# Kory Evans

**Bio**:

I am interested in the ecology and evolution of phenotypic diversity, integrating data from developmental biology, ecology, biomechanics and phylogeny to understand this process at various timescales. Bony fishes provide a unique opportunity to ask these questions and study the origins of phenotypic diversity along with the interface between phenotype and environment, within the most species-rich assemblage of vertebrates on the planet.

**Abstract:**

Evolutionary innovations are scattered throughout the tree of life, and have allowed the organisms that possess them to occupy novel adaptative zones. While the impacts of these innovations are well-documented, much less is known about how these innovations arise in the first place. Patterns of covariation among traits across macroevolutionary timescales can offer insights into the generation of innovation. However, to-date, there is no consensus on the role that trait covariation (i.e. integration and modularity) plays in this process. Here, we examine two case studies in fishes to determine the role that trait integration has played in shaping the striking evolutionary innovations that each clade possesses.