

CONTACT

Georgia Institute of Technology
School of Earth and Atmospheric Science
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EDUCATION

Georgia Institute of Technology Doctor of Philosophy in Earth and Atmospheric Science Minor in Higher Education Advisor: Dr. Kim Cobb	Expected, Summer 2016
University of Colorado Master of Science in Geology Advisor: Dr. Karl Mueller	2012
University of Mary Washington Bachelor of Science in Geology, with Honors, <i>Summa cum laude</i> Advisor: Dr. Neil Tibert	2006

FELLOWSHIPS AND AWARDS

SDE/GWIS Eloise Gerry Fellowship and Hartley Corp Fellowship	2014
NSF USSP Scholarship – Urbino Paleoclimate Summer School	2014
Georgia Tech Presidential Fellowship	2012
CIRES Silver Medal Award	2009
Victor Zullo Memorial Research Award	2007
The Sylvia and B.D. Schwartz Graduate Fellowship Award	2007
Outstanding Graduate Poster at the Atlantic Estuarine Research Society and SEER Meeting	2007
Research Center Ocean Margins Fellowship	2006
Keck Geology Consortium Research Fellowship	2005
Phi Beta Kappa	2005

PROFESSIONAL AFFILIATIONS

American Geophysical Union
Geological Society of America
Graduate Women in Science
Associate for Women Geologists

PUBLICATIONS

- Grothe, P.R.**, K.M. Cobb, S.L. Bush, H. Cheng, G.M. Santos, John R. Southon, and R.L. Edwards, in prep, A comparison of rapid screening ^{14}C and U-Th dates from Line Island fossil corals: implications for paleoclimate reconstruction, *G-cubed*.
- Toth, L.T., R.B. Aronson, K.M. Cobb, H. Cheng, **P.R. Grothe** and H.R. Sayani, submitted, Climatic and biotic thresholds of coral-reef shutdown, *Nature Climate Change*.
- Eakins, B.W. and **P.R. Grothe**, 2014, Challenges in building coastal digital elevation models, *Journal of Coastal Research*, v.30, n.5, p. 942-953.
- Grothe, P.R.**, N. Cardozo, K. Mueller, and T. Ishiyama, 2014, Propagation history of the Osaka-wan blind thrust, Japan, from trishear modeling, *Journal of Structural Geology*, v. 58, p. 79-94.
- Cortese, G., R. Gersonde, Maschner, K., and **P. Medley**, 2012, Glacial-interglacial size variability in the diatom *Fragilariopsis kerguelensis*: possible iron/dust controls?: *Paleoceanography*, v. 27, PA1208, 14 pp.
- Medley, P.**, N.E. Tibert, W.P. Patterson, H.A. Curran, L. Greer, and J.P. Colin, 2007, Paleosalinity history of middle Holocene lagoonal and lacustrine deposits in the Enriquillo Valley, Dominican Republic based on pore morphometrics and isotope geochemistry of Ostracoda, *Micropaleontology*, v. 53, no. 5, p. 409-419.

ABSTRACTS

- Eakins, B.W. and **P.R. Grothe**, 2014, Challenges in building coastal DEMs: 2014 AAG Annual Meeting, Tampa, FL.
- Morales-Collazo, J.A., W. Ramirez-Martinez, W. Amos, K.M. Cobb, H. Sayani, **P. Grothe** and M. Gonzalez-Tavarez, 2013, Developing a two thousand year record of climate variability from a reef exposure in Canada Honda, Enriquillo Lake, Dominican Republic, 29th Annual Symposium of Caribbean Geology
- Grothe, P.R.**, K.M. Cobb, S.L. Bush, H. Cheng, G.M. Santos, J.R. Southon, and R.L. Edwards, 2013, A comparison of rapid-screening ^{14}C dates and U-Th dates from fossil corals: implications for paleoclimate reconstruction: *GSA abstracts with Programs*, vol. x, no. x, Denver, CO. (Talk)
- Grothe, P.R.**, Mueller, K., Cardozo, N., and Ishiyama, T., 2012, 3D growth of the Osaka-wan thrust and fault-related fold- a detailed 1250 Ka record of rapid lateral outward propagation followed by higher rates of central uplift: *GSA abstracts with Programs*, vol. 44, no. 6, Albuquerque, NM. (Poster)
- Grothe, P.R.**, Eakins, B.E., Taylor, L.A., Carignan, K.S., Love, M.R., Amante, C.J., Friday, D.Z., and Lim, E., 2011, Strategies and techniques for integrating topographic and bathymetric data in a high-resolution digital elevation models: *AGU Fall Meeting 2011*, December 5-9, San Francisco, CA. (Poster)
- Eakins, B.W, Carignan, K.S., **Medley, P.R.**, and Taylor, L.A., 2010, DEM research to support tsunami modeling and forecasting efforts: *AGU's 2010 Ocean Sciences Meeting*, February 22-26, Portland, OR.
- Medley, P.R.**, Leonard, L., and Davis, L., 2007, Evaluation of bottom boundary layer model output response to changing bottom characteristics in the near shore, Long Bay, North Carolina: Contributed Poster at *Atlantic Estuarine Research Society and Southeastern Estuarine Society Meeting*, March 15-17, Pine Knoll Shores, NC.(Poster)
- Medley, P.**, Tibert, N. E., Patterson, W. P., Curran, H. A., Colin, J.P., and Greer, L., 2006, Paleohydrology of Middle Holocene lagoonal & lacustrine deposits in the Enriquillo Valley,

