

## The first Euaesthetines from the Solomon Islands (Coleoptera: Staphylinidae) <sup>1)</sup>

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**Abstract:** Three species of the genus *Edaphus* Motschulsky are recorded from the Solomon Islands including the description of *E. solomonensis* **n. sp.** and *E. tuberosicollis* **n. sp.** These species have close relationships to the New Guinea fauna.

**Zusammenfassung:** Drei Arten der Gattung *Edaphus* Motschulsky werden von den Solomon Inseln gemeldet, zwei davon als neu beschrieben: *E. solomonensis* **n. sp.** und *E. tuberosicollis* **n. sp.** Die Arten zeigen enge Beziehungen zur Fauna von New Guinea.

**Key words:** Coleoptera, Solomon Islands, Staphylinidae, Euaesthetinae, *Edaphus*, new species

### Introduction

The Euaesthetine genus *Edaphus* Motschulsky has a worldwide distribution. More than 400 species have been described, mainly from the Oriental region. The genus is well known from New Guinea, but no species have been recorded up to now from the Solomon Islands. Recently I got some *Edaphus*, which were collected on the Solomon Islands by the Noona Dan Expedition in 1961–1962 (PETERSEN, 1966). The material contains three species, which are described here.

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<sup>1)</sup> 101<sup>st</sup> contribution to the knowledge of Euaesthetinae.

## Material and methods

The measurements given for parts of body are proportional measurements (1 unit = 0.0085 mm). For terminology of the exoskeletal characters see Fig. 1 in PUTHZ (1979 or 2007)

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## Descriptions

### *Edaphus solomonensis* n. sp.

Light brown (immature), shiny, almost impunctate (except insertions of pubescence), pubescence moderately dense, recumbent. Antennae, maxillary palpi and legs yellowish brown.

Length: 1,8 mm (not extended; forebody: 1,1 mm).

Holotype (♀): Solomon Islands: Rennell, Niupani, 19.VIII.1962, Berlese no. 104.

Proportional measurements: Head width: 49; distance between eyes: 32; eye length: 14; length of temples: 2; length of genae: 6; pronotal width: 51; pronotal length: 43; distance between basolateral carinae: 33; greatest width of elytra: 68; greatest length of elytra: 63; sutural length: 51.

Male: unknown.

Female: Antennae long, when reflexed about last segment extending beyond posterior margin of pronotum, club 2-segmented, segment 10 conical, as long as broad, segment 11 nearly twice as long as segment 10. Head large, slightly narrower than pronotum, eyes very large, coarsely faceted, temples distinct, short, converging, posterotransverse furrow of frons very deep and sharply delimited slightly before eye margin, anterolateral furrows nearly extinct, anteromedian portion distinctly but only slightly broader than each of the anterolateral portions, broadly convex toward clypeus, anterolateral portions strongly bump-like elevated. Pronotum distinctly broader than long, sides nearly straight in

anterior two thirds, strongly constricted behind; base with two distinct lateral carinae, a median carina extending to base proper and 4 large foveae, the lateral ones very deep and twice as broad as the median ones. Elytra much broader than pronotum, slightly broader than long, shoulders simple. Mediobasal carina of tergite 3 about half as long as the tergite.

*Edaphus solomonensis* **n. sp.** may be distinguished from all New Guinean *Edaphus* with a similar pronotal structure by the lack of punctuation and its greater length. In my key to the Oriental *Edaphus* (PUTHZ 1979) it has to be placed near column 43 *E. remyi* Jarr. but is much larger with larger eyes and with a different shape of the posterotransverse furrow of frons.

Etymology: Named after the Solomon Islands.

***Edaphus tuberosicollis* n. sp.**

Sexually dimorph, light brown, shiny, almost impunctate (except insertions of pubescence), pubescence fine, sparse, recumbent. Antennae, maxillary palpi and legs yellowish.

Length: 1.6 mm (forebody: 0.8-0.9 mm).

Holotype (♂) and paratype (♀): Solomon Islands: Guadalcanal, Honiara, 4.VIII.1962, Berlese no. 100.

