

## **Supplement to the knowledge of the Scaphidiinae (Coleoptera: Staphylinidae) of the Moluccas**

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## Supplement to the knowledge of the Scaphidiinae (Coleoptera: Staphylinidae) of the Moluccas

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**Abstract:** Newly studied collection of Moluccan Scaphisomatini comprise nine species described here as new: *Baeocera humicola* sp. nov., *Baeocera incurva* sp. nov., *Baeocera notata* sp. nov., *Baeocera paucivestis* sp. nov., *Baeocera punctigera* sp. nov., *Baeocera punctiventris* sp. nov., *Scaphisoma donati* sp. nov., *Scaphobaeocera plana* sp. nov., and *Scaphoxium lobatum* sp. nov. *Scaphisoma sublimbatum* Löbl, 1977 and *Scaphobaeocera schouteni* Löbl, 1980 are reported for the first time from the Moluccas. A new key to the Moluccan species of *Baeocera* is provided.

**Keywords:** Insecta - shining fungus beetles - taxonomy - distribution - Moluccas.

### INTRODUCTION

Extensive collections of Moluccan Scaphidiinae, gathered by my friend Donat Agosti (Bern, Switzerland), were donated to the Muséum d'histoire naturelle, Genève. They were studied in part several years ago (Löbl, 2014). The present paper deals with the remaining specimens of these collections. The study yields 14 taxa new to sciences or to the Moluccan islands and thus raises the number of genera and species of scaphidiines known to occur there from three and 27 (Löbl, 2015a, 2021) to five and 41, respectively. All these species are members of the tribe Scaphisomatini. Notable is the absence of members of the nearly world-wide tribe Scaphidiini and of the pantropical Cypariini.

The first scaphidiines recorded from the Moluccan islands, two species of *Scaphisoma* Leach, 1815, have been collected a century ago on the island Buru and described as late as in the '70s (Löbl, 1976). Significant samples of Moluccan scaphidiines were obtained much later, by modern techniques and from several other islands. Nevertheless, it is still impossible to estimate the true richness of the group inhabiting the archipelago. The available modern material results from field work of only two entomologists, each disposing limited time for sampling. In addition, we still lack information about these myxomycetophagous and mycophagous rove beetles from a large number of Moluccan islands.

### MATERIAL AND TECHNIQUES

The material studied is deposited in the collection of the Muséum d'histoire naturelle, Genève, Switzerland

(MHNG). It was collected by sieving moist forest litter. The locality data of the type material are reproduced verbatim. All specimens are provided with appropriate identification labels.

The body-length is measured from the anterior pronotal margin to the posterior inner angles of elytra. The length/width of the mesepimera refer to their exposed part. The length/width ratios of the antennomeres are measured on slide-mounted antennae. Statements about abdominal microsculpture do not refer to the intersegmental membranes. The sides of the aedeagi refer to their morphological side with the ostium situated dorsally, while it is in resting position rotated 90°. The dissected body-parts are embedded in Euparal and fixed on a separate card on the same pin as the respective specimen. For primary references to all scaphidiines mentioned in the present paper see Löbl, 2018.

### TAXONOMY

#### *Baeocera* Erichson, 1845

**Remarks:** Seven species of *Baeocera* are currently known from the Moluccas (Löbl, 2015a), while 12 have been reported from the Lesser Sunda, and 18 from New Guinea (Löbl, 2002, 2015b). Most of these species are members of the monophyletic *B. lenta* group. The present collection comprises six additional Moluccan species, all but one members of that group.

***Baeocera humicola* sp. nov.**

Figs 1-3

**Materiel examined:** *Holotype*; MHNG; male; MALUK: Kai Besar, Bombay, G. Dab, 3.IX.81, D. Agosti F911019.

*Paratypes*; MHNG; 3 females, with the same data as the holotype; – MHNG; 1 male; MALUK: Kai Besar, G. Tukrau nr Bombay, 4.IX.81, D. Agosti F91035.

**Etymology:** The species epithet is a noun meaning living in humus.

**Diagnosis:** The species is defined by the following characters in combination: Body-length about 1.20 mm, body blackish-brown; pronotum and elytra not microsculptured; lateral margins of pronotum and elytra separately arcuate, pronotum finely punctate; elytron entirely coarsely punctate, with basal stria extended to basal mid-width, sutural stria entire; hypomeron, mesanepisternum and mesepimeron impunctate; metaventricle and ventrite I coarsely punctate; ventrite I without basal wrinkles or striae; aedeagus symmetrical, with apical process abruptly narrowed near apex (lateral view), parameres hardly bent, nearly evenly broad, internal sac with complex sclerites, as in Fig. 3, lacking membranous scale or denticle-like structures.

**Description:** Length 1.18–1.20 mm, width 0.86–0.88 mm. Head and most of body blackish-brown, femora and tibiae lighter, reddish-brown, tarsi and antennae yellowish. Head with interocular distance about as dorsoventral eye diameter. Antennomere II about as long as antennomere III. Length/width ratios of antennomeres as: III 23/5: IV 23/5: V 31/6: VI 29/6: VII 34/9: VIII 30/7: IX 37/11: X 37/13: XI 40/15. Pronotum and elytra separately arcuate. Pronotum not microsculptured, pronotal punctation hardly visible at 50 times magnification; lateral carinae of pronotum to part exposed in dorsal view. Point of scutellum exposed. Elytra nearly completely covering abdomen. Elytron weakly narrowed apically, with lateral margin rounded near base and apex, oblique in middle; lateral margin carinae concealed in dorsal view, adsutural area flat and narrow; sutural stria punctate, extended along base to form basal stria reaching basal mid-width; lateral stria punctate. Elytral disc not microsculptured, with punctation well delimited, much coarser than on pronotum, nearly regular, puncture intervals mostly two to three times puncture diameters. Hind wings fully developed. Hypomeron, mesanepisternum and mesepimeron impunctate. Mesoventricle punctate, without median ridge, fused with metaventral process. Mesepimeron about four times as long as wide and about three times as long as distance to coxa. Median part of metaventricle flattened, coarsely and densely punctate around smooth centre. Lateral area of metaventricle with punctation coarse and dense, denser than that on elytron; punctures well delimited, to part

as large as puncture intervals, largest near anterior margin, evanescent near metacoxa. Submesocoxal lines parallel, with marginal punctures smaller than punctures on lateral area of metaventricle and not extended laterally along margin of metaventricle. Submesocoxal areas about 0.02 mm long, about as fourth of shortest interval to metacoxae. Metanepisternum flat, fused with metaventricle, its margin indicated by outer puncture row of metaventricle. Tibiae straight. Abdomen not microsculptured. Ventrite I about as coarsely and densely punctate as lateral area of metaventricle, basal punctures not enlarged and not elongate, not interrupted in middle, basal striae absent. Following ventrites finely punctate.

*Male characters:* Protarsomeres I to III hardly widened. Aedeagus (Figs 1–3) 0.32 mm long, weakly sclerotized, symmetrical. Apical process of median lobe gradually narrowed, with tip bent and acute in lateral view. Parameres hardly bent in both, dorsal and lateral, views and throughout nearly evenly wide. Internal sac with sclerotized complex as in Fig. 3, with long, apically widened flagellar guide-sclerite, lacking membranous scale- or denticle-like structures.

**Habitat:** Secondary forests on limestone, 200–400 m, litter from dead log and rotting leaves.

**Distribution:** Indonesia: Moluccas, Kai Besar Island.

**Remarks:** The species is a member of the *B. lenta* group. It falls in the key to the Moluccan species (Löbl, 2015a) to *B. vafra* Löbl, 2015. It may be distinguished by the parameres which are not widened and not bent apically, and by the bent tip of the apical process of the median lobe. In addition, the membranes of the internal sac of *B. vafra* bear denticle-like structures absent from *B. humicola*. The aedeagal characters of this new species suggest relationships with the New Guinean *B. papua* (Löbl, 1975) which may be readily distinguished by the ventrite I bearing basal wrinkles.

