

Saint Petersburg, Florida 33701

Biographical Information

Education

2005	Ph.D., University of Miami, Rosenstiel School for Marine and Atmospheri
2013-2016	Assistant Professor, College of Marine Science, University of South Florida
2008-2013	Assistant Professor, Department of Earth and Environmental Sciences, Tulane University
2005-2007	

Times cited: 3

47. Zhang, X.; **Bianchi, T.**; Cui, X.; Rosenheim, B.E. ; Ping, C.-L.; Hanna, A.; Kanevskiy, M.; Schreiner, K.; Allison, M. (2017). “Permafrost organic carbon mobilization from the watershed to the Colville River delta: evidence from ¹⁴C ramped pyrolysis and biomarkers.” Geophysical Research Letters. v. 44, n. 11. p. 11,491-11,500. doi: 10.1002/2017GL075543.

Times cited: 5

46. Walker, B.W.; Druffel, E.; Kolasinski, J.; Roberts, B.; Xu, X.; **Rosenheim, B.E.** (2017). “Stable and radiocarbon isotopic composition of dissolved organic matter in the Gulf of Mexico.” Geophysical Research Letters. v. 44, n. 18. p. 8424-8434. doi: 10.1002/2017GL074155.

Times cited: 10

45. *Subt, C.*; Yoon, H.I.; Yoo, K.C.; Lee, J.I.; Leventer, A.; Domack, E.W.; **Rosenheim, B.E.** (2017). “Sub-ice shelf sediment geochronology utilizing novel radiocarbon methodology for highly detrital sediments.” Geochemistry, Geophysics, Geosystems. v. 18. doi:10.1002/2016BC006578.

Times cited: 5

44. Vetter, L.; **Rosenheim, B.E.**; *Fernandez, A.*; 3 9 1 r e

40. Spooner, P.; **Guo, W.**; Robinson, L.F.; Thiagarajan, N.; Hendry, K.; Rosenheim, B.E.; Leng,

20. Rosenheim, B.E.; T2 (s)-ImYol(a)4 (g) J-1 (J)D-2 (p)om (B)2 (i)2 (um)2 (d)B) (i)-2 (W)TT3.5TU05501

25. Tang, J., *Fernandez, A.B.*; Dietzel, M.; **Rosenheim, B.E.** (2014). "Evaluation of kinetic effects on clumped isotope fractionation (δ^{47}) during inorganic calcite precipitation." *Geochimica et Cosmochimica Acta*. v. 134, p. 120-136, doi:10.1016/j.gca.2014.03.005. *Times cited: 87*

24. *Fernandez, A.*; Tang, J.; **Rosenheim, B.E.** (2014). "Calibration of temperature to clumped isotope composition of siderite." *Geochimica et Cosmochimica Acta*, v. 126, p. 411-421. doi: 10.1016/j.gca.2013.11.006 *Times cited: 65*

23. **Johannesson, K.H.**; Telfayan, K.; Chevis, D.A.; Rosenheim, B.E.; Leybourne, M.I.; (2014). "Rare Earth Elements in Stromatolites: 1. Evidence that Modern Terrestrial Stromatolites Fractionate Rare Earth Elements During Incorporation from Ambient Waters." In: Y. Dilek and H. Furnes (eds.) *Archean Earth and Early Life*. Springer (Dordrecht), p. 385-411. *Times cited: 26*

22. *Pendergraft, M.A.*; Dincer, Z.; Sericano, J.; Wade, T.L.; Kolasinski, J.; **Rosenheim, B.E.** (2013). "Linking ramped pyrolysis isotope data to oil content through PAH analysis." *Environmental Research Letters*. v. 8, n. 4, doi:10.1088/1748-9326/8/4/044038 *Times cited: 22*

21. **Duan, S.**, Allison, M.A.; Bianchi, T.S.; McKee, B.A.; Shiller, A.M.; Guo, L.; Rosenheim, B.E. (2013). "Sediment, organic carbon, nutrients, and trace elements: Sources, transport, and biogeochemical cycles in the lowermost Mississippi River." In *Biogeochemical Dynamics at Major River-Coastal Interfaces: Linkages with Global Change*. Eds. Bianchi, T.S.; Allison, M.A.; Cai, W.-J. Cambridge University Press, New York, NY. 658p. *Times cited: 7*

20. **Rosenheim, B.E.**; Tang, J.; *Fernandez, A.*; (2013). "Measurement of multiply-substituted isotopologues of CO₂ using a 5kV mass spectrometer." *Rapid Communication* 6.0 06.0 9 (ot45 (gu)5 (e)-2

9. **Roberts, M.L.**; Schneider, R.J.; von Reden, K.F.; Wills, J.S.C.; Han, B.X.; Hayes, J.M.; Rosenheim, B.E.; Jenkins, W.J. (2007). "Progress on a gas-accepting ion source for continuous-flow accelerator mass spectrometry." Nuclear Instruments and Methods in Physics Research B: Beam Interactions with Materials and Atoms. v. 259, n. 1. p. 83-87.
Times cited: 31

