

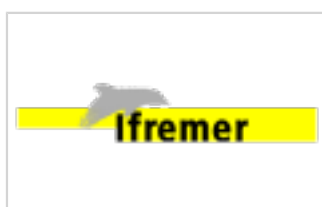
# MANMAC

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## Résumé

Small tropical islands are highly vulnerable to global change but mangrove forests and their associated ecosystem services can improve their resilience. However, several phenomena originating from anthropic activities are known to impact mangrove functioning. Although nitrogen enrichment from wastewaters discharges generally lead to high productivity of primary producers, others compartments of the system are negatively impacted, especially the benthic macrofauna. Our project aims at evaluating the impact of nitrogen enrichment on this poorly studied mangrove compartment. Our work will combine both temporal measurement and an integrative approach with ecological and ecophysiological components. Macrofauna species and functional diversity along with trophic structuration will be measured. A focus on mangrove crabs will also be made because they are considered as engineer species. Their vulnerability under nitrogen forcing will be studied. Our work will take place in two sites: the Europa Island, which is considered as a pristine ecosystem and provide an opportunity to observe the functioning of a “control” mangrove un-impacted by human activities; and the Ibo Island which have a similar mangrove with an increasing anthropic pressure. Our study will not only provide some fundamental knowledges on these systems, but we will also aim at establishing some indicators of mangrove enrichment in nitrogen due to anthropic activities. Such tool could be of great interest for coastal areas managers in the Mozambican channel and associated islands.