

中央研究院統計科學研究所

學術演講

講題：Monitoring multispecies aggregation level
with line transect techniques

演講人：Prof. Tsung-Jen Shen (沈宗荏 教授)

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※採線上視訊舉行

Abstract

It is common knowledge that some specific species in an ecological community present aggregate distributions, but this does not necessarily imply that the entire community presents an aggregate distribution. Using the conspecific-encounter index derived from the Markov non-independent sampling model, this talk will introduce a legible definition of community-level distributional aggregation as an interspersed or cluster-like distribution of different species. In practical applications, by utilizing the conspecific-encounter index that accounts for the non-independent sampling of consecutive individuals along line transects, the result reveals that tree assemblages in tropical forest ecosystems can present a strong signal of extensive distributional interspersion. By contrast, for the amphibian assemblages, the conspecific-encounter index was found to be consistently high, implying that amphibian communities tend to be highly aggregate in space.

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