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Taxonomy of '*Euconnus* complex'. Part IV. Review of *Euconnus* subgenus *Rhomboconnus* (Coleoptera, Staphylinidae, Scydmaeninae)

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Abstract

Morphological structures of the type species of *Euconnus* (*Rhomboconnus* Franz) are described and illustrated, and compared with those of *Euconnus* s. str. *Rhomboconnus*, although showing several peculiar character states (e.g., rudimentary or lacking basal elytral foveae) is maintained as a subgenus of *Euconnus*, and its revised diagnosis is given. Two species currently placed in *Rhomboconnus*, *E. perplexus* Franz (Venezuela) and *E. trianguliceps* Franz (Ecuador) are redescribed. A surprising and striking similarity of the aedeagus of *Rhomboconnus* to that of *Plaumanniola* Costa Lima (Plaumanniolini) is discussed as yet another structural evidence supporting a previously postulated close relationship between the enigmatic Plaumanniolini and the '*Euconnus* complex'.

Key words: Insecta, Coleoptera, Staphylinidae, Scydmaeninae, Cyrtoscydmini, *Euconnus*, *Rhomboconnus*, Neotropical, taxonomy

Introduction

The largest genus of Scydmaeninae, *Euconnus* Thomson, 1859, comprising nearly 2500 described species, includes 37 subgenera (Newton & Franz 1998). However, diagnostic characters of most of them are unclear or ambiguous, and morphological structures of only *Euconnus* s. str. and *Napochus* Thomson, 1859 were studied and illustrated in detail (Jałoszyński 2012, 2015a). Additionally, several genera similar to *Euconnus* were revised (Jałoszyński 2012, 2013a), as the first step toward clarification of the taxonomy of '*Euconnus* complex'. *Euconnus* in its current limits comprises beetles structurally diverse, which share a narrow occipital constriction, the metacoxae separated by a moderately broad metaventral intercoxal process, and, first of all, the mesoventral intercoxal process developed as a high, long and narrow keel strongly projecting ventrally (e.g., Franz 1980; Jałoszyński 2012).

As a continuation of the previous three parts (Jałoszyński 2012, 2013a, 2015a), this study is focused on a small subgenus *Rhomboconnus* Franz, 1986. Franz included in this Neotropical subgenus only *E. perplexus* Franz, 1986 (Venezuela) and *E. trianguliceps* Franz, 1980 (Ecuador). The latter species was transferred to *Rhomboconnus* from the subgenus *Pycnophus* Casey, 1897 (= *Nudatoconnus* Franz, 1980). Diagnosis of the new subgenus comprised the following characters: the head strongly elongate, asetose and rhomboidal, with flat eyes located in its anterior part and with a lateral projection near base; antennae filiform, with very small antennomere III; pronotum conical or subconical, broadest at or near base; elytra strongly convex, with rudiments of basal foveae and humeral calli, without humeral wrinkles or folds (= subhumeral lines); and the mesoscutellum not visible between elytral bases in intact specimens. The rudimentary basal elytral foveae seem rather unusual as for *Euconnus*; the nominotypical subgenus has two distinct asetose foveae on each elytron (Jałoszyński 2012).

In the present paper the two known species of *Rhomboconnus* are redescribed and the diagnosis of *Rhomboconnus* and its taxonomic status are discussed.

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