

Oyster Sanctuary Goals and Metrics

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Population Level Goals

Goal	Performance Metric	Notes
Increased density of all age classes	Density of spat, smalls, and markets	Relative to non-sanctuary bars
Self-sustaining population (recruitment rate \geq mortality rate)	Spat set vs. mortality rate, biomass	Perhaps look at number of smalls as they are easier to count. Function of density and currents.
Population of many age classes and even sex ratio	Age classes, sex ratio	A sex ratio other than 50/50 may be optimal depending on density.

Population Level Goals (continued)

Goal	Performance Metric	Notes
Good oyster condition	Oyster condition (meat mass/length)	
Disease resistance	Decreased mortality, disease prevalence, intensity	Infer resistance based on these parameters
Export of larvae outside of sanctuary	Spat set in areas outside of but adjacent to sanctuary	Will involve improving substrate outside of sanctuaries. Difficult to determine larval source.

Habitat Level Goals

Goal	Performance Metric	Notes
Increased hard substrate quantity and quality	Acres of hard substrate that could support spat set	Shell, artificial substrate (e.g. marl),
Shell accretion rate > sedimentation rate	Shell accretion and sedimentation rates	
Improved water quality	Decreased chlorophyll, turbidity	May depend on flushing rates.

Habitat Level Goals (continued)

Goal	Performance Metric	Notes
Typical oyster reef biodiversity	Species richness and abundance of reef-dwelling fish and invertebrates, SAV, fishing use	