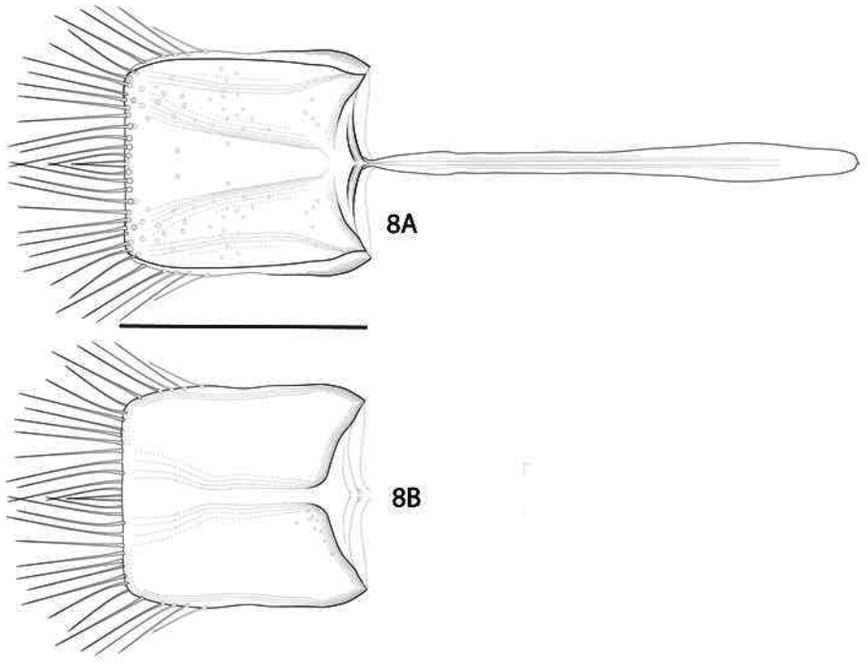


Fig. 8A–8B. *Ceresium furtivum* Pascoe, 1869. Female from Borneo. 8A, 8th sternite, ventral view; 8B, 8th tergite, dorsal view. Scale bar: 1 mm.

Falsoibidion trimaculatum Pic, 1923
(Figs 9A–9H, 10A–10L)

Falsoibidion trimaculatum PIC, 1923:14. Type locality: "Cambodge".
Falsoibidion trimaculatum: GRESSITT & RONDON, 1970: 103.

EXAMINED SPECIMEN. • 1♂, "Campong Kudy, Cambodge, III.1914".

MEASUREMENTS. TL = 13.8 mm; EL/EW = 3.15; HW/PW = 1.0; PL/PW = 1.83; PA/PW = 0.87; PB/PW = 0.88.

ADDITIONAL DESCRIPTION. Venter (Figs 9B–D). Prosternum with sporadic, long erect or flying hairs; additionally, with thick, short hairs near base; constricted at apical third; basal 2/3 well rounded though rather flattened in middle; apical third finely strigulate; with regular dense large punctures otherwise. Prosternal process rather narrow; apical part moderately declivous and expanded; apex sub-truncated, impressed in the middle. Mesosternum concave in profile; impressed in the middle; finely rugose-punctate, with thick short recumbent hairs toward sides and the process. Mesosternal process rather narrow, well-bordered, moderately clothed with whitish hairs, apically bi-lobed; each lobe sub-rectangular. Metasternum sub-parallel-sided, almost universally finely rugose-punctate, with dense short hairs. Abdominal segments black in colour except the middle of the 3rd sternite, gradually attenuating in length and width toward 7th sternite. 7th sternite about 1/4 as long as 3rd; strongly narrowed toward apex which is truncated.

Male genitalia (Figs 9G–H, 10A–G). Median lobe about 2/5 the length of abdomen; sub-fusiform in dorsal view, broadest at apical 1/3, sides slightly constricted near middle; in profile moderately bi-sinuate; dorsal plate dehiscent in basal 4/5, spatulate in apical 1/5, apex broadly rounded with a distinct notch at middle; ventral plate a little shorter than the dorsal, dehiscent in basal 5/6, apical margin shallowly triangular, apical 1/5 moderately bi-sinuate in profile. Tegmen short, less than 3/5 as long as median lobe, 9/20 as broad as long, in profile bi-sinuate. Parameres about 9/20 the length of tegmen, strongly narrowed toward apex, which is weakly rounded with a deep median notch and clothed with several extraordinarily thick straight apically truncated setae; base heavily bordered by a prominent semi-circular costa. Endophallus apically chagrined and scaly; without visible sclerotization, lacking the ejaculatory duct complex as of *Ceresium* species.

Terminalia (Figs 9E–F, 10J–L). Blade of 8th sternite extraordinarily small in relation to the 8th tergite; transverse; cotyledonery in outline; widely emarginated and thinned in the apical middle; apex fringed with a row of setae, including those extraordinarily thick, stout and apically truncated ones; peduncle longer than blade, stout. 8th tergite arcuate on sides; apex broadly emarginated, thinned in the apical middle; setae on apex and sides as on the sternite.

DISTRIBUTION. Cambodia.

DIFFERENTIAL DIAGNOSIS. Regarding external characters, *Falsoibidion trimaculatum* is rather reminiscent of *Stenodryas* species of the same tribe, sharing elongated prothorax, long antennae and long erect or flying body hairs. On the contrary, its genitalia are obviously distinct. In fact, the structure of median lobe, tegmen and 8th abdominal segment is rather unique among the Callidiopini. Above all, the extraordinarily thick, truncated apical setae on the parameres and abdominal segments have not been observed before in the tribe. Its endophallus without sclerotisaton differs from those of *Ceresium*, *Examnes*, *Stenodryas* and *Oximagis*. Thus, the genitalia of this genus are remarkably distinct among the Callidiopini species.

REMARK. Antennae and legs of the examned specimen are partly damaged or missing.

