MARINE LEBREC

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EDUCATION

San Jose State University Moss Landing Marine Laboratories, Moss Landing, CA
August 2020 - February 2023

• Enrolled in Marine Science Master's program as part of the MLML chemical oceanography laboratory
• Optimizing and applying methodologies for seawater nutrient analysis using novel microfluidic techniques

University of Washington, Seattle WA
September 2012 - June 2016

• Bachelor of Science in Oceanography, minors in Marine Biology and Arctic Studies

EXPERIENCE

Data Specialist, Central and Northern California Ocean Observing System (CeNCOOS), Moss Landing, CA
January 2023 - Present

• Integrating and managing data from regional data providers into CeNCOOS web products (e.g., data portals, websites).
• Coordinating with ocean observing networks (MBON, iDOOS) to implement best practices and foster collaborations.

Graduate Researcher, Moss Landing Marine Laboratories, Moss landing, CA
August 2020 - Present

• Method development for measuring inorganic nutrients in seawater using programmable Flow Injection analysis in the laboratory and on research vessels
• Collaborating with engineers to develop open-source nutrient analyzer to obtain high-resolution time-series

Graduate Teaching Assistant, Moss Landing Marine Laboratories, Moss landing, CA
January 2022 - August 2022

• Assisted with teaching graduate level course "Data Analysis in Marine Science", focused on applying Python programming to run statistical tests (significance testing, principal component analysis), modeling (generalized linear model, multivariate regression, poisson regression), geospatial / time-series analyses, data visualizations

Associate Research Scientist, International Atomic Energy Agency (IAEA), Monaco
May 2018 - May 2020

• Provided scientific and technical expertise to the Ocean Acidification International Coordination Centre (OA-ICC) and the Global Ocean Acidification Observing Network (GOA-ON) through organizing training courses, managing large databases and data portals, coordinating regional and international meetings, and contributing to the UN Sustainable Development Goal 14.3.1 Methodology

Oceanographer/Engineer Assistant, University of Washington Applied Physics Laboratory
July 2016 - April 2018

• Provided expertise and management for oceanographic and biological research projects including the Northwest Association of Networked Ocean Observing Systems (NANOOS) and the Washington Ocean Acidification Center (WOAC)
• Managed field collection and laboratory analysis of biogeochemical samples (dissolved inorganic carbon, dissolved oxygen, chlorophyll, and plankton samples)

RECENT PUBLICATIONS / PRESENTATIONS

• Lebrec et al., 2022. Developing autonomous, open-source macronutrient monitoring instrumentation: the programmable flow injection ocean nutrient analyzer (pfiona). AGU Fall Meeting 2022, Chicago.
• Valauri-Orton et al., 2022. Advancing equity in ocean acidification research: development of a low-cost kit for OA monitoring. 5th International Symposium on the Oceans in a High CO2 World, Lima, Peru.
• Lebrec et al., 2022. Automated nutrient analysis via programmable flow injection: from benchtop to unattended operation at shore stations. Ocean Sciences Meeting, virtual.
• Tilbrook et al., 2019. An enhanced ocean acidification observing network: from people to technology to data synthesis and information exchange. Frontiers in Marine Science 6: 337. Doi: 10.3389/fmars.2019.00337.
• Lebrec et al., 2019. Ocean acidification impacts in select Pacific Basin coral reef ecosystems. Regional Studies in Marine Science 28: 100584. Doi: 10.1016/j.rsma.2019.100584
• Hansson L. & Lebrec M., 2019. The Ocean Acidification International Coordination Centre (OA-ICC): A hub for the global OA community. The 4th GOA-ON International Workshop, Hangzhou, China.

AWARDS

• Council on Ocean Affairs, Science & Technology (COAST) Graduate Student Award
• Moss Landing Marine Laboratories Scholar Award