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# Revision of the genus *Orictites* Andrewes, 1931 (Coleoptera, Carabidae, Clivinini)

## Michael Balkenohl

#### **ABSTRACT**

Contrib. Nat. Hist. 35: 1-66

The clivinine Scaritinae genus *Orictites* Andrewes is revised and available faunistic data are provided. Two subgenera are erected, *Orictites* Andrewes subgen. nov. and *Semictites* subgen. nov. The species *Clivina costulipennis* Bates, 1892 is assigned to *Orictites* (comb. nov.). Redescriptions of *O. minotaur* Andrewes, 1931, *O. mjoebergi* Louwerens, 1964, and *Clivina costulipennis* Bates are provided. The following ten species and one subspecies are newly described: *O. desuntsetosus* sp. nov., *O. plurisetosus* sp. nov., *O. anteriortenuis* sp. nov., *O. omnipunctatus* sp. nov., *O. ampliosetosus* sp. nov., *O. barclayi* sp. nov., *O. barclayi minorfrater* ssp. nov., *O. brancuccii* sp. nov., *O. tubercucollis* sp. nov., *O. charleshuberi* sp. nov., and *O. anteriorlatus* sp. nov. A key to the described species is given. The distribution of the species is displayed on a map.

#### ZUSAMMENFASSUNG

Die clivinine Scaritinae-Gattung Orictites Andrewes wird revidiert und die bekannten faunistischen Daten werden zur Verfügung gestellt. Zwei Untergattungen werden vorgeschlagen, Orictites Andrewes subgen. nov. und Semictites subgen. nov. Die Art Clivina costulipennis Bates, 1892 wird in die Gattung Orictites gestellt (comb. nov.). Redeskriptionen von O. minotaur Andrewes, 1931, O. mjoebergi Louwerens, 1964, und Clivina costulipennis Bates werden erstellt. Folgende zehn Arten und eine Unterart werden neu beschrieben: O. desuntsetosus sp. nov., O. plurisetosus sp. nov., O. anteriortenuis sp. nov., O. omnipunctatus sp. nov., O. ampliosetosus sp. nov., O. barclayi sp. nov., O. barclayi minorfrater ssp. nov., O. brancuccii sp. nov., O. tubercucollis sp. nov., O. charleshuberi sp. nov., und O. anteriorlatus sp. nov. Ein Schlüssel zu den beschriebenen Arten wird zur Verfügung gestellt. Die Verbreitung der Arten wird in einer Übersicht gezeigt.

Keywords: Coleoptera, Carabidae, Clivinini, *Orictites*, *Semictites* subgen. nov., Oriental region, taxonomy

## Introduction

Members of the genus *Orictites* (Coleoptera, Carabidae, Clivinini) are found in South East Asia, predominantly on islands of the Indo-Malayan Archipelago. The relatively poor degree of investigation of this area may be a reason why specimens of *Orictites* are rare in collections. They are mostly found scattered among *Clivina* material. And indeed, at the first glance most of them look like smaller to medium sized *Clivina* species.

When Andrewes erected the genus *Orictites* he based the description on two specimens from northern Borneo and described *Orictites minotaur* (Andrewes 1931). At that time *Orictites* was the first genus described out of the group Clivinini which does not conform to the habitus of a typical clivinid beetle and Andrewes emphasised this by placing the genus provisionally into this group. Especially *O. minotaur* looks at the first glance more like a small *Scarites* species than a typical member of the tribe Clivinini.

A second species, *O. mjoebergi* LOUWERENS, 1964, collected in eastern Borneo, was described thirty-three years later, also based on two specimens. According to my knowledge, and besides the specimens mentioned in this contribution, there were no additional recordings until today.

When treating 17 Oriental Clivinini genera sixteen years ago, the genus *Orictites* was keyed out and a key to the two then known species provided (Balkenohl 2001). This work was based on a table provided earlier (Balkenohl 1996).

Working on bulky material of Oriental Clivinini, I became aware of some specimens determined as *Clivina*, which have to be assigned to *Orictites* as well. Proof was provided by comparison with the available type material of both species in question.

Among that material there also were specimens fitting exactly the description of *Clivina costulipennis* BATES, 1892. Careful investigation of the holotype demonstrated that this species belongs into this group as well. Taking this into account, taxonomic action has consequently been taken.

Interestingly for this group, collectors only find limited specimens beside lots of other Clivinini from the same collection spot. This may be due to their way of life, which is not well understood. It is mirrored in general by the limited material available in total and for each of the species.

This contribution has the objective to revise the genus *Orictites* and to summarise available faunistic and habitat data. It is based on 71 specimens from different Museums and private collectors.

# **Material and Methods**

Due to the kindness of curators of the Museums of London (BMNH), Stockholm (NHRS) and Genova (MCSNG) it was possible to investigate the type material of *O. minotaur*, *O. mjoebergi* and *Clivina costulipennis*. For these species redescriptions have been performed. This was done because the original description of *O. minotaur* needs some specifications, and Louwerens had not seen the type of *O. minotaur* when he described *O. mjoebergi* which lead to misinterpretations in his key. For each, *O. minotaur* and *O. mjoebergi*, a lectotype has been designated. Type and additional material bear several labels. The label information is quoted completely and verbatim for each specimen including punctuation for each of the labels separated by a dash.

In general, methods and equipment regarding magnifications, photography, measurements, and mounting of genitalia follow those described in detail by Balkenohl & Schmidt (2015). For genitalia and mouthparts, a Reichert-Jung Polyvar stereo microscope was used, with both transmitted and/or overhead mercury or halogen lighting, with up to 500x magnification. When historic specimens were mounted for the preparation of genitalia, all material, like original mounting pins and cards, have been preserved with the specimen in order to keep all information together. In total, there were 71 specimens available for this study.

Terminology, description of characters, and higher classification follow Balkenohl (2001).

The material is deposited in the following collections:

BMNH	Natural History Museum (formerly British Museum, Natural History),
DIVITATI	
	London, United Kingdom;
CBB	Collection of author, Bonstetten near Zürich, Switzerland;
CBM-ZSM	Martin Baehr Working Collection in Zoologische Staatssammlung
	München (ZSM), Germany;
CBP	Collection Petr Bulirsch, Prague, Czech Republic;
ETHZ	Eidgenössische Technische Hochschule Zürich, Switzerland;
IRSNB	Institut Royal des Sciences Naturelles de Belgique, Bruxelles, Belgi-
	um;
MCSNG	Museo Civico di Storia Naturale "Giacomo Doria", Genova, Italy;
NHMW	Naturhistorisches Museum, Wien, Austria;
MHNG	Muséum d´histoire naturelle, Genève, Switzerland;
NHMW	Naturhistorisches Museum, Wien, Austria;
NHRS	Naturhistoriska Riksmuseet, Stockholm, Sweden;

Staatliches Museum für Naturkunde, Stuttgart, Germany.

**SMNS** 

## Genus Orictites Andrewes, 1931

Catalogue

Orictites; Andrewes 1931: 438;

Orictites Andrewes; Csiki 1933: 638;

Orictites Andrewes; Louwerens, 1964: 172;

Orictites Andrewes; Balkenohl 1996: 24;

Orictites Andrewes; Lorenz 1998: 135;

Orictites Andrewes; Baehr 1999: 115;

Orictites Andrewes; Balkenohl 2001: 17.

Type species: Orictites minotaur Andrewes, 1931, by original designation.

Diagnosis: General appearance more or less like a Clivina. Clypeus variable, straight anteriorly or excised or with teeth, with raised knob between the two clypeal setae or with blunt elevation, wings small or well-developed, more or less projecting, divided from supraantennal plates by distinct notches and from middle part of clypeus by distinct or indistinct notches. Frons separated from clypeus by band of big punctures and/or by broad flat furrow. Longitudinal frontal carinae distinct. Supraorbital carinae distinct. Eyes oval, flattened, enclosed posteriorly by distinctly vaulted genae of different length, temporae carinate; antennae relatively short, with some long setae among the usual pubescence. Labrum 7-setose. Mandibles strong, right or left one with tooth at middle or basally. Pronotum square, almost flattened with tooth at posterior angle, anterior angles formed by reflexed lateral margin, rounded and projecting anteriorly or angled. Reflexed lateral margin more or less crenulated. Lateral channel distinctly broad, separated from disc by longitudinal vault, median line conspicuously deep and broad, surface in most of the species covered with deep and broad punctures. Basal channel always broad and deep. Elytra subcylindrical, stria 1-4 free at base, intervals more or less convex, asetose or with setigerous punctures on interval 3, or 3, 5, and 7. Third interval of elytra broadened and raised at base with distinct tubercle, in most species the same is true for interval 4. Middle tibia with spur near apex furnished with seta. Terminal abdominal sternite with two widely separated apical setae at each side. Ventral surface almost covered with punctures. Distinguished from all other Clivina-related genera by the following combination of characters: the flattened eyes with distinctly enlarged genae, the distinct carinae on the head, the transverse square and flattened pronotum with unusually broad lateral channel, the big and usually numerous punctures on the head, prono-

tum, and ventral surface, the broad and deep base of the pronotum, the distinctly convex intervals of the elytra, and the distinctly broadened, raised and tubercle possessing intervals 3 and 4 at base.

# **Genus description**

Size: Small to medium-sized, elongate.

Colour: Shiny, without metallic lustre, black or brown.

Head: Wide. Clypeus straight, excised, or with teeth anteriorly, limited laterally by small rounded or sharp tooth, with raised knob in between the two clypeal setae or with blunt elevation; wings always well-developed, rounded or angled, hollowed out, divided from supraantennal plates and from middle part of clypeus by notches. Supraantennal plates vaulted, with reflexed rounded margin, frons separated from clypeus by transverse furrow or depression, with or without big punctures, with nearly parallel running carinae at each side posteriorly, each carina with furrow mesially, carinae enclosing the convex frons; frons smooth or with punctures. Supraorbital setae located in broad furrow between eye and frontal carina, the posterior one arising from a small tubercle. Eyes oval, not big, orbit projecting laterally, tempora with distinct supraorbital carina, subtemporae and genae distinctly vaulted, rounded, nearly as high but slightly shorter than eyes, distinctly enclosing eyes posteriorly. Grooves for reception of antennae short. Neck constriction formed by punctures or indistinct. Labrum 7-setose, ciliate laterally, almost with isodiametric reticulation. Mandibles shorter than head, distinctly broadened at base, acute at apex, upper margin of scrobe of both mandibles sharply carinate, mandibular teeth differently developed in the two subgenera. Maxilla bent slightly sigmoidal. Apical maxillary palpomere slender, fusiform bottle-like. Apical labial palpomere slightly arcuate, fusiform bottle-like or securiform, second segment bisetose. Ligula somewhat truncated at apex, with one seta. Paraglossae slender, membranous. Mentum and submentum divided by sharp furrow, with two pairs of setae each, median tooth broad, obtuse at apex, bisetose, lobes smooth or with wrinkles, longer than tooth, acute at apex, margins with carinae. Antennae short, not reaching over two thirds of pronotum, scapus with one seta dorsoapically, scapus and pedicellus in most of the cases convered with fine reticulation, segments 4-11 densely pubescent, with few additional long setae.

Pronotum: Square, as long as wide or broader than long, almost flattened. Anterior margin straight or slightly bisinuate. Reflexed lateral margin smooth or crenulated. Lateral channel distinctly broadened between the two lateral

setigerous punctures, basal channel broad and deep. Anterior setigerous puncture located backwards, the posterior one located at level of posterior angle, removed from lateral channel. Anterior angles more or less projecting anteriorly, posterior angles well developed. Anterior transverse line sharp, punctured, or indistinct. Median line deep and conspicuously broad, often with blunt carina bilaterally. Surface nearly always covered with punctures of different size.

Elytra: Subcylindrical. Marginal channel broad, visible from above, with uninterrupted row of big setigerous punctures arising from broad tubercles, with second row of smaller punctures. Reflexed margin with more or less developed crenulation, more distinct at humerus. Reflexed lateral margin bending parallel to channel over rounded humerus up to stria 5, with or without humeral tooth. Basal tubercle big, with setigerous puncture, situated at declivity of 1<sup>st</sup> stria. Striae 1–4 free at base, all striae deep, with more or less distinct punctures, striae 1–2 either ending free at apex or joining apically, 3–4 and 5–6 joined apically; striae 6 and 7 shortened at humerus. Striole distinct, interval between striole and sutura raised. Intervals conspicuously convex, with increasing distinctness laterally, 3<sup>rd</sup> interval and in some cases the4<sup>th</sup> as well broader and raised at base, with big tubercle at base, 7<sup>th</sup> running to apex as more or less obtuse carina, 8<sup>th</sup> small, carinate. Intervals asetose or with setigerous punctures on interval 3, or 3, 5, and 7.

Hind wings: Well developed.

Ventral surface: Proepisternum with big scattered punctures and indistinct reticulation, in a few species with some small punctures, submarginal furrow engraved. Metasternum smooth at middle, punctured laterally. Epipleura somewhat broadened basally, with row of big punctures. Sternites 3<sup>rd</sup> to 5<sup>th</sup> with paralateral ambulatory setae at each side, covered densely and irregularly with big punctures or punctures limited to lateral margin, ventral strigae distinct, with transverse reticulation; terminal sternite with two widely separated apical setae at each side.

Legs: Anterior tibia with strong digitation, with two big and one small lateral preapical denticles, apical spine curved distinctly towards ventral and lateral. Basal tarsomere distinctly elongated. Mesotibia with long apical spine, furnished with strong seta. All tarsomeres relatively broad.

Male genitalia: In general of Clivina-type, with spatulate or stick-like apex.

Female genitalia: Stylomere more or less sigmoidal, with or without preapical setae, with one or two ensiform seta at middle and some nematiform setae laterally in basal half.

Sexual dimorphism: External sexual differences not observed.

Distribution. South East Asia including Malaysia, Sumatra, Borneo, and

Sulawesi. Specimens were also found in North East India (Megalaya Hills) and in the West of Papua (Fig. 41; p. 63).

Habitat: Not well known. Specific labels of some specimens indicate finds in mountainous areas. Some species were found under bark of trees and rotten wood, e.g. in a pine forest.

# **Subgenus** *Orictites* Andrewes, 1931 (Figs 1, 15, 17; pp. 8, 15, 19)

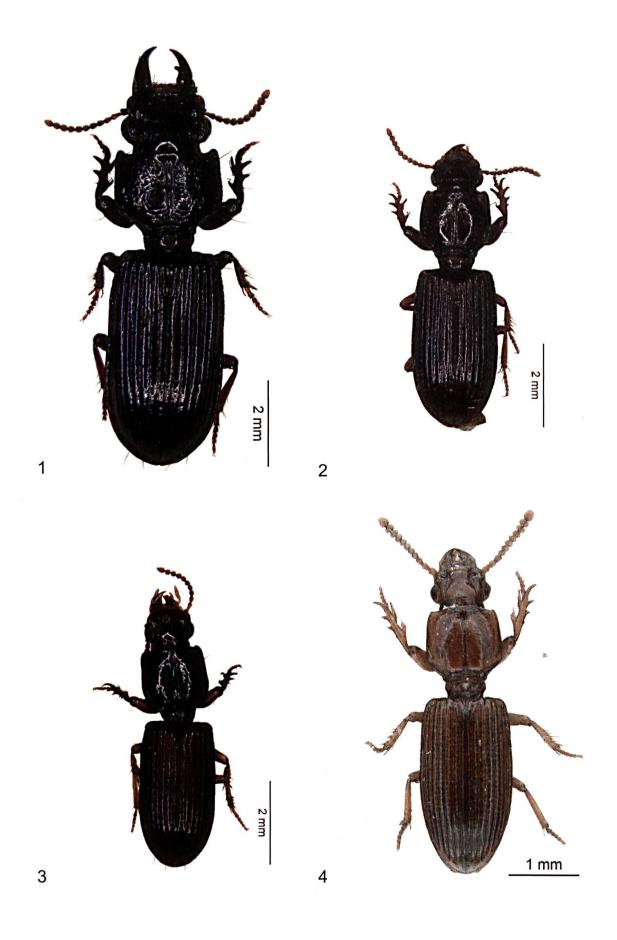
Type species *Orictites minotaur* Andrewes, 1931: 440, by original designation.

Diagnosis: Black. General appearance like small-sized elongate Scarites species. Anterior margin of clypeus with four distinctly projecting teeth, clypeal wings sharply angled, tooth-like projecting. Mandibles as long as head; dorsal margin of scrobe of both mandibles at base with carina-like tooth, right mandible with distinct tooth at middle, left mandible with indistinct knob like tooth basally. Apical maxillary palpi elongate, bottle-like fusiform, labial palpi slender, slightly arcuate bottle-like fusiform. Pronotum distinctly broader than long, convex at middle of disc, anterior angles conspicuously projecting. Spatula of aedeagus broad. Parameres with two apical and one subapical setae. Coxostylus with one subapical seta. Body length 10–10.3 mm.

# **Subgenus** *Semictites* subgen. nov. (Figs 2, 16, 18; pp. 8, 15, 19)

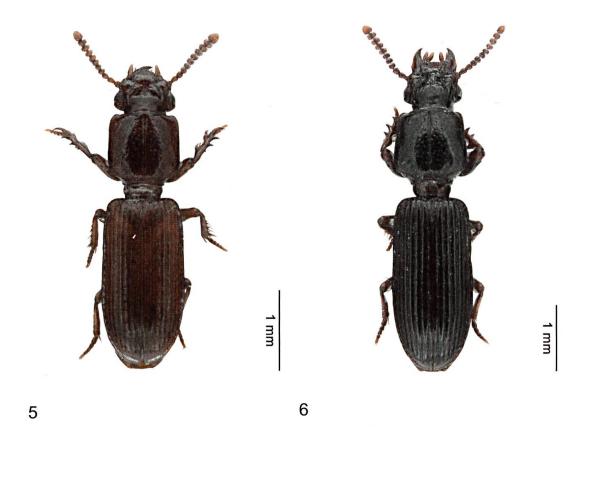
Type species *Clivina costulipennis* Bates, 1892: 281, by present designation. Diagnosis: Black or brown. General appearance like a *Clivina*. Anterior margin of clypeus straight or excised, without teeth, clypeal wings small, obtuse angled or rounded. Mandibles distinctly shorter than head; dorsal margin of scrobe of both mandibles at base without elevated tooth, right mandible with indistinct tooth at base, left mandible with small but distinct tooth slightly anterior to base. Apical maxillary palpomere securiform, apical labial palpomere nearly straight, fusiform, slightly bottle-like. Pronotum about as long as wide, almost flattened on disc, anterior angles angulate, more or less projecting. Aedeagus with spatula or stick-like. Parameres asetose or with up to two apical setae. Coxostylus with one or two subapical setae. Body length smaller than 7.4 mm.

