

# SCHOOL OF OCEAN SCIENCE AND ENGINEERING

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## Faculty Spotlight on Dr. Reginald Blaylock

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Research Professor, Dr. Reginald Blaylock, has served as Assistant Director of the Thad Cochran Marine Aquaculture Center since 2008. Since his appointment as Research Associate Professor in COA in 2004, Dr. Blaylock has been a PI/co-PI on 37 external projects from NOAA, DOE, USDA, GSMFC, and MSDMR.

Dr. Blaylock's interdisciplinary background in aquaculture, fisheries, and parasite/disease ecology has allowed him to develop a multifaceted research program that helps to responsibly position marine aquaculture as part of the solution to the economic, environmental, and management challenges we face. Dr. Blaylock's work includes: 1) fish health management – prevention, diagnosis, and treatment of pathogens in recirculating marine aquaculture, 2) epidemiology of marine pathogens – characterization and modeling of vital rates driving the transmission dynamics of

marine pathogens, 3) optimization of survival in hatcheries and stock enhancement – elucidating and alleviating the zootechnical bottlenecks that constrain marine hatchery production and post-release survival of stocked marine fish, 4) sustainability – reuse and repurposing of marine aquaculture effluent, and 5) industry facilitation – development of aquaculture technology as a means to integrate the potential for aquaculture as an engine of economic growth with sustainable coastal and marine resources.

Dr. Blaylock currently serves as Treasurer for the World Aquaculture Society, and has served as Secretary-Treasurer for the United States Aquaculture Society, from which he received the USAS Distinguished Service Award in 2017. Dr. Blaylock also serves as a Member of Council for the American Society of Parasitologists.

### CURRENT PROJECTS AND FUNDING AGENCIES

#### 2017-2021

**Commercializing intensive copepod culture: a transformational foundation essential for increasing domestic production of high-value marine finfish**

- NOAA (Sea Grant)

#### 2019-2021

**Permitting a finfish aquaculture operation in the Gulf of Mexico (Phase II)**

- Gulf States Marine Fisheries Commission

#### 2020-2022

**Permitting a finfish aquaculture operation in the Gulf of Mexico: Phase 3 – Establishing a red drum broodstock population**

- Gulf States Marine Fisheries Commission

### GRADUATE STUDENTS

**ADAM DAW**, Ph.D. student. Dissertation: Effects of environmental parameters and diet composition on life history traits in the copepods *Acartia tonsa* and *Parvocalanus crassirostris* - Application to optimize aquaculture production using an Individual-based model.

**ERIC GIGLI**, M.S. Recently defended thesis: The effects of salinity on zootechnical performance of spotted seatrout (*Cynoscion nebulosus*) in recirculating aquaculture systems.

**ROBERT GONZALES**, M.S. student. Thesis: Sensitivity and specificity of a LAMP assay for detecting the dinoflagellate parasite *Amyloodinium ocellatum* in simulated field conditions and freeze tolerance of the parasite.

*The School of Ocean Science and Engineering is proud to salute you, Dr. Blaylock,  
for all of your work and dedication to your science.*