“Disease ecology of microbial and metazoan parasites infecting herpetofauna”

Helminths (parasitic worms in the phyla Acanthocephala, Platyhelminthes, and Nematoda) form diverse communities within their hosts. These communities generally have long evolutionary histories with their host taxa and may be an integral part of immune development. However, habitat disturbances may disrupt these communities, leading to overabundance of certain taxa and extinction of others. In this talk, I will discuss three projects from different stages of my career where I examine complex helminth community interactions across various hosts and environments. First, I will discuss helminth parasitism of Texas freshwater turtles, highlighting novel findings and avenues of future research. Second, I will detail a study in the Brazilian Atlantic Forest looking at the co-occurrence of helminths and microbes between frogs occupying fragmented or pristine forested habitats. Finally, I will discuss recent and interesting findings of prevalent nematode infections in an endemic Texas water snake.