

Ben-Gurion University of the Negev
Blaustein Institutes for Desert Research

The Swiss Institute for Dryland Environmental and Energy Research
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Senders' deceptive signaling and receivers' aspiration-based strategies: the case of plant-pollinator systems

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Abstract:

We analyze the evolutionary game between a Model plant with nectar-secreting flowers and a Deceiver plant that provides no nectar, both sharing the same pollinator species for sexual reproduction. The plants' fitness in the game is determined by the pollinator's stationary visitation frequencies of a Markov process defined by the pollinator's aspiration-based exploration strategy. The strategy hedges against rare negative shocks to the availability of any particular food source. We characterize the parameter values for nectar production costs and mimicry effectiveness under which selective forces lead to evolutionary stability or cycles.

Date & Location:

Tuesday, June 11, 2019, 11:00

Lecture room, Physics Building (ground floor)

