Undergraduate Internship Project #5 of 10 for FY08

Intern Aaron Gibson’s project, sponsored by the DWRC, was titled “Effects of Water Quality on Oyster Growth (Crassostrea virginica) in the Floating Oyster Aquaculture Gear in Delaware’s Inland Bay.” He was advised by Dr. Gulnihal Ozbay of Delaware State University’s Department of Agriculture and Natural Resources.

Abstract

The objective of this study was to determine juvenile blue crab abundance and identify potential correlations with water quality in “Taylor floats” used for oyster gardening in Delaware’s inland bays. Three floats were deployed at each site: one containing living oysters, one containing lifeless oyster shell, and one was left empty. Along with weekly water quality measurements, the floats were sampled monthly by surrounding the float with a net to retrieve fishes and macro invertebrates. Blue crabs that were collected from each float were then counted and their carapace width measured. Preliminary results indicate blue crabs showed a preference for floats containing three-dimensional structure provided by oysters and shells. Data are currently being analyzed; however, it is clear that this type of artificial oyster reef habitat is a welcome refuge for juvenile blue crabs.