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## **EDUCATION**

2002            Ph.D., Oceanography, Scripps Inst. of Oceanography, UCSD  
1996            B.A., Geology and Biology, with Honors, Yale University

## **PROFESSIONAL EXPERIENCE**

2022-            Director, Institute at Brown for Environment and Society, Brown University  
2022-            Professor, Dept of Earth, Environmental, & Planetary Sciences, Brown University  
2023-            Director, Providence Hydrological Extremes Community Science Project  
2021-2022      Co-Director, [UrbanHeatATL](#)  
2018-2022      Co-Director, [Smart Sea Level Sensors](#)  
2016-2022      Co-Director and Founder, [Carbon Reduction Challenge](#)  
2015-2022      Professor, Earth and Atmospheric Sciences, Georgia Tech  
2016-2022      Georgia Power Chair, Georgia Tech  
2016-2022      ADVANCE Professor for Institutional DEI, Georgia Tech  
2017-2022      Director, [Global Change Program](#), Georgia Tech  
2021-2022      Co-Director, [Georgia Climate Project](#)  
2010-2015      Associate Professor, Earth and Atmospheric Sciences, Georgia Tech  
2004-2010      Assistant Professor, Earth and Atmospheric Sciences, Georgia Tech  
2002-2004      Postdoctoral Fellow, California Inst. of Technology, Pasadena  
1996-2002      Graduate Student Researcher & Teaching Assistant, Scripps Inst. of Oceanography, UCSD  
1998-2001      Visiting Summer Scientist, University of Minnesota Isotope Lab

## **HONORS AND AWARDS**

2025    Fellow, American Academy of Arts and Sciences  
2023    Fellow, American Geophysical Union  
2022    Cesare Emiliani Lecture, American Geophysical Union  
2022    Fellow, American Association for the Advancement of Science  
2022    Invited speaker, White House OSTP  
2022    Soft Power Prize, Venice, Italy  
2020    Star Award, Inst for People and Technology, Georgia Tech  
2019    Hans Oeschger Medal, European Geoscience Union

2019 Groetzinger Moving Forward Award, Georgia Tech  
 2019 Congressional testimony for US House Comm. Natural Resources  
 2018 Reimagine Education Award for the Carbon Reduction Challenge  
 2018 Innovation in Co-Curricular Education Award, Georgia Tech  
 2015 Fellow, Brook Byers Institute for Sustainable Systems, Georgia Tech  
 2013 Sigma Xi Best Faculty Paper Award for *Cobb et al., Science, 2013*  
 2011 Invited Guest, White House Workplace Flexibility Policies Event  
 2010 Poptech Science and Public Leadership Fellow  
 2010 EAS Undergraduate Research Mentor Award  
 2009 Kavli 'Frontiers of Science' Fellow  
 2008 Presidential Early Career Award for Scientists and Engineers (PECASE)  
 2007 Georgia Tech Education Partnership Award  
 2007 NSF CAREER Award  
 2003 Comer Abrupt Climate Change Postdoctoral Fellowship  
 2002 Caltech Postdoctoral Fellowship

## RESEARCH INTERESTS

Tropical Pacific climate  
 Coral reefs  
 Global water cycle  
 Climate data-model intercomparison  
 Coastal climate resilience  
 Urban heat islands

**REFEREED PUBLICATIONS** (\*student or †postdoc/research scientist author)  
 h-index=52 (ISI Web of Science)

## SUBMITTED

1. **Xu, M.\***, **K.M. Cobb**, A.H.V. Timmerman, H.R. Sayani, H. Levy, J.L. Conroy, M. Newman, A.R. Babbitt, C.A. Morris, Seawater  $\delta^{18}\text{O}$ -sea surface salinity relationships across the 2015/16 ENSO extremes, Submitted.
2. Rodriguez, L.G., A.R. Atwood, K.M. Cobb, H.R. Sayani, P.M. Grothe, A coral diagenesis and physiology framework for improving coral  $\delta^{18}\text{O}$  paleoclimate reconstructions. Submitted.
3. Murray, N.K., J.L. Conroy, P. L., Colin, K.M., Cobb, D.C, Noone, Western Pacific Warm Pool  $\delta^{18}\text{O}$  response to the El Niño-Southern Oscillation, In Press, Geophys. Res. Letters.
4. Kruger, Y., L. Pasqualetto, A. Fernandez, K.M. Cobb, A.N. Meckler, Tropical temperature evolution across two glacial cycles derived from speleothem fluid inclusion microthermometry, Submitted.

## 2024

5. Sánchez-Murillo, R., et al., Stable isotope tempestology of tropical cyclones across the North Atlantic and Eastern Pacific Ocean basins, *Annals of the New York Academy of Sciences*, doi.org/10.1111/nyas.15274, 2024.
6. Theaker, C.M., S.A. Carolin, C.C. Day, K.M. Cobb, S. Chen, P.R. Grothe, H.O Couper, Abrupt shift from low to enhanced El Niño-Southern Oscillation variability around 4.0ka, *Geophysical Research Letters*, doi.org/10.1029/2023GL107111, 2024.

## 2023

7. Stevenson, S., **K.M. Cobb**, M. Merrifield, B. Powell, S. Sanchez, J. Nusbaumer, G. O'Connor, A.R. Atwood, Contrasting central equatorial Pacific oxygen isotopic signatures of the 2014/15 and 2015/16 El Niño events, *Geophysical Research Letters*, doi.org/10.1029/2023GL104454, 2023.
8. Baum, J.K., D.C. Claar, K. Tietjen, J. Magel, **K.M. Cobb**, K.M. McDevitt-Irwin and J. Lund, Transformation of coral communities subject to unprecedented heat stress is modulated by local disturbance, *Science Advances*, doi: 10.1126/sciadv.abq5615, 2023.

## 2022

9. **Walter\***, **R.M.**, **H.R. Sayani†**, T. Felis, **K.M. Cobb** et al., The CoralHydro2K Database: a global, actively curated compilation of coral d18O and Sr/Ca proxy records of tropical ocean hydrology and temperature for the Common Era, *Earth System Science Data* doi.org/10.5194/essd-2022-172, 2022.
10. Løland, M.H., Y. Krüger, A.F. Bremer, F. Buckingham, S.A. Carolin, H. Sodemann, J.F. Akins, **K.M. Cobb**, A.N. Meckler, Evolution of tropical land temperatures across the last glacial termination, *Nature Communications* 10.1038/s41467-022-32712-3, 2022.
11. **Sayani†**, H.R., **K.M. Cobb**, B. Monteleone, A.L. Cohen, H. Bridges, Accuracy and reproducibility of coral Sr/Ca SIMS timeseries in modern and fossil corals, *G-cubed*, doi:10.10209/2021/GC10068, 2022.
12. Zhang, X., A.R. Atwood, B. Nag, **K.M. Cobb**, The tropical Pacific mean state, annual cycle and ENSO in PMIP4 simulations of the mid-Holocene, *JGR-Oceans* 10.1029/2021JC017587, 2022.
13. Chapman, A.U., D.M. Thompson, S.R. Hlohowskyj, J.E. Carilli, G. Gordon, T.J. Goepfert, H.R. Sayani, T.M. Marchitto, **K.M. Cobb**, A mechanistic investigation of the coral Mn/Ca-based trade wind proxy at Kiritimati, *Geochim. Cosmochim. Acta*, DOI: 10.1016/j.gca.2022.04.030, 2022.
14. Park, K., I. Federico, E. Di Lorenzo, C.G. Piecuch, T. Ezer, N. Pinardi, G. Coppini, **K.M. Cobb**, The contribution of hurricane remote ocean forcing to storm surge along the Southeastern US coast, *Coastal Engineering*, doi.org/10.1016/j.coastaleng.2022.104098
15. 2022.

16. Buckingham, F., S.A. Carolin, J.W. Partin, J.F. Adkins, **K.M. Cobb**, C.C. Day, Q. Ding, C. He, Z. Liu, B. Otto-Bliesner, W.H.G. Roberts, S. Lejau, J. Malang, Termination 1 millennial-scale rainfall events over the Sunda Shelf, *Geophys. Res. Lett.*, doi:10.1029/2021GL096937, 2022.

