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Review of the genus *Sekaliporus* Watts, 1997 with description of a new species from northern Australia (Coleoptera: Dytiscidae, Hydroporinae)

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Abstract

Sekaliporus davidi sp. n. is described from northern Australia. It is the second species in the genus. It occurs from the Kimberley region in the northwest of Western Australia to north-eastern Queensland. The new species is morphologically similar to *S. kriegi* Watts, 1997 described from the Kakadu area in the Northern Territory but well characterized by its constantly larger size, six yellowish markings on elytra, the different form of the apical triangular spine of elytra, and the form of the median lobe. *Sekaliporus davidi* sp. n. is a lotic species from intermittent creeks and slow flowing rivers and their residual pools. Important species characters (median lobes, parameres and colour patterns) of the two species are figured, and notes on their habitats and distribution are given. Both species are capable of flight and were also collected at light.

Key words: Coleoptera, Dytiscidae, *Sekaliporus*, new species, lotic habitats, northern Australia

Introduction

The Australasian Hydroporini diving beetles (Coleoptera, Dytiscidae) are an endemic radiation of 11 genera distributed across the entire Australian continent and a few neighbouring islands such as New Guinea, New Caledonia, New Zealand, Timor and Fiji (Hendrich et al. 2010; Balke et al. 2013; Toussaint et al. 2014). The 147 extant species (Nilsson 2015) occupy all kind of lentic and lotic habitats as well as underground waters (Watts 2002, Watts et al. 2008; Hendrich & Fery 2008, Hendrich & Watts, 2004, 2009, Hendrich et al. 2014).

Described as a monotypic genus, *Sekaliporus* Watts, 1997 is distributed across coastal northern and north-western Australia (Watts 1997). The habitat preference is lotic, the beetles are restricted to slow flowing tropical rivers, streams and creeks very often in forested areas (Watts 1997). The larvae of the genus are known but not yet described (Watts 2002). According to the results of a comprehensive phylogeographic study of the Australian Hydroporini by Toussaint et al. (2014) *Sekaliporus* is closely related to *Tiporus* Watts, 1985. The genera *Sekaliporus*, *Tiporus*, *Antiporus* Sharp, 1882 and *Brancuporus* Hendrich, Toussaint & Balke, 2014 form a clade which is recovered as a sister of *Chostonectes* Sharp, 1882 and *Megaporus* Brinck, 1943.

The aims of this paper are to describe an overlooked but morphologically distinct species of *Sekaliporus* and to compare it with the other known species of the genus. Furthermore, detailed information about their life habitats and distribution will be given.

Material and methods

The digital habitus photos were produced by Katja Neven (ZSM, Germany). The beetles were studied with a Leica MZ 12.5 binocular at 10–100x. Drawings of the male genitalia were made based on digital images.

Photographs of the habitus were taken with a digital photo imaging system, composed of a Leica Z 6 APO and a Nikon V1 camera. Image stacks were aligned and assembled with the computer software Helicon Focus 4.77TM.