Curriculum Vitae Stella C. Woodard

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EDUCATION

Texas A&M University Geological Oceanography Ph.D., 2011
Dissertation: Oceanic and atmospheric response to climate change over varying geologic timescales, Advisor: Dr. Deborah J. Thomas
SUNY Brockport College Additional coursework in Math & Sciences 2005-2006
SUNY Oswego College English & Writing, Suma Cum Laude B.A., 2001

APPOINTMENTS

Present	Research Scholar, SUNY Brockport College
Present	Geoscientist/consultant, Global Aquatic Research, LLC
2011-2015	Post Doctoral Research Associate, Inst. Marine & Coastal Sci., Rutgers University
2012 (Spring)	Adjunct lecturer, Geology Department, Rutgers University
2011	Post Doctoral Researcher, Radiogenic Geosciences, Texas A&M University
2006-2011	Graduate Assistant Researcher/Teacher, Texas A&M University
2005-2006	Undergraduate Research Assistant, Geochemistry, SUNY Brockport
2003-2006	4-H Youth Development Community Educator, Cornell Cooperative Extension
2001-2003	After-School Program Coordinator (Gr. 6-12), Sodus Central Schools (NYS)

PUBLICATIONS

Woodard, S.C.: Smith, R.W.; Kar, N.; Noll, M.; CLWA Members (in prep 2022). *Chemical characterization and source of foam on Canandaigua Lake, NYS.*

Woodard, S.C.; Rosenthal, Y.; Patterson, M.O. (in prep 2022). *Pacific deep ocean stratification controlled by Antarctic Bottom Water formation during Plio-Pleistocene.*

Taylor, S. P.; Patterson, M. O.; Lam, A. R., Jones, H.; Woodard, S. C.; Habicht, M. H.; Thomas, E. K.; Grant, G. R. (2022) *Expanded North Pacific Subtropical Gyre and Heterodyne Expression During the Mid – Pleistocene*. Paleoceanography and Paleoclimatology, 37(5), doi: 10.1029/2021PA004395

Patterson, M.O.; McKay, R.; Naish, T.; Bostock, H.C.; Dunbar, R.; Ohneiser, C.; Woodard, S.C.; Wilson, G.; Caballero-Gill, R. (2018) A Southwest Pacific Perspective on Long-Term Global Trends in Pliocene-Pleistocene Stable Isotope Records. Paleoceanography and Paleoclimatology, 33, 825-839, doi: 10.1029/2017PA003269

Lawrence, K.T.; **Woodard**, S.C.; Bochner, L.; *Gorbey, D.; Peterson, L.C. (2017) *Past Sea Surface Temperatures As Measured by Different Proxies – a Cautionary Tale from the Late Pliocene*. Paleoceanography & Paleoclimatology, 32(3), doi:10.1002/2017PA003101

Bianchi, T.; Schreiner, K.; Smith, R.W.; Burdige, D.; Woodard, S.C.; Conelly, D. (2016) The Effects of Human-Induced and Natural Redox Changes on Organic Matter Storage in Coastal Sediments during the Holocene: A Biomarker/Proxy Perspective. Annual Reviews of Earth and Planetary Science, 44, 295-319 doi: 10.1146/annurev-earth-060614-105417

Woodard, S.C.; Rosenthal, Y.; Miller, K.G.; Wright, J.D.; *Chiu, B.K.; Lawrence, K. (2014) *Antarctic role in Northern Hemisphere glaciation*. Science, 346, 847-851 doi: 10.1126/ science.1255586

- Ando, A.; Woodard, S.C.; Evans, H.F.; Littler, K.; Herrmann, S.; MacLeod, K.G.; Kim, S.; Khim, B-K.; Robinson, S.A.; Huber, B.T. (2013) *Tracking the paleoceanographic missing link: A multidisciplinary study of rarely recovered deep-sea Santonian-Campanian transition from Shatsky Rise*, Journal of the Geological Society London - Special, 170, 381-384, doi: 10.1144/jgs2012-137
- Woodard, S.C.; Thomas, D.J.; Grossman, E.; Olszewski, T.D.; Yancey, T.; Miller, B.V.; Raymond, A. (2013) Radiogenic isotope composition of Carboniferous seawater in North American epicontinental seas, Palaeogeography, Palaeoclimatology, Palaeoecology, doi: 10.1016/j.palaeo.2012.11.018
- Acton, G. and the **Expedition 334S Science Staff**, (2012) *Proceedings of the Baffin Bay Scientific Coring Program*, October 6, 2012
- Woodard, S.C.; Thomas, D.J.; Marcantonio, F. (2012) ²³²Th derived dust fluxes to the tropical *Pacific Ocean, 58Ma,* Geochimica et Cosmochimica Acta. 87, 194-209 doi:10.1016/j.gca. 2012.03.035
- Hague, A.; Thomas, D.J.; Huber, M.; Korty, R.; Woodard, S.C.; Jones, L.B. (2012) Convection of North Pacific Deep Water During the Early Cenozoic, Geology, 40, 527-530 doi: 10.1130/ G32886.1
- Woodard, S.C.; Thomas, D.J.; Hovan, S.; Röhl, U.; Westerhold, T. (2011) *Evidence for Eccentricity Forcing of Dust Accumulation During a Greenhouse Interval,* Geochem. Geophys. Geosyst., 12, Q02007, doi:10.1029/2010GC003394
- Sager, W.W., Sano, T., Geldmacher, J., and the **Expedition 324 Scientists** (2010). *Testing plume* and plate models of ocean plateau formation at Shatsky Rise, northwest Pacific Ocean, Preliminary Report, Proceedings of IODP, 324: Tokyo. doi:10.2204/iodp.proc.324.2010
- Marcantonio, F.; Thomas, D.J.; Woodard, S.C.; McGee, D.; Winckler, G. (2009). Extraterrestrial ³He in Paleocene sediments from Shatsky Rise: constraints on sedimentation rate variability. Earth and Planetary Science Letters, Volume 287(1-2), 24-30, EPSL-D-09-00365R1

