C/V Updated March 2025

De'Marcus Robinson, Ph.D.

NOAA CCME-II Postdoctoral Research Associate

Current Affiliation:
School of Environment, Florida Agricultural and Mechanical University
1515 S Martin Luther King Jr. Blvd Tallahassee, FL 32307

Expertise:
Ocean biogeochemistry,
sediment geochemistry, geomicrobiology,
ocean policy, otolith microchemistry

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EDUCATION

PhD ***University of California, Los Angeles*** *10/2018-09/2024*
Major: Atmospheric & Oceanic Science Department
Advisors: Dr. Tina Treude, Dr. Daniele Bianchi
Defense: 04/29/2024
Dissertation topic: Deoxygenation and the impact on ocean biogeochemistry in the Santa Barbara Channel, and the broader implication for deoxygenation policy

MS ***University of California, Los Angeles*** *10/2018 -6/2021*
Major: Atmospheric & Oceanic Science Department
Advisors: Dr. Tina Treude Dr. Daniele Bianchi

BS ***Florida A&M University*** *8/2014-5/2018*
Major: Environmental Science
Concentration: Environmental Science w/ Concentration in Toxicology
GPA: 3.0 - Cum Laude
Thesis:" Electrospinning Cyclodextrin Derivatives and Polyethylene Oxide for Oil Absorption
Advisors: Dr. Nelly Mateeva, Dr. Micheal Abazinge

PEER- REVIEWED PUBLICATION, ACTIVITIES & GOVERNMENT REPORTS

Journal Publications

SUBMITTED OR UNDER REVIEW

1. **Robinson. D**; Bianchi, D, Liu, N; Valentine D.L, Treude T. The Spatial Distribution and Temporal Variability of Dissolved O_2 in the Santa Barbara Basin, California *submitted*
2. Ferrer E.M; Eddebbar Y; Gangrade S; McCormick L; Pezner A, **Robinson, D**; Garcon V, Rose, K; Levin, L; Expanding on the deoxygenation planetary boundary and its progress towards an "unsafe space" *submitted* Science Advances

3. **Robinson. D**; Shulterbrandt . R.G, Treude, T; Bianchi, D. Implementing Deoxygenation for Biodiversity Beyond National Jurisdiction Agreement: opportunities for Governance and Management across scales and levels *in review* Ocean Development and International Law, 2024

PEER REVIEWED

1. Jennings, V.; San Antonio, K.M.; Brown, M.J.; Choice, L.; Simpson, Q.; Ford, I.; Cho, H.J.; Solis, P.; Lacey, A.; **Robinson, D.** Place-Based Conservation in Coastal and Marine Ecosystems: The Importance of Engagement with Underrepresented Communities. *Sustainability* **2024**, *16*, 9965. https://doi.org/10.3390/su16229965

2. Krause, S. J. E., Wipfler, R., Liu, J., Yousavich, D. J., **Robinson, D.,** Hoyt, D. W., et al. (2024). Spatial evidence of cryptic methane cycling and methylotrophic metabolisms along a land-ocean transect in a California coastal wetland. *bioRxiv*, 2024.07.16.603764. https://doi.org/10.1101/2024.07.16.603764

