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Australian marsh beetles (Coleoptera: Scirtidae). 2. *Pachycyphon*, a new genus of presumably terrestrial Australian Scirtidae

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Abstract

The genus *Pachycyphon* is erected for marsh beetles (Coleoptera: Scirtidae) from tropical rainforests in Queensland, Australia. The following species are included: *P. corpulentus* **sp. n.**, *P. crassus* **sp. n.**, *P. elegans* **sp. n.**, *P. funicularis* **sp. n.**, *P. gravis* **sp. n.**, *P. monteithi* **sp. n.**, *P. obesus* **sp. n.**, *P. pinguis* **sp. n.**, *P. serratus* **sp. n.**, *P. turgidus* **sp. n.** (the type species). Females are wingless and have fossorial ovipositors, a terrestrial larval life is therefore hypothesized. *Pachycyphon* is compared with other genera, especially probable relatives from temperate rainforests in southeastern Australia.

Key words: taxonomy, new genus, new species, morphology, winglessness, fossorial ovipositors, terrestrial larvae

Introduction

During ongoing studies of the *Cyphon*-like Australian Scirtidae large numbers of specimens were borrowed from several Australian museums. In view of the structural diversity, body length less than 4 mm was used as the criterion for selection from mixed collections of Scirtidae. Inevitably, a number of specimens were included that upon study proved to belong to genera other than *Cyphon* Paykull (in a wide sense). Among these were several species from forested mountain tops in tropical North Queensland (Fig. 55) with wingless females with fossorial ovipositors that had been collected in Berlese samples or sifted from leaf litter. Presumably, these females oviposit into some moist substrate on the forest floor, possibly leaf litter or water-saturated decaying wood.

These beetles belong to an unknown genus which is here described and compared with other genera, especially possible relatives from cool temperate rain forests in Southeast Australia.

Methods and depositories

Methods are as described by Zwick (2012). Specimens were received dry, on cards. They were relaxed, the abdomen removed and cleared in concentrated cold KOH overnight. Afterwards, abdomens were thoroughly rinsed in water. Most were dehydrated in ethanol, dissected, and eventually mounted in Euparal on small transparent plastic slides covered with a piece of cover glass. Preparations were placed on the same pin as the forebody. A few cleared abdomens were placed in glycerine in polyethylene microvials with silicone stoppers through which they were pinned with the specimen.

Specimens were dissected and mounted under a WILD M5A dissecting microscope at magnifications up to 50x. Preparations were studied with a LEICA-DMLS compound microscope equipped with a drawing mirror, at up to 630x. In all figures, the caudal end is up, in lateral views dorsal is on the left hand side.

Measurements are in metric units: body size in mm, in figures of genitalia in µm.

Specimens were borrowed from and returned to collections listed below. Depositories are given in parentheses in lists of material, using the following abbreviations:

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