

Biology Promotion Seminar

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When does morphology matter? Understanding bat diversity from an ecomorphological perspective



Monday, October 10, 2016 | 12:00pm HCK 132
Refreshments at 11:45am

Diet evolution is a major driver of differences in morphology, function and species richness across mammal lineages. My lab's research focuses on understanding how ecological diversification in mammals is related to the evolution of phenotypic traits, in particular those used to locate, capture and consume prey. With over 1,300 species worldwide, bats are an ideal model system for this research; they are one of the most species-rich and ecologically diverse mammal orders. To illuminate the complex mechanisms leading to bat diversification, our research integrates three major approaches: (1) documenting the macroevolution of traits associated with feeding, (2) experimentally testing how differences in these traits translate into feeding performance and resource use, and (3) quantitatively linking these patterns and mechanisms to the process of species diversification. In this seminar, I will illustrate how this research is allowing my lab to deepen the field's understanding of the ecomorphological processes underlying the diversification of bats, while providing a foundation for my lab's current work across other mammal groups.

