

ASET Colloquium

Evolution of 'conspicuous' colours in lizards

by Dr. Ullasa Kodandaramaiah (IISER Trivandrum)

Friday, 11 August 2017 from 16:00 to 17:00 at AG-66.

Description

Animals have a breathtaking array of colour patterns that they use against predation. Much research has focussed on 'cryptic' colouration, while the role of 'conspicuous' colours has been ignored. My talk centers on two conspicuous colour types – body stripes and bright tails - in lizards. Many lizards have bright (colourful) tails, and these bright colours are thought to deflect predatory attacks towards the tails, which can be shed and regrown. We posit that body stripes – which are common among lizards - function as 'motion dazzle patterns' that redirect predatory attacks to the tail. Computer touchscreen-based virtual experiments support this idea. A comparative analysis across > 1100 species shows that striped lizards also tend to have bright tails. I also discuss analyses which indicate that these conspicuous colours have led to faster the diversification of lizards, leading to a greater species diversity.

About the Speaker:

I am an Assistant Professor at the IISER-TVM Centre for Research and Education in Ecology and Evolution (ICREEE), IISER Thiruvananthapuram and PI of the Vanasiri Evolutionary Ecology Lab. Having spent my childhood in Bangalore, I moved to Ponnampet (Coorg, Karnataka) to do my Bachelors in Forestry. I went on to do a PhD in Stockholm University, Sweden, working on phylogenetics and biogeography of butterflies. During this time, I developed a deeper interest in evolutionary biology, which is now the core area of my research. Before joining IISER Thiruvananthapuram, I did a postdoc in Stockholm University another one in Cambridge University, both on the evolutionary ecology of butterflies. Current lab interests are related to understanding aspects of diversification of living organisms. Given that we are interested in diversity, we are also diverse in terms of study systems – we have ongoing projects on insects, plants and reptiles, as well as theoretical work.