



Ben-Gurion University of the Negev
Jacob Blaustein Institutes for Desert Research
The Swiss Institute for Dryland Environmental and Energy Research
Mitrani Department of Desert Ecology

Seminar

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Tuesday, January 3, 2017, 12:00

Seminar Room, Old Administration Building

Participants are invited to meet the seminar speaker at the MDDE meeting room immediately after the seminar (~ 13:00). Please bring your lunch; snacks will be provided.

Species Diversity: From Processes to Patterns

Understanding the mechanisms underlying the observed patterns of species diversity is a major challenge of ecology. This question is apparently very complex because of the multidimensionality of ecological systems, the large number of species and environmental factors, the potential for complex direct and indirect interactions, and the inherent stochasticity of all ecological systems. Surprisingly, in spite of this immense complexity, ecological communities exhibit a large number of 'semi-universal' patterns of species diversity that can be observed over very different kinds of organisms and environments. Examples for such patterns are the increase of local species diversity with regional diversity, the increase of species diversity with area and habitat heterogeneity, the decrease of species diversity with geographical isolation, habitat loss, and fragmentation, the unimodal responses of species diversity to disturbance and productivity, and the positive interaction between the effects of disturbance and productivity on species richness. In this talk I will present a general overview of classical and our own attempts to link these patterns to their underlying processes.