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26 Septembre 2024
11h00 – 12h

Salle 201, Bâtiment PS2, CIRAD-UMR AMAP,
Boulevard de la Lironde
Visioconférence : [Lien Teams](#)
ID de réunion : 328 299 363 090 - Code secret : V4x5Ao

Joint Species distribution models for presence only data

presented by

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ABSTRACT

Species distribution models (SDM) and their extensions to the multi-species context (Joint Species Distribution models, JSDM) are widely used to quantify and test environmental factors on biodiversity and the services they deliver. However, these models rely on presence/absence or abundance data derived from specific sampling. For many species, such samples are rare or non-existent. Yet, a wealth of information is available, notably from inventories carried out in the past (herbarium) or from data collected by amateurs (collaborative science). In this presentation, we will first introduce MaxEnt (Maximum Entropy), the most widely used approach in the mono-specific framework, and quickly demonstrate its equivalence with non-homogeneous Poisson point processes. Finally, we present our proposed extension to the multi-species case based on clustering strategy using mixture model framework.

KEY WORD Joint Species Distribution models, presence only data, inhomogeneous point process, mixture models, expectation maximization

Invited and animated by:

Jean-Baptiste Durand (UMR AMAP)

Type:

Research in progress

Oral language:

français

Language of PPT:

english

