

SLOAN COATS

Curriculum Vitae

University of Hawai'i at Mānoa
1680 East-West Road
Honolulu, HI 96822

Phone: 808-956-7889
E-mail: scoats@hawaii.edu
Web: scoatsclim.github.io

PROFESSIONAL APPOINTMENTS

University of Hawai'i, Mānoa, HI Assistant Professor, Department of Earth Sciences	2019-
Woods Hole Oceanographic Institution, Woods Hole, MA Assistant Scientist, Department of Geology and Geophysics	2018-2019
National Center for Atmospheric Research, Boulder, CO Advanced Studies Program	2016-2017
University of Colorado, Boulder, CO CIRES Research Associate	2015-2016

TEACHING ACTIVITIES

University of Hawai'i, Dept. of Earth Sciences, Mānoa, HI Instructor: EARTH 413/613: Introduction to Statistics and Data Analysis Instructor: EARTH 250: Scientific Programming Instructor: EARTH 135: Natural Disasters and Human History	Spring 2023, 2025 Fall 2020-2024 Spring 2020, 2024
MIT-WHOI Joint Program, Woods Hole, MA Instructor: Geodynamics Seminar Series: North Atlantic Climate and Civilization Instructor: Current Climate Change Topics	Spring 2019 Fall 2018
University of Colorado, Dept. of Atmospheric and Oceanic Sciences, Boulder, CO Lecturer: Atmospheric and Oceanic Sciences 1060: Our Changing Environment	Spring 2016
Columbia University, Dept. of Earth & Environmental Sciences, New York, NY Teaching Assistant: Earth and Environmental Science 2100: The Climate System Teaching Assistant: Earth and Environmental Science 2100: The Climate System	Fall 2012 Fall 2011

EDUCATION

Columbia University, New York, NY Ph.D., Atmospheric Science, Department of Earth and Environmental Sciences* M.A., Atmospheric Science, Department of Earth and Environmental Sciences <i>*Dissertation awarded the Science for Society Prize</i>	2015 2012
University of California at Berkeley, Berkeley, CA B.A., <i>High Honors</i> , Environmental Economics and Policy	2009

PUBLICATIONS**Submitted and In Review**

8. Ellison, L. and **S. Coats**, The drivers and impacts of future analogues of the 2011-2014 drought in the western and central United States, *Nature Climate Change*, submitted.
7. Sullivan, R.M., P.J. van Hengstum, E.J. Wallace, **S. Coats**, J.P. Donnelly, R. Korty, S.N. Little, L. Mejia-Ortiz, E.G. Reinhardt, C. Schumacher, A.E. Tamalavage and T.S. Winkler, Yucatan Hurricane Activity Highlights Common Era Tropical Cyclone Dipole, *Geophysical Research Letters*, in review.
6. Ultee, L., F. Wimberly, **S. Coats**, J. Mackay and E. Holmgren, Climate model uncertainty outweighs glacier model uncertainty in 21st-century drought buffering projections, *Hydrology and Earth System Sciences*, in review.
5. van Hengstum, P.J., S.N. Little, R.M. Sullivan, J.P. Donnelly, T.S. Winkler, A.E. Tamalavage, P.A. Beddows, P.L. Fall, J. Du, N.A. Albury and **S. Coats**, Common Era seasonality changes drive Caribbean hydroclimate, *Nature Geoscience*, in review.
4. Thompson, P.R., K. Leon, C.G. Piecuch, **S. Coats**, S. Dangendorf, B.D. Hamlington and Thomas Wahl, The Global South is disproportionately vulnerable to rapid increases in coastal flooding, *Nature Climate Change*, in review.
3. Karnauskas, K.B., R.S. Nerem, J.T. Fasullo, A. Bellas-Manley, P.R. Thompson, M.A. Merrifield, **S. Coats**, D.P. Changers and B.D. Hamlington, Diagnosing Regional Sea Level Change Over the Altimeter Era, *Journal of Geophysical Research: Oceans*, in review.
2. Ellison, L. and **S. Coats**, Quantifying the roles for structural uncertainty and intrinsic climate variability in determining the atmosphere-ocean conditions that drive western and central North American drought, *Journal of Climate*, in review.
1. Coats, S., P.R. Thompson, C.G. Piecuch, J.T. Fasullo, B.D. Hamlington, K.B. Karnauskas, R.S. Nerem, A.R. Rodriguez, J.M. Steniberg and J. Busecke, Understanding the role for internal variability in driving past and future ocean dynamic sea-level trends in CMIP6 simulations, *Journal of Climate*, in review.

