



## Two new species of Parhydraenini from South Africa (Coleoptera: Hydraenidae)

DAVID T BILTON<sup>1,3</sup> & PHILIP D PERKINS<sup>2</sup>

<sup>1</sup> Marine Biology and Ecology Research Centre, School of Marine Science & Engineering, University of Plymouth, Drake Circus, Plymouth PL4 8AA, UK

<sup>2</sup> Department of Entomology, Museum of Comparative Zoology, Harvard University, Cambridge, MA 012138, USA

<sup>3</sup> Corresponding author: E-mail: d.bilton@plymouth.ac.uk

### Abstract

Two new species of the African and Madagascan hydraenid tribe Parhydraenini are described from South Africa. *Discozantaena occidentalis* n. sp. and *Pneuminion fontinalis* n. sp. are described and illustrated, including high resolution digital images of holotypes (online version in colour). Features distinguishing the new species from known congeners are presented, and notes provided on the ecology of these rarely-collected genera, both of which are associated with damp areas at the edges of water.

**Key words:** Hydraenidae, Parhydraenini, *Discozantaena* Perkins & Balfour-Browne, *Pneuminion* Perkins, new species, South Africa, digital images, holotype images

### Introduction

The Hydraenidae fauna of southern Africa is amongst the most diverse on earth, morphologically, phylogenetically and ecologically (Perkins & Balfour-Browne, 1994), and includes a large number of endemic species and genera, most of which have been described in recent years (Jäch, 1998; Perkins, 2004a; 2004b; 2005a; 2005b; 2008; 2009; 2011). A number of hydraenid lineages in southern Africa have adopted a humicolous habitat, effectively living terrestrially in wet areas beside rivers, ponds and seeps, or inhabiting damp litter. This is the case with most genera and species of the tribe Parhydraenini, which as currently known are restricted to southern and eastern Africa and Madagascar (Perkins, 2009). Of this tribe, *Discozantaena* Perkins & Balfour-Browne and *Pneuminion* Perkins are both apparently endemic to South Africa, being particularly diverse in the Cape fold mountains and adjacent areas. As noted by Perkins (2004a; 2005a), species of these genera are primarily humicolous, and relatively rare in collections. Of more than 45,000 southern African hydraenid specimens studied by Perkins, just over 1,700 were *Discozantaena*, and of these a single collection of *Discozantaena endroedyi* Perkins, 2005 accounted for almost 1,200 individuals; many other species being known from single collections and few specimens. *Pneuminion* have been found even less often; Perkins' revision of the genus (2004a) being based on only 117 specimens in total. In part, the apparent rarity of these two genera reflects the difficulty of sampling the damp habitats these beetles occupy, and the fact that despite its great diversity, the South African hydraenid fauna has seen little targeted study to date. Recent fieldwork by the first author has produced much new locality data for *Discozantaena* and *Pneuminion* species, particularly from hygropetric habitats (*sensu* Vaillant, 1956), and damp detritus-rich areas at the margins of streams and pools. In the present paper, we describe a new species of *Discozantaena* from the west coast of the Western Cape Province, a new species of *Pneuminion* from close to Ceres in the Cape fold mountains, and take the opportunity to detail their ecologies, both of which appear to be typical of members of their respective genera.

### Materials and methods

Specimens were studied using a Leica MZ8 stereomicroscope, with a Fluopac FP1 fluorescent illuminator. Genitalia were temporarily mounted in lactic acid on cavity slides and drawn using a camera lucida attachment on