

An Exploration of Marine and Coastal Habitat Enhancement and Creation Using Reef Balls in Atlantic Canada

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The Confederacy of Mainland Mi'kmaq (CMM) and Clean Foundation (CF) have completed Coastal Restoration Fund projects across the Northumberland Strait (in Nova Scotia) using reef balls. Reef balls are prefabricated concrete domes that are used to enhance, create, or restore marine and coastal habitat. Led by CMM, the Pictou Landing First Nation constructed 200 reef balls for the completion of these projects. The CMM completed 2 subtidal reef ball deployments, creating artificial reefs and enhancing marine habitat in two culturally significant sites, that were determined through a series of community engagement sessions. Clean Foundation is in their final year of completing a hybrid living shoreline project at Sitmuk (a tidally influenced cove) to remove waste material, restore salt marsh habitat, and involve the local community. To accomplish this, CF has excavated rock waste, planted native salt marsh vegetation to speed recovery, and deployed intertidal reef balls to encourage the growth of new seaward salt marsh habitat. This is a hybrid living shoreline project as the reef balls are permanent concrete structures, though the rest of the project is being completed with natural, biodegradable materials. All restoration works have been completed but management of the site is ongoing, informed by lessons learned.