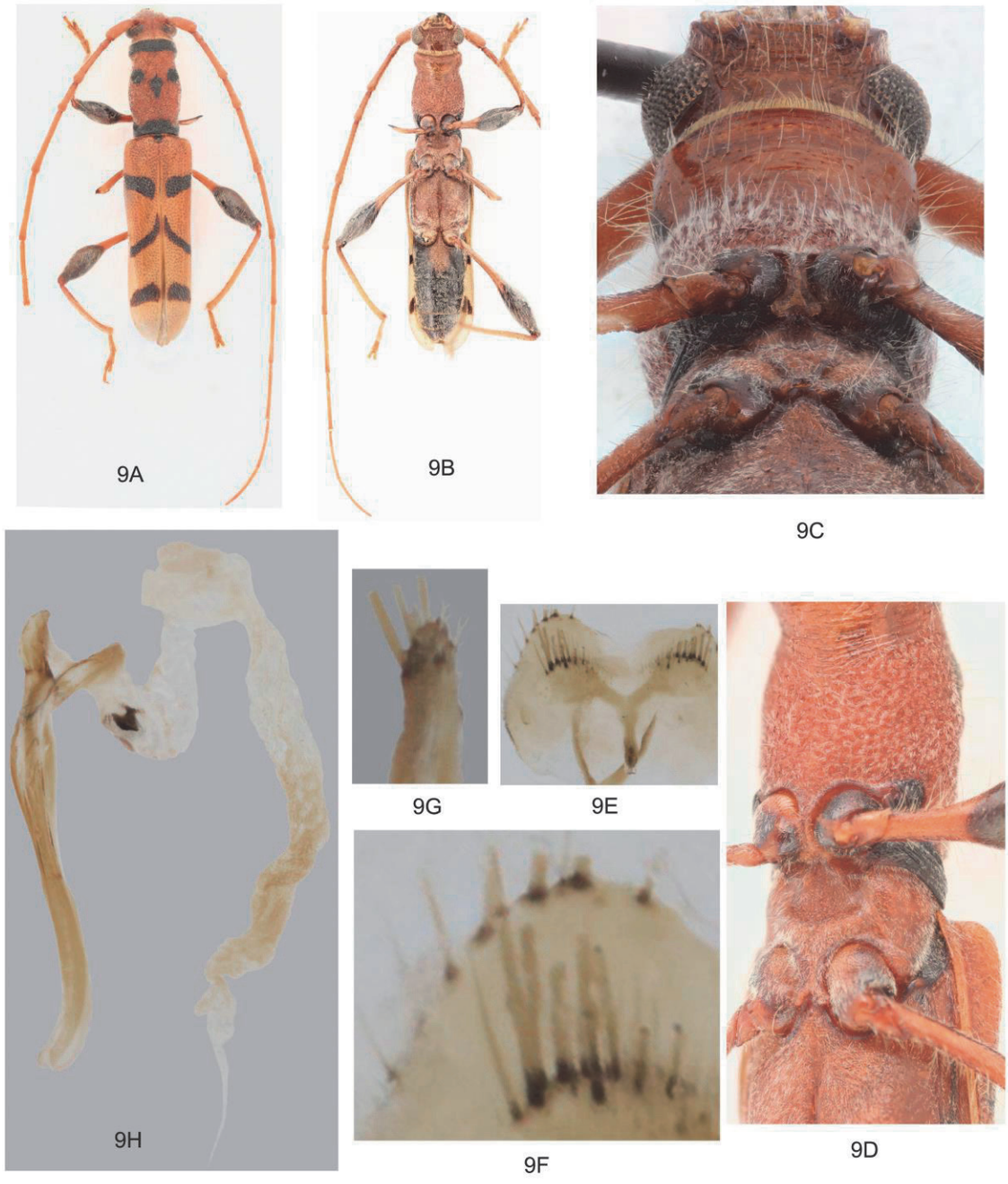


Fig. 9A–9H. *Falsoibidion trimaculatum* Pic, 1923. Male from Cambodia. 9A, habitus; 9B, venter; 9C, pro-and mesosternal processes, ventral view, angled; 9D, ditto, latero-ventral view; 9E, 8th sternite with 8th tergite in the background, ventral view; 9F, ditto, part, enlarged; 9G, paramere of tegmen, lateral view; 9H, median lobe with endophallus.

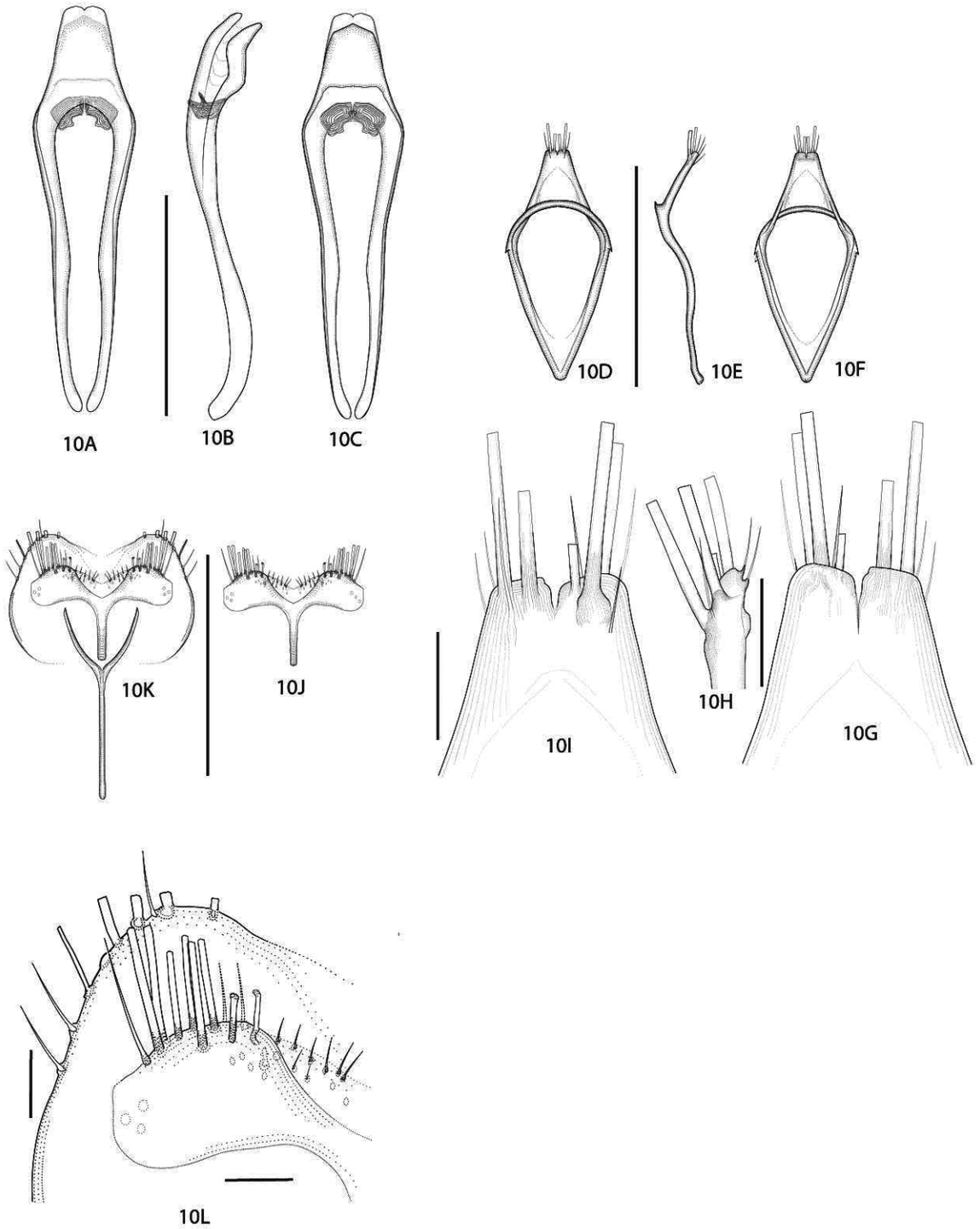


Fig. 10A–10L. *Falsoibidion trimaculatum* Pic, 1923. Male from Cambodia. Genitalia and terminalia. 10A, median lobe, dorsal view;10B, ditto, lateral; 10C, ditto, ventral; 10D, tegmen, dorsal view; 10E, ditto, lateral; 10F, ditto, ventral; 10G, ditto, apex, ventral view; 10H, ditto, lateral; 10I, ditto, ventral; 10J, 8th sternite, ventral view; 10K, ditto, with 8th tergite and 9th sternite in the background; 10L, ditto, part, enlarged. Scale bar: 0.1mm for 10G–10H; 1 mm for the others.

