Oysters on the Half Shell: The Effect of Intertidal Zonal Habitats on the Health of Crassostrea virginica (Eastern Oyster)

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“Oysters have held the power of life and death,” according to the Oyster Recovery Partnership of Annapolis, Maryland. During the Great Depression millions of Americans relied on the eastern oyster as a lifesaving food source. Today overharvesting, pollution, disease, and habitat destruction have reduced the species to less than one percent of its original population in the Chesapeake Bay. <> Marine conservation organizations, universities, and government agencies are working vigorously to improve the fate of the eastern oyster by seeding them in subtidal zones. However, are the oysters found there healthier and more likely to survive? The University of Maryland Horn Point Laboratory’s website states “larger oysters filter more, spawn more, and provide more substrate and habitat,” which will accelerate the recovery of the species. The purpose of this study was to determine if different intertidal zonal habitats effect the health of Crassostrea virginica. All oysters were harvested from Tom’s Cove, Assateague National Wildlife Refuge, Virginia. This location was chosen due to its pristine condition with minimal human interaction or pollution. Hundreds of oysters were collected and over 2,100 external and internal observations were made. Specimens were measured, weighed, and inspected externally for evidence of impact by predators. Subsequently they were shucked, weighed for dry oyster body weight, and inspected internally for abnormalities. <> Results of testing showed the subtidal habitat produced healthy oysters, supporting the hypothesis. However, oysters harvested from the marsh fringe between the intertidal and supratidal zone, showed equally promising results. The findings indicated both environments are favorable to oyster health, for slightly different reasons.