3. **Robinson, D**., Pham, A. L. D., Yousavich, D. J., Janssen, F., Wenzhöfer, F., Arrington, E. C., Gosselin, K. M., Sandoval-Belmar, M., Mar, M., Valentine, D. L., Bianchi, D., and Treude, T.: Iron “ore” nothing: benthic iron fluxes from the oxygen-deficient Santa Barbara Basin enhance phytoplankton productivity in surface waters, Biogeosciences, 21, 773–788, https://doi.org/10.5194/bg-21-773-2024 , 2024.
4. Yousavich, D. J., **Robinson, D**., Peng, X., Krause, S. J. E., Wenzhöfer, F., Janssen, F., Liu, N., Tarn, J., Kinnaman, F., Valentine, D. L., and Treude, T.: Marine anoxia initiates giant sulfur-oxidizing bacterial mat proliferation and associated changes in benthic nitrogen, sulfur, and iron cycling in the Santa Barbara Basin, California Borderland, Biogeosciences, 21, 789–809, https://doi.org/10.5194/bg-21-789-2024 , 2024.
5. Krause, S. J. E., Liu, J., Yousavich, D. J., **Robinson, D**., Hoyt, D. W., Qin, Q., Wenzhöfer, F., Janssen, F., Valentine, D. L., and Treude, T.: Evidence of cryptic methane cycling and non-methanogenic methylamine consumption in the sulfate-reducing zone of sediment in the Santa Barbara Basin, California, Biogeosciences, 20, 4377–4390, https://doi.org/10.5194/bg-20-4377-2023 , 2023.
6. Caitlin R. Fong, Kendall S. Chancellor, Julianna J. Renzi, **De’Marcus R. Robinson**, Paul H. Barber, Sennai Y. Habtes, Peggy Fong, Epibionts on Turbinaria ornata, a secondary foundational macroalga on coral reefs, provide diverse trophic support to fishes, Marine Environmental Research, Volume 141, 2018, Pages 39-43, ISSN 0141-1136, https://doi.org/10.1016/j.marenvres.2018.08.001.

REVIEWER ACTIVITIES

1. Oral presentations reviewer – NOAA EPP/MSI 11th Biennial Meeting , March 2025
2. Peer Reviewer, Journal of Geomatics, Natural Hazards and Risk, Reviewed manuscript on Deoxygenation in the Indian Ocean January 2025.
3. Reviewer, Knauss Marine Policy Fellows 2024, Reviewed applications

GOVERNMENT PUBLICATIONS REVIEWED

Government Reports (internal peer-reviewed)

1. White House Council on Environmental Quality. (2024) National Strategy for a Sustainable Ocean Economy. Retrieved from https://www.whitehouse.gov/wp-content/uploads/2024/06/National-Stategy-for-a-Sustainable-Ocean-Economy_Final.pdf
2. White House Council on Environmental Quality . (2023). Ocean Climate Action Plan Retrieved from https://www.whitehouse.gov/wp-content/uploads/2023/03/Ocean-Climate-Action-Plan_Final.pdf
3. White House Council on Environmental Quality . (2023). Ocean Justice Strategy Retrieved from https://www.whitehouse.gov/wp-content/uploads/2023/12/Ocean-Justice-Strategy.pdf?cb=1701982354

HONORS, FELLOWSHIPS AND AWARDS

2024 -	NOAA CCME-II Postdoctoral Research Fellowship
2024- 2025	Tidal Wave Program – Black in Marine Science
2024	AGU Travel Award
2018- 2024	UC-HBCU Fellowship
2018- 2024	Center for Diversity Leadership in Science – Early Career Fellow
2023-2024	John A. Knauss Marine Policy Fellowship – White House Council on Environmental Quality
2016	Third Place at NOAA EPP/MSI 8th Biennial
2015-2018	NOAA Environmental Cooperative Science Center (ECSC) Scholar

PROFESSIONAL EXPEREINCE

2025 -	Steering Committee Member, Gulf of Mexico Coastal Ocean Observing System (GCOOS) Gulf of Mexico Coastal Acidification Network (GCAN)
2024 –	NOAA CCME-II Postdoctoral , School of the Environment Florida Agricultural and Mechanical University, Tallahassee FL
2018 – 2024	Graduate research assistant, Department of Atmospheric and Oceanic Science University of California Los Angeles, Los Angeles California
2023-2024	John A Knauss Marine Policy Fellowship, California State Sea grant Washington D.C.
2021-2022	Teach Assistant, Department of Atmospheric and Oceanic Science University of California Los Angeles, Los Angeles California

RESEARCH EXPEREINCE

Joint Collaborative Research Program – NOAA Cooperative Science Center for Coastal and Marine Ecosystems-II 2025 -

Analyzing Otolith Microchemistry Spatio-Temporal Distribution of Fish Species in the Gulf of Mexico and Understanding the Policy Implication to Fisheries Management

Florida A&M University, Postdoctoral Researcher
PI: Dr. Larry Robinson
CCME-II Supervisor : Micheal Martinez-Colon Ph.D., Richard Long Ph.D
NOAA Supervisor: Emily Osborne, Ph.D., Beverly Barnett, Ph.D.

