The prevalence of entanglement in gray seals (*Halichoerus grypus)* and harbor seals (*Phoca vitulina)* on Halfway Rock, and Duck Island, Maine

A high demand for packaging and synthetic materials has led to increased marine plastic debris and entanglement globally. Synthetic materials in the ocean can be extremely detrimental to marine mammals and other marine life due to characteristics such as, extended residence time, minimal visibility, and high buoyancy, to remain in the water column for a large period of time. In the Gulf of Maine, harbor (*Phoca vitulina)* and gray (*Halichoerus grypus)* seals are impacted by entanglement in synthetic materials. Two photographic shipboard surveys were conducted at Halfway Rock in July and September 2018, 27 surveys were conducted at Duck Island between May and August in 2018 to observe entanglement. Halfway Rock study location had never been studied for entanglement previously to this study, whereas Duck Island had since 2011. Halfway Rock exhibited four events of entanglement, and at Duck Island 36 events of entanglement were observed. The most abundant entangling material being monofilament at Halfway Rock, accounting for 50% of entanglements. Duck Island had 62% of entanglements which were 'unknown'. Observed entanglements at both locations were seen located around the neck. 50% of Halfway Rock entanglements were around the neck and 83.8% were at Duck Island . While there were more events of entangelment located at Duck Island, entanglement is still prevalant at Halfway Rock. Thus, entanglement is occuring further up the coast of Maine.

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