GENETIC DIVERSITY OF PHOTOBIONTS OF BOLIVIAN LICHENS

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Lichen symbioses are complex associations between fungi (mycobionts) and algae (photobionts). Variable patterns of mycobiont-photobiont associations have been detected in lichens. The extent to which these associations are more or less specific, is still largely unknown, and likely may be correlated with the dispersal mode of the partners. However, tropical lichens are still poorly understood in relation to their photobionts and interactions between both partners. We focused on the biodiversity and phylogenetic relationships of photobionts in Bolivia and their specificity in relation to the symbiotic partner. We also investigated the impact of habitat conditions and mode of dispersal on distribution of photobiontsgenetic diversity and their ability to occupy different geographical and climatic areas in Bolivia. Here we would like to present data on the diversity of Trentepohliaceae and Trebouxiophyceae (*Trebouxia* and *Asterochloris)* associated with lichens from Bolivia. As a result of the study of Bolivian photobionts from different lichen species, a large genetic diversity as well as varied habitat and climatic amplitudes of individual phylogenetic lineages have been demonstrated. The research was carried out as part of a project financed by the National Science Center (No. 2015/17/B/NZ8/02441).