GENETIC DIVERSITY OF THE GENUS *Ramaria* IN THE PATAGONIAN ANDES FORESTS

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Within the wide diversity of fungal species of the Patagonian Andes forests, the mycorrhizal species of the genus *Ramaria* are one of the most attractive*s*. Their representatives stand out for possessing striking fruiting bodies, of colored coral-likes basidiomes, and with excellent organoleptic characteristics that leads them as an interesting *gourmet* product. In Patagonia 15 species are reported, being the most common the endemic R. *patagonica* and the cosmopolite, R. *botrytis.* So far, collection and consumption are based only on mophological characteristics. However, the great macro and micro morphological variability that they present, often makes it impossible to differentiate them to the species level. Nowadays, there are no works that have addressed the genetic study of the Patagonian species. Our investigation aims to elucidate the phylogenetic relationships that exist between endemic species present in Patagonia (*R. patagonica)* and the rest of the cosmopolitan species that are present in our forests and in other parts of the world. Also identified morphological characters with taxonomic value, relationships with its edibility and Nothofagaceae species associations. For this, collections of *Ramaria* spp. were obtained from Nothofagaceae forests from Neuquen to Tierra del Fuego provinces from Patagonia, Argentina. The internal transcribed spacer (ITS) and large subunit (LSU) sequences were amplified and analyzed. Macro and micromorphology characterization were performed and host associations were recorded. Preliminary results indicates that the *R. botrytis* is directly associated with *N. dombey*i forests, with low morphological variation within specimens. On the other hand, in the case of *R. patagónica*, the morphological and molecular analyses suggests that *R. patagonica* could be a complex of species, directly associated with hosts and site characteristics.

TOPIC: Biodiversity, evolution, taxonomy and distribution