**ECOLOGICAL PATTERNS OF SYMBIOTIC SPECIFICITY IN *Leptogium* (LICHENIZED *Ascomycota*: *Collemataceae*) IN FOUR COLOMBIAN BIOMES**

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The specificity of *Nostoc* cyanobionts and lichenized fungi has been explored mostly in temperate and paleotropical regions. So far, little attention has been paid to neotropical environments, which are known for their ecological heterogeneity and high species diversity. Here we focused on exploring patterns of phylogenetic and ecological signals in symbiotic specificity of lichen specimens collected in four contrasting biomes of the Caldas department, in the center of Colombia: Andean Western Cordillera (2400-4000 m), Andean Central Cordillera (1670-3045 m), High Andean Central Cordillera (3470-4200 m) and Magdalena Inter Andean Valley (220-1100 m). To address the issue, we generated rbcLX sequences of *Nostoc* from 45 *Leptogium* thalli (representing 22 spp.) collected in those four biomes and aligned them with GenBank sequences of *Collema* and *Leptogium* cyanobionts. Phylogenetic analysis in a Bayesian framework were done using MrBayes 3. We found one haplotype of *Nostoc* per thallus, which suggests that each lichen included a single cyanobacterial species, at least at a detectable level. The phylogram obtained showed that the species follow a generalist pattern, as it has been shown before. However, we found that most of the cyanobacterial sequences of individuals from the Inter Andean Valley formed a monophyletic group, suggesting that the fungus associates with a locally adapted cyanobacterium. These results suggest that, whereas species from most habitats followed a similar generalist pattern that has been found in previous studies in temperate and paleotropical regions, the Inter Andean Valley differs. Potential explanations include adaptational value of locally adapted *Nostoc* strains or descreased cyaobiont diversity due to environmental stress, including high deforestation rate and the constant expansion of the agricultural border.