***Baeocera incurva* sp. nov.**

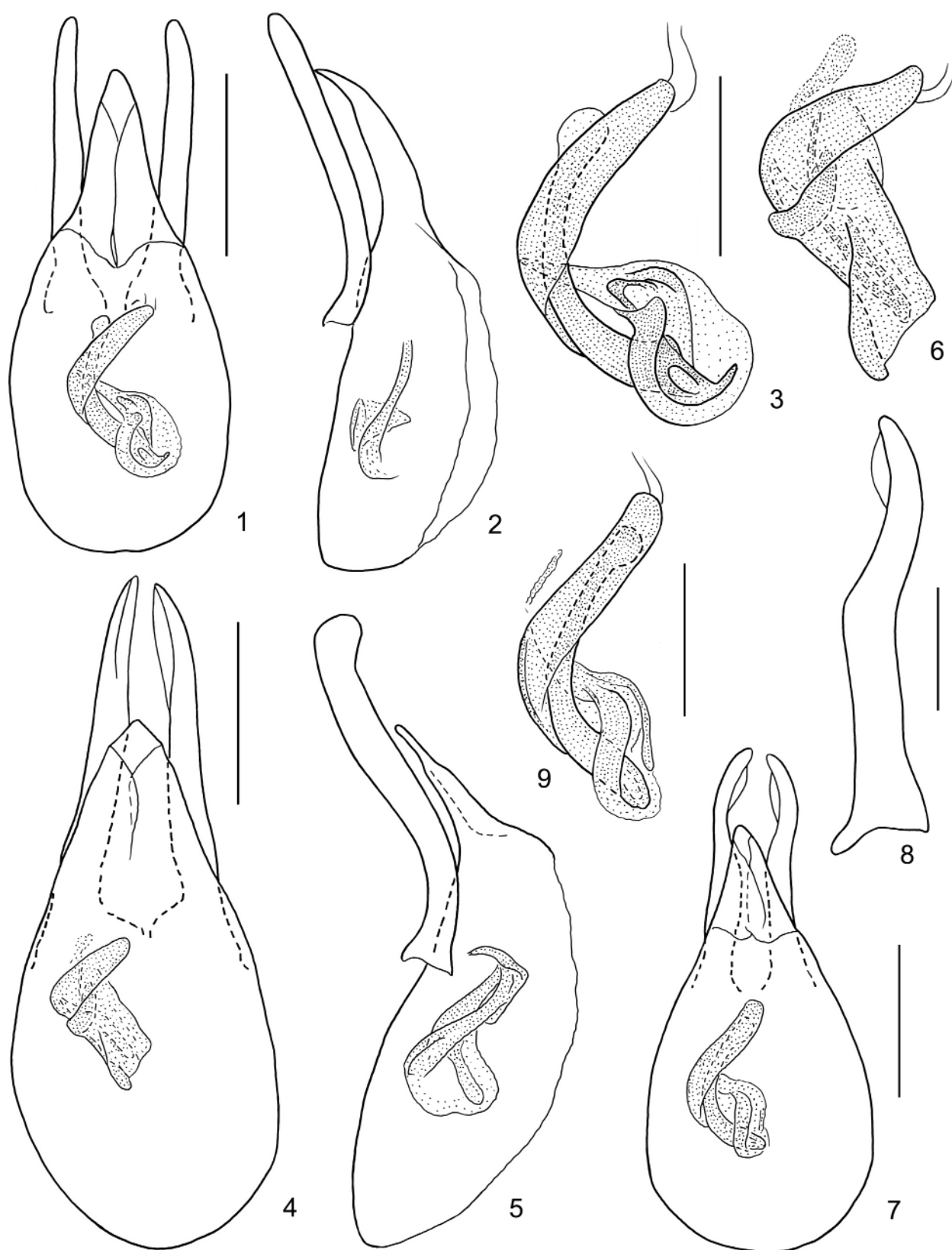
Figs 4–6

**Materiel examined:** *Holotype*; MHNG; male; MALUK: Kai Besar, Bombay, G. Dab, 3.IX.81, D. Agosti F911019.

*Paratypes*; MHNG; 1 male, 2 ex. with the same data as the holotype. – MHNG; 2 males, 1 female; MALUK: Kai Besar, G. Tukrau nr. Bombay, 300–400 m, 7.IX.81 D. Agosti, F91075.

**Etymology:** The species epithet is a Latin adjective meaning bent.

**Diagnosis:** The species is defined by the following characters in combination: Body-length about 1.25–1.35 mm, body blackish with lighter apical abdominal segments; lateral margins of pronotum and elytra nearly



Figs 1-9. *Baeocera humicola* sp. nov. (1, 2) Aedeagus in dorsal and lateral views, scale bar = 0.1 mm. (3) Internal sac, scale bar = 0.05 mm. Figs 4-6. *Baeocera incurva* sp. nov. (4, 5) Aedeagus in dorsal and lateral views, scale bar = 0.1 mm. (6) Internal sac, scale bar = 0.05 mm. Figs 7-9. *Baeocera notata* sp. nov. (7) Aedeagus in dorsal view, scale bar = 0.1 mm. (8) Paramere in ventral view, scale = 0.05 mm. (9) Internal sac, scale = 0.05 mm.

continuously arcuate; pronotum finely punctate; elytron entirely coarsely punctate, lacking basal stria, sutural stria shortened, starting posterior of level of scutellum; hypomeron very finely punctate; mesepimeron, mesanepisternum, metaventrite and ventrite I distinctly punctate; ventrite I without basal wrinkles or striae; aedeagus symmetrical, with apical process in lateral view abruptly narrowed near apex, parameres sinuate, nearly evenly broad and bent dorsally in lateral view, internal sac with complex sclerites, as in Fig. 6, lacking membranous scale or denticle-like structures.

**Description:** Length 1.25-1.33 mm, width 0.85-0.88 mm. Head and most of body blackish, apical abdominal segments, femora and tibiae reddish-brown, tarsi and antennae yellowish. Head with interocular distance slightly larger than dorsoventral eye diameter. Antennomere II slightly longer than antennomere III. Length/width ratios of antennomeres as: III 24/6: IV 22/6: V 30/7: VI 30/7: VII 37/9: VIII 33/8: IX 41/12: X 41/14: XI 46/15. Pronotum and elytra nearly continuously arcuate. Pronotum not microsculptured, pronotal punctation hardly visible at 50 times magnification; lateral carinae of pronotum concealed in dorsal view. Point of scutellum exposed. Elytra nearly entirely covering abdomen. Elytron weakly narrowed apically, with lateral margin rounded; lateral margin carinae concealed in dorsal view, adsutural area flat and narrow; sutural stria punctate, shortened, starting well posterior of level of tip of scutellum; basal stria absent; lateral stria punctate. Elytral disc not microsculptured, with punctation well delimited, much coarser than on pronotum, nearly regular, puncture intervals mostly about as to three times puncture diameters. Hind wings fully developed. Impressed inferior part of hypomeron with few very fine punctures. Mesoventrite punctate, without median ridge, fused with metaventral process. Mesanepisternum pubescent, rather finely punctate. Mesepimeron punctate, about four times as long as wide and about three times as long as interval to coxa. Median part of metaventrite flattened, fairly coarsely, irregularly and densely punctate. Lateral area of metaventrite with punctation similar to that on elytron; punctures well delimited, clearly smaller than puncture intervals, evanescent near metacoxal margin. Submesocoxal lines slightly convex, with marginal punctures smaller than punctures on lateral area of metaventrite and not extended laterally along margin of metaventrite. Submesocoxal areas about 0.02-0.03 mm long, about as fifth of shortest interval to metacoxae. Metanepisternum flat, fused with metaventrite, its margin indicated by outer puncture row of metaventrite. Tibiae straight. Abdomen not microsculptured. Ventrite I about as coarsely and densely punctate as lateral area of metaventrite, basal punctures not enlarged and not elongate, basal wrinkles or striae absent. Following ventrites finely punctate.

**Male characters:** Protarsomeres I to III slightly widened. Aedeagus (Figs 4-6) 0.35-0.36 mm long, weakly sclerotized, symmetrical. Apical process abruptly narrowed near apex (lateral view), gradually narrowed in dorsal view. Parameres conspicuously sinuate, nearly evenly broad and bent dorsally in lateral view, hardly sinuate in dorsal view. Internal sac with complex sclerites as in Fig. 6, with very short flagellar guide-sclerite, lacking membranous scale- or denticle-like structures.

**Habitat:** Secondary forests on limestone, litter from dead log and rotting leaves.

**Distribution:** Indonesia: Moluccas, Kai Besar Island.

**Remarks:** The species is also member of the *B. lenta* group, as shown by its aedeagal characters. It falls in the key to the Moluccan species (Löbl, 2015a) to *B. vicina* Löbl, 2015. It may be easily distinguished from the latter as from other congeners by the shape of the parameres and by the internal sac possessing a short flagellum and reduced flagellar-guide sclerite. The New Guinean *B. praedicta* Löbl, 2002 possesses parameres rather similar to those of *B. incurva*. It differs notably in external characters, in particular by the not fused metanepisterna and the very finely punctate metaventrite.

### *Baeocera notata* sp. nov.

Figs 7-10

**Materiel examined:** *Holotype*; MHNG; male; MALUC: Aru Isls: Kola Isl.: Watan, 27.8.81, D. Agosti F91936.

*Paratype*; MHNG; 1 female; MALUC: Aru Isl., Wokam, 22.8.81, D. Agosti F911970.

**Etymology:** The species epithet is a Latin adjective referring to the pronotum.

**Diagnosis:** The species is defined by the following characters in combination: Body-length about 1.35-1.45 mm, body dark brown; pronotum coarsely and densely punctate, with many punctures larger than puncture intervals; lateral margins of pronotum and elytra separately arcuate; elytron entirely coarsely punctate, with sutural stria shortened, lacking basal stria; hypomeron and mesanepisternum distinctly punctate; metaventrite and ventrite I coarsely punctate; ventrite I without basal striae or wrinkles; aedeagus symmetrical, with apical process narrowed apically, bent near tip in lateral view, apical halves of parameres bent and bearing subapical membranous lobe (dorsal view), widened posterior of basal third in lateral view, internal sac with complex sclerites as in Fig. 9, lacking membranous scale or denticle-like structures.

