**LICHENS WATER REGULATION DYNAMICS AS FUNCTIONAL TRAITS COULD PREDICT FUTURE CLIMATIC CHANGE SCENARIOS IN AN ALTITUDINAL GRADIENT FROM CENTRAL ARGENTINA**

Díaz Dominguez1\*, R D; Peralta2, M; Rodriguez, J M1

1Instituto de Investigaciones Biológicas y Tecnológicas, Centro de Ecología y Recursos Naturales Renovables. (CONICET – UNC); 2Instituto Multidisciplinario de Biología Vegetal. (CONICET – UNC) y Facultad de Ciencias Químicas – UNC; \*raulenriquedd@hotmail.com

Mountain environments are particularly vulnerable to climatic change effects, given that biological organisms in these systems live at specific temperature conditions, therefore minimal climatic patterns modification affect drastically to the ecosystem at many scales. The ability to succeed in dealing with specific environmental demands by biological organisms can be achieved with acclimation mechanisms. Assessing lichens response to climatic factors is highly interesting since they show different patterns unlike to other groups. Poikilohydric nature of lichens allows to inquire into variables like water holding capacity (WHC) and the hydrophobicity of the thallus to understand their occupational patterns in altitudinal gradients and microsite. WHC (defined as the amount of water per area that the thallus can hold) and hydrophobicity (calculated as the time that water droplets are absorbed by the thallus) were measured in saxicolous species with 2 different morphologies and commonly distributed along the mountains of Central Argentina: *Parmotrema reticulatum*, *Parmotrema warmingii* (foliose) and *Usnea amblyoclada* (fructicose). We measured WHC in three elevations corresponding to the distribution range of the species and 3 microsite conditions: north/south aspect with high slope (>90°) and rock outcrops with low slope (<20°). Results show differences between *Parmotrema* species and *Usnea amblyoclada* physiological traits. WHC of *Parmotrema* species increases with elevation and at south facing rocks outcrops while its hydrophobicity is higher in lower slopes. However, neither of the physiological parameters changes with elevation in *U. amblyoclada* samples. Hydrophobicity of *U. amblyoclada* increases at south facing rocks similar to *Parmotrema* species. This behavior could indicate that *Usnea amblyoclada* is able to acclimate at microsite level without the ability to cope with more drastic environmental demands, losing the possibility to migrate to higher elevations in a climatic change scenario.