

**A new apterous species of *Scaphisoma* Leach (Coleoptera: Staphylinidae:
Scaphidiinae) from Western New Guinea**

**Nový bezkřídlý druh rodu *Scaphisoma* Leach (Coleoptera: Staphylinidae:
Scaphidiinae) ze Západní Nové Guiney**

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Abstract. *Scaphisoma riedeli* sp. nov. is described from Western New Guinea. The species is apterous and possibly endemic to the Baliem valley. It is notable for its comparatively short elytra and the robust denticles filling most of the internal sac of the aedeagus. Other aedeagal characters of the new species suggest its relationship to the Papuan *S. pseudofasciatum* Löbl, 1975.

INTRODUCTION

Scaphisoma Leach, 1817, with 603 species recognized as valid, is one of the most species-rich fungus feeding beetle genera. Its members are distributed in all major biogeographic regions, with the obvious exception of Antarctica. So far, 25 species are known from New Guinea (Löbl 1975, 2003), but only three of them, *S. beccarii* Löbl, 1975, *S. inornatum* Löbl, 1975 and *S. loriae* Löbl, 1975, are from Western New Guinea (Irian Jaya), and one, *S. tridentatum* Löbl, 1975, is more widely distributed and reported from Samoa (Löbl 1977) and Micronesia (Löbl 1981). Recently, I have examined a collection of Scaphisomatini from Western New Guinea that includes an additional new species of *Scaphisoma*. This species has reduced hind wings, like several of its high altitude New Guinean congeners (Löbl 2003), and is remarkable for the comparatively short elytra and aedeagal characters. Its description is given below.

MATERIAL AND METHODS

The specimens examined are housed in the following collections:

MHNG	Muséum d'histoire naturelle de la Ville de Genève, Switzerland
NMPC	National Museum, Prague, Czech Republic
SMNS	Staatliches Museum für Naturkunde, Stuttgart, Germany

The body length is measured from the anterior pronotal margin to the inner apical angle of the elytra. The length and width ratios of the antennomeres are taken from a slide. The width of the anepisternum refers to its exposed part. The abdominal sternites are counted from the first visible sternite (i.e., the third morphological sternite). The sides of the aedeagus refer to its morphological side, with the ostium situated dorsally, while it is in the resting position rotated 90°.

TAXONOMY

Scaphisoma riedeli sp. nov.

(Figs 1–6)

Type material. Holotype ♂ (SMNS), labelled: “Irian Jaya, Baliem-Tal, Jiwika-Wandaku 5.-6.9.1990 1700-2300m leg.A.Riedel” (= Indonesia, Western New Guinea, Papua Province, Baliem valley, Kurulu, Jiwika (trail to Wandaku), 03°57.161'S 138°57.357'E). Paratypes: 14 ♂♂, 8 ♀♀, with the same data as the holotype (SMNS, MHNG, NMPC); 5 ♂♂, 3 ♀♀, with the same data but 1900–2300 m (SMNS, MHNG).

Description. Length 1.24–1.39 mm, width 0.85–0.91 mm. Body dark reddish-brown to black, black specimens sometimes with anterior pronotal margin reddish, femora reddish-brown to brown, abdominal apex and remainder of appendages lighter. Antennae long, length/width ratio of antennomeres as: III 8/7; IV 23/6; V 33/6; VI 30: 6; VII 39/9; VIII 30/8; IX 40/12; X 40/12; XI 40/14. Pronotum with lateral margins evenly arcuate, lateral pronotal carina usually only visible near base, in some specimens entirely visible in dorsal view; discal punctation very fine, hardly visible at 50 times magnification, pubescence distinct. Scutellum concealed. Hypomeron smooth. Elytra comparatively short, along suture about 1.2–1.3 times as long as pronotum and with combined width exceeding about 1.4 times sutural length; lateral carinae exposed in dorsal view, conspicuous near base; sutural margin not raised; sutural striae weakly diverging from apex to mid-length and parallel in basal halves, or diverging to base, not or weakly curved at base and not extending along basal margins; adsutural areas flat; apical margins truncate, not crenulate near angles, inner apical angle situated posterior outer apical angles; discal punctation similar to that on pronotum, eventually with few scattered, slightly larger punctures. Hind wings absent. Mesoventrite with raised anterior margins. Mesepimeron about 1.5–1.7 times as long as interval to mesocoxa. Metaventrite not microsculptured, with very fine, hardly visible punctation, slightly convex between mesocoxae, flattened apicomesally, lacking impressions. Mesocoxal line subparallel to coxa to weakly arcuate, distinctly punctate. Submesocoxal area 0.03–0.04 mm, about half of shortest interval to metacoxa. Metanepisterum widest near metepimeron, at widest point 0.1 mm, narrowed anterad, slightly swollen, impressed along suture, latter deep and arcuate. Tibiae straight. Abdomen very finely punctate, 1st sternite lacking microsculpture, with subcoxal lines parallel, narrow (0.02–0.03 mm), distinctly punctate. Apical abdominal segments with hardly visible punctulate microsculpture.

