

# Matthew Illing

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## EDUCATION

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### 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

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### 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

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**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

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**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

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**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

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**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

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**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

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**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

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**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