

Supplement to the knowledge of the Philippine Scaphisomatini (Coleoptera: Staphylinidae: Scaphidiinae)

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Following two new species are described from Mindanao, Philippines: *Baeocera adusta* sp. n. and *Scaphisoma shavrini* sp. n. Records of *Baeocera brunnea* (Löbl), *Scaphisoma duplex* Löbl & Ogawa, 2016, *Scaphisoma spatuloides* Löbl & Ogawa, *Sapitia* sp. and *Scaphoxium* sp. are new to Mindanao.

Key words. Coleoptera, Staphylinidae, Scaphidiinae, new species, new records, Mindanao

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INTRODUCTION

Overviews of the Philippine Scaphisomatini were recently provided by Löbl (2011a, 2011b, 2012) and Löbl & Ogawa (2016). Despite extensive collections studied, significant gaps in the knowledge of the Philippine scaphidiines still remain to be filled, suggesting need of more and extensive field work. The present study is based on new material sampled by Alexey Shavrin (Daugavpils, Latvia) in the large Philippine island Mindanao. It comprises eight species, two of them are new to sciences, two unidentified belong to genera not yet reported from Mindanao, and three species are here recorded for the first time from Mindanao.

MATERIAL AND METHODS

The specimens studied are deposited in the following collections:

ASColl: Private collection of Alexey Shavrin, Daugavpils, Latvia.

MHNG: Muséum d'histoire naturelle, Geneva, Switzerland.

The body length is measured from the anterior pronotal margin to the posterior inner angles of elytra. The length/width ratios of the antennomeres are measured on slide-mounted antennae. Statements about punctation on metaventrite and ventrite I do not refer to punctures bordering subcoxal lines. 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 on a separate label fixed on the same pine as the respective specimen.

RESULTS

Baeocera adusta sp. n. (Figs 1-3)

Type material. Holotype male: Philippines, Mindanao Isl., Davao Oriental Prov., Mt. Hamiguitan Range Wildlife Sanctuary, Banakon Creek, narrow valley of small river 6°44'24.5"N, 126°09'00.2"E, about 400 m, 22-24.03.2018, A. Shavrin leg. #2 (ASColl).

Paratypes: 2 males, with the same data as the holotype (ASColl, MHNG); 1 female, Mindanao, Mount Hamiguitan Range Wildlife Sanctuary, 6°43'48.0"N, 126°08'24.0"E, 500m, 30.III-2.IV.2018, A. Shavrin leg. (ASColl).

Description. Length 1.05-1.15 mm, width 0.72-0.78 mm. Body black, apical margins of elytra narrowly lighter, abdomen, legs and antennomeres I and II dark reddish-brown, following antennomeres almost yellowish. Body dorsally convex. Eyes large, about as wide as half of shortest interval between them. Length/width ratios of antennomeres as: III 23/6: IV 23/7: V 28/7: VI 25/7: VII 33/10: VIII 23/8: IX 32/11: X 35/13: XI 38/13. Pronotum and elytra not microsculptured, with lateral contours continuously arcuate. Pronotum very finely punctate, with lateral margins strongly rounded, lateral margin carinae concealed in dorsal view. Minute tip of scutellum visible. Elytra not covering apex of abdomen, strongly narrowed apically, with sutural striae strongly shortened, starting posterior basal fourth of sutural length, adsutural areas flat. Elytral punctation coarse and dense except on narrow smooth basolateral areas, punctures well delimited, smaller than puncture intervals. Hind wings not reduced. Hypomera impunctate. Mesepimera almost four times as long as wide and three times as long as intervals to mesocoxae. Metaventrite flattened in middle, with small smooth centre surrounded by dense and coarse punctation, coarse puncture about as large as or larger than puncture intervals; punctures on most of lateral surfaces larger and less dense than in middle, punctures near

metacoxae about as large as those on middle area. Submesocoxal lines convex, submesocoxal areas 0.03 mm long, about as third of shortest intervals to metacoxae. Metanepisterna concealed by elytra. Metepimera lacking longitudinal striae. Tibiae straight. Ventricle I coarsely and densely punctate, punctures well delimited, smaller than puncture intervals, basal puncture row not interrupted in middle.

Male characters. Protarsomeres I to III slightly widened. Aedeagus (Figs 1-3) 0.32 mm long, with median lobe weakly sclerotized.