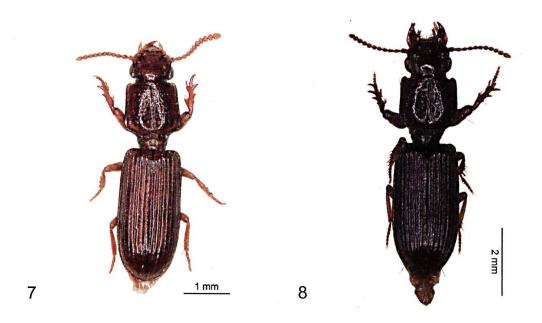
Etymology: The name refers to the numerous similarities shared with the subgenus *Orictites*.



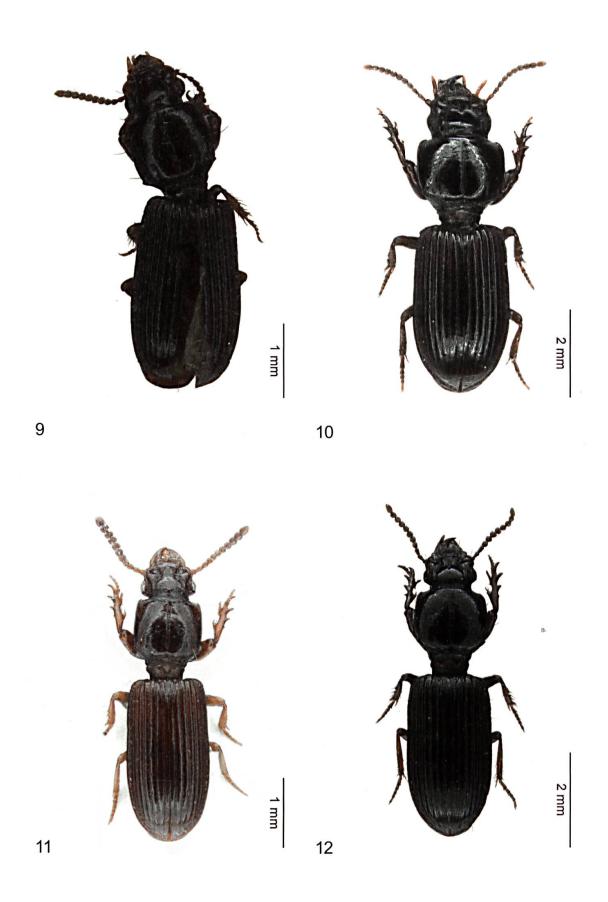
Figs 1–4: Orictites spp., habitus. 1: O. minotaur Andrewes, 1931, lectotype, male; 2: O. costulipennis BATES, 1892, holotype, male; 3: O. mjoebergi Louwerens, 1964, lectotype, male; 4: O. desuntsetosus sp. nov., holotype, male.

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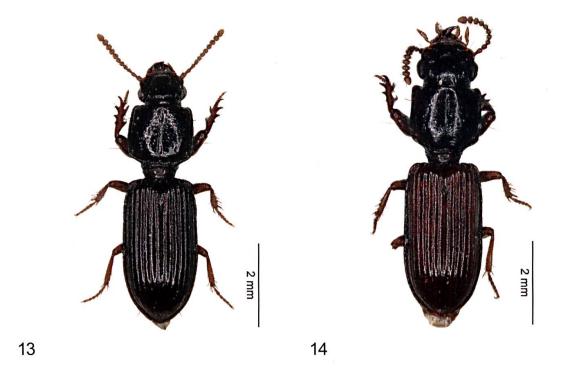


Figs 5–8: Orictites spp., habitus. 5: O. plurisetosus sp. nov., holotype, male; 6: O. anteriortenuis sp. nov., holotype, male; 7: O. omnipunctatus sp. nov., holotype, male; 8: O. ampliosetosus sp. nov., holotype, male.



Figs 9–12: Orictites spp., habitus. 9: O. barclayi sp. nov., holotype, female; 10: O. brancuccii sp. nov., holotype, male; 11: O. barclayi minorfrater ssp. nov., holotype, male; 12: O. tubercucollis sp. nov., holotype, male.

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Figs 13–14: Orictites spp., habitus. 13: O. charleshuberi sp. nov., holotype, female; 14: O. anteriorlatus sp. nov., holotype, male.

# **Key to the species**

2	intervals of elytra without any setigerous punctures; length 4.5 mm.
	desuntsetosus sp. nov.
_	Interval 3, or 3, 5 and 7 of elytra with setigerous punctures
3	Intervals 3, 5, and 7 of elytra with series of setigerous punctures; clypeus
	deeply excised anteriorly; length 3.8 mm plurisetosus sp. nov.
-	Setigerous punctures on interval 3 of elytra, only; clypeus straight or slightly excised anteriorly
	With up to seven setigerous punctures on interval 3 of elytra
-	With four setigerous punctures on interval 3 of elytra
5	Black; with five setigerous punctures on interval 3 of elytra; knob on clypeus indistinct, developed as elevation; interval 3 and 4 of elytra at base
_	with a tubercle each; length 4.8 mm anteriortenuis sp. nov.  With more than five setigerous punctures on interval 3 of elytra; brown or black species
6	Brown; with up to seven setigerous punctures on interval 3 of elytra (four
	to seven punctures, variable, see tab. under description); interval 3 and 4
	at base with tubercle; knob on clypeus indistinct, developed as elevation;
	punctures of neck constriction of head visible laterally, no constriction at
	middle; lateral margin of pronotum straight, anterior angles not projecting;
	length 3.4–4.0 mm <i>omnipunctatus</i> sp. nov.
-	Black; with six or seven setigerous punctures on interval 3 of elytra; only
_	interval 3 at base with tubercle; knob on clypeus distinct, neck constriction
	P-
	of head with big punctures; length 4.8–6.6 mm 7
7	Lateral margin of pronotum straight, anterior angles distinctly projecting;
	median line of pronotum conspicuously broad, interval 3 of elytra with six
	to seven setigerous punctures; length 6.6 mm ampliosetosus sp. nov.
_	Lateral margin of pronotum convex, anterior angles indistinctly projecting;
	median line of pronotum moderately narrow
	median line of pronotant moderately narrow
8	Median line of pronotum finely adjoining basal constriction; without cen-
	tral puncture on frons; interval 3 of elytra with seven setigerous punc-
	tures; length 4.8 mm barclayi sp. nov.
_	Median line of pronotum not joining basal constriction; with central punc-
	ture on frons; interval 3 of elytra with six setigerous punctures; length
	4.25 mm barclayi minorfrater ssp. nov.

9	Elytra without tooth at humerus 12
_	Elytra with distinct tooth at humerus 10
10	Bigger and more massive species; pronotum distinctly transverse, disc
	distinctly convex, surface sparsely covered with small punctures; anterior transverse line of pronotum indistinct; preapical spine of mesotibia nearly
-	at apex of tibia, length 7.4 mm
11	Elytra with tooth at humerus of moderate size, tooth rounded; reflexed margin of pronotum at base tooth-like raised bilaterally; lateral margin of pronotum with few fine scars anteriorly; length 5.8 mm
_	Elytra with tooth at humerus big, sharp; reflexed margin of pronotum at base in total of about same appearance; lateral margin of pronotum crenulated; length 5.8 mm
12	Disc of pronotum with basal part bilaterally elongated posteriorly as tooth- like vault slightly hanging over basal channel; lateral margin of pronotum with traces of scars
	Disc of pronotum in basal part regularly developed; lateral margin of pronotum smooth; pronotum as long as wide; length 5.6 mm
13	Clypeus without distinct knob, developed as broad elevation without punctures; intervals 3 and 4 at base of elytra with tubercles; interval 3 of elytra with four setigerous punctures; length 5.8 mm
_	Clypeus with distinct knob, with punctures posterior to knob in form of a Voonly interval 3 at base of elytra with tubercle; interval 3 of elytra with four/five setigerous punctures; length 5.4 mm <i>mjoebergi</i> Louwerens, 1964

## The species

# **Subgenus** *Orictites* Andrewes *Orictites minotaur* Andrewes, 1931

## Catalogue

Orictites minotaur; Andrewes 1931: 440; Orictites minotaur Andrewes; Csiki 1933: 638; Orictites minotaur Andrewes; Louwerens 1964: 174; Orictites minotaur Andrewes; Lorenz 1998: 135; Orictites minotaur Andrewes; Balkenohl 2001: 18.

Type material: Lectotype (by present designation): ♂, with labels and data: round, white, with red border, "Type" / white and yellow: "Mt. Kinabalu, Brit.N.Borneo. B.M.1931–386." / white, handwritten: "Orictites minotaur Type Andr." and printed "H.E.Andrewes det." / light red: "B.N. BORNEO. Mt. Kinabalu, Lumu Lumu, 5580 ft. April 12<sup>th</sup>, 1929"; with backside: "H. M. Pendlebury coll. F.M.S. Museums." (BMNH).

Additional material: 1  $\circlearrowleft$ , Malaysia-Borneo Sabah 21.3.–20.4.1996 GUNUNG EMAS 1700m lgt. J. Kadleg, (CBB).

Remarks: Andrewes (1931) based his description on two specimens from Lumu Lumu. One of them is deposited in the BMNH and is labelled as "Type". The specimen was pinned in the middle between the two elytra so that the elytra are opened. It has been mounted on a paper card and the original pin has been used for that card. The second specimen is not anymore in the BMNH, could not be located, and is obviously lost. In the interst of the stability the lectotype is designated here.

## **Redescription** (Figs 1, 15, 17, 19, 31; pp. 8, 15, 19, 23, 35)

Measurements: Lectotype. Body length 10.1 mm, width 2.7 mm; ratio length/width of pronotum 0.74; ratio length/width of elytra 1.85.

Additional material: Body length 10.3 mm, width 2.8 mm; ratio length/width of pronotum 0.76; ratio length/width of elytra 1.82.

Colour: Shiny. Black. Wings of clypeus and supraantennal plates transparent red-brown, antennae, mouthparts, tarsalia medium brown, legs dark red-brown.

Head: Relatively wide, 15% narrower than pronotum. Clypeus with four anteriorly projecting teeth, with blunt raised knob between the two clypeal



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Figs 15-16: Orictites ssp., head and pronotum, lateral view; 15: Orictites (subgenus Orictites) minotaur Andrewes, 1931, ; 16: Orictites (subgenus Semictites) costulipennis Bates, 1892.

setae, transversally hollowed out between anterior margin and knob, wings of clypeus sharply angled (< 90°), projecting, divided from supraantennal plates by distinct obtusely angled incision and from middle part of clypeus by broad rounded incision. Supraantennal plates vaulted, with reflexed rounded margin, hollowed out anteriorly; from separated from clypeus by band of big punctures, with obtuse nearly parallel running carinae at each side posteriorly, carinae with furrows medially and laterally, carinae enclosing the slightly convex frons, frons with irregular big and small punctures, with longitudinal impression at middle. Supraorbital carina flat, with two setae, posterior one arising from big tubercle. Eyes not big, projecting, tempora carinate, genae distinctly vaulted, nearly as high and as long as eyes, enclosing eyes posteriorly, forming distinct angle at neck. Eyes and tempora separated from middle part of head by distinct supraorbital carinae and deep broad furrows. Grooves for reception of antennae short, length 0.4 of eye diameter. Neck constriction formed by doubled irregular row of big punctures, neck laterally densely covered with medium sized punctures. Labrum formed by two broad lobes, with slight emargination at middle, 7-setose (in the lectotype one seta is missing), ciliate laterally, with isodiametric reticulation. Mandibles robust, nearly as long as head, relatively slender, acute at apex, upper margin of scrobe of both mandibles at base with carina-like tooth, right one with distinct tooth at middle, left one with knob-like tooth at base visible in opened position, both mandibles hollowed out at base; scrobe rounded dorsally and ventrally in apical half, with no carinae, appearing rounded at sides. Maxilla bent sigmoidally, acutely hooked at apex. Apical maxillary palpomere slender, straight. Apical labial palpomere slender, straight, more than twice as long as 2<sup>nd</sup> segment, 2<sup>nd</sup> segment bisetose. Ligula bilobed at apex, with long seta; paraglossae slender. Ventral surface of neck covered with big punctures, with transverse wrinkles near gula. Gula smooth. Submentum and mentum distinctly separated; submentum with two pairs of setae; mentum keeled at middle, nearly smooth, with fine and complete reflexed margin, lateral lobes projecting, thought obtusely angled at tips, with two setae near base of each lobe, median tooth forming broad obtuse triangle, bisetose, projecting as far as lateral lobes. Paragena sharp, carina-like, without tooth. Antennae short, reaching up to middle of pronotum, scapus carinate, with one seta dorsoapically, scapus and pedicellus longitudinally reticulated, segments 5-10 broader than long (L/W 0.90), antennomeres flattened, with shiny areas on flattened parts, segments 4–11 densely pubescent, with some additional longer setae.

Pronotum: Subquadratic, broader than long. Sides parallel at middle but convex slightly before posterior angles. Anterior margin slightly bisinuate. Reflexed lateral margin distinctly crenulated up to posterior angle, smooth

up to base, running from posterior angle to base as sigmoid curve. Lateral channel broad, subfoveolate between the two lateral setigerous punctures, paralateral part of disc slightly vaulted, basal channel broad and deep. Anterior setigerous puncture at level of anterior transverse line, the posterior one located before level of posterior angle, removed from lateral channel by diameter of pore. Anterior angles distinctly projecting, rounded, formed by reflexed lateral margin, posterior angles sharp, not projecting laterally due to convexity of lateral margin in basal part. Anterior transverse line sharp, not reaching lateral channel. Median line deep and conspicuously broad, with blunt carinae bilaterally, surpassing level of anterior transverse line but not joining, running nearly up to channel of base, not adjoining base. Surface with scattered big punctures and some irregular big wrinkles, with fine isodiametric reticulation towards base, with longitudinal vault parallel to lateral channel. Basal part of disc elongated posteriorly and bilaterally, hanging over basal channel (lateral view). Flange at base sharply raised (lateral view).

Elytra: Elongate, sides parallel at middle. Marginal channel broad, completely visible from above, with uninterrupted row of big setigerous punctures arising from broad tubercles, no fold-like apical carina visible. Reflexed margin with fine crenulation up to apex, distinct at humerus, margin and channel bending over rounded humerus up to 5<sup>th</sup> stria, with rounded humeral tooth. Basal tubercle big, with setigerous puncture, situated at declivity of 1<sup>st</sup> stria 3. Striae 1–4 free at base, 7<sup>th</sup> shortened at humerus and nearly joining with stria 6, all striae deep, with indistinct row of punctures, striae 1 and 2 ending free at apex, 3–4 and 5–6 joined at apex. Striole distinct, deepened at base, with small sharp tubercle at base. Intervals 1–4 moderately convex, others distinctly convex, all flattened towards apex, 3<sup>rd</sup> at base broader, raised, and with longitudinal tubercle, 8<sup>th</sup> small, carinate at base and apically. Interval 3 with five robust setigerous punctures adjoining stria 3.

Hind wings: Fully developed. Ventral surface: Proepisternum with submarginal ridge. Proepipleuron small, nearly smooth, submarginal furrow distinct. Epipleuron broadened in basal third, with row of partly connected big punctures in basal quarter. Proepisternum, prosternite, episternum, and lateral parts of mesosternum covered densely and irregularly with big punctures, mesosternum smooth at middle. Sternites smooth, 3<sup>rd</sup> to 5<sup>th</sup> with paralateral ambulatory setae at each side, ventral strigae distinct, sternite six with flat transverse depression apically, with two widely separated apical setae at each side.

Legs: Protibia with slight dorsal furrow at base, digitation distinct, with two big and one small lateral preapical denticles, all furnished with seta close to apex, apical spine curved hook-like ventrally and laterally, movable spur moderately curved, inner denticle with corkscrew-like seta; basal tarsomere elongated, longer than the following three together. Mesotibia with big long apical spine, furnished with one seta apically and another one at middle. All tarsomeres relatively broad.

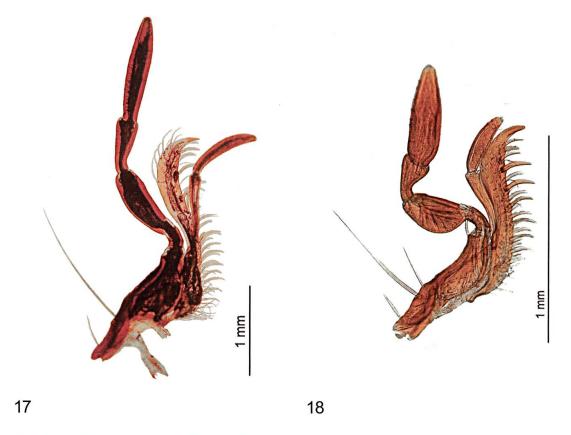
Male genitalia (Fig. 19): Median lobe sclerotized, regularly and moderately arcuate in middle part, distinctly bent at apex, apex formed as slightly asymmetric rounded big spatula. Oroficium large, closing lips less sclerotized. No spines or teeth visible on endophallus (at 500x by optimized condenser and different filters). Parameres asymmetrical, slender, somewhat twisted, ventral one with four medium sized setae at apex, dorsal one with three medium sized and one very fine seta at apex.

Female genitalia (Fig. 31): Coxostylus sigmoid, dorso-ventrally moderately depressed, gently curved to apex, with one seta at apex, with one longer ensiform and four nematiform setae in middle part.

Variation: The labrum is 6-setose in the lectotype and 7-setose in the additional specimen. In the additional specimen one of the ambulatory setae of the sternite is missing. The anterior transverse line of the pronotum is sharper in the lectotype.

Diagnosis: A big black species with distinct knob on the clypeus and flat broad transverse impression with band of big punctures behind knob, with rounded humeral tooth, tubercle at the base of interval 3 of the elytra, and five setigerous punctures on interval 3. Moreover, the pronotum is distinctly broader than long, and the margin of pronotum and elytra is crenulated. Distinguished from all other species by the long and slender mandibles with a scrobe that is not carinate in the apical half, and they each exhibit an elevated tooth near the base. In addition, the clypeus possesses four projecting teeth anteriorly.

Distribution: Known from the North of Borneo only. The type was collected at 5580 ft (1700 m) and the additional specimen at the same altitude.