***Omotes vanuatensis* sp. nov.**
(Figs 11A–F, 12A–L)

MATERIAL EXAMINED. Holotype • ♂, "Nouvelles Hébrides, ex coll. Fauvel".

DIAGNOSIS. Yellowish to reddish brown. Pronotum cylindrical; disc flattened, coarsely rugose-punctate. Punctures on the basal halves of elytra large and deep. 8th sternite small in relation to tergite. Ejaculatory duct complex minuscule; simple.

ETYMOLOGY. The name of this species refers to its distribution.

MEASUREMENTS FOR HOLOTYPE MALE. TL = 11.3 mm; EL/EW = 2.9; HW/PW = 0.94; PL/PW = 1.24; PA/PW = 0.84; PB/PW = 0.94.

DESCRIPTION. *Colour*. Almost uniformly yellowish-reddish brown. Head darker; eyes grey. Setae whitish to pale yellowish.

Head (Figs 11B–C). Narrower than pronotum. Frons transverse, sub-parallel-sided, not steep; fronto-clypeal suture arcuate; the basal half with dense, deep setiferous punctures, with a pair of prominent parallel costae stretching on to vertex. Vertex concave, densely, coarsely punctured. Occiput similarly punctured near eyes. Eyes moderately large, separated from one another by 1/3 the width of occiput or 3/2 of the upper eye-lobes. Antennal supports flattened; moderately tuberculate at the posterior corners. Antennae slender; surpassing elytral apices; 3rd, 4th, 5th and 6th antennomeres each 9/10, 9/10, 6/5 and 6/5 as long as scape; 3rd and 4th antennomeres fringed with longer hairs on the underside. Scapes arcuate and clavate; with fine punctures and hairs.

Pronotum (Figs 11B–C). Cylindrical; parallel-sided; longer than broad; sparsely clothed with short, fine hairs. Disc elevated and flattened; coarsely rugose-punctate; with a broad, shiny, completely flattened median stripe about 1/3 the length of pronotum; irregularly bordered by a pair of large latero-apical swellings and a thick basal costa. Sides uneven with a few irregular swellings. Apex heavily bordered with a costa. Scutellum short, sub-triangular; naked.

Elytra. Sub-parallel-sided; apices separately rounded. Basal halves with extraordinarily large, deep, setiferous punctures; maximal diameter of the punctures about 1/8 the width of elytron; setae thereof pale and diminutive ; punctures gradually reducing in size and depth toward apex.

Legs. Femora moderately clavate, weakly flattened, hardly pedunculated. Tibiae nearly straight, gradually thickened toward apices. Tarsi slender.

Venter (Figs 11D–E). Shiny, pale-yellowish pubescent on sides of meso- and metathorax, as well as apical margin of metasternum. Prosternum concave in profile; the middle coarsely rugose-punctate, with sporadic curved middle-sized hairs. Prosternal process narrow, well bordered, apically bent downward over a hump; apex expanded, weakly arcuate, impressed in the middle. Procoxial cavities opened posteriorly. Mesosternum saddle-shaped, impressed in middle; base bordered by a bi-sinuate costa with sharp edges; shallowly punctured. Mesosternal process broad, well bordered, with dense lateral setae, impressed in the apical middle; apex deeply emarginated. Mesocoxal cavities closed externally. Metasternum sub-parallel-sided, well convex, with large dense punctures along the median furrow; punctures gradually reducing in size toward apex. Abdominal segments attenuating in length and width toward 7th sternite. 7th sternite about 1/3 as long as 3rd, with apex truncated.

Male genitalia (Figs 11F, 12A–H). Median lobe about 5/11 the length of abdomen; fusiform in dorsal view; in profile feebly arcuate and weakly constricted near apical 1/3; dorsal plate produced at apex, dehiscent in basal 3/4; ventral plate longer than the dorsal, dehiscent in basal 3/4. Tegmen 4/5 as long as median lobe; stout; in profile strongly curved downward at apical

