

JESSICA W. MOERMAN

CURRICULUM VITAE

- CONTACT** Georgia Institute of Technology
School of Earth and Atmospheric Sciences phone: 865-323-6809
311 Ferst Drive fax: 404-894-5638
Atlanta, GA 30332-0340 jessica.moerman@gatech.edu
- EDUCATION** **Georgia Institute of Technology** 2009 – present
Ph.D. candidate in Earth and Atmospheric Sciences
Advisor: Dr. Kim Cobb
Thesis: Late Holocene Paleohydrology of the Western Tropical Pacific
Minor: Public Policy
- University of Tennessee-Chattanooga** 2004 – 2009
B.S. in Chemistry and Geology
Summa cum laude
Advisor: Dr. Gretchen Potts
- University of Adelaide, Australia** 2006 – 2007
Visiting scholar
- FELLOWSHIPS AND AWARDS** EAS Best Paper Award 2013
P.E.O. Scholar Award 2013
NSF Urbino Summer School in Paleoclimatology Scholarship 2013
NSF Graduate Research Fellowship 2010 – 2013
Georgia Institute of Technology President's Fellowship 2009 – 2012
McNeely Outstanding Senior in Chemistry 2009
Undergraduate Award in Analytical Chemistry 2009
Outstanding Senior in Geology 2009
Barry M. Goldwater Scholar 2008
William E. Brock Scholar 2004 – 2009
- PUBLICATIONS** J.W. Moerman, Cobb, K.M., Partin, J.W., Meckler, A.N., Carolin, S.A., Adkins, J.F., Malang, J., Lejau, S., Clark, B., Tuen, A.A. Transformation of ENSO-related rainwater to dripwater $\delta^{18}\text{O}$ variability. *Geophysical Research Letters*, *in press*.
- J.W. Moerman, Cobb, K.M., Adkins, J.F., Sodemann, H., Clark, B., Tuen, A.A. (2013) Diurnal to interannual rainfall $\delta^{18}\text{O}$ variations in northern Borneo driven by regional hydrology. *Earth and Planetary Science Letters*. **369-370**, 108-119. doi: 10.1016/j.epsl.2013.03.014.
- J.W. Moerman & G.E. Potts (2011) Analysis of metals leached from smoked cigarette litter. *Tobacco Control*. **20**, Supp. 1, i30-i35.

Works in preparation

J.W. Moerman, Cobb, K.M., Konecky, B.L., Noone, D. The role of remote versus local climatic influences in shaping seasonal rainfall $\delta^{18}\text{O}$ variations in northern Borneo. *Invited manuscript in prep. for Quaternary Science Reviews*.

S.A., Carolin, Cobb, K.M., Lynch-Stieglitz, J., Moerman, J.W., Lejau, S., Malang, J., Tuen, A.A., Adkins, J.F. 0-160ky multi-stalagmite $\delta^{18}\text{O}$ record from northern Borneo. *in prep. for Earth and Planetary Science Letters*.

A.N. Meckler, Affolter, S., Dublyansky, Y., Krüger, Y., Vogel, N., Adkins, J., Bernasconi, S., Carolin, S., Cobb, K., Frenz, M., Kipfer, R., Leuenberger, M., Moerman, J., Spötl, C., Fleitmann, D. Comparison of temperature proxies in tropical stalagmites. *in prep. for Quaternary Science Reviews*.

J.W. Moerman, Cobb, K.M., Adkins, J.F., Clark, B., Tuen, A.A. Western Pacific hydroclimate variability over the past two millennia from fast-growing northern Borneo stalagmites. *in prep.*

J.W. Moerman, Cobb, K.M. High-resolution tropical rainfall isotope variability across individual precipitation events. *in prep*

SELECTED

PRESENTATIONS

J.W. Moerman, Cobb, K.M., Adkins, J.F., Partin, J.W., Clark, B., Malang, J., Lejau, S., Tuen, A.A. (2014) Improving tropical paleoclimate interpretations by monitoring modern water isotopes. PAGES Workshop – Cast, Cut, Sample and Analyze: A practical approach to processing speleothems for paleoclimate reconstruction. University of Miami.

J.W. Moerman, Partin, J.W., Adkins, J.F., Clark, B., Malang, J., Lejau, S., Tuen, A.A., Cobb, K.M. (2014) Oxygen isotopes in Borneo cave dripwater resolve the 2009-2012 ENSO cycle. 1st Annual Southeastern Biogeochemistry Symposium.

