Zootaxa 3619 (3): 343–368
www.mapress.com/zootaxa/

Article

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

http://dx.doi.org/10.11646/zootaxa.3619.3.5
http://zoobank.org/urn:lsid:zoobank.org:pub:4FB7A97C-D25F-41C8-8C62-2664E6E6F148

Oxychilus (*Drouetia*) *viridescens* (Gastropoda: Pulmonata: Oxychilidae), a new species from Santa Maria, Açores, and a review of the subgenus

ANTÓNIO M. DE FRIAS MARTINS[1], CARLOS P. BRITO[2] & THIERRY BACKELJAU[3]

[1] *CIBIO-Açores—Centre for Research on Biodiversity and Genetic Resources, Department of Biology, University of the Azores, 9501-801 Ponta Delgada, Açores, Portugal. E-mail: frias@uac.pt*

[2] *CIRN, Department of Biology, University of the Azores, 9501-801 Ponta Delgada, Açores, Portugal.*
E-mail: cpbrito@ecsaude.uminho.pt (Current address: Escola de Ciências da Saúde, Instituto de Investigação em Ciências da Vida e Saúde, Universidade do Minho, Campus Gualtar, Braga, Portugal)

[3] *Department of Biology, University of Antwerp, Groenenborgerlaan 171, B-2020 Antwerp, Belgium, and Royal Belgian Institute of Natural Sciences (Department of Invertebrates and Joint Experimental Molecular Unit), Vautierstraat 29, B-1000 Brussels, Belgium. E-mail: Thierry.Backeljau@naturalsciences.be*

Abstract

Oxychilus (Drouetia) viridescens n.sp. is described from Santa Maria Island, Açores. It is conchologically similar to the sympatric *Oxychilus (Drouetia) brincki* Riedel, 1964, from which it is distinguished by the greenish coloration, the flatter spire and the slightly smaller number of whorls. Anatomically, the new species differs from all consubgenerics by the genital morphology: the penis is very thin, the distal half is wrapped in a very thick penial sheath; the epiphallus has two distinct portions, the proximal one attached to the edge of the penial sheath, the distal one attached to a constriction near mid-length of the penis; the atrial end of the vagina has a spongy, glandular appearance.

A detailed morphological and anatomical comparison of the new species with the non-umbilicated *Oxychilus* species of Santa Maria is presented. The species of *Drouetia* are reviewed and an identification key is provided.

Key words: morphology, anatomy, endemics, Azores

Introduction

Santa Maria, the southernmost and oldest island of the Açores (Féraud *et al*. 1984; Serralheiro & Madeira 1993), harbours a rich endemic terrestrial malacofauna (Morelet 1860; Backhuys 1975; Martins *et al*. 1991; Martins 1999, 2002; Cunha *et al*. 2010). The Azorean Oxychilidae provide a good example of this endemicity for they show a remarkable conchological, anatomical and allozymic diversity (Riedel 1964; Martins 1981, 1989, 1991, 1999, 2005; Martins & Ripken 1991; Brito 1992). In this context, the present study aims at describing *Oxychilus (Drouetia) viridescens* n.sp. as a new non-umbilicated endemic oxychilid species from the island of Santa Maria and, in the process, a comparative morphological and anatomical account of the sympatric non-umbilicated *Oxychilus* is presented. A review of the species of the subgenera *Drouetia* and *Atlantoxychilus* is initiated, patterns of their morphological and anatomical variation and differentiation are compared, and an identification key to the Azorean non-umbilicated *Oxychilus* is provided.

Materials and methods

Materials

Specimens of *Oxychilus (Drouetia) viridescens* n.sp. were collected at the stations shown in Table 1 and Figure 1. The remaining oxychilid species used for comparisons were collected throughout the islands, their locations being mentioned *ad casum*.

Accepted by J. Gerber: 12 Nov. 2012; published: 28 Feb. 2013