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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

2016- Georgia Power Chair, Georgia Tech
2016- Georgia Tech ADVANCE Professor for Institutional Diversity
2015- Professor, Earth and Atmospheric Sciences, Georgia Tech
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

2015 Fellow, Brooks 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
1997 NSF Graduate Research Fellowship
1994 Scripps Undergraduate Research Fellowship

RESEARCH INTERESTS

Tropical Pacific climate variability and change

Stable and radiometric isotope geochemistry
Water isotopes and global hydrology
Major and trace element geochemistry
Paleoclimate modeling
Climate model-data intercomparison

EXTERNAL FUNDING (total=\$4Ma to Georgia Tech; \$3M as Lead PI)

Signatures of the Toba super-eruption in Borneo stalagmites, NSF-P2C2, \$434K, 6/1/15-5/30/18, PI Cobb, coPI Ingall (GT).

Ensemble reconstruction of central tropical Pacific climate over the last 6,000 years, NSF-P2C2, \$516K, 4/1/15-3/30/18, PI Cobb.

RAPID: Atoll-based observations of the predicted 2014/2015 El Niño: ground-truthing coral paleoclimate records, NSF-OCE, 7/1/15-6/30/15, \$27K (Georgia Tech portion), PI S. Stevenson (NOAA), coPIs Cobb, M. Merrifield (UH), and B. Powell (UH).

RAPID: Tracking coral reef impacts of the 2014-2015 El Niño event, NSF-BIO, 7/1/14-6/30/15, \$34K (Georgia Tech portion), Lead PI Cobb, CoPI R. Gates (UH)

Collaborative Research: Controls on water isotope variability in the tropical Pacific: a strategy to improve paleoclimate interpretations, NSF-AGS, 10/1/12-9/30/15, \$229K (Georgia Tech portion), Lead PI Cobb, Co-PIs J. Conroy, D. Noone (UC-Boulder).

Collaborative Research: Pacific decadal variability and central Pacific warming El Niño in a changing climate, DOE, 9/1/10-8/30/13, \$370K (Georgia Tech portion), PI E. Di Lorenzo, Co-PIs K. Cobb, D. Vimont, M. Alexander, B. Anderson, N. Schneider.

Collaborative Research: Fossil coral estimates of central tropical Pacific SST and hydrology over the last millennium, NOAA-COM, 3/1/11-2/28/14, \$458K (Georgia Tech portion), Lead PI Cobb, Co-PI J. Smerdon (LDEO).

Collaborative Research: Fossil coral records of ENSO and tropical Pacific climate over the late Holocene, NSF-OCE, 3/1/08-2/28/11, \$174K (Georgia Tech portion), PI C. Charles (SIO), Co-PI Cobb.

Fingerprinting climate change in the tropical Pacific: a research cruise to the Southern Line Islands, National Geographic Society, 10/15/08-1/15/09, \$15K, PI Cobb.

PECASE: High-resolution Malaysian speleothem records of paleo-ENSO and 20th century calibration, NSF-ATM, 2/1/07-1/31/12, \$611K, PI Cobb.

Coral records of late 20th century tropical Pacific upwelling: investigating a potential climate-carbon feedback, PRF-ACS, 1/15/07-1/14/10, \$90K, PI Cobb.

Constraining the tropical Pacific's role in low-frequency climate change of the last millennium, NOAA-CCDD, 6/1/06-5/30/10, \$263K (Georgia Tech portion), Lead PI Cobb, Co-PIs N. Graham, M. Mann, M. Alexander, M. Hoerling.

Fossil coral radiocarbon measurements of equatorial upwelling over the last millennium, NSF-Earth System History, 6/1/05-5/30/08, \$307K, PI Cobb.

REFEREED PUBLICATIONS (symbols designate *student or †postdoc author)

SUBMITTED

1. Liu, Y., **K.M. Cobb**, H. Song, Q. Li, Q. Li, T. Nakatuska, 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. 20th century central Pacific El Niño variability higher than last eight centuries. In revision for *Nature Communications*.
2. 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, In revision for *Nature Geoscience*.

2016

3. Dassie, E., et al., Save our marine annually-resolved proxy archives (MARPA), in press for *Eos: Transactions of the American Geophysical Union*.
4. **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, In press, *JGR-Atmospheres*.
5. 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.
6. 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.
7. 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.
8. **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.

