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## UNIVERSITY OF CONNECTICUT

Department of Marine Sciences  
Presents a Seminar by

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University of Maine

### **The American Lobster – Poster Child of a Changing Marine Ecosystem**

The American lobster has become a poster child for the impacts of environmental change on coastal ecosystems and economies that depend on it. Dynamic food webs and climate are changing lobster ecology and management. In a warming climate, optimal conditions have receded from southern New England, but have expanded into the Gulf of Maine, reinforcing the positive effects of the widespread depletion of predatory groundfish, such as Atlantic cod, to trigger an unprecedented boom in lobster production, one that has elevated the lobster to its current status as the most valuable single-species fishery in the US and Canada. The future of this fishery is far from certain, though. In southern New England mass mortality and disease induced by summer heat stress and hypoxia have led to with a warming climate widespread collapse of the region's fishery. And although the Gulf of Maine's fishery is at record highs, the combined effects of the northward advance of shell disease and southern predators, and changes in the pelagic and benthic food web, pose a threat to its future. With few alternatives, coastal communities in Maine and Atlantic Canada are now perilously dependent on this single fishery. But traditional single-species fishery stock assessment does not fully capture the drivers of population dynamics, and it is increasingly important to embrace ecosystem-based management and forecasting tools that account for environmental interactions. The iconic lobster therefore has broad relevance as a case study of the sometimes contrasting impacts of environmental change and exploitation on our living marine resources and coastal communities.

**Host:** Catherine Matassa

**Time & Date:** 11:00 am, Friday, October 5, 2018

**Place:** Marine Sciences Building, Seminar Room 103

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