
Allison R. Moreno
University of California, Los Angeles
UCLA Atmospheric & Oceanic Sciences
Box 951565
Los Angeles, CA 90095
allisorm@uci.edu

APPOINTMENTS

2019 – 2022 UC Chancellor’s Postdoctoral Scholar
University of California, Los Angeles, CA
Atmospheric and Ocean Sciences

EDUCATION

2014 – 2019 University of California, Irvine, CA
Ph.D. student Ecology and Evolutionary Biology
M.S. Ecology and Evolutionary Biology- Awarded Spring 2018

2010 – 2014 California State University Monterey Bay, Seaside, CA
B.S. Marine Science
Minors: General Biology, Mathematics

2008 – 2010 East Los Angeles College, Monterey Park, CA
A.A. Natural Sciences

RESEARCH INTERESTS

Marine Biogeochemistry | Phytoplankton Physiology | Ecological Stoichiometry | Deoxygenation | Sustainability | Climate Change | Anthropogenic Effects

FELLOWSHIP AWARDED

2021 NOAA’s National Centers for Coastal Ocean Science Travel Grant (\$500)
2020 - 2022 UC Chancellors Postdoctoral Scholar (\$60,000 + \$450,000 UC hiring incentives)
2019 UC President’s Postdoctoral Fellowship: Finalist
2019 NOAA Climate & Global Change (C&GC) Postdoctoral: Alternate
2018 – 2019 UCI Chancellors’ Club Fellowship (\$12,000)
2017 – 2018 UCI OCEANS Fellowship Award (\$6,000)
2017 UCI Travel Award (\$500)
2014 - 2017 NSF Graduate Research Fellowship Award (\$138,000)
2012 AGU Travel Award (\$500)
2011 NSF REU Fellowship (\$5,000)

PUBLICATIONS

10. T Tanioka, AA Larkin, **AR Moreno**, ML Brock, AJ Fagan, CA Garcia, NS Garcia, SD Gerace, JA Lee, MW Lomas, and AC Martiny. (2022). Global Ocean Particulate Organic Phosphorus, Carbon, Oxygen for Respiration, and Nitrogen (GO- POPCORN). Scientific data.

9. **AR Moreno**, C Anderson, RM Kudela, M Sutula, C Edwards, and D Bianchi. (2022). Development, calibration, and evaluation of a model of *Pseudo-nitzschia* and domoic acid production for regional ocean modeling studies. Harmful Algae. 118:102296.

8. **AR Moreno**, AA Larkin, JA Lee, SD Gerace, GA Tarran, and AC Martiny. (2022). Regulation of the respiration quotient across ocean basins. AGU Advances. 3, E2022AV000679. ** *Highlighted by Editor.*

7. AC Martiny, GI Hagstrom, T DeVries, RT Letscher, GL Britten, CA Garcia, E Galbraith, DM Karl, SI Levin, MW Lomas, JK Moore, **AR Moreno**, D Talmy, W Wang, and K Matsumoto (2022). Marine phytoplankton resilience may moderate oligotrophic ecosystem responses and biogeochemical feedbacks to climate change. *Limnology and Oceanography*. 67, S378-S389.

6. AA Larkin, **AR Moreno**, AJ Fagan, A Fowlds, A Ruinz, and AC Martiny. (2020). Persistent El Niño driven shifts in marine cyanobacteria populations. *PLoS ONE*. 15(9):e0238405.

5. **AR Moreno**, CA Garcia, AA Larkin, JA Lee, W Wang, FW Primeau, JK Moore, and AC Martiny. (2020). Biogeochemical impacts of variable respiration quotient in marine particulate organic matter. *PNAS*. 117(37): 22866-22872.

4. AJ Fagan†, **AR Moreno**† and AC Martiny. (2019). ENSO Event Impacts California Coastal Elemental Stoichiometric Ratios and Macronutrient Concentrations. *Frontiers Marine Science*. (6) 386.

†Co-first authors

3. **AR Moreno**, GI Hagstrom, FW Primaeu, SA Levin and AC Martiny. (2018). Phytoplankton Stoichiometry Mediates Nonlinear Interactions between Phosphorus and Atmospheric CO₂. *Biogeosciences*. (15) 2761–2779.

2. **AR Moreno** and AC Martiny. (2018). Ecological Stoichiometry of Ocean Plankton. *Annual Review of Marine Science*. (10) 43-69. ****Highlighted in Ratios Matter August 2018; 2(3).**

1. **AR Moreno** and ALM Haffa. (2014). The Impact of Fish and the Commercial Marine Harvest on the Ocean Iron Cycle. *PLoS ONE* 9(9).

In Preparation

11. **AR Moreno** and AC Martiny. Coastal Respiration Quotient and its Limitations.

12. **AR Moreno**, C Anderson, RM Kudela, and D Bianchi. Trace metals impact on the predictability of *Pseudo-nitzschia* and domoic acid production.

13. M Sandoval Belmar, J Smith, **AR Moreno**, D Bianchi, M Sutula, F Kessouri, C Anderson, RM Kudela, D Caron, and F Chavez. Cross regional drivers of domoic acid producing blooms in the California Current.

