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Department of Marine Sciences Presents a Seminar by

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How seasonal dynamics control species' responses to climate change

Climate change is already affecting marine fishes in all the ways that were predicted many years ago. In the Northeast US fish stocks, we have observed and documented shifts in spatial distribution, changes in population vital rates such as recruitment, reductions in body size, collapse of some fisheries and the emergence of new fisheries. Understanding the mechanisms that induce these changes will allow us to better make projections of future abundance and distribution, but most efforts so far have focused on species distribution models and habitat availability to understand these changes. These techniques inherently focus on the average conditions that species prefer and the link between habitat and population dynamics remains elusive. In contrast, we have found that seasonal minimum and maximum temperatures serve as bottlenecks to marine fish populations and suggest that examining seasonal dynamics both in environmental conditions and species response provides more power in understanding and predicting species responses to climate change, particularly in temperate marine systems.

Host: Zosia Baumann Time & Date: 11:00 am, Friday, October 27, 2017 Place: Marine Sciences Building, Seminar Room 103

For cancelations and additional seminar information, please see <u>http://marinesciences.uconn.edu/seminar/seminar1178/</u>, email <u>marinesciencesseminars@uconn.edu</u>, or call 860-405-9152 or 860-405-9151