# BES COLLOQUIUM

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Integrating across biological levels to understand risk and resilience to environmental change in marine species of conservation concern



## MARCH 21, 2025

### 3:00 PM IN CBLS 010

**Speaker:** Dr. Lisa Komoroske Associate Professor of Ecophysiology & Conservation Genomics Dept of Environmental Conservation University of Massachusetts Amherst

#### **Title:** Integrating across biological levels to understand risk and resilience to environmental change in marine species of conservation concern

**Abstract:** Understanding key aspects of the biology of marine organisms of conservation and management concern can be hampered by challenges in observing them in complex natural environments and limitations on applying traditional laboratory approaches. My research integrates measures at the molecular, organismal, population and species levels to understand how marine organisms are shaped by their environments, and to use this knowledge for effective biological conservation and management. I will share some of my recent work using these approaches to understand biological responses to global change, processes of ecological adaptation, and developing tools and metrics for conservation management. I will highlight projects focused on marine turtle conservation genomics and adaptation, evaluating physiological mechanisms underlying shrinking fish body sizes under ocean warming, and assessing the roles of microevolutionary processes in marine invertebrates' adaptive capacity to environmental change.

**Short Bio:** Dr. Komoroske received her PhD in Ecology from the University of California, Davis, and then was a National Research Council Fellow at the U.S. National Oceanic and Atmospheric Administration Southwest Fisheries Science Center. She now leads the Molecular Ecology and Conservation Laboratory at UMass Amherst, which focuses on fundamental and applied marine and aquatic research using molecular and physiological approaches. She regularly works with regional, national and international scientific agencies and non-governmental organizations to facilitate integration of this knowledge into conservation and management plans.

Learn more about our research group at https://lmkomoroske.com/