Division of Biology Presents:

Mammalian Evolution, Biodiversity Conservation, and One Health
Monday, August 21, 2023 • 3:30 PM • 221 Ackert Hall

Andrew Hope
Assistant Professor
Kansas State University

We, as humans, are inextricably connected to global biodiversity through our shared environments and interactions. My program of study investigates the evolutionary ecology of wildlife, with two primary goals being to 1) enhance conservation of biodiversity within increasingly perturbed environments, and 2) explore the evolutionary legacies of host-parasite-pathogen relationships. Together these priorities are adding important insights to how environmental changes shape evolutionary trajectories. In particular, we have identified numerous species, and intra-specific lineages of concern for ongoing management; shifting evolutionary relationships between hosts, parasites and disease; and important geographic regions that may be considered evolutionary hotspots for emerging host-parasite interactions, with implications for disease risks. I will review the highlights of research and educational outreach from my lab in the past five years, and outline some projected directions for expanding mammalian molecular ecology and wildlife disease perspectives into the future. Emerging “One Health” perspectives emphasize that human well-being critically relies on healthy ecosystems and intact functional linkages among species, but as yet the overwhelming focus has been on human biomedical research: Our current and future work instead emphasizes the importance of considering human health concerns from the perspective of biodiversity in a changing world.

Andrew received his Ph.D. in Biology from the University of New Mexico. Andrew is currently a candidate for tenure and promotion.

Coffee & snacks served preceding the seminar in Ackert Hall, Room 225