## 2021

17. **O'Connor\***, G.K., H.R. Sayani, **K.M. Cobb**, Alyssa R. Atwood, Pamela T. Grothe, Samantha Stevenson, Tianran Chen, Jean Lynch-Stieglitz, Mark A. Merrifield, G.A. Schmidt, Julia K. Baum, Danielle Claar, Rachel Walter. Coral oxygen isotope records capture the 2015/16 El Niño event in the central equatorial Pacific, *Geophys. Res. Lett.*, DOI: 10.1029/2021GL094036, 2021.

18. **Hitt, N.T.\***, H.R. Sayani, A.R. Atwood, P.R. Grothe, C. Maupin, Y. Lu, H. Cheng, R.L. Edwards, **K.M. Cobb**, Central equatorial Pacific warming and freshening in the 20<sup>th</sup> century: new insights from a coral ensemble approach, DOI: 10.1029/2021GL094051, 2021.

19. Meehl, G.A., Initialized Earth System prediction from subseasonal to decadal timescales, J.H. Richter, H. Teng, A. Capotondi, **K. Cobb**, F. Doblas-Reyes, M.G. Donat, M.H. England, J.C. Fyfe, W. Han, H. Kim, B.P. Kirtman, Y. Kushnir, N.S. Lovenduski, M.E. Mann, W.J. Merryfield, V. Nieves, K. Pegion, N. Rosenbloom, S.C. Sanchez, A.A. Scaife, D. Smith, A.C. Subramanian, L. Sun, D. Thompson, C.C. Ummenhofer, S.P. Xie, *Nature Reviews Earth and Environment* 2(5): 340-357, 2021.

20. Power, S., M. Lengaigne, A. Capotondi, S. McGregor, M. Khodri, J. Vialard, J.S. Kug, B. Jebri, M. Newman, M. McPhaden, G. Meehl, D. Smith, J. Cole, M. Collins, E. Guilyardi, G.I. Kim, W. Cai, Y. Okumura, F. Delage, **K.M. Cobb**, C. Chung, A. Wittenberg, P. Braconnot, J. Cretat, R. Garreaud, A. Levine, Y. Planton, J. Emile-Geay, R. Séférian, F. Zhu, R. Colman, J. Sprintall, D. Vimont, G. Wang, X. Zhang, J.J. Luo, X. Lin, M. Balmaseda, V.V. Kharin, G. Boer, G. Liguori, E. Di Lorenzo, B. Henley, A review of decadal climate variability in the tropical Pacific: characteristics, causes, predictability, and prospects, *Science*, 2021.

21. Cai, W., A. Santoso, M. Collins, B. Dewitte, C. Karamperidou, J.S. Kug, M. Lengaigne, M.J. McPhaden, M.F. Stuecker, A. Taschetto, A. Timmermann, L. Wu, S.W. Yeh, G. Wang, B. Ng, F. Jia, Y. Yang, J. Ying, X. Zheng, T. Bayr, J.R. Brown, A. Capotondi, **K.M. Cobb**, B. Gan, T. Geng, Y.G. Ham, F.F. Jin, H.S. Jo, X. Li, X. Lin, S. McGregor, J.H. Park, K. Stein, Changing ENSO in a warming climate, *Nature Reviews Earth & Environment*, 10.1038/s43017-021-00199-z, 2021.

22. Meehl, G.A. H. Teng, J.H.Y. Richter, J.C. Fyfe, M.H. England, V. Nieves, C. Ummenhofer, D. Thompson, **K.M. Cobb**, W. Han, N.S. Lovenduski, H. Kim, K. Pegion, D. Smith, B.P. Kirtman, S-P. Xie, A. Capotondi, Y. Kushnir, A.C. Subramanian, M.G. Donat, F. Doblas-Reyes, S. Sanchez, A. Scaife, W.J. Merryfield, M.E. Mann, L. Sun, Initialized Earth system prediction from subseasonal to decadal timescales, *Nature Reviews*, <https://doi.org/10.1038/s43017-021-00155-x>, 2021.

23. Sayani, H.R., D.M. Thompson, J.E. Carilli, T.M. Marchitto, A.U. Chapman, **K.M. Cobb**, Reproducibility of coral Mn/Ca-based wind reconstructions at Kiritimati Island and Butaritari Atoll, <https://doi.org/10.1029/2020GC009398>, *G-cubed*, 2021.

24. Brown, M.A., B. Beasley, F. Atalay, **K.M. Cobb**, P. Dwivedi, J. Hubbs, D.M. Iwaniec, S. Mani, D. Matisoff, J.E. Mohan, M. Oxman, D. Rochberg, M. Rodgers, M. Shepherd, R. Simmons, L. Taylor, L.B. Toktay, and J. Mullen et al., Translating a Global Emissions Reduction Framework for Sub-National Climate Action: A Case Study from the State of Georgia, *Environmental Management*, <https://doi.org/10.1007/s00267-020-01406-1>, 2021.

## 2020

25. **Dee, S.G†., K.M. Cobb**, J. Emile-Geay, T. R. Ault, R. L. Edwards, H. Cheng, Multi-century fossil corals reveal large thresholds for aerosol forcing impacts on the tropical Pacific, *Science*, DOI: 10.1126/science.aax2000, 2020.

26. **Ellis, S.A.\*, K.M. Cobb**, J.W. Moerman, J.W. Partin, A.L. Bennett, J. Malang, H. Gerstner, A.A. Tuen, Cave dripwaters capture the 2015-2016 El Niño event in Northern Borneo, *Geophysical Research Letters*, [doi.org/10.1029/2019GL086363](https://doi.org/10.1029/2019GL086363), 2020.

27. Hernandez A., C. Martin-Puertas, P. Moffa-Sánchez, E. Moreno-Chamarro, P. Ortega, S. Blockley, **K.M. Cobb**, L. Comas Bru, Santiago Giralte, H. Goosse, J. Luterbacher, B. Martrat, R. Muscheler, A. Parnell, S. Pla-Ribes, J. Sjolte, A. A. Scaife, D. Swingedouw, E. Wise, G. Xu, Modes of climate variability: synthesis and review of proxy-based reconstructions through the Holocene, *Earth Science Review*, [doi.org/10.1016/j.earscirev.2020.103286](https://doi.org/10.1016/j.earscirev.2020.103286), 2020.

28. Sanchez, S.C., Westphal, N., G. H. Haug, H. Cheng, L.R. Edwards, T. Schneider, **K.M. Cobb**, C.D. Charles, A continuous record of Central Tropical Pacific Climate since the mid 19th century reconstructed from Fanning and Palmyra Island corals: a case study in coral data reanalysis, *Paleoceanography and Paleoclimatology*, [doi.org/10.1029/2020PA003848](https://doi.org/10.1029/2020PA003848), 2020.

29. Claar, D.C., S. Starko, K.L. Tietjen, H.E. Epstein, R. Cunning, **K.M. Cobb**, A.C. Baker, R.D. Gathes, J.K. Baum, Dynamic symbioses reveal pathways to coral survival through prolonged heat waves, *Nature Communications*, <https://doi.org/10.1038/s41467-020-19169-y>, 2020.

30. Emile-Geay, J., **K.M. Cobb**, M. Elliott, J.E. Cole, F. Zhu, Paleoclimate constraints on ENSO, AGU Monograph, DOI:10.1002/9781119548164, 2020.

## 2019

31. **Grothe, P.M.\*, K.M. Cobb**, G. Liguori, E. Di Lorenzo, A. Capotondi, Y. Lu, H. Cheng, R.L. Edwards, J.R. Southon, G.M. Santos, D.M. Deocampo, J. Lynch-Stieglitz, T. Chen, H.R. Sayani, K. Townsend, M. Hagos, G. O'Connor, D.M. Thompson, L.T. Toth, J.L. Conroy, A.L. Moore. Enhanced El Niño-Southern Oscillation variability in recent decades, *Geophysical Research Letters*, DOI: 10.1029/2019GL083906, 2019.

