Skidaway Institute
of Oceanography
UNIVERSITY OF GEORGIA

10 Ocean Science Circle
Savannah, Georgia 31411
www.skio.uga.edu

Are you interested in studying how the ocean drives key biological processes? Do you want to spend time at sea applying the latest tools to these questions with an interdisciplinary team of researchers?

We are seeking **3 PhD students** in Marine Sciences at the University of Georgia (UGA) Department of Marine Sciences (https://www.marsci.uga.edu/) starting in Summer or Fall 2024. The positions will be based at the Skidaway Institute of Oceanography located in Savannah, GA (https://www.skio.uga.edu/), and each student will receive a tuition waiver and a competitive PhD student stipend (currently $32,000 per year) throughout the duration of the project, with options for Teaching Assistantships and other sources of graduate student support (https://www.marsci.uga.edu/graduate-support). Students will work at the interface of oceanography and plankton ecology using cutting edge technologies and approaches in a collaborative environment. Research will occur in the laboratories of Drs. Adam Greer, Marc Frischer, and Jay Brandes to answer different facets of an overarching question: Do fine-scale water column structure and particle aggregations favor gelatinous-dominated food webs in subtropical continental shelf environments? This research is funded by the National Science Foundation and will compare processes in the South Atlantic Bight and northern Gulf of Mexico shelf ecosystems, which both provide favorable conditions for blooms of gelatinous zooplankton, yet have differing oceanographic drivers of vertical stratification. For more information about the project, please visit (www.nsf.gov/awardsearch/showAward?AWD_ID=2244690). Graduate students will have opportunities to participate in oceanographic research cruises aboard the *RV Savannah* (https://www.skio.uga.edu/marine-ops-2/rv-savannah-2/), for teaching and mentoring undergraduate researchers, and to participate in an innovative hands-on outreach program working with local high schools.

Although physical mechanisms of layer formation, and plankton groups associated with them, have been described in several shelf environments, less is known about layer influence on zooplankton community composition and trophic transfer. For fast-reproducing pelagic tunicates (salps, pyrosomes, appendicularians, and doliolids), these layers or aggregations may serve as rich food resources that prime pelagic tunicates to form dense blooms, which then ultimately serve as food for gelatinous predators. This sequence of events, from layer formation to pelagic tunicate reproduction and predation on the bloom, may generate high abundances of gelatinous organisms throughout the marine food web. This hypothesis will be tested by measuring the fine-scale abundances of gelatinous zooplankton with in situ imaging (**position 1, Greer**), their corresponding diets using molecular gut content analysis (**position 2, Frischer**), and broader food web properties using compound-specific stable isotopic techniques (**position 3, Brandes**), in contrasting vertically mixed and stratified conditions.

Preferred Candidate Qualifications:

- Strong organizational and interpersonal skills and ability to work independently and as part of a team in a collaborative setting

- Educational or research background in biology, chemistry, ecology, microbiology, oceanography, or a combination (depending on the research lab)

- Experience with sea-going research and oceanographic data analysis is preferred but not required

Interested candidates should contact Dr. Adam Greer (atgreer@uga.edu), Dr. Marc Frischer (marc.frischer@skio.uga.edu) or Dr. Jay Brandes (jay.brandes@skio.uga.edu) with a CV, including higher education grades/GPA, a 1-page cover letter outlining the motivation for the position, relevant skills, and contact details for references. The relevant PI(s) will then schedule a virtual meeting to further discuss the research opportunity. Candidates will need to apply for admission to the UGA Department of Marine Sciences to be considered for acceptance into the graduate program (https://www.marsci.uga.edu/how-apply).

Deadline: Applicants will be reviewed on a rolling basis until the position is filled. Visit https://www.skio.uga.edu/ or https://www.marsci.uga.edu/ for more information on the Skidaway Institute of Oceanography, Department of Marine Sciences, and community at the University of Georgia.