Super Speaker **Dr. Jessica Ware** of the American Museum of Natural History.

The title of her talk is: "**Insect evolution: dragonfly, damselfly and Dictyoptera systematics.**

**Bio:** Jessica Ware is an Associate curator in invertebrate zoology at the American Museum of Natural History. Dr. Ware’s research focuses on the evolution of behavioural and physiological adaptations in insects, with an emphasis on how these occur in Odonata (dragonflies and damselflies) and Dictyoptera (termites, cockroaches and mantises). Her research group focuses on phylogenetics/phylogenomics and uses these tools to inform their work on reproductive, social and flight behaviors in insects. Jessica holds a BSc from the University of British Columbia in Canada, and a PhD from Rutgers, New Brunswick. She was an NSF postdoctoral fellow at the AMNH 2008-2010, before being hired at Rutgers Newark where she was an associate professor of evolutionary biology. She is the current president of the Worldwide Dragonfly Association, and VP of the Entomological Society of America. She was recently awarded a PECASE medal from the US government for her work on insect evolution.

**Abstract:** Dragonflies and damselflies, representing the insect order Odonata, are among the earliest flying insects with living (extant) representatives. However, unravelling details of their long evolutionary history, such as egg laying (oviposition) strategies, is impeded by unresolved phylogenetic relationships, an issue particularly prevalent in damselfly families and fossil lineages. Here we present the first transcriptome-based and AHE-based phylogenetic reconstructions of Odonata representing nearly all of the order’s families (except Austropetaliiidae and Neopetaliiidae). All damselfly families and most dragonfly families are recovered as monophyletic groups. Our Molecular clock estimates suggest that crown-Zygoptera (damselflies) and -Anisoptera (dragonflies) both arose during the late Triassic. Similarly, Dictyoptera analyses are resolved with AHE phylogenetic reconstruction.

[https://www.amnh.org/research/invertebrate-zoology/staff/curators/jessica-ware](https://www.amnh.org/research/invertebrate-zoology/staff/curators/jessica-ware)