Published and In Press

57. Wimberly, F., L. Ultee, L. Schuster, M. Huss, D.R. Rounce, F. Mansion, **S. Coats**, J. Mackay and E. Holmgren, Climate model uncertainty outweighs glacier model uncertainty in 21st-century drought buffering projections, *The Cryosphere*, accepted.
56. Falster, G., **S. Coats** and N. Abram, How Unusual Was Australia's 2017-2019 Tinderbox Drought?, *Weather and Climate Extremes*, 2024. DOI: <https://doi.org/10.1016/j.wace.2024.100734>
55. Devanand, A., G.M. Falster, Z.E. Gillett, S. Hobeichi, C.M. Holgate, C. Jin, M. Mu, T. Parker, S.W. Rifai, K.S. Rome, M. Stojanovic, E. Vogel, N. Abram, G. Abramowitz, **S. Coats**, et al., Australia's Tinderbox Drought: an extreme natural event likely worsened by human-caused climate change, *Science Advances*, in press.
54. Ellison, L. and **S. Coats**, A framework for assessing the drivers and impacts of drought events: the contemporary drought in the western and central United States, *Journal of Climate*, 2024. DOI: <https://doi.org/10.1175/JCLI-D-23-0473.1>

53. Steinberg, J.M., C.G. Piecuch, B.D. Hamlington, P.R. Thompson, and **S. Coats**, Influence of Deep-Ocean Warming on Coastal Sea-Level Decadal Trends in the Gulf of Mexico, *Journal of Geophysical Research: Oceans*, 2024. DOI: <https://doi.org/10.1029/2023JC019681>
52. Tamalavage, A.E. , P.J. van Hengstum, S.J. Feakins, S.N. Little, **S. Coats**, T.S. Winkler, R.M. Sullivan, P. Louchouart, J.P. Donnelly and N.A. Albury, Middle to late Holocene paleolimnology of a sinkhole lake in the northern Bahamas, and its linkage to regional climate variability, *Journal of Paleolimnology*, 2023. DOI: <https://doi.org/10.1007/s10933-023-00291-y>
51. Bhattacharya, T., R. Fang, C.R. Maupin, **S. Coats**, P.R. Brennan and E. Carter, California margin temperatures modulate regional circulation and extreme summer precipitation in the desert Southwest, *Environmental Research Letters*, 2023. DOI: <https://doi.org/110.1088/1748-9326/acfd43>
50. Falster, G., B. Konecky, **S. Coats** and S. Stevenson, Forced changes in the Pacific Walker circulation over the past millennium, *Nature*, 2023. DOI: <https://doi.org/10.1038/s41586-023-06447-0>
49. Janiszewski, H.A., Z. Eilon, J. Russell, B. Brunsvik, J. Gaherty, S. Mosher, W. Hawley and **S. Coats**, Broad-band Ocean Bottom Seismometer Noise Properties, *Geophysical Journal International*, 2022. DOI: <https://doi.org/10.1093/gji/ggac450>
