

Northrup, Joseph (2005). "Temporal and Spatial Distribution of Three Species of Amphipods (Crustacea) on Two Exposed Sand Beaches in Maine". Standard Theses.

The abundance and distribution of three major species of amphipods in New England, *Amphiporeia virginiana*, *Acanthohaustorius millsi*, and *Haustorius canadensis*, were investigated on two exposed sand beaches in Maine USA. The objective of this study was to determine how the patterns of distribution changed along and across the shore and also over time. There was little variation seen in the abundance and distribution of either *H. canadensis* or *A. millsi* but this may have been due to competition for space, among other things, with each other and *A. virginiana*, the dominant species on both beaches. The patterns of distribution and abundance of *A. virginiana* did not change significantly throughout the study on either beach, on a temporal scale, but this was most likely due to the high variances between replicates at sampling locations. At both beaches, the abundances of all species changed significantly along the beach but were unable to be explained as factors such as longshore currents and wave activity were not investigated. This study outlines the importance of multidimensional beach studies that take into account as many variables as possible in order to determine the true patterns of the fauna on sand beaches.