

Effects of predator presence and predator diet on chemical cue response of the marine snail, *Littorina littorea*

Chemical cues are commonly used in intertidal ecosystems as a way for individuals to gather information about the environment around them. Cues help potential prey items in determining cost/benefit factors which influence whether they should initiate an avoidance response. This study looked at whether there was a significant difference in crawl out response of *Littorina littorea* (a marine snail), exposed to cues of predators feeding on conspecifics (snails), feeding on heterospecifics (mussels), and a control treatment with no predator or damaged prey item. There was a significantly higher crawl out response from *L. littorea* exposed to crabs feeding on *L. littorea* than either of the other two cue treatments at ten minutes after initial exposure indicating that *L. littorea* responds to the dangers of a predator actively feeding on conspecifics. Consequently, this study suggests that *L. littorea* use chemical cues to avoid predation.

Advisor: Alan Verde