Predator – Prey Interactions with *Physa acuta*

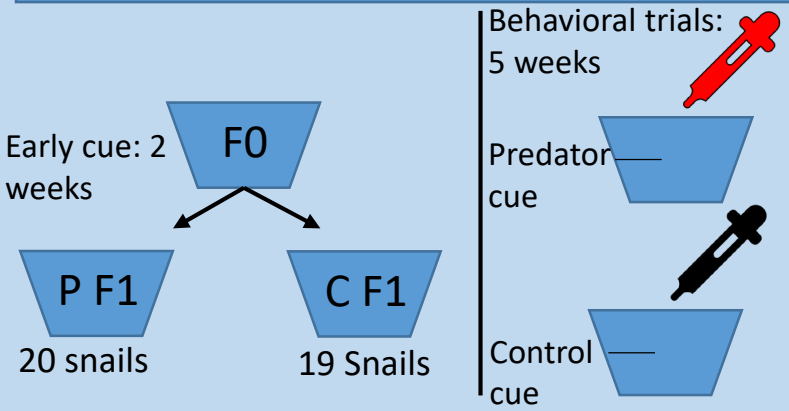
Sydney Austin, Katerina Ramos, Barney Luttbeg
Department of Integrative Biology, Oklahoma State University

Introduction:

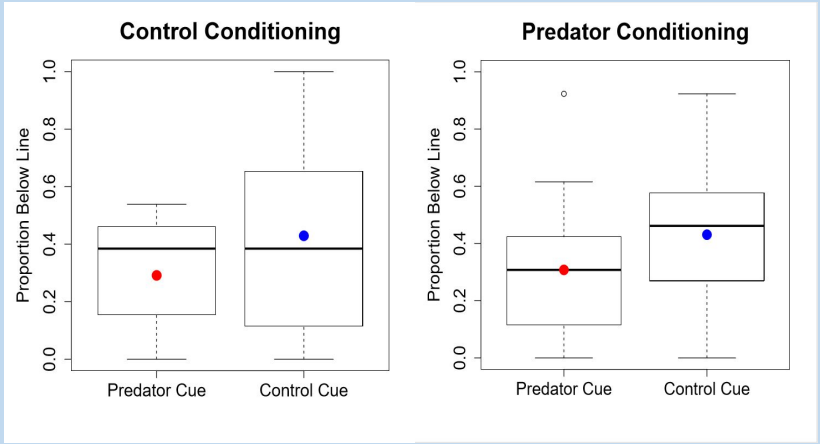
- Pond snails (*Physa acuta*) detect predatory cues given off by crayfish, one of their main predators, in the water.
- Snails show avoidance behaviors such as floating on top of the water or shrinking into their shell to avoid being eaten.
- Snails have also been shown to alter their shell shape to avoid predation

Research Question:
Does early exposure to predator cues change the snails behavior and morphology later in its life?

Methods:



Results:



Analysis:

Models	ΔAIC
Test	0.0
Test*Time	0.9
Condition*Test	1.9
(Test*Time) + (Test*Condition) + (Test*Condition)	6.0
Null	19.3

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Impact of findings:

- The findings show that the early exposure to predator cues did not affect snail behavior later in life.
- Snail behavior was affected differently being predator cue and control water
- Looking forward to future research, exposing the snails more often in early life may change these results.

References:

Alexander, J. E., and A. P. Covich. "Predator Avoidance by the Freshwater SnailPhysella Virgata in Response to the CrayfishProcambarus Simulans." *Oecologia*, vol. 87, no. 3, 1991, pp. 435–42. *DOI.org (Crossref)*, doi:10.1007/BF00634603..
Hoverman, Jason T., and Rick A. Relyea. "How Fleaxible Is Phenotypic Plasticity? Developmental Windows For Trait Induction and Reversal." *Ecology*, vol. 88, no. 3, Mar. 2007, pp. 693–705. *DOI.org (Crossref)*, doi:10.1890/05-1697.