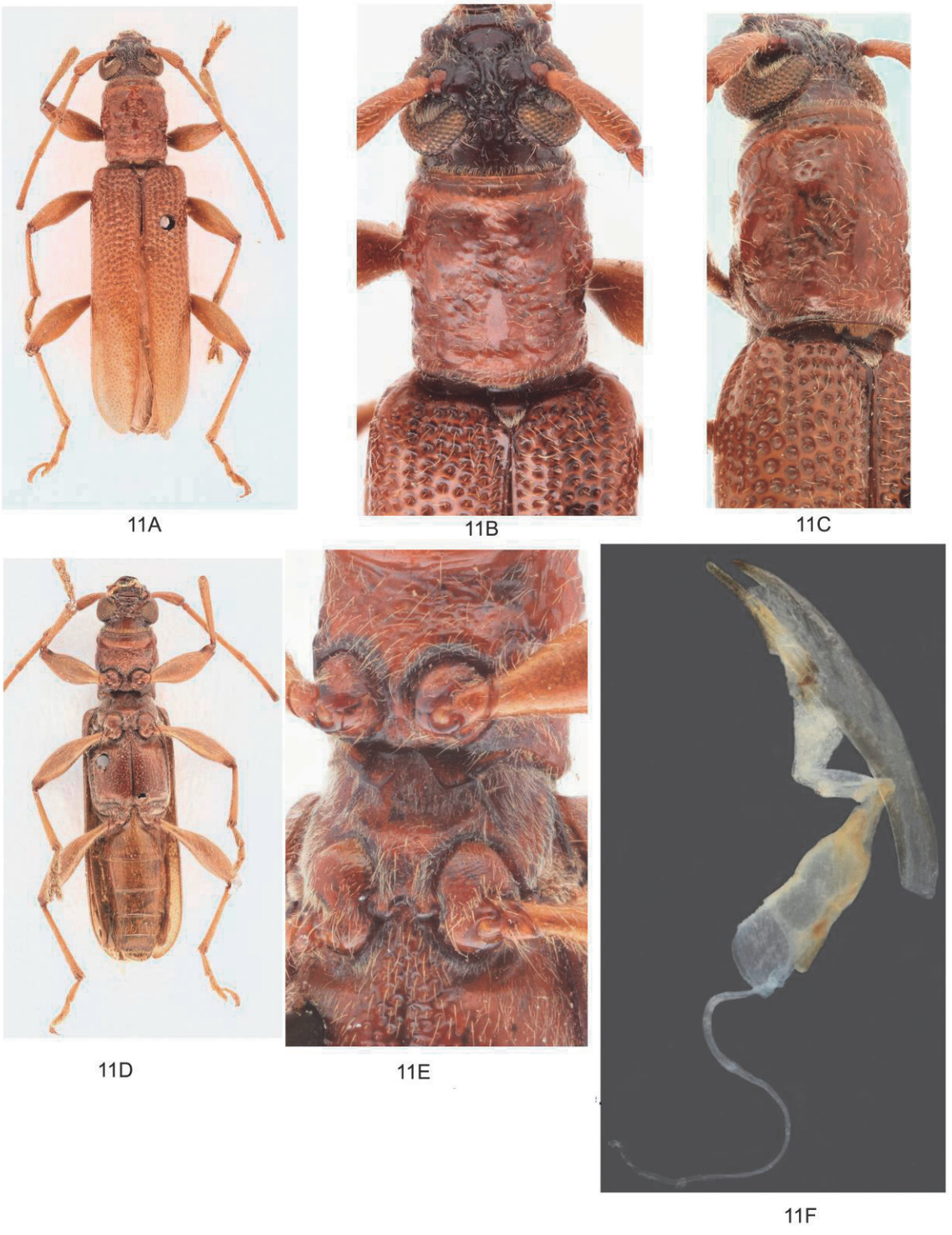


Fig. 11A–11F. *Omotes vanuatensis* **sp. nov.** Holotype male. 11A, habitus; 11B, pronotum; 11C, ditto, lateral view; 11D, venter; 11E, pro-, meso-and metasterum; 11F, median lobe with endophallus.

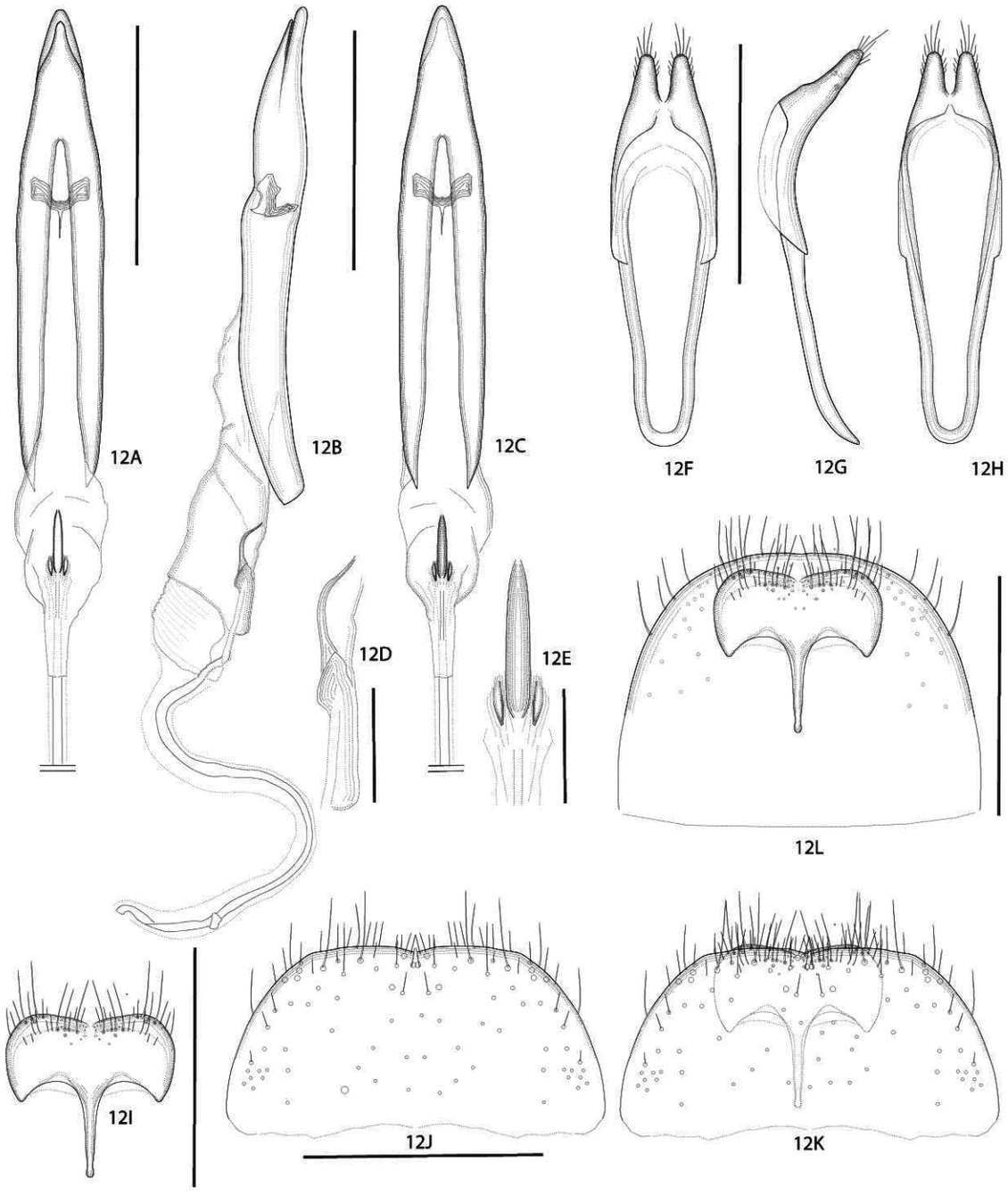


Fig. 12A–12L. *Omotes vanuatensis* **sp. nov.** Holotype male. Genitalia and terminalia. 12A, median lobe, with endophallus, dorsal view; 12B, ditto, lateral; 12C, ditto, ventral; 12D, ejaculatory duct complex, dorsal view; 12E, ditto, lateral; 12F, tegmen, dorsal view; 12G, ditto, lateral; 12H, ditto, ventral; 12I, 8th sternite, ventral view; 12J, 7th sternite, ventral view; 12K, ditto, with 8th sternite behind; 12L, 8th sternite and tergite, ventral view. Scale bar: 0.5 mm for 12F–12H; 1 mm for the others.

1/4; ring part apically rounded. Parameres about 1/2 the length of tegmen; apical 2/9 bi-lobed; lobes each with several short apical setae. Ejaculatory duct complex short and narrow, less than 1/8 as long as median lobe, composed of a flagellate dorsal sclerite and a pair of diminutive lateral sclerites. A thin duct attached to the base of the complex visible.

Terminalia (Figs 12I–L). Blade of 8th sternite transverse; exceptionally small in relation to 8th tergite, with less than 9/20 the width of the tergite; cotyledonary in outline; apex weakly

emarginated, with hairs of varying length in two rows; peduncle nearly as long as blade; 8th tergite semi-circular, fringed with hairs of varying lengths.

DISTRIBUTION.Vanuatu (formerly, New Hebrides).

