

**Dr. Jacob T. Cohen**  
Postdoctoral Scholar, UW/CICOES

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## Education

2025 Ph.D., Oceanography: Advanced Data Science, *University of Washington The Ocean's Role in Air-Sea Interaction and Climate Predictability*

2023 M.S., Oceanography, *University of Washington*

2019 B.A., Physics, *Carleton College*

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## Research Positions

2026–present Postdoctoral Scholar, *University of Washington, Cooperative Institute for Climate, Ocean, and Ecosystem Studies (CICOES)*  
Advisors: *Zach Erickson, Emily Lemagie, Al Hermann, Wei Cheng*

2019–2025 Graduate Research Assistant, *University of Washington*  
Advisor: *LuAnne Thompson*

2018 REU Research Assistant, *The Pennsylvania State University*  
Advisors: *Sukyoung Lee, Raymond Najjar, Qian Li*

2017 Undergraduate Research Assistant, *Universidad Nacional de Costa Rica*  
Advisors: *Sergio Molina, Vanessa Valerio Hernandez, Fabiola Rodriguez*

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## Publications

3. Cai, C., **Cohen, J. T.**, Scannell, H., Staneva, V., & Thompson, L. (2025). Ocetrac: An Object-based Framework for Tracking and Quantifying Climate Events in Gridded Datasets, *SciPy Conference Proceedings*. <https://doi.org/10.25080/vxkf4244>
2. Kohlman, C., Mogen, S., **Cohen, J. T.**, Araujo, J., Beaudin, E., Bonino, G., et al. (2025). Surface and subsurface biogeochemical impacts of the 2019 Northeast Pacific marine heatwave. *Geophysical Research Letters*, 52, e2025GL115230. <https://doi.org/10.1029/2025GL115230>
1. **Cohen, J. T.**, Thompson, L., Maroon, E., Deppenmeier, A.-L., & Cai, C. (2025). Object-based evaluation of seasonal-to-multiyear marine heatwave predictions. *Geophysical Research Letters*, 52, e2025GL115021. <https://doi.org/10.1029/2025GL115021>

### In review

Richter, J. H. & Coauthors (incl. **Cohen, J. T.**) Earth system predictability across time scales for a resilient society: A research community perspective, *Bull. Am. Meteorol. Soc. (accepted)*

Cai, C., Thompson, L., Maroon, E. A., Deppenmeier A.-L., **Cohen, J. T.**, & Staneva, V., Drivers of marine heatwaves in the North Pacific Ocean, *Journal of Climate*

## Presentations

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2025

- 24. Scipy 2025  
*Ocetrac: Tracking and Quantifying Gridded Structures in Climate Data, poster*
- 23. CAMAS Workshop and Early Career School  
*Sources of predictability in seasonal forecasts of September Arctic sea ice, oral*

2024

- 22. AGU Fall Meeting  
*Object-based evaluation of marine heatwave predictions, poster*
- 21. Graduate Climate Conference  
*Sources of predictability in skillful Arctic sea ice forecasts, oral*
- 20. NOAA's Subseasonal and Seasonal Applications Workshop  
*Object-based evaluation of marine heatwave forecasts, oral*
- 19. Liège Colloquium on Ocean Dynamics  
*Object-based evaluation of marine heatwave predictions, oral*
- 18. Earth System Predictability Across Timescales Workshop  
*Object-based evaluation of marine heatwave predictions, poster*
- 17. CESM Earth System Prediction Working Group Meeting  
*Object-based evaluation of marine heatwave predictions in SMYLE, oral*
- 16. Ocean Sciences Meeting  
*Predicting the spatiotemporal evolution of marine heatwaves, oral*

2023

- 15. Graduate Climate Conference  
*Predicting the spatiotemporal evolution of marine heatwaves, oral*
- 14. ICTP–CLIVAR Summer School on Marine Heatwaves  
*Predicting the spatiotemporal evolution of marine heatwaves, poster*
- 13. UW Data Science Seminar  
*Characterizing the spatiotemporal evolution of marine heatwaves, oral*
- 12. US CLIVAR Mesoscale and Frontal-Scale Air-Sea Interactions Workshop  
*The seasonal cycle of the ocean's role in driving air-sea interaction, poster*

2022

- 11. AGU Fall Meeting  
*Seasonal variation in the relative roles of oceanic and atmospheric processes in driving air-sea interaction, oral*
- 10. Graduate Climate Conference  
*Quantifying the relative roles of atmospheric and oceanic processes in driving air-sea interaction in the Gulf Stream region, poster*
- 9. US CLIVAR Whither the Gulf Stream Workshop  
*Quantifying the relative roles of atmospheric and oceanic processes in driving air-sea interaction in the Gulf Stream region, poster*

