Concerted genetic, morphological and ecological diversification in Nacella limpets in the Magellanic Province

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Common inhabitants of Antarctic and Subantarctic rocky shores, the limpet genus Nacella, includes 15 nominal species distributed in different provinces of the Southern Ocean. The Magellanic Province represents the area with the highest diversity of the genus. Phylogenetic reconstructions showed an absence of reciprocal monophyly and high levels of genetic identity among nominal species in this Province and therefore imply a recent diversification in southern South America. Because most of these taxa coexist along their distribution range with clear differences in their habitat preferences, Nacella is a suitable model to explore diversification mechanisms in an area highly affected by recurrent Pleistocene continental ice cap advances and retreats. Here, we present genetic and morphological comparisons among sympatric Magellanic nominal species of Nacella. We amplified a fragment of the COI gene for 208 individuals belonging to seven sympatric nominal species and performed geometric mor