**Description:** Length 1.36-1.43 mm, width 0.90-1.0 mm. Head and body dark brown, femora and tibiae lighter, reddish-brown, tarsi and antennae yellowish.

Head with interocular distance slightly smaller than dorsoventral eye diameter. Antennomere II slightly longer than antennomere III. Length/width ratios of antennomeres as: III 28/7: IV 27/7: V 37/7: VI 35/7: VII 39/12: VIII 38/10: IX 39/12: X 37/14: XI 48/14. Pronotum and elytra separately arcuate. Pronotum not microsculptured, pronotal punctation conspicuously coarse and dense, distinct at 15 times magnification, consisting of sharply delimited punctures to part larger than puncture intervals; lateral carinae of pronotum hardly visible in dorsal view, bearing punctures very dense, larger than puncture intervals. Point of scutellum exposed. Elytra covering tip of abdomen, weakly narrowed apically, with lateral margins evenly, weakly rounded; adsutural area flat and narrow; sutural stria punctate, shortened, starting about 0.20 mm posterior of tip of scutellum; basal stria absent; lateral stria punctate. Elytral disc not microsculptured; punctation all over coarse and dense, punctures larger than those on pronotum but not as well delimited, puncture intervals mostly about as puncture diameters or slightly larger. Hind wings fully developed. Hypomeron not microsculptured, conspicuously punctate, with punctures about as large as pronotal punctures. Mesoventrite punctate, without median ridge, fused with metaventral process. Mesanepisternum conspicuously punctate, punctures similar to those on hypomeron. Mesepimeron impunctate, about four times as long as wide and three times as long as interval to coxa. Metaventrite flattened in middle, all over coarsely and densely punctate, smooth narrow apical band excepted; punctures on lateral part of metaventrite well delimited, to part as large or larger than puncture intervals. Submesocoxal lines slightly convex, with marginal punctures smaller than punctures on lateral area of metaventrite and somewhat extended laterally along margin of metaventrite. Submesocoxal areas about 0.03 mm long, as third of shortest interval to metacoxae. Metanepisternum flat, fused with metaventrite, its margin indicated by outer puncture row of metaventrite. Tibiae straight. Abdomen not microsculptured. Ventrite I densely and coarsely punctate, punctures smaller than those on lateral area of metaventrite, basal punctures not enlarged and not elongate, basal striae or wrinkles absent. Following ventrites finely punctate.

**Male characters:** Protarsomeres I to III slightly widened. Aedeagus (Figs 7-10) 0.37 mm long, weakly sclerotized, symmetrical. Apical process gradually narrowed apically, with tip bent and acute in lateral view. Parameres straight in basal halves, bent in apical halves, each with weakly sclerotized subapical lobe (dorsal view), narrow near bases and nearly evenly broad in apical two thirds, with slightly concave ventral margins (lateral view). Internal sac with complex sclerites, as in Fig. 9, with flagellar guide-sclerite widened apically, narrow accessory lateral sclerite present, lacking membranous scale- or denticle-like structures.

**Habitat:** Secondary/primary forest 5 km E of Mt. Sungai, shallow leaf litter, on limestone; understory with *Pandanus*.

**Distribution:** Indonesia: Moluccas, Aru Islands.

**Remarks:** The species is another member of the *B. lenta* group. It shares with the Moluccan *B. kaibesara* Löbl, 2014 and *B. vicina* Löbl, 2015, and the Papuan *B. praedicta* Löbl, 2002, elytra with shortened sutural striae. It may be readily distinguished from these three species by the hypomera and mesanepisterna conspicuously punctate. In addition, the shape of the parameres lobed subapically is diagnostic for this new species. Several species, such as the New Guinean *B. fortrepunctata* Löbl, 2002 and the Philippine *B. hypomeralis* Löbl, 2012 also possess punctate hypomera but differs by the elytra having entire sutural striae and the impunctate or extremely finely punctate mesanepisterna. The Himalayan *B. cribrata* Löbl, 1992, shares the pronotum coarsely punctate, distinctly punctate hypomera and mesanepisterna, and elytra with shortened sutural striae. It may be easily distinguished by the punctation on lateral parts of the pronotum much coarser than that on pronotal centre.

***Baeocera paucivestis* sp. nov.**

Figs 11-13

**Materiel examined:** *Holotype*; MHNG; male; MALUC: Tanimbar Isl., Yamdena, 22 km N Saumlaki, 11.IX.81, D. Agosti F911111.

*Paratypes*; MHNG; 1 male, 1 female MALUC: Tanimbar Isl., Yamdena, Bomaki, NW Saumlaki, 18.IX.81, D. Agosti F911148.

**Etymology:** The species epithet is a Latin adjective meaning poorly ornamented.

**Diagnosis:** The species is defined by the following characters in combination: Body-length about 1.20 mm, body light reddish-brown with darkened pronotum; lateral margins of pronotum and elytra separately arcuate; elytron entirely coarsely punctate, with uninterrupted basal stria joined to lateral stria, sutural stria not shortened; hypomeron and mesepimeron impunctate; mesanepisternum with hardly visible punctation; metaventrite and ventrite I fairly coarsely punctate; ventrite I without basal striae or wrinkles; aedeagus symmetrical, with apical process gradually narrowed apically, bent near tip (lateral view), parameres straight, nearly evenly broad, internal sac with complex sclerites as in Fig. 13, lacking membranous scale or denticle-like structures.

**Description:** Length 1.18-1.22 mm, width 0.83-0.85 mm. Head and body light reddish-brown, pronotum sometimes darkened. Femora as elytra, tibiae, tarsi and antennae yellowish. Head with interocular distance

about as dorsoventral eyes diameter. Antennomere II about 1.3 times as long as antennomere III. Length/width ratios of antennomeres as: III 22/7: IV 23/7: V 28/7: VI 24/7: VII 29/9: VIII 23/8: IX 30/12: X 30/13: XI 37/14. Pronotum and elytra separately arcuate. Pronotum not microsculptured, pronotal punctation hardly visible at 100 times magnification; lateral carinae of pronotum not visible in dorsal view. Point of scutellum exposed. Elytra nearly covering apex of abdomen. Elytron weakly narrowed apically, with lateral margin rounded near base and apex, oblique in middle; lateral margin carinae concealed or hardly visible in dorsal view, adsutural area flat and narrow; sutural stria punctate, not shortened, curved along pronotal lobe and extended to form basal stria; basal stria very shallow, uninterrupted, joined with lateral stria; lateral stria punctate. Elytral disc not microsculptured; punctation on humeral area very fine and similar to pronotal punctation, much coarser than that on pronotum on prevailing surface, nearly regular, punctures well delimited, puncture intervals mostly about two to three times puncture diameters. Hind wings fully developed. Hypomer on impunctate, with punctulate microsculpture. Mesoventrite punctate, without median ridge, fused with metaventral process. Mesanepisternum extremely finely punctate, punctures hardly visible at 100 times magnification. Mesepimeron impunctate, nearly four times as long as wide and nearly four times as long as interval to mesocoxa. Median part of metaventrite flattened, fairly finely and sparsely punctate. Lateral area of metaventrite with punctation coarse and very dense; punctures well delimited, to part as large or larger than puncture intervals, nearly touching metacoxal margin. Submesocoxal lines slightly convex, with marginal punctures smaller than punctures on lateral area of metaventrite and not extended laterally along margin of metaventrite. Submesocoxal areas about 0.03 mm long, as third of shortest interval to metacoxae. Metanepisternum flat, fused with metaventrite, its margin indicated by outer puncture row of metaventrite. Tibiae straight. Abdomen not microsculptured. Ventricle I very densely and rather finely punctate, punctures much smaller than those on lateral area of metaventrite, basal punctures not enlarged and not elongate, basal striae or wrinkles absent. Following ventrites very finely punctate.

**Male characters:** Protarsomeres I to III slightly widened. Aedeagus (Figs 11–13) 0.32 mm long, weakly sclerotized, symmetrical. Apical process gradually narrowed apically, with tip bent and acute in lateral view. Parameres straight, nearly evenly broad. Internal sac with complex sclerites, as in Fig. 13, with flagellar guide-sclerite widened apically, distinct accessory lateral sclerite, lacking membranous scale- or denticle-like structures.

**Habitat:** *Melaleuca* open forests on limestone, via Aram, Desa Lorulun; leave litter heavily infested with

mycorrhiza, and rotten logs and primary forest at the northern end of the bay, in thick leave litter and rotting logs.

