PhD student in Graduate Program in Oceanography at Rutgers

Applications will be considered for a PhD student to investigate how waves, turbulence, and flow-induced behaviors affect transport of invertebrate larvae on the continental shelf and adjacent estuaries. Waves and turbulence induce behavioral responses that alter larval vertical distributions and may enable larvae to be retained near natal habitats. However, wave-induced behaviors may also be responsible for observed, counterintuitive shifts of shelf species into warmer water. An NSF-funded project will use hydrodynamic models (ROMS and SWAN) and virtual larvae in a particle tracking model (LTRANS) to test hypotheses about mechanisms of larval transport, retention, and climate change-induced range shifts. This project uses ocean physics to address ecological questions and is a collaborative effort between biological and physical oceanographers at Rutgers University (Heidi Fuchs and Bob Chant) and Skidmore College (Greg Gerbi).

The student is expected to begin in fall of 2019. Applicants should apply to the Rutgers Graduate Program in Oceanography (https://marine.rutgers.edu/main/graduate-program-in-oceanography) by January 15, 2019. Preference will be given to candidates with relevant coursework in mathematics, physics, or engineering. Programming experience is also desirable. Interested applicants are welcome to contact any of the investigators for more information (Heidi Fuchs at hfuchs@marine.rutgers.edu, Bob Chant at chant@marine.rutgers.edu, and Greg Gerbi at ggerbi@skidmore.edu). An equal opportunity employer, Rutgers University is committed to building a diverse community and encourages applications from women and minority candidates.