Zootaxa 3635 (1): 094–100
www.mapress.com/zootaxa/

Article

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

http://dx.doi.org/10.11646/zootaxa.3635.1.10
http://zoobank.org/urn:lsid:zoobank.org:pub:B76B7A06-0744-4510-8738-6A0675F2EFEB

Description of the male of *Sebasthetops omaliniformis* Jäch, 1998 —a phylogenetically isolated water beetle from South Africa, with notes on its ecology (Coleoptera, Hydraenidae)

DAVID T. BILTON
Marine Biology and Ecology Research Centre, Plymouth University, Drake Circus, Plymouth PL4 8AA, UK.
E-mail: d.bilton@plymouth.ac.uk

Abstract

Sebasthetops omaliniformis Jäch, 1998, is a morphologically aberrant hydraenid, known from two female specimens collected from the Western Cape of South Africa in 1988. Recent fieldwork has resulted in the rediscovery of the species, close to the type locality. The male of *S. omaliniformis* is described from this material, and the opportunity taken to publish a record of *Sebasthetops* from the Langeberg, where it was collected in 1979. *S. omaliniformis* lives in deep water riffles in the upper reaches of mountain streams, and is strongly brachypterous. Like a number of other running-water insects known from the Cape fold mountains the species appears to have a narrow geographical and ecological range, deserving of high conservation status.

Key words: Coleoptera, Hydraenidae, *Sebasthetops*, male, ecology

Introduction

The hydraenid subfamily Prosthetopinae currently contains ten genera, all of which are restricted to the Ethiopian region (Hansen, 1998; Perkins 2007, 2008). Seven of these genera are found exclusively in South Africa and are most diverse in the Western Cape, particularly its fold mountains, (Perkins & Balfour-Browne, 1994; Perkins, 2008). Within the Prosthetopinae, the monospecific *Sebasthetops* Jäch, 1998 is one of the most morphologically aberrant genera, its single species *S. omaliniformis* Jäch, 1998, superficially resembling an omaliine staphylinid rather than a member of the Hydraenidae. *Sebasthetops* also has the distinction of being the least known genus in the subfamily; the original description being based on two females collected near Franschhoek in 1988, and the taxon only being known otherwise from two other females (see below), despite over 45,000 South African hydraenid specimens being available for study in recent years, from localities across the country (Perkins, 2011). Between 2008 and 2012 the author has sampled hydraenid water beetles in the Western Cape, this fieldwork resulting in the discovery of a number of new taxa (e.g. Bilton & Perkins, 2012). In these collections *S. omaliniformis* was found only in the upper reaches of a single stream, very close to the type locality (= "Mt. Rochelle bei Franschhoek"). The availability of this new material allows a description of the male of *S. omaliniformis*, and some observations to be reported about its biology, which was not noted when the species was first discovered over twenty years ago.

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, 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).

 Accepted by P. Perkins: 18 Feb. 2013; published: 25 Mar. 2013