



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, March 28, 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.

Whole genome duplications and their consequences on plants evolution

Polyploidy is widely recognized as a key feature in plant organismal diversity. A surge of research over the last decade has revealed an extensive history of polyploidization events in the genomes of most plant lineages. However, owing, in part, to the absence of large comparative data, most empirical studies are confined to particular geographic regions and/or narrow taxonomic space. As such, treatment of central theoretical hypotheses regarding various aspects of polyploidy evolution within a statistically robust phylogenetic framework is generally absent. Here, I will describe the construction of a broad phylogenetic database that provides us with the ability to distinguish broad convergent trends from species-specific idiosyncrasies. I will exemplify the use of this database with several ongoing studies. First, I will describe the assembly of the world-wide map portraying global polyploidy abundance and the ecological and climatological factors underlying this distribution. Second, I will discuss evidence that highlight the contribution of genome duplication to the domestication process.