Stanford



Claudette Proctor

- Ph.D. Student in Earth System Science, admitted Autumn 2021
- Masters Student in Earth System Science, admitted Autumn 2026
- Head Coach, Women's Club Soccer, Recreation Competitive Sports
- Curriculum Vitae available Online

Bio

BIO

Claudette Proctor was born in Los Angeles, California. She double majored in Earth and Oceanographic Science and Hispanic Studies at Bowdoin College, graduating in 2021. She is now pursuing her doctoral studies in the Earth System Science department at the Stanford Doerr School of Sustainability. She is passionate about investigating the role and response of phytoplankton in polar regions, particularly in the context of Arctic amplification, which resulted in accelerated warming (up to four times faster) in the Arctic relative to the rate experienced by the rest of the globe as a result of anthropogenic climate change. Her research leverages a combination of fieldwork, experimental work, remote sensing, and modeling to better understand how changes in sea ice impact primary productivity, carbon cycling, and the entire Arctic ecosystem.

Claudette also teaches Introduction to the Marine Environment at Stanford and is committed to reducing barriers to student success. She is particularly interested in enhancing learning using evidence-based teaching strategies and prioritizing intention in course design and implementation. She also coaches club soccer at Stanford and enjoys arts and crafts.

HONORS AND AWARDS

- Enhancing Diversity in Graduate Education (EDGE) Fellowship, Stanford Vice Provost for Graduate Education (2021-2023)
- Dean's Graduate Scholar Award, Stanford School of Earth (2021)

EDUCATION AND CERTIFICATIONS

- Bachelor of Arts, Bowdoin College , Earth and Oceanographic Science, Hispanic Studies (2021)

Research & Scholarship

LAB AFFILIATIONS

- Kevin Arrigo, Ocean Biogeochemistry Lab (9/1/2021)

Teaching

COURSES

2026-27

- The Oceans: An Introduction to the Marine Environment: EARTHSYS 8, ESS 8 (Spr)

2025-26

- The Oceans: An Introduction to the Marine Environment: EARTHSYS 8, ESS 8 (Spr)

Publications

PUBLICATIONS

- **Evolution of an Extensive Under-Ice Phytoplankton Bloom in the Chukchi Sea** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
  Proctor, C., Mills, M. M., van Dijken, G. L., Lauer, J. A., Lim, S. M., Palm, A., Payne, C. M., Pickart, R. S., Mordy, C. W., Li, E., Prakash, M., Arrigo, K. R.
  2026; 131 (9)

- **Particle Interceptor Trap Deployments Demonstrate Enhanced Export Driven by Frontal Dynamics in the Chukchi Sea** *JOURNAL OF GEOPHYSICAL RESEARCH-OCEANS*
  Lauer, J. A., van Dijken, G. L., Mills, M. M., Pickart, R. S., Arlen, L., Lim, S. M., Li, E., Payne, C. M., Proctor, C., Zhong, G., Prakash, M., Michel, C., Arrigo, et al
  2026; 131 (9)

- **Light, ammonium, pH, and phytoplankton competition as environmental factors controlling nitrification** *LIMNOLOGY AND OCEANOGRAPHY*
  Proctor, C., Coupel, P., Casciotti, K., Tremblay, J., Zakem, E., Arrigo, K. R., Mills, M. M.
  2023

PRESENTATIONS

- Simulating Under-Ice Conditions to Examine Effects of UV Radiation on Phytoplankton in the Chukchi Sea - Ocean Sciences Meeting (AGU) (2/19/2024)
- Controls on nitrification in the Chukchi Sea - Polar Marine Science (Gordon Research Seminar) (3/15/2023)
- Paleoceanographic proxy reconstructions of Gulf of Maine pH: Coupling research and undergraduate learning goals in response to COVID-19 - American Geophysical Union (December 1, 2021)