DIFFERENTIAL DIAGNOSIS. So far as the body structure is concerned, this new species is comparable to *Omotes binotatus* (Fauvel, 1906) from New Caledonia. It is easily distinguishable, though, as it lacks the post-medial maculae on elytra. In addition, the pronotal disc of the new species is coarsely rugose-punctate, bordered by irregular swellings, instead of punctate, as in the case of *O. binotatus*. The new species can be also compared to *Omotes* Vives & Sudre, 2019, sharing the same coloration. However, the pronotum of the new species is parallel-sided instead of arcuate, with the pronotal disc flattened and coarsely rugose-punctate instead of convex and punctate. In addition, punctures on elytra are larger. Compared to the Australian species of the genus, antennae of the above species are much longer and their generic status needs to be confirmed (see Discussion). In this publication, the new species is described as an *Omotes* species.

REMARK. Antennae of the holotype partly damaged. Length estimated.

Pseudoceresium carinatum (Fauvel, 1906)
(Figs 13A–13F, 14A–14J)

Ceresium carinatum FAUVEL, 1906: 49.
Pseudoceresium carinatum VIVES, SUDRE, MILE & CAZÈRES, 2011:77.

EXAMINED SPECIMEN. • 1♂, "Coll. RBINS, Nouvelle Calédonie Yahoué – Savès, ex coll. de Fauvel"; "Lectotype ♂, *Ceresium carinatum*, Fauvel. E. Vives des. 2006"; "Syntype".

MEASUREMENTS FOR LECTOTYPE MALE. TL=14.0 mm; EL/EW=2.70; HW/PW=0.84; PL/PW=1.04; PA/PW=0.82; PB/PW=0.85.

ADDITIONAL DESCRIPTION. *Venter* (Figs 13B–C). Shiny, brownish; setae pale-yellowish; abdomen light reddish brown. Sides clothed with thick clusters of short, stout, curved, recumbent hairs; sparsely setose in middle. Prosternum moderately concave in profile; setae disorderly pointing in different directions; apical 1/6 nitid; unarmed; apical 1/6 to 1/3 strigate; basal middle deeply, coarsely rugose. Procoxal cavities opened posteriorly. Prosternal process flabellate; moderately declivous; impressed in apical middle; apex sub-truncated. Mesosternum saddle-shaped, deeply rugose in middle; steeply elevated toward the process; basal margin bi-sinuate with sharp edges. Mesosternal process broad, sub-parallel-sided; coarsely punctured; thickly setose in middle; apex deeply, widely emarginated in sub-rectangular indentation. Mesocoxal cavities closed externally. Metasternum sub-parallel-sided, deeply, coarsely, horizontally rugose in middle. Abdominal segments reddish-brown; segments gradually attenuating in length and width toward 7th sternite. 7th sternite about 4/9 as long as 3rd, with apex sub-truncated. Middle of 3rd and 4th sparsely, weakly punctured.

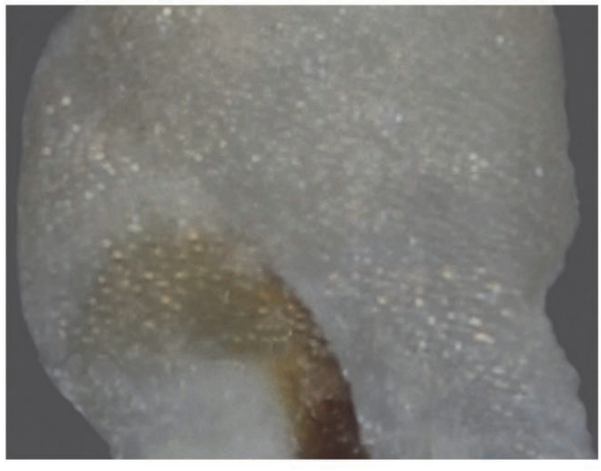
Male genitalia (Figs 13D–E, 14A–H). Median lobe a little less than 3/8 the length of abdomen; bullet-shaped in dorsal view, in profile weakly arcuate; dorsal plate dehiscent in basal 1/2, with apex well-rounded; ventral plate longer than the dorsal, dehiscent in basal 1/2. Tegmen 5/6 as long as median lobe; in profile strongly curved downward at apical 1/3; base broad. Parameres about 2/5 the length of tegmen; base with a sharp median dent; apical 1/4 bi-lobed; lobes each moderately fringed with medium-length apical setae. Surface of endophallus with clusters of microscopic, longitudinal sclerites near middle; additionally with diminutive, horizontally arranged scales toward apex. Ejaculatory duct complex small, less than 1/4 as long as median lobe, much narrower than median lobe or endophallus, composed of a flagellate dorsal sclerite

13A

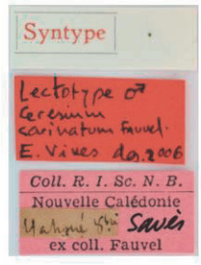
13B

13C

13D



13E



13F

Fig. 13–13F. *Pseudoceresium carinatum* (Fauvel, 1906). Lectotype male. 13A, habitus; 13B, venter; 13C, pro- and mesosterum; 13D, median lobe with endophallus, lateral view; 13E, endophallus, middle part, surface; 13F, labels.