Collaborative Research: Do benthic feedback couple sulfur, nitrogen, and carbon biogeochemistry during transient deoxygenation? 2019-2023

NSF Award number: 1830033

University of California, Los Angeles, Graduate Student researcher

PI: Tina Treude, PhD

Collaborative Research: Coupling of physical and chemical processes in the shelf to basin transport of iron and iodine off Washington and Oregon 2020-2023

NSF Award number: 2023708

University of California, Los Angeles, Graduate Student researcher

PI: Daniele Bianchi, PhD

Aquatic Microbial and Molecular Ecology Course 2021
University of Southern Denmark, Graduate Student researcher
Odense, Denmark

The Diversity Project 2016
NSF Award number: 1823461
University of California, Los Angeles, Undergraduate Student *Intern*
PI: Paul Barber, PhD

Center for Dark Energy Biosphere, Global Environmental Microbiology Course 2015
University of Southern California, Undergraduate Student *Intern*
Los Angeles California

Electrospinning Cyclodextrin Derivatives and Polyethylene Oxide For Oil Absorption

Florida A&M University, Undergraduate Student Researcher 2015 – 2018

PI: Nelly Mateeva, PhD

RESEARCH VESSELS AND VEHCILES

HOV Alvin 2023

Project: Collaborative Research: Do benthic feedbacks couple sulfur, nitrogen, and carbon biogeochemistry during transient deoxygenation?

R/V Atlantis 2019,2023

Project: Collaborative Research: Do benthic feedbacks couple sulfur, nitrogen, and carbon biogeochemistry during transient deoxygenation?

R/V Shearwater NOAA, 2022

Project: Collaborative Research: Do benthic feedbacks couple sulfur, nitrogen, and carbon biogeochemistry during transient deoxygenation?

ORAL AND POSTER PRESENTATIONS

Oral Presentation: "Analyzing Otolith Microchemistry Spatio-Temporal Distribution of Fish Species in the Gulf of Mexico" – NOAA EPP/MSI 11th Biennial Meeting March 2025

Poster Presentation: "Analyzing Otolith Microchemistry Spatio-Temporal Distribution of Fish Species in the Gulf of Mexico" – NOAA EPP/MSI 11th Biennial Meeting March 2025

Oral Presentation: "Spatial distribution and temporal variability of oxygen in the Santa Barbara Basin " – American Geophysical Union December 2024

Poster Presentation: "Spatial distribution and temporal variability of oxygen in the Santa Barbara Basin " – American Geophysical Union December 2024

Poster Presentation: "Implementing Deoxygenation for Biodiversity Beyond National Jurisdiction Agreement: Opportunities for Governance and Management across scales and levels " – American Geophysical Union December 2024

Lighting Oral presentation "Ocean Deoxygenation and the impact on ocean biogeochemistry" GCOOS Members meeting November 2025

Poster Presentation: "Spatial distribution and temporal variability of oxygen in the Santa Barbara Basin " – Southern California Coastal Ocean Observing System Conference May 2024

Oral Presentation: "Oxygen dynamics in the Santa Barbara Channel and its impact on benthic Fe flux and phytoplankton productivity" Seminar – Florida A&M University, School of Environment April 2024

Oral Presentation: "Oxygen dynamics in the Santa Barbara Channel and its impact on benthic Fe flux and phytoplankton productivity" Seminar – UCLA, Atmospheric and Oceanic Science March 2024

Poster Presentation: Iron "Ore" Nothing: Benthic iron fluxes from the oxygen-deficient Santa Barbara Basin enhance phytoplankton productivity in surface waters AGU December 2023

Poster Presentation: "Sulfur-Oxidizing Microbial Mats Affect Sulfur and Nitrogen Cycling in the Santa Barbara Basin" AGU Ocean, February 2020

