

## Amy J. Wagner

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### EDUCATION

- Ph.D.**, Oceanography, Texas A&M University, 2009  
Major Advisor: Niall C. Slowey  
Title: Oxygen and Carbon Isotopes and Coral Growth in the Gulf of Mexico and Caribbean Sea as Environmental and Climate Indicators
- M.S.**, Oceanography, Texas A&M University, 2002
- B.S.**, Marine Sciences (*cum laude*) Texas A&M University at Galveston, 1998

### PROFESSIONAL EXPERIENCE

- 2015 - present **Assistant Professor**, Department of Geology, California State University, Sacramento
- 2013 – 2014 **Instructor**, Department of Geology, California State University, Sacramento
- 2011 – 2013 **Visiting Research Assistant Professor**, Center for Marine Science and Department of Geography and Geology, University of North Carolina Wilmington
- 2008 – 2011 **Post-Doctoral Research Associate**, CIRES, University of Colorado at Boulder and NOAA Paleoclimatology Branch
- 2007 – 2008 **Knauss Marine Policy Fellowship**, NOAA Climate Program Office, Washington, DC
- 1998 – 2000 **Physical Scientist, GS-9**, Naval Oceanographic Office, Stennis Space Center, MS

### FIELD EXPERIENCE

- R/V Atlantis* and *DSV Alvin*, New England Seamounts, July-August 2016 (Research Scientist)
- R/VIB Araon*, Ross Sea, Antarctica, December 2014 – February 2015 (Research Scientist)
- R/V Pt. Sur*, Chief Scientist Training Cruise, Monterey Bay, September 2014 (Co-Chief Scientist)
- Sugar Bay, St. Croix, USVI, May 2012, May 2013, May 2015 (Diver, Research Scientist)
- Chuuk Atoll, Federated States of Micronesia, June 2011 (Co-PI, Scientific Diver)
- M/V Raja Ampat Explorer*, Manokwari Bay, Indonesia 2007 (Scientific Diver, Coral Specialist)
- M/V Fling*, Gulf of Mexico, Flower Garden Banks, 2005 (Co-PI, Scientific Diver)
- R/V Roger Revelle*, South Pacific, New Zealand, 2005 (Research Scientist)
- Galapagos Islands, Ecuador, 2005 (Co-PI)
- AAUS Scientific Diving certification, 2004
- R/VIB Nathaniel B. Palmer*, Ross Sea, Antarctica, 2003 (Research Scientist)
- R/V Gyre*, Gulf of Mexico, 2000 (Student Researcher)
- R/V Pt. Sur*, Pacific Ocean, California, 1999 (Chief Scientist)
- R/V Pt. Sur*, Pacific Ocean, California, 1998 (Chief Scientist)
- R/V Gyre*, Gulf of Mexico, 1997 (Student Researcher)

### AWARDS AND HONORS

- National Centre of Competence in Research on Climate (NCCR) Climate Summer School selected participant, 2009.
- National Sea Grant Knauss Marine Policy Fellowship, 2007
- Department of Energy Global Change Education Program (GCEP) Graduate Research Environmental Fellowship, 2004 – 2007
- Louis and Elizabeth Scherck Endowed Scholarship, 2003 – 2004

### PROFESSIONAL EXPERIENCE

- Co-advisor**, UNCW Marine Science Master's student, 2013-present

**Co-advisor**, UNCW Geology Honor's project, 2012-present  
**Committee Member**, UNCW Geology Master's student, 2012-2014  
**Manager**, Multiple UNCW undergraduate lab assistants, 2011-2013  
**Advisor**, UNCW Oceanography undergraduate, Senior project, 2012-2013  
**Mentor**, SOARS undergraduate student, summer 2010  
**Mentor**, NOAA Hollings Scholar undergraduate student, summer 2009  
**Reviewer**, *Paleoceanography, Radiocarbon, Geochemistry, Geophysics, Geosystems, and Geochimica et Cosmochimica Acta*  
**Program Co-Manager**, Climate Dynamics and Experimental Prediction program within the NOAA Climate Program Office, 2007