48. Evans, C.P., T. Ault, **S. Coats**, C.M. Carrillo, X. Li, D.A. Herrera, B.N. Benton, Intrinsic century-scale variability in tropical Pacific sea surface temperatures and their influence on southwestern US hydroclimate, *Geophysical Research Letters*, 2022. DOI: <https://doi.org/10.1029/2022GL099770>
47. Carrillo, C.M., **S. Coats**, M. Newman, D.A. X. Li, R. Moore, S. Shin, S. Stevenson, F. Lehner and T. Ault, Megadrought: A series of unfortunate La Niña events, *Journal of Geophysical Research: Atmospheres*, 2022. DOI: <https://doi.org/10.1029/2021JD036376>
46. Cook, B.I., J.E. Smerdon, E.R. Cook, A.P. Williams, K.J. Anchukaitis, J.S. Mankin, K. Allen, L. Andreu-Hayles, T.R. Ault, S. Belmecheri, **S. Coats**, et al., Megadroughts in the Common Era and the Anthropocene, *Nature Review Earth Environment*, 2022. DOI: <https://doi.org/10.1038/s43017-022-00329-1>
45. Scheff, J., **S. Coats** and M. Laguë, Why do the global warming responses of land-surface models and climatic dryness metrics disagree, *Earth's Future*, 2022. DOI: <https://doi.org/10.1029/2022EF002814>
44. Li, S., T. Wahl, A. Barroso, **S. Coats**, S. Dangendorf, C.G. Piecuch, Q. Sun, P.R. Thompson and L. Liu, Contributions of different sea-level processes to high-tide flooding along the U.S. coastline, *Journal of Geophysical Research: Oceans*, 2022. DOI: <https://doi.org/10.1029/2021JC018276>
43. Ultee, L., **S. Coats** and J. Mackay, Glacial runoff buffers droughts through the 21st century, *Earth System Dynamics Discussions*, 2022. DOI: <https://doi.org/10.5194/esd-13-935-2022>
42. Mikkelsen, A.B., T.R. Anderson, **S. Coats** and C.H. Fletcher, Complex drivers of reef-fronted beach change, *Marine Geology*, 2022. DOI: <https://doi.org/10.1016/j.margeo.2022.106770>
41. Stevenson, S., **S. Coats**, D. Touma, J. Cole, F. Lehner, J. Fasullo and B. Otto-Bliesner, 21st Century Hydroclimate: A Continually Changing Baseline, with Stronger Extremes, *Proceedings of the National Academy of Sciences*, 2022. DOI: <https://doi.org/10.1073/pnas.2108124119>
40. Piecuch, C.G., **S. Coats**, S. Dangendorf, F.W. Landerer, J.T. Reager, P.R. Thompson and T. Wahl, High-tide floods and storm surges during atmospheric rivers on the US west coast, *Geophysical Research Letters*, 2022. DOI: <https://doi.org/10.1029/2021GL096820>

