

Elaine Wang Shen

Email: elainewshen@gmail.com

Personal website: www.elaineshen.info

[LinkedIn](#)

PROFILE

- Strategic advisor and coordinator of ocean science and technology policy in interagency and international fora with high-level government officials and professionals.
- 7+ years of interdisciplinary and international marine research experience in applied tropical community ecology, bioinformatics, and feminist science and technology studies.
- Proven record of communicating science for technical and non-technical audiences, including publishing and presenting on policy papers, peer-reviewed research studies, editorials, and essays.
- Recognized for solutions-oriented diversity, equity, inclusion, justice, and accessibility (DEIJA) leadership in the ocean and environmental sciences.

EDUCATION

University of Rhode Island (URI), Kingston, RI August 2018 — May 2023
Ph.D. Biological & Environmental Sciences (Ecology & Ecosystem Sciences)

Rice University, Houston, TX August 2014 — May 2018
BSc: Ecology and Evolutionary Biology, Minor: Environmental Studies

School of International Training (SIT), Panama City, Panama Fall 2016
Program: Tropical Ecology, Marine Ecosystems, & Biodiversity Conservation

PROFESSIONAL EXPERIENCE

National Science Foundation (NSF), Alexandria, VA February 2024 — Present
NOAA Sea Grant Knauss Marine Policy Fellow

- Foster interagency collaboration and high-level ocean science and technology priority-setting in Federal committees, subcommittees, and working groups, including within the White House Ocean Policy Committee, National Science and Technology Council, and U.S. Coral Reef Task Force.
- Support NSF's international ocean science policy portfolio through engagement and coordination with the G7 Future of the Ocean and Seas Initiative and UN Ocean Decade.
- Develop NSF's Environmental Justice Strategic Plan in response to Executive Order 14096 as a core team member of the chartered NSF Environmental Justice Working Group.
- Serve as a key strategic advisor on White House reports and policy papers, including the [National Strategy for a Sustainable Ocean Economy](#), [National Ocean Biodiversity Strategy](#), [National Aquatic eDNA Strategy](#), and [National Marine Carbon Dioxide Removal Research Strategy](#).

Metcalf Institute, Kingston, RI May — November 2023
Program Associate

- Produced multi-day virtual 2023 Inclusive SciComm Symposium for 350+ attendees and speakers on Zoom Events in coordination with Metcalf staff, planning committee members, and corporate donors.
- Led program evaluation for the 2023 Annual Science Immersion Workshop for Journalists.

URI College of the Environment and Life Sciences (CELS), Kingston, RI August 2018 — May 2023
NSF Graduate Research Fellow & Graduate Assistant

- Evaluated ecological and management outcomes of coral reef fisheries in Indonesia using structural equation modeling, environmental DNA metabarcoding, and critical discourse analysis.
- Assisted in three semesters of course instruction & field excursions of four introductory and upper-level undergraduate courses.
- Directed DEIJA initiatives for students and faculty as a Graduate Assistant in the CELS Dean's Office, working closely with the Assistant Dean for Diversity & Student Success Initiatives.

Smithsonian Tropical Research Institute, Bocas del Toro, Panama May — August 2017
Research Intern & Wagoner Fellow

- Spearheaded undergraduate thesis project to enumerate biodiversity in nearshore tropical ecosystems using environmental DNA, which resulted in a first-authored peer-reviewed publication.

SCIENTIFIC PUBLICATIONS & PRESENTATIONS

**corresponding author, ¹co-first authors*

Shen, E.W.^{*}, et al. (2024). Preliminary characterization of coral reef diversity using environmental DNA in a hyper-diverse context. [Regional Studies in Marine Science](#).

Shen, E.W.^{*}, Vandenberg, J.M. & Moore, A. Sensing inequity: technological solutionism, biodiversity conservation, and environmental DNA. (2023) [BioSocieties](#).

Nguyen, B.N.¹ **Shen, E.W.**^{*1}, et al. Environmental DNA survey captures patterns of fish and invertebrate diversity across a tropical seascape. (2020) [Scientific Reports](#).

Invited research talks for: Ocean Nexus research institute (2024), Conservation Data Justice research group (2023), Association for the Study of Literature and Environment Conference (2023), and Ecological Society of America Conference (2022).

SELECTED FELLOWSHIPS, HONORS, & AWARDS

^ forfeited due to COVID-19

2024	NOAA Sea Grant Knauss Marine Policy Fellowship	2019	URI William H. Krueger Graduate Studies Fund
2021	URI Graduate Student Excellence Award for Diversity and Inclusion	2018	Rice University Distinction in Research and Creative Works
2020	National Science Foundation Graduate Research Fellowship Program	2018	Rice University Julian Huxley Award for Excellence
2020	URI/The Nature Conservancy Global Marine Initiative Student Research Award Program [^]	2017	Rice University Scholars Program
		2017	Wagoner Foreign Study Fellowship
		2016	SIT/Rice Merit Scholarship

SELECTED PUBLIC ENGAGEMENT & ACADEMIC SERVICE

URI Voices Of Inclusion in Communities of Education and Science, <i>Founding member</i>	2018 — 2023
URI CELS Diversity Committee, <i>Graduate student representative</i>	2018 — 2022
URI Office of Student Affairs, <i>Student advisory board member</i>	2021
75th Phycological Society of America Conference, <i>Lead on bioinformatics workshop</i>	2021
IPB Department of Marine Science & Technology, <i>Lead on metabarcoding workshop</i>	2019
Rice Oceans Club, <i>Founding member, President</i>	2014 — 2018
Rice University, <i>Undergraduate student lecturer</i>	2017

Invited speaker for: Ocean Nexus, The Coastal Society and National Center for Atmospheric Research, URI Board of Trustees, the NSF-OCE REU program, Metcalf Institute Annual Science Immersion Workshop for Journalists, Skype a Scientist, AAAS Classroom Science Days, Society for Women in Marine Science, and various K-12 schools across the country.

SELECTED SCIENCE COMMUNICATION

Shen, E.W. (2023). Changing the Conversation: The importance and practice of inclusive science communication. [STEM Magazine](#), 279:16-20.

Shen, E.W. (2022). Meander Belt: Native Houstonian reflects on water. In Lacy M. Johnson & Cheryl Beckett (Eds.), [More City Than Water: A Houston Flood Atlas](#). University of Texas Press.

Shen, E.W. (2018). Will the Gulf of Mexico protect its coral? [Opinion.] [The Houston Chronicle](#). Web.

Shen, E.W. (2016). A Cautionary Tale: Protecting the world's tropical wildlife. [Enquiry Magazine](#), 1:12-15.

SKILLS

- *Marine Ecology:* AAUS Scientific Diver; coral reef monitoring methods and taxonomic identification
- *Computer Skills:* R; Github; shell scripting in BASH; Adobe Suite; Microsoft Office Suite
- *Other Selected Skills:* English (native); Chinese (conversational); Spanish and French (basic); public speaking and performance (Principal Dancer- Hocus Pocus 2 & Season 8 of America's Got Talent)