

Fall 2016 Seminar Series



Friday, November 4

Kersey Sturdivant

Adjunct Assistant Professor
Duke University

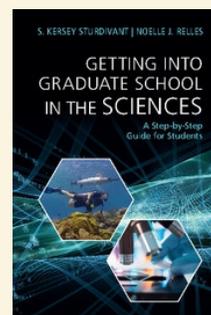
“The Effect of Coastal Hypoxia on Ecosystem Function”

Abstract:

Coastal hypoxia has detrimental effects to community ecology, degrading community structure and diminishing benthic function. Benthic function in marine systems is largely driven by infauna bioturbation, which facilitates life-supporting processes by increasing the quality of marine sediments for nearly all biota. These infauna-mediated processes can be diminished by coastal hypoxia however to what extent needs to be better quantified. Some infauna have been documented to exhibit metabolic plasticity to low oxygen allowing them to maintain some form of benthic function. Combining novel *in situ* observation techniques with experimental quantification of worm metabolism, this talk address two primary questions. How is infauna function limited by hypoxia? What are the metabolic adaptations at the individual level that allow for community level resilience maintain a portion of benthic function during hypoxia.

Background:

Kersey Sturdivant is a scientist, blogger, author and innovator. While he was a doctoral student at William and Mary's School of Marine Science at the Virginia Institute of Marine Science, Dr. Sturdivant developed an underwater camera system called Wormcam that changed the way scientists view the seafloor. Following graduation in 2011, he became the research coordinator of NOAA's Cordell Bank National Marine Sanctuary and then moved to Duke University as a visiting faculty member. While at Duke he continued to innovate, starting *Oceanography for Everyone* (oceanographyforeveryone.org) - an open-source effort to develop low cost oceanographic instrumentation. Dr. Sturdivant is now a Principal Scientist with INSPIRE Environmental in Rhode Island, a company he helped establish, and continues as an adjunct faculty member at Duke University. His research interests broadly center around the effects of anthropogenic disturbance of the marine environment. To date he has published over 10 science articles, developed three scientific instruments, given numerous invited seminars - including a TEDx talk, served on various government science and education panels, and published an empirically-based book about “How-to” get into graduate school with Cambridge University Press.



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Please contact Cathy Cake
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for more information

Reception at 3:00 pm in
Watermen's Hall Lobby

Seminar from 3:30 to 4:30 pm
in McHugh Auditorium
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