

❖ The value of standardized approaches within and among projects, programs, regions and species: why monitoring is not a bad word

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Restoration of either intertidal or subtidal oyster habitats to some seems as simple as dumping any material ('cultch') into the water and letting "mother nature" do the rest. We know from many local and regional efforts that enhancement and restoration (= construction) of oyster reefs is not a simple task (Coen and Luckenbach 2000, Powers et al. 2009, Kennedy et al. 2011). Depending on your goal(s), the approach(es), related metrics and success criteria sampling can be very different. These goals parallel "ecosystem services" highlighted soon after by Grabowski and Peterson 2007, Baggett et al. 2014). We (Coen et al. 2004) also prioritized site selection criteria for intertidal and subtidal restoration and developed six restoration goals, related metrics and common sampling methods to evaluate these metrics. They included: (1) resource enhancement; (2) broodstock enhancement; (3) habitat enhancement; (4) 'water quality' improvement; (5) shoreline stabilization (adjacent habitat enhancement); and (6) education/outreach. That workshop, as well as more recent attempts (Kennedy et al. 2011, Baggett et al. 2014) have codified restoration and monitoring approaches- they all stressed reef mapping, scientifically-rigorous designs, repeated and extended sampling of key metrics in the absence of disturbance (=harvesting). In most areas restoration success hinges on whether sites are substrate limitation (SL) vs. larval supply (LS). Where a given location resides on this SL→RL continuum is unclear. NC has a preponderance of subtidal oyster habitats in most of the state, with the southern portion dominated by intertidal reefs. Past results are outlined in light of NC's wants and needs.