32. **Sayani, H.R.\***, **K.M. Cobb**, K. DeLong, N.T. Hitt, E.R.M. Druffel, Intercolony  $\delta^{18}\text{O}$  and Sr/Ca variability among *Porites* spp. corals at Palmyra Atoll: towards more robust coral-based estimates of climate, *G-cubed*, doi: 10.1029/2019GC008420, 2019.
33. **Konecky, B.L.†**, D.C. Noone, **K.M. Cobb**, The influence of competing hydroclimate processes on stable water isotope ratios in tropical rainfall, *Geophysical Research Letters*, <https://doi.org/10.1029/2018GL080188>, 2019.
34. Munksgaard, N.C. et al., Tropical daily observations of stable isotope compositions in rainfall and calculated stratiform rainfall fractions, *Scientific Reports*, DOI: 10.1038/s41598-019-50973-9, 2019.
35. Claar, D.C., **K.M. Cobb**, J.K. Baum, *In situ* and remotely-sensed temperature comparisons on a Central Pacific atoll, *Coral Reefs*, doi.org/10.1007/s00338-019-01850-4, 2019.
36. Khider, D, J. Emile-Geay, et al., PaCTS 1.0: A crowdsourced reporting standard for paleoclimate data, *Paleoceanography*, doi.org/10.1029/2019PA003632, 2019.
37. Sanchez-Murillo, R., A.M. Duran-Quesada, G. Esquivel-Hernandez, D. Rojas-Cantillano, C. Birkel, K. Welsh, M. Sanchez-Lull, C.M. Alonso-Hernandez, D. Tetzlaff, C. Soulsby, J. Boll, **K.M. Cobb**, N. Kurita, Hurricane isotope anatomy and rainfall variations in a climate change hotspot of the tropics, *Nature Communications*, doi.org/10.1038/s41467-019-12062-3, 2019.
38. Liu, Y., W. Cai, C. Sun, H. Song, **K.M. Cobb**, J. Li, S.W. Leavitt, Z. An, W. Zhou, L. Wu, Q. Cai, R. Liu, P. Cherubini, U. Buentgen, Y. Song, G. Wang, Y. Lei, L. Yan, Q. Li, Y. Ma, C. Fang, J. Sun, X. Li, Anthropogenic aerosols cause recent pronounced weakening of Asian Summer Monsoon relative to last four centuries, *Geophysical Research Letters*, DOI: 10.1029/2019GL082497, 2019.

## 2018

39. **Chen, T.†**, **K.M. Cobb**, H.R. Sayani, P.M. Grothe, Coral-derived western Pacific tropical sea surface temperatures during the last millennium, *Geophys. Res. Lett* doi.org/10.1002/2018GL077619, 2018.
40. Timmermann, A., S.I. An, J.S. Kug, F.F. Jin, W. Cai, A. Capotondi, **K.M. Cobb**, M. Lengaigne, M.J. McPhaden, M. Stuecker, K. Stein, A. Wittenberg, K.S. Yun, et al. El Niño-Southern Oscillation complexity, *Nature*. doi: 10.1038/s41586-018-0252-6, 2018.
41. Rudd, M. et al., Climate research priorities for policy-makers, practitioners, and scientists in Georgia, USA, *Environmental Management* Vol 62, pp 190-209, 2018.
42. Stevenson, S., B. Powell, **K.M. Cobb**, J. Nusbaumer, M. Merrifield, D. Noone, 20<sup>th</sup> century seawater  $\delta^{18}\text{O}$  dynamics and implications for coral-based climate reconstructions, *Paleoceanography and Paleoclimatology* DOI: 10.1029/2017PA003304, 2018.

43. Lu, Z., Z. Liu, J. Zhu, **K.M. Cobb**, A review of paleo-ENSO, *Atmosphere* doi.org/10.3390/atmos9040130, 2018.

44. Martin, N.J., J.L. Conroy, D. Noone, **K.M. Cobb**, B.L. Konecky, S. Rea, The times-transgressive nature of the amount effect in Galapagos precipitation, *JGR-Atmospheres*, 10.1002/2017JD027380, 2018.

## 2017

45. Smerdon, J.E., Luterbacher, J., Phipps, S.J., Anchukaitis, K.J., Ault, T., **K.M. Cobb** & Hydro2K consortium, Comparing proxy and model estimates of hydroclimate variability and change over the Common Era. *Climate of the Past* doi: 10.5194/cp-2017-37.

46. Carilli, J.E., A.C. Hartmann, S.F. Heron, J.M. Pandolfi, **K.M. Cobb**, H.R. Sayani, R. Dunbar, S. Sandin, Porites coral response to an oceanographic and human impact gradient in the Line Islands, *Limnology & Oceanography*. DOI: 10.1002/lno.10670, 2017.

47. Pausata, F.S.R., Q. Zhang, F. Muschitiello, Z. Lu, L. Chafik, E.M. Niedermeyer, J.C. Stager, **K.M. Cobb**, Z. Liu, Greening of the Sahara suppressed ENSO activity during the mid-Holocene, *Nature Communications*, DOI: 10.1038/ncomms16020, 2017.

48. Conroy, J.L., D.M. Thomsson, **K.M. Cobb**, D. Noone, S. Rea, A. LeGrande, Spatiotemporal variability in the d18O-salinity relationship of seawater across the tropical Pacific Ocean, *Paleoceanography*, 10.1002/2016PA003073. 2017.

49. Dassie, E., et al., Save our marine annually-resolved proxy archives (MARPA), *Eos: Transactions of the American Geophysical Union*, vol 98, doi:10.1029/2017EO068159, 2017.

50. Liu, Y., **K.M. Cobb**, H. Song, Q. Li, Q. Li, T. Nakataska, J. Li, Z. An, S.W. Leavitt, C. Sun, L. Yan, D. Chen, H.W. Linderholm, Q. Cai, J. Sun, Y. Lei, Y. Ma, X. Li. 20<sup>th</sup> century central Pacific El Niño variability higher than last eight centuries. *Nature Communications*, DOI: 10.1038/ncomms15386, 2017.

## 2016

51. **Conroy, J.L.**†, D. Noone, **K.M. Cobb**, J.W. Moerman, B.L. Konecky, Paired precipitation-vapor isotope evidence for the amount effect, precipitation efficiency, and rain evaporation in western tropical Pacific storms, *JGR-Atmospheres*, DOI: 10.1002/2015JD023844, 2016.

52. **Carolin, S.\***, **K.M. Cobb**, J.F. Adkins, J. Lynch-Stieglitz, J.W. Moerman, S. Lejau, J. Malang, B. Clark, A.A. Tuen, Northern Borneo rainfall variability across MIS 5 and 6 revealed in stalagmite oxygen isotopic records. *Earth and Planetary Science Letters*, doi:10.1016/j.epsl.2016.01.028, 2016.

53. **Grothe, P.M.\***, **K.M. Cobb**, S. Bush, C.D. Charles, H. Cheng, R.L. Edwards, G. Santos, J. Southon, A comparison of rapid screening radiocarbon and U-series dates from fossil corals: implications for paleoclimate reconstruction, *G-cubed*, DOI: 10.1002/2015GC005893, 2016.

