

Education

Ph.D., Geosciences, University of Iowa, 2000
M.S., Earth & Planetary Science, University of New Mexico, 1995
B.A., Geology, Hamilton College, 1991

Professional Experience

Cornell College

Professor of Geology, 2013 – present
Associate Professor of Geology, 2006 – 2013
Assistant Professor of Geology, 2000 – 2006
Chair, Department of Geology, 2003 – 2006; 2009 – 2012; 2014-2015
Chair, Environmental Studies Program, 2001 – present
Member, Archeology Program, 2001 – present

External Appointments

Executive Committee, Center for Global and Regional Environmental Research (2016; 3-year term)
Geosciences Consultant, ACT, 2008, 2010, 2011, 2013, 2017
Visiting Scientist, Dept. Earth and Planetary Sciences, University of New Mexico, 2006 – 2007
Member, Center for Global and Regional Environmental Research, 2001 – present
Adjunct Assistant Professor, Dept. Earth & Environmental Science, University of Iowa, 2001 – present
Affiliate Associate Professor, Dept. Geological & Atmospheric Science, Iowa State Univ., 2016 – present

Fellowships & Awards

Fellowships

Campbell McConnell Sabbatical Fellowship, Cornell College, 2006, 2015
T. Anne Cleary Dissertation Research Fellowship, University of Iowa, 1999
Associated Western Universities (AWU) Fellowship, Los Alamos National Laboratory, 1993 – 1994

Awards

Outstanding Teaching Assistant Award, University of Iowa, 1998
Richmond Area Speleological Society Howard Urbach Award, 1997
Trowbridge Award for Outstanding Geology Doctoral Student, University of Iowa, 1997

Course Offerings

Geology

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| Physical Geology (GEO 111) | Climate Change ¹ | Tectonics (GEO 214) |
| Earth Surface Systems (GEO 320) | Climates of Ice Ages (GEO 322) | Geology of New Zealand (GEO 329) |

¹ writing-intensive course in alternate years

Environmental Studies

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| Environ. Perspectives (ENV 101) ² | Environmental Geology (ENV 301) |
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² co-taught with Economics Professor A'amer Farooqi

Selected Manuscripts (*Undergraduate co-authors in red*)

- Denniston, R.F. and Luetscher, M. (in revision at *Quaternary Science Reviews*) Speleothems as high-resolution paleoflood archives.
- Weiss, T.L., Denniston, R.F., Wanamaker, A.D., Jr., Villarini, G., von der Heydt, A.S. (2017) ENSO-like variability at the Miocene/Pliocene transition recorded in a Caribbean coral. *Geology*; doi:10.1130/G38796.1.
- Denniston, R.F., Ummenhofer, C.C., Wanamaker, A.D., Jr., Lachniet, M.S., Villarini, G., Asmerom, Y., Polyak, V.J., Passaro, K.J., Cugley, J., Woods, D., Humphreys, W.F. (2016) Expansion and contraction of the Indo-Pacific tropical rain belt over the last three millennia. *Scientific Reports*, 6, 34485; doi: 10.1038/srep34485.
- Villarini, G. and Denniston, R.F. (2016) Contribution of tropical cyclones to extreme rainfall in Australia. *International Journal of Climatology*, 36, 1019-1025; doi: 10.1002/joc.4393.
- Denniston, R.F., Villarini, G., Gonzales, A.N., Polyak, V.J., Ummenhofer, C.C., Lachniet, M.S., Wanamaker, A.D., Jr., Humphreys, W.H., Woods, D., and Cugley, J. (2015) Reply to Nott: Assessing Biases in Speleothem Records of Flood Events. *Proceedings of the National Academy of Sciences of the United States of America*, 112.
- Denniston, R.F., Villarini, G., Gonzales, A.N., Wyrwoll, K-H, Polyak, V.J., Ummenhofer, C.C., Lachniet, M.S., Wanamaker, A.D., Jr., Humphreys, W.H., Woods, D., and Cugley, J. (2015) Extreme rainfall activity in the Australian tropics reflects changes in the El Niño/Southern Oscillation over the last two millennia. *Proceedings of the National Academy of Sciences of the United States of America*, 112:15, 4576-4581; doi/10.1073/pnas.1422270112.
- Sedlacek, A.R.C., Saltzman, M.R., Algeo, T.J., Horacek, M., Brandner, R., Foland, K, and Denniston, R.F. (2014) Strontium isotope stratigraphy from the Early Triassic of Zal, Iran: linking temperature to weathering rates and prolonged recovery. *Geology* 42, 779-782. doi:10.1130/G35545.1
- Lachniet, M.L., Denniston, R.F., Asmerom, Y., and Polyak, V.J. (2014) Orbital control of southwestern North America atmospheric circulation and climate over two glacial periods. *Nature Communications*, 5:3805; doi: 10.1038/ncomms4805.
- Denniston, R.F., Wyrwoll, K.-H., Polyak, Brown, J. Asmerom, Y., Wanamaker, A. Jr., LaPointe' Z., Ellerbroek, R., Barthelmes, M., Cleary, D., Cugley, J., Woods, D., Humphreys, W. (2013) A Stalagmite Record of Holocene Indonesian-Australian Summer Monsoon Variability from the Australian Tropics. *Quaternary Science Reviews* 78, 155-168; 10.1016/j.quascirev.2013.08.004.
- Denniston, R.F., Asmerom, Y., Lachniet, M., Polyak, V., Hope, P., An., N., Rodzinyak, K., and Humphreys, W. (2013) A Last Glacial Maximum Through Middle Holocene Stalagmite Record of Coastal Western Australia Climate. *Quaternary Science Reviews* 77 101-112; 10.1016/j.quascirev.2013.07.002.
- Denniston, R.F., Wyrwoll, K-H., Asmerom, Y., Polyak, V.J., Humphreys, W., Cugley, J., Woods, D., Peota, J. and Greaves, E. (2013) North Atlantic Forcing of Millennial-Scale Australian Monsoon Variability during the Late Glacial. *Quaternary Science Reviews* 72, 159-168.
- Polyak, V. and Denniston, R. (2011) Paleoclimate Records in Caves In Culver, D. and White, W. (Eds). *Encyclopedia of Caves*, 2nd edition, Elsevier.
- Haws, J. Funk, C., Benedetti, M., Bicho, N., Daniels, J., Minckley, T., Denniston, R., Jeraj, M., Gibaja, J. and Hockett, B. (2011) Paleolithic seascapes along the west coast of Portugal In Bicho, N., Haws, J., and Davis, L. (Eds). *Trekking the Shore: Changing Coastlines and the Antiquity of Coastal Settlement*. Springer, 450 p.

