

Jonathan Potts (University of Sheffield)

Towards predictive models of animal movement and space use: a case study of multi-species bird flocks in Amazonia

Abstract

Though the movement of inanimate objects can typically be described by well-known physical laws, our knowledge of what governs the movement of animals is comparatively very poor. This is not surprising. There are myriad factors affecting animal movement, from their desire to eat, mate and avoid predation, to social interactions such as flocking and swarming, to physical limitations to movement. Disentangling these factors, and placing them into predictive models of animal movement, is a formidable challenge. In this talk, I will describe some techniques recently developed to help scientists begin to rise to this challenge. Though the tools are general, I will demonstrate how they have been used to give insight into a particular study system: multi-species flocks of insectivorous birds in the Amazon rainforest.