9. **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, In press, *G-cubed*.
10. 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

11. **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.
12. 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.
13. 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.
14. 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.
15. 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.
16. 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

17. **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.

18. Liu, 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.
19. **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.
20. 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.
21. 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

22. **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.
23. **Carolyn**, 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.
24. **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.
25. **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.
26. **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.
27. **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.
28. **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.

29. Anderson, B.T., J.C. Furtado, K.M. **Cobb**, E. Di Lorenzo, Extra-tropical forcing of El Niño/Southern Oscillation asymmetry, *Geophys. Res. Lett.*, doi: 10.1002/grl.50951, 2013.
30. 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.
31. 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

32. 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.
33. Maibach, E., A. Leiserowitz, S. Cobb, M. Shank, K.M. **Cobb**, J. Gullede, “The legacy of ‘Climategate’: revitalizing or undermining climate science and policy?” *WIREs Climate Change* 3(3): 289-295, 2012.
34. 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

35. **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.
36. **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

37. 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.
38. 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.
39. **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.

40. 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

41. **Nurhati**, I.S. *, K.M. **Cobb**, C.D. Charles, and R.B. Dunbar. Late 20th century warming and freshening in the central tropical Pacific. *Geophys. Res. Lett.* doi:10.1029/2009GL040270, 2009.
42. 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.
43. 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

44. 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.
45. **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.
46. **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.
47. 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.
48. **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.
49. **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.
50. 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.

51. Paytan, A, S. Mearon, K.M. **Cobb**, M. Kastner. Origin of barite deposits: Sr and S isotope characterization. *Geology* 30(8): 747-750, 2002.
52. **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. “A southern misfit”, *Nature Climate Change, News & Views*, doi: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
Research expeditions and cruises to Line Islands atolls, 1998, 2000, 2005, 2012-2016
Research expedition to Andros, Bahamas, 2008

INVITED TALKS

International

Plenary Lecture, CLIVAR Open Science Meeting, Qindao, China, 9/16
Keynote, 4th International Sclerochronology Workshop, 6/16
CLIVAR Pacific Panel Workshop, Santiago, Chile, 10/15
Plenary Lecture, INQUA, Nagoya, Japan, 8/15

4th CLIVAR ENSO workshop, Evaluation of ENSO in climate models: ENSO in a changing climate, Paris, 7/15
IAEA “Water isotopes in the tropics” workshop, Vienna, 6/15
PAGES Open Science Meeting, Goa, India, 8/13
CLIVAR El Nino-Southern Oscillation in the CMIP5 models, Hobart, Australia, 1/13
PAGES El Nino-Southern Oscillation PMIP Workshop, 9/11, Nice, France
NOAA/PAGES Medieval Climate Anomaly Workshop, Lisbon, Portugal, 9/10
Communicating Climate Science workshop, Costa Rica, 5/10
ENSO reconstructions of the last 500 years, Tahiti, 4/08
Climate of the Last Millennia, Wengen, Switzerland, 6/06
Plenary Lecture, International Conference on Paleoceanography, Biarritz, France, 9/04