Selected External Grants (Last Five Years)

| <i>Organization</i> | <i>Title</i> | <i>Date</i> | <i>Amount</i> |
|--|---|-------------|-------------------------------------|
| Center for Global & Regional Env. Research | The El Niño-Southern Oscillation in a Warming World: Developing Coral Records of Ocean Variability from Past Greenhouse Periods | 2017-2018 | \$26,550 |
| National Science Foundation | Collaborative Research: Reconstructing Holocene Dynamics of the Indo-Pacific Tropical Rain Belt using Australian Stalagmites and Coupled Climate Models (lead PI with co-PIs C. Ummenhofer, A. Wanamaker, Y. Asmerom) | 2016-2019 | \$358,417 (Cornell award \$104,085) |
| National Science Foundation | EAGER: Assessing the Viability of Pristine Fossil Corals from the Dominican Republic as Indicators of ENSO at the Miocene/Pliocene Boundary | 2015-2016 | \$21,531 |
| National Science Foundation | RUI: Assessing the Influence of Extreme Rainfall Events on Australian Stalagmite Reconstructions of Tropical Cyclone Landfalls and the Indo-Australian Summer Monsoon | 2015-2019 | \$149,601 |
| National Science Foundation (Subcontract) | Collaborative Research: Great Basin Paleoclimate Back in Milankovitch's Pocket? Orbital forcing of southwestern North America climate over the past 500,000 years (PIs: M. Lachniet, Y. Asmerom, V. Polyak) | 2014-2017 | (Cornell award \$27,000) |
| Center for Global & Regional Env. Research | Development of a Late Holocene Decadal-Scale Proxy Record of the North Atlantic Oscillation from Portuguese Stalagmites | 2013-2014 | \$30,000 |
| National Science Foundation (Subcontract) | Collaborative Research: Human Responses to Late Pleistocene Coastal Environmental Change in Portuguese Estremadura (PIs J. Haws, M. Benedetti) | 2011 | (Cornell award \$10,800) |
| National Science Foundation | RUI: Reconstruction of Recent and Late Holocene Tropical Cyclone Landfalls in Northwestern Australia using Flood Deposits in Aragonite Stalagmites | 2011-2014 | \$98,000 |

Synergistic Activities*Reviewer for the Following Journals (Last Five Years)*

Nature, Nature Geoscience, Nature Communications, Nature Scientific Reports, Geology, GSA Bulletin, Journal of Geophysical Research, Earth and Planetary Science Letters, Quaternary Research, Geochimica et Cosmochimica Acta, Geophysical Research Letters, Quaternary Science Reviews, Marine Geology, Global and Planetary Change, The Holocene, Geosphere, Paleogeography, Palaeoclimatology, Palaeoecology, Quaternary International

*Activities/Outreach (Last Five Years)**Steering Committee – PAGES Floods Working Group*

Associate Editor for GEOSPHERE, (four-year term beginning 2015)

Expert Witness Training Academy – NSF-funded program at William Mitchell Law School, St. Paul, MN (2015)

Al Jazeera America – interviewed for story on IPCC 5th Assessment Report “Capping warming at 2°C not enough to avert disaster, climate experts warn”, November 8, 2014

Op-Eds, *Mount Vernon/Lisbon Sun* – yearly since 2012 on issues surrounding climate change and political activism

Keynote speaker, Sierra Club (Cedar Rapids) annual dinner, March 2014

Signatory, Iowa Climate Statement (yearly since 2011)

The Atlantic Monthly – subject of *Nine-And-A-Half Questions*, a regular online feature dedicated to professionals involved in sustainability and the environment, October 2011