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Revision of the genus *Stenichnaphes* Franz in New Zealand (Coleoptera: Staphylinidae: Scydmaeninae)

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Abstract

Three species of *Stenichnaphes* Franz were described from New Zealand: *St. urbanus* Franz (type species of the genus), *St. peloriensis* Franz and *St. newtoni* Franz, but the two former names were later synonymized. Basing on detailed morphological study, *St. peloriensis* is reinstated as a separate species, and *St. newtoni* is transferred to *Scydmaenilla* King, within *Zeanilla* **subg. n.**, resulting in *Scydmaenilla (Zeanilla) newtoni* **comb. n.** All three species are redescribed, a previously unknown aedeagus of *St. peloriensis* is illustrated, and details of morphological structures of *St. urbanus* and *Sc. newtoni* are presented.

Key words: Coleoptera, Staphylinidae, Scydmaeninae, Cyrtoscydmini, *Stenichnaphes*, *Scydmaenilla*, new species, revision, morphology, New Zealand

Introduction

The cyrtoscydmine genus *Stenichnaphes* Franz, 1980a currently comprises 6 species: *St. urbanus* Franz, 1980a, *St. newtoni* Franz, 1986a (New Zealand), *St. madagassicus* Franz, 1986b, *St. similis* Franz, 1986b and *St. sakarahanus* Franz, 1986b (Madagascar), and *St. brasiliensis* (Franz, 1967) (Brazil). There were also three other species names originally published in combination with *Stenichnaphes*: *St. peloriensis* Franz, 1986a (New Zealand) was synonymized with *St. urbanus* by Kuschel (1990) and *St. sumatrensis* Franz, 1984 (Sumatra) and *St. ceylonensis* Franz, 1982 (Sri Lanka) were placed in a separate subgenus *Parastenichnaphes* Franz, 1984, which was later elevated to the genus rank (Franz 1989). Franz (1980a) compared *Stenichnaphes* to *Neuraphes* Thomson, 1859 and *Stenichnus* Thomson, 1859, genera distributed in the northern hemisphere, and later included *Stenichnaphes* in an informal complex of genera comprising also Neotropical *Alloraphes* Franz, 1980b and Oriental *Parastenichnaphes*. His identification key to these three genera included only male genital characters (Franz 1989), and only recent revisions of Oriental species of *Parastenichnaphes* and a comprehensive revision of *Alloraphes* shed more light on other morphological structures (Jałoszyński 2005, 2013a). The two latter genera show similarities to Austral *Austrostenichnus* Franz 1971, *Zeanichnus* Jałoszyński, 2013b, *Scydmaenilla* King, 1864 and *Palaeoscydmaenus* Franz, 1975, whose morphological structures were recently illustrated and described in detail (Jałoszyński 2012a, 2013b). All these taxa share the submentum demarcated laterally by oblique sutures, a character not known in any other southern hemisphere genus whose structures have been studied so far. Morphological details of *Stenichnaphes*, including the submentum, were largely unknown, and therefore close relationships of this genus with *Alloraphes* and *Parastenichnaphes* were merely speculations.

To fill this gap in our knowledge, the present study is focused on species of *Stenichnaphes* described from New Zealand, as most relevant to ongoing research on the Scydmaeninae of Australia and adjacent areas. Neotropical and Madagascan species will be treated separately.

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