

KNOWING AND UNDERSTANDING THE SHALLOW-WATER HOLOTHURIAN BIODIVERSITY OF THE WESTERN INDIAN OCEAN WILL EVEN THE PATH FOR CONSERVATION

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Extensive harvesting of the shallow-water holothurians from the western Indian Ocean (WIO) may, or most possibly will, decimate the standing stocks so fast that conservation initiatives as we know them today (marine protected areas) might fail in their purpose. In order to develop a rational conservation and management plan for these natural resources, several projects (research council VUB, Fund for Scientific Research Flanders, Flemish Community) were launched. As a first step, these projects aim at mapping and understanding the holothurian biodiversity of the area under study. Holothurian biodiversity was assessed through *de novo* sampling along the poorly investigated coast of Kenya and along the better known shores of eastern South Africa. Apart from several important range extensions (new records for the Indian Ocean), these efforts also yielded several species new to science and led to the revision of certain ill-defined or ill-studied genera and subgenera. However, as understanding of the biodiversity of a particular taxon only starts with accurate estimates of species richness and composition, comparison of our results with those reported in the vast amount of literature was carried out.

The talk will highlight three subjects: (i) 'how to do good holothurian taxonomy?', (ii) 'what are the systematic implications of good taxonomy?' and (iii) 'how is our faunistical and zoogeographical knowledge influenced by the novel systematic decisions?' In conclusion it will be demonstrated that the obtained results even the path for conservation of this highly wanted natural resource.

Key words: biodiversity; conservation; taxonomy; zoogeography; Holothuroidea; western Indian Ocean