

UConn

UNIVERSITY OF CONNECTICUT

Department of Marine Sciences
Presents a Seminar by

Andrew Pershing
Gulf of Maine Research Institute

Challenges to ecosystems and people from a surprising increase in surprising ocean temperatures

The community of species in an ocean ecosystem and the properties of nearby coastal communities reflect the climate conditions—both the mean and variance—in that region. Novel conditions like the recent “marine heatwaves” can lead to sudden and surprising changes in both the natural and human components of the system. We documented the occurrence of “surprises”—annual mean temperatures that are at least two standard deviations above the mean of the prior 30 years. These unexpected events should become more likely as warming trends increase; however, even accounting for the trends, the recent increase in the frequency of surprising ocean temperatures is surprising. Based on the results of an idealized ecosystem model, we expect that warming trends will degrade the function of marine ecosystems, favoring generalists over specialist and altering productivity and diversity. An analogous model for how humans relate to the ocean quantifies the benefits of projections rather than relying on historical experiences to make decisions.

Host: Samantha Siedlecki

Time & Date: 11:00 am, Friday, November 2, 2018

Place: Marine Sciences Building, Seminar Room 103

If you are an individual with a disability and need accommodations, please contact 860-405-9152, 860-405-9087, or marinesciencesseminars@uconn.edu.

For cancelations and additional seminar information, please see <https://marinesciences.uconn.edu/seminar/seminar1188/>.