*Indicates undergraduate student included in research publication

RECENT RESEARCH ACTIVITIES

Design, construction and operation of large-scale forest irrigation system to simulate storm surge/sea level rise: TEMPEST, Smithsonian Environmental Research Center, Edgewater, MD, 2019-present

Formation processes and chemical characterization of foam on Canandaigua Lake, Canandaigua, NY, 2019-present

Paleoclimate reconstructions examining the role of the Pacific Ocean in climate teleconnections from Pliocene to present, in collaboration with SUNY Binghamton, 2018-present Chemical characterization of Paleozoic black shales in NY and PA, 2018-2020

Vegetated berm design to protect against flooding and erosion, Lake Ontario, NY, 2017-2018

INVITED PRESENTATIONS

Invited Speaker, Finger Lakes Regional Watershed Alliance, March 2022 *Foam formation on Canandaigua Lake*, Keynote Speaker, Canandaigua Lake Watershed Association Annual Meeting, August 2020.

Antarctic role in Northern Hemisphere glaciation: Late Pliocene Records from the deep Pacific, University of Binghamton, October 2017.

Antarctic role in Northern Hemisphere glaciation: Records from the deep Pacific Ocean,

University of Massachusetts Amherst, May 2015.

Constraints on sea level during the Pliocene: Records from the deep Pacific Ocean, Earth and Environmental Sciences Seminar, Rensselaer Polytechnic Institute, February 2014.

Mass Extinction Events, History of the Earth Systems, guest lecturer for Paul Falkowski, Rutgers University, November 2012.

The geologic history of climate. 4-H Climate Change Summit, Rutgers University, March, 2012. *Orbital forcing in a greenhouse world: Connections between cyclic sedimentation and climate change.* Department of Earth Sciences Seminar, Syracuse University, May 2011.

AWARDS

MG&G Award #133469 – NSF	2013-2015
Post Expedition Activity (PEA) Award – Ocean Leadership/NSF	2010
Schlanger Ocean Drilling Fellowship – Ocean Leadership	2009-2010
Merit Fellowship – Texas A&M University	2006-2008
Academy of American Poet's Prize – SUNY Oswego	2001

SYNERGISTIC ACTIVITIES

- Committee Member, Andrew Spagnuolo, M.S. Candidate, *Historical and ecological changes at Hemlock Lake through landscape analysis and sediment core geochemistry*, Dept. of Environmental Sci. & Ecology, SUNY Brockport (Present)
- Field Trip Leader, Allegheny College Geology Junior Seminar class, Chimney Bluffs, NY (2018)
- Outside Committee Member, Devon Gorbey Undergraduate Senior Research Thesis, *A Proxy Comparison and Regional Study of Pliocene Sea Surface Temperature in the North Atlantic,* Lafayette College (2014-2015)
- Workshop Organizer, *Plio-Pleistocene Climate*, Lamont-Doherty Earth Institute (2015, Palisades, NY)
- AGU Fall Meeting Session Co-Chair, *Reconstructing and Modeling the Pliocene Warm Period: A Potential Analog for Future Warmth I* (2014, San Francisco, CA)
- Science panelist/speaker, 4-H Climate Change Summit (2012/2014, New Brunswick, NJ)
- Instructor, Girl Scout Ship-to-Shore Science Program (2012, New Brunswick, NJ)
- Green College Station Advisory Committee member (2010-2011, College Station, TX)

FIELD EXPERIENCE

Ai Seu.	
D/V JOIDES Resolution (Sedimentologist)	August 2012
IODP Expedition 344S - Baffin Bay Scientific Coring Expedition	65 days
Melville Bay, N.W. Greenland	
R/V Melville (Lead sedimentologist/phys props)	Oct 2010
²³⁰ Th dynamics in the Eastern Equatorial Pacific Ocean: testing the	26 days
²³⁰ Th-normalization method to estimate sediment fluxes (MV1014)	
Panama and Peru Basins, eastern equatorial Pacific Ocean	
D/V JOIDES Resolution (Sedimentologist)	Sept 2009
IODP Expedition 324 – Shatsky Rise Formation	56 days
Shatsky Rise, northwest Pacific Ocean	
B.A.E. Orion	Sept 2008

Joint Regional Oceanographic Cruise	21 days
Galapagos, Ecuador, eastern equatorial Pacific Ocean	
R/V Pelican	August 2007
NOAA Mechanisms Controlling Hypoxia (MCH)	5 days
Cruise 10 (M10), Gulf of Mexico	
On land:	
Sandy Hook Holocene coring project - Regional history of sea level	May 2014
Sandy Hook, New Jersey	
Stratigraphic analysis of shallow marine & fluvial reservoirs	May 2008
Book Cliffs, Utah	
Field sampling Bird Spring platform (Carboniferous)	March 2008
Arrow Canyon, Nevada	
Field description/sampling S.S. Patlanoaya section (Carboniferous)	January 2008
Puebla, Mexico	