J.W. Moerman, Cobb, K.M., Partin, J.W., Clark, B., Malang, J., Lejau, S., Tuen, A.A. (2013) Borneo cave dripwater isotope timeseries resolve the 2009-2012 ENSO cycle. 2013 American Geophysical Union Fall Meeting, Abstract PP42C-02.

J.W. Moerman, Cobb, K.M., Adkins, J.F., Sodemann, H., Clark, B., Tuen, A.A. (2012) Local and regional climatic controls on high-resolution rainfall and cave dripwater oxygen isotopes in northern Borneo. 2012 American Geophysical Union Fall Meeting, Abstract PP33A-2094.

J.W. Moerman, Carolin, S.A. (2012) Late Quaternary hydroclimate variability in northern Borneo: Findings and techniques. Universiti Malaysia Sarawak. [INVITED]

A.N. Meckler, J.M. Eiler, J.W. Moerman, K.M. Cobb, J.F. Adkins (2011) Clumped isotope survey in Borneo caves. 2nd International Workshop on Clumped Isotopes. Abstract 22.

J.W. Moerman, K.M. Cobb, B. Clark, A.A. Tuen (2011) The amount effect at various timescales in rainwater and dripwater $\delta^{18}\text{O}$ timeseries from northern Borneo. 6th International Conference: Climate Change - The Karst Record. Abstract 96.

J. Moerman, K.M. Cobb, R. Kollmeyer, B. Clark, A.A. Tuen (2010) Climatic influences on daily rainwater $\delta^{18}\text{O}$ and δD timeseries in Northern Borneo. 2010 Goldschmidt Conference. *Geochemica et Cosmochemica Acta*. **74**, 11, Supp 1, A716.

G.E. Potts & J.W. Moerman (2009) Not just an eyesore: Analysis of metals leached from cigarette litter. 61st Southeastern Regional Meeting of the American Chemical Society, Abstract 498.

J.W. Moerman & G.E. Potts (2008) Analysis of pollutants leached from used cigarette litter. 60th Southeastern Regional Meeting of the American Chemical Society, Abstract 63473.

FIELD WORK	Manus Island, Papua New Guinea <i>Expedition team member</i> Collection of rainfall and water vapor isotopes	2013
	Gunung Mulu National Park, Malaysia <i>Expedition leader</i> Collection of stalagmites and water isotopes	2010, 2012
PROFESSIONAL TRAINING	Cast, Cut, Sample and Analyze: Speleothem Workshop, Miami	2014
	Urbino Summer School for Paleoclimatology, Italy	2013
	Graduate Research Assistant Georgia Institute of Technology Advisor: Dr. Kim Cobb (EAS)	2009 – present
	Undergraduate Research Assistant University of Tennessee-Chattanooga Advisor: Dr. Steven Symes (Chemistry)	2008 – 2009
	Undergraduate Research Assistant University of Tennessee-Chattanooga Advisor: Dr. Gretchen Potts (Chemistry)	2007 – 2009

	Undergraduate Research Assistant University of Adelaide Advisor: Dr. Steven Hill (EES)	2006 – 2007
	Honors Student Research Assistant University of Tennessee-Chattanooga Advisor: Dr. Anne Holmes (Geology)	2005 – 2006
TEACHING	Teaching Assistant Georgia Institute of Technology Earth Systems Processes (EAS 2600)	2013 – 2014
	Guest Lecturer Arabia Mountain High School Oceanography	2012 – present
	Teaching Assistant University of Tennessee-Chattanooga General Chemistry II (CHEM 123)	Spring 2006
SYNERGISTIC ACTIVITIES	Session chair, “Water Isotope Systematics: Improving Paleoclimate Interpretations” AGU Fall Meeting	2014
	Mentor for NeXXt Scholars Program, New York Academy of Science and International Women's Undergraduate STEM Education Initiative	2013 – present
	IAEA Coordinated Research Project: Isotopes in Precipitation and Paleoclimatic Archives in Tropical Areas	2013 – present
	Co-organizer for Southeastern Biogeochemistry Symposium	2013 – present
	AGU Congressional Visit Day	2013
	Co-organizer for Georgia Tech Veritas Forum	2012 – present