54. Chen, S., S.S. Hoffmann, D.C. Lund, K.M. **Cobb**, J. Emile-Geay, J.F. Adkins, A high-resolution speleothem record of western equatorial Pacific rainfall: implications for Holocene ENSO evolution, *Earth and Planetary Science Letters*, doi:10.1016/j.epsl.2016.02.050, 2016.
55. Newman, M., M.A. Alexander, T. Ault, K.M. **Cobb**, C. Deser, E. Di Lorenzo, N. Mantua, A. Miller, S. Minobe, H. Nakamura, N. Schneider, D. Vimont, A. Phillips, J.D. Scott, C.A. Smith. The Pacific Decadal Oscillation, Revisited. *Journal of Climate* DOI: <http://dx.doi.org/10.1175/JCLI-D-15-0508.1>, 2016.
56. Wang, X., Sigman, D.M, Cohen, A.L, Sinclair, D.J., Sherrell, R.M., **Cobb**, K.M., Erler, D.V., Stolarski, J., Kitahara, M.K., Ren, H., Influence of open ocean nitrogen supply on the skeletal  $\delta^{15}\text{N}$  of modern shallow-water scleractinian corals. *Earth and Planetary Science Letters*, doi:10.1016/j.epsl.2016.02.032, 2016.
57. Chikamoto, M.O., A. Timmermann, M. Yoshimori, F. Lehner, A. Laurian, A. Abe-Ouchi, A. Mouchet, F. Joos, K.M. **Cobb**. Volcanic eruptions boost tropical Pacific biological productivity, *Geophys. Res. Lett.* doi: 10.1002/2015GL067359, 2016.

## 2015

58. **Stevenson**, S.†, B. Powell, M. Merrifield, K.M. **Cobb**, J. Nusbaumer, D. Noone, Characterizing seawater oxygen isotopic variability in a regional ocean model: implications for coral proxy records, *Paleoceanography* doi:10.1002/2015PA002824, 2015.
59. Emile-Geay, J., K.M. **Cobb**, M. Carre, P. Braconnot, J. Leloup, Y. Zhou, S.P. Harrison, T. Correge, M. Collins, R. Driscoll, M. Elliot, H.V. McGregor, B. Schneider, A. Tudhope. Holocene constraints on tropical Pacific dynamics. *Nature Geoscience* doi:10.1038/ngeo2608, 2015.
60. Meckler, A.N., A. Affolter, Y.V. Dublyansky, Y. Kruger, N. Vogel, J.F. Adkins, S.M. Bernasconi, S. Carolin, K.M. **Cobb**, M. Frenz, R. Kipfer, M. Leuenberger, J.W. Moerman, C. Spotl, D. Fleitmann, Glacial-interglacial temperature change in the tropical West Pacific revealed by multiple stalagmite proxies. *Quaternary Science Research* doi:10.1016/j.quascirev.2015.06.015, 2015.
61. Cai, W., A. Santoso, G. Wang, S.W. Yeh, S.I. An, K.M. **Cobb**, M. Collins, E. Guilyardi, F.F. Jin, J.S. Kug, M. Lengaigne, M.J. McPhaden, K. Takahashi, A. Timmermann, G. Vecchi, M. Watanabe, L. Wu. ENSO Extremes in a warming climate, *Nature Climate Change* doi: 10.1038/nclimate2743, 2015.
62. Karamperidou, C., P. DiNezio, A. Timmermann, F.F. Jin, K.M. **Cobb**, The response of ENSO flavors to mid-Holocene climate: implications for proxy interpretation, *Paleoceanography* doi:10.1002/2014PA002742, 2015.

63. Toth, L.T., R.B. Aronson, K.M. **Cobb**, H. Cheng, R.L. Edwards, H.R. Sayani, P.M. Grothe, Climatic and biotic thresholds of coral reef shutdown, *Nature Climate Change* doi:10.1038/2015nclimate2541, 2015.

## 2014

64. **Moerman**, J.W.\*, K.M. **Cobb**, J. Malang, S. Lejau, B. Clark, A. Tuen, Transformation of ENSO-related rainwater to dripwater  $\delta^{18}\text{O}$  variability by vadose water mixing, *Geophys. Res. Lett.* doi:10.1002/2014GL061696, 2014.

65. **Conroy**, J.L.†, K.M. **Cobb**, J. Lynch-Stieglitz, P. Polissar, Constraints on the salinity-oxygen isotope relationship in the central tropical Pacific Ocean, *Marine Chemistry* doi: 10.1016/j.marchem.2014.02.001, 2014.

66. Liu, Z., Z., Lu, X. Wen, B. Otto-Bleisner, A. Timmerman, K.M. **Cobb**, Evolution and forcing mechanisms of El Niño over the last 21,000 years. *Nature* doi:10.1038/nature13963, 2014.

67. Marchitto, T.M., W.B. Curry, J. Lynch-Stieglitz, S.P. Bryan, K.M. **Cobb**, D.C. Lund, Improved oxygen isotope temperature calibrations for cosmopolitan benthic foraminifera. *Geochim. Cosmo. Acta.*, doi: 10.1016/j.gca.2013.12.034, 2014.

68. Comboul, M., Emile-Geay, J., Evans, M.N., Mirnateghi, N., K.M. **Cobb**, D.M. Thompson, A probabilistic model of chronological errors in layer-counted climate proxies: applications to annually-banded coral archives, *Climate of the Past Discussions* doi: doi:10.5194/cp-10-825-2014, 2014.

## 2013

69. **Cobb**, K.M., N. Westphal, H. **Sayani**\*, E. Di Lorenzo, C.D. Charles, H. Cheng, R.L. Edwards, Highly variable El Niño-Southern Oscillation throughout the Holocene, *Science* 10.1126/science.1228246, 2013.

70. **Carolin**, S.\*, K.M. **Cobb**, J.F. Adkins, B. Clark, A. Tuen. Varied response of western tropical Pacific hydrology to abrupt climate changes. *Science* doi: 10.1126/science.1233797, 2013.

71. **Partin**, J.W.\*, K.M. **Cobb**, J.F. Adkins, B. Clark. Trace element and carbon isotopic variations in cave dripwaters and stalagmites from northern Borneo. *G-cubed*, doi: 10.1002/ggge.20215, 2013.

72. **Conroy**, J.L. †, K.M. **Cobb**, D. Noone. Model-data comparisons of precipitation isotope variability across the tropical Pacific in the SWING2 climate model simulations. *JGR-Atmospheres* doi: 10.1002/jgrd.50412, 2013.

73. **Moerman**, J.W.\*, K.M. **Cobb**, J.F. Adkins, H. Sodemann, B. Clark, A. Tuen, Large-scale climate controls on rainfall oxygen isotope variability in the west Pacific Warm Pool. *Earth Planet. Sci. Lett.* doi: 10.1016/J.EPSL.2013.03.014, 2013.

74. **Emile-Geay**, J. †, K.M. **Cobb**, M.E. Mann, A. Wittenberg, Estimating tropical Pacific SST variability over the last millennium; Part 1: Methodology and validation. *J. Climate*, doi: 10.1175/JCLI-D-11-00510.1, 2013.

75. **Emile-Geay**, J. †, K.M. **Cobb**, M.E. Mann, A. Wittenberg, Estimating tropical Pacific SST variability over the last millennium; Part 2: Reconstructions and uncertainties. *J. Climate* doi: 10.1175/JCLI-D-11-00511.1, 2013.

76. Anderson, B.T., J.C. Furtado, K.M. **Cobb**, E. Di Lorenzo, Extra-tropical forcing of El Nino/Southern Oscillation asymmetry, *Geophys. Res. Lett.*, doi: 10.1002/grl.50951, 2013.

77. Hathorne, E.C., et al., Inter-laboratory study for coral Sr/Ca and other element/Ca ratio measurements, *Paleoceanography*, doi: 10.1002/ggge.20230, 2013.

78. LaVigne, M., I.S. **Nurhati\***, K.M. **Cobb**, H.V. McGregor, D. Sinclair, R.M. Sherrell, Systematic ENSO-driven nutrient variability recorded by central equatorial Pacific corals. *Geophys. Res. Lett.*, doi: 10.1002/grl.50765, 2013.

## 2012

79. Meckler, A., M. Clarkson, K.M. **Cobb**, J. Eiler, H. Sodemann, J.F. Adkins. Interglacial hydroclimate in the tropical West Pacific through the late Pleistocene, *Science* 336: 1301-1304, 2012.

80. Maibach, E., A. Leiserowitz, S. Cobb, M. Shank, K.M. **Cobb**, J. Gullledge, “The legacy of ‘Climategate’: revitalizing or undermining climate science and policy?” *WIREs Climate Change* 3(3): 289-295, 2012.