**Distribution:** Indonesia: Moluccas, Yamdena Island.

**Remarks:** The species is also member of the *B. lenta* group. It falls in the key to the Moluccan species (Löbl, 2015a) to *B. vafra* Löbl, 2015 and *B. variata* Löbl, 2015, but may be easily distinguished from them by the elytra having uninterrupted basal striae. The shape of the parameres and the internal sac are similar to those of *B. variata*. The Papuan *B. bacchusi* (Löbl, 1975) is similar in aedeagal characters and has also uninterrupted basal striae of the elytra. It may be readily distinguished from *B. paucivestis* by the body significantly smaller and black.

### *Baeocera punctigera* sp. nov.

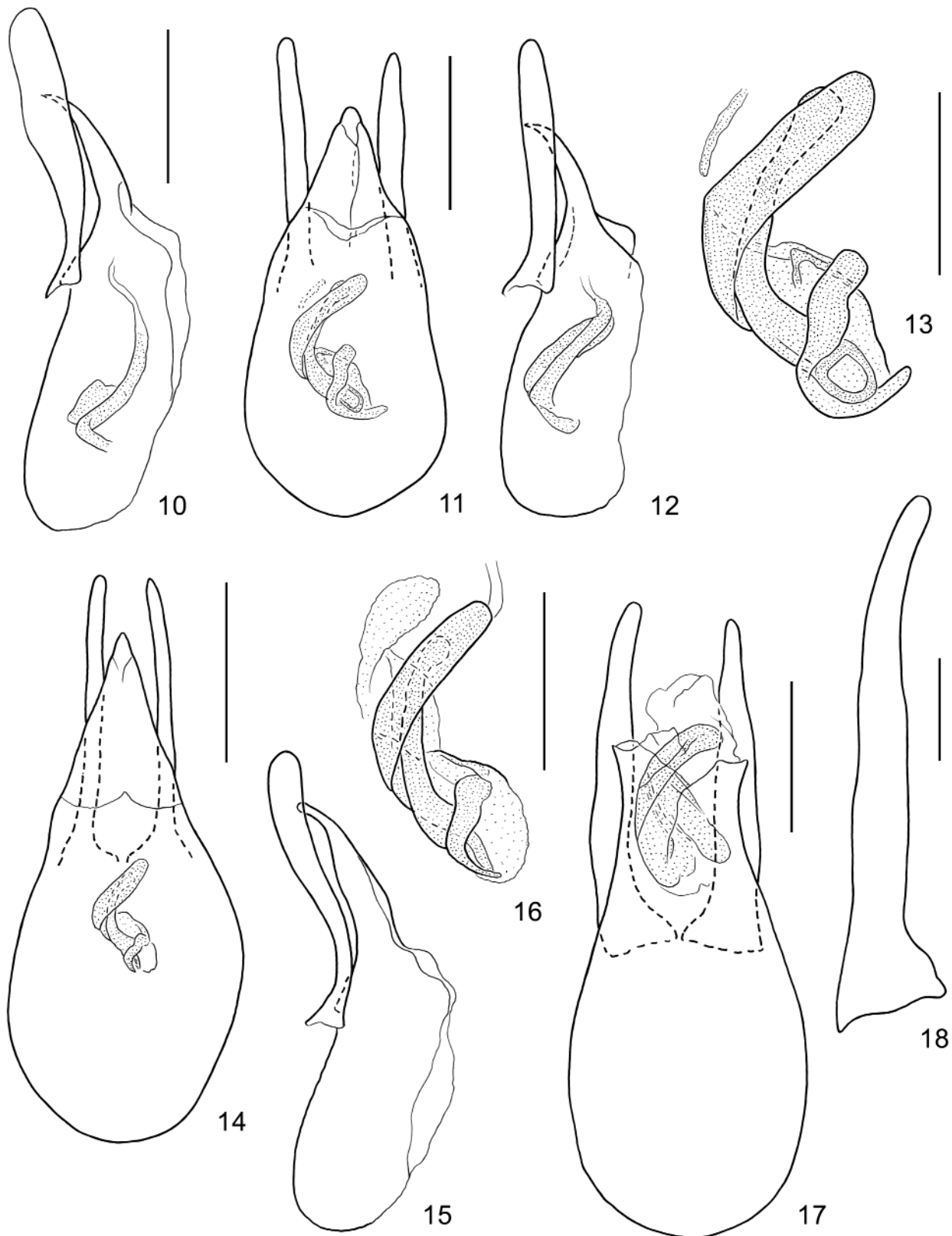
Figs 14–16

**Materiel examined:** *Holotype*; male; MHNG; MALUC: Tanimbar Isl., Kai Besar, G. Dab, 400 m, 5.IX.81, D. Agosti F911046.

**Etymology:** The species epithet is a Latin adjective meaning bearing punctures.

**Diagnosis:** The species is defined by the following characters in combination: Body-length about 1.2 mm long, body dark brown; pronotum coarsely and densely punctate, with many punctures larger than puncture intervals; lateral margins of pronotum and elytra separately arcuate; entire elytron coarsely punctate, sutural stria shortened, basal stria absent; mesepimeron with puncture row along anterior margin; hypomer on, mesanepisternum, metaventrite and ventrite I conspicuously punctate; ventrite I without basal striae or wrinkles; aedeagus symmetrical, with apical process narrowed apically, bent near tip (lateral view), parameres straight and evenly narrow in dorsal view, sinuate and widened toward apical third in lateral view, internal sac with complex sclerites as in Fig. 16, lacking membranous scale or denticle-like structures.

**Description:** Length 1.17 mm, width 0.80 mm. Head and body dark brown, femora and tibiae lighter, reddish-brown, tarsi and antennae yellowish. Head with interocular distance slightly larger than dorsoventral eye diameter. Antennomere II slightly longer than antennomere III. Length/width ratios of antennomeres as: III 28/7: IV 27/6: V 32/6: VI 28/6: VII 33/10: VIII 28/8: IX 35/13: X 35/14: XI 42/15. Pronotum and elytra separately arcuate. Pronotum not microsculptured, pronotal punctation conspicuously coarse and dense, distinct at 15 times magnification, consisting of sharply delimited punctures smaller than puncture intervals; lateral carinae of pronotum hardly visible in dorsal view, with punctures very dense, larger than puncture intervals. Point of scutellum exposed. Elytra covering



Figs 10-18. *Baeocera notata* sp. nov. (10) Aedeagus in lateral view, scale bar = 0.1 mm. Figs 11-13. *Baeocera paucivestis* sp. nov. (11, 12) Aedeagus in dorsal and lateral views, scale bar = 0.1 mm. (13) Internal sac, scale bar = 0.05 mm. Figs 14-16. *Baeocera punctigera* sp. nov. (14, 15) Aedeagus in dorsal and lateral views, scale bar = 0.1 mm. (16) Internal sac, scale bar = 0.05 mm. Figs 17, 18. *Baeocera punctiventris* sp. nov. (17) Aedeagus in dorsal view, internal sac extruded, scale bar = 0.1 mm. (18) Paramere in dorsal view, scale bar = 0.05 mm.



abdomen, weakly narrowed apically, with lateral margins evenly, weakly rounded; adsutural area flat and narrow; sutural stria punctate, shortened, starting about 0.20 mm posterior of tip of scutellum; basal stria absent; lateral stria punctate. Elytral disc not microsculptured; punctation entirely coarse and dense, punctures larger than those on pronotum and nearly as well delimited, puncture intervals mostly larger than puncture diameters. Hind wings fully developed. Hypomerion not microsculptured, conspicuously punctate except on smooth areas along upper margin and near mesocoxa, with some punctures about as large as puncture intervals and as pronotal punctures. Mesoventrite punctate, without median ridge, fused with metaventral process. Mesanepisternum conspicuously punctate, punctures similar to those on hypomerion. Mesepimeron with row of coarse punctures along anterior margin, about three times as long as wide and three times as long as interval to coxa. Metaventrite flattened in middle, all over coarsely and densely punctate, narrow apical band excepted; punctures on lateral part of metaventrite well delimited, mostly larger than puncture intervals. Submesocoxal lines parallel, with marginal punctures smaller than punctures on lateral area of metaventrite and somewhat extended laterally along margin of metaventrite. Submesocoxal areas about 0.02 mm long, as fifth of shortest distance to metacoxae. Metanepisternum flat, fused with metaventrite, its margin indicated by outer puncture row of metaventrite. Tibiae straight. Abdomen not microsculptured. Ventrite I densely and coarsely punctate, punctures smaller than those on lateral area of metaventrite, basal punctures not enlarged and not elongate, basal striae or wrinkles absent. Following ventrites finely punctate.

**Male characters:** Protarsomeres I to III slightly widened. Aedeagus (Figs 14-16) 0.29 mm long, weakly sclerotized, symmetrical. Apical process gradually narrowed apically, with tip bent and blunt in lateral view. Parameres straight and evenly narrow in dorsal view, sinuate and gradually widened toward apical third in lateral view. Internal sac with complex sclerites, as in Fig. 16 with flagellar guide-sclerite widened apically, broad, nearly membranous accessory lateral sclerite, lacking membranous scale- or denticle-like structures.