Habitat. In wet litter and debris near a stream, sifted.

Etymology. The species epithet is a Latin adjective referring to the dark body colour.

Comparative notes. This species is a member of the *B. lenta* group. It falls under the couplet 1 in the key to the Philippine *Baeocera* (Löbl, 2012), it is very similar to *B. mindanaosa* Löbl, 2012. The new species may be distinguished from *B. mindanaosa* by slightly shorter sutural striae of the elytra, coarser punctation on the metaventrite and by the aedeagal characters. The straight parameres, the much longer and more curved apical process of the median lobe and the quite distinctive shape of the sclerotized complex of the internal sac are diagnostic.

Baeocera brunnea (Löbl, 1972)

Material examined. 17, Mindanao Isl., Davao Oriental Prov., Sitio Bitaugan, Kawa-kawa River, 6°46'31.0"N, 126°08'41.1"E, 300 m a.s.l., 24-26.03.2018, A. Shavrin leg. #4, sifted wet litter between medium-sized and large stones near river and in wet debris and dead wood accumulated near stream edge (ASColl, MHNG); 1, Mindanao Isl., Barangay Baganihan, Marilog District, Eagles Ridge, 7°45'2"N, 125°23'2"E, 26-28.03.2018, A. Shavrin leg. #5, secondary broad-leaved forest, sifted wet litter

near small rocks (MHNG); 6, Mindanao, Mount Hamiguitan Range Wildlife Sanctuary, 6°43'48.0"N, 126°08'24.0"E, 500m, 30.III-2.IV.2018, A. Shavrin leg., sifted wet litter and debris near stream (ASColl).

Comments. This species has been reported only from the Philippine islands Leyte, Luzon and Siargao (Löbl, 2012).

***Scaphisoma duplex* Löbl & Ogawa, 2016**

Material examined. 3, Mindanao, Mount Hamiguitan Range Wildlife Sanctuary, 6°43'48.0"N, 126°08'24.0"E, 500m, 30.III-2.IV.2018, A. Shavrin leg., sifted wet litter and debris near stream (ASColl, MHNG); 1, Mindanao Isl., Davao Oriental Prov., Mt. Hamiguitan Range Wildlife Sanctuary, Banakon Creek, narrow valley of small river 6°44'24.5"N, 126°09'00.2"E, about 400 m, 22-24.03.2018, A. Shavrin leg. #2, sifted wet litter and debris near stream (MHNG); 1, Mindanao Isl., Barangay Baganihan, Marilog District, Eagles Ridge, 7°452'N 125°232'E, 26-28.03.2018, A. Shavrin leg. #5, secondary broad-leaved forest, sifted from wet litter near small rocks (ASColl).

Comments. The species was based on specimens found in the Lagunas province, Luzon. The Mindanao specimens differ from them by the notably coarser elytral punctation. More material is needed to assess variability of this character.

***Scaphisoma laminatum* Löbl, 1972**

Material examined. 1, Mindanao, Mount Hamiguitan Range Wildlife Sanctuary, 6°43'48.0"N, 126°08'24.0"E, 500m, 30.III-2.IV.2018, A. Shavrin leg., sifted wet litter and debris near stream (ASColl); 3, Mindanao Isl., Davao Oriental Prov., Mt. Hamiguitan Range Wildlife Sanctuary, Banakon Creek, narrow valley of small river 6°44'24.5"N, 126°09'00.2"E, about 400 m, 22-24.03.2018,

A. Shavrin leg. #2, sifted wet litter and debris near stream (ASColl, MHNG); 1, Mindanao Isl., Barangay Baganihan, Marilog District, Eagles Ridge, 7°452'N 125°232'E, 26-28.03.2018, A. Shavrin leg. #5, secondary broad-leaved forest, sifted from wet litter near small rocks (ASColl).

Comments. This species is known from the Philippine islands Leyte, Luzon, Mindanao and Panay. The form of its irregularly tubular internal sac is quite variable, while other aedeagal characters are reliable and diagnostic.

***Scaphisoma shavrini* sp. n. (Figs 4, 5)**

Type material Holotype male: Philippines, Mindanao Isl., Davao Oriental Prov., Mt. Hamiguitan Range Wildlife Sanctuary, Banakon Creek, narrow valley of small river 6°44'24.5"N, 126°09'00.2"E, about 400 m, 22-24.03.2018, A. Shavrin leg. #2 (MHNG).