- Dominican Republic: Pore Morphometrics and Isotope Geochemistry of Ostracoda, *GSA Abstracts with Programs*, vol. 38, no. 7, pp. 444, Philadelphia PA (Talk)
- Medley, P.**, Tibert, N. E., Curran, H. A., Patterson, W.P., and Greer, L., 2006, Paleosalinity history of a Holocene lagoon in the Enriquillo Valley, Dominican Republic: pore morphometrics of ostracoda: *GSA Abstracts with Programs*, vol. 38, no. 2, pp. 76, Harrisburg, PA (Talk)
- Medley, P.**, Tibert, N. E., Curran, H. A., Patterson, W. P., and Greer, L., 2006, Paleosalinity History of a Holocene Lagoon in the Enriquillo Valley, Dominican Republic: Pore Morphometrics of Ostracoda: *Annual Keck Research Symposium in Geology, Amherst MA*. (Talk and poster)

FIELD WORK

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| Christmas Island, Republic of Kiribati
Installing temperature and salinity loggers to monitor El Niño | September 2014 |
| Christmas Island, Republic of Kiribati
Filming for <i>Year of Living Dangerously</i> and collecting fossil corals | August 2013 |
| Enriquillo Valley, Dominican Republic
Collection of samples from uplifted reef terrace | June 2005 |

TEACHING EXPERIENCE

- | | |
|---|-----------------|
| Intermediate Teaching Certificate, Georgia Tech's Tech to Teaching | Spring 2014 |
| Instructor, TA Preparation Course | Spring 2014 |
| Teaching Assistant | |
| Oceanography | Fall 2013, 2014 |
| Paleoceanography and Paleoclimatology | Spring 2013 |
| Active Tectonics Field Course | Spring 2011 |
| Environmental Geology Laboratory | 2006 – 2007 |
| High School Teacher, Earth Science and Earth Science II | 2008 – 2009 |
| Guest Lecturer | |
| “Coral Reef Ecology” in <i>Oceanography</i> | Fall 2014 |
| “Ice Ages” in a <i>Habitable Planet</i> | Spring 2013 |
| “Evolution of Earth's Atmospheric Oxygen” in <i>Our Changing Planet</i> | Spring 2011 |
| “Coastal Morphology” in <i>Environmental Geology</i> | Spring 2006 |

PROFESSIONAL TRAINING

- | | |
|---|-------------|
| Urbino Summer School for Paleoclimatology, Italy | Summer 2014 |
| Editor, American Journal Experts | 2012 |
| Associate Scientist I&II, CIRES University of Colorado, Boulder | 2008 – 2012 |

WORKSHOPS

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| PAGES Holocene Climate Change Workshop, Portland, OR | Oct. 2014 |
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ACADEMIC SERVICE

Founder and Co-organizer - Women in geosciences (WiGs) at Georgia Tech	2013 – Present
Co-organizer – Graduate Student Symposium for EAS	2013-2014
Graduate Student Recruitment Co-organizer	2013-2014

SCIENCE EDUCATION OUTREACH

Atlanta Science Festival STEM presenter to 6 th grade Earth Science class	March 2014
Co-organizer - Screening of “Chasing Ice” followed by a panel discussion with climate scientists	October 2013
Interviewed for Showtime’s “Years of Living Dangerously” climate change TV series	August 2013
Science presentation on my PhD research for the Atlanta Science Tavern	July 2013
Video interview on digital elevation models for tsunami modeling for NOAA Visualization	December 2011
Presenter for NOAA’s Science on a Sphere in Boulder, CO,	2010 – 2012
Science Judge for Ocean Science Bowl, Boulder, CO	Spring 2009