8. **Rosenheim, B.E.**; Swart, P.K.; Eisenhauer, A. (2007). "Constraining initial ^{230}Th activity in incrementally-deposited, biogenic aragonite from the Bahamas" Geochimica et Cosmochimica Acta. v. 71. pp. 4025-4035.
Times cited: 7

7. **Rosenheim, B.E.**; Swart, P.K. (2007). "Caribbean sclerosponge radiocarbon measurements re-interpreted in terms of U/Th age models." Nuclear Instruments and Methods in Physics Research B: Beam Interactions with Materials and Atoms. v. 259. pp. 474-478. doi:10.1016/j.nim.b2007.01.235.
Times cited: 7

6. Moses, C.S.; Rosenheim, B.E.; **Swart, P.K.** (2006). "Evidence of multi-decadal salinity variability in the eastern tropical North Atlantic" Paleoceanography. v. 21, PA3010. doi: 10.1029/2006PA001257.
Times cited: 20

5. Rosenheim, B.E.; **Swart, P.K.**; Thorrold, S.R. (2005). "Minor and trace elements in sclerosponge *Ceratoporella nicholsoni*: Biogenic aragonite near the inorganic endmember?" Palaeogeography Palaeoclimatology Palaeoecology. v. 228, n. 1-2. pp. 109-129. DOI 10.1016/j.palaeo.2005.03.055.
Times cited: 48

4. Rosenheim, B.E.; **Swart, P.K.**; Thorrold, S.R.; Willenz, P. (2005). "Salinity change in the subtropical Atlantic: Secular increase and teleconnections to the North Atlantic Oscillation." Geophysical Research Letters. v. 32, n. L02603. doi: 10.1029/2004GL021499.
Times cited: 36

3. Rosenheim, B.E.; **Swart, P.K.**; Thorrold, S.R.; Willenz, P.; Berry, L.; Latcozky, C. (2004). "High-resolution Sr/Ca records in sclerosponges calibrated to temperature in situ." Geology, v.32, n.2. p. 145-148. doi 10.1130/G20117.1
Times cited: 68

2. **Swart, P.K.**; Thorrold, S.; Rubenstone, J.; Rosenheim, B.; Harrison, C.G.A.; Grammer, M.; Latkoczy, C. (2002). "Intra-annual variation in stable oxygen and carbon and trace element composition of sclerosponges." Paleoceanography, v.17. 12p. doi:10.1029/2000PA000622
Times cited: 50

1. **Mehrtens, C.**; Rosenheim, B.E.; Modley, M.; Young, R. (2001). “Reef morphology and sediment attributes, Roatan, Bay Islands, Honduras.” Carbonates and Evaporites, v.16, n.2. p. 131-140.
Times cited: 18

Data Products

Breithaupt, J. L., J. M. Smoak, T. S. Bianchi, D. Vaughn, C. J. Sanders, K. R. Radabaugh, M. J. Osland, L. C. Feher, J. C. Lynch, D. R. Cahoon, G. H. Anderson, K. R. T. Whelan, B. E. Rosenheim, R. P. Moyer, and L. G. Chambers. 2020, January 22. Dataset: Increasing rates of carbon burial in southwest Florida coastal wetlands.
<https://doi.org/10.25573/serc.9894266.v1>

Hemingway, J.D., Schafer C., Rosenheim B.E. 2018. A compiled database of published ramped pyrolysis/oxidation results, 2018-, http://pypi.python.org/pypi/RPO_Database, doi. 10.5281/zenodo.1158742 .

Kolasinski, J. and Rosenheim, B.E. 2015. CARTHE PE15-01 Cruise Report - Water Column Sampling Summer 2014. Consortium for Advanced Research on Transport of Hydrocarbon in the Environment (CARTHE). doi:10.7266/N7TM782X

Rosenheim, Brad E. 2013. CARTHE: Historical stable carbon isotope (^{13}C) data from bottom sediments in the Gulf of Mexico (1963 to 2010). Consortium for Advanced Research on Transport of Hydrocarbon in the Environment (CARTHE). doi:10.7266/N77P8W99

Moses, C.S.; Swart, P.K.; Rosenheim, B.E.,
http://hurricane.ncdc.noaa.gov/pls/paleox/f?p=519:1:::::P1_STUDY_ID:6184, National Climatic Data Center.