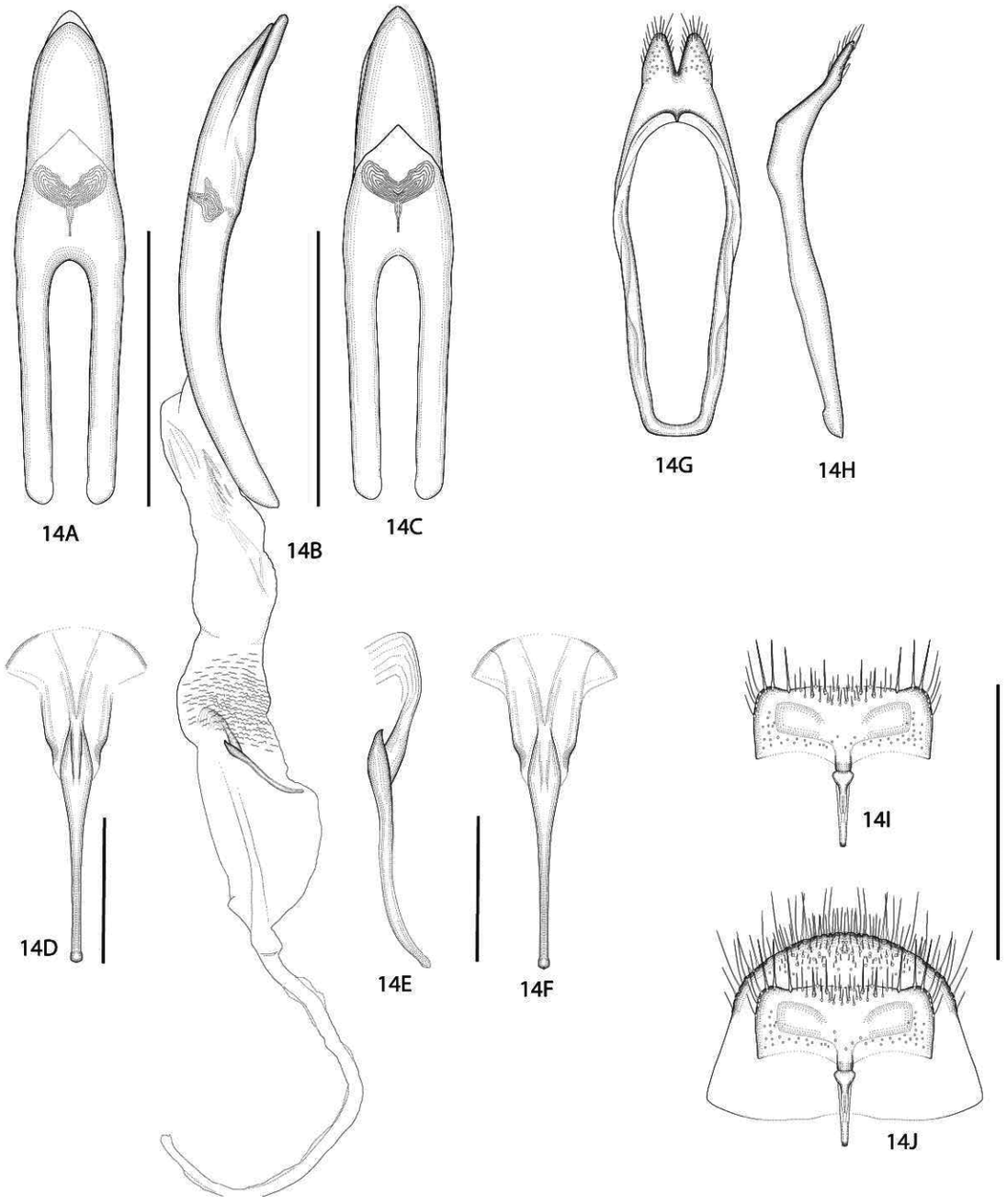


Fig. 14A–14J. *Pseudoceresium carinatum* (Fauvel, 1906). Lectotype male. Genitalia and terminalia. 14A, median lobe, dorsal view; 14B, ditto, lateral view with endophallus; 14C, median lobe, ventral view; 14D, ejaculatory duct complex, dorsal view; 14E, ditto, lateral view; 14F, ditto, ventral view; 14G, tegmen, dorsal view; 14H, ditto, lateral view; 14I, 8th sternite, ventral view; 14J, ditto, with 8th tergite in the background. Scale bar: 0.5 mm for 14D–14F; 1 mm for the others.

and a pair of diminutive lateral sclerites, supplemented by a moderately sclerotized, flabellate apical appendage. A narrow duct attached to the base of the complex visible.

Terminalia (Fig. 14I–J). Blade of 8th sternite transverse, sub-rectangular, small in relation to 8th tergite, with less than 2/3 the width of the tergite; cotyledonary area in middle thickened; apex fringed with several long stout hairs, additionally with shorter, denser hairs in middle; peduncle nearly as long as blade, stout, strongly thickened in basal 1/3 to form a prominent

fibula. Apical margin of 8th tergite semi-circular; apical setae as of the sternite; apical middle additionally provided with rather dense setiferous punctures, each bearing a short seta.

DISTRIBUTION. New Caledonia.

DIFFERENTIAL DIAGNOSIS. The endophallus of *Pseudoceresium carinatum* is comparable to that of the above described *Omotes vanuatensis* **sp. nov.** of the same tribe. In both species, the ejaculatory duct complex is small, composed of a few combined minuscule plates or horn-like flagella, and with similar location and position.

Dictamnia rugosa Pascoe, 1869
(Figs 15A–F, 16A–M)

Dictamnia rugosa PASCOE, 1869: 546.
Dictamnia rugosa: GRESSITT, 1959: 114.

EXAMINED SPECIMEN. • 1♂, "Rock Island", "New Guinea allemande".

MEASUREMENTS. TL=22.0 mm; EL/EW=2.66; HW/PW=0.87; PL/PW=0.83; PA/PW=0.76; PB/PW=0.88.

ADDITIONAL DESCRIPTION. *Venter* (Fig. 15B–C). Shiny, dark brownish; setae pale-yellowish; sides thickly clothed with short, stout, curved recumbent hairs, sparse in the middle. Prosternum transverse, concave in profile, impressed in the middle, coarsely, deeply, punctate-rugose in the basal middle. Procoxal cavities opened to mesosternum. Prosternal process moderately broad, apical 2/5 abruptly steeply declivous, well bordered and framed, with large dense punctures; apex expanded and sub-truncated. Mesosternum short, deeply coarsely punctate-rugose in the middle, steeply elevated toward the process; basal margin bi-emarginated, with two rather sharp angles. Mesosternal process broad, impressed in the middle, coarsely, deeply punctured and thickly setose near sides; apex widely deeply emarginated, with trapezoidal indentation. Metasternum sub-parallel-sided, with large shallow punctures on both sides of median furrow. Abdominal segments reddish brown; segments gradually attenuating in length and width toward 7th sternite. 7th sternite about 1/4 as long as 3rd; sub-truncated at apex.

Male genitalia (Figs 15D–F, 16A–I). Median lobe about 3/10 the length of abdomen, fusiform in dorsal view, in profile moderately arcuate; dorsal plate apically well-rounded, dehiscent in basal 2/3; ventral plate longer than the dorsal, apically produced and thinned**,** dehiscent in basal 7/10, closely punctured in apical 1/3. Tegmen 7/8 as long as median lobe, moderately arcuate in profile; base of ring part thickened. Parameres about 1/2 the length of tegmen; apical 1/4 bi-lobed; each lobes fringed with apical setae of varying lengths; dorsum with regular punctures; venter with setiferous punctures, each bearing a short curved hair. Ejaculatory duct complex small, less than 1/8 as long as median lobe, monolithic, though with a large median cavity; dorsal part in profile strongly projected to form an elongated horn-shaped sclerite.

Terminalia (Figs 16J–L). Blade of 8th sternite transverse, cotyledonary in outline, distinctly narrower than 8th tergite, with less than 4/5 the width of the tergite, extensively thinned in middle, irregularly punctured; apex fringed with long hairs, additionally with shorter hairs near apical middle; peduncle shorter than blade, thickened near basal 1/3. Apex of 8th tergite arcuate; apical setae as on the sternite; apical middle additionally provided densely with setiferous punctures, each bearing a short stout setae. Each bifurcation of 9th sternite (spicum gastrale) apically thickened on the inner sides, here fringed with a row of several short stout setae, additionally with several large punctures. 9th tergite stout, composed of two contiguous horns, each bi-sinuate in shape.

