College of Charleston
Charleston, SC

Marine Organism Health: Resilience and Response to Environmental Change

Grice Marine Laboratory
Summer 2015 REU





About Our REU Program

The Fort Johnson Undergraduate Summer Research Program offers a 10-week experience of independent research, science communication and career-development activities focused on the multidisciplinary theme of **Marine Organism Health: Resilience and Response to Environmental Change**. Through mentored research projects, interns will investigate impacts of anthropogenic and natural environmental perturbations on marine organisms, from the molecular to ecosystem level, using a variety of lab and field techniques. Up to 10 interns are supported each year, with opportunities to work at one of the five partner institutions at the Fort Johnson campus.

Contributing Partners

Mentors and instructors are drawn from more than 100 Ph.D. scientists among five partner institutions on a common campus devoted to marine science:

- Grice Marine Laboratory, College of Charleston (CofC)
- Marine Biomedical and Environmental Sciences Program, Medical University of South Carolina (MUSC)
- National Institute of Standards and Technology (NIST)
- National Oceanic and Atmospheric Administration /National Ocean Service (NOAA/NOS)
- Marine Resources Research Institute, SC Department of Natural Resources (SCDNR)

Science Communication and Career Development

Our SCICOM workshop series engages REU interns in learning new skills to better relate their research to societal issues and to publicize their findings, using both traditional media and the rapidly evolving tools of social media. Through other structured exercises they also develop professional skills in scientific writing, research proposal preparation, oral presentation, and research ethics. Field experiences and social events provide numerous opportunities for interns to network with other Ft. Johnson scientists, graduate and undergraduate students, and interns from other summer research programs.

COLLEGE of CHARLESTON

GRICE MARINE LABORATORY

For information about eligibility, dates, and application materials:

http://reu.cofc.edu

2014 Independent Research Projects

Population Genetic Health of the Horseshoe Crab Limulus polyphemus *in response to harvesting* (Rachel Walsh, Minnesota State University Moorhead)

*Genetic Variation for Resistance to Effects of Seawater Acidification on Skeletal Development of Sea Urchin Larvae (*Emily Hall, SUNY-ESF)

Effects of Hypoxia on Structural Properties of Hemocyanin in the Atlantic Mud Crab, Panopeus herbstii (Bernard Akem, Northern Illinois University)

Drugged Wildlife: The Potential Impact of Environmental Endocrine Disruptors on Reproductive Development (Melissa Kramer, Yeshiva University).

Perfluouinated Compound Levels in the Plasma of SouthAfrican Crocodiles and Alligators of the Southeastern US (Ian Christie, Lewis & Clark College)

Sex Differences in Habitat Use: Understanding Monogamy in the Snapping Shrimp Alpheus angulosus (Stephanie Carrera, Swarthmore College)

Comparative Toxicity of Two Oil Spill Dispersants to the Sheepshead Minnow, Cyprinodon variegatus (McCall Calvert, Beloit College)

Adaptation to environmental conditions in the invasive seaweed Gracilaria vermiculophylla (Connon Thomas, SUNY-ESF)

An evolutionary study of anatomical variation in Sphyrnidae, Hammerhead sharks, using 3-D modeling (Jasmin Graham, College of Charleston)

Prevalence of Infection of Annelids by Parasites in Intertidal and Subtidal Habitats (Dakeishla Diaz, University of Puerto Rico, Rio Piedras Campus)