Description. Length 1.52 mm, width 1.20 mm. Head, thorax, elytra and legs dark reddish-brown, most of abdomen darker, almost blackish, apical abdominal segments yellowish, antennae yellowish to light brown. Pronotum and elytra not microsculptured and not iridescent. Length/width ratios of antennomeres as: III 15/9: IV 40/8: V 50/8: VI 50/8: VII 60/12: VIII 55/9: IX 60/13: X 53/13: XI 55/13. Pronotum very finely and sparsely punctate, punctures hardly visible at 50 times magnification. Lateral pronotal contours rounded, lateral margin carinae visible in dorsal view, lateral striae appearing impunctate. Tip of scutellum exposed. Elytra with lateral margins rounded, lateral margin carinae exposed in dorsal view, apical margins truncate, inner apical angles not prominent, about in same level as outer apical angles; sutural striae deep, parallel, curved along pronotal lobe and extended to form basal striae reaching outer third of basal elytral width; adsutural areas flat, narrow, each with single very fine puncture row; discal punctation very fine and sparse, about as pronotal punctation; lateral margin striae with few very fine punctures. Hind

wings developed. Hypomera and mesanepisterna not microsculptured. Mesepimera distinctly longer than intervals to mesocoxae, about five times as long as wide. Middle part of metaventrite flattened, lacking impressions or stria, impunctate, with strigulate microsculpture becoming mesh-like anteriorly. Lateral parts of metaventrite not microsculptured, very finely and sparsely punctate; submesocoxal areas 0.03 mm, about as fifth of intervals to metacoxae, submesocoxal lines parallel, bordered by coarse punctures extended laterally to tip of mesepimera; antcoxal puncture rows absent. Metanepisterna narrowed anteriorly, with suture oblique except near rounded anterior angles. Protibiae and metatibiae straight. Mesotibiae bent. Ventrites with bow-shaped microsculpture appearing punctulate on dry specimens, very finely and sparsely punctate; submetacoxal areas 0.08 mm, about as two thirds of intervals to apical margin of ventrite I; submetacoxal lines strongly convex, impunctate.

Male characters. Protarsomeres I to III strongly widened, mesotarsomeres I to III distinctly widened. Ventrite VI with apicomeral lobe rounded, about 0.04 mm long. Aedeagus (Figs 4-5) 0.68 mm long, strongly sclerotized, conspicuously asymmetrical.

Habitat. In sifted wet litter and debris near a stream.

Etymology. The species name is patronymic, in honour of its collector and well-known staphylinidologist, Alexey Shavrin (Daugavpils, Latvia).

Comparative notes. This species is a member of the *S. unicolor* group and falls in the key of Löbl & Ogawa, 2016 under the couplet 49, to *S. biliranense* Löbl, 1972 and *S. pandanum* Löbl & Ogawa, 2016. *Scaphisoma shavrini* differs drastically from these species by the shape of its aedeagus. It has the basal bulb wider with a ventral tubercle, and a unique shape of the strongly asymmetrical parameres. In addition, it may be easily distinguished from its

congeners by the strongly sclerotized, rod-like and almost completely extruded flagellum.

Scaphisoma spatuloides Löbl & Ogawa, 2016

Material examined. 4, Mindanao, Davao City, Boss Carreon Function Hall, 7°17'2"N, 125°41'2"E, 28.03.2018, A. Shavrin leg. #8 sifted litter on a slope near a river (ASColl, MHNG).

Comments. This species was based on material coming from the Philippine islands Luzon and Leyte. The species is unique in having tuberculate margin of the right parameres, while the margin of the left parameres is smooth.

Sapitia sp.

Material examined. 1 female, Philippines, Mindanao, Mount Hamiguitan Range Wildlife Sanctuary, 6°43'48.0"N 126°08'24.0"E, 500m, 30.III-2.IV.2018, A. Shavrin leg. Sifted wet litter and debris near a stream (ASColl).

