



Innateness and Flexibility in Bats' Echolocation

Nov. 19th (Friday): 4-5pm ET

This seminar will be **hybrid**; join us on **Zoom** or at **SEC 2.112!**

Dr. Eran Amichai



Bats are one of the most wide-spread and species-rich orders of terrestrial vertebrates. They range from sub-arctic to tropical latitudes and inhabit almost all habitats – from rainforests to deserts and everything in-between. They display a wide array of foraging tactics, social behaviors, vocal communication, navigational skills and learning abilities. These complex behaviors are found in species that, in the vast majority of cases, rely on one single dominant sense – bio-sonar (echolocation). As the main mediator between the animal and its environment, echolocation is largely responsible for the incredible diversity, wide distribution, and overall success of order Chiroptera. Being an active sense – the animal emits energy into the environment in order to sense it – echolocation provides us with a rare window into the animal's inner world, allowing us to measure how it perceives the world: to look at the world through a bat's ears. In this talk I'll discuss some of the work we've done investigating the flexibility bats have in controlling this sensory modality, as well as addressing questions regarding innateness vs learning of some aspects of echolocation.

Dr. Eran Amichai is an integrative biologist studying animal behavior and sensory biology to answer questions in the field of ecology and evolution. He is a postdoctoral research associate at Dartmouth College where he studies sensory individuality in bats and seasonality of predator-prey interactions between bats and katydids. Dr. Amichai earned his MSc (2011) and PhD (2018) in zoology from Tel Aviv University, during which time he was also a member of the team of scientists and conservation practitioners that established Israel's national bat monitoring program and conservation policies.

Hosted by the [Soft Math Lab](#).

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