

Marisol García-Reyes, Ph.D.

marisolgr@faralloninstitute.org
github.com/marisolgr

Farallon Institute

www.faralloninstitute.org
101 H St. Suite Q. Petaluma, CA 94952

Professional preparation

- 2011** Ph.D. Atmospheric Sciences, University of California, Davis, California, USA. Dissertation: Variability of coastal upwelling in California.
- 2005** B.Sc. Physics. Universidad Nacional Autónoma de México (UNAM), D.F., México. Thesis: Physical process controlling the seasonal variability of the Sea Surface Temperature and the chlorophyll concentration in the California Gulf entrance.
- 1999** Internship/training in High-Performance Computing, Dept. Supercómputo, UNAM, Mexico.

Appointments

- 6/2014 – To date** Principal Scientist, Farallon Institute, Petaluma, California, CA, USA.
- 8/2023 – To date** Research Associate, University of California, Davis, CA, USA.
- 1/2012 – 05/2014** Post-Doctoral Research Associate, Farallon Institute, Petaluma, CA, USA.
- 4/2005 - 12/2011** Graduate Student Researcher. University of California, Davis, CA, USA.

Relevant Publications

- **2023 - García-Reyes, M.**, Koval, G., Sydeman, W., Palacios, D. M., Bedriñana-Romano, L., Sepulveda, M., & Hines, E. Most Eastern Boundary Upwelling Regions Represent Thermal Refugia in the Age of Climate Change. *Frontiers in Marine Science*, 10, 1158472.
- **2022 - García-Reyes M**, Thompson SA, Rogers-Bennett L, Sydeman WJ. Winter oceanographic conditions predict summer bull kelp canopy cover in Northern California. *PLoS One* 17(5): e0267737.
- **2021 - Shi, H., García-Reyes, M.**, Jacox, M. G., Rykaczewski, R. R., Black, B. A., Bograd, S. J., & Sydeman, W. J. Co-occurrence of California drought and Northeast Pacific marine heatwaves under climate change. *Geophysical Research Letters*, 48(17), e2021GL092765.
- **2021 - Sydeman W, ... García-Reyes M**, et al. Hemispheric asymmetry in ocean change and the productivity of marine ecosystem sentinels. *Science* 372 (6545). 980-983.
- **2021 - Ashlock L, García-Reyes, M**, et al. Temperature and patterns of occurrence and abundance of key copepod taxa in the Northeast Pacific. *Front. Mar. Sci.* 8:670795. doi: 10.3389/fmars.2021.670795
- **2019 – Sanford E, Sones JL, García-Reyes M**, Goddard JH, & Largier JL. Widespread shifts in the coastal biota of northern California during the 2014–2016 marine heatwaves. *Scientific reports*, 9(1), 1-14.
- **2018 – Sydeman WJ, García-Reyes M**, et al., Forecasting herring biomass using environmental and population parameters. *Fisheries Research*, 205, p.141-148.
- **2017 - García-Reyes M**, and Sydeman WJ. California Multivariate Ocean Climate Indicator (MOCI) and marine ecosystem dynamics. *Ecological Indicators*, 72, p.521-529.
- **2017 – Genteman CL, Fewings MR, and García-Reyes M**. Satellite sea-surface temperatures along the west coast of the United States during the 2014-2016 northeast Pacific marine heat wave. *Geophysical Research Letters*, 44(1), p.312-319.
- **2015 - García-Reyes M**, Sydeman WJ, Schoeman DS, Rykaczewski RR, Black BA, Smit AJ and Bograd SJ. Under Pressure: Climate Change, Upwelling, and Eastern Boundary Upwelling Ecosystems. *Frontiers in Marine Science*, 2, p.109.

- **2015** - Bakun A, Black BA, Bograd SJ, **García-Reyes M**, Miller AJ, Rykaczewski RR, Sydeman WJ. Anticipated effects of climate change on coastal upwelling ecosystems. *Current Climate Change Reports*, 1(2), p. 85-93.
- **2014** - Sydeman WJ, **García-Reyes M**, Schoeman D, Rykaczewski RR, Black BA, Thompson SA, Bograd SJ. Climate change and wind intensification in coastal upwelling ecosystems. *Science*, 345(6192).
- **2012** - **García-Reyes, M** and Largier JL. Seasonality of coastal upwelling off central and northern California: New insights, including temporal and spatial variability. *Journal of Geophysical Research* 117(C03028).
- **2010** - **García-Reyes, M** and Largier JL. Observations of increased wind-driven coastal upwelling off central California. *Journal of Geophysical Research*, 115(C04011).

Relevant Reports and Products

- Ongoing:** California Multivariate Ocean Indicator (MOCI) - <http://www.faralloninstitute.org/moci>, <https://data.caloos.org/>
- 2023:** Collaborator: 2022 Indicators of Climate Change in California Report. 4th edition. <https://oehha.ca.gov/climate-change/report/2022-report-indicators-climate-change-california>. California Office of Environmental Health Hazard Assessment, Nov 1, 2023.
- 2022, 2021:** MISST Arctic Saildrone Cruise 2021 & 2022 reports, data published on NASA PO.DAAC (podaac.jpl.nasa.gov/dataset/SAILDRONE_ARCTIC_2021), report published in Zenodo (zenodo.org/record/7709660 & zenodo.org/record/7713653).
- 2021:** Tutorial: Satellite Data using Python (https://github.com/marisolgr/python_sat_tutorials)
- 2021:** Fisheries-Climate Change Assessments for the Quinault Indian Nation. Report for the Quinault Indian Nation. T Kristiansen, J Thayer, SA Thompson, **M García-Reyes**, D. Shi, and W Sydeman. Farallon Institute.
- 2017:** Oceanographic context for baseline characterization and future evaluation of MPAs along California's North Coast. Technical report for California Sea Grant. EP Bjorkstedt, **M García-Reyes**, M Losekoot, W Sydeman, J Largier, B Tissot. Technical report to California Sea Grant.

Relevant Professional Service

- 2023-** Member of the Advisory Council of the Group for High Resolution Sea Surface Temperature (GHR SST) <https://www.ghrsst.org/>
- 2013-2023. Internship supervisor.** 2 Ph.D students, 2 undergrad students, 7 high-school students.
- 2018-to date. Student advisor.** 4 master students.
- 2022-to date. Mentor:** Group lead mentor for MPOWIR: Mentoring Physical Oceanography Women to Increase Retention. <https://mpowir.org/>, 2022-to date
- 2019-2021:** At-large member of the Scientific and Statistical Committee of the Pacific Fisheries Management Council.
- 2019-2022:** Member of the Kelp Ecosystem Landscape Partnership for Research on Resilience (KELPRR) that focuses on bull kelp in Northern California.