National

Keynote, Ecological Integration Symposium, TAMU, 3/16
Two invited talks at American Geophysical Union Fall Meeting, 12/16
Last Millennium Reconstruction Workshop, Friday Harbor, Washington, 10/16
MIT Program on Atmospheres, Oceans, and Climate Departmental Seminar, 10/16
PAGES workshop on Volcanic Impacts on Climate & Society, Columbia University, 6/16
Distinguished Lecturer Series, COLA, George Mason University, 1/16
Keynote speaker, Georgia Perimeter College, 12/15
Climate and Society speaker, UGA, 12/15
Two invited talks at Fall Meeting, American Geophysical Union, 12/15
Rutgers University, Departmental seminar, 10/15
Cornell University, Departmental seminar, 8/15
NC State Dept. of Marine, Earth, and Atmospheric Sciences, 8/15
University of Pittsburgh Honor’s College Keynote, 4/15
Climate@Emory Day of Scholarship, Emory University, 4/15
Clemson University, School of Agriculture, Forestry, and Env. Science, 11/14
NSF/PAGES workshop on Holocene Climate Change, Mt. Hood, Oregon 10/14
Penn State, Dept. of Geosciences, 9/14
University of Southern California, Dept. of Earth Sciences, 9/14
University of Hawaii Dept. of Oceanography, 5/14
AAAS “Engaging with Social Media” workshop, 2/14
Georgia State University Department Colloquium Speaker, 11/13
Univ. of Minnesota Dept. of Geological Sciences Departmental seminar, 6/13
Duke University Nicholas School of the Environment seminar, 4/13
Francis Marion Colloquium Speaker, 4/13
CLIVAR Diversity in ENSO workshop, 2/13, Boulder, CO
Syntrace-21 synthesis workshop, 11/12, Providence, RI
Climate Informatics workshop, 10/12, NCAR, Boulder, CO
Data-model inter-comparisons using CMIP5 workshop, 3/12, Honolulu, Hawaii
Lamont-Doherty Earth Observatory Colloquium, 2/12, Palisades, NJ
American Geophysical Union Fall Meeting, 12/11
Last millennium climate change in the Hawaiian Islands, 11/11, Hilo, Hawaii
American Geophysical Union, 12/10
PopTech Conference, Camden, ME, 10/10

University of Delaware, Dept. of Oceanography seminar, 12/08
American Geophysical Union, 12/08
Brown University, Dept. of Geology seminar, 11/08
University of Arizona, Dept. of Geology seminar, 10/08
Rutgers University, Dept. of Marine Sciences seminar, 9/08
University of Georgia, Dept. of Geology seminar, 9/08
Smith College Cave Symposium, 2/08
Yale University, Dept. of Geology seminar, 1/08
Climatic Changes in the Last 1500 Years, Honolulu, HI, 11/07
State University of New York, Dept. of Marine Sciences seminar, 10/07
AGU Fall Meeting 2005, 2006
Florida State University, Dept. of Oceanography seminar, 4/06
University of Iowa, Dept of Geology seminar, 4/06
Comer Abrupt Climate Change Meeting, Palisades, NJ, 10/05
Abrupt Climate Change, Aspen, Colorado, 7/05
Emory University, Dept. of Environmental Science seminar

PROFESSIONAL ACTIVITIES

Editor, Geophysical Research Letters, 2015-present
Member, AGU and AAAS

National and International Panels

2016-present Member, Advisory Council, Climate Science Legal Defense Fund
2015-present Member, Advisory Council, Leshner Leadership Institute for Public Engagement, AAAS
2013-present Member, CLIVAR Pacific Panel
2016-present Member, Advisory Council, AGU “Sharing Science” program
2014-present 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

NSF Earthcube Paleodata Standards workshop, 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-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, AGU “Climate of the Common Era”, 12/14, 12/15, 12/16
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

Founder, AGU PP Section ‘Dansgaard’ Mid-Career Award, instituted in 2015
Founder and Chair, SWAG Committee on Diversity in Geoscience Awards, 10/12-present

GEORGIA TECH SERVICE

GT Strategic Energy Institute Advisory Committee, 2014-
GT Presidential Scholar Program Faculty Guide, 2016-
GT Student Energy Club Faculty Board, 2014-
GT QEP/SLS Faculty Advisory Board, 2014-
EAS Chair Advisory Committee, 2014-
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
Member, 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

Lead blogger, cobblab.blogspot.com (>200 views/day)
Tweeting at @coralsncaves (verified; >3500 followers)
Featured Scientist, Emmy Award-winning Showtime documentary "Years of Living Dangerously", 2014
Featured story on front page of New York Times, 4/9/16
Featured interview and story on NBC's "Today Show", 4/16
Featured guest, NPR's "Diane Rehm Show", 4/16
TEDxEmory speaker, 2/16

Last year only

Featured guest, "The Green Guy" radio program, 10/16
Keynote speaker, Senior University, Atlanta, 10/16
Keynote speaker, EPA Youth Symposium, 9/16
Atlanta Science Tavern speaker, 8/16
Presenter, Science of Sustainability teacher workshop, 7/16
Presenter, Gunung Mulu National Park Staff Meeting, 5/16
Featured speaker, Trinity Presbyterian Church, 4/16
REDDIT "Ask Me Anything", AGU Sharing Science, 4/16
Guest lecturer, Women Leaders in Science, Georgia State, 3/16
Edgewise speaker, MCCA, Atlanta, 4/16
Presenter, Centennial Group, Sierra Club, Atlanta, 3/16
Paris Climate Summit Panel, Georgia Tech, 1/16
Lead presenter, Columbia Theological Seminary's "Science in Religion" program, 10/15
Featured scientist, The Weather Channel's "WeatherGeeks", 10/15