Figs 17–18: Orictites spp., Maxilla, maxillary and labial palpomere. 17: O. minotaur Andrewes, 1931 (subgenus Orictites); 18: O. costulipennis BATES, 1892 (subgenus Semictites subg. nov.).

Subgenus Semictites subg. nov.

# Orictites costulipennis BATES, 1892, comb. nov.

## Catalogue

Clivina costulipennis; Bates 1892: 281;

Clivina costulipennis BATES; Andrewes 1926: 373;

Clivina costulipennis BATES; Andrewes 1929: 366;

Clivina costulipennis BATES; Andrewes 1930: 113;

Clivina costulipennis BATES; Lorenz 1998: 131;

Clivina costulipennis BATES; Balkenohl 2001: 14.

Type material: Holotype:  $\circlearrowleft$ , labels: brown with black frame, black printed: "Palon (Pegú) L.Fea.VIII.IX.87" / brown, handwritten in black: "Clivina costulipennis Bates" / yellowish-brown, handwritten in black: "Cliv. costulipennis (typus!) Bates" / white, red-printed with red frame: "TYPUS" / brown, printed in black: "Mus. Civ. Genova" / white with black frame, hand-

written in black: "costulipennis Bates" / red with black frame, black printed "HOLOTYPUS" and handwritten "Clivina costulipennis Bates, 1892" Additional label: white, black printed: "Genitalpräparat wasserlöslich M. Balkenohl I 07" (MCSNG).

Additional material: 2  $\emptyset$ , 1  $\mathbb{Q}$ , 3 specimens: Thailand, Doi Inthanon, 4.-6.5.1990, 8.-9.5.1990, 23.-25.5.1990, 12.-19.6.1990, leg. Malicky / Clivina costulipennis BAT. det.M.Baehr'94 (CBM-ZSM, CBB); 1 specimen: Penang, G.E. Bryant. 13.XI.13 / H.E. Andrewes Coll. B.M. 1945 – 97. / Clivina costulipennis Bates Compared with type H.E.A. (BMNH); 1 specimen: Malay Pa. Perak / 58J81 / Doherty / Fry Coll 1905.100. / Clivina costulipennis BATES Compared with type H.E.A.; 1 specimen: NE-INDIA: Meghalaya W Garo Hills Norek NP; ca. 1100 m / 25°25.6′N 90°19.5′E 9.-17.5.1996 leg. Jendek & Sausa (NHMW); 2 ♂, 3 ♀, W.THAILAND: 300m., Thung Yai Wildlife Sanctuary. 15°28´N – 98°48´E. / Tak Province Umphang District Song Bae Stream. 18-27.iv.1988. / Evergreen rain forest M.J.D.Brendell. B.M.1988-183. (BMNH, CBB); 1 3, Thailand, 23.–25.ii.1996 Ranong prov.9°57′98°45′ Hat Som Paen env. K. Majer leg. (CBP); 1 ♀, NE INDIA Meghalaya Nokrek n.p.,3kmSDaribokgirl 25°27´N, 90°19´E, 26.4.1999 Dembický & Pacholátko lgt. (CBB); 1 specimen: N. THAILAND, Chiang Mai prov. San Pakia, 19°19'N, 98°50' E, 1400 m, 1.-15.5.1998, Michal Bednařik leg. (CBP); 1 specimen: NE INDIA, MEGHALAYA, SW of CHERRAPUNJEE 25°13´-15´N 91°40´E; 900m L. Dembický leg.; 11.-12.v.2004 (NHMB).

# **Redescription** (Figs 2, 16, 18, 20, 32; pp. 8, 15, 19, 23, 35)

Measurements: Holotype: Body length 5.1 mm, width 1.45 mm; ratio length/width of pronotum 0.98; ratio length/width of elytra 1.91.

Additional material (n = 10): Body length 5.5–6.5 mm ( $\bar{x}$  = 5.6 mm), width 1.49–1.75 mm ( $\bar{x}$  = 1.62 mm), ratio length/width of pronotum 0.93 – 1.02 ( $\bar{x}$  = 0.96), ratio length/width of elytra 1.8 – 1.95 ( $\bar{x}$  = 1.87).

Colour: Shiny. Black to dark-brown. Wings of clypeus and supraantennal plates more or less transparent red-brown, antennae, labrum and palpi yellow brown, legs red-brown.

Head: A fifth narrower than pronotum. Clypeus with small rounded tooth laterally, anterior margin slightly excised, with raised knob between the two clypeal setae, posterior part of knob covered with big and medium sized punctures; margin of wings convex, hollowed out, divided from middle part of clypeus by slight notches and carinae, divided from supraantennal plates by distinct obtusely angled notches and ridge. Clypeus and wings reflexed

margined, supraantennal plates vaulted up to mid-eye level, smooth, with reflexed rounded margin, elongated as supraorbital carina, frons separated from clypeus by flat transverse depression and group of big punctures, with costate, nearly parallel running frontal carinae at each side posteriorly, with broad furrow between frontal carina and supraorbital carina, with flat punctured transverse furrow, sharp furrow between frons and frontal carina. Frons moderately convex, with very minute scattered punctures. Supraorbital setae located in broad furrows between supraorbital carina and frontal carina, the posterior one arising from tubercle. Eyes of moderate size, flattened but still convex, genae enlarged, regularly rounded, not as high as and shorter than eyes, enclosing eyes posteriorly, forming distinct angle at neck. Grooves for reception of antennae short, length 0.4 of eye diameter. Neck constriction marked as distinct step, with band of bigger punctures almost doubled, neck laterally covered with reticulation and densely scattered medium sized punctures. Labrum straight, 7-setose, ciliate laterally, with isodiametric reticulation. Mandibles robust, nearly as long as head, flattened, stout, broadened at base, acutely curved at apex, carinae of scrobe complete, both mandibles obtusely angled towards base (opened position), both mandibles somewhat hollowed out dorsally. Maxilla distinctly curved, acutely hooked at apex. Apical maxillary palpomere slender, slightly securiform. Apical labial palpomere slender, straight, slightly longer than 2<sup>nd</sup> segment, 2<sup>nd</sup> segment bisetose. Ligula with one long seta; paraglossae slender. Ventral surface of neck covered with bigger sized punctures and transverse reticulation, Submentum and mentum distinctly separated; submentum with four bigger, about equally spaced setigerous punctures; mentum at base bilaterally with broad and rounded tubercle, with some longitudinal carinae, with fine and complete reflexed margin, lateral lobes projecting, nearly right-angled at tips, with a seta near base of each lobe, median tooth forming a broad obtuse triangle, bisetose, not projecting as far as lateral lobes. Paragenae sharp, carina-like, with distinct tooth anteriorly, rounded at base. Antennae short, reaching up to middle of pronotum, scapus knee-like angled, with one seta dorsoapically, scapus and pedicellus with fine reticulation, segments 5-10 moniliform. antennomeres somewhat flattened, with shiny areas on flattened parts, segments 4–11 densely pubescent, with few additional long setae.

Pronotum: Square, as long as wide, sides slightly convex at middle, distinctly rounded in anterior quarter to anterior angles. Anterior margin straight. Reflexed lateral margin smooth, from posterior angle to base running as a straight line. Lateral channel conspicuously broad between the two lateral setigerous punctures, with isodiametric reticulation and very few irregular punctures. Anterior setigerous puncture located at the end of anterior quar-

ter approximated to the convexity of the disc of pronotum, the posterior one located at level of posterior angle, removed from lateral channel by diameter of pore. Anterior angle projecting, rounded, formed by reflexed lateral margin, posterior angle developed as sharp distinct tooth, projecting laterally. Anterior transverse line formed by distinct, partly connected punctures. Median line deep and conspicuously broad, running up to level of anterior transverse line but not joining, smaller at base, adjoining base. Surface scattered with some fine to medium sized punctures and with isodiametric reticulation laterally and at base, basal impression indistinct, basal channel broad, deep. Flange raised keel-like (lateral view).

Elytra: Subcylindrical, sides slightly diverging, marginal channel broad, visible from above, with uninterrupted row of big setigerous punctures arising from broad tubercles. Reflexed margin with fine crenulation in anterior quarter, margin slightly thickened at humerus, bending with channel over rounded humerus up to 5<sup>th</sup> stria. No humeral tooth. Basal tubercle distinct, with setigerous puncture, situated at declivity of 1<sup>st</sup> stria. Striae 1–4 free at base, all striae deep, broad, more or less distinctly punctuate, striae 1–2, 3–4 and 5–6 joined apically; striae 6 and 7 shortened at humerus. Striole distinct, interval between striole and sutura costiform, raised. All intervals conspicuously convex, convexity increasing laterally, thought costate, 3<sup>rd</sup> and 4<sup>th</sup> broader and raised at base, both with tubercle at base, 8<sup>th</sup> carinate. Interval 3 with four setigerous punctures adjoining stria 3.

Hind wings: Fully developed.

Ventral surface: Epipleuron shiny, covered with medium sized scattered punctures and indistinct isodiametric reticulation, submarginal furrow distinct. Proepisternum and episternum nearly smooth, prosternite smooth, keeled at middle like an inverted V, mesosternum smooth. Sternites with transverse to isodiametric reticulation, each with big punctures at base laterally, 3<sup>rd</sup> to 5<sup>th</sup> with paralateral ambulatory setae at each side, ventral strigae distinct, sternite six smooth at middle, with two widely separated apical setae at each side.

Legs: Anterior tibia with strong digitation, with two big and one small lateral preapical denticles, apical spine curved distinctly towards ventral, no dorsal furrow, basal tarsomere elongated, nearly as long as the following four together. Mesotibia with preapical spine, furnished with strong seta. All tarsomeres relatively broad.

Male genitalia (Fig. 20): Relatively long, moderately sclerotized. Median lobe slender, moderately arcuate, slightly twisted apically. Endophallus strongly folded, teeth not visible. Parameres of about same length, both slender, slightly twisted, asetose.

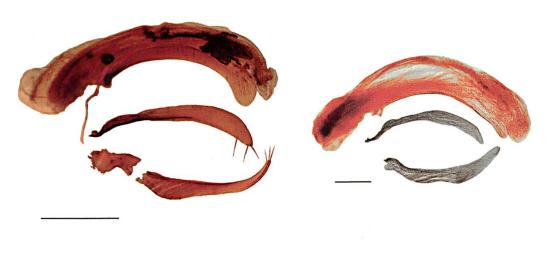
Female genitalia (Fig. 32): Coxostylus slightly sigmoid, dorso-ventrally moderately depressed, gently curved to apex, with one seta at apex, with one longer ensiform and four nematiform setae in middle part.

Variation: The anterior transverse line of the pronotum is more or less deeply engraved. The isodiametric reticulation in the lateral channel of the pronotum is more or less distinctly developed. Specimens from Sabah and Sarawak (Malaysia) have the tubercles on the 3<sup>rd</sup> and 4<sup>th</sup> interval at base indistinctly developed. The number of punctures on the disc of the pronotum varies.

Diagnosis: A medium-sized almost black species with distinct knob on the clypeus and distinct flat transverse punctured depression behind, without humeral tooth, tubercles at the base of intervals 3 and 4 of the elytra, and four setigerous punctures on interval 3. Distinguished from all other species by the combination of the following characters: The frons of the head is covered by minute scattered punctures, the reflexed lateral margin of the pronotum is smooth, and all intervals of the elytra are conspicuously convex.

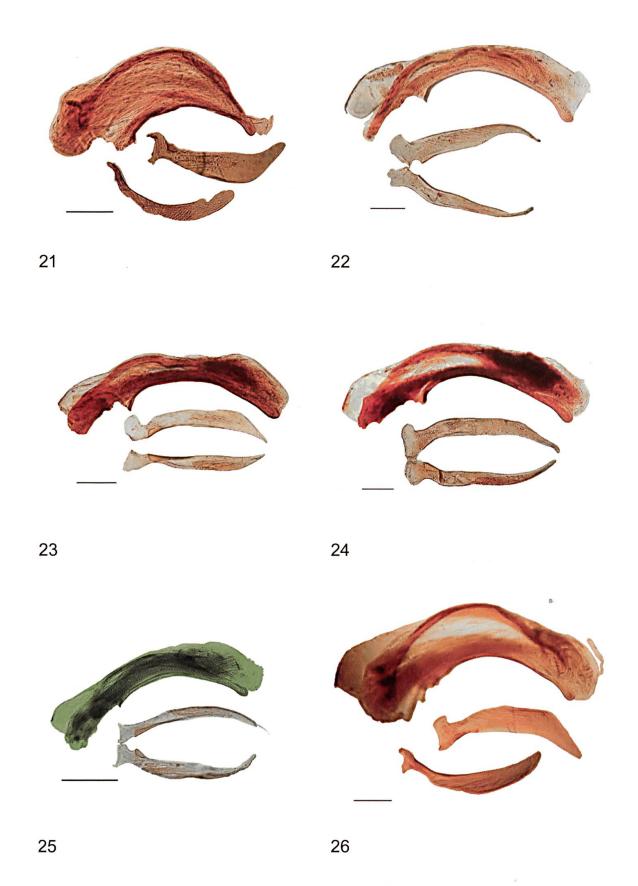
Distribution: Known from North, middle and Western parts of Thailand and from Megalaya (NE India). Some specimens were collected at 450 m up to 1400 m in litter of forests.

Remarks: Bates based the description on one male specimens deposited in MCSNG and he described the species as "curious" (Bates 1892: 282) obviously due to the striking differences to the *Clivina* species described in the same contribution. Kult (1951) did not mention the species at all.



19 20

Figs 19–20: *Orictites* spp., aedeagus, ventral view. 19: *O. minotaur* Andrewes, 1931, lectotype, scale bar 1.5 mm; 20: *O. costulipennis* Bates, 1892, holotype, scale bar 0.2 mm.



Figs 21–26: Orictites spp., aedeagus, ventral view. 21: O. mjoebergi Louwerens, 1964, lectotype, scale bar 0.2 mm; 22: O. desuntsetosus sp. nov., holotype, scale bar 0.15 mm; 23: O. plurisetosus sp. nov., holotype, scale bar 0.2 mm; 24: O. anteriortenuis sp. nov., holotype, scale bar 0.15 mm; 25: O. omnipunctatus sp. nov., holotype, scale bar 0.2 mm; 26: O. ampliosetosus sp. nov., holotype, scale bar 0.2 mm.



Figs 27–30: Orictites spp., aedeagus, ventral view. 27: O. brancuccii sp. nov., holotype, scale bar 0.2 mm; 28: O. barclayi minorfrater ssp. nov., holotype, scale bar 0.2 mm; 29: O. tubercucollis sp. nov., holotype, scale bar 0.2 mm; 30: O. anteriorlatus sp. nov., holotype, scale bar 0.2 mm.

# Orictites mjoebergi Louwerens, 1964

## Catalogue

Orictites mjoebergi; Louwerens, 1964: 172;

Orictites mjoebergi Louwerens; Lorenz 1998: 135;

Orictites mjoebergi Louwerens; Balkenohl 2001: 18.

Material examined: Type material: Lectotype (by present designation). ♂, with labels and data: white, handwritten: "Type Orictites mjöbergi sp.n." and printed "det.C.J.Louwerens" / blue: "3491 E91 +" / 2<sup>nd</sup> pin with original small paper card: small, white, "Pajau River" / white, "O. Borneo Mjöberg" / small blue: "3492 E91 +" / big, white, "ORICTITES Andr." / big, white: "Mjöbergi Louw." (NHRS).

Remarks: C.J. Louwerens (1964) based the description on two specimens from Pajan River. One of them is located in the NHRS (see material examined), the other one could not be located and is obviously lost. The available specimen is designated here as lectotype in the interst of the stability. In the specimen the right wing of the clypeus is slightly more angled (dorsal view) and more fused with the median part. I recognise this character as intraindividual variation. Exactly this asymmetric character is described by Louwerens (1964). However, careful investigation revealed that this specimen is a male and not a female as indicated by Louwerens. The inner structures were slightly damaged, obviously by a former mounting attempt. The left antennae misses segments 8-11. It should be mentioned that the sketch provided by Louwerens does not display a realistic picture of the species. In addition, Louwerens (1964: 173) describes the presence of five setigerous punctures on interval 3 of the elytra. However, the type specimen possesses four, respectively five setigerous punctures (right/left side). The additional specimens all exhibit four setigerous punctures on either side.

Additional material: 1  $\circlearrowleft$ , NORD-SUMATRA: Umg. Siulakosa 5.8.1991, ERBER / Samosir, ob. Tomok 1500 m, Kiefernwald, unter Rinde (SMNS); 1  $\circlearrowleft$ , Filippine Mindanao III.1995 M. Malindang North Sambuanga (CBP); 1  $\circlearrowleft$ , PHILIPPINES, N Luzon, Ifugao, Banaue, XI 2014. local collector leg. (CBB); 1 specimen: head and pronotum lost, F. C. DRESCHER G. Tangkoeban Prahoe 4000–5000 Voet Praeanger, Java VI. 1933 / Ex coll. Bänninger / H.E.Andrewes Coll. B.M.1945–97. (BMNH).

# **Redescription** (Figs 3, 21, 33; pp. 8, 24, 35)

Measurements: Lectotype: Body length 5.4 mm, width 1.52 mm; ratio length/width of pronotum 1.07; ratio length/width of elytra 1.95.

Additional material (n = 3): Body length 4.93–5.9 mm ( $\bar{x}$  = 5.4 mm), width 1.37–1.65 mm ( $\bar{x}$  = 1.53 mm); ratio length/width of pronotum 0.96–1.06 ( $\bar{x}$  = 1.0); ratio length/width of elytra 1.78–1.97 ( $\bar{x}$  = 1.89).

Colour: Shiny. Black. Elytra red-brown, pronotum darker. Wings of clypeus and supraantennal plates transparent red-brown. Antennae, mouthparts, middle and hind legs yellowish brown, front legs dark red-brown.

