Stanford

Meghan Marjorie Shea

Postdoctoral Scholar, Civil and Environmental Engineering

Bio

BIO

Meghan is a postdoctoral scholar at Stanford University, where she studies how to best use environmental DNA (eDNA)—little bits of DNA left behind by organisms in their ecosystems—for marine biodiversity monitoring. Her interdisciplinary approach blends science & technology studies and ocean sciences, drawing on her dual training as a social scientist and engineer. Working from the archives to the laboratory to the field, she advances eDNA tools while interrogating their social context and epistemic implications. Prior to her postdoc, she received a PhD in the Emmett Interdisciplinary Program in Environment & Resources at Stanford, an MPhil in Nature, Society and Environmental Governance from Oxford as a Rhodes Scholar, and a BS in Environmental Systems Engineering from Stanford. When she's not thinking about environmental DNA, she loves cooking elaborate vegetarian meals, nurturing her house plants, and finding ways to spend as much time as possible on or near the ocean!

HONORS AND AWARDS

- Open Science Innovator Prize, Stanford Data Science Center for Open and REproducible Science (CORES) (2025)
- The 2025 Jacqueline Carpine-Lancre Early Career Scholars Prize in Ocean History, International Commission of the History of Oceanography (2025)
- Gerald J. Lieberman Fellowship, Stanford Office of the Vice Provost for Graduate Education (2024)
- McCoy Family Center for Ethics in Society Graduate Fellowship, McCoy Family Center for Ethics in Society (2021)
- Stanford Interdisciplinary Graduate Fellowship, Stanford Office of the Vice Provost for Graduate Education (2021)
- Graduate Public Service Fellowship, Stanford Haas Center for Public Service (2020)
- Rhodes Scholarship, Rhodes Trust (2017)
- Goldwater Scholarship, Barry Goldwater Scholarship and Excellence in Education Foundation (2016)
- Ernest F. Hollings Undergraduate Scholarship, National Oceanic and Atmosphere Administration (2015)

PROFESSIONAL EDUCATION

- Doctor of Philosophy, Stanford University , ENVRES-PHD (2025)
- MPhil, University of Oxford , Nature, Society, and Environmental Governance (2019)
- B.S., Stanford University , Environmental Systems Engineering (2017)

STANFORD ADVISORS

- Alexandria Boehm, Postdoctoral Faculty Sponsor

LINKS

- https://meghanmshea.com/: https://meghanmshea.com/

Publications

PUBLICATIONS

- **Embracing environmental DNA? How values influence the integration of a new technology into an oceanographic expedition.** *History and philosophy of the life sciences*
  Shea, M. M.
  2025; 48 (1): 5

- **Environmental DNA metabarcoding differentiates between micro-habitats within the rocky intertidal** *ENVIRONMENTAL DNA*
  Shea, M. M., Boehm, A. B.
  2024; 6 (2)

- **Systematic review of marine environmental DNA metabarcoding studies: toward best practices for data usability and accessibility.** *PeerJ*
  Shea, M. M., Kuppermann, J., Rogers, M. P., Smith, D. S., Edwards, P., Boehm, A. B.
  2023; 11: e14993

- **Animal Agriculture and Climate Change in the US and UK Elite Media: Volume, Responsibilities, Causes and Solutions.** *Environmental communication*
  Kristiansen, S., Painter, J., Shea, M.
  2021; 15 (2): 153-172

- **Power, the Pacific Islands, and the Prestige Press: A Case Study of How Climate Reporting is Influenced by UN Framework Convention on Climate Change Summits** *INTERNATIONAL JOURNAL OF PRESS-POLITICS*
  Shea, M. M., Painter, J., Osaka, S.
  2021

- **Representations of Pacific Islands and climate change in US, UK, and Australian newspaper reporting** *CLIMATIC CHANGE*
  Shea, M. M., Painter, J., Osaka, S.
  2020

- **Tracing country commitment to Indigenous peoples in the UN Framework Convention on Climate Change** *GLOBAL ENVIRONMENTAL CHANGE-HUMAN AND POLICY DIMENSIONS*
  Shea, M. M., Thornton, T. F.
  2019; 58

- **Adaptation and Resilience at the Margins: Addressing Indigenous Peoples' Marginalization at International Climate Negotiations** *ENVIRONMENT*
  Comberti, C., Thornton, T. F., Korodimou, M., Shea, M., Riamit, K.
  2019; 61 (2): 14–30

- **Occurrence of Host-Associated Fecal Markers on Child Hands, Household Soil, and Drinking Water in Rural Bangladeshi Households** *ENVIRONMENTAL SCIENCE & TECHNOLOGY LETTERS*
  Boehm, A. B., Wang, D., Ercumen, A., Shea, M., Harris, A. R., Shanks, O. C., Kelty, C., Ahmed, A., Mahmud, Z. H., Arnold, B. F., Chase, C., Kullmann, C., Colford, et al
  2016; 3 (11): 393-398