Poster Presentation, "Epiphytes on Turbinaria Ornata A foundational Macroalgae Provides Trophic Support for small juvenile fish," Association for the Science of Oceanography and Limnology ASLO, February 2017

Poster Presentation, "Electrospun Chitosan and Cyclodextrin Nanofibers for Oil Absorption**,"** NOAA EPP/MSI 8th Biennial Education and Science Forum, August 2016

COMPUTER AND LABORATORY TECHNIQUES

Analytical laboratory methods

Porewater Geochemistry (sulfide, sulfate, iron, nitrate/nitrite, phosphate, alkalinity) and chemical titration (sulfide and alkalinity), sulfur-35 radioisotope incubations, nitrogen-15 isotope incubations, and microsensor profiling (oxygen, sulfide, pH, and redox), sediment incubations

Microbiology techniques

Hyperspectral Imagining, Epifluorescence microscope, stereo microscope, microbial staining, sediment DNA extractions, agar cultures , CARD-FISH, sediment incubations

Data analysis

Matlab: (intermediate), Python: (intermediate – projects pertaining to Ocean Science)

Scyven for Hyperspectral Imagining

TEACHING EXPEREINCE AND INVITED LECTURES

Teaching Module: Introduction to Ocean Policy and Conservation

Florida A&M University – Spring Semester 2025

Conducted a module about ocean policy and conservation for students a part of the NOAA CCME-II. This module included topics related ocean resource management, discussed federal agencies engaged in ocean policy, exclusive economic zones and other import topics for ocean policy.

Invited lecture: Introduction to Marine Environment

Florida A&M University – Fall Semester 2025

Topic: Physical Oceanography

Taught a lecture on ocean currents and the influence of hurricanes

Invited lecture: Biology

Biola University Ave, La Mirada, CA 90639 – Spring Quarter 2024

Topic: Ocean policy and marine pathways

Taught a lecture on pathways to ocean science and opportunities for marine policy

Invited lecture: AOS 103 Introduction to Chemical Oceanography

University of California, Los Angeles – Spring Quarter 2024

Topic: Ocean carbon remineralization and sediments

Taught a lecture on ocean sediments along with geochemical process and influence microbial dynamics. Students learn about the methods to analyze and sample marine sediments.

AOS M105 Introduction to Chemical Oceanography

Teaching Assistant/University of California, Los Angeles - Winter Quarter 2022

Taught students the chemical composition of oceans and nature of physical, chemical, and biological processes governing this composition in past and present. Cycles of major and minor oceanic constituents, with focus on those that are most important for life (i.e., carbon, nitrogen, phosphorus, silicon, and oxygen). Including investigation of primary production, export production, remineralization, diagenesis, air-sea gas exchange processes

AOS 103 Introduction to Physical Oceanography

Teaching Assistant/University of California, Los Angeles – Fall Quarter 2021

Taught students about observations of temperature, salinity, density, and currents. This also includes Wind-driven and geostrophic currents, California Current and Gulf Stream, Coastal upwelling. Biological/physical interactions. Santa Monica Bay field trip

Scientific Scuba Diving – University of California, Los Angeles

Dive Master/University of California, Los Angeles - Spring Quarter 2019, 2021, 2022

Taught student various scientific diving techniques for aquatic research

UNDERGRADUATE MENTORSHIP

1. Camron Curry , Undergraduate Student
   University: Florida A&M University
   Major: Environmental Science
   Graduation: Spring 2028

2. Ben Cloutier, Undergraduate Student
   University: University of California, Los Angeles
   Major: Computational Mathematics
   Graduation : June 2024

3. George Vetushko, Undergraduate/Masters Student
   University: University of California, Los Angeles
   Major: Astrobiology
   Graduation: Continuing as a masters student

PROFESSIONAL DEVELOPMENT, TRAINING, AND INTERNSHIPS

Pathways to Open Science 2025

Remote

Remote event series where empowering community by sharing stories, learning together an d building skill to expand how data science can improve our science

Toast Masters: Public speaking 2024

Tallahassee, Florida

Improving methods of public speaking using various methods and tactics.