Head: A quarter narrower than pronotum. Clypeus limited laterally by small obtuse angled tooth, anterior margin straight, with blunt raised knob between the two clypeal setae, posterior part of knob covered with medium sized punctures, anterior part smooth; wings obtuse-angular, rounded at tip, hollowed out, divided from middle part of clypeus by slight incisions and carinae,

divided from supraantennal plates by distinct obtusely angled incisions and indistinct carina, clypeus and wings reflexed margined, supraantennal plates vaulted, elongated as supraorbital carina, smooth, with reflexed rounded margin, frons separated from clypeus by flat transverse depression and a group of punctures formed like a letter V, with nearly parallel running costate frontal carinae at each side posteriorly, with broad furrow between frontal carina and supraorbital carina, sharp furrow between frons and frontal carina. Frons moderately convex, nearly smooth, with small but distinct longitudinal impression at middle. Supraorbital setae located in broad furrows between supraorbital carina and frontal carina, the posterior one arising from a tubercle. Eyes of moderate size, moderately convex, genae enlarged, regularly rounded, not as high as and a third shorter than eyes, enclosing eyes posteriorly. Grooves for reception of antennae short, length 0.4 of eye diameter. Neck constriction marked as distinct step, with band of big punctures, neck laterally densely covered with medium sized punctures. Labrum indistinctly trilobed, appearing straight, 7-setose, ciliate laterally, with isodiametric reticulation. Mandibles half as long as head, flattened, broadened at base, acutely curved at apex, carinae of scrobe complete, both mandibles obtusely angled and somewhat hollowed out dorsally. Maxilla nearly straight, acutely hooked at apex. Apical maxillary palpomere slender, slightly securiform. Apical labial palpomere slender, straight, longer than 2<sup>nd</sup> segment, 2<sup>nd</sup> segment bisetose. Ligula with one long seta; paraglossae slender. Ventral surface of neck covered with medium sized punctures and irregular reticulation. Gula smooth. Submentum and mentum distinctly separated; submentum with two pairs of setae; mentum keeled at middle, nearly smooth, with fine and complete reflexed margin, lateral lobes projecting, thought obtusely angled at tips, with two setae near base of each lobe, median tooth forming broad obtuse triangle, bisetose, less projecting than lateral lobes. Paragenae sharp, carina-like, without tooth. Antennae of medium length, reaching over middle of pronotum. scapus carinate, with one seta dorsoapically, scapus and pedicellus with fine reticulation, segments 5-10 transverse (L/W 0.80), antennomeres subglobose, nearly dull, segments 4-11 densely pubescent, with a few additional long setae.

Pronotum: Square (L/W 1.07), sides straight but slightly diverging to base, gently rounded before posterior angle. Anterior margin slightly bisinuate. Reflexed lateral margin nearly smooth, with indistinct reticulation (100x), from posterior angle to base running as smooth, slightly convex line. Lateral channel distinctly broadened between the two lateral setigerous punctures, with fine irregular reticulation, with a few medium-sized punctures situated in broadened part of channel, basal channel broad, deep, foveolate. Anterior set-

igerous puncture located at end of anterior quarter, the posterior one located at level of posterior angle, removed from lateral channel by diameter of pore. Anterior angle slightly but distinctly projecting, rounded, formed by reflexed lateral margin, posterior angle developed as large rounded tooth, projecting laterally. Anterior transverse line sharp, punctured, not adjoining lateral channel. Median line deep, broad, thought with indistinct blunt carina-like vault bilaterally, surpassing level of anterior transverse line but not joining, smaller at base, joining base. Surface with two longitudinal groups of paramedian and paralateral big punctures and with a few fine, irregularly situated punctures, with irregular reticulation laterally, shiny on disc; basal impression developed as small flat furrow; base of disc with indistinct reticulation. Basal part of disc elongated posteriorly and bilaterally at declivity, as tooth-like vault slightly hanging over basal channel (lateral view). Flange raised keel-like (lateral view).

Elytra: Subcylindrical, sides slightly diverging, marginal channel broad, not completely visible from above due to convexity of intervals 7 and 8, with uninterrupted row of big setigerous punctures arising from broad tubercles, with additional row of punctures laterally. Reflexed margin with fine crenulation in anterior quarter, channel broadened at humerus, bending with margin over rounded toothless humerus up to 5<sup>th</sup> stria. Basal tubercle big, with setigerous puncture, situated at declivity of first stria. Striae 1–4 free at base, all striae deep, broad, distinctly punctate-striate, striae 1–2, 3–4 and 5–6 joined apically; striae 6 and 7 shortened at humerus. Striole distinct, interval between striole and sutura costiform, raised, basal area around striole moderately impressed. Intervals shiny, distinctly convex, 3<sup>rd</sup> broader, strikingly raised and with large tubercle at base, 4<sup>th</sup> broader and raised at base but not as strongly as 3<sup>rd</sup>, 7<sup>th</sup> running to apex as obtuse carina. 8<sup>th</sup> small, completely carinate. Interval 3 with four/five setigerous punctures adjoining stria 3 (see variation).

Hind wings: Fully developed.

Ventral surface: Proepisternum with complete submarginal ridge, with some punctures, with irregular reticulation laterally. Proepipleuron small, with punctures and indistinct reticulation. Epipleuron broadened and with big punctures in basal quarter. Proepisternum somewhat swollen at level of posterior setigerous puncture, prosternite smooth, double keeled at middle, mesosternum smooth. Sternites smooth at middle, each with big punctures at base laterally, 3<sup>rd</sup> to 5<sup>th</sup> with paralateral ambulatory setae at each side, ventral strigae distinct, sternite 6 smooth at middle, with two widely separated apical setae at each side.

Legs: Anterior tibia with strong digitation, with two big and one small lateral preapical denticles, apical spine curved distinctly towards ventral and lateral preapical denticles.

eral, no dorsal furrow, basal tarsomere elongated, longer than the following four together. Mesotibia with apical spine, furnished with strong seta. All tarsomeres relatively broad.

Male genitalia (Fig. 21): Relatively short, median lobe broad, regularly arcuate at middle, apex twisted apically. Endophallus with bristles laterally. Both parameres slender, slightly twisted, asetose.

Female genitalia (Fig. 33): Coxostylus of moderate width, distinctly curved to apex, with two preapical setae close together, dorsally with some minute scars in apical half, with obtuse knob-like tooth dorsally at base, with two short ensiform setae at middle, with four longer nematiform setae.

Variation: Bilateral variation is observed in the right clypeal wing, mentioned under remarks. In addition, in the lectotype the left elytra bears five setigerous punctures and the right one four. The other specimens all have four setigerous punctures on each side.

Diagnosis: A medium-sized almost black species with red-brownish elytra, with distinct knob on the clypeus, humerus without tooth, and four setigerous punctures on interval 3 (but compare remarks). Only in this species and in *O. anteriorlatus* is the basal part of the disc of the pronotum posteriorly elongated bilaterally at the declivity as a tooth-like vault slightly hanging over the basal channel. By contrast to *O. anteriorlatus*, *O. mjoebergi* exhibits a tubercle at the base of interval 3 of the elytra, only, and the furrow between clypeus and frons consists of punctures in form of the letter V.

## Orictites desuntsetosus sp. nov.

Type material: Holotype:  $\emptyset$ , Labels: white, black printed: "leg. Jäch (11) PHILIPPINEN – Luzon 30km E Lucena City Quezon NP 23.11.1992" (NHMW). Paratypes: 3  $\mathfrak{D}$ , same data as holotype (NHMW/CBB).

# **Description** (Figs 4, 22, 34; pp. 8, 24, 35)

Measurements (n = 4): Body length 4.38–4.65 mm ( $\bar{x}$  = 4.49 mm), width 1.25–1.31 mm ( $\bar{x}$  = 1.29 mm), ratio length/width of pronotum 0.98–0.99 ( $\bar{x}$  = 0.98), ratio length/width of elytra 2.25–2.31 ( $\bar{x}$  = 2.29).

Colour: Shiny. Brown. Reflexed margins, lines, striae, and punctures darker. Labrum and palpi yellowish. Antennae and legs brown.

Head: A quarter narrower than pronotum. Clypeus deeply excised, with small rounded tooth laterally nearly fused with clypeal wings, with blunt

raised elevation between the two clypeal setae, anteriorly smooth, posterior part of elevation covered with big punctures, margin of wings convex, flattened, divided from middle part of clypeus by slight carinae, divided from supraantennal plates by distinct obtusely angled notches and ridge, clypeus and wings reflexed margined, supraantennal plates vaulted up to posterior eye level, smooth, with reflexed rounded margin, as supraorbital carina, frons separated from clypeus by flat transverse depression with punctures, with costate posteriorly diverging frontal carinae at each side, with broad furrow between frontal carina and supraorbital carina, sharp furrow between frons and frontal carina, frons moderately convex, smooth. Supraorbital setae located in broad furrows between supraorbital carina and frontal carina, the posterior one arising from tubercle. Eyes relatively big, convex, genae distinct, enclosing eyes posteriorly, forming obtuse angle at neck. Grooves for reception of antennae short, length 0.3 of eye diameter. Neck constriction marked by punctures with wider distance, neck laterally covered with reticulation and densely scattered set medium sized punctures. Labrum straight, 7-setose, ciliate laterally, with isodiametric reticulation. Mandibles robust, shorter than head, flattened, stout, broadened at base, acutely curved at apex, carinae of right scrobe interrupted at middle, both mandibles obtusely angled towards base (opened position), both mandibles somewhat hollowed out dorsally. Maxilla distinctly curved, acutely hooked at apex. Apical maxillary palpomere slender, slightly securiform. Apical labial palpomere slender, straight, slightly longer than 2<sup>nd</sup> segment, 2<sup>nd</sup> segment bisetose. Ligula with one long seta; paraglossae slender. Ventral surface of neck with punctures. Submentum and mentum distinctly separated; submentum with four bigger, about equally spaced setigerous punctures; mentum at base bilaterally with rounded elevation, with some longitudinal carinae, with fine reflexed margin, lateral lobes projecting, nearly right-angled at tips, with a seta near base of each lobe, median tooth forming obtuse triangle, bisetose, not projecting as far as lateral lobes. Antennae relatively long, reaching up to posterior setigerous puncture of pronotum, scapus knee-like angled, with one seta dorsoapically, scapus and pedicellus with fine reticulation, segments 5-10 submoniliform (L/W 0.89), antennomeres somewhat flattened, with shiny areas, segments 4–11 densely pubescent, with a few additional long setae.

Pronotum: Square, as long as wide, sides straight, slightly diverging posteriorly. Anterior margin straight. Reflexed lateral margin smooth. Margin from posterior angle to base running as sigmoid line. Lateral channel conspicuously broad between the two lateral setigerous punctures, nearly smooth. Anterior setigerous puncture located at the end of anterior quarter approximated to the convexity of the disc of pronotum, the posterior one located at level of

posterior angle, removed from lateral channel by diameter of pore. Anterior angle indistinctly projecting, angled, formed by reflexed lateral margin, posterior angle developed as distinct tooth, projecting antero-laterally. Anterior transverse line formed by some distant punctures. Median line deep, broad, surpassing anterior transverse line without joining, not joining base. Surface with some irregularly situated medium sized punctures, with basal impression. Basal channel broad, deep. Flange raised keel-like (lateral view).

Elytra: Subcylindrical, sides slightly diverging, marginal channel broad, visible from above, with uninterrupted row of big setigerous punctures arising from broad tubercles, with additional row of small punctures laterally. Reflexed margin with two indistinct scars (120x) in anterior third, bending with channel over rounded humerus up to 5<sup>th</sup> stria. No tooth at humerus. Basal tubercle distinct, with setigerous puncture, situated at declivity of first stria. Striae 1–4 free at base, all striae deep, indistinctly punctate, striae 1 and 2 ending free at apex, 3–4 and 5–6 joined apically; striae 6 and 7 shortened at humerus. Striole distinct, interval between striole and sutura raised. All intervals distinctly convex, 3<sup>rd</sup> broader and distinctly raised at base, with tubercle at base, 8<sup>th</sup> carinate. All intervals shiny on disc. Interval 3 or any other interval asetose.

Hind wings: Fully developed.

Ventral surface: Epipleuron shiny, with scattered punctures and indistinct reticulation, submarginal furrow distinct. Proepisternum and episternum nearly smooth, prosternite smooth, keeled at middle. Mesosternum smooth. Sternites with transverse to isodiametric reticulation, each with big punctures at base, denser laterally, 3<sup>rd</sup> to 5<sup>th</sup> with paralateral ambulatory setae at each side, ventral strigae distinct, sternite 6 smooth at middle, with two widely separated apical setae at each side.

Legs: Anterior tibia with strong digitation, with two big and one small lateral preapical denticles, apical spine curved distinctly towards ventral, no dorsal furrow, smooth, basal tarsomere elongated, as long as the following four together. Mesotibia with preapical spine, furnished with strong seta. All tarsomeres relatively broad.

Male genitalia (Fig. 22): Moderately sclerotized. Median lobe slender, moderately arcuate, not twisted, apex stick-like. Endophallus without visible teeth. Parameres of about same length, both slender, each distorted anterior apex, with minute seta preapically.

Female genitalia. (Fig. 34): Coxostylus slender, nearly straight in basal part, gently curved to apex, with short obtuse knob-like tooth dorsally at base, with one seta preapically, with one blunt and one acute short ensiform seta, with five nematiform setae. Ramus of moderate size.

Variation: In one of the paratypes there are single punctures visible.

Diagnosis: A small medium-brown species with the knob on the clypeus developed as elevation and indistinct transverse depression behind, no humeral tooth, and a tubercle only at the base of interval 3 of the elytra. Distinguished from all other species by the completely missing setigerous punctures on intervals of the elytra and the deeply excised clypeus.

Distribution: Known from the Luzon Island (Philippines).

Etymology: The name refers to the missing setae on the elytra.

# Orictites plurisetosus sp. nov.

Type material: Holotype:  $\circlearrowleft$ , labels: white, black printed: "PHILIPPINEN – Mindoro 28km S Calapan Balete 27.–29.11.1992 leg. Schillhammer (13)" (NHMW).

# **Description** (Figs 5, 23; pp. 9, 24)

Measurements: Body length 3.84 mm, width 1.02 mm; ratio length/width of pronotum 1.06; ratio length/width of elytra 2.06.

Colour: Shiny. Brown. Pronotum, all reflexed margins, lines, striae and punctures darker. Labrum and palpi yellowish. Antennae and legs brown.

Head: Slightly narrower than pronotum. Clypeus with small rounded tooth laterally, anterior margin slightly excised, with blunt raised elevation between the two clypeal setae, with punctures reaching up to frons, margin of wings convex, flattened, divided from middle part of clypeus by slight notches and carinae, divided from supraantennal plates by distinct obtusely angled notches and ridge, clypeus and wings reflexed margined, supraantennal plates vaulted up to posterior eye level, minutely punctured (100x), with reflexed rounded margin, elongated as supraorbital carina, frons separated from clypeus by indistinct transverse depression, with costate nearly parallel running frontal carinae at each side posteriorly, with broad furrow between frontal carina and supraorbital carina, sharp furrow between frons and frontal carina, frons moderately convex, punctured. Supraorbital setae located in broad furrows between supraorbital carina and frontal carina, the posterior one arising from tubercle. Eyes and genae prominent, nearly as wide as anterior angles of pronotum, moderately convex, genae enlarged, rounded, not as high and shorter than eyes, enclosing eyes posteriorly, forming obtuse angle at neck. Grooves for reception of antennae short, length 0.4 of eye diameter. Neck con-

striction marked as line of punctures, neck laterally covered with reticulation and punctures. Labrum straight, 7-setose, ciliate laterally, with isodiametric reticulation. Mandibles robust, shorter than head, flattened, stout, broadened at base, acutely curved at apex, carinae of scrobe complete, both mandibles obtusely angled towards base (opened position), both mandibles somewhat hollowed out dorsally. Maxilla distinctly curved, acutely hooked at apex. Apical maxillary palpomere slender, slightly securiform. Apical labial palpomere slender, straight, slightly longer than 2<sup>nd</sup> segment, 2<sup>nd</sup> segment bisetose. Ligula with one long seta; paraglossae slender. Ventral surface of neck with medium sized punctures and some reticulation, Submentum and mentum distinctly separated; submentum with four bigger, about equally spaced setigerous punctures; mentum at base bilaterally with rounded elevation, with some longitudinal carinae, with fine reflexed margin, lateral lobes projecting, nearly right-angled at tips, with a seta near base of each lobe, median tooth forming obtuse triangle, bisetose, not projecting as far as lateral lobes. Antennae of moderate length, reaching up to posterior third of pronotum, scapus knee-like angled, with one seta dorsoapically, scapus and pedicellus with fine reticulation, segments 5-10 moniliform (L/W 1.0), antennomeres cylindrical, with shiny areas, segments 4-11 densely pubescent, with a few additional long setae.

Pronotum: Square, longer than wide, sides straight, rounded at anterior angles. Anterior margin straight. Reflexed lateral margin smooth, slightly convex for a short distance before posterior angles. Margin from posterior angle to base running as slightly sigmoid line. Lateral channel distinctly broadened between the two lateral setigerous punctures, smooth. Anterior setigerous puncture located at the end of anterior quarter adjoining convexity of disc of pronotum, the posterior one located at level of posterior angle, removed from lateral channel by diameter of pore. Anterior angles indistinctly projecting, rounded, formed by reflexed lateral margin, posterior angle developed as sharp distinct tooth, projecting antero-laterally. Anterior transverse line sharp, deep. Median line deep and moderately broad, surpassing anterior transverse line without joining, fine at base, not joining base. Surface irregularly covered with big punctures, with distinct punctured basal impression. Basal channel broad, deep. Flange raised keel-like (lateral view).

Elytra: Subcylindrical, sides indistinctly diverging, marginal channel broad, visible from above, with uninterrupted row of big setigerous punctures arising from broad tubercles, with additional row of fine punctures laterally. Reflexed margin with one or two scars posterior humerus, margin slightly thickened at humerus, bending with channel over rounded humerus up to 5<sup>th</sup> stria. No tooth at humerus. Basal tubercle distinct, with setigerous puncture, situat-

ed at declivity of first stria. Striae 1–4 free at base, all striae deep, distinctly punctate, striae 1 and 2 ending free at apex, 3–4 and 5–6 joined apically; striae 6 and 7 shortened at humerus. Striole distinct, interval between striole and sutura raised. All intervals distinctly convex, 3<sup>rd</sup> and 4<sup>th</sup> broader and distinctly raised at base, both with tubercle at base, 7<sup>th</sup> and 8<sup>th</sup> carinate. All intervals shiny on disc. Interval 3 with 16/18, 5 with 19, and 7 with 15 setigerous punctures, somewhat irregularly placed on the respective interval.

Hind wings: Fully developed.

Ventral surface: Epipleuron shiny, with punctures and indistinct reticulation, submarginal furrow distinct. Proepisternum and episternum nearly smooth, prosternite smooth, keeled at middle, mesosternum smooth. Sternites with transverse to isodiametric reticulation, each with big punctures at base, slightly denser laterally, 3<sup>rd</sup> to 5<sup>th</sup> with paralateral ambulatory setae at each side, ventral strigae distinct, sternite 6 smooth at middle, with two widely separated apical setae at each side.

