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POSITION Ph.D. Candidate

Institute of Arctic and Alpine Research & Department of Geological Sciences University of Colorado

EDUCATION

- Ph.D. Geological Sciences (expected May 2014) University of Colorado Thesis: New insights into glacial deep ocean circulation and carbon storage: A multi-proxy approach using benthic foraminiferal elemental ratios Advisor: T. M. Marchitto
- B.S. Geology (June 2006) Magna cum laude with honors Washington and Lee University Thesis: Serpulids as indicators of mid-late Holocene climate: Timing and paleoclimate significance of large worm tube aggregates, Lago Enriquillo, Dominican Republic Advisor: L. Greer

RESEARCH INTERESTS

- Quaternary Paleoclimatology and Paleoceanography
- Elemental ratios in biogenic CaCO3: Analytical measurement, Proxy development and application
- The "Glacial CO₂ Problem"
- Marine carbonate chemistry

AWARDS and HONORS

- CU Dept. of Geological Sciences Student Travel Grant
- Graduate G.P.A. of 3.953
- W&L Geology Dept. Award
- W&L Kozak-McGuire-Spencer-Schwab Award
- Phi Eta Sigma

PROFESSIONAL and TEACHING EXPERIENCE

• Re	esearch Assistant – Institute of Arctic and Alpine Research, University of Colorado ICP-MS trace element laboratory	2009-present
• Te	eaching Assistant – Dept. of Ecology and Evolutionary Biology, University of Colorado EBIO 4460: International Perspectives on Climate Change	2012
• Ac	cademic Tutor – Dept. of Geological Sciences, University of Colorado Introductory and upper level Geology	2009-2010
• Stu	adent Athlete Tutor – Herbst Academic Center, University of Colorado Geology, Geography, Atmosphere and Ocean Sciences	2008-2009
• Te	eaching Assistant – Dept. of Geological Sciences, University of Colorado GEOL 1030: Field-based Introduction to Geology	2008-2009
• Ge	eologist – Advanced Resources International, Arlington, VA Well-log interpretation and Geographic Information Systems (GIS) mapping	2006-2008

FIELD WORK

- Grand Teton National Park
 Lake sediment coring
- R/V *Knorr* Oceanographic Research Cruise 197 Leg 3, Barbados-to-Barbados
 Jan-Feb 2010 Retrieval and initial ship-board stratigraphic analysis of deep sea sediment cores
- Dominican Republic Nov 2004 and June 2005
 Sampling of fossilized coral specimens from the Enriquillo Valley

PUBLICATIONS

- Doss, W. and Marchitto, T.M. Glacial deep ocean sequestration of CO₂ driven by the eastern equatorial Pacific biologic pump. Under review, *Earth and Planetary Science Letters*.
- Doss, W. and Marchitto, T.M. Benthic foraminiferal Mg/Ca and Li/Ca from the Panama Basin. In prep.

RESEARCH PRESENTATIONS

- Doss, W. (2012). From the seafloor to the lab: Paleoceanographic research on the high seas. Guest lecturer, GEOL 155: Oceanography, Washington and Lee University, Lexington VA.
- Doss, W. (2012). Trace metals in benthic foraminifera: "Slender clews" to the mysteries of the deep ocean. Talk, Washington and Lee Geology Dept. Reunion symposium, Lexington VA.
- Doss, W. (2012). Deep Pacific Ocean carbon storage and the low latitude "biological pump" during the Last Glacial Maximum. Talk, Washington and Lee University Geology Dept. invited speaker series, Lexington VA.
- Doss, W. and Marchitto, T.M. (2011). Paleo-ΔCO₃² history of the Panama Basin: New insights into glacial deep ocean carbon storage from benthic foraminiferal B/Ca ratios. Poster, American Geophysical Union annual meeting, San Francisco CA.
- Doss, W. (2010). R/V *Knorr* Oceanographic Cruise 197-3: Demerara Rise. Talk, INSTAAR Graduate Student Seminar, Boulder CO.
- Doss, W. and Marchitto, T.M. (2010). The link between atmospheric CO₂ and deepwater carbonate chemistry: Benthic foraminifera trace metal paleo-ΔCO₃²⁻ history of the deep eastern tropical Pacific. Poster, 10th International Conference on Paleoceanography, San Diego CA.
- Doss, W. and Marchitto, T.M. (2009). Deep Pacific carbonate ion concentration and CaCO₃ compensation since the last ice age. Poster, American Geophysical Union annual meeting, San Franscisco CA.
- Doss, W. (2006). Large serpulid worm tube aggregates indicate an abrupt Mid-Holocene transition from marine to restricted hyposaline conditions. Talk, Keck Geology Consortium 19th Symposium, Amherst College, Amherst MA.
- Doss, W., Greer, L., Curran, H.A., Patterson, W.P., and Mortlock, R.A. (2005). Large tufa-coated serpulid worm mounds signal an abrupt Mid-Holocene transition from marine to restricted hyposaline conditions, Lago Enriquillo, Dominican Republic. Poster, Geological Society of America annual Meeting, Salt Lake City UT.

SERVICE

- Coordinator for INSTAAR Graduate Student Seminar Series
- Coordinator for a Biogeochemistry reading group
- Tour group leader for INSTAAR Science Open House

Mar-Apr 2013

PROFESSIONAL AFFILIATIONS

- American Geophysical Union
- Association of Women Geoscientists

GRADUATE COURSEWORK

• Marine Chemistry & Geochemistry; "Super-Problems" in Quaternary Climate (Seminars on the "Glacial CO₂ Problem" and Circulation & Chemistry of the Glacial Ocean); Tropical Cyclones; Current Topics in Biogeochemistry; Paleoceanography and Paleoclimatology; Aqueous and Environmental Geochemistry; Arctic Climate Systems; Quaternary Dating Methods; Independent Studies in Geochemistry and Geochemical Box Modeling