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A new genus with six new species of Typhlopolycystidinae Evdonin, 1977 (Platyhelminthes, Kalyptorhynchia, Polycystididae)

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Abstract

Five new species of the new taxon *Brunetorhynchus* **n. gen**. are described: *B. deconincki* **n. sp**., *B. microstylis* **n. sp**. and *B. complicatus* **n. sp**. are from the Mediterranean, *B. canariensis* **n. sp**. is from the Canary Island Lanzarote, *B. cannoni* **n. sp**. is from the Australian East coast and one species from the Galapagos, formerly described as *Limipolycystis* spec., is transferred to the new genus as *B. dubius* **n. sp**.. As in *Limipolycystis*, these species have a single stylet, (accessory stylet type II), an accessory secretion vesicle (type II) and a prostate vesicle (type III) in the male atrium, although the latter vesicle is absent in some species. Unlike the species of *Limipolycystis,* where the seminal receptacle is a sclerotized tubule, the species of the new taxon have a pear-shaped seminal receptacle on the oviduct.

Key words: flatworms, microturbellaria, biodiversity, taxonomy, Mediterranean Sea, Western Atlantic, Eastern Australia, Galapagos

Introduction

Untill now, Typhlopolycystidinae Evdonin, 1977 comprised five genera: *Typhlopolycystis* Karling, 1956, *Lagenopolycystis* Artois & Schockaert, 2000 (= *Lagenorhynchus* Brunet, 1965), *Limipolycystis* Schilke, 1970, *Myobulla* Artois & Schockaert, 2000 and *Sabulirhynchus* Artois & Schockaert, 2000. According to Artois & Schockaert (2003), the species of *Typhlopolycystis* and of *Lagenopolycystis* have a prostate vesicle type III that enters a stylet of type III (along with the seminal duct) and an accessory secretion reservoir of type II that enters an accessory stylet of type II, attached to the prostate stylet. Furthermore, in the taxa *Myobulla* and *Sabulirhynchus* the accessory stylet is absent and in the latter taxon even the accessory secretion reservoir is lacking. On the other hand, in the species of *Limipolycystis*, it is the prostate stylet type III that is absent and the accessory stylet type II now receives the accessory secretion vesicle II and the seminal duct, while the prostate vesicle III is located in the male atrium and may be reduced. We now describe five species of the taxon *Brunetorhynchus* **n.gen.** where, as in *Limipolycystis*, there is a single stylet, the accessory stylet of type II, an accessory vesicle type II and, in the male atrium, a prostate vesicle type III that is reduced or even absent in some species. As in the species of *Typhlopolycystis* and of *Sabulirhynchus*, the species of the new taxon have a pear-shaped seminal receptacle on the oviduct and a female duct type I. This pear-shaped seminal receptacle is one of the main characters by which the species of *Brunetorhynchus* can be discerned from those of *Limipolycystis*, where the seminal receptacle consists of a sclerotized tubule.

In their paper dealing with the species of Typhlopolycystidinae from Galapagos, Artois & Schockaert (2000) wrote about a number of undescribed species from the Western Mediterranean, the morphology of which was said to resemble very much that of *Limipolycystis curvitubo* Schilke, 1970. Five of these species have recently been

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