

EFFECT OF MICROCLIMATE ON DISTRIBUTION AND DIVERSITY IN CORTICOLOUS LICHEN MICROCOMMUNITIES IN A COASTAL FOG OASIS, ATACAMA DESERT, CHILE

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The Atacama Desert ranges from the limit between Perú and Ecuador (5°00'S) to La Serena, Central Chile (29°55'S). In this extensive hyperarid environment, fog oasises occur along the Pacific coast, allowing the existence of a considerably diverse biota which depends essentially on this water resource. The fog oasis Las Lomitas is located in Pan de Azúcar National Park (Atacama Region, Chile). Its vegetation is characterized by cacti (e.g. *Eulychnia iquiquiensis*, *Copiapoa columna-alba*) and xerophilic shrubs (e.g. *Nolana* spp., *Heliotropium* spp., *Euphorbia lactiflora*); associated to those higher plants we find a diverse epiphytic lichen community which thrives through the high local atmospheric humidity. Our aim was to determine the diversity and distribution of lichen species forming corticolous communities and their correlation with microclimate variation and fog distribution. For this purpose, three sampling plots were established along a 6,5 km coast – inland transect. On each plot a climate station was installed and epiphytic macrolichens were sampled from cacti and shrubs. At least 15 species were identified and relative cover was determined for the most frequent taxa along the transect (*Usnea*-*Ramalina* complex, *Roccellinastrum spongoideum*, *Chrysothrix granulosa* y *Everniopsis trulla*). Our preliminary results indicate a general correlation between a decrease in lichen cover with increasing distance from the coast due probably to a decrease in relative air humidity, we found stronger differences in lichen diversity on shrubs than on cacti along the transect. Acknowledgment: Project funded by INACH 2716.