Sahana Aster KŌWHAI, Ph.D.

sahana.kowhai@example.edu | Staff profile

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Associate Professor of Palaeoclimatology, School of Earth and Ice Studies
Kārearea University,
Tideglass Research Cooperative, Ōtepoti Dunedin, Aotearoa New Zealand

Short Bio

Sahana Aster Kōwhai is a **fictional** palaeoclimatologist whose *research* reconstructs Southern Ocean change from marine sediment archives.

Research Focus

Southern Ocean palaeoceanography across glacial terminations, with an emphasis on multiproxy reconstructions, reproducible chronology and equitable Antarctic field partnerships.

Academic Appointments / Experience

- **Associate Professor of Palaeoclimatology** — *Feb 2021 – Present*
  Kārearea University, School of Earth and Ice Studies — Ōtepoti Dunedin, Aotearoa New Zealand
  - Cross-appointed affiliate of the Tideglass Research Cooperative.
- **Senior Lecturer in Marine Geology** — *Jul 2016 – Jan 2021*
  Aster Coast University, Koru School of Marine Records — nipaluna Hobart, Australia

Education

- **Ph.D. in Marine Geology** — *2010 – 2014*
  Aster Institute for Earth Records — Canberra, Australia
  - Thesis: Foraminiferal Mg/Ca and Southern Ocean warming across Termination I.
- **M.Sc. in Earth Sciences (First Class Honours)** — *2008 – 2009*
  Kōwhai Coast University — Cape Town, South Africa
- **B.Sc. in Geology and Oceanography** — *2005 – 2008*
  Tideglass Ocean Institute — Chennai, India

Teaching

- **Course coordinator and lecturer** — *2021 – Present*
  Kārearea University — Ōtepoti Dunedin, Aotearoa New Zealand

Course	Programme	Topics	Credit points
GEOL 273	B.Sc. Geology	Palaeoclimate archives; proxy calibration	18
GEOL 472	B.Sc. (Hons)	Marine cores; age-depth modelling	18
OCEN 405	M.Sc. Oceanography	Southern Ocean circulation; uncertainty	20

Editorial, Reviewing & Conference Service

- **Associate Editor** — *2023 – Present*
  Tideglass Climate Letters, Marine palaeoclimate
- **Associate Editor**
  Example Journal of Palaeoclimate Studies, 2022–2024 [***IF: 3.4, Q1***]
- **Scientific Steering Committee**
  Tideglass Research Cooperative, 2022–2026
- **Panel reviewer** — *2021 – Present*
  Kōwhai Research Trust
- **Reviewer**
  Open Core Review

Research Projects

- **TIDE — Termination Ice Dynamics and Ecosystems** *2024 – 2027*
  Kōwhai Research Trust, Principal investigator
  - Multiproxy reconstruction of Southern Ocean fronts across Termination II, with voyage support from the Southern Archive Voyage Consortium.
- **Open Core Chronologies** *2022 – 2025*
  Koru Basin Research Alliance, Co-investigator
  - Reusable age-depth models and provenance for legacy sediment cores.

Awards & Scholarships

- **Early Career Research Excellence Award** *2019*
  Kārearea Earth Forum
- **Tideglass Visiting Fellowship** *2017*
  Tideglass Research Cooperative Cambridge, United Kingdom

Student Supervision (Theses & Internships)

Current supervision: projects span marine geochemistry, chronology and open polar data.

Level	#	Notes (scope and international experience)
Doctoral candidates	4	Primary supervisor for two; co-supervisor for two
M.Sc. and honours researchers	9	Completed and current research dissertations

Additional Information

Languages: Tamil (Native), English (Fluent), te reo Māori (Intermediate learner)

Public engagement

- **Sediment stories: reading climate from ocean cores** *Sep 2025*
  Kōwhai Coast Learning Collective, Community workshop for secondary-school science teachers Ōamaru, Aotearoa New Zealand
- **Core archive open day** *Mar 2024*
  Aotearoa Marine Memory Trust, Public demonstration of core scanning and age-model uncertainty Porirua, Aotearoa New Zealand
- **Antarctic archives teacher residency** *Jul 2023*
  Polar Evidence Studio, Short course on proxy evidence for secondary-school teachers Ōtepoti Dunedin, Aotearoa New Zealand

Talks & Presentations

I=Invited

Invited and keynote talks

[I1] S. A. Kōwhai. "What an open sediment record should remember". Tideglass Earth Assembly (Bergen, Norway). Invited keynote. June 18, 2026.

Publications

J=Journal, C=Conference, B=Books, D=Data, R=Under review

Journal articles (peer-reviewed)

[J1] S. A. Kōwhai, M. Te Rangi, and C. Okafor. "Southern Ocean front migration recorded across two glacial terminations". In: *Koru Basin Records* 612 (2026), p. 111001.

[J2] S. A. Kōwhai, H. Williams, and T. Ndlovu. "Transparent age-depth ensembles for Southern Ocean sediment archives". In: *Tideglass Climate Letters* 20.8 (2024), pp. 1701–1724. URL: https://publications.example.edu/kowhai2024chronology.

Conference papers (peer-reviewed)

[C1] S. A. Kōwhai and M. Te Rangi. "Automated tephra isochron matching in Southern Ocean sediment cores". In: *Proceedings of the International Palaeoceanography Symposium*. Bergen, Norway, 2023, pp. 145–152. DOI: 10.5555/palaeo.2023.0145.

Books and chapters

[B1] S. A. Kōwhai. "Proxy agreement and disagreement in high-latitude marine archives". In: *Southern Ocean Palaeoceanography: Methods and Records*. Ed. by L. Navarro and K. Adeyemi. Cape Town: Aster Academic Press, 2023, pp. 81–108.

[B2] S. A. Kōwhai and C. Okafor. "Southern Ocean Foraminiferal Assemblages as Thermal Proxies". In: *Advances in Marine Palaeoecology*. Ed. by L. Navarro. Aster Academic Press, 2022. Chap. 4, pp. 89–112.

[B3] S. A. Kōwhai and M. Te Rangi. *Field Notes for Reciprocal Polar Science*. Ōtepoti Dunedin: Koru Open Books, 2021.

Data archives

[D1] S. A. Kōwhai and C. Okafor. *Pukaki Rise multiproxy core chronology, version 1.0*. Aotearoa Polar Data Commons, 2025. URL: https://data.example.edu/pukaki-rise-v1.

Manuscripts under review

[R1] S. A. Kōwhai and M. Te Rangi. “Shelf-water change at the Pacific Antarctic margin”. In: *Open Core Review* (2028).

[R2] S. A. Kōwhai and T. Ndlovu. “Sea-ice retreat and productivity at the East Antarctic margin”. In: *Tāwhirimātea Ice Records* (2027).

Example record. This curriculum vitae describes a fictional scholar and is supplied only to demonstrate the template.