81. Gomez, B., L. Carter, K.M. **Cobb**, A.R. Orpin, M.J. Page, N.A. Trustrum, A.S. Palmer, Influence of the Southern Annular Mode on ENSO teleconnections to New Zealand. *Holocene* 22(1): 23-30, 2012.

## 2011

82. **Sayani**, H. \*, K.M. **Cobb**, A. Cohen, L.K. Zaunbrecher, I.S. Nurhati, “Diagenetic effects on the morphology and geochemistry of young fossil coral skeletons”, *Geochimica Cosmochimica Acta* 75: 6361-6373, 2011.

83. **Nurhati**, I.S. \*, K.M. **Cobb**, E. Di Lorenzo, Decadal-scale SST and salinity variations in the central tropical Pacific: signatures of natural and anthropogenic climate change. *Journal of Climate* doi: 10.1175/2011JCLI3852.1, 2011.

## 2010

84. Di Lorenzo, E., K.M. **Cobb**, N. Schneider, J.C. Furtado, M.A. Alexander, Central Pacific El Niño and decadal climate change in the North Pacific. *Nature Geoscience* doi: 10.1038/NGEO984, 2010.

85. Graham, N.E., C.M. Ammann, D. Fleitmann, K. M. **Cobb**, and J. Luterbacher, Support for a global climate reorganization during the “Medieval Climate Anomaly”. *Climate Dynamics* doi:10.1007/s00382-010-0914-z, 2010.

86. **Zaunbrecher**, L.K.\*, K.M. **Cobb**, J.W. Beck, C.D. Charles, E.R.M. Druffel, R.G. Fairbanks, S. Griffin, H. Sayani, Coral records of central tropical Pacific radiocarbon variability during the last millennium, *Paleoceanography* 25, PA4212, doi:10.1029/2009PA001788, 2010.

87. LaVigne, M., K.A. Matthews, A.G. Grottoli, E. Anagnostou, K.M. **Cobb**, R.M. Sherell, Calibration of coral skeleton P/Ca with a local seawater phosphate record: inter-colony reproducibility and potential for global application, *Geochimica et Cosmochimica Acta* 74(4): 1282-1293, 2010.

## 2009

88. **Nurhati**, I.S.\*, K.M. **Cobb**, C.D. Charles, and R.B. Dunbar. Late 20<sup>th</sup> century warming and freshening in the central tropical Pacific. *Geophys. Res. Lett.* doi:10.1029/2009GL040270, 2009.

89. Jones, P.D. et al., High-resolution paleoclimatology of the last millennium: a review of current status and future prospects, *Holocene* 19(1): 3-29, 2009.

90. Furtado, J., Di Lorenzo, E., **Cobb**, K.M., Bracco, A. Reconstructing tropical sea surface temperatures using precipitation proxy records: methods and uncertainties, *J. Climate* DOI: 10.1175/2008JCLI2415.1., 2009.

## 2001-2008

91. Di Lorenzo, E., Schneider, N., **Cobb**, K.M., Chhak, K., Franks, P.J., Miller, A.J., Bograd, S.J., Arango, H., Curchister, E., Powell, T.M., Riviere, P. North Pacific gyre oscillation controls salinity, nutrients, and Chl-a. *Geophysical Research Letters* doi:10.1029/2007GL032838, 2008.

92. **Partin**, J.W.\*, K.M. **Cobb**, J.F. Adkins, B. Clark, D.P. Fernandez. Millennial-scale trends in west Pacific warm pool hydrology since the Last Glacial Maximum. *Nature* 449: 452-455, 2007.

93. **Cobb**, K.M., J.F. Adkins, J.W. **Partin**, B. Clark. Regional-scale climate influences on temporal variations of rainwater and cave dripwater oxygen isotopes in northern Borneo. *Earth and Planetary Science Letters* 263: 207-220, 2007.

94. Graham, N.E., Hughes, M.K., Ammann, C., **Cobb**, K.M., Hoerling, M.P., Kennett, D.J., Kennett, J.P., Rein, B., Stott, L., Wigand, P.E., Xu, T., Tropical Pacific-Mid-latitude teleconnections during medieval times, *Climatic Change* 81(1-2): 241-285, 2007.

95. **Cobb**, K.M., C.D. Charles, H. Cheng, R.L. Edwards. The El Niño-Southern Oscillation and tropical Pacific climate during the last millennium. *Nature* 424: 271-276, 2003.

96. **Cobb**, K.M., C.D. Charles, H. Cheng, M. Kastner, R.L. Edwards. U/Th-dating living and young fossil corals from the central tropical Pacific. *Earth and Planetary Science Letters* 210: 91-103, 2003.

97. Charles, C.D., K.M. Cobb, M.D. Moore, R.G. Fairbanks. Monsoon-tropical ocean interaction in a network of coral records spanning the 20th century. *Marine Geology* 201(1-3): 207-222, 2003.
98. Paytan, A, S. Mearon, K.M. Cobb, M. Kastner. Origin of barite deposits: Sr and S isotope characterization. *Geology* 30(8): 747-750, 2002.
99. Cobb, K.M., D.E. Hunter, C.D. Charles. A central tropical Pacific coral demonstrates Pacific, Indian, and Atlantic decadal climate connections. *Geophys. Res. Lett.* 28(11): 2209-2212, 2001.

## NON-REFEREED PUBLICATIONS

Cobb, K.M., “[Weakened tenure protections will harm students as well as faculty](#)”, Scientific American, November 3, 2021.

Cobb, K.M., “[What happens in Glasgow stays with us for centuries](#)”, The Boston Globe, November 1, 2021.

Cobb, K.M. and M.E. Mann, “[Geoengineering: we should not play dice with the planet](#)”, The Hill, October 12, 2021.

Cobb, K.M. et al., Smart Sea Level Sensors for Coastal Climate Resilience, US CLIVAR Variations 18(3), [doi:10.5065/fp9y-ae42](https://doi.org/10.5065/fp9y-ae42), pp 20-25, 2020.

Ledford, S.H., Monteagudo, M.M., A.N. Flores, J.B. Glass, K.M. Cobb, “[#GeoGReExit: Why geosciences programs are dropping the GRE](#)”, EOS-Transactions of the AGU, June 4, 2020.

Kessler, W.S., S. E. Wijffels, S. Cravatte, N. Smith, and Lead Authors, 2019: Second Report of TPOS 2020. GOOS-234, 265 pp. [Available online at <http://tpos2020.org/second-report/>.]

Glass, J.B., K.M. Cobb, “Incentivizing equity and diversity in AGU Honors nominations”, EOS-Transactions of the AGU, March 15, 2019.

Kalmus, P., K.M. Cobb, D. Romps, “We study climate. We chose not to fly to DC for a conference on it.”, Washington Post, December 10, 2018.

Cobb, K.M. “Hurricanes like Michael show why we can’t ignore climate change”, Washington Post, October 14, 2018.

Cobb, K.M. “A southern misfit”, Nature Climate Change, News & Views, [doi:10.1038/nclimate2219](https://doi.org/10.1038/nclimate2219), 2014.

Cobb, K.M. and J. Emile-Geay, “ENSO diversity in the paleorecord”, CLIVAR Newsletter, 2013.

Cobb, K.M., “A climate science day participant describes the experience”, *EOS-Transactions of the American Geophysical Union* vol. 94, March 19, 2013.

Cobb, K.M. et al., “Representing and reducing uncertainties in high-resolution proxy climate data”, Final workshop Report, 20pp., Trieste, 2008.

<http://www.ncdc.noaa.gov/paleo/reports/trieste2008/trieste2008final.pdf>

Partin, J.W.\*, K.M. Cobb, J.L. Banner, “Climate variability recorded in tropical and subtropical speleothems”, *PAGES News* 16(3): 9-10, 2008.

Cobb, K.M. “Ten thousand years of climate change”, *Nature Geosciences* 1: 725, 2008.