**Habitat:** South slope of G. Dab, secondary forest on limestone, soil and very humid leaf litter.

**Distribution:** Indonesia: Moluccas, Tanimbar Islands.

**Remarks:** This is another species of the *B. lenta* group, in external characters very similar to *B. notata*. It may be easily distinguished from the latter by the mesepimeron bearing a row of coarse punctures along its anterior margin and by the aedeagal characters, in particular by the parameres straight and narrow in dorsal view. In addition, the body-size of *B. punctigera* is smaller, the antennae are shorter, with the antennomere XI less than 3 times as long as wide. While the aedeagus

of *B. punctigera* is similar to that of the New Guinean *B. flagrans* Löbl, 2002, the species differs strongly from the latter by its external characters.

***Baeocera punctiventris* sp. nov.**

Figs 17-19

**Materiel examined:** *Holotype*; male; MHNG; MALUC: Tanimbar Isl., Kai Besar, G. Dab, 400 m 5.IX.81, D. Agosti F911046.

*Paratype*; MHNG; female; with the same data as the holotype.

**Etymology:** The species epithet is a Latin adjective meaning punctate ventrally.

**Diagnosis:** The species is defined by the following characters in combination: Body-length about 1.35-1.40 mm, body dark brown; lateral margins of pronotum and elytra nearly continuously arcuate; pronotum, elytra, hypomerion, mesanepisternum, lateral parts of metaventrite and ventrite I with similar, distinct punctation; elytron with sutural stria entire, basal stria present, broadly separated from lateral stria; mesepimeron punctate along anterior margin; ventrite I without basal striae or wrinkles; aedeagus symmetrical, with ventral side of apical process sinuate and bent at tip (lateral view), parameres nearly straight and slightly narrowed apically in dorsal view, evenly broad and weakly sinuate in lateral view, internal sac with complex sclerites, lacking membranous scale or denticle-like structures.

**Description:** Length 1.37-1.40 mm, width 0.95-0.97 mm. Head and body dark brown, femora and tibiae lighter, reddish-brown, tarsi and antennae lighter than tibiae, brown to yellowish. Head with interocular distance as dorsoventral eye diameter. Antennomere II hardly longer than antennomere III. Length/width ratios of antennomeres as: III 30/6: IV 33/6: V 46/7: VI 43/7: VII 51/9: VIII 40/8: IX 51/13: X 44/14: XI 48/14. Pronotum and elytra nearly continuously arcuate. Pronotum not microsculptured, pronotal punctation conspicuously dense and fairly coarse, barely distinct at 15 times magnification, consisting of sharply delimited punctures as large as and smaller than puncture intervals; lateral carinae of pronotum not or hardly visible in dorsal view, with punctures very dense, larger than puncture intervals. Minute point of scutellum exposed. Elytra nearly entirely covering abdomen, weakly narrowed apically, with lateral margins evenly, weakly rounded; adsutural area flat and narrow; sutural stria punctate, entire, bent at base and extended to form very shallow basal stria reaching about elytral mid-width, widely separated from lateral stria; lateral stria densely punctate. Elytral disc not microsculptured; punctation all over dense and fairly coarse, punctures not or only somewhat larger than those on pronotum,

well delimited, puncture intervals larger than puncture diameters. Hind wings fully developed. Hypomeron not microsculptured, distinctly punctate except on smooth area along upper margin, with punctures about as large pronotal punctures, most puncture intervals larger than puncture diameters. Mesoventrite punctate, without median ridge, fused with metaventral process. Mesanepisternum punctate, punctures distinct, as large as on pronotum and hypomeron. Mesepimeron with dense row of puncture along anterior margin, about three times as long as wide and four times as long as interval to coxa. Middle of metaventrite convex and finely punctate; punctures on lateral part of metaventrite conspicuous, as on mesanepisternite and hypomeron. Submesocoxal lines parallel, with marginal punctures not smaller than punctures on lateral area of metaventrite and not extended laterally along margin of metaventrite. Submesocoxal areas about 0.03 mm long, as fourth of shortest distance to metacoxae. Metanepisternum flat, fused with metaventrite, its margin indicated by outer puncture row of metaventrite. Tibiae straight. Abdomen not microsculptured. Ventrite I with punctuation as that on lateral area of metaventrite,

basal punctures not enlarged, elongate, basal striae or wrinkles absent. Following ventrites finely punctate.

**Male characters:** Protarsomeres I to III slightly widened. Aedeagus (Figs 17-19) 0.43 mm long, symmetrical, with ventral side of apical process sinuate and bent at tip (lateral view). Parameres nearly straight and slightly narrowed apically in dorsal view (Fig. 18), evenly broad and weakly sinuate in lateral view. Internal sac with complex sclerites, lacking membranous scale- or denticle-like structures.

**Habitat:** South slope of G. Dab, secondary forest on limestone, soil and very humid leaf litter.

**Distribution:** Indonesia: Moluccas, Tanimbar Islands.

**Remarks:** The aedeagal characters suggest relationship with *B. incurva*. Unfortunately, the sole available male has the internal sac extruded. Therefore, its structure cannot be compared to that of internal sacs in resting position. This species may be easily distinguished from *B. incurva* by the elytra having entire sutural striae curved at bases and extended laterally to form basal striae. The mesepimeron punctate along anterior margin is a feature shared only with *B. punctigera*.

#### Key to the Moluccan species of *Baeocera*

- 1 Metanepisterna distinct, separated clearly from metaventrite by a suture. Lateral parts of metaventrite very finely punctate ..... 2
- Metanepisterna indistinct, fused with metaventrite. Lateral parts of metaventrite coarsely punctate ..... 4
- 2 Body about 1.6-1.7 mm long. Ventrite I with basal wrinkles ..... *B. agostii* Löbl
- Body 1.05-1.40 mm long. Ventrite I lacking basal wrinkles ..... 3
- 3 Body 1.05 mm long. Basal striae of elytra broadly separated from lateral striae ..... *Baeocera* sp. A
- Body about 1.40 mm long. Basal striae of elytra joined with lateral striae ..... *Baeocera* sp. B
- 4 Pronotum and hypomera conspicuous punctate, with punctures well visible at magnification 20 times ..... 5
- Pronotum and hypomera with inconspicuous punctuation hardly visible at magnification 40 times, or impunctate ..... 7
- 5 Elytra with sutural striae shortened, starting well posterior of level of point of scutellum, basal striae absent .... 6
- Elytra with sutural striae entire and extended along basal margins to form basal striae ... *B. punctiventris* sp. nov.
- 6 Mesepimera impunctate. Body length about 1.3-1.4 mm ..... *B. notata* sp. nov.
- Mesepimera punctate. Body length about 1.2 mm ..... *B. punctigera* sp. nov.
- 7 Elytra with sutural striae shortened, starting well posterior of level of scutellar tip ..... 9
- Elytra with sutural striae entire, starting at elytral bases ..... 11
- 9 Body length 0.90 mm. Apical fourth of parameres widened (dorsal view) ..... *B. kaibesara* Löbl
- Body length about 1.20-1.35 mm. Apical fourth of parameres not widened ..... 10
- 10 Tip of median lobe bent, tip of parameres not bent dorsally ..... *B. vicina* Löbl
- Tip of median lobe not bent, tip of parameres bent dorsally ..... *B. incurva* sp. nov.
- 11 Elytra with basal striae entire, joined to lateral striae ..... *B. paucivestis* sp. nov.
- Elytra with basal striae broadly separated from lateral striae ..... 12
- 12 Aedeagus with tip of median lobe not bent ventrally ..... 13
- Aedeagus with tip of median lobe bent ventrally ..... 14
- 13 Body about 1.20-1.35 mm long. Apices of parameres widened (lateral view) ..... *B. vafra* Löbl
- Body about 1.0-1.10 mm long. Apices of parameres not widened (lateral view) ..... *B. variata* Löbl
- 14 Antennomere XI about 1.3 times as long as antennomere X. Aedeagus with flagellar guide-sclerite not widened apically ..... *B. yamderna* Löbl
- Antennomere XI about 1.1 times as long as antennomere X. Aedeagus with flagellar guide-sclerite widened apically ..... *B. humicola* sp. nov.

***Baeocera* sp. B**

**Material examined:** MHNG; 1 female; MALUC: Kai Besar Island, G. Dab, leaf litter, 400 m, 5.IX.1981, D. Agosti, F911046.

**Remarks:** This is the second Moluccan species of *Baeocera* remaining unnamed, in absence of at least one male specimen (see “*Baeocera* sp. A” in Löbl, 2015a). It is similar to the Papuan *B. curta* Löbl, 2002, differs by the less arcuate suture of the metanepisterna and the ventrite I lacking basal striae. Thus, it may be an undescribed species. *Baeocera curta* has a complex aedeagus providing reliable specific characters which are quite unlike those of members of the *Baeocera lenta* group and of *B. agostii*. The specimen has slightly prominent apical inner apical angles of the elytra, a character noted for the first time in *Baeocera*. It may be sexual, as it is in some species of *Scaphisoma* Leach.

