Carolina Bastidas
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PROFESSIONAL SUMMARY

I am a marine scientist with ample experience in research and education. My research has focused on marine ecosystems and the consequences of climate change and other anthropogenic impacts on coastal environments. My activities show a sustained value for collaborative and diverse work, which I find essential in furthering knowledge and consensus.

Key Skills:

- Research in ecology of marine ecosystems and biology of invertebrates
- Applied research on consequences of climate change and other anthropogenic impacts
- Teaching in classrooms and through outreach education for a wide spectrum of audiences
- Experience managing staff, and leading groups of researchers and students
- Critical thinking and appreciation for team work and collaborative decisions to obtain a goal

PROFESSIONAL EXPERIENCE

Research Scientist 2016- present
Visiting Research Associate 2014- 2016
The Massachusetts Institute of Technology Sea Grant College Program, Cambridge MA, USA

- Established a line of research and outreach program on coastal and ocean acidification and its relevance for marine organisms through collaboration with various partners
- Provided Undergraduate Research Opportunities and internships for over 40 students
- Developed MIT-IAP "New England Coastal Ecology", taught annually since 2015; MIT-Fall "Coastal Ecology for Engineers" taught in 2016 and 2020, and STEM education projects targeted to high school students
- Supported high school students (2015-2017) from underserved communities to participate in the Blue Lobster Bowl, a regional competition of the National Ocean Science Bowl; acted as a Chief Science Judge (2017 – 2021) and as Regional Coordinator (2016 and 2021)

Media:
'A fishery in a sea of change' highlights latest American lobster research
Exploring New England's coastal ecosystems in the dead of winter
No more free plastic bags at retail checkouts as of July 1
New England's Only Hard Coral Could Help Determine Extent of Microplastic Pollution

Publicly available products:
"A Fishery in a Sea of Change: How the American Lobster is Dealing With a Changing Environment"
"Shellfish restoration projects in Massachusetts"

Pennsylvania State University, State College PA, USA 2013
Adjunct Research Associate, Dept. Engineering Science and Mechanics

- Assessed industry uses of a biopolymer with large adhesive strength, extracted from a marine organism; established feasibilities for project funding, collaborations and proposal outline

Universidad Simon Bolivar, Caracas, Venezuela 2002-2013
Associate Professor 2007 – 2013; **Assistant Professor** 2002 – 2007, Dept. Organismal Biology

Teaching and Mentoring

- Taught undergraduate and graduate courses: Invertebrate Biology (Theory and Lab), Principles of Biology, Ecology of Marine Communities, and Ecology of Hard-bottom communities; lead field activities with students; hired and supervised teaching assistants
- Supervised the theses of 7 undergraduate students and 8 graduate students in Biological Sciences.
- Mentored 12 literature reviews and 10 internships in marine sciences; evaluation committee member of more than 40 literature reviews, theses and qualifying examinations for Ph.D.

Research

- Lead research projects in marine sciences, exercising budget preparation and administration, data analyses and writing results for technical reports and peer-reviewed publications.
- Contributed for more than 15 years with regional programs studying marine ecosystems: the

Caribbean Community Productivity (CARICOMP) and the Global Coral Reef Monitoring Network (GCRMN); collaborating with more than 50 scientist worldwide
- Conducted multi-disciplinary, applied research in more than 10 environmental consulting projects including vulnerability assessments and environmental impact assessments
- Designed and implemented research funded by >US$ 200K grants to CETOXMAR (a center established in 2008 to attend research needs in marine environments in view of oil and gas exploration and exploitation in the Venezuelan continental shelf); obtaining the first environmental baseline in Los Roques marine national park.

