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TITLE: Experimental predator removal causes rapid salt marsh die-off

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ABSTRACT:

Abstract Salt marsh habitat loss to vegetation die-offs has accelerated throughout the western Atlantic in the last four decades. Recent studies have suggested that eutrophication, pollution and/or disease may contribute to the loss of marsh habitat. In light of recent evidence that predators are important determinants of marsh health in New England, we performed a total predator exclusion experiment. Here, we provide the first experimental evidence that predator depletion can cause salt marsh die-off by releasing the herbivorous crab *Sesarma reticulatum* from predator control. Excluding predators from a marsh ecosystem for a single growing season resulted in a >100% increase in herbivory and a >150% increase in unvegetated bare space compared to plots with predators. Our results confirm that marshes in this region face multiple, potentially synergistic threats.

SOURCE: Ecology letters

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