

# Mitchell Chandler

Physical Oceanographer — Climate Data Analyst — Science Communicator — PhD Candidate

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PhD Candidate with over 5-years of experience conducting independent research, data analysis, technical writing, and science communication. Skilled at processing, analysing, and visualising observational and model data to tackle complex problems in creative and effective ways. 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 – March 2025 (anticipated)

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

## Experience

### Scripps Institution of Oceanography

2019 – present

*Graduate Research Scientist & Teaching Assistant*

- Analysed large ocean, atmosphere, climate, and bathymetry data sets and model output using MATLAB and R to produce data-driven insights into ocean variability and the impacts of this variability.
- Communicated technical results and research findings to experts, government, and the public using written, oral, and visual formats (2 first-author journal publications, 17 presentations and 6 posters at international conferences, 3 public articles, 1 federal agency report, 1 exhibited art piece).
- Experience writing grants and independently brought in over \$70 000 of competitive external funding.
- Collaboratively reviewed over 100 press releases and articles as an Editorial and Publications team member.
- Mentored two Master of Science students in data processing, coding, data analysis, and science writing.
- Watch supervisor for multidisciplinary field teams that deployed instruments and collected samples.
- Created, planned and taught ocean, climate, and atmosphere courses to approximately 10 graduate students and over 100 undergraduate students for which I received the 'Outstanding Teaching Assistant Award 2023'.

### American Geophysical Union

2024 – present

*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

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MATLAB (>10-years), R (>1-year), SQL (<1-year), Python (<1-year), Microsoft Office (e.g. Word, Excel, PowerPoint, Publisher), Google Suite (e.g. Docs, Slides, Forms), Affinity Designer, ~~Blender~~Blender, Driver's License

**Chandler M**, Sprintall J, Zilberman NV. (in prep). The influence of ENSO on 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](#)

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#### *Additional Graduate-Level Coursework*

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

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#### *References*

Dr. Nathalie Zilberman | [nzilberman@ucsd.edu](mailto:nzilberman@ucsd.edu) | PhD Advisor (Scripps Institution of Oceanography)

Dr. Janet Sprintall | [jsprintall@ucsd.edu](mailto:jsprintall@ucsd.edu) | PhD Co-advisor (Scripps Institution of Oceanography)

Sarah McTague | [sarah@csp-inc.org](mailto:sarah@csp-inc.org) | Collaborator (Conservation Science Partners)

Additional references available upon request.