**ALFA, BETA AND GAMMA DIVERSITY IN LICHEN COMMUNITIES OF THE RESERVA CULTURAL NATURAL PLAYA LARGA, USHUAIA, TIERRA DEL FUEGO, ANTARCTICA AND SOUTH ATLANTIC ISLANDS**

Juan Lavornia1\*; María Regina Silva2 y Camila A. Cantero3

1Instituto de Ciencias Polares, Ambiente y Recursos Naturales, Universidad Nacional de Tierra del Fuego, A. e I. A. S.; 2Museo del Fin del Mundo, Secretaría de Cultura, Pcia. de Tierra del Fuego, A. e I. A. S.; 3Instituto de Desarrollo Económico e Innovación, Universidad Nacional de Tierra del Fuego, A. e I. A. S.; \* E-mail: jlavornia@untdf.edu.ar

The Isla Grande of Tierra del Fuego constitutes a unique habitat characterized by its marked australity, the adaptation of its species to extreme climatic conditions and its remarkable wealth of lichens. The Playa Larga Natural Cultural Reserve (RCNPL) is located 3.5 km from the city of Ushuaia, Tierra del Fuego, A. and IA S, Argentina (54 ° 48´40´´S 68 ° 12´15´´W ) and has an area of ​​24 ha. It stands out for the presence of archaeological sites and a marked environmental heterogeneity, since it houses five different physiognomic units (FU): mixed forest, shrubs, rocky outcrops, grasslands and beaches. In addition, it is an important resource for local environmental education, given its proximity to the city. The objective was to analyze the variation in the richness and diversity of the lichen communities present in the RCNPL in their alpha, beta and gamma dimensions. For this, the area of ​​each FU was estimated using a Geographic Information System (Qgis), topographic charts, SPOT images and GPS. Modified phytosociological samplings (Braun Blanquet) were carried out in each FU and specimens of the different species were collected. These were determined by observation in a stereoscopic and optical microscope, histochemical reactions, and using specific keys for the region. Alpha diversity was estimated using the indices of species richness (S), diversity (H) and fairness (J). Beta diversity was evaluated by comparing FUs using Jaccard's coefficient of similarity and Cody's index. The gamma diversity was calculated based on the average richness of the area and that of each site considering its surface extension. The analysis allowed to identify the shared and exclusive species of each FU. The observed variations suggest the existence of differentiable lichen communities, highlighting their value for the conservation of the protected area analyzed and emphasizing their importance for environmental education.