Seção: Filogenia/Biogeografia

MYCOGEOGRAPHY OF SOUTH AMERICAN POLYPORES: SUBSTRATE SPECIFICITY AND FUNCTIONAL TYPES TO UNDERSTAND FUNGAL DISTRIBUTIONS

Gerardo Lucio ROBLEDO
Carlos URCELAY

Knowledge of fungal diversity is advancing faster and faster, mainly due to the usage of molecular tools in fungal taxonomy. However there have been fewer efforts to understand the community composition and fungal distribution among mycotas. Regarding polypores (Basidiomycota), relatively few biogeographical approaches have been presented for particular regional mycotas. Instead, they have been mostly discussed without considering the phytogegraphical context and/or their relationships with the woody substrates they decay. The advances in the taxonomic knowledge of Southern South American polypores suggest that species show narrower distribution ranges than previously believed. This could be partly explained by substrate preference and/or affinities to certain ecosystems. Accordingly, new approaches to disentangle mycogeographical relationships are deserved. In this work we analyze the ecological and geographical relationships of the polypore mycota of central Argentina. We selected species with different distribution patterns including wide and narrow ranges, and discuss the biotic and abiotic constrains underlying them. Then we propose a theoretical model in order to predict polypore distributions based on host specificity and their functional role based on the wood decay stage preference. In this model polypore species with high host specificity fruiting on living hosts are predicted to have restricted distribution ranges. On the other hand, species fruiting on decayed dead wood with low substrate specificity are predicted to have a wider distribution ranges. Species with restricted distribution are expected to be mainly biologically constrained. As the distribution range increases, species are expected to be constrained by abiotic factors such as climate. The model also support taxonomic hypotheses based on morphological and molecular data within certain species complexes (v.g. *Phellinus rimosus*), as well as, suggests new species complexes and host substrate relationships.

Palavras-chave: Wood-decay fungi, Fungal ecology, neotropics

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Laboratório de Micología, Instituto Multidisciplinario de Biología Vegetal, CONICET, Universidad Nacional de Córdoba, CC 495, CP 5000, Córdoba, Argentina