Comments. The termitophilous *Sapitia* Achard, 1920 comprises three species, one of them, *S. lombokiana* Achard, 1920 is widely distributed in southeast Asia and was reported from the Philippine island Palawan (Löbl, 1971, Löbl & Ogawa, 2016). The Mindanao specimen may be distinguished by theelytra darkened apically and the larger submetacoxal areas. Thus, it differs from its congeners (see Löbl, 1978) but is left unnamed, in absence of knowledge of male characters.

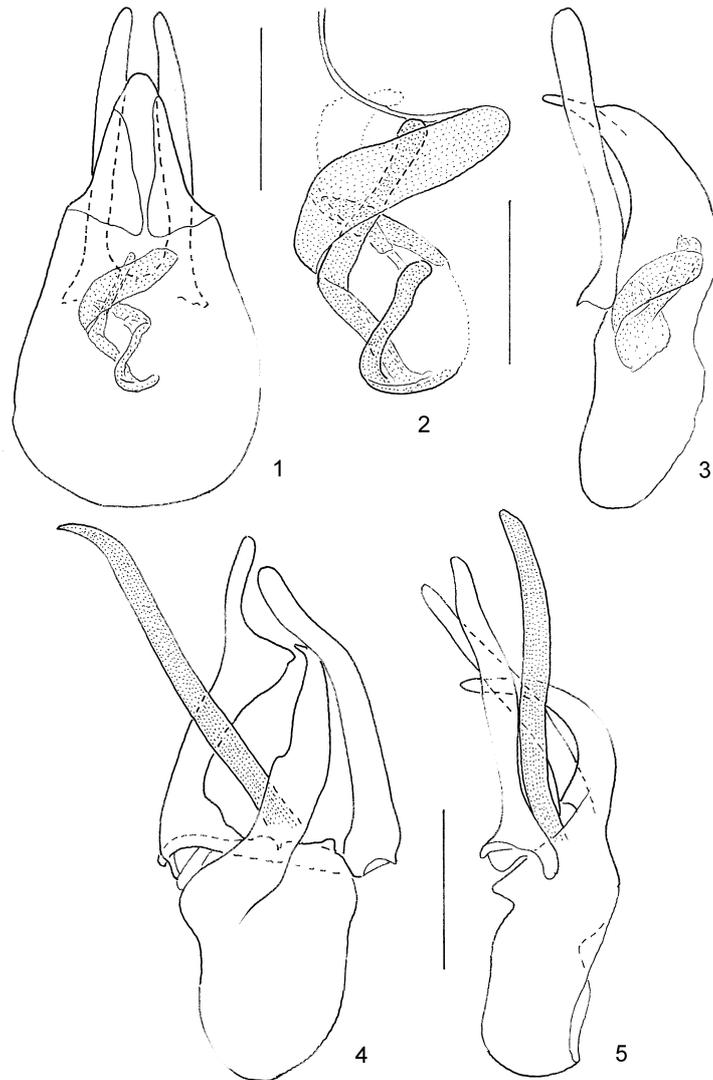
Scaphoxium sp.

Material examined. 1 female, Mindanao, Mount Hamiguitan Range Wildlife Sanctuary, 6°43'48.0"N 126°08'24.0"E, 500m, 30.III-2.IV.2018, A. Shavrin leg. Sifted wet litter and debris near a stream (ASColl); 1 female, Mindanao, Davao Oriental Prov., Mt. Hamiguitan Range Wildlife Sanctuary, Banakon

Creek, narrow valley of small river 6°44'24.5"N, 126°09'00.2"E, about 400 m, 22-24.03.2018, A. Shavrin leg. #2 (MHNG).

Comments. Only two species of *Scaphoxium* Löbl, 1979, *S. alesi* Löbl, 2011 and *S. taylori* Löbl, 1981, have been reported from the Philippines islands Luzon and Palawan (Löbl, 2011a). The specimens from Mindanao differ

drastically from *S. taylori* by the long antennomeres XI and coarsely punctate sides of the metaventrite, and they are not associated with *S. alesi*, because the latter species has only a few coarse punctures on each side of the metaventrite. However, the aedeagal characters are needed for reliable species identification of members of *Scaphoxium*.



Figs 1-3. *Baecocera adusta* sp. n., aedeagus in dorsal and lateral views, scale = 0.1 mm, internal sac in dorsal view, scale = 0.05 mm. Figs 4, 5. *Scaphisoma shavrini* sp. n. aedeagus in dorsal and lateral views, scale = 0.2 mm.

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