Cobb, K.M. “Letters from Palmyra” in *An Illustrated Guide to Climate Change*, eds. Schmidt, G. and Wolfe, J., W.W. Norton, New York, 2009.

## **FIELD EXPERIENCE**

Caving expeditions to Gunung Mulu National Park, 2003, 2005, 2008, 2010, 2012, 2016, 2017

Research expeditions and cruises to Line Islands atolls, 1998, 2000, 2005, 2012-2017

Research expedition to Andros, Bahamas, 2008

## **INVITED TALKS**

### International (last 5yrs only)

Named Lecture, Australia (declined to avoid CO<sub>2</sub> emissions), 9/22

Named Lecture, Israel (declined to avoid CO<sub>2</sub> emissions), 11/22

Keynote, Goldschmidt Conference, 7/22

Keynote, ICONHIC Conference on Natural Hazards & Infrastructure, Athens, Greece, 7/22

Hans Oeschger Medal Lecture, 4/21

University College Dublin Departmental seminar, 3/21

Wiley Lecturer, Quaternary Research Association, 1/21

Plenary, International Conference in Paleooceanography, 9/19

Keynote, Urbino Summer School in Paleoclimatology, 8/19

Keynote, Goldschmidt Conference, 8/19

### National (last 5yrs only)

Keynote, Gordon Conference on Geochronology, 8/25

Geophysical Fluid Dynamics Lab, 5/25

Robinson Lecture, Ohio State University, 3/25

Departmental seminar, Dartmouth, 1/25

Sound Lab Lecture, Connecticut College, 10/24

Revelle Lecture, National Academies of Science, Ocean Studies Board, 6/24  
 UCSD-SIO Commencement Address, 6/24  
 Speaker, Climate & Health workshop at Brown, 6/24  
 Keynote, Northwestern Sustainability Lecture Series, 5/24  
 Martin Distinguished Speaker, UNC-Chapel Hill, 3/24  
 Invited talk at AGU Fall Meeting, 12/2023  
 Keynote Address, Rhode Island Energy, Environment and Oceans Leaders Conference, 12/23  
 Departmental seminar, UConn, 11/24  
 Keynote Address, Initiative for Sustainable Energy Workshop, 10/23  
 Departmental seminar, University of Pennsylvania, 3/23  
 Keynote, Climate Education Symposium, MIT, 4/23  
 Departmental seminar, UBC, 3/23  
 Departmental seminar, UMASS, 3/23  
 Invited talk at AGU Fall Meeting, 2022  
 Departmental seminar, WHOI, 11/22  
 Departmental seminar, MIT-EAPS, 4/22  
 Departmental seminar, Georgia State University, 3/22  
 Departmental seminar, UCLA Earth, Planetary, and Space Sciences, 3/22  
 Invited speaker, Oak Ridge National Lab Climate Change Science Institute, 2/22  
 Keynote, American Meteorological Society Annual Meeting, 1/22  
 Invited talk at AGU Fall Meeting, 2021  
 Distinguished Lecturer, University of Utah, 10/21  
 Speaker, “Better Tomorrow” Speaker’s Series, University of Hawai’i, 9/21  
 Panelist, NASEM Workshop on the Future of NSF-P2C2, 6/21  
 Panelist, US CLIVAR Workshop on “Tropical Pacific Observing Needs”, 5/21  
 Departmental seminar, University of California, Santa Cruz, 5/21  
 Panelist, Coastal Research Symposium, Georgia Sea Grant, 5/21  
 Keynote, Electric Power Research Institute Energy & Climate Seminar, 5/21  
 Panelist, Solve Climate by 2030, 4/21  
 Departmental seminar, University of Chicago, 3/21  
 Two invited talks at AGU Fall Meeting, 12/20  
 US CLIVAR Variations webinar, 12/20  
 Coastal Issues and Shoreline Management keynote, 11/20  
 Speaker, Departmental Seminar Series, Arizona State, 4/20  
 Speaker, Departmental Seminar Series, UC-Irvine, 4/20

## PROFESSIONAL ACTIVITIES

Member, AGU and AAAS

### Appointments

Member, Rhode Island Commission on Climate Change Impacts and Solutions, Rhode Island Legislature, 2024-  
 Member, President’s Intelligence Advisory Board (Biden administration, 2023-2025)  
 Lead Author, Working Group 1, IPCC Sixth Assessment Report (2017-2021)

Co-chair, US-CLIVAR Working Group on “Observations and Modeling of Water Isotopes in the Climate System” (2018-2021)

Co-chair, PAGES “CoralHydro2K” Working Group (2018-2021)

Guest Editor, Annual Reviews of Earth and Planetary Sciences, Volume 50, 2020-2021

Editor, Geophysical Research Letters, 2015-2018

#### National and International Panels

2025 Member, Ocean Sciences AGU Fellows Selection Committee

2020-2022 Member, Hans Oeschger Medal Selection Committee

2020-2021 Member, AGU Joanne Simpson Medal Selection Committee

2020-2021 Member, AGU Sustainable Meetings Committee

2018-2019 Member, Scientific Panel, 2019 AMS Climate Change Statement

2013-2018 Member, CLIVAR Pacific Panel

2015-2018 Member, Advisory Council, Leshner Leadership Institute for Public Engagement, AAAS

2014-2017 Member, AGU Perlman Award Selection Committee

2013-2014 Member, AAAS Climate Science Panel

2010-2014 Councilmember, American Quaternary Association

2012-2015 Representative, Consortium of Universities for the Advancement of Hydrologic Science (CUAHSI)

2009-2013 Member, PAGES-CLIVAR Intersection Panel

#### Selected Workshops and Panels

IAEA Global Network of Isotopes in Precipitation Technical Meeting, 6/22

National Academy of Science P2C2 workshop, 6/21

TPOS2020 Steering Committee workshop, China, 11/19

MPOWER Pattullo conference for Women in Physical Oceanography, 9/19

US CLIVAR workshop on “Sea Level Hotspots: Florida to Maine”, Norfolk, 4/19

Last Millennium Re-analysis workshop, Friday Harbor, 10/17

NSF Earthcube Paleodata Standards workshop, Boulder, 6/16

Selection Committee, AAAS Leshner Leadership Institute Fellows, 2015

National Academy of Science “Frontiers in Decadal Climate Variability”, 9/15

AAAS workshop “The economic and financial risks of a changing climate”, 11/14

Selection committee, AGU David Perlman Award for Science Journalism, 2015, 2016

National Academy of Science workshop to review NSF-AGS “Goals & Objectives”, 4/14

Panelist, AAAS “Engaging with Social Media” workshop, 2/14

2013 Gender Summit of North America invited panelist

2013 “Climate Science Day on Capitol Hill” invited participant

NSF Expert Witness Training Academy, 8/11

NAS “Frontiers of Science” Invited Participant, 11/09

NOAA Climate Change Data and Detection Proposal Review Panelist, 1/09

NSF Paleo-Perspectives on Climate Change Proposal Review Panelist, 4/08

NOAA Abrupt Climate Change Proposal Review Panelist, 1/08

NSF Graduate Research Fellowship Program Panelist, 2007, 2008, 2009

NSF Earth System History Workshop, 3/07

NSF Earth System History Panelist, 3/03, 2/04

### Conferences/Sessions Convened

Co-convenor, Ocean Visions Session “Sea level sensors and coastal ocean modeling”, 7/20  
Co-convenor, USClivar workshop “Water Isotopes in the Climate System”, 10/19  
Scientific Committee, International Conference on “ENSO in a warmer climate”, 10/18  
Co-convenor, AGU session PP43: “Paleoclimatic History of ENSO”, 12/18  
Co-convenor, AGU session GC049: “Mechanisms and Impacts of Natural and Anthropogenic Tropical Pacific Decadal Variations and Trends”, 12/17  
Co-convenor, AGU session PP009 “Climate of the Common Era”, 2014-2019  
Co-Chair, Goldschmidt 2017 “Climate and Atmosphere of the Anthropocene” Theme, 8/17  
Co-Chair, CLIVAR Open Science Meeting “Decadal-Centennial Climate Change”, 9/16  
Co-convenor, AAAS Workshop “Communicating Climate Science”, 1/15  
Co-convenor, INQUA session “Ocean-atmosphere interaction in the tropical South Pacific during the Late Quaternary”, 7/15  
Co-convenor, Kastner Symposium, Scripps Inst. of Oceanography, 9/14  
Co-convenor, AGU session “Thirty years of ENSO research: dynamics, predictability, modeling, and impacts”, 12/13  
Co-convenor, AGU session “Indo-Pacific records of abrupt climate change”, 12/08  
Co-convenor, Goldschmidt conference session “Marine and terrestrial reconstructions of seasonal and annual scale variability”, Vancouver, Canada, 7/08  
Lead organizer, NSF/NOAA/PAGES/CLIVAR workshop “Reducing and representing uncertainties in high-resolution proxy climate data”, Trieste, Italy, 6/08  
Co-convenor, AGU Session “Understanding and predicting Pacific decadal to centennial variability”, 12/06

