

Detecting patterns between macroalgal species diversity and macroinvertebrate species diversity in a rocky intertidal shore.

This study investigated how algal diversity and abundance affects invertebrate diversity and abundance. In two Maine rocky intertidal shore locations, The Backshore and Blue Hill Falls, were observed over five months for the algal and invertebrate species present. Blue Hill Falls was found to be more diverse in algae and invertebrates compared to The Backshore. The relationship between algae and invertebrates was characterized by linear regressions using Shannon Weiner Index and biodiversity indices. The R^2 values for the Shannon Weiner Index and biodiversity index linear regressions were 0.69 and 0.35 respectively. These observations suggest there was a positive relationship between algal diversity and invertebrate diversity, however due to the simplicity of the model the correlation is not accurately reflected. Further studies should investigate the relationship between algae and invertebrates using more locations, the effects of wave action, or interspecific and intraspecific organism interactions.