***Scaphisoma* Leach, 1815**

**Remarks:** This species-rich genus is nearly world-widely distributed. At present, 18 species are known from the Moluccas (Löbl, 2015a), all but *S. luteomaculatum* Pic, 1915 and *S. coarctatum* Löbl, 2003 possibly endemic. The studied material comprises two additional species, one known previously from Queensland, and a new one.

***Scaphisoma sublimbatum* Löbl, 1977**

*Scaphisoma sublimbatum* Löbl, 1977: 57.

**Material examined:** MHNG; 2 males; MALUK: Aru Isl., Wokam, 5 km E. Mt. Sungai, 22.VIII.1981, D. Agosti, F91936.

**Redescription:** Length 1.53–1.75 mm, width 1.02–1.22 mm. Head, thorax and most abdomen dark brown, apex of abdomen yellowish. Elytra on adsutural area, along basal and lateral margins, and on transverse stripe in middle as dark as pronotum, in apical sixth to fifth light brown, each with two large, irregular, transverse yellowish spots. Anterior spots extending to middle third of elytral length, posterior spot starting about at level of apical third of elytral length. Femora light brown, tibiae, tarsi and antennae yellowish. Length/width ratios of antennomeres as: III 12/10: IV 27/8: V 50/9: VI 50/9: VII 57/16: VIII 38/10: IX 53/14: X 53/15: XI 60/14. Pronotum not microsculptured, with lateral margins strongly, evenly rounded, lateral margin carinae throughout visible in dorsal view, lateral margin carinae impunctate, discal punctation fine, sparse, most puncture intervals about 2 to 4 times as large as puncture diameters, punctures shallow, not well delimited, visible at 30 times magnification. Exposed point of scutellum minute. Elytra not microsculptured,

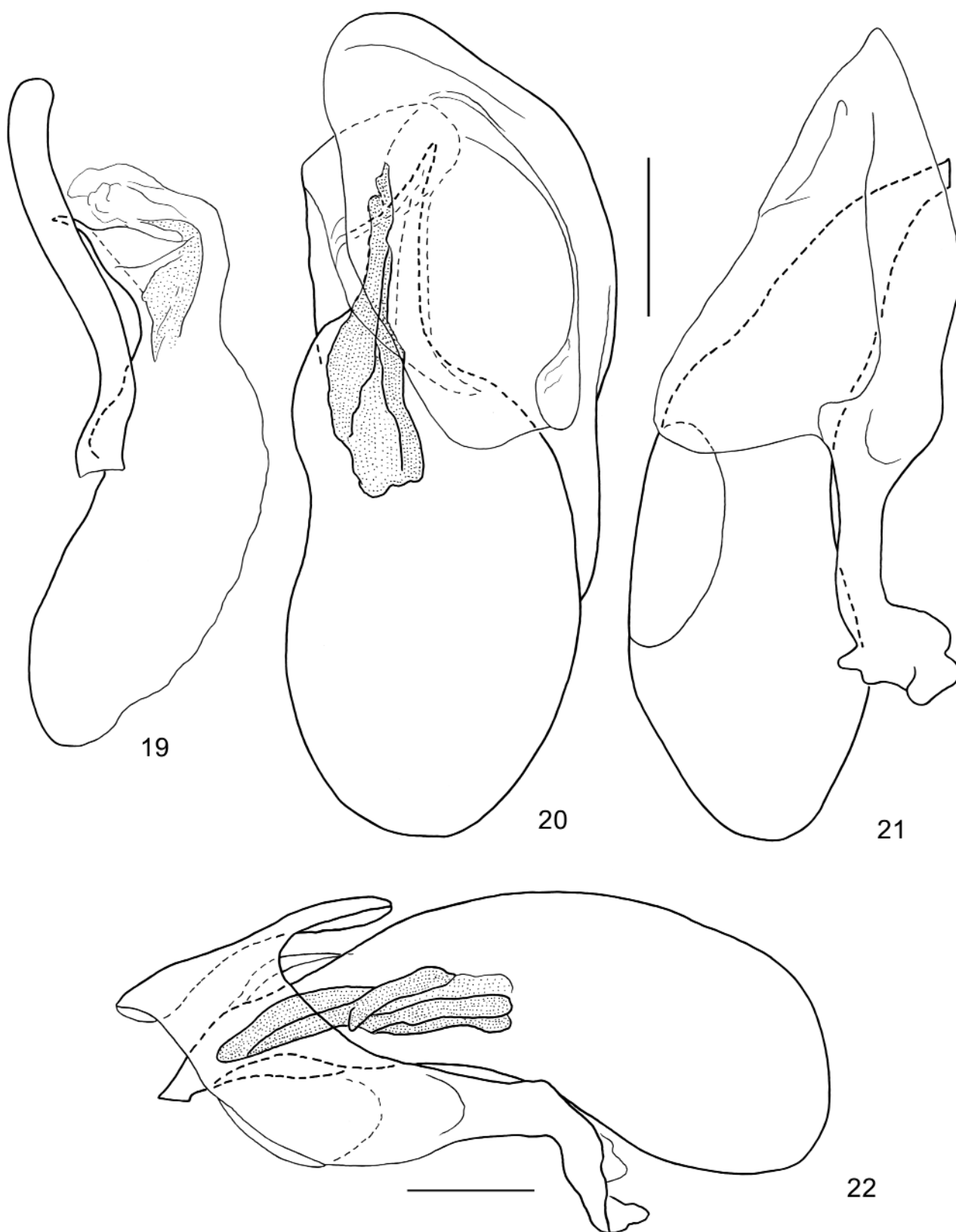
with lateral margins evenly rounded, lateral margin carinae exposed in dorsal view, lateral margin striae impunctate, apical margins truncate, inner apical angles not prominent, situated in level with outer apical angles, marginal crenulation very fine, distinct, sutural striae deep, bent at bases and extending laterally to form basal striae reaching outer half of basal width, widely separated from lateral striae, sutural striae parallel, impunctate, adsutural areas flat, each with single, very fine and sparse puncture row, discal punctures irregular, fairly fine and dense, coarser than pronotal or adsutural punctures, not forming rows, puncture intervals mostly distinctly larger than puncture diameters. Hind wings fully developed. Hypomera not microsculptured, impunctate. Mesepimon about 4 times as long as wide and somewhat shorter than interval to mesocoxa. Metaventrite not microsculptured. Median part of metaventrite convex between mesocoxae, flattened apically, with three fovea-like apical impressions, middle impression larger and situated slightly anterior lateral impressions, often joint to short mesal stria; punctation indistinct, sparse and extremely fine on centre and on lateral areas of metaventrite. Lateral parts of metaventrite lacking antecoxal puncture rows. Submesocoxal area 0.02 mm long, about as sixth of shortest interval to metacoxa. Submesocoxal line parallel, densely and coarsely punctate, punctures extended laterally along anterior margin of metaventrite. Metanepisterna slightly convex, impressed along nearly straight suture, narrowed anteriorly. Tibiae straight. Abdomen not microsculptured, with hardly visible punctation (at 100 times magnification). Ventrite I with submetacoxal area extremely narrow, about 0.01–0.02 mm long, narrowed mesally and as fifteens of interval to apical margin of ventrite; marginal punctures coarse.

**Male characters:** Protarsomeres I to III and mesotarsomeres I and II strongly widened, basal tarsomeres nearly as wide as apices of tibiae. Apical margin of ventrite VI trilobed, mesal lobe triangular, about 0.10 mm long, lateral lobes shorter and rounded.

**Habitat:** Secondary/primary forest on limestone, leaf litter on rather dry soil, understory *Pandanus*.

**Distribution:** Australia: Queensland; Indonesia: Moluccas, Aru Islands.

**Remarks:** This species is a member of the *S. unifasciatum* group defined in Löbl, 1977. In addition to *S. sublimbatum*, the group includes four New Guinean species: *S. audax* Löbl, 1975, *S. quadripunctatum* (Pic, 1956), *S. unifasciatum* Pic, 1956, and *S. unimaculatum* Löbl, 1975. An additional species is described below. The original description of the external features *S. sublimbatum* was brief and limited to comparison to the similar *S. audax*. Therefore, it is supplement.



Figs 19-22. *Baeocera punctiventris* sp. nov. (19) Aedeagus in lateral view. Figs 20-22. *Scaphisoma donati* sp. nov. (20, 21) Aedeagus in dorsal and lateral views, scale bars 0.2 mm. (22) Median lobe with left paramere, without internal sac.

***Scaphisoma donati* sp. nov.**

Figs 20-23

**Material examined:** *Holotype*; MHNG; male; MALUC: Tanimbar Isl., Sangliat Krawai E Yamdena, 19.IX.81 D. Agosti F911120.

