

Mitchell Chandler, PhD.

Climate Scientist — Physical Oceanographer — Quantitative Researcher — Science Communicator

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Scientist with over 5 years of experience conducting independent and collaborative research, data analysis, technical writing, and science communication. Skilled at gathering, processing, analysing, and visualising large observational and model data sets to tackle complex problems. Strong communication and outreach abilities have enabled research insights to be effectively conveyed to specialist, government, stakeholder and public audiences.

Education

University of California San Diego 2019 – 2025

Doctor of Philosophy in Oceanography

Advised by: Dr. Nathalie Zilberman and Dr. Janet Sprintall

University of Auckland 2018

Bachelor of Science (with First Class Honours) in Geophysics

Advised by: Dr. Melissa Bowen and Dr. Rob Smith

University of Otago 2015 – 2017

Bachelor of Science in Marine Science and Geography

Experience

The Wilderness Society 2025 – present

Postdoctoral Energy and Climate Researcher

Scripps Institution of Oceanography 2019 – 2025

Graduate Research Scientist & Teaching Assistant

- Analysed large ocean, atmosphere, climate, and bathymetry observational data sets and model output using MATLAB to produce data-driven insights into ocean variability and its impacts.
- Constructed and validated statistical models that integrated data from multiple platforms.
- Communicated technical results and research findings to experts, government, and the public using written, oral, and visual formats (2 first-author journal publications, 18 presentations and 6 posters at international conferences, 3 public articles, 1 federal agency report, 1 exhibited art piece).
- Mentored two Master of Science students in data processing, coding, data analysis, and science writing.
- Created, planned and taught ocean, climate, and atmosphere courses to approximately 10 graduate students and over 100 undergraduate students for which I received an ‘Outstanding Teaching Assistant Award’.

American Geophysical Union 2024 – 2025

Science Policy Fellow

- Regularly met and discussed policy topics with a network of science policy professionals.

University of Otago 2019

Research Data Technician

- Organised and processed decades worth of coastal data using MATLAB and Microsoft Excel which provided collaborators the ability to access and use this data in research and local government projects.

University of Auckland 2018

Student Researcher

- Analysed 25 years of satellite data using MATLAB to understand mechanisms driving a coastal ocean current.
- Managed a time-sensitive research project to completion, resulting in 1 first-author journal publication.

Cawthron Institute 2016 – 2017

Research Intern

- Led the collection of remote sensing data and development of spatial analysis workflows to produce a model used to forecast coastal urbanisation and identify associated socioecological risks.

Technical Skills

MATLAB [>10-years], Julia [<1-year], R [<1-year], SQL [<1-year], Python [>1-year], Microsoft Office (Word, Excel, Powerpoint, Publisher), Google Suite (Docs, Slides, Forms), Affinity Designer, \LaTeX , Driver's License

Chandler M, Sprintall J, Zilberman NV. (in prep). ENSO influences subsurface marine heatwave occurrence in the Kuroshio Extension.

McTague S, Edwards C, Pedersen N, Cacapit A, **Chandler M**, Sandin S. (in prep). Who's next door? Using large-area imagery and GIS to understand neighbour patterns of coral and algae at Palmyra Atoll.

Chandler M, Zilberman NV, Sprintall J. (2024). The deep western boundary current of the Southwest Pacific Basin: insights from Deep Argo. *Journal of Geophysical Research: Oceans*. doi: [10.1029/2024JC021098](#)

Chandler M, Zilberman NV, Sprintall J. (2022). Seasonal to decadal western boundary current variability from sustained ocean observations. *Geophysical Research Letters*. doi: [10.1029/2022GL097834](#)

Floerl O, Atalah J, Bugnot AB, **Chandler M**, Dafforn KA, Floerl L, Zaiko A, Major R. (2021). A global model to forecast coastal hardening and mitigate associated socioecological risks. *Nature Sustainability*. doi: [10.1038/s41893-021-00780-w](#)

Chandler M, Bowen M, Smith RO. (2019). The Fiordland Current, southwest New Zealand: mean, variability, and trends. *New Zealand Journal of Marine and Freshwater Research*. doi: [10.1080/00288330.2019.1629467](#)

Additional Graduate-Level Coursework

Advanced Statistical Techniques, Applied Mathematics, Geophysical Fluid Dynamics, Fluid Mechanics, Numerical Modelling, Science Communication, Air-Sea Interactions