First report on Rhabdocoela (Rhabditophora) from deep parts of Skagerrak, with the description of four new species

WIM R. WILLEMS¹,2, MARIA I. SANDBERG³ & ULF JONDELIUS¹
¹Department of Invertebrate Zoology, Swedish Museum of Natural History, Box 50007, SE-104 05 Stockholm, Sweden.
Correspondence: E-mail wim.willems@nrm.se or wim.willems@uhasselt.be
²Research Group Biodiversity, Phylogeny and Population Studies, Centre for Environmental Sciences, Hasselt University, Campus Diepenbeek, Agoraalaaan, Building D, B-3590 Diepenbeek, Belgium
³Department of Systematic Zoology, Evolutionary Biology Centre, Uppsala University, Norbyvägen 18D, SE-752 36 Uppsala, Sweden.

Abstract

In this contribution we report on 13 species of Rhabdocoela, found during a marine inventory of Skagerrak by the Swedish Taxonomy Initiative. Four new species are described, two of which are Kalyptorhynchia (Gnathorhynchidae and Polycystididae) and two belong to Dalytyphloplanoida (Solenopharyngidae). *Uncinorhynchus vorago* sp. nov. (Gnathorhynchidae) has a triangular stylet consisting of a double-folded plate, which proximally forms a tube, but without a distal, needle-shaped tip. *Austrorhynchus artoisi* sp. nov. (Polycystididae), has two prostate stylets. Prostate stylet type II consists of a distal tube and a short proximal funnel, which has a stirrup-shaped ornament, whereas the stylet type III shows an unpronounced foot and style connected to each other by a narrow clasp and a comb-bearing plate. The foot and plate are connected to a thread-like flagellum. *Lenopharynx bathos* sp. nov. (Solenopharyngidae) resembles *Lenopharynx tubatus* Schockaert & Martens, 1985, but differs in the detailed structure of the stylet and by the lack of colouration and eyes. *Proceropharynx profundum* sp. nov. has a unique combination of small spines and hard ridges on the cirrus. Additional data are given for the remaining nine species, three of which are new for the Swedish fauna. *Esegregidia norvegica* Westblad, 1954 (Solenopharyngidae) is redescribed. For the sake of completeness, two more species are mentioned. One is identified as a new species of *Acrumena* Brunet, but lack of material prevents its formal description. The second one is probably a representative of the taxon *Ceratopera* Den Hartog, but cannot be identified with certainty because of the poor quality of the preserved material. This contribution is one of very few reports on Rhabdocoela collected from a depth exceeding 100 m and some preliminary biogeographical remarks are therefore given.

Key words: Platyhelminthes, turbellaria, Kalyptorhynchia, Dalytyphloplanida, taxonomy, biodiversity, deep-water

Introduction

Most studies dealing with marine rhabdocoels concern littoral and sublittoral localities down to 20 m depth. Records of rhabdocoels from locations with a depth range between 20 and 100 m are scarce (e.g. Karling 1952a, 1953, 1967, 1974; Noldt 1989 a-b, Willems et al. 2004a). There are very few reports of rhabdocoel species from depths exceeding 100 m, the only ones coming from some subantarctic islands (125-350 m; Reisinger 1926; Karling 1952a; Westblad 1952), the Weddell Sea (265-600 m; Artois et al. 2000), the Arctic (110-300 m; Steinböck 1932) and the Norwegian coast (Westblad 1954; Rieger & Sterrer 1975). These few deepwater surveys have revealed a total of 21 species of Rhabdocoela, of which 12 were newly described in the above mentioned reports. Furthermore, some yet undescribed species were collected at a depth of 2000 m (Artois et al. 2000), which indicates that there is a large potential of finding new rhabdocoel species in deeper waters.

Accepted by W. Sterrer: 17 Sept. 2007; published: 17 Oct. 2007