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MITRANI DEPARTMENT OF DESERT ECOLOGY

Stopover ecology of migrating passerines at the desert edge

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Each year, millions of migratory birds cross the sky of Israel. In their long journey, these birds are dividing their route to intermittent flights with subsequent breaks along the way. Birds spend 90% of the total migration time in stopover sites, to rest, refuel, and elude bad weather conditions. Located at the northern edge of the Sahara Desert, Israel is the last favorable stopover area for trans-Saharan migrants during autumn southbound migration. Therefore, birds staging in Israel during autumn should optimize their fuel reserves, which are correlated with flight distance. I present how stopover site quality can affect individual body condition, which in turn, affects the chances to complete the journey. Specifically, I demonstrated how two similar man-made stopover sites, in terms of habitat structure and food, can attract many frugivorous birds, although dramatically differing in their quality. I assessed site quality and the probable consequences of landing at incompatible site by using modelling, as well as advanced metabolomic methods. My results indicate that the number of birds landing at a stopover site are independent of its quality, and that man-made stopover sites could falsely attract individuals during migration, and may act as ecological traps.

This is Adi's final PhD seminar!