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On some rhopalodinid sea cucumbers in the collections of the Natural History Museum, U.K. (Echinodermata: Holothuroidea: Dactylochirotida)

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Abstract

Several specimens of holothuroids in the collections of the Natural History Museum, U.K., identified as *Rhopalodina lageniformis* or simply *Rhopalodina* sp., were re-examined. Amongst these only the holotype of *R. lageniformis* is referable to this species. Of the four specimens misidentified as *R. lageniformis*, two are re-identified as *R. parvalamina* Cherbonnier and two described as a new species, *R. cabrinovici*. Another specimen, originating from Ghana, which is incorrectly identified as *Rhopalodina* sp., turned out to be a juvenile of *Cucumaria congoana* Heding and is subject of another paper describing additions to the holothuroid fauna of Ghana.

Key words: Rhopalodinidae, *Rhopalodina*, new species

Introduction

The dactylochirotid family Rhopalodinidae, currently containing three genera and 17 species, is restricted in its distribution to the shallow waters of the East Atlantic Ocean from Senegal to the Cape of Good Hope, in water depths ranging from 6–82 m. A full synopsis of this family, including its composition, distribution, phylogeny and taxonomic status is given by Thandar (2001). The genus *Rhopalodina* was originally known from its type species, *Rhopalodina lageniformis*, superficially described from a single specimen from the Congo by Gray (1853). Since then this species has been purported to be encountered on numerous occasions. Its complete history was included by Thandar (2001) and there is no need to repeat it here. It is, however, questionable whether all descriptions or records attributed to this species really refer to it as numerous identifications must have been based on the shape of the specimens and perhaps the superficial form of the calcareous deposits as our study of the Natural History Museum. U.K., suggests. In fact, the tentacle number of the type is still unknown as it has never been dissected. In addition, we have failed to find any evidence of illustrations of its calcareous deposits. However, since the description of *R. lageniformis* and its synonyms, several other species of *Rhopalodina* have been described notably by Panning (1932, 1935) and Cherbonnier (1965, 1988).

During a short stint at the Natural History Museum, United Kingdom, to examine rhopalodinid holothuroids in its collections, the senior author came across, besides the holotype of *R. lageniformis*, several other specimens misidentified as *R. lageniformis* or listed as *Rhopalodina* sp. The latter turned out to be a juvenile of *Cucumaria congoana* Heding (in Ludwig & Heding, 1935) and is subject of another paper dealing with the holothuroid fauna of Ghana. Two others, misidentified as *R. lageniformis* perhaps represent *R. parvalamina* Cherbonnier, 1965, which are here described, while another two, also misidentified as *R. lageniformis*, are purported to be new to science and described as *R. cabrinovici*, a species closely related to *R. pachyderma* Panning, 1932. In addition, we describe and illustrate the ossicles of the type taken from the proboscis, the sphere and the pole of the sphere but refuse to dissect the unique form to determine its tentacle number so as not to damage it irrevocably.

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