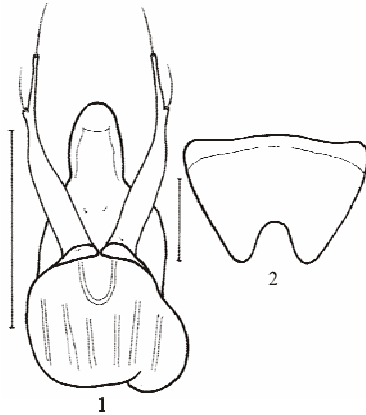
Proportional measurements (male/female): Head width: 36/39; distance between eyes: 25/28; eye length: 10/10; length of temples: 2.5/3; length of genae: 2.5/3; pronotal width: 41/49; pronotal length: 31/40; distance between basolateral carinae: 26/33; greatest width of elytra: 49/59; greatest length of elytra: 48/55; sutural length: 37/44.

Male: Sternite 8 (fig. 2). Sternite 9 with a distinctly projecting apicomedial tip and two oval areas of polygonal foveoles dorsally. Sperm pump 2.5 x as long as the median lobe, vesica seminalis indistinct. Aedeagus (fig. 1), median lobe with 4 small dorsal setae, parameres much longer than median lobe, slightly bifid with 2 long setae.

Female: Eyes smaller than in the male, pronotum different in outline and in the structure of surface: sides in anterior half straightly narrowed, transversely converging near anterior margin (which is not concave), surface nearly evenly convex, no tubercles, no impressions.

Head distinctly narrower than pronotum, eyes large, together with the distinct converging temples forming a regular semicircle, frons broad with a deep posterotransverse furrow, which is broadened laterally and sharply delimited slightly before eye margin; anteromedian portion of frons broader than each of the anterolateral portions, slightly convex,

clypeus simple, anterolateral furrows sharp. Antennae moderately long, not extending to the posterior margin of pronotum when reflexed, club 2-segmented, segment 10 about as long as broad, segment 11 about 1.5 x as long as segment 10. Pronotum (♂) much broader than long, anterior margin shallowly concave, sides nearly straight in anterior half (somewhat converging near anterior margin anteriorly), abruptly constricted in posterior half (outline resembling a broad “T” with short vertical arm); base with long lateral carinae, a median carina extending to base proper, and 4 large foveae, the lateral ones 1.5 x as broad as the medial ones; surface of pronotum uneven: a broad median impression in anterior half, a broad elevated area near anterior end of lateral carinae, a lateral longitudinal impression in anterior half and an elevated tubercle at each anterior corner. Elytra about as long as broad, shoulders simple. Mediobasal carina of tergite 3 nearly half as long as the tergite.



*Edaphus tuberosicollis* **n. sp.** resembles strongly *E. tuberculicollis* Puthz (New Guinea) but may be distinguished by the broad medial impression on the anterior pronotum, shorter mediobasal carina of tergite 3 and by the aedeagus. Etymology: Named after the small anterolateral tubercles of the pronotum.

Figs. 1, 2: *Edaphus tuberosicollis* **n. sp.** (holotype): dorsal aspect of aedeagus (1) and 8th sternite (2). Scale bar = 0.1 mm.

*Edaphus* sp.

1 ♀: Solomon Islands: Rennell, Biupani, 26. VIII. 1962, Berlese no. 115. Length: 1.4 mm (extended; not extended: about 1.1–1.2 mm; forebody: 0.65 mm).

Light brown, shiny, almost impunctate (except insertions of pubescence), pubescence short, dense, recumbent. Antennae, maxillary palpi and legs yellow.

Head narrower than pronotum, eyes small, temples short, distinct. Pronotum broader than long, sides convex anteriorly, constricted posteriorly, base with distinct lateral carinae, a median carina extending to base proper, and with 4 small foveae, the lateral ones twice as broad than the median ones. Elytra slightly broader than long, shoulders simple. Mediobasal carina of tergite 3 slightly longer than half the tergite.

Resembles *E. pygmaeus* Szek. (New Guinea) but has a narrower head, less distinct anterolateral furrows of frons and a longer mediobasal carina of tergite 3. In my key (1979) it has to be placed at column 145 *E. minutus* Puthz.

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