#### TEACHING EXPERIENCE

##### **California State University, Sacramento**

GEOL 123: Geochemistry; Fall 2015  
GEOL 130: Oceanography; Fall 2014, Fall 2015, Spring 2016  
GEOL 140: Geology and the Environment (2 sections); Spring 2014  
GEOL 202: Aqueous Geochemistry; Spring 2016  
GEOL 7: Natural Disasters; Fall 2013 (2 sections), Fall 2014  
GEOL 8L: Earth Science Lab; Spring 2014, Fall 2014

##### **Sierra College, Rocklin, CA**

GEOG 1/1L: Physical Geography lecture and lab; Spring 2014  
ESCI 10L: Earth Science Lab; Fall 2013

##### **University of California, Davis**

GEL 16: The Oceans; Fall 2013

##### **Diablo Valley College, San Ramon, CA**

GEOL 120: Physical Geology; Summer 2013

##### **University of North Carolina Wilmington**

GGY 380: Landscapes of Belize; Spring 2013 (Study abroad course with Spring Break field trip to Belize)  
GLY/OCN 150: Intro to Oceanography; Fall 2011, Spring 2012, Spring 2013  
GLY/OCN 150H: Honors Intro to Oceanography; Fall 2012  
GLY/OCN 350: Advanced Oceanography; Fall 2011 (co-taught with Lynn Leonard), Fall 2012 (co-taught with Andrea Hawkes)  
*Guest Lecturer*: GLY/GGY 230: Weather and Climate; Spring 2013  
*Guest Lecturer*: GLY 480/592: Paleoclimatology; Spring 2013  
*Field Assistant*: GLY 390: Sediments and Paleoclimate (Field and lab methodology course)

##### **Appalachian State University, Boone, NC**

GLY 1102L: Historical Geology Lab; Spring 2011  
GLY 1105L: Intro to Oceanography Lab; Spring 2011  
GLY 2250L: Evolution of the Earth Lab; Spring 2011 (co-taught with Dr. Andy Heckert)

##### **University of Colorado at Boulder**

*Guest Lecturer*: ATOC 6020: Oceanography Seminar; Fall 2010.

##### **Texas A&M University, College Station, TX**

*Guest Lecturer*: OCNG 630: Geological Oceanography; Spring 2008  
*Teaching Assistant*: OCNG 252, Oceanography Lab; Spring 2008, Fall 2000-Summer 2002

PUBLICATIONS (\*denotes student author)

- Lane, C.S., B. Hildebrandt\*, L.M. Kennedy, A. LeBlanc, K-B. Liu, **A.J. Wagner**, and A.D. Hawkes, Verification of tropical storm deposits with oxygen isotope analyses of coeval ostracod valves, *In Review at Journal of Paleolimnology*.
- Morrill, C., E.M. Ward, **A.J. Wagner**, B.L. Otto-Bliesner, and N. Rosenbloom (2014), Large sensitivity to freshwater forcing location in 8.2 ka Simulations, *Paleoceanography* 29(10), 930-945, doi:10.1002/2014PA002669.
- Wagner, A.J.**, C. Morrill, B. Otto-Bliesner, N. Rosenbloom, K. Watkins\* (2013), Did the Lake Agassiz flood cause the 8.2 ka event? Model support for forcing of the 8.2 ka event by meltwater from the Hudson Bay ice dome, *Climate Dynamics*, doi:10.1007/s00382-013-1706-z.
- Anderson, D.M., E.M. Mauk, E.R. Wahl, C. Morrill, **A.J. Wagner**, D. Easterling, and T. Rutishauser (2013), Global warming in an independent record of the past 130 years, *Geophysical Research Letters*, 40, 189-193, doi:10.1029/2012GL054271.
- Morrill, C., **A.J. Wagner**, B.L. Otto-Bliesner, and N. Rosenbloom (2011), Evidence for significant climate impacts in monsoonal Asia at 8.2 ka from multiple proxies and model simulations, *Journal of Earth Environment*, 2(3), 426-441.
- Wagner, A.J.** and N.C. Slowey, Oxygen isotopes in seawater from the Texas-Louisiana shelf (2011), *Bulletin of Marine Science*, 87(1), 1-12.
- Wagner, A.J.**, T.P. Guilderson, N.C. Slowey, and J. Cole (2009), Pre-bomb surface water radiocarbon of the Gulf of Mexico and Caribbean as recorded in hermatypic corals, *Radiocarbon*, 51(3), 947-954.
- Bratcher, A.J.** and B.S. Giese (2002), Tropical Pacific decadal variability and global warming, *Geophysical Research Letters*, 29(19), 1918-1921.

