

THE FIRST *STENUS*-SPECIES FROM THE SOLOMONS (Coleoptera : Staphylinidae)¹

By V. Puthz

LIMNOLOGISCHE FLUßSTATION, SCHLITZ, GERMANY

Our knowledge of the Melanesian *Stenus*-fauna is very insufficient. Till now we know only of one species from New Britain (*S. dahli* L. Benick) and one from New Caledonia (*S. thioni* Montrouzier). Therefore, every addition to our knowledge of the fauna is very valuable. The Royal Society Expedition to the Solomon Islands caught two new beautiful species, which are described below. Both belong, according to definition, to the polyphyletic subgenus *Tesmus* Rey (cf. 1968 b) (abdomen not marginated, tarsi simple). At present the closest relatives are placed in the subgenus *Stenus* s. str. (*toxopei* Cameron, *illiesi* Puthz, cf. 1968 a).

Stenus aphrodite Puthz, new species Fig. 1, 2.

This new species belongs to the Australian-Polynesian species-group, which has the abdomen immarginated and the tarsi simple. The closest known relative is *S. dahli* L. Benick, from New Britain.

Green, blue, violet or coppery shining, fore-parts coarsely and very closely punctured, abdomen nearly impunctate, pubescence very indistinct. Antennae reddish-yellow, the club infusate. Palpi reddish-yellow, 3rd joint somewhat darker. Legs reddish-yellow, knees scarcely infusate, tarsi infusate. Labrum aeneous with scattered pubescence. Length: 3.5-4.0 mm.

Head slightly broader than elytra (704:702 MY), front broad (average distance of eyes: 448), with 2 narrow lateral furrows, middle-part nearly 1/2 as broad as each of the side-pieces, rounded, shallowly but distinctly elevated, about as high as level of inner margin of eyes. Punctuation coarse and close, diameter of puncture larger than section of 3rd antennal joint, sometimes nearly reaching section of 2nd antennal joint. Only the narrow antennal tubercles smooth.

Antennae moderately slender, when reflexed not extending to posterior margin of prothorax, penultimate joints about as broad as long. *Prothorax* distinctly longer than broad (602:499), broadest in posterior 1/3, sides to anterior margin straight, to posterior margin concavely narrowed. Punctuation uniformly coarse and very close, sometimes somewhat coalescent, about as coarse as on posterior parts of front. *Elytra* slightly narrower than head (702:704), distinctly longer than broad (813:702), humeri prominent (ca. 551), sides nearly parallel, in posterior 1/4 narrowed, posterior margin moderately deeply excavated (length of suture: 692). A very shallow basal depression near suture, humeral depression not conspicuous. Punctuation about as coarse and close as on pronotum, not coalescent. *Abdomen* cylindrical, slightly narrowed posteriorly, basal furrows of 1st segments deep, posterior margin of 7th tergite with a distinct membranous

1. 59th contribution to the knowledge of Steninae.

