

❖ Challenges of monitoring created and natural oyster reefs in intertidal and shallow subtidal areas

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Habitat restoration projects in general are often initiated with specific goals or outcome criteria. Oyster restoration projects are no different although the timeline for success may differ greatly depending on the goals. Criteria for the successful completion of oyster restoration often focus initially on characteristics of the oysters themselves, especially for projects with an ultimate goal of fishery enhancement. It is more challenging to identify those factors that indicate a maturing of the reef, the accumulation of associated fauna that are dependent on oyster habitat, is challenging in both intertidal and subtidal environments. These environments can be effectively sampled for the sessile components using several methods and a stratified sampling design that includes a robust level of replication. Mobile fauna and nekton are difficult to sample though the use of passive sampling devices supplemented with video can be used to target these groups. Understanding and addressing reef development through time is important and may require repeated sampling. Repeated sampling in a given area also presents challenges and the potential for artifacts depending on the relative size of the restoration project. While understanding processes of settlement, recruitment and the interaction of post-settlement processes lend strength to monitoring efforts it may be challenging to sample these factors effectively.