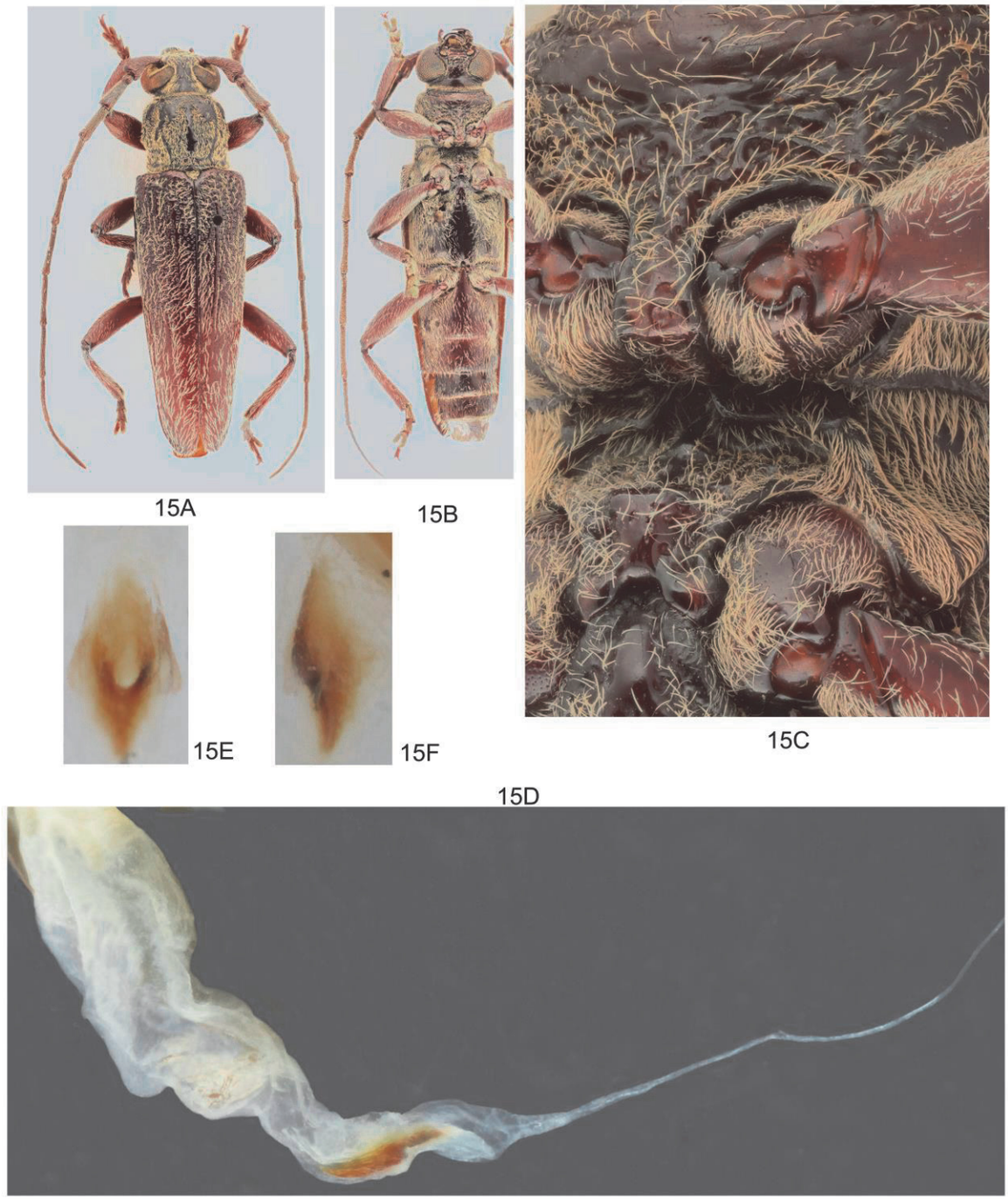


Fig. 15A–15F. *Dictamnia rugosa* PASCOE, 1869. Male from New Guinea. 15A, habitus; 15B, venter; 15C, pro- and mesosterum; 15D, endophallus with ejaculatory duct complex; 15E, ditto, ejaculatory duct complex, dorsal view; 15F, ditto, lateral view.

DISTRIBUTION. New Guinea, New Britain.