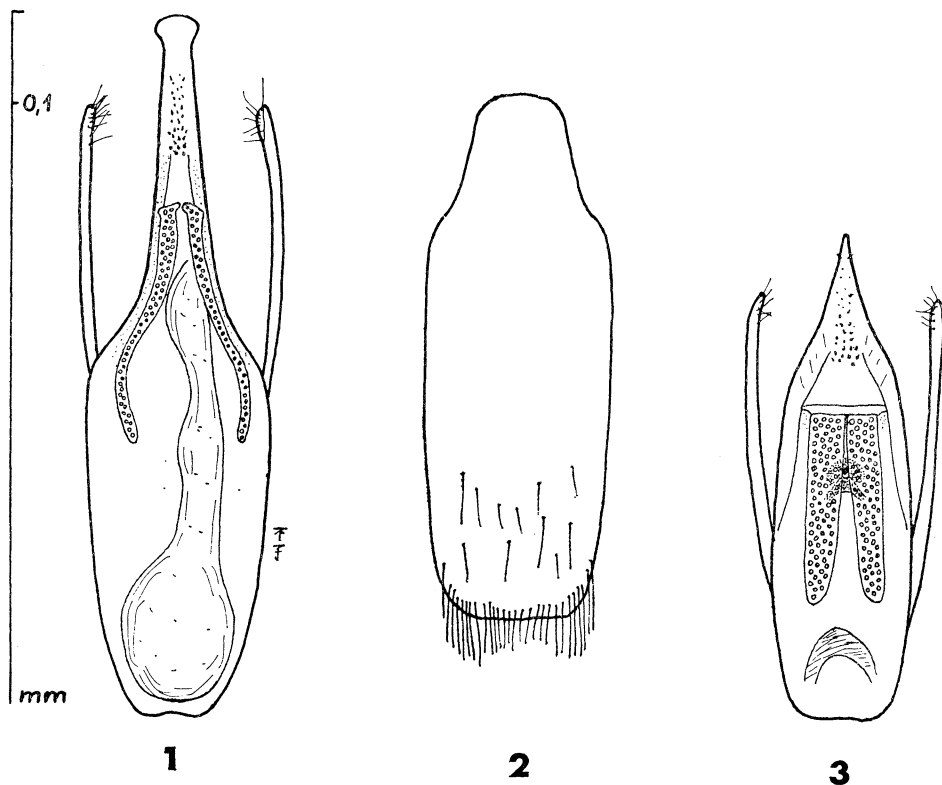


Fig. 1-3. *Stenus aphrodite* n. sp. (paratype): 1, ventral aspect of edeage; 2, ventral aspect of 9th sternite. Fig. 3. *Stenus aglaia* n. sp. (paratype: Savo Island) ventral aspect of edeage.

fringe. Punctuation throughout very fine and very scattered, at first sight the abdomen seems to be impunctate. *Legs* slender, posterior tarsi about $3/4 \times$ as long as tibiae, 1st segment about as long as 2nd and 3rd together, longer than last.

The whole insect lacks ground-sculpture.

♂. Femora strongly enlarged (club-like), tibiae without apical spines. 6th sternite in posterior $1/2$ broadly impressed, the sides obtusely carinated with long erect setae. 7th sternite broadly impressed, the impression somewhat convergent towards anterior margin, sides distinctly carinated, carinae somewhat projected posteriorly, with long erect setae, moderately deeply emarginated at posterior margin, punctuation in impression very fine and $2 \times$ as dense as that of impression of 6th sternite. 8th sternite narrowly excavated in posterior $1/5$. 9th sternite (fig. 2). 10th tergite at smooth posterior margin rounded. The *edeage* (fig. 1) is long, median lobe apically distinctly enlarged, apico-ventrally with many short setae. Inside with 2 narrow longitudinal expulsion-bands and a strongly sclerotized tubiform internal sac, which is enlarged and bulbous towards base. Parameres slender, not extending to apex of the median lobe.

♀. Unknown.

Holotype ♂, Solomon Is., Guadalcanal, Hidden Valley, 3.VII.1965, P. J. M. Green-slade. 2 ♂ paratopotypes, same data. Holotype in the British Museum (Nat. Hist.), paratypes ibidem and in my collection.

***Stenus aglaia* Puthz, new species** Fig. 3.

This new species belongs to the same species-group as *S. aphrodite*.

Shining, blue, violet, coppery or green, fore-parts coarsely and very closely punctured, abdomen with a distinct but scattered puncturation, pubescence not very distinct. Antennae reddish-yellow, club infusate. Palpi yellow, 3rd joint reddish-yellow. Legs reddish-yellow, knees and tarsi scarcely infusate. Labrum aeneous with scattered hairs. Length: 3.9-5. mm (when extremely extended more).

Head slightly broader than elytra (807: 769), front broad (average distance of eyes: 512), concavely excavated, with two narrow lateral furrows, media, n-part very narrow, smaller than 1 puncture, keely elevated but not reaching level of inner margin of eyes. Puncturation coarse and dense, diameter of puncture somewhat larger than section of 3rd antennal joint, interspaces smaller than 1/2 of a puncture. Antennal tubercles and median ridge impunctate, shining. *Antennae* moderately slender, when reflexed not extending to posterior margin of prothorax, penultimate joints about as long as broad. *Prothorax* distinctly longer than broad (679: 583), broadest somewhat behind middle, sides to anterior margin straight, to posterior margin concavely narrowed. Puncturation uniformly coarse and close, coarser than on head, diameter of puncture nearly as large as section of 1st antennal joint. *Elytra* somewhat smaller than head (769:807), distinctly longer than broad (903:769), humeri prominent (ca. 589), sides nearly parallel, in posterior 1/4 narrowed, posterior margin moderately deeply excavated (length of suture: 717). Surface nearly entirely flat. Puncturation somewhat coarser than that on pronotum, very coarse. *Abdomen* cylindrical, slightly narrowed posteriorly, basal furrows of 1st segments deep, posterior margin of 7th sternite with a distinct membranous fringe. Puncturation of tergites 3 and 4 moderately coarse and basally moderately dense, posteriorly much more distant, on following tergites fine and sparing, on 6th tergite diameter of puncture about as large as an anterior eye-facet, interspaces 4 × or more as large. *Legs* slender, posterior tarsi about 2/3 as long as tibiae, 1st segment distinctly longer than 2nd and 3rd together, nearly 2 × as long as last.

