



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

Uriel Kitron

Emory University

Tuesday, May 22, 2018, 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.

**Transmission of Mosquito-Borne Viruses
in Salvador, Brazil: Old Timers,
Newcomers and Repeat Offenders**

Salvador, the largest city in Northeastern Brazil has long been an epicenter for transmission of dengue, with all four serotypes circulating. In recent years, two new comers, Zika and Chikungunya viruses, transmitted primarily by the same vector, *Aedes aegypti* have arrived, and this year they were joined by the long-absent Yellow fever virus. Coupled with the establishment of a new vector, *Aedes albopictus*, Salvador has emerged as key location for understanding co-circulation and simultaneous transmission of these four arboviruses, and the changing ecology of their two vectors. We have observed simultaneous transmission and epidemics of these viruses, possible inhibition effects, and citywide transmission of yellow fever to monkeys after decades of absence. On the mosquito front, *Aedes aegypti* remains the main vector, and has shown new adaptations to urban life, including completion of its life cycle in catch basins. Implications for surveillance and targeted interventions will be discussed.