

Hopping to extinction? - Distribution and species delineation of sandy beach isopods

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Anthropogenic activities are having devastating impacts on marine systems with numerous knock-on effects on trophic functioning, species interactions and an accelerated loss of biodiversity. Establishing conservation areas can protect not only biodiversity, but also confer resilience against changes marine ecosystems. However, to plan for the sustainable utilisation and conservation, accurate biodiversity inventories are required that encompass both species distributional data, as well as taxonomic status of species. As sandy beaches are particularly understudied, this project focuses on three species of isopods, important contributors to sandy beach faunas. Preliminary evidence suggests the presence of multiple species-level genetic lineages with potentially numerous unidentified species. Using molecular and taxonomical approaches, we aim to contribute novel information, as well as barcodes for this underrepresented group. Further, as distributional records for each species are at least ten years old, this project will update much needed species information. The results from this work will have a far-reaching impact on marine spatial planning, the National Biodiversity Assessment, capacity building and contribution to the global marine literature.