Governance
- Postgraduate committee member of the Biology School for 6 years: evaluated credentials for admission; tailored curricula for graduate students; advised students in academic progress
- Department Representative at the university's Unit of Laboratories for 2 years; Advisory member at the Instituto de Tecnologias y Ciencias Marinas for one year, and at the Credential Evaluation Committee of the Organismal Biology Department for two years

PROFESSIONAL DEVELOPMENT- AFFILIATIONS

- Recent scientific meetings: 2020 Ocean Sciences Meeting– American Geophysical Union, February 2020, San Diego CA: "Shell Day- regional collaboration and citizen science further understanding of coastal acidification"; Session CP33A: Interdisciplinary Approaches for Understanding Coastal Ocean Carbon and Biogeochemical Processes and Budgets I . Bastidas C, PR Gassett, JE Rheuban, K O'Brien-Clayton, M Liebman, CW Hunt, EJ Turner, E Stancioff, and E Silva. Oral presentation// Regional Association of Researchers in the Gulf of Maine 2020 Annual Science Meeting, October 14-16, 2020. Held Virtually: a) "Shellfish Restoration as an Alternative Market in Massachusetts in the Wake of the COVID-19 Pandemic. Cox, R., Bastidas, C."; b) "Quantifying Salinity Levels in the Gulf of Maine via Gaussian Process Machine Learning." Fine, S., Bastidas, C.// 2020 Massachusetts Environmental Education Society Meeting, Worcester MA "Communicating Ocean Acidification"
- Selected Courses-Workshops: "Data Science: Data to Insights"- MIT (May-July 2017); "Kaufman Teaching Certificate Program"- MIT (Spring 2016); "Ocean Acidification Principal Investigators meeting" at WHOI and further webinars supported by the Ocean Acidification Program-NOAA, SOARCE, PMEL (4 days, 2015); Instructional Design (20 hours, 2010); Active teaching and effective learning (2002); Teaching Portfolio (2002); Australian commercial scuba diver (1998)
- "Programa de Promoción al Investigador", recognition for researchers granted by the Venezuelan Scientific Fund: 1998 – 2010 (Level III)
- Reviewer of more than 50 papers for international journals and 15 proposals funding agencies

SELECTED PUBLICATIONS out of 46 peer-reviewed (complete list here) and >20 other publications

1. Siedlecki SA; J Salisbury; DK Gledhill; C Bastidas; et al (2021) Projecting ocean acidification impacts for the Gulf of Maine to 2050: New tools and expectations. Elementa: Science of the Anthropocene 9 (1): 00062. DOI: https://doi.org/10.1525/elementa.2020.00062
2. Rheuban JE, PR Gassett, DC McCorkle, CW Hunt, M Liebman, C Bastidas et al (2021) Synoptic assessment of coastal total alkalinity through community science Environ. Res. Lett 16 024009 https://doi.org/10.1088/1748-9326/abcb39
3. Babaee H, Bastidas C et al (2020) A Multi-Fidelity Framework and Uncertainty Quantification for Sea Surface Temperature in the Massachusetts and Cape Cod Bays. Earth and Space Science 7 (2): 1-16 https://doi.org/10.1029/2019EA000954
4. Cortes et al (2019) The CARICOMP Network of Caribbean Marine Laboratories (1985-2007): History, Key Findings and Lessons Learned" Frontiers in Marine Science, vol 5, article 519 https://doi.org/10.3389/fmars.2018.00519
5. Bastidas C., García E. (1999) Metal content on the reef coral *Porites astreoides*: an evaluation of river influence and 35 years of chronology. Marine Pollution Bulletin 38 (10): 899-907 https://doi.org/10.1016/S0025-326X(99)00089-2

EDUCATION

Ph.D., Marine Biology James Cook University, Townsville, Australia
Doctoral Merit Research Scheme awardee
M. Sc., Biological Sciences Universidad Simón Bolívar, Caracas, Venezuela
Outstanding honor for Thesis: Heavy metal content in the coral *Porites astreoides*: contamination chronology and sublethal effects
Licentiate, Biology Universidad Simón Bolívar, Caracas, Venezuela