Legs: Anterior tibia with strong digitation, with two big and one small lateral preapical denticles, apical spine curved distinctly towards ventral, no dorsal furrow, smooth, basal tarsomere elongated, as long as the following four together. Mesotibia with preapical spine, furnished with strong seta. All tarsomeres relatively broad.

Male genitalia (Fig. 23): Moderately long, moderately sclerotized. Median lobe slender, moderately arcuate, slightly twisted basally, apex stick-like. Endophallus basally strongly folded, with some bristles towards apex. Parameres of about same length, dorsal one broader, slightly distorted, asetose.

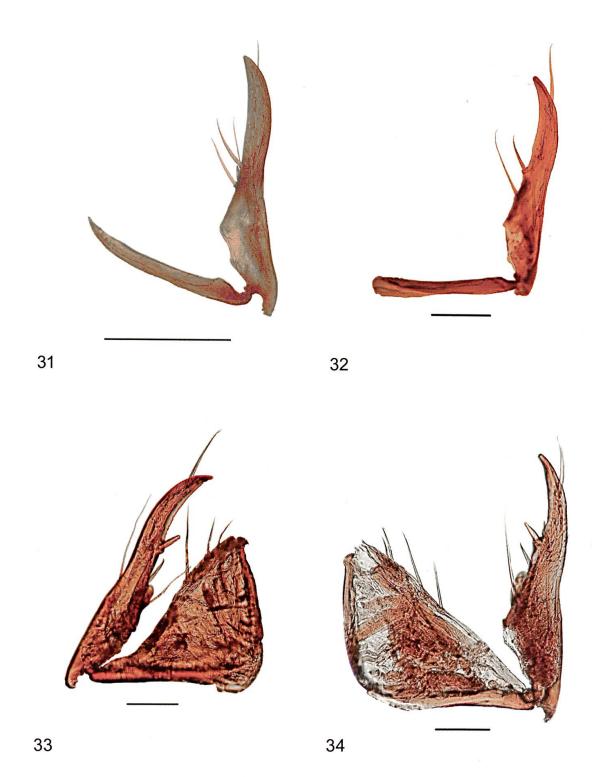
Female genitalia: Unknown.

Variation: The number of setigerous punctures on the 3<sup>rd</sup> interval of the elytra seems to vary intraindividually.

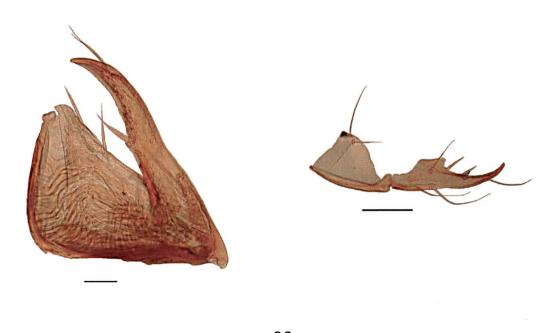
Diagnosis: A small medium-brown species with the knob on the clypeus developed as elevation and indistinct transverse depression behind, no humeral tooth, and a tubercle at the base of interval 3 and 4 of the elytra. Distinguished from all other species by the series of setigerous punctures on intervals 3, 5, and 7, and the eyes and genae which are projecting laterally.

Distribution: Known from Mindoro (Philippines) only.

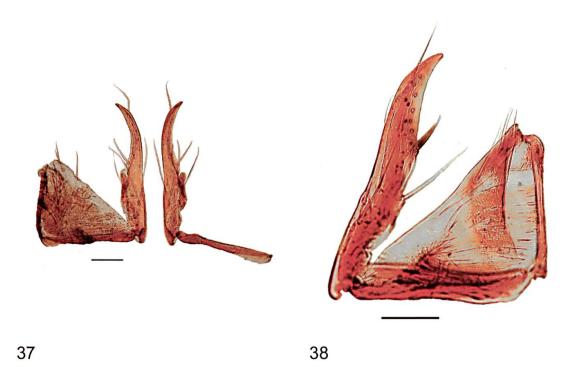
Etymology: The name refers to the numerous setae on the intervals 3, 5 and 7 of the elytra.



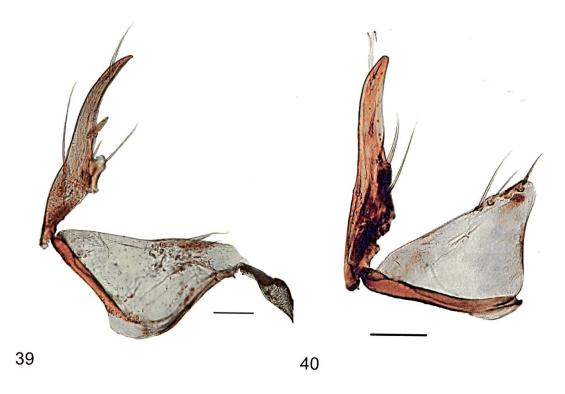
Figs 31–34: Orictites spp., coxostylus. 31: O. minotaur Andrewes, 1931, scale bar 0.5 mm; 32: O. costulipennis Bates, 1892, scale bar 0.1 mm. 33: O. mjoebergi Louwerens, 1964, scale bar 0.1 mm; 34: O. desuntsetosus sp. nov., scale bar 0.1 mm.



35 36



Figs 35–38: Orictites spp., coxostylus. 35: O. anteriortenuis sp. nov., scale bar 0.1 mm; 36: O. omnipunctatus sp. nov., scale bar 0.1 mm; 37: O. ampliosetosus sp. nov., scale bar 0.1 mm; 38: O. barclayi sp. nov., holotype, scale bar 0.1 mm.



Figs 39-40: Orictites spp., coxostylus. 39: O. tubercucollis sp. nov., scale bar 0.1 mm; 40: O. charleshuberi sp. nov., scale bar 0.1 mm.

# Orictites anteriortenuis sp. nov.

Type material: Holotype: 3 Labels: white, black printed, black framed: "23.7.1996 29 Schüle/ Stüben West Papua 700m Strasse von Nabire nach Mapia km 54 Sek.wald / Busch" (CBM-ZSM).

Remarks: In the holotype the digitation of the left front tibia is missing its apical tip.

Paratypes: 1  $\circlearrowleft$ , labels: white, black printed: "Iran Jaya, Nabire-Ilaga, km 54,750m X.1997 leg.M.Balke" (CBB); 1  $\circlearrowleft$ , "Bandar Baroe / Sumatra: Mjöberg / costulipennis Bates (petit ex.) H.E.Andrewes det. / 4122 E91 + / costulipennis H.W.Bates" (NHRS).

# **Description** (Figs 6, 24, 35; pp. 9, 24, 36)

Measurements (n = 3): Body length 4.42–5.1 mm ( $\bar{x}$  = 4.79 mm), width 1.21–1.28 mm ( $\bar{x}$  = 1.24 mm), ratio length/width of pronotum 1.01–1.05 ( $\bar{x}$  = 1.03), ratio length/width of elytra 1.99–2.09 ( $\bar{x}$  = 2.04).

Colour: Shiny. Black. Wings of clypeus and supraantennal plates brown and slightly transparent, antennae, labrum and mandibles brown, palpi yellowish brown, legs red-brown.

Head: A third narrower than pronotum. Clypeus with small rounded slightly projecting tooth laterally, distinctly separated from wings, anterior margin excised, convex between the two clypeal setae, margin of wings convex, slightly hollowed out, divided from middle part of clypeus by slight notches and carinae, divided from supraantennal plates by distinct obtusely angled notches and ridge, clypeus and wings reflexed margined, supraantennal plates vaulted over mid-eye level, widened laterally, smooth, with reflexed rounded margin, elongated as supraorbital carina. Frons separated from clypeus by indistinct transverse depression, sharp furrow between frons and frontal carina, frons moderately convex. Frons and clypeus with big punctures. Supraorbital setae located in broad furrows between supraorbital carina and frontal carina, the posterior one arising from tubercle. Eyes well developed, convex. Genae distinct, regularly rounded, not as high as eyes, enclosing eyes posteriorly by one fifth, forming obtuse angle at neck. Grooves for reception of antennae short, length 0.25 of eye diameter. Neck constriction marked as slightly impressed line, impunctate. Neck laterally covered with reticulation and densely scattered medium sized punctures. Labrum straight, 7-setose, ciliate laterally, with fine isodiametric reticulation. Mandibles robust, shorter than head, broadened at base, apical half elongated, acutely curved at apex, carinae of scrobe complete, angled, both mandibles obtusely angled towards base (opened position), both mandibles somewhat hollowed out dorsally. Maxilla distinctly curved, acutely hooked at apex. Apical maxillary palpomere slender, slightly securiform. Apical labial palpomere slender, straight, slightly longer than 2<sup>nd</sup> segment, 2<sup>nd</sup> segment bisetose. Ligula with one long seta; paraglossae slender. Ventral surface of neck with punctures and some transverse reticulation. Submentum and mentum distinctly separated; submentum with four bigger setigerous punctures; mentum at base bilaterally with rounded elevation, with a few longitudinal carinae, with fine and complete reflexed margin, lateral lobes projecting, nearly right-angled at tips, with a seta near base of each lobe, median tooth obtuse, triangle-like, bisetose, not projecting as far as lateral lobes. Antennae relatively long, reaching distinctly over two thirds of pronotum, scapus knee-like angled, with one seta dorsoapically, scapus and pedicellus with fine isodiametric reticulation, segments 5-10 transverse (L/W 0.8), antennomeres slightly flattened, with shiny areas on flattened parts, segments 4-11 densely pubescent, with few additional long setae.

Pronotum: Square, longer than wide, outline reminiscent of the frustum of a pyramid, sides straight, convex in anterior quarter for a short distance to anterior angles. Anterior margin indistinctly bisinuate. Reflexed lateral margin without any scars. Margin from posterior angle to base running as slightly sigmoid line. Lateral channel distinctly broadened between the two lateral setigerous punctures, with isodiametric reticulation and very few indistinct punctures. Anterior setigerous puncture located at the end of anterior quarter adjoining disc of pronotum, the posterior one located at level of posterior angle, removed from lateral channel by twice the diameter of pore. Anterior angle slightly projecting, rounded, formed by reflexed lateral margin, posterior angle developed as tooth, projecting laterally not as far as widest part of pronotum. Anterior transverse line narrow, sharp. Median line deep, broad, rugose, running up to level of anterior transverse line but not joining, smaller at base, just adjoining base. Surface irregularly covered with punctures of different size, basal impression indistinct. Basal channel moderately broad, deep. Flange raised keel-like (lateral view).

Elytra: Subcylindrical, sides slightly diverging, marginal channel broad, visible from above, with uninterrupted row of big setigerous punctures arising from broad tubercles and second row of punctures. Reflexed margin with a few indistinct scars in anterior third, margin bending with channel over rounded humerus up to 5<sup>th</sup> stria. Humerus without tooth. Basal tubercle distinct, with setigerous puncture, situated at declivity of first stria. Striae 1–4 free at base, all striae deep, indistinctly punctate, striae 1–2, 3–4, and 5–6 joined apically; striae 6 and 7 shortened at humerus. Striole distinct, interval between striole and sutura slightly raised. Intervals moderately convex, 3<sup>rd</sup> and4<sup>th</sup> slightly raised at base, both with tubercle at base, 8<sup>th</sup> carinate. All intervals shiny on disc. Interval 3 with five setigerous punctures adjoining stria 3.

Hind wings: Fully developed.

Ventral surface: Epipleuron shiny, covered with indistinct reticulation, submarginal furrow distinct. Proepisternum and episternum nearly smooth, prosternite smooth, keeled at middle, mesosternum smooth. Sternites with transverse to isodiametric reticulation, each with punctures at base, slightly denser laterally, 3<sup>rd</sup> to 5<sup>th</sup> with paralateral ambulatory setae at each side, ventral strigae distinct, sternite 6 smooth at middle, with two widely separated apical setae at each side.

Legs: Anterior tibia with strong digitation, with two big and one small lateral preapical denticles, apical spine curved distinctly towards ventral, with flat dorsal furrow, basal tarsomere elongated, as long as the following four together. Mesotibia with preapical spine, furnished with strong seta. All tarsomeres relatively broad.

Male genitalia (Fig. 24): Moderately long and sclerotized. Median lobe slender, moderately arcuate, not twisted, nearly straight preapically, apex stick-like. Endophallus with group of teeth apically. Parameres of about same length, both slender, distorted preapically, asetose.

Female genitalia. (Fig. 35): Coxostylus stout, of moderate length, distinctly curved to apex, with a pair of setae arising closely together preapically, with three longer nematiform setae basally, with two bigger acute ensiform setae at middle and a smaller one towards base.

Variation: The basal impression of the pronotum varies in distinctness. Striae 1 and 2 indistinctly joined at apex at one side in a paratype.

Diagnosis: A medium-sized black species with the knob on the clypeus developed as elevation and indistinct transverse depression behind, no humeral tooth, and tubercles at the base of intervals 3 and 4 of the elytra. Distinguished from all other species by the presence of five setigerous punctures on interval 3 of the elytra, and the neck constriction, developed as slightly impressed impunctate line.

Distribution. Known from West of Papua collected at an altitude of 700 and 750 m.

Etymology: The name refers to the width of the pronotum decreasing anteriorly.

# Orictites omnipunctatus sp. nov.

Type material: Holotype: ♂, labels: white, black printed: "PHILIPPINES, 150 m Palawan, PORT BARTON 14.–18.Dec 1990, Bolm lgt." (NHMB).

Paratypes: 4 specimens, same data as holotype (NHMB/CBB); 1  $\circlearrowleft$ , 1  $\circlearrowleft$ , 3 specimens. "SULAWESI: Kotamobagu Metalibaru,  $\rightarrow$ Torosik,Gn. Tongara, 10.XII.1999 700m, and 6.XII.1999, 1100–1450m, leg.A.Riedel" (SMNS/CBB); 3  $\circlearrowleft$ , "SULAWESI, TENGAH: Nr.Morowali, Ranu River Area. 27.i.–20.iv.1980 / M.J.D.Brendell, B.M.1980–280 / Under bark of fallen tree" (BMNH/CBB).

### **Description** (Figs 7, 25, 36; pp. 9, 24, 36)

Measurements (n = 10): Body length 3.45–3.95 mm ( $\bar{x}$ = 3.7 mm); width 0.9-1.03 ( $\bar{x}$  = 0.95 mm); ration length/width of pronotum 1.03–1.11 ( $\bar{x}$  = 1.07); ratio length/width of elytra 2.0–2.09 ( $\bar{x}$  = 2.05).

Colour: Shiny. Red-brown. Elytra red-brown, pronotum darker. Wings of clypeus and supraantennal plates transparent red-brown, antennae, mouthparts, and legs yellowish brown.

Head: A fifth narrower than pronotum. Clypeus limited laterally by small rounded tooth, anterior margin excised, convex between the two clypeal setae, smooth but covered with medium sized punctures, wings obtuse-angular, margin of wings convex, slightly hollowed out, divided from middle part of clypeus by slight notches and carinae, divided from supraantennal plates by distinct obtusely angled notches, clypeus and wings reflexed margined. supraantennal plates distinctly vaulted up to mid-eye level, smooth, reflexed margin rounded, elongated as supraorbital carina, frons not separated from clypeus, thought indistinct flat depression visible laterally, supraorbital plates elongated posteriorly as obtuse diverging carina up to neck constriction, separated from supraorbital carinae by broad furrow and from frons by sharp diverging furrow. Frons distinctly convex without median impression, covered irregularly with punctures of large and medium size. Supraorbital setae located in broad supraorbital furrows, the posterior one arising from tubercle. Eyes of moderate size, flattened but still convex, genae distinct, regularly rounded, as high as and shorter than eyes, enclosing eyes posteriorly by one sixth, forming obtuse angle at neck. Grooves for reception of antennae short, length about 0.4 of eye diameter. Neck constriction nearly invisible at middle, laterally with densely scattered medium sized punctures. Labrum slightly advanced at middle, 7-setose, ciliate laterally, with fine isodiametric reticulation (120x). Mandibles half as long as head, flattened, stout, broadened at base, gently curved at apex, carinae of scrobe complete, both mandibles rounded towards base, right one ventrally with small tooth at middle. Both mandibles somewhat hollowed out dorsally, both of them with small but distinct tooth near base (visible in completely opened position). Maxilla distinctly curved, acutely hooked at apex. Apical maxillary palpomere slender, slightly securiform. Apical labial palpomere slender, straight, slightly longer than 2<sup>nd</sup> segment, 2<sup>nd</sup> segment bisetose. Ligula with one long seta; paraglossae slender. Ventral surface of neck with few punctures and reticulation, Submentum and mentum distinctly separated; submentum with four, about equally spaced setigerous punctures; mentum at base bilaterally with rounded elevation, with some longitudinal carinae, with fine and complete reflexed margin, lateral lobes projecting, nearly right-angled at tips, with a seta near base of each lobe, median tooth forming obtuse triangle, bisetose, not projecting as far as lateral lobes. Antennae short, just reaching over middle of pronotum, scapus knee-like angled, with one seta dorso-apically, scapus and pedicellus nearly smooth, segments 5-10 transverse (L/W 0.8), antennomeres slightly flattened, with shiny areas on flattened parts, segments 4-11 densely pubescent, with a few additional long setae.

Pronotum: Square, distinctly longer than wide, sides straight, gently rounded before posterior angle. Anterior margin straight. Reflexed lateral margin smooth, from posterior angle to base running as straight line. Lateral channel broadened between the two lateral setigerous punctures, smooth, with very few fine punctures. Anterior setigerous puncture located at the end of anterior quarter adjoining convexity of pronotum, the posterior one located at level of posterior angle, removed from lateral channel by twice diameter of pore. Anterior angles not projecting, nearly right-angled in dorsal view, formed by reflexed lateral margin, posterior angle developed as distinct tooth. Anterior transverse line formed by distinct partly connected punctures. Median line deep, broad, surpassing level of anterior transverse line without joining, smaller at base, joining base. Whole surface irregularly covered with medium and big sized punctures. No basal impression, no reticulation at base. Basal channel broad, deep. Flange raised keel-like (lateral view).

