***Peltigera* lichenS growing in three High Andean grasslands in SouthERN Chile**

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*Peltigera* lichens can colonize hostile habitats with extreme conditions, such as high mountain sites. However, the high degree of endemism and the scarcity of studies on the distribution of lichens in these sites have led to insufficient knowledge of the species colonizing high Andean grasslands of Southern Chile. The objective of this study is to know part of the diversity of species of *Peltigera* growing in grasslands above the treeline in three hills located in: (i) Coyhaique National Reserve (~1250 masl), (ii) Karukinka Natural Park (~440 masl) and (iii) Navarino Island (~550 masl). At each site, 20 specimens of *Peltigera* lichens were collected, and the LSU, beta-tubulin, COR3, and ITS mycobiont markers were sequenced. Maximum likelihood phylogenetic analyzes of the concatenated sequences were performed after the remotion of ambiguously aligned regions, and the ITS hypervariable region was compared with reference sequences. Samples were associated with the species *P. antarctica, P. aubertii, P. frigida, P. fuscopraetextata*, *P. patagonica*,and *P. rufescens*, and representatives of the clade *P. rufescens* not previously reported. The grasslands from the three hills were dominated by different species, being *Peltigera sp.* (clade *P. rufescens*) most abundant in Coyhaique, *P. fuscopraetextata* in Karukinka, and *P. patagonica* in Navarino. The Coyhaique site showed the highest number of species, including representatives of five *Peltigera* clades, followed by Karukinka and Navarino with representatives of three and two clades, respectively. Besides, a network based on ITS raw haplotypes was constructed. The clades *P. ponojensis*/*P. monticola*, *P. rufescens* and *P. frigida/P. patagonica* showed the greatest diversity of raw haplotypes, mainly associated with the ITS hypervariable region. Altogether, our results suggest that these high Andean sites could be promising environments for the search and characterization of previously undescribed lichen species of this world region. Funding: JO (FONDECYT-1181510).