Regular commentator for Voice of Russia Radio, 2013-present
 Led student visit to Capitol Hill to meet with GA lawmakers, 5/09, 5/10, 5/12, 5/13, 6/15, 6/16
 Research regularly featured in TV, print, on-line, and radio media

TEACHING EXPERIENCE (* indicates co-taught courses)

<i>Course #</i>	<i>Course Title</i>	<i>Level</i>
EAS/HP 3110	Energy, the Environment, and Society	undergrad
EAS 6216	Isotope Geochemistry	grad
EAS 4350	Oceanography*	undergrad
EAS 4803/6136	Paleoclimatology & Paleoceanography*	mixed
GT 2803	Foundations of Sustainable Communities*	undergrad

Graduate seminars as lead instructor

Monsoons: past, present, and future
 Abrupt Climate Change
 The "Hockey Stick"
 Multi-decadal climate variability
 Paleoclimate modeling (Fall, 2011)
 Water Isotopes (Spring, 2012)
 Ocean acidification past and present (Fall, 2012)
 The Warming Papers (Spring, 2013)
 The Global Hydrological Cycle (Fall, 2013)
 Corals and Climate Change (Spring, 2015)
 The 2015/2016 El Niño event (Fall, 2015)

STUDENTS SUPERVISED

Postdoctoral:

Alyssa Atwood, NOAA Climate & Global Change Fellow, joint w/ J. Chiang (UC-Berkeley), 10/2015-
 Bronwen Konecky, NSF-AGS Postdoctoral Fellow, joint w/ D. Noone (OSU) 2013-2015
 Samantha Stevenson, NSF-AGS Postdoctoral Fellow, joint w/ B. Powell (U-Hawaii), 2013-2015
 Jessica Conroy, NSF-EAR Postdoctoral Fellow 2011-2013, currently Asst. Prof., U. Illinois Urbana-Champaign
 Julien Emile-Geay, 2006-2008, currently Asst. Prof., Univ. Southern California

Graduate:

Shelly Ellis, 2016-
 Annika Jersild, 2016-
 Pamela Grothe, 2012-present; Women in Geoscience Fellow
 Hussein Sayani, 2011-present; 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, Asst. Prof., Surya University, Indonesia
Jason Furtado, PhD 2011 (co-advised), Asst. 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:

Sam Pak (ME), 2016-
Robert Johnson (PUBP), 2016-
Megan Gottshalk (CEE), 2016-
Melat Hagos (EAS), 2016-
Gemma O'Connor (ISYE), 2016- , AGU Fall Meeting Oral Presenter
Nicholas Hitt (EAS), 2015-2016, 2016 AGU-Ocean Sciences, AGU Fall Meeting Oral presenter
Katie Tokos (EAS), Jan 2016-Aug 2016
Lucas Everitt (EAS), 2015-2016
Shelby Miller (EAS), 2014- 2016, 2015 AGU Fall Meeting presenter
Kayla Townsend (CEE), 2014-2016
Christopher Bosma (EAS), 2014-2015, 2015 AGU Fall Meeting presenter
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, currently graduate student w/ Amy Clement, U. Miami
Elizabeth Wiggins (EAS), 2010-2013, 2012 AGU poster presenter, NSF Graduate Research Fellow 2013, currently graduate student with Jim Randerson, UC-Irvine
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 environmental law consultant
Megan Smith (BIO), 2006-2007
Sara Harrold (UC-Boulder), REU, 2006, currently 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:

Ariana Lewis, Northside Public High School, 2012-2013, Recipient of “Einstein Award” and
Winner of High School Science Fair, Dec 2012, currently at Brown University
Tessa Szalkowki, Grady Public High School Gifted and Talented Program, 2015-2016
Ben Wilson, Westminster High School, Summer 2016
Chandler Morris, Grady Public High School Gifted and Talented Program, 2016-2017