39. Gulev S.K., P.W. Thorne, J. Ahn, F.J. Dentener, C.M. Domingues, S. Gerland, D. Gong, D.S. Kaufman, H.C. Nnamchi, J. Quaas, J.A. Rivera, S. Satheyendranath, S.L. Smith, B. Trewin, K. von Schuckmann and R.S. Vose, Chapter 2: Changing state of the climate system. In: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*, **Cambridge University Press**, 2021. [Contributing Authors: G. Aðalgeirsdóttir, S. Albani, R.P. Allan, R.A. Betts, L. Beusch, K. Beyene, J.E. Box, D. Breitburg, K.D. Burke, M.P. Byrne, J.A. Church, **S. Coats**, N. Cohen, W. Collins, O.R., Cooper, P. Di Nezio, F.B. Dias, P.J. Durack, et al.]
38. Lehner F. and **S. Coats**, Does regional hydroclimate change scale linearly with global warming, ***Geophysical Research Letters***, 2021. DOI: <https://doi.org/10.1029/2021GL095127>
37. Osman, M.B., **S. Coats**, S.B. Das, J.R. McConnell and N. Chellman, A 13 century context for north Atlantic jet stream projections, ***Proceedings of the National Academy of Sciences***, 2021. DOI: <https://doi.org/10.1073/pnas.2104105118>
36. Falster, G.M., B. Konecky, M. Madhavan, S. Stevenson and **S. Coats**, Imprint of the Pacific Walker Circulation in global precipitation $\delta^{18}O$, ***Paleoceanography and Paleoclimatology***, 2021. DOI: <https://doi.org/10.1175/JCLI-D-21-0190.1>
35. Sullivan, R.M., P.J. van Hengstum, **S. Coats**, J.P. Donnelly, A.E. Tamalavage, T.S. Winkler and N.A. Albury, Hydroclimate dipole drives multi-centennial variability in the western tropical north Atlantic margin during the middle and late Holocene, ***Paleoceanography and Paleoclimatology***, 2021. DOI: <https://doi.org/10.1029/2020PA004184>
34. Scheff, J., J.S. Mankin, **S. Coats** and Haibo Liu, CO₂-plant effects do not account for the gap between dryness indices and projected dryness impacts in CMIP6 or CMIP5, ***Environmental Research Letters***, 2021. DOI: <https://doi.org/10.1088/1748-9326/abd8fd>
33. Wallace, E.J., **S. Coats**, K. Emanuel and J.P. Donnelly, Centennial-scale shifts in storm frequency captured in paleohurricane records from the Bahamas arise predominantly from random variability, ***Geophysical Research Letters***, 2021. DOI: <https://doi.org/10.1029/2020GL091145>
32. Touma, D., S. Stevenson, F. Lehner and **S. Coats**, Human-driven greenhouse gas and aerosol emissions cause distinct regional impacts on extreme fire weather, ***Nature Communications***, 2021. DOI: <https://doi.org/10.1038/s41467-020-20570-w>
31. Stevenson, S., A.T. Wittenberg, J.T. Fasullo, **S. Coats** and B. Otto-Bliesner, Understanding Diverse Model Projections of Future Extreme El Niño, ***Journal of Climate***, 2021. DOI: <https://doi.org/10.1175/JCLI-D-19-0969.1>
30. Tamalavage, A.E., P.J. van Hengstum, P. Louchouart, P.L. Fall, J.P. Donnelly, N.A. Albury, **S. Coats** and S.J. Feakins, Plant wax evidence for precipitation and vegetation change from a coastal sinkhole lake in the Bahamas spanning the last 3000 years, ***Organic Geochemistry***, 2020. DOI: <https://doi.org/10.1016/j.orggeochem.2020.104120>
29. **Coats, S.**, J.E. Smerdon, S. Stevenson, J.T. Fasullo, B. Otto-Bliesner and T.R. Ault, Paleoclimate constraints on the spatiotemporal character of past and future droughts, ***Journal of Climate***, 2020. DOI: <https://doi.org/10.1175/JCLI-D-20-0004.1>
28. Mankin, J.S., F. Lehner, **S. Coats** and K.A. Mickinnon, The value of initial condition large ensembles to robust adaptation decision-making, ***Earth's Future***, 2020. DOI: <https://doi.org/10.1029/2020EF001610>
27. Bhattacharya, T. and **S. Coats**, Atlantic-Pacific gradients drive last millennium hydroclimate variability in Mesoamerica, ***Geophysical Research Letters***, 2020. DOI: <https://doi.org/10.1029/2020GL088061>

26. Fan, W., J.J. McGuire, C.D. de Groot-Hedlin, M.A. Hedlin, **S. Coats** and J.W. Fielder, Stormquakes, *Geophysical Research Letters*, 2019. DOI: <https://doi.org/10.1029/2019GL084217>

