Taxonomy, systematics and faunistics of the Holothuroidea from the Western Indian Ocean

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Holothurians, the order of the Aspidochirotida in particular, are collected en masse in the littoral waters of the western Indian Ocean. As these unregulated practices result in plummeting stocks, there is an urgent need for appropriate conservation and management plans. However, the problems associated with insufficient, often wrong, taxonomical and systematical documentation, hamper comprehension of the structure, function, history and future of this important biological group.

In depth sampling at two accessible regions (Kenya and KwaZuluNatal, Republic of South Africa) combined with literature surveys (with the help of the Flanders Marine Data and Information Centre) allows us to draw a clearer picture on today's holothurian biodiversity.

As a natural outcome of our taxo-systematical work, we are beginning to find the answers to important biogeographical questions like 'How did the species of the western Indian Ocean get there?'

However, although taxonomy and systematics help us to orden the wealth of different species into an usable system, a complete causal picture cannot be extracted from this work. As a consequence, our future research will be directed at ellucidating the ways of evolution (phylogeny) of the different taxa, both over time and space.