

## **KIM M. COBB**

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## **EDUCATION**

- 2002 Ph.D., Oceanography, Scripps Inst. of Oceanography, University of California, San Diego.  
1996 B.A., Honors in Geology and Biology, Yale University.

## **PROFESSIONAL EXPERIENCE**

- 2004-Present Assistant Professor, Earth and Atmospheric Sciences, Georgia Inst. of Technology, Atlanta.  
2005, 2008 P.I., Field expeditions to Borneo, research cruises to Line Islands.  
2002-2004 Postdoctoral Fellow, California Inst. of Technology, Pasadena.  
1996-2002 Graduate Student Researcher, Scripps Inst. of Oceanography (SIO), University of California, San Diego.  
1998-2001 Visiting Summer Scientist, University of Minnesota Isotope Lab.  
2000 P.I., Field Expedition to Palmyra Island.  
1998 Co-P.I., Oceanographic Cruise in tropical Pacific.

## **HONORS AND AWARDS**

- 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

## **CURRENT EXTERNAL RESEARCH SUPPORT**

NSF-OCE, Co-PI, "Fossil coral records of ENSO and tropical Pacific climate from the mid-Holocene to present", 3/1/08-2/28/11, \$174K.

NSF-ATM, "CAREER: High-resolution Malaysian speleothem records of paleo-ENSO and 20<sup>th</sup> century calibration", 2/1/07-1/31/12, \$611K.

ACS-PRF, "Coral records of late 20<sup>th</sup> century tropical Pacific upwelling: investigating a potential climate-carbon feedback", 1/15/07-1/14/09, \$90K.

NOAA CCDD, PI, "Constraining the tropical Pacific's role in low-frequency climate change of the last millennium", 2006-2009, \$262K (Georgia Tech portion).

**REFEREED PUBLICATIONS** (\* designates student author)

Emile-Geay, J.\*, **K.M. Cobb**, M.E. Mann, S. Rutherford, A. Wittenberg, Multi-proxy reconstructions of tropical Pacific sea-surface temperature over the past millennium. In prep.

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", Submitted.

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. Submitted.

Graham, N.E., C.M. Ammann, D. Fleitmann, **K. M. Cobb**, and J. Luterbacher, Beyond the tropical Pacific: did Indian Ocean temperatures contribute to the "Medieval Climate Anomaly"?, Submitted.

Di Lorenzo, E., N. Schneider, **K.M. Cobb**, J.C. Furtado, M.A. Alexander, ENSO and the North Pacific Gyre Oscillation: an integrated view of Pacific decadal dynamics, Submitted.

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, Submitted.

Adkins, J.F., Partin, J.W., **K.M. Cobb**, Fernandez, D.P., L. Robinson, U/Th-dating stalagmites from northern Borneo, Submitted.

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. Submitted.

LaVigne, M., K.A. Matthews, A.G. Grotoli, 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, In press *Geochimica et Cosmochimica Acta*.

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.

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.

- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- Paytan, A, S. Mearon, **K.M. Cobb**, M. Kastner. Origin of barite deposits: Sr and S isotope characterization. *Geology* 30(8): 747-750, 2002.
- 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.** “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.