The whole insects lacks ground-sculpture.

♂. Femora strongly enlarged, tibiae without apical spines. 7th sternite in posterior 1/2 narrowly depressed, very finely and densely punctate and pubescent, with a narrow and shallow emargination at posterior margin. 8th sternite very shallowly emarginated. 9th sternite resembling that of aphrodite. 10th tergite at smooth posterior margin equally rounded. The *edeage* (fig. 3) is comparatively small, the median lobe acutely narrowed towards apex, apico-ventrally covered with many small setae. Inside with 2 large expulsion-bands, a strongly sclerotized expulsion-mechanism and a strongly sclerotized internal sac basally. The parameres are slender not extending to apex of medianlobe.

♂. 8th sternite equally rounded at posterior margin. Valvifera apically rounded, densely setiferous. 10th tergite as in ♂. No strongly sclerotized spermatheca.

Variability: The puncturation of the head differs somewhat in the different specimens. Also, the outer shape of edeage shows nearly imperceptible variations; perhaps expression of geographical distribution. At the present state it is impossible to fix subspecies (per island of the group) on the restricted material.

Holotype ♂ and 4 ♀♀ paratypes, Solomon Is.: Guadalcanal, Nuhu, 300 m, gully bottom litter, 31. X. 1965, P. Naturaga; 6 ♂♂, 4 ♀♀ paratypes, Guadalcanal: Umasani River, river bank, 5. VII. 1965 (18 703), P. J. M. Greenslade; 1 ♂ paratype, Savo I., 6. VI. 1965, Greenslade (17858); 1 ♀ paratype (immature): Savo I., 5. VIII. 1963, Greenslade (8303); 1 ♂, 2 ♀♀ paratypes (partly immature): Kolombangara near Kuzi, 9. IX. 1965, riverside vegetation, P. N. (all Royal Society Expedition).

Holotype in the British Museum (Nat. Hist.), paratypes ibidem in the B. P. Bishop Museum, Honolulu and in my collection.

KEY TO AUSTRALIAN-POLYNESIAN *STENUS*-SPECIES
(with abdomen immarginated and tarsi simple)

- 1 (8). Blue, green, violet or coppery (at least the elytra partly)
 2 (3). Head distinctly narrower than elytra 5.5 mm (Australia: N.S. Wales) **villosiventris** Lea
 3 (2). Head as broad as or somewhat broader than elytra
 4 (5). Head finely punctured. 4.0-4.5 mm (New Britain) **dahli** L. Benick
 5 (4). Head coarsely punctured
 6 (7). Front uniformly punctured, abdomen extremely finely and scattered punctured. 8th sternite of ♂ narrowly excavated in posterior 1/5, eedeage (fig. 1) 3.5-4.0 mm (Solomon Is.: Guadalcanal) **aphrodite** n. sp.
 7 (6). Front with a narrow and smooth median ridge, abdomen finely but distinctly punctured. 8th sternite of ♂ very shallowly emarginated at posterior margin, eedeage (fig. 3) 3.9-5.0 mm (Solomon Is.: Guadalcanal, Savo, Kolombangara) ... **aglaia** n. sp.
 8 (1). Fore-parts without any metallic lustre
 9(10). Middle of front smooth, eedeage (see Puthz in press) 4.0-4.5 mm (E. Australia, New Guinea ?) **caviceps** Fauvel
 10 (9). Middle of front punctate
 11(12). Larger: 6.5 mm (E. Australia) **leai** Bernhauer et Schubert
 12(11). Smaller, not extending 5.8 mm
 13(14). Puncturation of prothorax coarse but not dense 4.2 mm (E. Australia) **australicus** Blackburn
 14(13). Puncturation of prothorax less coarse and pretty dense 5.3 mm (E. Australia) **convexiusculus** L. Benick

BIBLIOGRAPHY

- Puthz, V. 1968a. Über indo-australische Steninen I (Coleoptera, Staphylinidae) 49. Beitrag zur Kenntnis der Steninen. *Deut. Ent. Z. (N. F.)* **15**: 445-75
 1968b. Die *Stenus*- und *Megalopinus*-Arten Motschulsky's und Bemerkungen über das Subgenus *Tesnus* Rey, mit einer Tabelle der paläarktischen Vertreter (Coleoptera, Staphylinidae) 54. Beitrag zur Kenntnis der Steninen. *Notul. Ent.* **48**: 197-219.
 In press. Revision der Fauvelschen *Stenus*- Arten, exklusive madagassische Arten 55. Beitrag zur Kenntnis der Steninen. *Bull. Inst. R. Sci. Nat. Belg.*