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# MACARONESIAN ISLANDS AS DRIVERS OF EVOLUTIONARY DIVERSIFICATION OF TWO DIFFERENT PERACARIDEAN MORPHOSPECIES

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Diversification and speciation of terrestrial organisms is anticipated in oceanic islands like Macaronesia, a group of Atlantic islands that have arisen from the ocean floor and have never been connected to continental landmasses. Much less expected, and investigated, is the diversification of marine organisms in oceanic islands, even in organisms having a putatively lower dispersal capability, such as the case of many peracarid crustaceans that lack larval stages. In this work we investigate the genetic diversity of two common and abundant peracarideans, belonging to the orders Isopoda and Amphipoda, which inhabit rocky intertidal areas of the Macaronesia region. The DNA barcode, cytochrome c oxidase gene (COI-5P), was amplified for the sphaeromatid (Isopoda) *Dynamene edwardsi* (Lucas, 1849) and for the hyalid (Amphipoda) *Apohyale stebbingi* Chevreux, 1888. Both species displayed high genetic diversification and are presumed to be complexes of cryptic species. *Dynamene edwardsi* revealed extensive structure, where it is possible to discriminate up to seven geographically circumscribed lineages with complete sorting and exclusive haplotypes, with genetic distances between 4% and 22%. *Apoyale stebbingi* exhibited an elevated number of private haplotypes per island and massive genetic distance within some sites (~20%), showing signals of allopatric and sympatric speciation. These findings highlight the relevance of Macaronesia islands in the promotion of isolation and genetic diversity in these species, and can contribute to the investigation of comparative patterns of evolution and speciation of marine invertebrates in this region. Given the frequent occurrence and dominance of these peracarideans in the rocky shore communities, this information can be highly pertinent for coastal management and conservation strategies in Macaronesia region.

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