

## GENETIC STRUCTURE AND PHYLOGEOGRAPHY OF MYRMARACHNE MARIAELENAE (ARANEAE, SALTICIDAE), A TROPICAL 'SKY ISLAND' ENDEMIC FROM MOUNT KINABALU, SABAH, BORNEO

Bruno Garcia Piato<sup>1\*</sup>, Mateus Henrique Santos<sup>2</sup>, Charles Morphy Dias dos Santos<sup>1</sup>

1. Universidade Federal do ABC – UFABC, Santo André, SP; 2. Universidade Estadual de Ponta Grossa, Ponta Grossa, PR. \*Correspondence to piatobio@gmail.com

Evolução e Filogeografia/Oral

Tropical mountains are species hotspots, being crucial models to understand evolution drivers. Sky islands are mountainous formations that act as its oceanic counterparts, showing high degree of fragmentation and isolation among mountain tops. Few studies focus on the effect of altitude as a barrier to gene flow between populations in mountain tops despite its importance as a potential variation-enhancing evolutionary factor. Here we investigate the genetic structure of *Myrmarachne mariaelenae*, an endemic jumping-spider occurring in three localities in two neighboring mountain tops in Borneo. We found high genetic structure between populations from the two mountain tops, although some of the haplotypes from one top (but not all of them) are more closely related to the other locality. The indirect importance of altitude in the niche conformation of *M. mariaelenae* is attested by Ecological Niche Modeling and tests of correlation between several variables. The genetic distribution pattern through the landscape may be resultant of two competing hypothesis: (1) a postglacial connectivity breakup, or (2) events of chance dispersal over a pre-existing barrier. Analyses using model-based methods to compare different evolving scenarios might cast more light over the diversification drivers acting on *M. mariaelenae*.

The authors thank to Dr. Ronald Clouse for helping with his insightful thoughts, and CNPq for grants and scolarships.