8. Ocean Sciences Meeting  
*Seasonal variation in the effective depth of air-sea interaction, oral*

2021      7. Oceanography Graduate Student Symposium  
*The effective depth of air-sea interaction, oral*

6. Graduate Climate Conference  
*The effective depth of air-sea interaction on monthly and seasonal timescales, poster*

5. Northwest Climate Conference  
*Actionable Community-Oriented Research eNgagement (ACORN) with the UW Program on Climate Change, lightning talk*

2020      4. AGU Fall Meeting  
*Timescales of atmosphere-ocean interaction in the Southern Ocean, oral*

3. Graduate Climate Conference  
*Timescales of atmosphere-ocean interaction in the Southern Ocean, poster*

2018      2. AGU Fall Meeting  
*Is jet-scale overturning circulation present in the North Atlantic Ocean?, poster*

1. Carleton College Student Research Symposium & Celebration  
*Is jet-scale overturning circulation present in the North Atlantic Ocean?, poster*

## Software

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Ocetrac (<https://github.com/ocetrac/ocetrac>; <https://doi.org/10.5281/zenodo.14736769>)  
heatwave3 (<https://robschlegel.github.io/heatwave3/index.html>)

## Fellowships and Awards

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2025      RUA Research Exchange Award

2025      CICOES Graduate Student Fellowship

2023      Graubard Fellowship in the Program on Climate Change

2021      NSF GRFP Honorable Mention

2019–2020      University of Washington Provost’s Fellowship

2018      Kolenkow-Reitz Undergraduate Research Fellowship

## Community Engagement and Service

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2025–2026      Full Member, SubMHW-WG SCOR Working Group #175

2025      Speaker, The Weather & Climate Livestream

2025      Member, Marine Heatwave Early Career Ocean Professionals (ECOP)

2023–2025      Reviewer, Journal of Climate

2021–2025      Liaison, Actionable Community-Oriented Research eNgagement (ACORN) and the Clean Energy Transition Institute

## Dr. Jacob T. Cohen

2020–2022	Member, Program on Climate Change Graduate Steering Committee
2020–2022	Lead, Actionable Community-Oriented Research eNgagement (ACORN)
2020–2022	Executive Committee Member, Graduate Climate Conference
2021	Chair, Graduate Climate Conference
2021	Convener, Innovative Initiatives in Conducting Community-Based Science and Training the Next Generation of Practitioners (AGU Fall Meeting)
2020	Member, Summer Committee for Social and Environmental Justice, UW
2020	Volunteer, Climate Change // Curiosity Expo, Pacific Science Center

## Teaching Experience

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2021–2025	Ultimate Frisbee Coach <i>High school assistant coach (2021), middle school head coach (2022–2025) Seattle Waldorf School, Seattle, WA</i>
2025	Substitute Teacher <i>6<sup>th</sup>–12<sup>th</sup> grades, The Bush School, Seattle, WA</i>
2024	Guest Speaker, Data Science in Oceanography Summer Research Program <i>Object-Based Evaluation of Marine Heatwave Predictions</i>
2024	Guest Lecturer, ATM S 220: Exploring the Atmospheric Sciences <i>The Ocean and the Climate: Air-sea interaction, climate variability, and marine heatwaves</i>
2021, 2024	Teaching Assistant, Ocean 285–Physics Across Oceanography: Fluid Mechanics and Waves, University of Washington
2023	Guest Speaker, Data Science in Oceanography Summer Research Program <i>Detecting Tracking, and Predicting Marine Heatwaves</i>

## Workshop Participation

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2025	Consortium for the Advancement of Marine Arctic Science (CAMS) Workshop and Early Career School
2024	Physical Oceanography Dissertation Symposium XIII
2024	NOAA's Subseasonal and Seasonal Applications Workshop
2024	Earth System Predictability Across Timescales Workshop (NSF NCAR)
2023	US CLIVAR Summit
2023	ICTP-CLIVAR Summer School on Marine Heatwaves
2023	US CLIVAR Mesoscale and Frontal-Scale Air-Sea Interactions Workshop
2022	Grid SST Hackathon (University of Washington)
2022	NASA Summer School on Satellite Observations and Climate Models
2022	US CLIVAR Whither the Gulf Stream Workshop
2020	CESM Tutorial (NSF NCAR)