

Matthew Illing

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EDUCATION

Stanford University

Ph.D., Oceans

Stanford, CA
Ongoing

University of Auckland

BAdvSci (Hons), Environmental Change, GPA: 8.4/9

Auckland, New Zealand
November 2022

RESEARCH EXPERIENCE

Graduate Student

Advisor: Rob Dunbar

Stanford University
Ongoing

- Reconstructing Indian and Pacific Ocean climate change and colonial histories from Mauritius and Easter Island corals. Investigating the carbon cycling and sequestration potential of New Zealand's fjords.

Graduate Student

Advisors: Lorna Strachan and Chris Moy

University of Auckland
2022

- Reconstructed the along-slope and down-slope marine geological flow processes at the Southern Chilean continental slope over the last 150,000 years from deep-sea sediment.

RESEARCH PUBLICATIONS

Illing, M.T. Strachan, L. J., Moy, C. M., Riesselman, C. R., Rigalleau, V., Arz, H. W., Lamy, F. (2025). Chilean margin sediments reveal millennial-scale Patagonian ice sheet fluctuations and Antarctic Circumpolar Current variability over the last 160,000 years. *Quaternary science reviews*, 356, 109280.

HONORS AND AWARDS

Stanford Oceans Science-Policy and Human Dimensions Fellowship (2025): Awarded \$1000 to travel to the AGU Ocean Sciences Meeting 2026 in Glasgow to present.

Stanford Center for African Studies Research Grant Recipient (2024): Awarded \$5000 to investigate past disease and paleoclimate using Mauritius corals.

Stanford King Center on Global Development Graduate Student Research Grant Recipient (2024): Awarded \$7000 to investigate past disease and paleoclimate using Mauritius corals.

Stanford Friends of Hopkins Research Grant Recipient (2024): Awarded \$6500 to investigate past disease and paleoclimate using Mauritius corals.

Stanford Doerr School of Sustainability Research Grant Recipient (2024): Awarded \$2500 to investigate past disease and paleoclimate using Mauritius corals.

Myers Oceanographic and Marine Biology Trust Grant Recipient (2024): Awarded \$1300 to fund research studying paleoclimate from Mauritius corals.

Freemason's Scholarship (2022): Awarded \$4000 to fund the tuition costs of my bachelor's degree.

13x Top in Course Awards (2019-2022): Awarded to the student with the highest overall grade in a course. Awards in Earth Science, Geology, GIS Science, Geography and Environmental Science courses.

Summer Research Scholarship (2022): Scholarship for high achieving undergraduate students to conduct summer research at the University of Auckland School of Environment. Stipend included.

Undergraduate Science Scholars Program (2019 - 2021): Scholarship program that supports students to conduct a research project with a University of Auckland faculty member during the academic year.

New Zealand Geographical Society Excellence in Geography Award (2020): Awarded to high achieving students in Geography at the University of Auckland.

SELECTED MEDIA COVERAGE

Le Mauricien, *Les enjeux des récifs coralliens et du réchauffement des océans*, coverage of the Coral Reefs and Ocean Warming (CROW2025) Workshop, University of Mauritius, 16 October 2025.

SELECTED SCIENTIFIC PRESENTATIONS

Illing, M.T., *Reconstructing Indian Ocean climate change from Mauritius corals*, University of Mauritius Coral Reefs and Ocean Warming Workshop, 15 October 2025.

Illing, M.T., Strachan, L.J., Moy, C.M., *Millennial-scale interplay of along-slope and offshore flow processes over the last 150,000 years at the Chilean margin*, University of Auckland Marine Geosciences Seminar, virtual, 10 September 2023.

TEACHING POSITIONS

Stanford University 2023-2025
Teaching Assistant

ESS 38N: The Science, Literature, and History of Polar Exploration
OCEANS 71: Planet Ocean

- Led weekly discussion lectures for students.
- Communicated all course announcements and managed the course website.
- Marked and provided feedback on assignments.

University of Auckland 2022
Teaching Assistant

Geography 101: Earth Surface Processes and Landforms

- Led workshops and labs for freshman students.
- Marking and providing feedback on all assignments and midterms.

MENTORING AND SERVICE POSITIONS

Stanford Doerr School of Sustainability Young Investigators Mentor Stanford University
Mentees: Daniel Kim, Sofia Polanco Summer 2025

- Supervised two high school students to complete a 10-week summer project in the Stanford Stable Isotope Biogeochemistry Lab focused on New Zealand fjord seawater isotopes.

United Nations Youth New Zealand 2019 - 2023
National Operations Officer and Event Coordinator

- Spearheaded the daily operations of New Zealand's largest youth-for-youth charity.

- Translated holistic visions to tangible outcomes and events.
- Guided and led nine seven teams to organize civics education events engaging thousands of New Zealand youth annually.
- Led small discussions of 30 students and moderated large student debates.

TECHNICAL SKILLS

Diving: AAUS Science Diver and NAUI Rescue Diver

Certifications: DAN DFA Pro First-Aid

Languages: Python, MATLAB, R

Tools: ArcGIS, QGIS, Adobe Illustrator and Photoshop, Google Earth Engine