**Etymology:** The species is named in honour of its collector, Donat Agosti (Bern, Switzerland).

**Diagnosis:** The species is defined by the following characters in combination: Body-length nearly 2 mm, body dark reddish-brown, not microsculptured; elytra with sutural striae parallel, basal striae entire, joined to lateral striae; mesepimeron shorter than interval between its tip and mesocoxa; metaventrite distinctly punctate on transverse area anterior of metacoxal process, lacking fovea-like impressions; submesocoxal and submetacoxal areas very narrow, with parallel lines; aedeagus as Figs 20-23, strongly asymmetrical, parameres lobed, overlapping apex of median lobe, internal sac strongly sclerotized.

**Description:** Length 1.94 mm, width 1.33 mm. Head and most of body nearly evenly dark reddish-brown. Apex of abdomen and appendages lighter. Antennomere II about four times as long as antennomere III. Length/width ratios of antennomeres as: III 9/10: IV 38/8: V 56/9: VI 52/8: VII 56/13: VIII 44/8: IX 57/15: X 52/14: XI 58/15. Pronotum and elytra not microsculptured. Pronotum with lateral margins rounded, lateral margin carinae not visible in dorsal view, discal punctation dense and very fine, consisting of poorly delimited punctures. Minute point of scutellum exposed. Elytra moderately narrowed apically, lateral margin rounded, lateral margin carina clearly exposed in dorsal view only in basal third, inner apical angle about in level with outer apical angle, sutural margin not raised, adsutural area flat, not narrowed apically, with very fine puncture row; sutural striae curved at base and extended laterally to form basal striae joined to lateral striae, discal punctation irregular, fine, punctures not well delimited, puncture intervals mostly about twice to five times as large as puncture diameters. Hind wings reduced. Exposed tergites very finely punctate, not microsculptured. Hypomeron smooth. Mesepimeron about four times as long as wide, distinctly shorter than interval between its tip and mesocoxa. Metaventrite short, not microsculptured, slightly convex in middle. Mesocoxal process concealed with mesoventrite. Centre of metaventrite impunctate, fairly coarse punctures present on transverse area anterior metacoxal process, fovea-like impressions absent. Lateral parts of metaventrite very finely and sparsely punctate, punctures on lateral areas hardly visible, antecoxal puncture rows absent. Submesocoxal lines parallel, fairly coarsely punctured; submesocoxal area about 0.02 mm long, as tenth of shortest distance to metacoxa. Metanepiternum narrowed anteriorly. Ventrite

I with punctation very fine, similar to lateral parts of metaventrite; submetaxocal lines parallel, margined with coarse punctures; submetacoxal areas hardly 0.02 mm, about as tenth of shortest distance to apical margin.

**Male characters:** Ventrite VI with mesal process triangular, about 0.15 mm long. Protarsomeres and mesotarsomeres I to III distinctly widened, with tenant setae, protarsomeres I narrower than apices of protibiae. Aedeagus (Figs 20-23) 1.25 mm long, strongly sclerotized and strongly asymmetrical. Apical process of median lobe slightly inflexed, obliquely truncate at apex. Left paramere extended posterior of right paramere and overlapping most of apical process. Internal sac with robust, strongly sclerotized and irregularly narrowed rod.

**Habitat:** Kanary evergreen primary forest on limestone, 50 m, thick leaf litter with heavy mycorrhiza.

**Distribution:** Indonesia: Moluccas, Yamdena Island.

**Remarks:** This is a member of the *S. sublimbatum* group. It may be easily distinguished from the other five members of the group by the elytra lacking spots, the metaventrite lacking mesal stria and fovea-like impressions, the antennomeres XI about as large as the antennomeres IX, and the basal striae of the elytra entire, joined to the lateral striae, in combination. The aedeagal characters suggest close relationships to *S. quadripunctatum* (Pic, 1956), the shape of the truncate tip of the apical process of the median lobe is unique in the new species. Its reduced hind wings suggest narrow endemism.

***Scaphobaeocera* Csiki, 1909**

**Remarks:** Members of this widely distributed genus are recorded for the first time from the Moluccas.

***Scaphobaeocera schouteni* Löbl, 1980**

*Scaphobaeocera schouteni* Löbl, 1980: 223.

**Material examined:** MHNG; 1 male; MOLUK: Tanimbar, Kai Besar, G. Dab, 400 m, 5.IX.1981, D. Agosti.

**Remarks:** The species was based on a single specimen collected at Limbin, New Ireland, and remained unrecorded since. The shape of its flagellum is diagnostic (see Löbl, 1980: fig. 3).

**Habitat:** Secondary forests on limestone, very humid soil and leaf litter.

**Distribution:** Papua New Guinea: New Ireland; Indonesia: Moluccas, Kai Besar Island.

*Scaphobaeocera plana* sp. nov.

Figs 24-27

**Material examined:** *Holotype*; MHNG; male; MALUK: Kai Besar, G. Tukrau nr Bombay, 4.IX.81, D. Agosti F911035.

*Paratype*; MHNG; male; with the same data as the holotype but 5.IX. and F911046.

**Etymology:** The species epithet is a Latin adjective meaning flat.

**Diagnosis:** Body-length 0.90 mm long, body light brown, not microsculptured and not iridescent; antennomere VIII exceeding half-length of antennomere VII, antennomere XI slightly longer than antennomere X and nearly 3 times as long as wide; elytra lacking parasutural stria; hypomeron lacking longitudinal striae; aedeagus as Figs 24-27, with broad basal bulb, short, strongly sclerotized and bent apical process and short, bilobed apicodorsal plate, parameres expanded, notched mesally, internal sac with short, robust, incurved sclerite.

**Description:** Length 0.90 mm, width 0.52 mm, dorsoventral diameter 0.47 mm. Head, body, femora and tibiae nearly uniformly light brown, elytra somewhat lighter near apices, tarsi and antennae lighter than tibiae. Length/width ratios of antennomeres as: III 10/5: IV 13/5: V 14/5: VI 12/5: VII 23/10: VIII 13/8: IX 24/10: X 27/11: XI 33/12. Pronotum finely punctate, not microsculptured. Scutellum concealed. Elytra not iridescent, not microsculptured, lacking parasutural striae, sutural striae deep, curved near base, discal punctation coarser than pronotal punctation. Hypomera not microsculptured, smooth, lacking longitudinal stria. Mesoventrite with low mesal ridge. Metaventrite weakly convex between mesocoxae, lacking median stria; entire median area rather coarsely and densely punctate, with some punctures about as large as puncture intervals, pubescence short. Lateral parts of metaventrite very finely punctate, not microsculptured. Submesocoxal areas about 0.03 mm, as half of shortest interval to metacoxae, submesocoxal lines appearing impunctate. Metanepisterna about 0.05 mm wide, flat, not narrowed anteriorly, impunctate, with straight suture reaching metepimera. Tibiae straight. Abdomen not microsculptured, very finely punctate, coarse basal punctures of ventrite I excepted.

**Male characters:** Protarsomeres I to III strongly widened, about as wide as apices of protibiae. Aedeagus as in Figs 24-27, 0.36-0.38 mm long. Apical process of median lobe short, curved and strongly inflexed, in apical section nearly perpendicular to basal bulb. Articular process not prominent. Dorsal side of basal bulb produced to form bilobed, strongly sclerotized plate. Internal sac with strongly sclerotized, proximally hook-like piece.

**Habitat:** Secondary forests on limestone, 200-400 m, dead log and leaf litter infested by fungi.

**Distribution:** Indonesia: Moluccas, Kai Besar Island.

**Remarks:** The species differs from most congeners by its body comparatively weakly convex, lacking microsculpture, and the elytra lacking parasutural striae, in combination. The aedeagal characters of *S. plana* are unique. The presence of a narrow apicodorsal process of the median lobe, the shape of the parameres and that of the sclerite of the internal sac lacking a flagellum are diagnostic. The generic assigned is therefore tentative. Several character states used to define the Scaphisomatini genera (see Leschen & Löbl, 2005) have not been verified as they may be seen only on slides of the head and thorax, requiring more available specimens.

*Scaphobaeocera* sp. 1

**Material examined:** MHNG; 1 male; MALUK: Aru Isl., Wokam, 5 km E Mt. Sungai, 22.8.1981, D. Agosti.

**Remarks:** This specimen possesses aedeagal characters similar to those of *S. notata* Löbl, 2017, from Papua New Guinea, and *S. lombokensis* Löbl, 2015. It differs from *S. notata* quite conspicuously by the uniformly light brown elytra, and from *S. lombokensis* by the parameres nearly evenly broad in lateral view and the ventrally bent tip of the median lobe. More material is needed to assess the variability of these characters.

**Habitat:** Secondary/primary forest on limestone, sea level, rather dry leaf litter; understory *Pandanus* palms.

**Distribution:** Indonesia: Moluccas, Aru Island.

*Scaphobaeocera* sp. 2

**Material examined:** MHNG; 1 female; MALUK: Tanimbar Isl., Yamdena, 22 km N Samlaki via Aram, Desa Lorulun, 11.IX.1981, D. Agosti.

