



***Laccobius leopardus* sp. nov. from the Western Cape of South Africa (Coleoptera: Hydrophilidae)**

DAVID T. BILTON^{1,3} & ELIO GENTILI²

¹Marine Biology and Ecology Research Centre, Plymouth University, Drake Circus, Plymouth PL4 8AA, UK.

E-mail: d.bilton@plymouth.ac.uk

²Via San Gottardo 37, I-21030 Varese-Rasa, Italy. E-mail: elio.gentili.32@alice.it

³Corresponding author

Introduction

With 257 species known worldwide (Hansen, 1999; Short & Hebauer, 2006; Short & Fikáček, 2011; Gentili, 2012; Jia *et al.*, 2013a; Jia *et al.*, 2013b; Gentili, 2014), *Laccobius* Erichson is one of the most diverse genera of Hydrophilidae, most species having a relatively uniform convex, rounded appearance. To date only 26 species are known from sub-Saharan Africa (Gentili, 1981; Hebauer, 2006), 11 of which have been reported from southern Africa (Staals & DeMoor, 2007), five being endemic to the region. Southern African species to date all belong to the subgenera *Microlaccobius* Gentili and *Hydroxenus* Wollaston. Here we describe a new species of *Hydroxenus* from the Western Cape province of South Africa. The new species is morphologically closest to *Laccobius caffer* Boheman, a species widely distributed from western and central Africa to South Africa and Namibia, but the two can be distinguished readily on both external morphology and male genitalia. The new species was collected in marginal gravels of a drying river bed, a typical habitat for many *Laccobius*, and one which would repay further study in other parts of southern Africa, whose water beetle fauna remains incompletely known.

Specimens were studied using a Leica MZ8 stereomicroscope, with a Fluopac FP1 fluorescent illuminator. Habitus photographs were taken with a Canon EOS 600D camera fitted to a Leica Z6 Apo macroscope, fitted with a 2x objective lens. Specimens were illuminated using a Leica LED5000 HDI dome illuminator to avoid shadow.

Genitalia were mounted on glass slides in Kisser's glycerol gelatine (see Riedel 2005) and imaged using an Olympus CX31 microscope with the same camera. All image stacks were produced by hand, and combined using Zerene Stacker software (www.zerene.com).

Specimens are deposited in the Iziko South Africa Museum (ISAM) in Cape Town, South Africa, the Natural History Museum, Vienna (NMW), as well as the collections of the authors (CDTB, Plymouth, UK; CGV, Varese-Rasa, Italy). Exact label data are cited for specimens. TL = total length; MW = maximum width.

Taxonomy

***Laccobius leopardus* sp. n.**

(Fig. 1)

Type locality. South Africa: Western Cape: Cederberg, Matjies River at Matjiesrivier Reserve ca. 3 km N of Cederberg Oasis, 32° 31' 10.53"S 19° 21' 02.63"E, 726 m, D.T. Bilton leg. (Figure 1f).

Type material. Holotype (male): "22–25/ix/2011 South Africa WC, Cederberg—Matjiesrivier Reserve, Matjies River ca. 3 km N of, Cederberg Oasis D. T. Bilton leg." (genitalia extracted and mounted in DMHF on same card) and red holotype label (ISAM). **Paratypes** (9): 3 ♂, 4 ♀ Same data as holotype (CDTB, CGV, NMW); 2 ♀ "21/ix/2010 South Africa WC, Cederberg—Matjiesrivier Reserve, Matjies River ca. 3 km N of, Cederberg Oasis D. T. Bilton leg (CDTB)." All with red paratype label.

posterior margin of ventrite 4 and much of abdominal ventrite 5 are pale yellow. The two species also differ significantly in male genitalia (Fig. 1d–e).

Distribution. To date only known from the type locality, the sandy gravelly margins of the Matjies River, on the edge of the Cederberg range in the Western Cape Province, South Africa. This locality is situated in a region which is somewhat transitional between the fynbos and succulent karoo biomes (Murcina & Rutherford, 2006); fynbos occurring at higher altitudes, lower altitude sites such as the type locality being surrounded by succulent karoo.

Etymology. Named in reference to the leopards (*Panthera pardus pardus* (Linnaeus)) which frequent the Cederberg Conservancy in which the type locality is situated, and the spotted appearance of the elytra. The name is a noun in apposition.

Ecology. Specimens were puddled by hand from marginal sediment in shallow river backwaters (Fig. 1f), which were mostly without appreciable surface flow at the time of sampling, but would clearly be connected to the main river at times of higher flow. They occurred together with the water beetles *Hydropeplus montanus* Omer-Cooper, *Herophydrus inquinatus* (Boheman), *Sharphydrus brincki* Bilton, *Yola frontalis* Régimbart, *Hydroglyphus infirmus* (Boheman), *H. lineolatus* (Boheman), *Canthyporus guignoti* Omer-Cooper, *C. petulans* Guignot, *Philaccolus lineatoguttatus* (Régimbart), *Laccophilus lineatus* Aubé, *Georyssus* spp., *Berosus punctulatus* Boheman, *Laccobius revelieri* Perris, *L. venustus* Gentili, *Helochares* spp., *Crenitis zimmermanni* Knisch, *Parasthetops nigrinus* Perkins & J. Balfour-Browne, *P. pampinus* Perkins, *P. rufulus* Perkins & J. Balfour-Browne and *Prosthetops wolfbergensis* Bilton.

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