

From: Rebecca Asch
Subject: Masters/Ph.D. Position in Fisheries Oceanography

The East Carolina University (ECU) Fisheries Oceanography Lab run by Dr. Rebecca Asch is currently recruiting new Masters and Ph.D. students to join this research group for the 2017-2018 academic year. This is a newly established lab that will open in January 2017. The Asch Lab's research program will focus on interactions between fisheries, plankton ecology, and climate change and climate variability. Our research approach combines fieldwork, time series analysis, and ecosystem modeling, spanning local-to-global and subseasonal-to-centennial scales. For more information about the Asch Lab, please see:

http://www.ecu.edu/cs-cas/biology/Rebecca_Asch.cfm

We seek students who are highly self-motivated, independent, and creative thinkers that are enthusiastic about pursuing a career in marine ecology, oceanography, and/or fisheries management. A strong background in quantitative ecology, computer programming (*e.g.*, MATLAB, R, Python), and/or multivariate statistics is desired, but not required. There are several current and soon to be initiated projects that a prospective student could develop into a thesis or dissertation:

• **Examining seasonal variations in predator-prey interactions among larval fishes and mesozooplankton and their influence on recruitment to fisheries.** This project will entail collaborating with an existing graduate student in the Asch Lab who is inaugurating a new ichthyoplankton time series with weekly sampling in Beaufort Inlet. The prospective student will contribute to this project by collecting mesozooplankton samples and using ZooScan to develop a machine learning algorithm to classify zooplankton taxa in an automated fashion.

• **Investigating how changes in the distribution and phenology (*e.g.*, seasonal timing) of spawning aggregations of reef fishes will affect larval dispersal, growth, and survival.** This project will build off an existing collaboration between Dr. Asch and Dr. Brad Erisman at the University of Texas Marine Science Institute.

• **Assessing the causes of recruitment failure of striped bass in the Tar and Roanoke Rivers.** The prospective student will conduct surveys of ichthyoplankton to assess spawning effort in these rivers, examine water quality, and concurrently sample zooplankton to quantify the abundance of potential prey items and predators for larval fishes. This project will be co-supervised with Dr. Roger Rulifson at ECU.

We also welcome applications from students who are interested in developing their own research ideas into a thesis or dissertation, as long as those ideas are closely connected with the research objectives of the Asch Lab.

Information on graduate programs in the ECU Department of Biology is available at: <http://www.ecu.edu/cs-cas/biology/BiologyGrad/index.cfm>. Doctoral students can apply to work in the Asch Lab either through the Coastal Resources Management (CRM) Program or the Interdisciplinary Doctoral Program in Biological Sciences (IDPBS). The priority deadline to apply for graduate admissions is January 15, 2017. However, prospective students should contact Rebecca Asch by email (aschr16@ecu.edu) in advance of this deadline. This email should include: (1) a brief statement describing your research interests and career goals; (2) A C.V. or resume, and; (3) an unofficial academic transcript.

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*** I will start a new faculty position in the Department of Biology at East Carolina University (ECU) in January 2017. My new ECU email address will be aschr16@ecu.edu. ***

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