SELECT CONFERENCE PRESENTATIONS (\*indicates student author)

- Griffiths, J.S.\*, K.L. DeLong, T.M. Quinn, F.W. Taylor, K.H. Kilbourne, **A.J. Wagner**, Decadal-scale changes to the central California coastal ocean recorded in shelf sediments, Poster presented at Ocean Sciences Meeting, New Orleans, LA, February 2016.
- Carlin, J.A., J.A. Addison, **A.J. Wagner**, J.A. Barron, Decadal-scale changes to the central California coastal ocean recorded in shelf sediments, Poster presented at Ocean Sciences Meeting, New Orleans, LA, February 2016.
- DeLong, K.L., R. Cobb, **A.J. Wagner**, J.H. Hudson, G. Ouellette, A.D. Hermann, Assessment of Coral Sr/Ca Variations in Coral Colonies in Veracruz, Mexico, Talk presented at Ocean Sciences Meeting, New Orleans, LA, February 2016.
- Morrill, C., **A.J. Wagner**, E.M. Ward, B.L. Otto-Bliesner, N.A. Rosenbloom, Toward more Realistic Freshwater Forcing Experiments of the 8.2 ka Event, Talk presented at Fall AGU Meeting, San Francisco, CA, December 2015.
- Wagner, A.J.**, K.L. DeLong, K.H. Kilbourne, J.N. Richey, K. Jelinek\*, E. Hickerson, N.C. Slowey, Temperature Calibration of a Northern Gulf of Mexico *Siderastrea sidera* Coral, Poster presented at Fall AGU Meeting, San Francisco, CA, December 2015.
- Massoll, J.\*, **A.J. Wagner**, D.M. Anderson, C.S. Lane, J.-K. Kim, S.H. Lee, Decadal variations in Western Pacific Warm Pool dynamics as evidenced by *Porites* corals from Chuuk Atoll, Federated States of Micronesia. Poster presented at Fall AGU Meeting, San Francisco, CA, December 2014.
- Morrill, C., E. Ward, **A. Wagner**, B. Otto-Bliesner, N. Rosenbloom, Large sensitivity to freshwater forcing location in 8.2 ka simulations. Poster presented at Fall AGU Meeting, San Francisco, CA, December 2013.
- Tedik, A.M.\*, C.S. Lane, D.W. Gamble, **A.J. Wagner**, Paleolimnological evidence of historical land use change from multiple sites on the island of St. Croix, USVI. 2013 GSA, Denver, CO, October 2013.
- Kachmarik, H.A.\*, A.D. Hawkes, **A.J. Wagner**, J. Donnelly, D. McDonald, Coupling tropical cyclone frequency and climate dynamics: A 1500-year record in the Pelican Cayes Belize. Poster presented at Annual GSA Meeting, Denver, CO, October 2013.