Elytra: Subcylindrical, sides slightly diverging, marginal channel broad, completely visible from above in anterior two thirds, with uninterrupted row of big setigerous punctures arising from broad tubercles, with additional row of punctures laterally. Reflexed margin with a few fine, indistinct scars posterior to humerus, channel slightly thickened at humerus, margin bending with channel over rounded humerus up to 5<sup>th</sup> stria. No tooth at humerus. Basal tubercle distinct, with setigerous puncture, situated at declivity of first stria. Striae 1–4 free at base, all striae deep, broad, punctate, striae 1 and 7 joining at apex, 2 ending free, 3 and 4, 5 and 6 joined apically; striae 6 and 7 shortened at humerus. Striole short but distinct, interval between striole and sutura costiform, raised. All intervals conspicuously convex, thought costate, 2<sup>nd</sup> to4<sup>th</sup> slightly broader at base, 3<sup>rd</sup> and4<sup>th</sup> with small tubercle at base, 6<sup>th</sup> costate, 7<sup>th</sup> and 8<sup>th</sup> completely carinae in total. All intervals shiny on disc. Interval 3 with four to seven setigerous punctures (see Tab. 1) adjoining stria 3.

Hind wings: Fully developed.

Ventral surface: Proepipleuron small, submarginal furrow distinct, engraved. Epipleuron broadened and with big punctures in basal quarter. Proepisternum somewhat swollen at level of posterior setigerous puncture, proepisternum and episternum covered densely and irregularly with big punctures, prosternite smooth at middle, with confluent double keel at middle, mesosternum smooth at middle. Sternites with big and medium-sized punctures, 3<sup>rd</sup> to 5<sup>th</sup> with paralateral ambulatory setae at each side, ventral strigae distinct; sternite 6 with big punctures at base, becoming finer at middle, minute towards apex, with two widely separated apical setae at each side, the inner one arising from tooth of margin.

Legs: Anterior tibia with strong digitation, with two big lateral preapical denticles, third one small, apical spine distinctly curved ventral and lateral, no dorsal furrow, basal tarsomere as long as the following three together. Mesotibia with apical spine, furnished with strong seta. All tarsomeres relatively broad.

Male genitalia (Fig. 25): Median lobe slender, more distinctly arcuate at middle, oroficium large, endophallus with some small teeth, apex spatulate. Both parameres slender, dorsal one with seta at apex.

Female genitalia (Fig. 36): Coxostylus broad, slightly curved at apex, with one apical seta. Ensiform seta at middle short, broad. With five longer nematiform setae in middle and basal part.

Variation: For variation of the setigerous punctures on the 3<sup>rd</sup> interval of the elytra see Tab. 1.

Diagnosis: A small pale-brown species with the knob on the clypeus developed as elevation and indistinct flat transverse depression laterally, no humeral tooth, and with tubercles at the base of interval 3 and 4 of the elytra. Distinguished from all other species by the series of setigerous punctures on interval 3 of the elytra, the numerous and dense punctures on many parts of the body, and the coxostylus with one apical seta.

Distribution: Known from Sulawesi and Palawan. The altitude of one collection spot is 150 m, of another one 700 m. One set of specimens was collected under bark of a fallen tree.

Etymology: The name refers to the numerous punctures on many parts of the body.

Tab. 1: Orictites omnipunctatus sp. nov.: Variation of the number of setigerous punctures on the 3<sup>rd</sup> interval of the right/left elytra.

n setae on the 3 <sup>rd</sup> interval of the left/ right elytra	No. of specimens		
	N-Sulawesi	Central Sulawesi	Palawan
4/4		8	2
4/5		1	2
5/5		1	1
5/6	2	1	
6/6	1		
6/7	2		

### Orictites ampliosetosus sp. nov.

Type material: Holotype: ♂, labels: white, black printed: "MALAYSIA: Pahang Cameron Highlands Umg. Tanah Rata, 1600 m 27.–31.7.1993 lg. Schuh" (NHMW).

Paratypes: 1 ♂, Labels: white, black printed: "Malaysia, Cameron Highl. Gn. Beremban 1.–3.4.1990 leg. Riedel" (CBM-ZSM). 1 ♀: "W. Malaysia: Pahang # 23 Cameron Highls. 1500m Tanah Rata, 22–28.IV.93 Löbl&Calama, light trap" (MHNG).

Remark: In one of the paratypes, parts of the antennae are missing.

# **Description** (Figs 8, 26, 37; pp. 9, 24, 36)

Measurements (n = 3): Body length 5.9–7.1 mm ( $\bar{x}$  = 6.64 mm), width 1.6–1.85 mm ( $\bar{x}$  = 1.75 mm), ratio length/width of pronotum 0.87–1.01 ( $\bar{x}$  = 0.96), ratio length/width of elytra 1.95–2.07 ( $\bar{x}$  = 1.99).

Colour: Shiny. Black. Wings of clypeus and supraantennal plates slightly transparent brown. Labrum black. Antennae and legs dark-brown, palpi red brown.

Head: A sixth narrower than pronotum. Clypeus with small rounded tooth laterally, anterior margin slightly excised, with blunt raised knob in between the two clypeal setae, anteriorly smooth, posterior part of knob covered with big punctures, margin of wings convex, slightly hollowed out, divided from middle part of clypeus by slight notches and carinae, divided from supraantennal plates by distinct obtusely angled notches and ridge, clypeus and wings reflexed margined, supraantennal plates vaulted up to mid-eye level, smooth, with reflexed rounded margin, elongated as supraorbital carina, frons separated from clypeus by flat transverse depression with rugae, with costate, nearly parallel running frontal carinae at each side posteriorly, with broad furrow between frontal carina and supraorbital carina, sharp furrow between frons and frontal carina, frons moderately convex, smooth. Supraorbital setae located in broad furrows between supraorbital carina and frontal carina, the posterior one arising from tubercle. Eyes relatively small, moderately convex, genae enlarged, rounded, not as high as and shorter than eves. enclosing eyes posteriorly, forming obtuse angle at neck. Grooves for reception of antennae short, length 0.4 of eye diameter. Neck constriction marked as distinct step, with bigger punctures partly connected, neck laterally covered with reticulation and densely scattered medium sized punctures. Labrum straight, 7-setose, ciliate laterally, with isodiametric reticulation. Mandibles

robust, shorter than head, flattened, stout, broadened at base, acutely curved at apex, carinae of scrobe complete, both mandibles obtusely angled towards base (opened position), both mandibles somewhat hollowed out dorsally. Maxilla distinctly curved, acutely hooked at apex. Apical maxillary palpomere slender, slightly securiform. Apical labial palpomere slender, straight, slightly longer than 2<sup>nd</sup> segment, 2<sup>nd</sup> segment bisetose. Ligula with one long seta; paraglossae slender. Ventral surface of neck with a few punctures and reticulation. Submentum and mentum distinctly separated; submentum with four, about equally spaced setigerous punctures; mentum at base bilaterally with rounded elevation, with some longitudinal carinae, with fine reflexed margin, lateral lobes projecting, nearly right-angled at tips, with a seta near base of each lobe, median tooth forming obtuse triangle, bisetose, not projecting as far as lateral lobes. Antennae relatively long, reaching up to posterior third of pronotum, scapus knee-like angled, with one seta dorsoapically, scapus and pedicellus with fine reticulation, segments 5-10 elongate (L/W 1.5), antennomeres cylindrical, with shiny areas, segments 4-11 densely pubescent, with a few additional long setae.

Pronotum: Square, slightly wider than long, sides straight, rounded at anterior angles. Anterior margin indistinctly bisinuate. Reflexed lateral margin smooth, convex for a short distance before posterior angles. Margin from posterior angle to base running as straight line. Lateral channel conspicuously broad between the two lateral setigerous punctures, with isodiametric reticulation and very few irregular punctures. Anterior setigerous puncture located at the end of anterior quarter adjoining convexity of pronotum, the posterior one located at level of posterior angle, removed from lateral channel by diameter of pore. Anterior angles distinctly projecting, rounded, formed by reflexed lateral margin, posterior angle developed as sharp distinct tooth, projecting laterally. Anterior transverse line narrow, formed by distinct, partly connected punctures. Median line deep and conspicuously broad, nearly smooth, surpassing anterior transverse line without joining, fine at base, not adjoining base. Surface bilaterally with two irregularly longitudinal groups of punctures with slight basal impression. Basal channel broad, deep. Flange raised keellike (lateral view).

Elytra: Subcylindrical, sides slightly diverging, marginal channel broad, visible from above, with uninterrupted row of big setigerous punctures arising from broad tubercles, with additional row of punctures laterally. Reflexed margin with some scars in anterior third, margin slightly thickened at humerus, bending with channel over rounded humerus up to 5<sup>th</sup> stria. No tooth at humerus. Basal tubercle distinct, with setigerous puncture, situated at declivity of first stria. Striae 1–4 free at base, all striae deep, distinctly punctate,

striae 1–2, 3–4 and 5–6 joined apically; striae 6 and 7 shortened at humerus. Striole distinct, interval between striole and sutura raised. All intervals conspicuously convex, thought costate, 3<sup>rd</sup> broader and distinctly raised at base, with tubercle at base, 8<sup>th</sup> carinate. All intervals shiny on disc. Interval 3 with 6–7 setigerous punctures adjoining stria 3.

Hind wings: Fully developed.

Ventral surface: Epipleuron shiny, covered with big scattered punctures and indistinct reticulation, submarginal furrow distinct. Proepisternum and episternum nearly smooth, prosternite smooth, keeled at middle, mesosternum smooth. Sternites with transverse to isodiametric reticulation, each with punctures at base, denser laterally, 3<sup>rd</sup> to 5<sup>th</sup> with paralateral ambulatory setae at each side, ventral strigae distinct, sternite 6 smooth at middle, with two widely separated apical setae at each side.

Legs: Anterior tibia with strong digitation, with two big and one small lateral preapical denticles, apical spine curved distinctly towards ventral, no dorsal furrow, smooth, basal tarsomere elongated, as long as the following four together. Mesotibia with preapical spine, furnished with strong seta. All tarsomeres relatively broad.

Male genitalia (Fig. 26): Relatively short, moderately sclerotized. Median lobe broad, moderately arcuate, moderately distorted. Endophallus strongly folded, teeth not visible. Parameres of about same length, both slender, slightly twisted, asetose.

Female genitalia (Fig. 37): Coxostylus slightly sigmoid, dorso-ventrally moderately depressed, gently curved to apex, with one seta at apex, with one short but robust ensiform seta, with six nematiform setae medially.

Variation: Of the three specimens investigated one exhibits six setigerous punctures on the 3<sup>rd</sup> interval of each elytra, one seven on each elytra, and one six on one side and seven on the other side.

Diagnosis: A medium-sized black species with distinct knob on the clypeus and distinct flat transverse depression behind, no humeral tooth, and a tubercle at the base of interval 3 of the elytra. Distinguished from all other species by the presence of 6–7 setigerous punctures on interval 3, and the conspicuously broad median line of the pronotum not adjoining base.

Distribution: The species is found in the Cameron Highlands of Malaysia and the material was collected at an altitude of 1200 m.

Etymology: The name refers to the additional setae on the 3<sup>rd</sup> interval of the elytra, which differs from the usual pattern of four setae.

# Orictites barclayi sp. nov.

Type material: Holotype: ♀, labels: beige, black printed and handwritten in black ink: "MALAYA SELANGOR, F.M.S. Gombak Valley Gd. 11 15 1921" / backside printed: "H.M.Pendlebury Coll: F.M.S.Museums." / beige, handwritten in black ink and printed: "Clivina costulipennis Bates H.E.Andrewes det." / small, beige, black printed: "346" / white, black printed: "Ex F.M.S.Museum: B.M.1955–354." (BMNH).

Remark: The specimen was pinned centrally in between the two elytra, so the elytra are opened. It has been mounted on a paper card.

### **Description** (Figs 9, 38; pp. 10, 36)

Measurements: Body length 4.8 mm, width 1,4 mm; ratio length/width of pronotum 1.03; ratio length/width of elytra 1.93.

Colour: Shiny. Black. Wings of clypeus and supraantennal plates slightly transparent brown. Labrum black. Antennae and legs dark-brown, palpi red brown.

Head: A fifth narrower than pronotum. Clypeus with small rounded tooth laterally, anterior margin excised, with blunt raised knob in between the two clypeal setae, anteriorly smooth, posterior part of knob covered with big punctures, margin of wings convex, slightly hollowed out, divided from middle part of clypeus by slight notches and carinae, divided from supraantennal plates by distinct obtusely angled notches and ridge, clypeus and wings reflexed margined, supraantennal plates vaulted up to mid-eye level, smooth, with reflexed rounded margin, elongated as supraorbital carina, frons separated from clypeus by flat transverse depression with punctures, with costate, nearly parallel running frontal carinae at each side posteriorly, with broad furrow between frontal carina and supraorbital carina, sharp furrow between frons and frontal carina, frons moderately convex, smooth. Supraorbital setae located in broad furrows between supraorbital carina and frontal carina, the posterior one arising from tubercle. Eyes subglobose, genae indistinct, enclosing eyes posteriorly, separated from eye by small ridge, forming obtuse angle at neck. Grooves for reception of antennae short, length 0.4 of eye diameter. Neck constriction marked by band of big punctures, neck laterally covered with reticulation and densely scattered medium sized punctures. Labrum straight, 7-setose, ciliate laterally, with isodiametric reticulation. Mandibles robust, shorter than head, flattened, stout, broadened at base, acutely curved at apex, carinae of scrobe complete, both mandibles obtusely angled towards

base (opened position), both mandibles somewhat hollowed out dorsally. Maxilla distinctly curved, acutely hooked at apex. Apical maxillary palpomere slender, slightly securiform. Apical labial palpomere slender, straight, slightly longer than 2<sup>nd</sup> segment, 2<sup>nd</sup> segment bisetose. Ligula with one long seta; paraglossae slender. Ventral surface of neck with punctures and reticulation. Submentum and mentum distinctly separated; submentum with four, about equally spaced setigerous punctures; mentum at base bilaterally with rounded elevation, with some longitudinal carinae, with fine and complete reflexed margin, lateral lobes projecting, nearly right-angled at tips, with a seta near base of each lobe, median tooth forming broad obtuse triangle, bisetose, not projecting as far as lateral lobes. Antennae of moderate length, reaching up to middle of pronotum, scapus knee-like angled, with one seta dorsoapically, scapus and pedicellus with fine reticulation, segments 5–10 submoniliform (L/W 0.9), antennomeres somewhat flattened, with shiny areas, segments 4–11 densely pubescent, with a few additional long setae.

Pronotum: Square, slightly longer than wide, sides slightly convex. Anterior margin straight. Reflexed lateral margin smooth. Margin from posterior angle to base running as straight line. Lateral channel conspicuously broad between the two lateral setigerous punctures, with isodiametric reticulation and very few irregular punctures. Anterior setigerous puncture located at the end of anterior quarter adjoining convexity of pronotum, the posterior one located at level of posterior angle, removed from lateral channel by diameter of pore. Anterior angle indistinctly projecting, formed by reflexed lateral margin, posterior angle developed as sharp distinct tooth, projecting laterally. Anterior transverse line narrow, formed by distinct, partly connected punctures. Median line deep and moderately narrow, with some punctures, surpassing anterior transverse line without joining, fine at base, adjoining base. Surface bilaterally with two irregularly longitudinal groups of punctures with distinct basal impression. Basal channel broad, deep. Flange raised keel-like (lateral view).

Elytra: Subcylindrical, sides slightly diverging, marginal channel broad, visible from above, with uninterrupted row of big setigerous punctures arising from broad tubercles, with additional row of punctures laterally. Reflexed margin with some scars in anterior third, margin slightly thickened at humerus, bending with channel over rounded humerus up to 5<sup>th</sup> stria. No tooth at humerus. Basal tubercle distinct, with setigerous puncture, situated at declivity of 1<sup>st</sup> stria. Striae 1–4 free at base, all striae deep, distinctly punctate, striae 1–2, 3–4 and 5–6 joined apically; striae 6 and 7 shortened at humerus. Striole distinct, interval between striole and sutura raised. All intervals conspicuously convex, thought costate, 3<sup>rd</sup> broader and distinctly raised at base, with

tubercle at base, 8<sup>th</sup> carinate. All intervals shiny on disc. Interval 3 with seven setigerous punctures adjoining stria 3.

Hind wings: Fully developed.

Ventral surface: Epipleuron shiny, covered with big scattered punctures and indistinct reticulation, submarginal furrow distinct. Proepisternum and episternum nearly smooth, prosternite smooth, keeled at middle, mesosternum smooth. Sternites with transverse to isodiametric reticulation, each with big punctures at base, denser laterally, 3<sup>rd</sup> to 5<sup>th</sup> with paralateral ambulatory setae at each side, ventral strigae distinct, sternite 6 smooth at middle, with two widely separated apical setae at each side.

Legs: Anterior tibia with strong digitation, with two big and one small lateral preapical denticles, apical spine curved distinctly towards ventral, no dorsal furrow, reticulated, basal tarsomere elongated, as long as the following four together. Mesotibia with preapical spine, furnished with strong seta. All tarsomeres relatively broad.

Male genitalia: Unknown.

Female genitalia (Fig. 38): Coxostylus slender, slightly sigmoid, gently curved to apex, with short obtuse knob-like tooth dorsally at base, with two setae apically tight together, with one short robust ensiform seta, with five nematiforme setae. Ramus short.

Variation: No bilateral variation observed.

Diagnosis: A medium-sized black species with distinct knob on the clypeus and distinct flat transverse depression behind, no humeral tooth, and a tubercle at the base of interval 3 of the elytra. Distinguished from all other species by the presence of seven setigerous punctures on interval 3, and the moderately narrow median line of the pronotum joining base.

Distribution: Known from West of Malaysia.

Etymology. The name is a patronym of Maxwell V. L. Barclay (BMNH) who supported my work over the last time significantly.

# Orictites barclayi minorfrater ssp. nov.

Type material: Holotype: ♂, labels: white, black printed: "W SUMATRA prov.: Kerinci Seblat N.P.: 24km NE Tapan: MUARA SAKO→ E env.: 2°05′S 101°15′E: 400–550m: Dembický leg.: 4.–18.iii.2003" / "Collection Naturhistorisches Museum Basel" (NHMB).

### **Description** (Figs 11, 28; pp. 10, 25)

Measurements: Body length 4.25 mm, width 1.09 mm; ratio length/width of pronotum 1.04; ratio length/width of elytra 1.93.

The subspecies differs from the nominotypical subspecies in the following characters:

Colour: Intervals of elytra with reddish-brown stripes at middle.

