



**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

**Oren Kolodny**

Department of Biology,  
Stanford University



Sunday, December 24, 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.

**Modeling Eco-Evo Dynamics:  
Genetics, Microbiomes, Stone Tools**

Systems that are composed of multiple interacting units such as genes, individuals, populations, or species share common features. Their study calls for a scientific approach that combines modeling and computational tools with conceptual frameworks from ecology and evolution. In this talk I will demonstrate the utility of such an approach by presenting two current studies. The first is a project in conservation biology, that suggests a reconsideration of the current paradigm for management of fragmented species' populations. Pointing out two underappreciated considerations, I propose that the emphasis on the maintenance of connectivity between populations may be detrimental to a species' conservation. The second topic is the study of the role of the microbiome in its host's evolution. I suggest that host adaptation via changes in the composition of its microbiome may be a prominent evolutionary dynamic, whose appreciation will reshape our view of adaptive evolution.