Male characters. Apical process of abdominal sternite 6 triangular, 0.06 mm long. Aedeagus (Figs 2–6) 0.52–0.55 mm long. Median lobe asymmetrical, with basal bulb moderately sclerotized, strongly convex dorsoventrally, narrow in dorsal view. Articular process, robust, prominent ventrally. Apical process of median lobe narrow, strongly asymmetrical, tapering, in dorsal view sinuate, with acute tip. Ostium covered by weakly sclerotized dorsal lobe. Parameres symmetrical, weakly widened and conspicuously inflexed dorsally (lateral view), each with narrow membranous lobe on mesal side of apical half. Parameral bases anchor-like (ventral view). Apical halves of parameres densely porous, appearing punctulate reticulate. Most of inner sac filled by row of robust teeth becoming proximally shorter, basal part of internal sac consisting of irregular flat structures, rows of minute teeth and minute, weakly sclerotized scale-like structures.



Fig. 1. *Scaphisoma riedeli* sp. nov., habitus in dorsal view. Scale bar 0.5 mm.
Obr. 1. *Scaphisoma riedeli* sp. nov., habitus v dorzálním pohledu. Měřítko 0,5 mm.

Habitat. Remnant of a mixed *Nothophagus* forest.

Distribution. Indonesia, Western New Guinea, Papua Province, possibly endemic to upper Baliem valley.

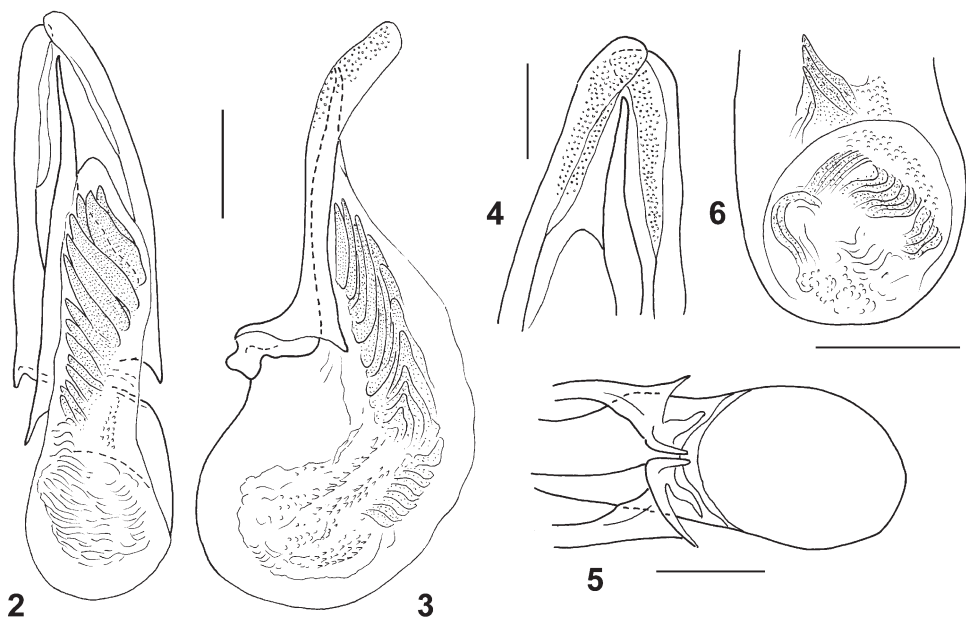
Etymology. The new species is named in honour of Alexander Riedel, Karlsruhe, who discovered this and many other new species.

Comments. The aedeagal characters suggest a relationship between the new species and *S. pseudofasciatum* Löbl, 1975, known from Papua New Guinea. In particular, both species share the form of the median lobe, although the basal bulb is smaller in *S. pseudofasciatum*, and both lack strongly broadened parameres. The internal sac with large, strongly sclerotized teeth combined with the dorsally incurved parameres are, however, unique in *S. riedeli*.

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Figs 2–6. *Scaphisoma riedeli* sp. nov., aedeagus in dorsal view (2), aedeagus in lateral view (3), apical process of median lobe and apical parts of parameres in dorsal view (4), bases of parameres with basal bulb in ventral view (5), basal bulb in ventral view (6). Scale bars 0.1 mm (2, 3), 0.05 mm (4), 0.1 mm (5, 6).

Obr. 2–6. *Scaphisoma riedeli* sp. nov., aedoeagus v dorzálním (2) a laterálním (3) pohledu, apikální výběžek mediálního lobu aedoeagu a špičky paramer v dorzálním pohledu (4), báze paramer s bazálním bulbem ve ventrálním pohledu (5), basální bulbus ve ventrálním pohledu (6). Měřítka 0,1 mm (2, 3), 0,05 mm (4), 0,1 mm (5, 6).

SOUHRN

Popsaný je nový druh rodu *Scaphisoma* Leach, 1817, *S. riedeli* sp. nov., sbíraný v údolí Baliem v Guinei, Indonésie. Tento druh je pravděpodobně blízký *S. pseudofasciatum* Löbl, 1975 z Papuy Nové Guinei, odlišuje se však zřetelně dorsálně zahnutými paramerami aedoeagu a vnitřním vakem s nápadně velkými, hrubými zoubky (obr. 2–6).