Head: Frontal carinae convex, with medium sized puncture on the frons. Labrum anteriorly slightly advanced. Punctures of neck constriction bigger than in the nominotypical subspecies. Antennae with segments 5–10 slightly transverse (L/W 0.76).

Pronotum: Median line not quite reaching level of anterior transverse line, indistinctly joining base. Surface with irregularly scattered punctures of medium size.

Elytra: Intervals 3 and 4 at base with tubercle. Interval 3 with six setigerous punctures.

Legs: Anterior tibia shiny.

Male genitalia (Fig. 28): Moderately long, slightly sclerotized. Median lobe slender, moderately and regularly arcuate, spatula stick-like at apex. Endophallus with some minute teeth. Parameres of about same length, both slender, dorsal one distinctly twisted, both of them with two setae apically (in the dorsal one, best visible at 400x).

Female genitalia: Unknown.

Diagnosis: Smaller body than the nominotypical subspecies and distinguished by the six setigerous punctures on the 3<sup>rd</sup> interval of the elytra and tubercles at base of intervals 3 and 4, and the puncture in the middle of the frons.

Distribution: Known from the Kerinci Seblat Natonal Park in West Sumatra.

Remark: Whether this subspecies deserves species status should be revaluated when male and female genitalia of both subspecies are at hand and more material is available.

Etymology. By contrast to the nominotypical subspecies, the specimen has a smaller body size and is a male serving for the derivation of the name, which means "little brother".

# Orictites brancuccii sp. nov.

Type material: Holotype: ♂, labels: white, black printed: "LAOS-NE, Xieng Khouang prov.,~ 19°37–8'N 103°20'E, Phonsavan (30 km NE): Phou Sane

Mt.,~1400-1500 m, 10.-30.v.2009, Z. Kraus leg." / "NHMB Basel, NMPC Prague Laos 2009 Expedition: M. Brancucci, M. Geiser, Z. Kraus, D. Hauck, V. Kubáň" / "COLL: NHM Basel" (NHMB).

Paratypes: 1 ♂: "LAOS, Salavan prov., Xe Xap NPA, 15km NE Ta-Oy, BAN DOUB env., 400–1000 m, 16°8′N / 106°40–43′E, 25.–31. V. 2012 / NHMB Basel Laos 2012 Expedition, M. Brancucci, M. Geiser, K. Phanthavong & S. Xayalath / COLL: NHM Basel" (CBB); 1 ♂: "LAOS centr., Khammouan prov. 4–16.XI., 25–30.XI. 2000 BAN KHOUN NGEUN env. N18°07′, E 104°29′ alt. 250m E. Jendek & P. Pacholátko leg." (CBP).

Remarks: In the paratype some antennomeres are missing as well as two tarsomeres of the right hind leg.

# **Description** (Figs 10, 27; pp. 10, 25)

Measurements (n = 3): Body length 7–7.4 mm ( $\bar{x}$  = 7.25 mm), width 2.18–2.19 mm ( $\bar{x}$  = 2.18 mm); ratio length/width of pronotum 0.88–0.90 ( $\bar{x}$  = 0.89); ratio length/width of elytra 1.7–1.75 ( $\bar{x}$  = 1.73).

Colour: Shiny. Black. Antennae, mouthparts and legs brown.

Head: A quarter narrower than pronotum. Clypeus fused with wings, clypeal wings indistinctly projecting, anterior margin straight, with raised broad transverse knob between the two clypeal setae, margin of wings obtusely angled, hollowed out, divided from middle part of clypeus by carinae, divided from supraantennal plates by distinct nearly right-angled notches and ridge, clypeus and wings reflexed margined, supraantennal plates vaulted up to mid-eye level, smooth, with reflexed rounded margin, interrupted from supraorbital carina. Frons separated from clypeus by transverse broad furrow, with median impression on frons (indistinct in one paratype), broad furrow between frons and frontal carina, frons moderately convex, smooth. Clypeus with transverse rugae and a few small punctures. Supraorbital setae located in broad furrows between supraorbital carina and frontal carina, the posterior one arising from tubercle at posterior genae level. Eyes flattened but still convex. Genae distinct, gently rounded, as long as eyes, not as high as eyes, forming obtuse angle at neck. Grooves for reception of antennae of moderate length, 0.5 of eye diameter. Neck constriction distinct, with band of punctures. Neck laterally covered with small punctures and rugae. Labrum advanced at middle, 7-setose, ciliate laterally, nearly smooth in anterior part, with isodiametric reticulation in posterior part. Mandibles robust, length half of head, broadened at base, acutely curved at apex, carinae of scrobe complete, both mandibles rounded towards base. Maxilla distinctly curved, acutely hooked at apex. Apical maxillary palpomere slender, indistinctly securiform. Apical labial palpomere slender, straight, slightly longer than 2<sup>nd</sup> segment, 2<sup>nd</sup> segment bisetose. Ligula with one long seta; paraglossae slender. Ventral surface of neck covered with rugae and a few punctures. Submentum and mentum distinctly separated; submentum with four bigger, about equally spaced setigerous punctures; mentum at base bilaterally with broad and rounded tubercle, with some longitudinal carinae, with fine and complete reflexed margin, lateral lobes projecting, nearly right-angled at tips, with a seta near base of each lobe, median tooth forming broad obtuse triangle, bisetose, not projecting as far as lateral lobes. Antennae relatively long, reaching up to posterior third of pronotum, scapus knee-like angled, with one seta dorsoapically, scapus and pedicellus with fine longitudinal reticulation, segments 5–10 elongate (L/W 1.55), antennomeres cylindriform, segments 4–11 densely pubescent, with a few additional long setae.

Pronotum: Square, distinctly wider than long, outline with transverse appearance, disc distinctly convex, reflexed margin convex from anterior to posterior angles. Disc distinctly convex. Anterior margin bisinuate. Reflexed lateral margin with traces of scars (120x). Margin from posterior angle to base running as slightly convex line. Lateral channel distinctly broadened between the two lateral setigerous punctures, with isodiametric reticulation. Anterior setigerous puncture located in anterior quarter adjoining convexity of pronotum, the posterior one located at level of posterior angle, removed from lateral channel by diameter of pore. Anterior angle distinctly projecting, rounded, formed by reflexed lateral margin, posterior angle developed as tooth, projecting antero-laterally. Anterior transverse line indistinct, formed by minute punctures. Median line deep, moderately broad, rugose, reaching up to anterior transverse line but not joining, not adjoining base. Surface with small punctures and basally with transverse rugae, basal impression indistinct. Basal channel short, moderately broad. Flange raised keel-like (lateral view).

Elytra: Subcylindrical, sides slightly diverging, marginal channel broad, visible from above, with uninterrupted row of big setigerous punctures arising from broad tubercles and a second row of minute punctures. Reflexed margin slightly crenulated posterior to humerus. Margin bending with channel over rounded humerus up to 5<sup>th</sup> stria. Humerus with distinct tooth. Basal tubercle distinct, with setigerous puncture, situated at declivity of 1<sup>st</sup> stria. Striae 1–4 free at base, all striae deep, nearly impunctate, striae 1 and 2 ending free at apex, 3–4, and 5–6 joined apically; striae 6 and 7 shortened at humerus. Striole distinct. Intervals moderately convex, 3<sup>rd</sup> and4<sup>th</sup> moderately raised at base, both with tubercle at base, 7<sup>th</sup> and 8<sup>th</sup> carinate. All intervals shiny on disc. Interval 3 with four setigerous punctures adjoining stria 3.

Hind wings: Fully developed.

Ventral surface: Epipleuron shiny, with big punctures, submarginal furrow distinct. Proepisternum and episternum with punctures, keeled at middle like an inverted V, mesosternum smooth. Sternites with punctures, 3<sup>rd</sup> to 5<sup>th</sup> with paralateral ambulatory setae at each side, ventral strigae distinct, with transverse reticulation, sternite 6 smooth at middle, with two widely separated apical setae at each side.

Legs: Anterior tibia with strong digitation, with two big and one small lateral preapical denticles, apical spine curved distinctly towards ventral, with indistinct dorsal furrow, with minute punctures, basal tarsomere elongated, longer than the following four together. Mesotibia with preapical spine nearly at apex of tibia, furnished with strong seta. All tarsomeres relatively broad.

Male genitalia (Fig. 27): Moderately long, distinctly sclerotized. Median lobe moderately arcuate, apex not distorted, without spatula. Endophallus with numerous blunt teeth. Parameres of about same length, both slender, longer than median lobe, ventral one distinctly twisted, asetose.

Female genitalia: Unknown.

Variation: In the holotype the median impression on the clypeus is deeply impressed, in the paratype it is indistinct.

Diagnosis: A big massive black species with transverse knob on the clypeus and transverse broad furrow, with distinct, moderately sharp humeral tooth, tubercles at the base of intervals 3 and 4 of the elytra, and four setigerous punctures on interval 3. Moreover, the anterior transverse line is indistinctly developed. Distinguished from all other species by the transverse and conspicuously convex pronotum.

Distribution: Known from Laos, collected at an altitude of 400–1500 metres.

Etymology: The species is dedicated to the memory of Dr. Michel Brancucci, Curator Coleoptera and Head of the Department of Entomology (NHMB) who passed away in 2012.

# Orictites tubercucollis sp. nov.

Type material: Holotype: ♂, labels: white, black printed: "Thailand 14.8.1995 (Chiang Mai) Doi Suthep Pui NP R. Grimm" (CBM-ZSM).

Remark: In the holotype some antennomeres are missing at one side.

Paratypes: 1  $\triangleleft$ , "Thailand, NWW Chiang Mai, Doi Suthep. 1200 m, 7.–10.5.2004, R. Grimm" (CBB); 1  $\triangleleft$ , "Sarawak Kuching.Bako NP 27.–29.3.1990

leg.A.Riedel" (CBM-ZSM); 1 specimen: "INDONESIA; Borneo Kalimantan Tengah Busang / Rekut confl. 0°03'S, 113°59'E / Brendell / Mendel August 2001 General collecting / 2001-191 'Barito Ulu 2001' BMNH(E)"; 3 specimens: "LAOS-NE, Xieng Khouang prov.,~19°37-8'N 103°20'E, Phonsavan (30km NE): Phou Sane Mt.,~1400-1500m, 10.-30.v.2009, Z. Krauss leg. / NHMB Basel Prague Laos 2009 Expedition: M. Brancucci, M. Geiser, Z. Krauss, D. Hauck, V. Kubáň (NHMB, CBB)"; 2 specimens: "LAOS-NE, Xieng Khouang prov.,~19°26′N/103°13′E, Phonsavan town to Phou Padaeng, 1100–1200m, 30.-31.v.2009, M. Geiser leg. / NHMB Basel, NMPC Prague Laos 2009 Expedition: M. Brancucci, M. Geiser, Z. Krauss, D. Hauck, V. Kubáň (NHMB, CBB)"; 1 &, 1 specimen, "LAOS-NE, Xieng Khouang prov.,~19°37-8'N 103°20´E, 30km NE Phonsavan: Ban Na Lam → Phou Sane Mt.,1300–1500m, 10.-30.v.2009, M. Brancucci leg. / NHMB Basel NMPC Prague Laos 2009 Expedition: M. Brancucci, M. Geiser, Z. Krauss, D. Hauck, V. Kubáň (NHMB)"; 1 ♀, "Tonkin Hanoi Feb. 1917 R.V.de Salvaua. / Clivina sp. / Brit. Mus. 1921-89 (BMNH)". 1 specimen: "Coll. I.R.Sc.N.B. BORNEO :ca 420km NEE Pontianak, Ca. 30km NNE Putussibau, 1°08´N, 113°00´E, 23-28-XII-2008 I.G.31.412. Leg A.Napolov" (IRSNB).

# **Description** (Figs 12, 29, 39; pp. 10, 25, 37)

Measurements (n = 9): Body length 5.3–6.52 mm, ( $\bar{x}$  = 5.85 mm), width 1.42–1.9 mm ( $\bar{x}$  = 1.67 mm), ratio length/width of pronotum 0.93–1.01 ( $\bar{x}$  = 0.97), ratio length/width of elytra 1.74–1.93 ( $\bar{x}$  = 1.88).

Colour: Shiny. Black to dark-brown. Wings of clypeus and supraantennal plates dark-brown, slightly transparent in one paratype, antennae and labrum dark-brown, palpi yellowish brown, legs dark red-brown.

Head: A fifth narrower than pronotum. Clypeus with small rounded tooth laterally, nearly fused with wings, anterior margin slightly excised, with blunt raised knob between the two clypeal setae, anteriorly with some rugae, posterior part of knob covered with big punctures and rugae, margin of wings convex, slightly hollowed out, divided from middle part of clypeus by slight notches and carinae, divided from supraantennal plates by distinct obtusely angled notches and ridge, clypeus and wings reflexed margined, supraantennal plates vaulted up to mid-eye level, smooth, with reflexed rounded margin, elongated as supraorbital carina, frons separated from clypeus by flat transverse depression and transverse rugae, with costate, nearly parallel running frontal carinae at each side posteriorly, with broad furrow between frontal carina and supraorbital carina, sharp furrow between frons and frontal carina,

bital setae located in broad furrows between supraorbital carina and frontal carina, the posterior one arising from tubercle. Eyes of moderate size, flattened but still convex, genae enlarged, regularly rounded, not as high as and shorter than eyes, enclosing eyes posteriorly, forming obtuse angle at neck. Grooves for reception of antennae short, length 0.4 of eye diameter. Neck constriction marked as distinct step, with bigger punctures connected line-like, neck laterally covered with reticulation and densely scattered medium sized punctures. Labrum straight, 7-setose, ciliate laterally, with isodiametric reticulation. Mandibles robust, shorter than head, flattened, stout, broadened at base, acutely curved at apex, carinae of scrobe complete, both mandibles obtusely angled towards base (opened position), and both somewhat hollowed out dorsally. Maxilla distinctly curved, acutely hooked at apex. Apical maxillary palpomere slender, slightly securiform. Apical labial palpomere slender, straight, slightly longer than 2<sup>nd</sup> segment, 2<sup>nd</sup> segment bisetose. Ventral surface of neck covered with punctures and some reticulation. Submentum and mentum distinctly separated; submentum with four bigger, about equally spaced setigerous punctures; mentum at base bilaterally with rounded elevation, with some longitudinal carinae, with fine and complete reflexed margin, lateral lobes projecting, nearly right-angled at tips, with a seta near base of each lobe, median tooth forming broad obtuse triangle, bisetose, not projecting as far as lateral lobes. Antennae of moderate length, reaching distinctly over middle of pronotum, scapus knee-like angled, with one seta dorsoapically, scapus and pedicellus with fine reticulation, segments 5-10 subelongate (L/W 1.4), antennomeres slightly flattened, with shiny areas on flattened parts, segments 4–11 densely pubescent, with a few additional long setae.

Pronotum: Square, thought slightly transverse, sides slightly convex at middle, distinctly rounded in anterior quarter to anterior angles. Anterior margin slightly bisinuate. Reflexed lateral margin with some fine scars in anterior part. Margin from posterior angle to base running as slightly convex line, with a distinct tubercle bilaterally at base. Lateral channel conspicuously broad between the two lateral setigerous punctures, with isodiametric reticulation and very few irregular punctures. Anterior setigerous puncture located at the end of anterior fifth adjoining convexity of pronotum, the posterior one located at level of posterior angle, removed from lateral channel by diameter of pore. Anterior angles projecting, rounded, formed by reflexed lateral margin, posterior angle developed as sharp distinct tooth, projecting antero-laterally. Anterior transverse line formed by distinct, partly connected punctures. Median line deep and conspicuously broad, rugose, running up to level of anterior transverse line but not joining, smaller at base, adjoining base. Surface irreg-

ularly covered with big punctures and with irregular reticulation laterally and at base, basal impression short but well visible, basal channel broad, deep. Flange raised keel-like (lateral view).

Elytra: Subcylindrical, sides slightly diverging, marginal channel broad, visible from above, with uninterrupted row of big setigerous punctures arising from broad tubercles. Reflexed margin with fine crenulation in anterior third, margin slightly thickened at humerus, bending with channel over rounded humerus up to 5<sup>th</sup> stria. Humerus with distinct rounded tooth. Basal tubercle distinct, with setigerous puncture, situated at declivity of 1<sup>st</sup> stria. Striae 1–4 free at base, all striae deep, distinctly punctate, striae 1 and 2 ending free at apex, 3–4 and 5–6 joined apically; striae 6 and 7 shortened at humerus. Striole distinct, interval between striole and sutura costiform, raised. All intervals conspicuously convex, thought costate, 3<sup>rd</sup> and4<sup>th</sup> broader and raised at base, both with tubercle at base, 8<sup>th</sup> carinate. All intervals shiny on disc. Interval 3 with four setigerous punctures adjoining stria 3.

Hind wings: Fully developed.

Ventral surface: Epipleuron shiny, covered with big scattered punctures and indistinct reticulation, submarginal furrow distinct. Proepisternum and episternum with punctures, prosternite slightly punctured, keeled at middle, mesosternum nearly smooth. Sternites with transverse to isodiametric reticulation, each with big punctures at base, denser laterally, 3<sup>rd</sup> to 5<sup>th</sup> with paralateral ambulatory setae at each side, ventral strigae distinct, sternite 6 smooth at middle, with two widely separated apical setae at each side.

Legs: Anterior tibia with strong digitation, with two big and one small lateral preapical denticles, apical spine curved distinctly towards ventral, no dorsal furrow, basal tarsomere elongated, as long as the following four together. Mesotibia with preapical spine, furnished with strong seta. All tarsomeres relatively broad.

Male genitalia (Fig. 29): Relatively long, moderately sclerotized. Median lobe slender, moderately arcuate, spatula slightly distorted and broadened. Endophallus strongly folded, teeth not visible. Parameres of about same length, both slender, longer than median lobe (in natural position), slightly twisted, with minute pili at the apical tip.

Remarks: The minute setae on the apical tip of the parameres are sensitive and tend to break during mounting. The setigerous punctures are minute so that high magnification is needed.

Female genitalia (Fig. 39): Coxostylus slender, slightly sigmoid, dorso-ventrally moderately depressed, gently curved to apex, with obtuse knob-like tooth laterally at base, with two setae apically close together, with one short and blunt robust ensiform seta, and one acute short ensiform seta, both of

them in middle part, with four nematiform setae in the middle part and towards base.

Variation: Besides the total length, slight differences in coloration, and the degree in punctation on the ventral surface, there was no variation observed.