GO BGC 2023 Workshop 2023

Boston, Massachusetts

Hands-on multi-day workshop focused on data from the Biogeochemical Argo array and data analysis

Cable bacteria determination training at USC 2022

Los Angeles, California

Training with Tingting Yang, PhD on cable bacteria

OceanHackWeek

2022

Remote

5-day collaborative learning experience aimed at exploring, creating and promoting effective computation and analysis workflows for large and complex oceanographic data

Microsensor training at Unisense 2021
Aarhus, Denmark
Training on microsensors that are developed by Unisense

Aquatic Microbial and Molecular Ecology Course 2021
Denmark, University of Southern Denmark
Theoretical and practical training in biogeochemistry and molecular techniques with emphasis on the ecology of marine microbial systems

Diversity Project UCLA 2016
Los Angeles, California/Mo'orea, French Polynesia
A 10-week long program on ecology, biodiversity and conservation of tropical marine ecosystems

USC Center For Dark Energy Biosphere Investigation (C-DEBI) GEM Course 2015
Introductory, aquatic microbiology course for early career undergraduates who are contemplating a career in scientific research and aquatic microbiology

LICENSE

AAUS Scientific Diving robi122394demsd Dive Safety Officer: Mike Anghera

PROFESSIONAL ORGANIZATIONS

Gulf of Mexico Coastal Ocean Observing System (GCOOS) Gulf of Mexico Coastal Acidification Network (GCAN)
Member, Steering committee

National Technical Association
Member

Black in Marine Science
Member

BehindTheSTEAHM
Founder & President www.behindthesteahm.org

American Geophysical Union
Member

PROFESSIONAL SERVICE, OUTREACH PROGRAMS, AND EVENTS

Speaking Engagements, Panels Participation and Development

1. Journey into Ocean Science – Mote Marine Laboratory and Aquarium/MARsci-URE PreP – Speaker 2025
2. Turning the Tide, Developing a Sustainable Future for Coastal communities and Ecosystems in Florida – Organizer/moderator 2025
3. Explore Your Ocean – Los Angeles Climate Week, Organizer/Moderator 2024
4. Aquarium of the Pacific – CELP Program – Panelist 2024
5. Ocean Policy, Knauss Marine Policy Fellowship – Speaker 2024
6. Explore Your Ocean Panel – Organizer/host 2022

7. Seaspiracy Panel Discussion – Moderator, 2021
8. You and Your Environment, Environmental Justice and – Organizer/Moderator, 2020
   Human Health
9. Misconceptions in Science Policy and Medicine – Organizer/Moderator, 2020
10. We are the solution " Community Engagement - " – Organizer/Moderator, 2020
    with Science and Policy"
11. Conversation about Green Spaces in Los Angles, - Organizer, 2020

Conferences Organization

1. White House Summit on Ocean Justice, Co-Organizer, 2023
2. National Technical Association Conference **–** Organizer , 2021

Committees and Interagency Working Groups

1. Ocean Justice Working Group IWG, 2023
2. Harmful Algal Bloom and Hypoxia Research and Control Act IWG**,** 2023
3. Department Graduate Admissions/Recruitment Committee 2020-2022
4. AOS Diversity Committee
   2020-2021

Media

1. Knauss fellow embraces the wider ocean view | California Sea Grant
2. Studies show importance of deep-sea elements to microbial marine life in the Santa Barbara Basin — Institute of the Environment and Sustainability at UCLA
3. Student Spotlight: De'Marcus Robinson | Atmospheric and Oceanic Sciences (ucla.edu)
4. What's scarier: A 50-ton megalodon or a doctoral dissertation? | UCLA
5. Ocean Visions | Ocean Visions Biennial Summit 2023 | Q&A with De'Marcus Robinson
6. 2023 Knauss Fellowship Finalists announced | California Sea Grant (ucsd.edu)
7. National Technical Association 93rd Annual Conference Underscores Critical Role HBCUs Play in STEM Diversity (prnewswire.com)