14. PJ Buchanan, T Tanioka, and **AR Moreno**. Predicting stoichiometric variations of marine phytoplankton via their primary biomolecules and implications for global ocean biogeochemical cycles.

15. **AR Moreno**, J Guiet, D. Clements, and D Bianchi. Predicting domoic acid events along the US West Coast.

LEADERSHIP AND PROFESSIONAL EXPERIENCE

2022 – 2023 Co-chair of Eastern Pacific Ocean Conference

Sept 2020 – 2022 Scholars of Teaching As Research (STAR) Program [Certification Program]
Current Level: Practitioner
University of California, Los Angeles

Aug 2021 First Year Faculty Teaching Academy. [Course Completion]

CIRTL Network

- Apr 2021 Becoming an Anti-racist Educator! [Workshop]
CIRTL Network
- Apr 2021 Basics of Online Learning and Teaching [Course Completion]
CIRTL Network
- Nov 2020 Engaging Students through High-Impact Practices [Workshop Series]
CIRTL Network
- June – July 2018 Hopkins Microbiology Course
Stanford University
- Sept 2017 – Present Teaching Assistant
University of California, Irvine
Courses: Genetics, Organisms to Ecosystems, Physiology Lab, Physiology in
Extreme Environments
- Sept 2012 – 2014 Instructional Student Assistant
CSU Monterey Bay
Courses: Introduction to Statistics, Quantitative Literacy

INVITED SEMINARS

2023:

Jul: 'Untitled'. Chemical Oceanography Gordon Conference 2023.

2022:

Jan: *Controlling Drivers of Marine Particulate Respiration Quotient in Two Ocean Basins*. University of California, Los Angeles.

Mar: *Hierarchy in Environmental Conditions Control Respiration Quotient in Two Ocean Basins*. University of California, Santa Barbara.

Oct: *Distinct Biome Controls of Phytoplankton Respiration*. University of California, Los Angeles.

2020:

Oct: *Marine Particulate Respiration Quotient*. University of Washington.

Nov: *Linking Ocean Oxygen and Nutrient Cycling*. University of Liverpool.

Dec: *Marine Particulate Respiration Quotient: Linking Oxygen and Biogeochemical Cycles*. University of California, Santa Barbara.

PRESENTATIONS

AR Moreno, J Guiet, D Clements, and D Bianchi. Predicting domoic acid events along the US West Coast. 2022. Eastern Pacific Ocean Conference 2022. (Poster).

AR Moreno, AA Larkin, JA Lee, SD Gerace, and AC Martiny. Driver controlling marine particulate respiration quotient in two ocean basins. 2022. Ocean Sciences Meeting 2022. (Presentation)

SD Gerace, A Fagan, S Haas, **AR Moreno**, R Johnson, P Lethaby, and AC Martiny. Depth Variance of the respiration quotient in the Sargasso Sea. 2022. Ocean Sciences Meeting 2022. (ePoster).

AR Moreno, C Anderson, RM Kudela, F Kessouri, M Sutula, J Smith, and D Bianchi. Predicting *Pseudo-nitzschia* Harmful Algal Blooms Along the California Coast in a Changing World. 2021. ICHA (International Conference on Harmful Algae) 2021. (Presentation)

AR Moreno, C Anderson, RM Kudela, F Kessouri, M Sutula, J Smith, and D Bianchi. Estimating *Pseudo-nitzschia* Domoic Acid Production in a Changing World. 2021. 10.5 US Harmful Algal Bloom Symposium. (ePoster)

P Hoel, D Bianchi, C Anderson, RM Kudela, F Kessouri, M Sutula, CA Deutsch, J Smith, and **AR Moreno**. Integrated Modeling of Harmful Algal Genus *Pseudo-nitzschia* to Support Ecosystem Prediction and Environmental Management in the Southern California Current System. 2020. Ocean Sciences Meeting. (Poster)

AR Moreno, CA Garcia, JA Lee, AA Larkin, JK Moore, FW Primeau and AC Martiny. Implications of Ocean Oxygen Availability from Particulate Organic Carbon-to-Oxygen Respiration Quotient. 2020. Ocean Sciences Meeting. (Presentation)

AR Moreno, CA Garcia, JA Lee, AA Larkin, JK Moore, FW Primeau and AC Martiny. Pacific Ocean Biome Variation in the Respiration Quotient of Particulate Organic Matter. 2019. Southern California Geobiology Symposium. University of Southern California, Los Angeles, CA (Poster)

AR Moreno, AC Martiny. 2019. Quantifying the Marine Respiration Quotient. 2019 Winter Ecology and Evolutionary Biology Graduate Student Symposium (WEEBGSS). University of California, Irvine, Irvine, CA (Presentation)

AR Moreno, CA Garcia, JA Lee, AA Larkin, JK Moore, FW Primeau and AC Martiny. 2018. Biome Variation in Oxidative Demand of Particulate Organic Matter and Biogeochemical Implications. 2nd Annual Environmental Poster Symposium. University of California, Irvine, Irvine, CA (Poster)