Diagnosis: A medium-sized black species with distinct knob on the clypeus and distinct flat transverse depression with rugae behind, with distinct but rounded humeral tooth, tubercles at the base of intervals 3 and 4 of the elytra, and four setigerous punctures on interval 3. In addition, the female coxostylus exhibits two ensiform setae in the middle part. Distinguished from all other species by the presence of a bilateral tubercle on the reflexed margin at the base of the pronotum.

Distribution. The species was collected in Thailand, Laos, and Borneo.

Collecting altitudes were between 1000 and 1500 metres.

Etymology: The name refers to the tubercles on the reflexed margin at the base of the pronotum.

### Orictites charleshuberi sp. nov.

Type material: Holotype: 1 ♀, labels: beige, black printed and handwritten: "Karapin Near Ari Formosa. 10–V 1938 Coll. Yoshio Yano" / beige, handwritten in black ink: "Karapin Mt. Ari (950 m.)" / beige, black printed: "H.E.Andrewes Coll. B.M.1945—97." / backside, handwritten in black ink: "2541" (BMNH).

Paratype: 1 ♀, labels: white, printed "TAIWAN P.o.CHINA PULI – YÜCHIH SUN MOON LAIE 16.6.–26.6.1993 J. DALIHOD lgt." (CBP).

Remark: In the paratype the right antennae is missing from joint two onwards.

# **Description** (Figs 13, 40; pp. 11, 37)

Measurements (n = 2): Body length 5.8/5.8 mm, width 1.65/1.68 mm; ratio length/width of pronotum 0.98/0.95; ratio length/width of elytra 1.84/1.86.

Colour: Shiny. Black to dark-brown. Wings of clypeus, supraantennal plates and labrum dark-brown, slightly transparent at margins, antennae brown, palpi yellowish brown, legs red-brown.

Head: A quarter narrower than pronotum. Clypeus nearly fused with wings, with small rounded tooth laterally, anterior margin slightly excised, with blunt raised knob between the two clypeal seatae, margin of wings convex, slightly hollowed out, divided from middle part of clypeus by slight notches and carinae, divided from supraantennal plates by distinct obtusely angled notches

and ridge, clypeus and wings reflexed margined, supraantennal plates vaulted up to mid-eye level, shiny but with indistinct irregular reticulation, with reflexed rounded margin, elongated as supraorbital carina, frons separated from clypeus by flat transverse depression, depression with broad band of big punctures, elongated V-like on frons, with costate, nearly parallel running frontal carinae at each side posteriorly, with broad furrow between frontal carina and supraorbital carina, sharp furrow between frons and frontal carina. Frons moderately convex, with very few punctures. Supraorbital setae located in broad furrows between supraorbital carina and frontal carina, the posterior one arising from tubercle. Eyes of moderate size, flattened but still convex, genae enlarged, regularly rounded, not as high as and shorter than eyes, enclosing eyes posteriorly, forming rectangular angle at neck. Grooves for reception of antennae short, length 0.4 of eye diameter. Neck constriction marked as distinct step, with broader band of big punctures, interrupted at middle. Neck laterally covered with reticulation and densely scattered with punctures of medium size. Labrum indistinctly trilobed, 7-setose, ciliate laterally, with isodiametric reticulation. Mandibles robust, shorter than head, flattened, stout, irregularly reticulated, broadened at base, acutely curved at apex, carinae of scrobe complete, both mandibles obtusely angled towards base (opened position), both mandibles somewhat hollowed out dorsally. Maxilla distinctly curved, acutely hooked at apex. Apical maxillary palpomere slender, slightly securiform. Apical labial palpomere slender, straight, slightly longer than 2<sup>nd</sup> segment, 2<sup>nd</sup> segment bisetose. Ligula with one long seta; paraglossae slender. Ventral surface of neck covered with bigger sized punctures and transverse reticulation, Submentum and mentum distinctly separated; submentum with four bigger, about equally spaced setigerous punctures; mentum at base bilaterally with broad and rounded tubercle, with some longitudinal carinae, with fine and complete reflexed margin, lateral lobes projecting, nearly right-angled at tips, with a seta near base of each lobe, median tooth forming broad obtuse triangle, bisetose, not projecting as far as lateral lobes. Paragenae sharp, carina-like, with distinct tooth anteriorly, rounded at base. Antennae relatively long, reaching up to beginning of posterior third of pronotum, scapus knee-like angled, with one seta dorsoapically, scapus and pedicellus with isodiametric reticulation, segments 5-10 moniliform, antennomeres somewhat flattened, with shiny areas on flattened parts, segments 4–11 densely pubescent, with a few additional long setae.

Pronotum: Square, nearly as long as wide, sides slightly convex at middle, rounded in anterior tenth to anterior angles. Anterior margin nearly straight. Reflexed lateral margin distinctly crenulated. Margin from posterior angle to base running as straight line, with small bilateral tubercle at base. Later-

al channel broad between the two lateral setigerous punctures, with isodiametric reticulation and some punctures. Anterior setigerous puncture located at the end of anterior quarter adjoining convexity of pronotum, the posterior one located at level of posterior angle, removed from lateral channel by diameter of pore. Anterior angles slightly projecting, rounded, formed by reflexed lateral margin, posterior angle developed as distinct tooth, projecting antero-laterally. Anterior transverse line relatively fine, formed by partly connected punctures. Median line moderately deep, reticulated, surpassing anterior transverse line without joining, smaller at base, joining base. Surface with smaller and bigger punctures, with isodiametric reticulation laterally and at base, basal impression indistinct, basal channel distinct, broad and deep. Flange raised keel-like (lateral view).

Elytra: Subcylindrical. Sides slightly diverging, marginal channel broad, visible from above, with uninterrupted row of big setigerous punctures arising from broad tubercles. Reflexed margin with distinct crenulation in anterior half, margin thickened at humerus, bending with channel over rounded humerus up to 5<sup>th</sup> stria. Humeral tooth big, sharp. Basal tubercle distinct, with setigerous puncture, situated at declivity of 1<sup>st</sup> stria. Striae 1–4 free at base, striae deep, punctate-striate, striae 1–2, 3–4 and 5–6 joined apically; striae 6 and 7 shortened at humerus. Striole distinct, interval between striole and sutura somewhat raised, reticulated. Intervals moderately convex, 6<sup>th</sup> to 8<sup>th</sup> carinate, 3<sup>rd</sup> and4<sup>th</sup> slightly raised at base, both with tubercle at base. Intervals shiny, with isodiametric reticulation laterally and at base. Interval 3 with four setigerous punctures adjoining stria 3.

Hind wings: Fully developed.

Ventral surface: Epipleuron shiny, covered with big, scattered punctures. submarginal furrow distinct. Proepisternum and episternum nearly smooth, prosternite smooth, keeled at middle like an inverted V, mesosternum smooth. Sternites with transverse to irregular reticulation, each with bigger punctures laterally, 3<sup>rd</sup> to 5<sup>th</sup> with paralateral ambulatory setae at each side, ventral strigae distinct, sternite 6 smooth at middle, with two widely separated apical setae at each side.

Legs: Anterior tibia with strong digitation, with two big and one small lateral preapical denticles, apical spine curved distinctly towards ventral, no dorsal furrow, with indistinct reticulation, basal tarsomere elongated, as long as the following four together. Mesotibia with preapical spine, furnished with strong seta. All tarsomeres relatively broad.

Male genitalia: Unknown.

Female genitalia (Fig. 40): Coxostylus slightly sigmoid, gently curved to apex, apex broad and with a pair of setae close together, with five longer nematiform and one slender ensiform seta at middle.

Variation: In the paratype, striae 1 and 2 adjoining indistinctly at apex.

Diagnosis: A medium-sized nearly black species with distinct knob on the clypeus and distinct transverse depression with punctures behind in form of the letter V, with distinct and sharp humeral tooth, with tubercles at the base of intervals 3 and 4 of the elytra, and four setigerous punctures on interval 3. Distinguished from all other species by the crenulation of the lateral margin of the pronotum, and of the elytra in the anterior half.

Distribution: Known from Taiwan only. The paratype was collected at an altitude of 950 m.

Etymology: The name is a patronym of Dr. Charles Huber, former curator at the Naturhistorisches Museum der Burgergemeinde Bern (Switzerland) and specialist in Nebriinae who supported my work significantly over the last decade.

# Orictites anteriorlatus sp. nov.

Type material: Holotype: ♂, labels: white, black printed: "Mt. Lompo Battang S.C. Sulawesi 25–XII–1999 M. ANDO" / blue, black printed: "K. ANDO Collection" (CBM-ZSM).

Remark: In the holotype the left hind tibia is missing.

# **Description** (Figs 14, 30; pp. 11, 25)

Measurements: Body length 5.8 mm, width 1.6 mm; ratio length/width of pronotum 0.99; ratio length/width of elytra 1.94.

Colour: Shiny. Black to dark-brown. Wings of clypeus and supraantennal plates brown and slightly transparent, antennae, labrum and mandibles brown, palpi yellowish, legs red-brown.

Head: Wide, a sixth narrower than pronotum. Clypeus with small rounded indistinctly projecting tooth laterally, separated from wings, anterior margin excised, with blunt raised broad knob between the two clypeal setae, margin of wings convex, hollowed out, divided from middle part of clypeus by slight notches and carinae, divided from supraantennal plates by distinct obtusely angled notches and ridge, clypeus and wings reflexed margined, supraantennal plates vaulted up to mid-eye level, smooth, with reflexed rounded margin, elongated as supraorbital carina. Frons separated from clypeus by transverse furrow interrupted at middle, sharp furrow between frons and frontal carina, frons moderately convex. Frons and clypeus smooth. Supraorbital setae

located in broad furrows between supraorbital carina and frontal carina, the posterior one arising from tubercle behind genae level. Eyes well developed, convex, genae distinct, regularly rounded, not as high as eyes, enclosing eyes posteriorly by one third, forming nearly right angle at neck. Grooves for reception of antennae of moderate length, 0.5 of eye diameter. Neck constriction distinct, with band of big punctures. Neck laterally covered with reticulation and some medium sized punctures. Labrum straight, 7-setose, ciliate laterally, with fine isodiametric reticulation. Mandibles robust, length three quarters of head, broadened at base, acutely curved at apex, carinae of scrobe complete, both mandibles rounded towards base. Maxilla distinctly curved, acutely hooked at apex. Apical maxillary palpomere slender, slightly securiform. Apical labial palpomere slender, straight, slightly longer than 2<sup>nd</sup> segment, 2<sup>nd</sup> segment bisetose. Ligula with one long seta; paraglossae slender. Ventral surface of neck covered with punctures and reticulation. Submentum and mentum separated; submentum with four, about equally spaced setigerous punctures; mentum at base bilaterally with rounded elevation, with some longitudinal carinae, with fine and complete reflexed margin, lateral lobes projecting, nearly right-angled at tips, with a seta near base of each lobe, median tooth forming obtuse triangle, bisetose, not projecting as far as lateral lobes. Antennae of moderate length, reaching up to middle of pronotum, scapus knee-like angled, with one seta dorsoapically, scapus and pedicellus with fine isodiametric reticulation, segments 5-10 transverse (L/W 0.73), antennomeres slightly flattened, with shiny areas on flattened parts, segments 4-11 densely pubescent, with a few additional long setae.

Pronotum: Square, wider than long, outline reminescent of the inverted frustum of a pyramid, sides straight, convex in anterior quarter for a short distance to anterior angles. Anterior margin distinctly bisinuate. Reflexed lateral margin with traces of scars (120x). Margin from posterior angle to base running as a straight line. Lateral channel disctinctly broadened between the two lateral setigerous punctures, with isodiametric reticulation and few punctures. Anterior setigerous puncture located at the end of anterior fifth adjoining convexity of pronotum, the posterior one located at level of posterior angle, removed from lateral channel by diameter of pore. Anterior angles distinctly projecting, rounded, formed by reflexed lateral margin, posterior angle developed as blunt tooth. Anterior transverse line narrow, sharp, formed by punctures. Median line deep, relatively narrow, rugose, surpassing anterior transverse line but not joining, joining base. Surface with a few punctures and transverse rugae, basal impression indistinct. Basal channel moderately broad, deep. Basal part of disc elongated posteriorly and bilaterally at declivity as tooth-like vault slightly hanging over basal channel (lateral view). Flange raised keel-like (lateral view).

Elytra: Subcylindrical, sides slightly diverging, marginal channel broad, visible from above, with uninterrupted row of big setigerous punctures arising from broad tubercles and with a second row of punctures. Reflexed margin with a few indistinct scars posterior to humerus (120x). Margin bending with channel over rounded humerus up to 5<sup>th</sup> stria. Humerus without tooth. Basal tubercle distinct, with setigerous puncture, situated at declivity of 1<sup>st</sup> stria. Striae 1–4 free at base, all striae deep, indistinctly punctate, striae 1–2, 3–4, and 5–6 joined apically; striae 6 and 7 shortened at humerus. Striole distinct. Intervals distinctly convex, 3<sup>rd</sup> and4<sup>th</sup> distinctly raised at base, both with tubercle at base, 8<sup>th</sup> carinate. All intervals shiny on disc. Interval 3 with four setigerous punctures adjoining stria 3.

Hind wings: Fully developed.

Ventral surface: Epipleuron shiny, with some punctures, submarginal furrow distinct, with transverse rugae. Proepisternum and episternum with a few punctures, prosternite nearly smooth, keeled at middle, mesosternum smooth. Sternites with few punctures laterally, 3<sup>rd</sup> to 5<sup>th</sup> with paralateral ambulatory setae at each side, ventral strigae distinct, with transverse reticulation, sternite 6 smooth at middle, with two widely separated apical setae at each side.

Legs: Anterior tibia with strong digitation, with two big and one small lateral preapical denticles, apical spine curved distinctly towards ventral, basal tarsomere elongated, as long as the following four together. Mesotibia with preapical spine, furnished with strong seta. All tarsomeres relatively broad.

Male genitalia (Fig. 30): Relatively long, distinctly sclerotized. Median lobe slender, moderately arcuate, slightly twisted apically. Endophallus strongly folded, teeth not visible. Parameres of about equal length, both slender, slightly twisted, asetose.

Female genitalia: Unknown.

Variation: No bilateral variation observed.

Diagnosis: A medium-sized almost black species, with blunt broad knob on the clypeus, humerus without tooth, and four setigerous punctures on interval 3 of the elytra. Only in this species and in *O. mjoebergi* the basal part of the disc of the pronotum is posteriorly elongated bilaterally at the declivity as a tooth-like vault slightly hanging over the basal channel. In contrast to *O. mjoebergi*, *O. anteriorlatus* sp. nov. exhibits tubercles at the base of intervals 3 and 4 of the elytra, the furrow between clypeus and frons is interrupted at middle, and clypeus and frons are impunctured.

Distribution: Known from the South of Sulawesi.

Etymology: The name refers to the anteriorly widened pronotum.

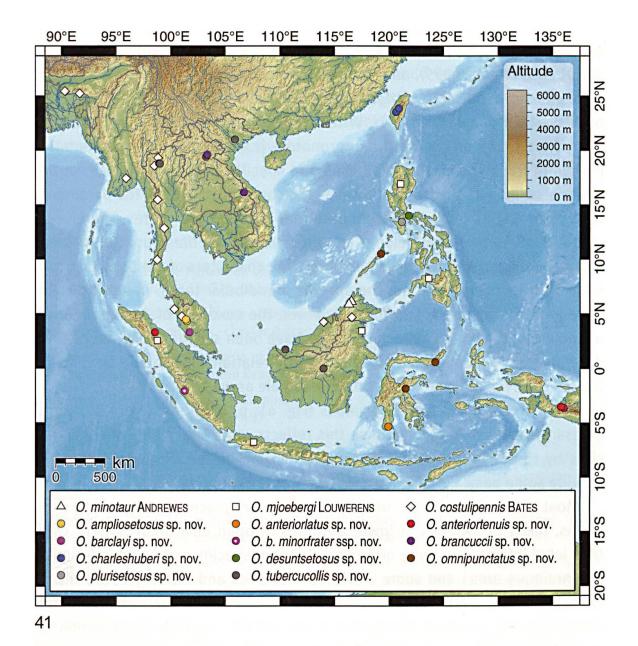


Fig. 41: Distribution of the species of the Genus *Orictites* in South East Asia (recorded localities of all species plotted).

#### Discussion

It should be mentioned, the character of presence of tubercles at base of the intervals 3 and 4 of the elytra is different in stability. For the third interval, it is very stable and developed at both sides at same distinctness. The tubercle at base of interval 4 is usually smaller, in some cases distinct at one side only and in a few cases, it is developed only on one side and indistinctly at that. Therefore, this character has been used for the key to the species only for those species where it has been found to be stable and where there was sufficient material at hand.

Within the tribe Clivinini, Orictites belongs to the more closely related circle of genera of Clivina LATREILLE, 1802. Possibly the two most related genera are Nannoryctes BAEHR, 1999, with one known species from Sarawak (N. sulcaticeps BAEHR, 1999), and Androzelma Dostal, 1993, from Vietnam, with also one known species (A. gigas Dostal, 1993). I had the possibility to study both of them some years ago. With Nannoryctes most striking characters shared are found on the head and pronotum (e.g. the quadridentate anterior margin of the clypeus, the small eyes and specific form of the genae, or the unusual carinae on the frons). However, the coxostyli as well as the parameres of *N. sulcaticeps* exhibit a different pattern than found in *Orictites*. Therefore, I do not think Nannoryctes belongs into the genus of Orictites but forms a separate genus. Androzelma shares lots of specific characters of the pronotum and head with Orictites including the specific mandibular tooth. In addition, the male genitalia exhibit similarities. However, the coxostyli of Androzelma are unknown. And among Clivinini, coxostyli have been shown to provide distinct differences at genus level. Consequently, the relationships should be reinvestigated once female material becomes available as well.

The records of *Orictites* specimens (Fig. 41; p. 63) appear very scattered across South East Asia. I suppose this reflects more the choice of collection sites by the entomologists rather than the distribution. Nevertheless, they provide some basic data for the area *Orictites* is inhabiting.

Most of the Clivinini are usually found at wet places, mostly along river banks, lakes or swamps at lower altitudes in open environments. For *Orictites* label information quite often revealed that specimens had been found in mountainous areas and some under bark of trees and rotten wood. For one species the find in a pine forest under bark is documented. The small and flattened eyes, the available label information, and the relatively small number of available specimens among the bulk of other Clivinini material suggests that *Orictites* might inhabit a different and more hidden habitat than where Clivinini are usually found. This demonstrates that small Oriental Clivinini inhabit a much wider range of habitats in mountainous rain forest.

# Acknowledgements

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