

MORPHOLOGICAL STUDIES ON NEMERTODERMATIDA SAMPLED IN THE BELGIAN PART OF THE NORTH SEA

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Nemertodermatida is a taxon of small, acoelomate, marine, interstitial worms without a true gut but with a statocyst containing multiple statoliths. Their phylogenetic position is still the subject of debate. This has raised growing interest in the study of this group, on both the molecular and the morphological level.

Nemertodermatida have not yet been reported in the Belgian part of the North Sea, and they are known to be sparse. After sampling on different locations in the Belgian part of the North Sea with a Van Veen grab, we were able to collect three different species of Nemertodermatida: *Flagellophora apelti*, *Nemertinoides elongatus* and *Sterreria psammicola*. These were fixed and are currently being used for morphological studies. In order to increase the morphological knowledge on this challenging group, we study the germline in Nemertodermatida, in comparison to that of Acoela. As the structure of the gonads in Acoela and Nemertodermatida is variable and complex, light and transmission electron microscopy are used to define the spatial arrangement, characteristics and organization of the testes and ovaries in different species. We assess the potential of the morphological characteristics of the germline as a complement to the molecular data in the discussion of the evolutionary relationships within and between these intriguing groups.