



Guillaume is a plant ecologist, working on the ecology, evolution and conservation of Mediterranean species. He is interested in the study of range limits and their implications in the evolutionary-ecology of taxa. His approach integrates field studies alongside large scale modelling of the niche. Recently, he has focused on the role of hybridization in plant evolution, especially how it shapes distributions patterns and range limits.

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Salle 044, Bâtiment PS1, CIRAD-UMR AMAP,  
Boulevard de la Lironde

## Understanding species range limits of mediterranean plants

*presented by*

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### ABSTRACT

The study of species range limits has lied at the heart of biogeography for more than a century. In this context, the “centre-periphery hypothesis” (CPH) is a long-standing paradigm that has arisen to explain the eco-evolutionary uniqueness and the stability of range peripheries. It states that genetic variation and demographic performances of a species decrease from the centre to the periphery of its range in relation to increasing isolation and a decrease in habitat suitability towards peripheral populations. The CPH has stimulated much empirical investigation that has brought mixed support for its generality. Indeed, ecology and species history interact across the geographical range, and modify its predictions.

First, I discuss the birth and development of the CPH, and assess its accuracy in a review of 248 empirical studies. Second, I illustrate some of the points presented earlier through field-based examples from the Mediterranean basin.

### KEY WORDS

Centre-periphery hypothesis, ecological marginality, species distribution, hybridization

**Invited and animated by:**

Dr. Isabelle Maréchaux (UMR AMAP)

**Type:**

Research results

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**Language of PPT:**

english