C Hopkins, AA Larkin, **AR Moreno**, AC Martiny. 2017. Quantitation Analysis of Synechococcus Diversity in the Indian Ocean. Summer Research Symposium. University of California, Irvine, Irvine, CA (Poster)

AJ Fagan, **AR Moreno**, AC Martiny. 2017. Coastal Nutrients, Stoichiometry, and Particulate Organic Matter when affected by an ENSO Event. UCI Undergraduate Research Symposium. University of California, Irvine, Irvine, CA (Poster)

AJ Fagan, **AR Moreno**, AC Martiny. 2017. Coastal Nutrients, Stoichiometry, and Particulate Organic Matter when affected by an ENSO Event. West Coast Biological Sciences Undergraduate Research Conference. Santa Clara University, Santa Clara, CA (Poster)

AR Moreno, AC Martiny. 2017. Redfield Revisited: Proximate and Ultimate Responses behind Marine Phytoplankton Stoichiometric Variability. Southern California Geobiology Symposium. University of Southern California, Los Angeles, CA (Poster)

AJ Fagan, **AR Moreno**, AC Martiny. 2017. The Effect of an ENSO on Coastal Nutrients and Particulate Organic Matter Concentrations and Ratios. ASLO Aquatic Sciences Meeting 2017. Honolulu, Hawaii (Poster)

AR Moreno, GI Hagstrom, FW Primeau, SA Levin, AC Martiny. 2017. Marine Phytoplankton Physiology and Stoichiometry in Major Ocean Biomes Effect on Atmospheric CO₂. ASLO Aquatic Sciences Meeting 2017. Honolulu, Hawaii (Poster)

AR Moreno, AC Martiny. 2017. Redfield Revisited: Physiology Behind Variable Stoichiometry. 2017 Winter Ecology and Evolutionary Biology Graduate Student Symposium (WEEBGSS). University of California, Irvine, Irvine, CA (Presentation)

AR Moreno, GI Hagstrom, AC Martiny. 2016. Feedback Effects of Phytoplankton Physiology and Stoichiometry on Atmospheric CO₂. Southern California Geobiology Symposium. California Institute of Technology, Pasadena, CA (Poster)

K Linzner, AG Kent, **AR Moreno**, AC Martiny. 2016. Stoichiometric Response of E. Coli Adapted to High Temperature. Southern California Geobiology Symposium. California Institute of Technology, Pasadena, CA (Poster)

***AR Moreno**, JE Canner, ALM Haffa. 2014. Fisheries Impact on the Global Ocean Iron Cycle. Toward a Sustainable 21st Century; Ocean Health, Global Fishing and Food Security. Arnold and Mabel Beckman Center of the National Academies of Sciences and Engineering, Irvine, CA (Presentation)

* Invited Speaker

AR Moreno, JE Canner, ALM Haffa. 2014. Global Commercial Harvest Impact on Ocean Iron Cycling. Marine Science Capstone. CSU Monterey Bay, Seaside, CA (Presentation)

AR Moreno, JE Canner, ALM Haffa. 2013. The Impact of Global Commercial Harvest on the Oceanic Iron Cycle. Sanctuary Currents Symposium. CSU Monterey Bay, Seaside, CA (Poster)

AR Moreno, JE Canner, ALM Haffa. 2012. The Impact of Global Commercial Harvest on the Oceanic Iron Cycle. American Geophysical Union Fall Meeting. Moscone Center, San Francisco, CA (Poster)

AR Moreno, ALM Haffa. 2012. The Impact of Global Commercial Harvest on the Ocean Iron Cycle. 6th Annual Hartnell College Science, Technology, Engineering and Mathematics (STEM) Student Intern Research Symposium. Hartnell College, Salinas, CA (Poster)

AR Moreno, N Kelley, CB Batmalle, AS Amend, AC Martiny. 2012. Fungi and Salinity Gradient in California Affect Nutrient Ratios. Sanctuary Currents Symposium. CSU Monterey Bay, Seaside, CA (Poster)

AR Moreno, N Kelley, CB Batmalle, AS Amend, AC Martiny. 2011. Fungi and Salinity Gradient in California Affect Nutrient Ratios. REU Earth System Science Department Presentation. UC Irvine, Irvine, CA (Poster)

N Kelley, **AR Moreno**, AS Amend, AC Martiny. 2011. Stoichiometry and homeostasis of terrestrial fungi. REU Earth System Science Department Presentation. UC Irvine, Irvine, CA (Poster)

SERVICE

2017 - Present	Environmental Research Poster Symposium - <i>Cofounder and Organizer</i>
2014 – Present	Active Member; CLEAN Education (http://sites.uci.edu/clean/)
2018	Earth Day- Co-leading the Oceans Booth
2018	OC Regional Science Olympiad - Test Writer for Ecology
2017	Water UCI/OCEANS Plastic Ocean Art Exhibit Opening Night Reception
2016	Head Judge; Roosevelt High Magnet School Chemistry Fair
2013 – 2014	Peer-to-Peer Student Coordinator, CSU Monterey Bay
2012 – 2014	Peer-to-Peer Mentor, CSU Monterey Bay