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Prosthetops wolfbergensis sp. nov.—a giant amongst the 'minute moss beetles', with new data on other members of the genus (Coleoptera, Hydraenidae)

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Abstract

Prosthetops wolfbergensis **sp. nov.** (Coleoptera, Hydraenidae) is described from the Western and Northern Cape regions of South Africa; the new species, at up to 4.2 mm total length, apparently being the longest 'minute moss beetle' described to date. *Prosthetops* species are characteristic inhabitants of temporary rainwater pools and seepages on exposed plateau in the Cape fold mountains, and on rock outcrops beside streams and rivers. New collection records and ecological data are given for members of the genus, and the female of *Prosthetops pronotus* Perkins & Balfour-Browne, 1994 is described and illustrated for the first time.

Key words: Coleoptera, Hydraenidae, *Prosthetops*, *megacephalus* group, new species, South Africa, ecology, new records

Introduction

Prosthetops Waterhouse (1879) is a small genus of hydraenid water beetles, containing six described species (Perkins & Balfour-Browne, 1994; Perkins, 2008), all of which are, like most other Prosthetopinae, endemic to South Africa. *Prosthetops* are rather rare in collections, only 155 specimens being examined amongst over 45,600 hydraenids studied by Perkins (2008; 2011). Recent fieldwork by the author has resulted in new collection records and ecological data for this genus in the Cape region of South Africa, as well as the discovery of a new species of the *megacephalus* group (*sensu* Perkins & Balfour-Browne, 1994), which is described below. As well as being relatively widespread in the Western and Northern Cape regions, this new species also appears to be the longest hydraenid known to date, dwarfing most other members of the family.

Materials and methods

Specimens were studied using a Leica MZ8 stereomicroscope, with a Fluopac FP1 fluorescent illuminator. The habitus photograph was taken with a Canon EOS 500D camera fitted to a Leica Z6 Apo macroscope, fitted with a 2x objective lens. Specimens were illuminated using two Fluopac FP1 illuminators and a fibre-optic swan-neck illuminator to avoid shadow, light being diffused using a tracing-paper collar placed around the specimen. Image stacks were produced by hand, and combined using Helicon Focus software (www.heliconsoft.com).

For scanning electron microscopy material was air-dried overnight, before being mounted onto metal stubs using double-sided carbon conducting tape. Specimens were gold sputter coated using an Emitech K550 Coating Unit, and then examined and photographed in a JEOL JSM5600LV Scanning Electron Microscope (SEM).

Exact label data are cited for specimens.

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