- Umling, N.E.\*, **A.J. Wagner**, D.M. Anderson, A 50-year record of  $\delta^{13}\text{C}$  fluctuations in *Porites lobata* corals from Micronesia linked to turbidity. Poster presented at SE GSA, San Juan, PR, March 2013.
- Wagner, A.J.**, K. Lee, S.H. Lee, D.M. Anderson, J.-K. Kim, N. Umling\*, Twenty years of Western Pacific Warm Pool variability as recorded in a *Porites* coral from Chuuk Lagoon. Poster presented at Fall AGU Meeting, San Francisco, CA, December 2012.
- Wagner, A.J.**, C. Morrill, B. Otto Bliesner, N. Rosenbloom, K. Watkins\*, The collapse of the Laurentide Ice Sheet and its role in the 8.2 ka event: Evidence from CCSM3 simulations and paleo-proxy records. *INVITED*. Talk presented at Fall AGU Meeting, San Francisco, CA, December 2011.
- Burger, M\*, **A. Wagner**, C. Morrill, B. Otto-Bliesner. The effects of the 8.2 ka event on the ITCZ in the Tropical Atlantic. Poster presented at Fall AGU Meeting, San Francisco, CA, December 2010.
- Wagner, A.J.**, C. Morrill, B. Otto-Bliesner, N. Rosenbloom. Did the Lake Agassiz flood cause the 8.2 ka event? Evidence from CCSM3 model simulations and paleo-proxy records. Poster presented at Fall AGU Meeting, San Francisco, CA, December 2010.
- Watkins, K\*, **A. Wagner**, C. Morrill. Proxy-model comparisons of North Atlantic sea surface temperature prior to the 8.2 ka event. Talk presented at annual AMS Meeting, Atlanta, GA, January 2010.
- Wagner, A.J.**, C. Morrill, B. Otto-Bliesner, N. Rosenbloom. Model simulations of the 8.2ka event. Poster presented at Fall AGU Meeting, San Francisco, CA, December 2008.
- Wagner, A.J.** and N.C. Slowey. Corals at the Flower Garden Banks: Monitors of climate change and North American climate variability. Poster presented at Fall AGU Meeting, San Francisco, CA, December 2007.
- Wagner, A.J.**, T.P. Guilderson, N.C. Slowey and J. Cole. Radiocarbon in Gulf of Mexico and Cariaco Basin surface waters as recorded in hermatypic corals during the pre- to post-bomb era. Talk presented at the 10<sup>th</sup> International Conference on Accelerator Mass Spectrometry, Berkeley, CA, September 2005.
- Bratcher, A.J.** and B.S. Giese. Tropical Pacific decadal variability and global warming. Talk presented at the NASA/CCR Workshop on Decadal Climate Variability, Madison, WI, October 2002.

#### RESEARCH FUNDING

- National Science Foundation, “Cold water corals as recorders of intruding circum-polar deep water along the Antarctic margin”, co-PIs B. Rosenheim, E. Domack, T. Guilderson, and **A. Wagner** (\$143,417), *Proposal submitted to Polar Programs*, 2016. **Proposal in Review.**
- National Science Foundation, “Assessing Gulf of Mexico North-South Surface Ocean Variability from the Little Ice Age to 21<sup>st</sup> Century”, Co-PIs K.L. DeLong and **A.J. Wagner** (\$184,983), *Proposal submitted to Marine Geology and Geophysics*, 2016. Rejected.
- National Oceanic and Atmospheric Administration, “Ocean Climate Joint Research on Coral Paleoclimatology”, Co-PI’s **A.J. Wagner**, D.M. Anderson, S.H. Lee, (\$25,000/year), 2011-2014.
- National Geographic Society Committee for Research and Exploration, “Ridge to Reef Reconstruction of Historic Anthropogenic Land Use and Resultant Coral Reef Impacts in the New World”, Co-PIs C.S. Lane, D. Gamble, and **A.J. Wagner** (\$18,000), *Proposal submitted*, 2014-2015. Rejected.

#### PROFESSIONAL MEMBERSHIPS

- American Geophysical Union (AGU)  
 Geological Society of America (GSA)  
 Earth Science Women’s Network (ESWN)  
 National Association of Geoscience Teachers (NAGT)