Gabriel Arellano is currently an assistant research scientist at the University of Michigan, Ann Arbor, USA. Working on community assembly and landscape-level patterns of diversity in tropical forests, and tree mortality at large (pantropical) scales. A field person at heart, he dislikes torturing data for the sake of selling stories.

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Salle 201, Bâtiment PS2, CIRAD-UMR AMAP, Boulevard de la Lironde
Visio conférence : Lien TEAMS

Some community ecology and tree mortality in tropical forests

presented by

Dr. Gabriel Arellano

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ABSTRACT: I will present my work and collaborations, in three main phases or lines. My first line of research is the study of species dominance, mostly linked to the "oligarchy hypothesis" in Andean and Amazonian forests in the Madidi region in Bolivia. The oligarchy hypothesis emphasizes predictability and practicality, leaving aside the mystery of hyper-diversity in tropical forests. We have studied how dominance (at the beta scale) changes in the Madidi across scales, across species, and environmental heterogeneity. My second line of research is tree mortality, at pantropical scales. I worked on the design and implementation of the annual mortality surveys of the Forest Global Earth Observatory. My colleagues in the tropics have gathered lots of comparable data, and we are starting to get interesting results, including a preliminary ranking of the most prevalent, lethal, and impactful factors associated with tree death. Lastly, I am paying attention to the process of collaboration *per se*. I will give an overview of the Alliance for Tropical Forest Science – a "network of networks" that promotes large-scale collaborations in a variety of topics. We hope to find better ways to balance different incentives and needs, data openness, and fairness in scientific collaborations.

KEY WORDS: Elevational gradients; Species dominance; Tree mortality; Networking

Invited and animated by:	David Bauman (UMR AMAP)
Type:	Research results and collaboration opportunities
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