Before UHM

25. Parsons, L.A. and **S. Coats**, Ocean-Atmosphere trajectories of extended drought in southwestern North America, *Journal of Geophysical Research: Atmospheres*, 2019. DOI: <https://doi.org/10.1029/2019JD030424>
24. Cook, B.I., A.P. Williams, J.E. Smerdon, J.G. Palmer, E.R. Cook, D.W. Stahle and **S. Coats**, Cold tropical Pacific sea surface temperatures during the late sixteenth century North American megadrought, *Journal of Geophysical Research: Atmospheres*, 2019. DOI: <https://doi.org/10.1029/2018JD029323>
23. Samanta, D., K.B. Karnauskas, N. Goodkin, **S. Coats**, J.E. Smerdon and L. Zhang, Coupled model biases breed spurious low-frequency variability in the tropical pacific ocean, *Geophysical Research Letters*, 2018. DOI: <https://doi.org/10.1029/2018GL079455>
22. Herrera-Hernandez, D.A., T.R. Ault, J.T. Fasullo, **S. Coats**, C.M. Carrillo, B.I. Cook and A.P. Williams, Exacerbation of the 2013-2016 Pan-Caribbean drought by anthropogenic warming, *Geophysical Research Letters*, 2018. DOI: <https://doi.org/10.1029/2018GL079408>
21. Cook, B.I., A.P. Williams, J.E. Smerdon, J.G. Palmer, E.R. Cook, D.W. Stahle and **S. Coats**, Cold tropical Pacific sea surface temperatures during the late sixteenth-century North American megadrought, *Journal of Geophysical Research: Atmospheres*, 2018. DOI: <https://doi.org/10.1029/2018JD029323>
20. Parsons, L., **S. Coats** and J.T. Overpeck, The continuum of drought in Southwestern North America, *Journal of Climate*, 2018. DOI: <https://doi.org/10.1175/JCLI-D-18-0010.1>
19. **Coats, S.** and K.B. Karnauskas, A role for the Equatorial Undercurrent in the ocean dynamical thermostat, *Journal of Climate*, 2018. DOI: <https://doi.org/10.1175/JCLI-D-17-0513.1>
18. Stevenson, S., J.T. Overpeck, J. Fasullo, **S. Coats**, L. Parsons, B. Otto-Bliesner, T. Ault, G. Loope and J. Cole, Climate Variability, Volcanic Forcing, and Last Millennium Hydroclimate Extremes, *Journal of Climate*, 2018. DOI: [10.1175/JCLI-D-17-0407.1](https://doi.org/10.1175/JCLI-D-17-0407.1)
17. Ault, T., S. St. George, J.E. Smerdon, **S. Coats**, J.S. Rankin, C.C. Carillo, B.I. Cook and S. Stevenson, A robust null hypothesis for the potential causes of megadrought in western North America, *Journal of Climate*, 2018. DOI: [10.1175/JCLI-D-17-0154.1](https://doi.org/10.1175/JCLI-D-17-0154.1)
16. **Coats, S.** and K.B. Karnauskas, Are simulated and observed 20th century tropical Pacific sea surface temperature trends significant relative to internal variability?, *Geophysical Research Letters*, 2017. DOI: [10.1002/2017GL074622](https://doi.org/10.1002/2017GL074622)
15. Smerdon, J.E., J. Luterbacher, S.J. Phipps, K.J. Anchukaitis, T. Ault, **S. Coats**, et al., Comparing proxy and model estimates of hydroclimate variability and change over the Common Era, *Climate of the Past Discussions*, 2017. DOI: [10.5194/cp-13-1851-2017](https://doi.org/10.5194/cp-13-1851-2017)
14. Lehner, F., **S. Coats**, T.F. Stocker, A.G. Pendergrass, B.M. Sanderson, C.C. Raible and J.E. Smerdon, Projected drought risk in 1.5°C and 2.0°C warmer climates, *Geophysical Research Letters*, 2017. DOI: [10.1002/2017GL074117](https://doi.org/10.1002/2017GL074117)
13. Baek, S.H., J.E. Smerdon, **S. Coats**, B.I. Cook, R. Seager and A.P. Williams, Seasonality and teleconnection signals across the North American, Monsoon Asia, and Old World Drought Atlas, *Journal of Climate*, 2017. DOI: [10.1175/JCLI-D-16-0766.1](https://doi.org/10.1175/JCLI-D-16-0766.1)

