

The Living Marine Resources Cooperative Science Center: Impacts on Increasing Diversity in Ocean Studies

Presented to the National Academies: Ocean Studies Board
October 28, 2024

Paulinus Chigbu (Director, NOAA LMRCSC)



Partners

University of Maryland Eastern Shore (Lead)

Delaware State University

Savannah State University

Hampton University

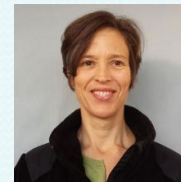
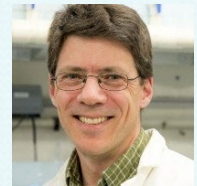
UMCES Institute of Marine and Environmental Technology

University of Miami-RSMAS

Oregon State University

NOAA LMRCSC Partner Institutions

- **Univ. of Maryland Eastern Shore (Lead)**
- **Delaware State Univ. (Gulnihal Ozbay, Ph.D.)**
- **Hampton Univ., VA (Deidre Gibson, Ph.D.)**
- **Savannah State Univ., GA (Dionne Hoskins-Brown, Ph.D.)**
- **Univ. of Maryland Center for Env. Science, IMET (Eric Schott, Ph.D.)**
- **Oregon State Univ. (Jessica Miller, Ph.D.)**
- **Univ. of Miami, Rosenstiel School of Marine and Atmospheric Sciences (Elizabeth Babcock, Ph.D.)**



Mission of the LMRCSC

- *To prepare students from traditionally underrepresented and historically excluded communities, for careers in marine and fisheries sciences, and to be eligible for the future NOAA mission workforce, through exemplary academic and research collaborations.*

Goals of the LMRCSC

- **Education Goals:**

1. Prepare the **future workforce** for marine and fisheries sciences
2. Strengthen collaborations across universities to **enhance academic programs** in marine and fisheries sciences

- **Research Goal:**

3. Develop an exemplary capacity for **scientific collaborations** among partner institutions in the fields of marine and fisheries sciences

- **Administration Goals:**

4. Organizational excellence for effective and efficient **management** of the programs and activities of the Center
5. Effectively **communicate** the activities and accomplishments of the Center
6. **Assess and evaluate** the Center's goals and objectives

LMRCSC Scientific Research: Thematic Areas

- **Assessments: Support & Information**
- **Healthy Habitats**
- **Climate & Ecosystems**
- **Safe Seafood: Seafood Aquaculture, Nutrition, and Pathology**
 - **Social Science and Economics**



Core Elements of the Program

- Cooperative Agreement with NOAA with Special Award Conditions
 - Lead institution must be an MSI with a PhD degree program in Marine Science
 - $\geq 50\%$ of funds must go towards direct student support
 - Students supported as fellows
 - Not more than 20% of funds go to non-MSIs
 - Each graduate student must have a NOAA scientist as a committee member/mentor
 - 12 weeks internship at a NOAA facility for all Graduate students



Examples of Best Practices of the LMRCSC

- Joint Student Recruitment Plan
- Annual Fellows Assembly Workshop
- Annual Symposium at the American Fisheries Society (AFS) Meeting
- Core competencies requirements & professional development training
- Student Proposals are reviewed by the Technical Advisory Committee



LMRCSC Faculty and Fellows gather at the American Fisheries Society Annual Meeting

Impacts on Increasing Diversity in Ocean Studies

- **Recruited & trained:** 1,092 students (516 BS, 241 MS, 89 PhD., and 246 non-degree students)
 - ~77% belong to traditionally URM groups
- **Graduated:** 630 (401 BS/BA, 173 MS/MA, 56 PhD) students in NOAA core science areas.



Impacts on Increasing Diversity in Ocean Studies

- **Contributed to diversity in NOAA related sciences:**
 - ~11% of URM students who received PhD degrees in marine science in the US from 2003 to 2022 received funding from the LMRCSC.
 - 26% of Black/African Americans and 8% of Hispanics/Latinos who received PhD degrees in marine science in the US, from 2003 to 2022, were financially supported by the LMRCSC.
- **Contributed to diversity in NOAA workforce:**
 - Of the LMRCSC graduates, 41 work or have worked for NOAA or NOAA contractors

Impacts on Increasing Diversity in Ocean Studies

(Examples of LMRCSC Graduates Who Are NOAA Employees)



Lonnie Gonsalves, PhD
(Fish Ecologist)
Division Chief, NOAA NOS, NCCOS



Larry Alade, PhD
(Supervisory Research Fishery
Biologist) NOAA NEFSC



Dominique Lazzare, PhD
(Fish Biologist)
NOAA SE Regional Office



Chante Davis, PhD
(Fish Population Geneticist)
Natural Resources Managt. Specialist,
NOAA Fisheries



LaTreeze S. Denson, PhD
(Stock Assessment Analyst) NOAA SEFSC



Stephanie Martinez-Rivera, PhD
(Fish Biologist) NOAA SEFSC

Impacts on Increasing Diversity in Ocean Studies



Tiara Moore, PhD (Marine Ecologist)
Founder, Black in Marine Science



Camille Gaynus, PhD (Marine Ecologist)
Board Chair, Black in Marine Science

Acknowledgements

- NOAA Educational Partnership Program with Minority Serving Institutions (EPP/MSI) Cooperative Agreement No: NA16SEC4810007, NA21SEC4810005,

