



BREN SEMINAR
H. WILLIAM KUNI BREN FELLOWSHIP PROGRAM

OCEAN PLASTICS POLLUTION FROM SOURCES TO SOLUTIONS



KARA LAVENDER LAW
 Research Professor
 Sea Education Association

Monday, May 14, 2018 11:00 – 12:00
Bren Hall 1414

Watch live at <https://ucsb.zoom.us/j/867460245>

“With the grim reality that plastic debris is a mainstay in our world today, understanding sources and fates are of utmost importance. As environmental scientists and a concerned public, I encourage you to come learn about this global environmental issue as evidenced by Dr. Kara Lavender Law’s research.” — Timnit Kefela, Bren School PhD Student

ABSTRACT Plastic debris in the marine environment, ranging from microscopic to massive in size, poses risks to marine organisms and habitats, and results from human dependence on these diverse materials without a well-designed strategy for end-of-use management. Microplastics have become the focus of attention in the scientific community because of their documented prevalence in the environment (primarily marine and freshwater, but also terrestrial and as airborne particles). This apparent ubiquity, especially of plastic fibers, drives concern about the risks of microplastics to animals that encounter them through ingestion and/or inhalation or gill uptake. However – fictitious islands of floating trash aside – larger plastic items are also of concern, not least because they are the origin of most microplastics, which are generated through chemical and physical degradation upon environmental exposure. Efforts to quantify the size of the problem and its impacts, as well as a toolbox of potential solutions, will be discussed.

BIO Dr. Kara Lavender Law is a Research Professor at Sea Education Association (Woods Hole, MA), studying the sources, distribution, behavior and fate of plastic debris in the ocean. Trained as a physical oceanographer, Dr. Law has more than 12 months of sea time on oceanographic and sailing research vessels, including in the eastern North Pacific and western North Atlantic Oceans where plastic debris accumulates in regions dubbed “garbage patches”. Dr. Law’s current research interests focus on the sources of plastic to the marine environment, understanding how ocean physics determines the distribution of plastic and other marine debris, and the degradation and ultimate fate of different plastic materials in the ocean. She serves as the co-principal investigator of the Marine Debris Working Group at NCEAS, and holds a PhD in physical oceanography from Scripps Institution of Oceanography and a BS in mathematics from Duke University.

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