### Other Professional Service

Co-Author, Tropical Pacific Observing System (TPOS2020) Second Report, 2019  
Founder, AGU PP Section ‘Dansgaard’ Mid-Career Award, instituted in 2015  
Founder and Chair, SWAG Committee on Diversity in Geoscience Awards, 2012-2016  
Nominator, 2+ underrepresented minority nominees/yr, AGU Honors Program, 2012-present

## **BROWN SERVICE**

Chair, Academic Climate Leadership Committee, 2023-  
Vice-Chair, Brown University Resource Committee (elected position), 2023-  
Ex-officio Member, ‘Equitable Climate Futures’ Steering Committee, 2024-  
Member, School of Public Health Tenure Review Committee, 2025  
Member, School of Public Health Faculty Search Committee, 2024-25  
Member, Academic Climate Leadership Group, 2023-  
Member, Brown Arts Institute Director Search Committee, 2024  
Brown Sustainability Steering Committee, 2022-  
Brown University ‘Living Learning Lab’ Task Force, 2023-2024  
Member, Economics Faculty Search Committee, 2023-2024

## **GEORGIA TECH SERVICE**

Co-Chair, “Climate Solutions” Task Force, 2021-2022  
Co-Chair, “Sustainability Next” Task Force, 2021-2022  
Co-Chair, COVID19 Impacts on Faculty Working Group, 2021-2022  
Founding Chair, Sustainability Task Force, 2020-2022  
Georgia Tech Diversity, Equity, and Inclusion Council, 2020-2022  
Founder and Co-Director, Carbon Reduction Challenge, 2008-2022  
Kendeda Living Building Advisory Council, 2020-2022  
President’s Steering Committee for Strategic Planning, 2019-2020  
GT Presidential Scholar Program Faculty Guide, 2016-2020  
Co-Director, Climate Change Fellows Program, 2018-2019  
College of Science Dean’s Search Committee, 2018-2019  
Chair, ‘Excellence through Diversity in Faculty Hiring’ Committee, 2017-2018  
GT Strategic Energy Institute Faculty Advisory Committee, 2014-2019  
GT Student Energy Club Faculty Board, 2014-2018  
GT SLS Faculty Advisory Board, 2014-2017  
EAS Chair Advisory Committee, 2014-2017  
GT Strategic Plan Advisory Group, 2013-2016  
EAS Undergraduate Recruitment Committee, 2014-2015  
EAS Strategic Planning Committee, 2014-2015  
GT QEP Search Committee for “Serve-Learn-Sustain” Program Director, 2015  
‘Frontiers in Science speaker’, Georgia Tech, 9/15  
Keynote, College of Science Recruitment Day, 2015  
Sigma Chi “Best Faculty Paper” Selection Committee, 2015  
Featured speaker, College of Science Advisory Board Meeting, 2014, 2015  
Panelist, GT Young Professional’s “Career Work-Life Balance”, 4/2014  
Founder and director, GT “Energy on the Hill” internship program, 2013  
EAS Representative to GT Honor’s Program, 2009-present  
Co-Chair, EAS Graduate Admissions Committee, 2011-2014  
Brooks Byers Institute for Sustainable Systems Review Committee, 2012-2013  
EAS Georgia Power Endowed Chair Search Committee, 2011-2012  
Panelist, ‘Preparing a NSF GRFP Application’, 2011, 2012  
GT Energy/Sustainability Strategic Planning Committee, 2011-2012  
GT Search Committee for Provost, 2010  
EAS Faculty Search Committees – 2008-2009, 2009-2010, 2010-2011, 2011-2012  
ChBE Forum on Energy and the Environment Speaker, 3/09  
Graduate Studies Committee – 2004-2005  
Undergraduate Studies Committee – 2006-2008  
EAS Faculty Search Committee – 2006-2007  
Sustainable Energy Roundtable Speaker – 2006  
CEISMC Ocean Sciences Workshop Speaker – 2006

## PUBLIC ENGAGEMENT ACTIVITIES

### *Featured*

Blusky: @kimcobb (>15,000 followers)

Twitter: @coralsncaves (>25,000 followers)

Member, Resilient Barrington Advisory Council, Barrington, RI, 2024

Keynote, Sheldon Whitehouse's RI Energy Expo, 10/23

Panelist, White House OSTP Roundtable "Countering delayism and communicating the urgency of climate change", 2/22

Panelist, US Congressional Natural Resources Committee Majority Roundtable, 5/20

TEDxCentennialPark speaker, 12/19

Expert testimony, US Congressional Natural Resources Committee Hearing, 2/19

Keynote, Interface Global Conference, 6/21

Featured Scientist, Emmy Award-winning Showtime documentary "Years of Living Dangerously", 2014

Featured story on front page of New York Times, April 9, 2016

Featured interview and story on NBC's "Today Show", 4/16

Featured guest, NPR's "Diane Rehm Show", 4/16

### *Last two years only*

Speaker, Climate Action RI, 11/24

Keynote speaker, ECRI Legislative Coffee Hour, RI Statehouse, 2/24

Speaker, AMS "Power of Precipitation" public event, 12/23

Keynote speaker, Modern Living Symposium, 9/23

Speaker, Career Day, Barrington Middle School, 6/23

Brown University Earth Day Keynote, 4/23

Speaker, Climate Match series, 3/23

Keynote Speaker, Be Environmental Club, Barrington High School, 2/23

Panelist, Science is Cool Conference, 2/22

*Recurring* - Research regularly featured in TV, print, on-line, and radio media, including BBC, CNN, NBC, CTV, ABC, NYTimes, LATimes, Washington Post, Associated Press, Gizmodo, Earther, Mother Jones, Climate Central

## TEACHING EXPERIENCE (\* indicates co-taught courses, † indicates lead instructor role)

| <i>Course #</i>     | <i>Course Title</i>                           | <i>Level</i> |
|---------------------|-----------------------------------------------|--------------|
| <u>Brown</u>        |                                               |              |
| EEPS 360            | Solving the Climate and Carbon Challenge*†    | undergrad    |
| <u>Georgia Tech</u> |                                               |              |
| EAS 4801            | Vertically Integrated Project – Air Quality*† | undergrad    |
| EAS 2803            | Engineering our Climate Future*†              | undergrad    |
| EAS 3110            | Energy, the Environment, and Society*†        | undergrad    |
| GT1000              | Freshman seminar – climate change†*           | undergrad    |
| SLS 3120            | Sustainable Systems*                          | undergrad    |

|               |                                       |           |
|---------------|---------------------------------------|-----------|
| EAS 6216      | Isotope Geochemistry                  | grad      |
| EAS 4350      | Oceanography*†                        | undergrad |
| EAS 4803/6136 | Paleoclimatology & Paleoceanography*† | mixed     |

*Graduate seminars as lead instructor*

Monsoons: past, present, and future

Abrupt Climate Change

The "Hockey Stick"