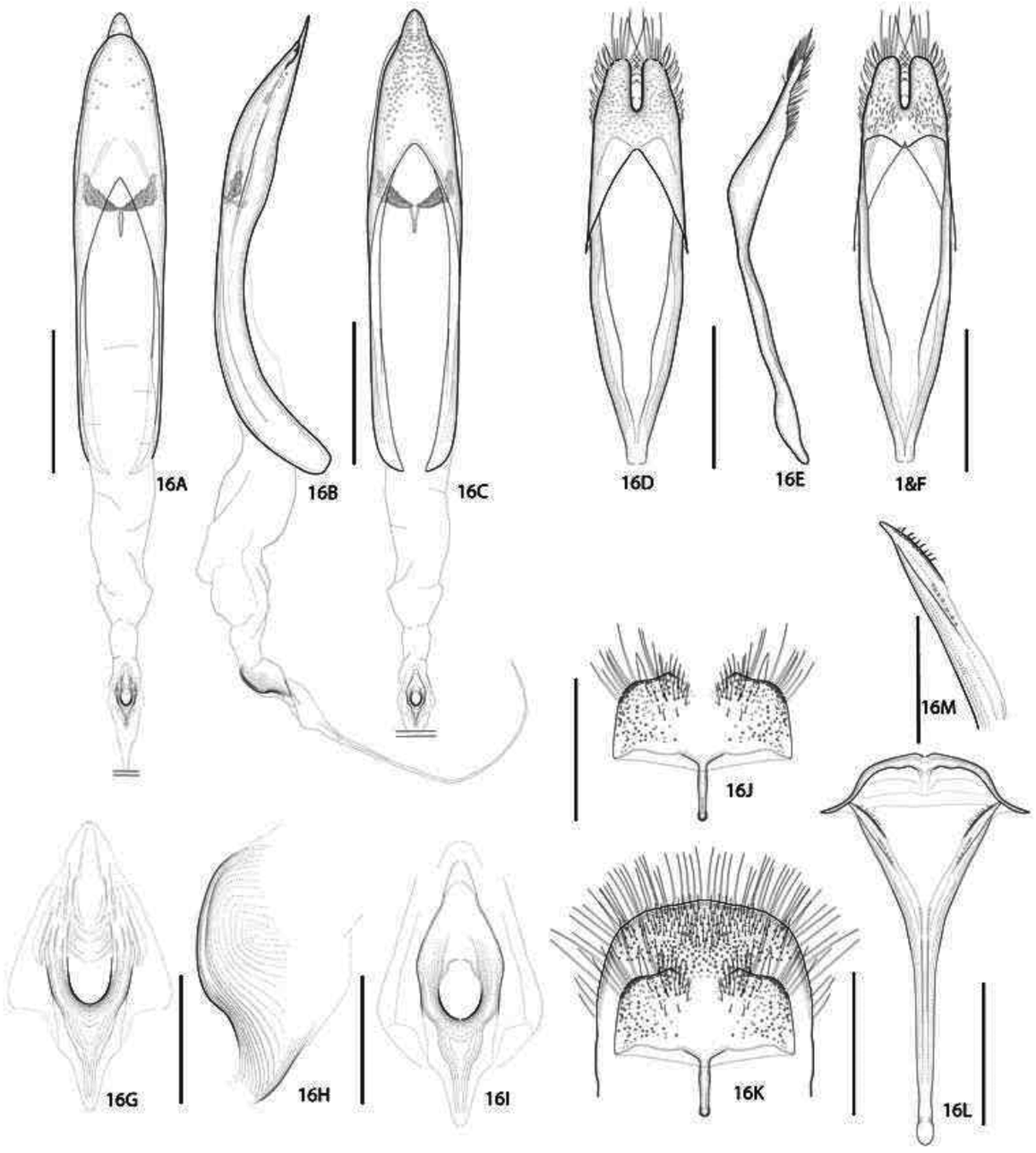


Fig. 16A–16M. *Dictamnia rugosa* PASCOE. Male from New Guinea. Genitalia and terminalia.16A, median lobe with endophallus, dorsal view; 16B, ditto, lateral; 16C, ditto, ventral; 16D, tegmen, dorsal view; 16E, ditto, lateral; 16F, ditto, ventral; 16G, ejaculatory duct complex, dorsal view; 16H, ditto, lateral; 16I, ditto, ventral; 16J, 8th sternite, ventral view; 16K, ditto, with 8th tergite in the background; 16L, 9th tergite and sternite (spicum gastrale), ventral view; 16M, 9th sternite, apical part, enlarged. Scale bar: 0.5 mm for 16G–16I; 1 mm for the others.

DIFFERENTIAL DIAGNOSIS. The endophallus of *Dectamnia rugosa* is analogous to those of the above described two species of the same tribe, *Omotes vanuatensis* **sp. nov.** and *Pseudoceresium carinatum*. The ejaculatory duct complex is present, with similar relative size and location. The complex is, however, stout and monolithic, more similar to those of some species of the Callidiopini (YOKOI, 2019). The endophalli of the latter two are thus more analogous in morphology to each other than to that of *D. rugosa*.

Discussion

Genitalia and terminalia of the Callidiopini

Male genitalia and terminalia

Ceresium delauneyi

The male genitalia of this species are typical of the genus *Ceresium* (Yokoi, 2019; Yokoi *et al*., 2019) but they are, at the same time, characteristic of the species. The ejaculatory duct complex of endophallus with three cavities on dorsum is rather unique in the genus. It is another example of the elaborate, heavily sclerotized structure on the endophallus in *Ceresium* species. The parallel-sided structure of the tegmen and the elongated apical setae on parameres should be noted as well.

Falsoibidion trimaculatum

The male genitalia and terminalia of this species are remarkable in the tribe Callidiopini. Though this species resembles to *Stenodryas* in external characters, its genitalia differ fundamentally in structure. The endophallus namely lacks the ejaculatory duct complex, which is observed in *Stenodryas*. This absence is rather reminiscent of the genera *Callidiopis* or *Salpinia* (Yokoi, 2021). At the same time, the exceptionally thick, stout, apically truncated apical setae on tegmen, 8th sternite and 8th tergite have not been observed in *Stenodryas* and they are singular in the tribe.

Female genitalia and terminalia

Differences were observed in the structure of both 8th and 9th abdominal segments. The relative dimensions of sternite and tergite are often characteristic of a species (compare Figs 2A–C, 4A– B, 8A–B for 8th segment and Figs 2D, 3F–G, 7C for 9th segment).

Taxonomy and genitalia of the Strongylurini

Generic status of some species of the genus *Omotes*

Omotes vanuatensis **sp. nov.** was compared above to *O. binotatus* from New Caledonia. This last species was first described as *Ceresium* by Fauvel (1906) and it was combined as *Exaeretiformis binotatus* by Vives *et al*. (2011), whereas *Exaeretiformis* MacKeown, 1945 was the replacement name of *Exaereta* Pascoe, 1865, a genus which was recorded only from Australia until then.

Later, based on species from Australia, Slipinski & Escalona (2016) synonymised *Exaeretiformis* with *Omotes*, a genus recorded only from Australia as well. *Omotes* was thus extended to include a species from New Caledonia, above mentioned as *O. binotatus*. However, Slipinski and Escalona noted, at the same time, that the generic status of *O. binotatus* needs to be confirmed. Meanwhile, Vives & Sudre (2019) described four new *Omotes* species from New Caledonia, taking the above synonymisation into account. The external characters of the New Caledonian species were described in detail with a key for classification; nonetheless, the generic status of the species from regions outside Australia has not been explicitly confirmed yet. They may possibly constitute a distinct taxonomical unity within *Omotes* or outside of.

The Australian species of this genus have uniformly short antennae, including the type species *O. cucujides* Newman, 1842. On the contrary, all the species from other regions have definitely longer antennae**,** including the above named *O. binotatus*, to which *O. vanuatensis* **sp. nov.** was compared in the description. In this regard, it may be sensible to examine the genitalia of

the Australian species and compare them to the species with longer antennae from New Caledonia or Vanuatu.

As to the biogeography, it is interesting to note that a species closely related to the New Caledonian ones is now discovered from Vanuatu. It is the first record of the genus from a location outside Australia or New Caledonia.

ON GENITALIA OF THE STRONGYLURINI

Male endophalli of the above described three Stongylurini species, *Omotes vanuatensis* **sp. nov.**, *Pseudoceresium carinatum* and *Dictaminia rugosa*, are basically analogous in structure, though not homogeneous among themselves. They are each furnished with a sclerotized structure in the apical part. These sclerotizations can be compared to the ejaculatory duct complexes of some Callidiopini species, including those of *Ceresium*, *Stenodryas*, *Examnes* and *Oxymagis* (YOKOI, 2019, 2021; YOKOI *et al*., 2019). Thus, they were similarly referred to as ejaculatory duct complexes in the above descriptions. However, they are smaller and simpler in design. They are all only partly surrounding the ejaculatory duct without wholly embracing, so that the elongated duct is openly visible. Above all, their location in endophallus and position relative to the ejaculatory duct are different.

The presence of sclerotized ejaculatory duct complex itself is commonly shared by species or genera of both Callidiopini and Stongylurini. On the other hand, its structure and position are not synonymous in both. The observed sclerotizations are possibly homologous. It must be verified with the help of further examination of more numerous male specimens, in particular of other genera belonging to the Strongylurini.

As to other parts of genitalia or terminalia, it should be noted that the 8th sternite of the above Strongylurini species is distinctly narrow in relation to the corresponding tergite. In case of *Omotes vanuatensis* **sp. nov.**, it is even exceptionally short and narrow. For *Dictamnia rugosa* in turn, the elaborate structure of 9th sternite and tergite is remarkable. Finally, broad and rounded base of tegmen, commonly shared by *Omotes vanuatensis* and *Pseudoceresium carinatum*, is noteworthy.

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