12. Scheff, J., R. Seager, H. Liu and **S. Coats**, Are glacials dry? Consequences for paleoclimatology and for greenhouse warming, *Journal of Climate*, 2017. DOI: 110.1175/JCLI-D-16-0854.1
11. **Coats, S.** and J.S. Mankin, The challenge of accurately quantifying future megadrought risk in the American Southwest, *Geophysical Research Letters*, 2016. DOI: 10.1002/2016GL070445
10. **Coats, S.**, J.E. Smerdon, B.I. Cook, R. Seager, E.R. Cook and K.J. Anchukaitis, Internal ocean-atmosphere variability drives megadroughts in Western North America, *Geophysical Research Letters*, 2016. DOI: 10.1002/2016GL070105
9. **Coats, S.**, J.E. Smerdon, K.B. Karnauskas and R. Seager, The improbable but unexceptional occurrence of North American megadrought clustering during the Medieval Climate Anomaly, *Environmental Research Letters*, 2016. DOI: 10.1088/1748-9326/11/7/074025
8. Cook, B.I., E.R. Cook, J.E. Smerdon, R. Seager, A.P. Williams, **S. Coats**, D.W. Stahle and J.V. Diaz, North American megadroughts in the Common Era: Reconstructions and simulations, *WIREs Climate Change*, 2016. DOI: 10.1002/wcc.394
7. **Coats, S.**, D. Griffin, R. Seager, J.E. Smerdon and B.I. Cook, Winter-to-summer precipitation phasing in southwestern North America: A multi-century perspective from paleoclimatic model-data comparisons, *Journal of Geophysical Research: Atmospheres*, 2015. DOI: 10.1002/2015JD023085
6. Smerdon, J.E., **S. Coats** and T.R. Ault, Model-dependent spatial skill in pseudoproxy experiments testing climate field reconstruction methods for the Common Era, *Climate Dynamics*, 2015. DOI: 10.1007/s00382-015-2684-0
5. **Coats, S.**, B.I. Cook, J.E. Smerdon and R. Seager, North American pan-continental droughts in model simulations of the last millennium, *Journal of Climate*, 2015. DOI: 10.1175/JCLI-D-14-00634.1
4. **Coats, S.**, J.E. Smerdon, B.I. Cook and R. Seager, Are simulated megadroughts in the North American southwest forced?, *Journal of Climate*, 2015. DOI: 10.1175/JCLI-D-14-00071.1
3. Cook, B.I., J.E. Smerdon, R. Seager and **S. Coats**, Global warming and 21st century drying, *Climate Dynamics*, 2014. DOI: 10.1007/s00382-014-2075-y
2. **Coats, S.**, J.E. Smerdon, B.I. Cook and R. Seager, Stationarity of the tropical Pacific teleconnection to North America in the CMIP5/PMIP3 model simulations, *Geophysical Research Letters*, 2013. DOI: 10.1002/grl.50938
1. **Coats, S.**, J.E. Smerdon, R. Seager, B.I. Cook and J.F. González-Rouco, Megadroughts in southwestern North America in millennium-length ECHO-G simulations and their comparison to proxy drought reconstructions, *Journal of Climate*, 2013. DOI: 10.1175/JCLI-D-12-00603.1

Non Peer-Reviewed

1. **Coats, S.** and J.E. Smerdon, Climate variability: The Atlantic's internal drum beat, *Nature Geoscience*, 2017. DOI: 10.1038/ngeo2970

Comment and Reply

1. Stuecker, M.F., C. Karamperidou, A.D. Nugent, G. Torri, **S. Coats** and S. Businger, Comments on "The financial dilemma of students pursuing an atmospheric science graduate degree in the United States", *Bulletin of the American Meteorological Society*, 2021. DOI: <https://doi.org/10.1175/BAMS-D-20-0265.1>

