Spencer Fire, Ph.D.

Assistant Professor | Ocean Engineering and Marine Sciences at Florida Tech
Melbourne, FL, US

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About

Spencer Fire's research program combines an interest in the very smallest and the very largest organisms in the sea (and occasionally a few in between). From single-celled marine algae (phytoplankton) to shellfish, finfish, sea turtles, humans and marine mammals such as baleen whales, the interactions between these organism can tell us much about the status of our oceans' health. Dr. Fire's current research focuses on the impacts of harmful algal blooms and their toxins on marine food webs and the health of sentinel organisms such as marine mammals. To carry out this work, Dr. Fire and his students focus on three core areas: 1. Developing and using molecular detection methods to investigate how natural contaminants move through marine food webs, 2. Drawing on field experience with small cetaceans and pinnipeds, as well as knowledge of field survey methods, to study marine mammal health and behavior in the wild, 3. Combining a knowledge of large-scale oceanographic processes with laboratory and field methods to study changing marine ecosystems and their links to wildlife and human health.

Industry Expertise

Education/Learning, Research

Areas of Expertise

Wildlife Toxicology, Marine Mammals, Harmful Algal Blooms, Marine Biotoxins, Red Tide

Education

University of California Santa Cruz
Ph.D. Ocean Sciences

Brigham Young University
B.S. Zoology

University of California Santa Cruz
M.S. Marine Science