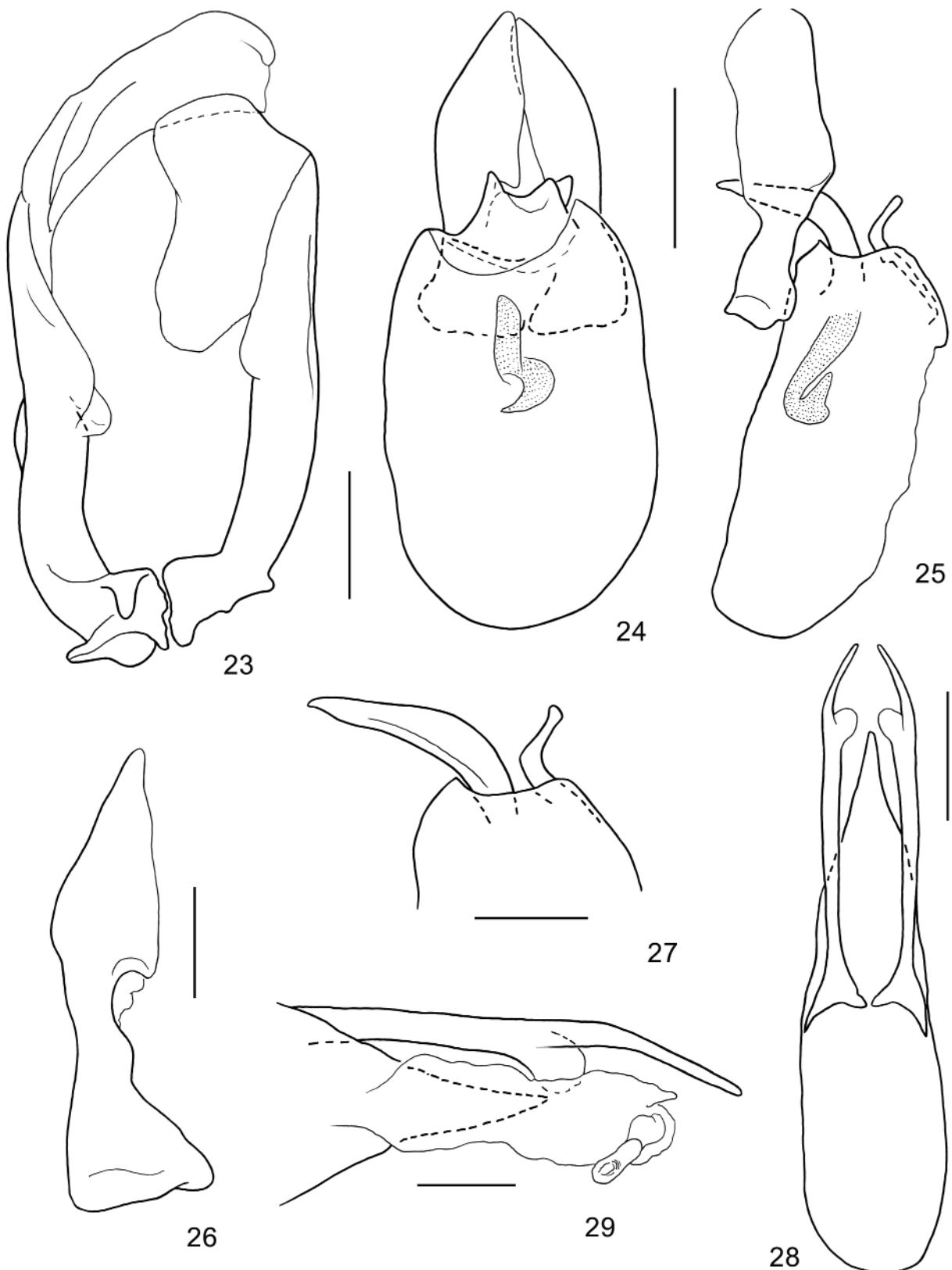
**Remarks:** This specimen would fall in the key to the New Guinean *Scaphobaeocera* (Löbl, 2017) under the couplet 5, to *S. antennalis* Löbl, 1975 and *S. remota* Löbl, 1981, and it shares with *S. remota* the elytra darkened apically and the antennomeres XI more than twice as long as the antennomeres X.

**Habitat:** Melaleuca open forest on limestone, leaf litter heavily infested by mycorrhiza.

**Distribution:** Indonesia: Moluccas, Tanimbar Island.

*Scaphoxium* Löbl, 1979

**Remarks:** Members of this widely distributed genus are here recorded for the first time from the Moluccas.



Figs 23-29. *Scaphisoma donati* sp. nov. (23) Parameres in ventral view, scale bar = 0.2 mm. Figs 24-27. *Scaphobaeocera plana* sp. nov. (24, 25) Aedeagus in dorsal and lateral views, scale = 0.1 mm. (26) Paramere in ventral view, scale = 0.05 mm. (27) Apical part of median lobe, in lateral view, scale = 0.05 mm. Figs 28, 29. *Scaphoxium lobatum* sp. nov. (28) Aedeagus in ventral view, scale = 0.1 mm. (29) Apex of median lobe with extruded internal sac and right paramere, in dorsal view, scale = 0.05 mm.

***Scaphoxium lobatum* sp. nov.**

Figs 28, 29

**Material examined:** *Holotype*; MHNG; male; MALUK: Aru Isl., Wokam, 5 km E Mt. Sungai, 22.8.1981, D. Agosti F91936.

**Etymology:** The species epithet is a Latin adjective meaning lobed.

**Diagnosis:** Body-length 1.35 mm; elytral punctation well delimited; hypomeron with longitudinal ridge; mesoventrite and metaventrite grooved mesally; lateral parts of the metaventrite bearing coarse punctures; submesocoxal area as long as shortest interval to metacoxa; abdomen with punctulate microsculpture; aedeagus as Figs 28, 29, with parameres broadly lobed at level of tip on median lobe, slightly narrowed posterior of lobe, internal sac lacking distinct sclerites and without scale-like or spine-like structures.

**Description:** Length 1.35 mm, width 0.67 mm, dorsoventral diameter 0.73 mm. Body uniformly dark brown, appendages lighter. Length/width ratios of antennomeres as: III 15/6: IV 15/6: V 25/6: VI 23/7: VII 38/10: VIII 28/8: IX 35/11: X 35/12: XI 43/13. Pronotal punctation dense and fine, distinct at 50 times magnification. Tip of scutellum exposed. Sutural striae starting posterior of basal fourth of elytra, evanescent in anterior 0.20 mm of elytral length. Elytral punctation and pubescence dense, visible at 25 times magnification, consist of sharply delimited punctures. Hypomeron very finely punctate on somewhat convex upper part, impunctate on flattened lower part; lower and upper parts separated by ridge extended anteriorly to level of procoxal mid-length. Mesoventrite grooved mesally. Mesanepisternum very finely punctate. Metaventrite grooved mesally, in middle very finely punctate. Lateral parts of metaventrite with punctation coarse and dense near submesocoxal lines, with punctures to parts larger than puncture intervals; punctation becoming sparser and fines laterad, areas along metanepisterna impunctate. Submesocoxal lines strongly arcuate, finely punctate. Submesocoxal areas 0.05 mm, about as long as shortest intervals to metacoxae. Metanepisterna not fused, with straight, finely punctate suture nearly touching margin of metepimera. Visible abdominal segments with distinct punctulate microsculpture. Exposed ventrites with very fine punctation, coarse row of basal punctures of ventrite I excepted.

**Male characters:** Protarsomeres I to III hardly widened. Aedeagus (Figs 28, 29) 0.51 mm long. Parameres each with large, rounded lobe at level of tip of median lobe, narrow and weakly bent posterior lobe, internal sac with plate-like structure, lacking spines or scales.

**Habitat:** Secondary/primary forest on limestone, rather dry leaf litter; understory *Pandanus* palms.

**Distribution:** Indonesia: Moluccas, Aru Islands.

**Remarks:** This species resembles *S. bilobum* Löbl, 2015 from Lombok which shares the shape of the parameres and the coarse punctation on lateral parts of the metaventrite. These two species differ in elytral punctation which is notably denser and consist of sharply delimited punctures in *S. lobatum*. The more relevant feature of *S. lobatum* is the internal sac lacking two pairs of strongly sclerotized pieces. The antennomeres III and IV appear slightly shorter in *S. lobatum*, a character not to be used as diagnostic until more material available to assess its variability more reliably. The length of the antennomere VI of *S. bilobum* was given in the original description as equal to that of the antennomere VII by error (Löbl, 2015b: 117), it is equal to that of the antennomere V.

***Scaphoxium* sp.**

**Material examined:** MHNG; 1 female; MOLUK: Kai Besar, Bombay, G. Dab, 3.IX.1981, D. Agosti, F911019. – MHNG; 1 female; MOLUK: Kai Besar, G. Tukram, 300-500 m, 7.IX.1981, D. Agosti F911075.

**Remarks:** These two specimens differ notably from *S. lobatum* by the very finely punctate lateral parts of the metaventrite.

**Habitat:** Secondary forests on limestone; leaf litter and moss on fallen tree.

**Distribution:** Indonesia: Moluccas, Kai Besar Island.

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