SELECTED PRESENTATIONS

14. **Coats, S.** and G. Walker, Hydroclimate model-(paleo)data comparisons from global compilations to gridded fields and single timeseries: Challenges and opportunities, University of Washington Department of Oceanography (Oral—invited), Georgia Institute of Technology School of Earth Atmospheric Sciences (Oral—invited), PAGES 2k TSM, 2023 (Oral—invited).
13. **Coats, S.** and G. Walker, Understanding the climate signals recorded by proxy records through a combined analysis of an isotope enabled climate model, CESM Workshop, 2024 (Oral).
12. **Coats, S.** and P. Thompson, Patterns of sea-level change in the altimeter record as compared to CMIP6 historical simulations, IUGG, 2023 (Oral), OSTST, 2023 (Oral).
11. **Coats, S.** and L. Ellison, Large-scale drivers and local-scale impacts of simulated analogs of the contemporary drought in the western United States, CESM2 Large Ensemble Workshops 1 and 2, 2021 and 2022 (Oral), AGU Fall Meeting, 2021 (Oral), IUGG, 2023 (Oral).
10. **Coats, S.**, Reconciling contradictory tropical Pacific climate changes with the equatorial undercurrent, Princeton Climate Seminar Series, 2018 (Oral), UConn Center for Integrative Geosciences Seminar Series, 2018 (Oral), UCSB Speakers Club, 2019 (Oral), OCN 620, 2022 (Oral)
9. **Coats, S.**, Paleoclimate constraints on the spatiotemporal scales of past and future droughts in climate models, GFDL Formal Seminar, 2017 (Oral), PAGES OSM, 2017 (Oral), AGU Fall Meeting, 2017 (Oral), University of Hawaii Atmospheric Science Seminar, 2020 (Oral).
8. **Coats, S.**, Characterizing North American droughts under different forcings in the CESM LME, PAGES YSM, 2017 (Poster), CESM Working Group Meeting, 2017 (Poster), LDEO Ocean and Climate Physics Seminar, 2019 (Oral).
7. **Coats, S.** and K.B. Karnauskas, Global warming and tropical Pacific sea surface temperature: Why models and observations do not agree, AGU Fall Meeting, 2016 (Oral) and EGU Meeting, 2017 (Oral).
6. **Coats, S.**, J.E. Smerdon, B.I. Cook, R. Seager, E.R. Cook and K.J. Anchukaitis, Internal ocean-atmosphere variability drives megadroughts in Western North America, CLIVAR Workshop on Decadal Variability and Predictability, 2015 (Oral) and AGU Fall Meeting, 2015 (Oral).
5. **Coats, S.**, B.I. Cook, J.E. Smerdon and R. Seager, North American pan-continental droughts in model simulations of the last millennium, AGU Fall Meeting, 2014 (Oral).
4. **Coats, S.**, J.E. Smerdon, B.I. Cook and R. Seager, Are simulated megadroughts in the North American southwest forced?, AGU Fall Meeting, 2013 (Poster).
3. **Coats, S.**, J.E. Smerdon, B.I. Cook and R. Seager, Stationarity of the tropical Pacific teleconnection to North America in the CMIP5/PMIP3 model simulations, Third International Workshop on Climate Informatics, 2013 (Poster).
2. **Coats, S.**, J.E. Smerdon, R. Seager, B.I. Cook and J.F. González-Rouco, Megadroughts in southwestern North America in millennium-length ECHO-G simulations and their comparison to proxy drought reconstructions, AGU Fall Meeting, 2012 (Poster).
1. **Coats, S.**, Q. Fu, J.E. Smerdon, A. Banerjee and R. Seager, Model-data comparisons of hydroclimate variability in the North American southwest using Markov Random Field methods for drought detection, Second International Workshop on Climate Informatics, 2012 (Oral + Poster).

