



## Emily Juliette Zakem

Assist Prof (By Courtesy), Earth System Science

### Bio

---

#### BIO

Emily Zakem is a Principal Investigator at the Department of Global Ecology at the Carnegie Institution for Science. Previously, she was a Simons Foundation Postdoctoral Fellow in Marine Microbial Ecology at the University of Southern California in Los Angeles. She completed her Ph.D. in Climate Physics and Chemistry in the Department of Earth, Atmospheric and Planetary Sciences at the Massachusetts Institute of Technology. In her research, she aims to improve understanding of the connections between microbial ecosystems, global biogeochemistry, and the climate system. She uses theory and mathematical models to understand how microbial ecology drives carbon, nitrogen, and other elemental cycling. She develops broadly applicable models of microbial populations, grounded in underlying chemical and physical constraints, in order to robustly predict the biogeochemistry of past, present, and future environments.