

Seminar announcement

Prof. Dr. Ran Nathan

Hebrew University of Jerusalem

Seminar title: "**Overview of movement ecology, methods and research activities**"

Date and time: 29. November 2018, 13h

Venue: large conference room ("BC – aula přízemí") at the Biology Centre of the Czech Academy of Sciences, Branišovská 1160/31, Ceske Budejovice

Prof. Dr. Ran Nathan is an ecologist who holds the Adelina and Massimo Della Pergola Chair of life Sciences at the Hebrew University of Jerusalem in the Department of Ecology, Evolution and Behavior where he leads the Movement Ecology Lab. Additionally, Nathan is the director of the Minerva Center for Movement Ecology and the co-founding co-Editor-in-Chief of the free-access journal Movement Ecology (BioMed Central).

During the seminar, Dr. Nathan will present an overview of his research. His work focuses on various aspects of movement ecology, including dispersal (and long-distance dispersal in particular), migration, foraging, navigation, flight aerodynamics, animal behavior, social interactions, invasive species, disease spread by avian species, gene flow, plant-animal interactions and plant recruitment.



Dr. Nathan studies foraging, dispersal, migration and other types of movements in plants and animals, mostly birds. These studies typically combine advanced biotelemetry of free-ranging animals, mechanistic models, molecular tools, and various observational and experimental approaches in the laboratory and in the field, both in Israel and around the world. He developed a conceptual framework as a theoretical base of his research, that asserts that four basic components are needed to describe the mechanisms underlying movement of all kinds: the organism's internal state, which defines its intrinsic motivation to move; the motion and navigation capacities representing, respectively, the organism's basic ability to move and affect where and when to move; and the broad range of external factors affecting movement. His work contributed significantly to a greater understanding of movement across all taxonomic groups based on the described framework, by the study of issues regarding: 1) the links between movement patterns and their underlying mechanisms (e.g., search efficiency and landscape heterogeneity); 2) the fitness consequences of lifetime movement; 3) the mechanisms of animal navigation; 4) the drivers of inter-continental bird migration, and their implications for individuals and ecosystems, and 5) social behavior and decision-making.

