

# MARIANA I. TORRES

email: [mariant3@uci.edu](mailto:mariant3@uci.edu)

phone: +1 (973) 424-7113

location: Irvine, CA

## EDUCATION

### **B.S. in Biology, Instituto Politécnico Nacional (IPN)**

**2023**

Thesis: “Characterization of marine heatwave events in a tropical coral reef system in the Gulf of Mexico: The Veracruz Reef System” (P.I.: Dr. Jorge Zavala Hidalgo) at the **National Autonomous University of Mexico (UNAM)**

## RESEARCH INTERESTS

Climate science, biophysical interactions, climate sciences and biological oceanography, population and ecosystem ecology, climate modeling, climate change impacts on marine ecosystems, climate adaptation, community-engaged research

## RESEARCH EXPERIENCE

### **9/23- present Junior Specialist | CLIMATE Justice Postbaccalaureate Research Fellow, UC Irvine**

Ocean and Climate Dynamics & CLIMATE Justice Initiative | Department of Earth System Science  
Advisors: Dr. Henri F. Drake & Dr. Kathleen Johnson

- Research on drivers of marine heatwaves using GFDL’s ESM CM4.0
- Experience with Python, Git version control, and HPC user
- Co-conducting study with a community organization (Crystal Cove Conservancy) on mapping of kelp forests & seagrass in Crystal Cove Marine Protected Area (MPA)

### **2022-2023 Student Research Associate, Institute of Atmospheric Sciences and Climate Change, UNAM**

Ocean-Atmosphere Interaction Group (IOA). Advisors: Dr. Jorge Zavala Hidalgo, Dr. Rosario Romero

- Conducted study on “Characterization of marine heatwave events in a tropical coral reef system in the Gulf of Mexico: The Veracruz Reef System”
- Performed wind analysis using the Weather Research and Forecasting (WRF) Model
- Analyzed sea surface temperature (SST) data from a reef system in the Gulf of Mexico
- Created SST database, NetCDF files, wrote monthly reports, developed code to detect and characterize marine heatwaves

### **Summer 2022 Research Intern, Columbia Climate School, Columbia University**

Advisors: Dr. Joshua Fisher, Dr. Beth Fisher-Yoshida, Joan Lopez

- Contributed to a book publication: Lopez, J.C., & Fisher-Yoshida, B. (2023). Peacebuilding in Colombia: From the Lens of Community and Policy (1st ed.). <https://doi.org/10.4324/9781003309116>
- Conducted and presented community-based study: “Youth, Peace, and Security: Themes in narratives of peacebuilding responses”
- Developed coding framework to analyze qualitative data, conducted literature reviews, translated, transcribed, and coded interviews, wrote data analysis and synthesis reports using NVivo
- Mentored incoming REU interns in conducting research that bridges the social and Earth sciences

### **2022-2023 Assistant Zooplankton Collection Curator, Instituto Politécnico Nacional (IPN)**

Marine Ecology Laboratory, Department of Zoology

Advisor: Dr. Marina Sánchez Ramírez

- Observed, identified, organized, and labeled zooplankton species
- Contributed to study on “Ichthyoplankton from coastal lagoons in the Southeastern Gulf of Mexico”
- Updated the University’s zooplankton collection database and synthesized monthly reports
- Trained and mentored first-year undergraduate students

## AWARDS & SCHOLARSHIPS

2023 Princeton University Prospective Ph.D. Preview Scholar, Princeton University Graduate School

2023 National Science Foundation (NSF) funded Postbaccalaureate Fellowship in Climate Change & Environmental Justice, University of California, Irvine

2022 National Science Foundation (NSF) funded Summer Research Experience for Undergraduates (REU), Columbia Climate School, Columbia University

2022 Institutional Stimulus Scholarship for Researchers (BEIFI), Instituto Politécnico Nacional (IPN)

### **PRESENTATIONS & WORKSHOPS**

2023 **Poster presentation**, 6<sup>th</sup> Annual Environmental Research Symposium, School of Physical Sciences, UC Irvine, CA

2023 **Student**, ICTP-CLIVAR Summer School on Marine Heatwaves: Global Phenomena with Regional Impacts, Trieste, Italy

2023 **Poster presentation**, Effects of Climate Change on the World's Ocean (ECCWO-5) Symposium. Bergen, Norway

2023 **Oral presentation**, National Institute of Atmospheric Sciences and Climate Change, Graduate Seminar Series, CdMx

2022 **Poster Presentation**, RAUGM Conference: Annual Reunion of the Mexican Geophysical Union, CdMx

2022 **Poster Presentation**, Institute of Atmospheric Sciences and Climate Change Congress, CdMx

2022 **Oral Presentation**, REU Seminar, Columbia University, Columbia Climate School, NY

2021 **Oral presentation**, Department of Earth Sciences, National Polytechnic Institute (IPN), CdMx

### **TECHNICAL SKILLS & EXPERIENCE**

- Languages: English (*native*), Spanish (*native*)
- Programming: Python (*intermediate*), MATLAB (*intermediate*)
- Git Version Control and GitHub (<https://github.com/marianatorres4>)
- Software: MS Office, Adobe PS (*advanced*), Adobe Lightroom (*expert*), NVivo
- OS: macOS, Windows

### **CERTIFICATIONS**

09/23 – present Certificate in Climate Change and Environmental Justice, University of California, Irvine, CA

09/23 – present Certificate in Community-Based Research, University of California, Irvine, CA

2021- 2023 Certificate in Professional Photography, School of Photography and Visual Media, Mexico City, MX

### **OUTREACH ACTIVITIES**

- *Member of Women in STEM club*, IPN, Mexico City, Mexico
- *Member of the LGBTQ+ club and activist for LGBTQ+ rights*, IPN, Mexico City, Mexico
- *Member of CamBIO Colectivo Mx*, Universidad Iberoamericana, Mexico City, Mexico
  - Volunteer experience working with community-engaged Axolotl conservation campaigns
- *Ocean Ambassador*, Inland Ocean Coalition (IOC), Boulder, CO, USA
  - *Course: Ocean and the Power of Storytelling/ Wallace J Nichols, Author of Blue Mind*
  - *Course: Marine Protected Areas, Voice Empowerment*
  - *Course: Plastic Pollution and Watershed Health*
  - *Course: Ocean Climate Action and Engaging with Legislative Leaders*