MENTORING

Advising at University of Hawai'i

Susannah Heller (Earth Sciences, PhD, Primary Advisor, 2023-)
 Dianne Deauna (Oceanography, PhD, Primary Advisor, 2022-)
 Lucas Ellison (Earth Sciences, PhD, Primary Advisor, 2020-2025)
 Gordon Walker (Oceanography, PhD, Primary Advisor, 2022-)
 Elliona Maso (Earth Sciences, MS, Advisory Committee, 2023-)
 Panupong Kongpet (Earth Sciences, MS, Advisory Committee, 2024-)
 Audrey Nash (Atmospheric Sciences, PhD, Advisory Committee, 2024-)
 Sarah Popenhagen (Earth Sciences, PhD, Advisory Committee, 2024-)
 Helena Asmar de Abreu Andrade (Earth Sciences, PhD, Advisory Committee, 2023-)
 Ken Tungpalan (Earth Sciences '27, UHM SURE, 2024-)
 Brian Gorberg (Earth Sciences, Comprehensive Exam Committee, 2023-)
 Tanner Hayes (Earth Sciences, Interim Committee Member and Comprehensive Exam Committee, 2022-)
 Shirin Wyckoff (Earth Sciences, MS, Advisory Committee, 2023-2024)
 Anna Mikkelsen (Earth Sciences, MS, Advisory Committee, 2020-2022, now at CRC)
 Arpita Kanrar (Columbia '24, ESVI REU, 2022-2023, now PhD Student at Courant)
 Brandon Duran (Georgetown '22, ESVI REU, 2021-2022, now PhD Student at Scripps)
 Charles Hoots (Earth Sciences, Comprehensive Exam Committee, 2024)
 Jade Comellas (Earth Sciences, Comprehensive Exam Committee, 2023)
 Marley Chertok (Earth Sciences, Comprehensive Exam Committee, 2022)

Advising at WHOI

Mathew Osmann (Advisory Committee, 2017-2020, now Assistant Professor at Cambridge)
 Elizabeth Wallace (Advisory Committee, 2017-2020, now Assistant Professor at ODU)
 Anna Black (Williams College '19, SSF REU, 2017-2018, now PhD Student at UW)

Advising outside UH

Cali Pfleger (UCSB, PhD, Advisory Committee, 2022-)

FELLOWSHIPS AND AWARDS

NCAR ASP Postdoctoral Fellowship	2016
DEES Science for Society Prize	2015
AGU Fall Meeting Outstanding Student Presentation Award	2013
Phi Beta Kappa	2009

SERVICE AND OUTREACH

At University of Hawai'i

Earth Sciences Undergraduate Chair	2025-
Earth Sciences ESVI REU Assistant Director	2022-
SOEST Research Council	2025-
Earth Sciences Undergraduate Advisor	2022-
Faculty Senator	2021-2023
Chair of Faculty Senate Committee on Research	2022-2023
Participant in EP'IK	2021-
Organizer of IPRC Climate Seminar Series	2021-
Search Committee Member (Geophysics)	2024-

Search Committee Member (Paleoclimate)	2023-2024
Search Committee Member (Coastal Processes)	2022
Search Committee Member (Geoscience Education)	2023
Huliāmahi (Student-Led Grassroots JEDI Focus Group)	2021-
Earth Sciences/SOEST Speed Mentoring Organizer	2021-
Department Undergraduate Committee	2022-
Department Graduate Committee	2020-2021

Professional

Associate Editor, Geophysical Research Letters	2025-
Climate Data Guide Advisory Board	2024-
NSF AGS/EAR Panelist	2022
NSF Site Visit Team for NCAR	2021
Primary Convener AGU Climate of the Common Era (largest high-res. paleo. session)	2019-
Ad Hoc Proposal Reviewer: NSF AGS, EAR, GEO, CAREER, Chilean NSF, Israel SF	2017-
Reviewer: Journal of Climate, Geophysical Research Letters, Environmental Research Letters, Science Advances, Earth's Future, Nature Climate Change, Nature Geoscience, Nature Communications, Journal Geophysical Research: Oceans, Climate of the Past Discussions, Climate Dynamics.	2013-