

Working towards a better understanding of Western Indian Ocean deep sea ecosystems

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Abstract

This paper presents a brief review of available literature of the past deep-sea biology studies in the WIO region. Preliminary analysis illustrates research opportunities and survey effort are not equally distributed in the WIO nations and remain very low over all areas. Twenty-three taxonomic groups were represented across the studies with crustaceans Malacostraca which includes crabs, lobster and shrimp which are of fisheries interest, forming the focus of most studies (20%). Majority of studies (58%) investigated systematics or taxonomy mostly with a strong focus on new species descriptions. Relatively very few studies on community ecology which is considered especially important for marine biodiversity management were recorded in the WIO. This review identified that all regions, taxa and field of study are under-represented in published literature on the deep-sea biology of the Western Indian Ocean. Given the extensive nature of the knowledge gap on the deep-sea biology of the Western Indian Ocean the paper recommends the following as a way forward in a bid to contribute to making available usable information to policy makers;

- a) Awareness be created on services of the deep-sea ecosystems to parties through WIOMSA, FARI or other suitable organisations.
- b) A comprehensive review of deep-sea biological data (inc. grey literature and traditional knowledge) to provide knowledge gaps and to help prioritise activities.
- c) A deep-sea working group is established to lead the advancement of deep-sea research and data usage in the WIO
- d) Parties should continue to have strong representation in the BBNJ negotiations considering that deep sea is valuable for their prosperity.

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