Multi-decadal climate variability

Paleoclimate modeling

Water Isotopes

Ocean acidification past and present

The Warming Papers

The Global Hydrological Cycle

Corals and Climate Change

The 2015/2016 El Niño event

## EARLY CAREER SCHOLARS SUPERVISED

### Research Scientists:

Ahmed Al-Mikhlaifi (Brown), Research Scientist, 2024-

Xikai Wang (Brown), Research Scientist, 2024-

Anna Waldeck (Brown), Research Scientist, 2023-2024

Manlin Xu (Brown), Research Scientist, 2022-2023

Amanda Timmerman (GT), Research Scientist II, 2022

Akhil Chavan (GT), Research Scientist, 2020-2022

Lalith Polepeddi (GT), Research Scientist, 2018-2022

Hussein Sayani (GT), Research Scientist II, 2019-2022

### Postdoctoral scholars:

Alyssa Atwood, NOAA Climate & Global Change Fellow, joint w/ J. Chiang (UC-Berkeley), 2015-2019; currently Asst. Prof. Florida State University

Bronwen Konecky, NSF-AGS Postdoctoral Fellow, joint w/ D. Noone (OSU) 2013-2015, currently Asst. Prof. Washington University, St. Louis

Samantha Stevenson, NSF-AGS Postdoctoral Fellow, joint w/ B. Powell (U-Hawaii), 2013-2015, currently Asst. Prof., UCSB

Jessica Conroy, NSF-EAR Postdoctoral Fellow 2011-2013, currently Assoc. Prof., U. Illinois Urbana-Champaign

Julien Emile-Geay, 2006-2008, currently Assoc. Prof., Univ. Southern California

### Graduate Students:

Chandler Morris (Brown), 2023-

Monica Geraldles (Brown, co-advised), 2023-

Megan Sanders (GT-City and Regional Planning), 2022-2023

Animata Wyatt-Ngom (GT-EAS), 2022-2023

Kelsey Perez (GT-CEE), 2021-2022  
 Spenser Wipperfurth (GT-EAS), 2021-2022  
 Shelly Ellis, MS 2019  
 Annika Jersild, 2016-2018  
 Pamela Grothe, 2012-2017; Women in Geoscience Fellow, Asst. Prof. Mary Washington  
 Hussein Sayani, 2011-2017; NSF Graduate Research Fellow  
 Jessica Moerman, 2010-2015; NSF Graduate Research Fellow, PEO Sisterhood Fellow, EAS  
 2013 Best Student Paper Award  
 Stacy Carolin, 2011-2014; NSF Graduate Research Fellow, EAS 2011 Bradshaw Award for  
 Graduate Research; currently Postdoctoral Fellow, Oxford University  
 Michele LaVigne (external committee member, Rutgers), PhD 2011  
 Intan Suci Nurhati, PhD 2011, Head, Research Center for Deep Sea, National Research and  
 Innovation Agency, Indonesia  
 Jason Furtado, PhD 2011 (co-advised), currently Assoc. Prof., University of Oklahoma  
 Laura Zaunbrecher, MS 2009, PhD Georgia State 2013, currently tri-athlete on Team USA  
 Jud Partin, PhD 2009, currently Research Scientist VII, UT-Austin

Undergraduate Research Assistants:

Kiki Masae (ENVS), 2025-  
 Samantha Levin (ENVS), 2024-  
 Lucinda Bryce (DEEPS), 2022-  
 Marlena Brown (DEEPS), 2023-2025  
 Manlin Xu (EAS), 2021-2022  
 Madeleine Hardt (EAS), 2018-2022  
 Thiago Esslinger (CHBE), 2019-2020  
 Chloe Pollock-Muskin (CEE), 2021  
 Caroline Miley (CHBE), 2020-2021  
 Nicole Romer (CEE), 2020-2021  
 Hannah Levy (EAS), 2020-2021  
 Akhil Chavan (ME), 2019-2020  
 Rachel Walter (EAS), 2018-2021  
 Hudson Moss (EAS), 2017-2019  
 Jessie Torres (Emory College), 2018-2019  
 Aaron Jones (Vassar College), 2017-2018  
 Robert Johnson (PUBP), 2016-2017  
 Megan Gottshalk (CEE), 2016-2018  
 Melat Hagos (EAS), 2016-2017  
 Gemma O'Connor (ISYE), 2016-2017, AGU Fall Meeting Oral Presenter, NSF Graduate  
 Research Fellow, Univ. Washington PhD  
 Nicholas Hitt (EAS), 2015-2017, 2016 AGU-Ocean Sciences, AGU Fall Meeting Oral presenter;  
 PhD Univ. Wellington  
 Sam Pak (ME), 2016-2017  
 Katie Tokos (EAS), Jan 2016-Aug 2016  
 Lucas Everitt (EAS), 2015-2016  
 Shelby Miller (EAS), 2014- 2016, 2015 AGU Fall Meeting presenter; GSU Masters  
 Kayla Townsend (CEE), 2014-2016

Christopher Bosma (EAS), 2014-2015, 2015 AGU Fall Meeting presenter; U-Wisconsin PhD  
 Macon Abernathy (REU), summer 2015  
 Colin Stone (CHEM), 2014-2015  
 Corey Drozdowski (ME), 2013-2014  
 Susan Hess (EAS), 2013  
 Eleanor Middlemas (MATH), 2011-2013, 2012 AGU poster presenter, NSF Graduate Research  
 Fellow 2013, PhD U. Miami, currently Data Scientist, Jupiter Intelligence  
 Elizabeth Wiggins (EAS), 2010-2013, 2012 AGU poster presenter, NSF Graduate Research  
 Fellow 2013, UC Irvine PhD, currently NASA Research Scientist  
 Danja Mewes (EAS), 2012-2013  
 Alexander Hoffman (EAS), 2010-2011  
 Rebecca Kollenberg (EAS), 2009-2011, currently graduate student at U. Alabama  
 Heather Crespo (EAS), 2008-2011  
 Hussein Sayani (EAS), 2007-2009, Recipient of the 2009 College of Science Excellent  
 Undergraduate Researcher Award, currently NSF Graduate Research Fellow  
 Sarah Mostafa (CEE), 2008  
 Jordan Simpkins (EAS), 2008  
 Kerry Caslow (EAS), 2008  
 Julian McAdams (EAS), 2008  
 Stacy Carolin (EAS), 2007-2008, currently Oxford postdoctoral fellow  
 Alison Graab (EAS), 2007-2008, currently Senior VP, Alpine Group  
 Megan Smith (BIO), 2006-2007  
 Sara Harrold (UC-Boulder), REU, 2006, UW graduate student  
 Jenni Williams (EAS), 2005-2007, currently EPA employee  
 Kim Brady (EAS), 2006, MS EAS, currently Schmidt Ocean Institute technician  
 Anna Williams (EAS), 2005  
 Kathleen Salome (EAS), 2005, currently researcher, Sigma Aldrich  
 Mindy Drinkuth (EAS), 2005  
 Sean Ryan (EAS), 2005

#### High School Research Assistants:

Emma Garcia, Jorge Alvarez High School, 2025-  
 Jarilyn Delgado, Jorge Alvarez High School, 2025-  
 Lia Urena, East Providence High School, 2025-  
 Alexa Pereira, East Providence High School, 2025-  
 Iris Yang, Barrington High School, 2025-  
 Claudia Leonard, Barrington High School, 2025-  
 Briana Jaswell, North Providence High School, 2024-2025  
 Sylvie Preira, North Providence High School, 2024-2025  
 Abby Goblick, Barrington High School, 2024-2025  
 Tessa Di Lorenzo, Barrington High School, 2024-2025  
 Evren Basaran, 2019-2020  
 Chandler Morris, Grady High School Gifted and Talented Program, 2016-2017  
 Pooja Sharma, Johns Creek High School, Summer Intern, 2017  
 Francesca Tine, Italian summer exchange student, 2017

Ariana Lewis, Northside High School, 2012-2013, Recipient of “Einstein Award” and Winner of High School Science Fair, Dec 2012  
Tessa Szalkowki, Grady High School Gifted and Talented Program, 2015-2016  
Ben Wilson, Westminster High School, Summer 2016