Research Gaps in Animal Social Network Analysis

Cédric Sueur

Associate Professor at the University of Strasbourg

Member of the French Academic Institute

With the collaboration of Damien Farine, Sebastian Sosa, David Jacoby and Mathieu Lihoreau

The recent focus on the study of animal social networks has led to some fundamental new insights. These have spanned across fields in ecology and evolution, ranging from epidemiology and learning through to evolution and conservation. Whilst network analysis has been used to address questions about sociality, food webs, bipartite networks and more over the past decade it is now extending into a wider variety of fields such as network interconnection and the link between gene networks and the expression of adaptive behaviours.

Graph theoreticians and biologists also are continuously developing novel network analytical approaches, opening new avenues of study and thereby extending our knowledge on many biological aspects of animal behaviour and interactions. This synergy between the development of new techniques and their application within a wider diversity of disciplines and animal models is providing a solid framework for studying animal sociality. However, as with all new research directions, growing knowledge has come with many new questions and new analytical challenges.

This talk follows a joint special feature call in Methods in Ecology and Evolution and Journal of Animal Ecology.