ENCONTROS SCIENTIA

Individual niche variation in interacting species: from competition to mutualism

Raul Costa Pereira
McMaster University, Canada
EE /cE3c

By definition, individuals are unique. Indeed, virtually any natural population is composed of ecologically diverse individuals, which differ in what they do and how they live. However, classic ecological theory assumes that means (e.g., mean trait-values) are good representations of species' ecological functions, an analytically tractable approximation that implicitly neglects individual variation. The problem is that recent theory has shown that intraspecific variation has the potential to affect dynamics at higher levels of biological organization, such as communities and ecosystems, thus ecologists have begun to reconsider this simplification. In this talk, I'll discuss some insights and recent findings on how considering the ubiquitous individual niche variation within communities may help us to better understand distinct types of ecological interactions and even challenge conservation paradigms. I'll present results from several projects I have worked over the last several years on a diverse collection of organisms: from Neotropical cannibalistic frogs to social spiders in the Namib desert, and Amazonian fruit-eating fishes. I hope to convince the audience that individual niche variation is a prevalent phenomenon in nature with broad implications, emphasizing that ecology has a lot to gain from the study of variance in addition to the mean.

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FCUL (Building C2), 12h00-13h00, room 2.2.14

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