

Introducing an integrated approach to community dynamics in relation to the niche vs. neutral debate

Crispin M. Mutshinda¹ & Robert B. O'Hara¹

¹*Department of Mathematics & Statistics (Gustaf Hallströminkatu 2b) PO Box 68
FIN-00014 University of Helsinki, Finland*

The nature and the extent of mechanisms underpinning the structure of natural communities is a controversial issue in ecology for which existing theories have generated more heat than light. The virtual complexity of potential processes requires an integrated approach combining views from different perspectives. We introduce such an approach with relation to the niche vs. neutral controversy, and discuss its implication in addressing a wide range of ecological questions through model-based statistical inference under the increasingly popular Bayesian framework.

Key Words: Bayesian inference, equalizing mechanism, stabilizing mechanism, species interaction.