Rosenheim, B.; Swart, P.K.; Thorrold, S.R.; Willenz, P.; Berry, L.; Latkoczy, C.,
http://hurricane.ncdc.noaa.gov/pls/paleox/f?p=519:1:::::P1_STUDY_ID:1921, National Climatic Data Center

Swart, P.K.; Torrold, S.; Esienhauer, A.; Rosenheim, B.; Harrison, C.G.A.; Grammer, M.; Latkoczy, C.,
http://hurricane.ncdc.noaa.gov/pls/paleox/f?p=519:1:::::P1_STUDY_ID:1887, National Climatic Data Center

Rosenheim, B.; Swart, P.K.; Thorrold, S.R.; Eisenhauer, A.; Willenz, P.,
http://hurricane.ncdc.noaa.gov/pls/paleox/f?p=519:1:::::P1_STUDY_ID:1922, National Climatic Data Center

Rosenheim, B.; Swart, P.K.; Thorrold, S.R.,
http://hurricane.ncdc.noaa.gov/pls/paleox/f?p=519:1:::::P1_STUDY_ID:1922, National Climatic Data Center

Abstracts, Presentations, and Non-Refereed Publications (Advised student authors in italics, *graduate student presenting, °undergraduate student presenting)

2019

Smoak, J.M.; Breithaupt, J.; Moyer, R.P.; Radabaugh, K.; Bianchi, T.S.; Vaughn, D.; Rosenheim, B.E.; *Schafer, C.*

sedimentary evidence from Whillans and Mercer ice streams, West Antarctica.” Abstract
C21E-

2018

- Vadman, K.J.*; Shevenell, A.E.; Leventer, A.; Gulick, S.P.S.; Mawbey, E.; Huber, B.A.; Rosenheim, B.E. (2018). Abstract PP23E-1541, 2018 Fall Meeting, AGU, Washington, D.C., 10-14 December 2018.
- King, T.M.*; Rosenheim, B.E.; Shevenell, A.E.; Ingalls, A.E.; Carlson, L. (2018). “Did the Last Deglaciation Happen at the Same Time Everywhere in Antarctica? A Facies-based Comparison of Different Radiocarbon Chronometers in Antarctic Margin Sediment.” Abstract PP23E-1534, 2018 Fall Meeting, AGU, Washington, D.C., 10-14 December 2018.
- Smoak, J.M.; Breithaupt, J.; Bianchi, T.S.; Vaughn, D.; Rosenheim, B.E.; Chambers, L.G. (2018). “Increasing accumulation of soil organic matter in mangrove forests could indicate greater-than-expected resilience to sea-level rise and enhance the ongoing carbon sink capacity.” Abstract B41C-06, 2018 Fall Meeting, AGU, Washington, D.C., 10-14 December 2018.
- Schafer, C.*; Rosenheim, B.E.; Smoak, J.M.; Moyer, R.P.; Chappel, A.R. (2018). “Are Mangroves More Effective Carbon Sinks than Previously Thought? A Comparison of Sediment Ages Versus Radiocarbon Ages Seems to Suggest So.” Abstract B23G-2581, 2018 Fall Meeting, AGU, Washington, D.C., 10-14 December 2018.

2017

- Smoak, J.M.; Rosenheim, B.E.; Moyer, R.P.; Radabaugh, K.; Chambers, L.G.; Lagomasino, D.; Lynch, J.; Cahoon, D.R. (2017). “Controls on Soil Organic Matter in Blue Carbon Ecosystems along the South Florida Coast.” 2017 Fall Meeting, AGU, New Orleans, LA, 11-15 December 2017.
- Rosenheim, B.E.; Subt, C.; Shevenell, A.E.; Guitard, M.; Vadman, K.J.; DeCesare, M.; Wellner, J.S.; Bart, B.J.; Lee, J.I.; Domack, E.W.; Yoo, K.-C.; Hayes, J.M. (2017). “Invited: Chronicing ice shelf history in the sediments left behind.” 2017 Fall Meeting, AGU, New Orleans, LA, 11-15 December 2017.
- Jung, J.; Yoo, K.-C.; Yang, K.; Lee, J.I.; Yoon, H.I.; Hwang, C.Y.; Subt, C.; Rosenheim, B.E.; Domack, E.W.; Kim, J. (2017). “Nano-scale investigations on clay minerals during the Holocene climate optimum; Larsen Ice Shelf, Antarctica.” 2017 Fall Meeting, AGU, New Orleans, LA, 11-15 December 2017.
- Subt, C.*; Rosenheim, B.E.; Lee, J.I.; Yoo, K.C.; Browne, I.M.; Shevenell, A.E. (2017). “Temperature under the Tongue: A paleotemperature record of the Drygalski Ice Tongue with improved chronology of ice retreat.” 2017 Fall Meeting, AGU, New Orleans, LA, 11-15 December 2017.
- Jankowski, K.L.*; Shen, Z.; Tornqvist, T.E.; Stepanoitis, E.; Rosenheim, B.E. (2017). “Reimagining Carbon Sequestration in Fluviodeltaic Systems: Contributions from Clastic

Overbank Deposits versus Peat

Rosenheim, B.E.; Shevenell, A.E.; Domack, E.W.; Subt, C.; Leventer, A. (2016). “Regional correlation of improved radiocarbon dates from the laminated facies of Antarctic margin sediment from Anvers Trough, Antarctic Peninsula.” 2016 Ocean Sciences Meeting, American Geophysical Union, New Orleans, LA, 21-26 February 2016.

*Subt, C.**; Yoon, H.; Yoo, K.-C.; Lee, J.I.; Domack, E.W.; Rosenheim, E.W. (2016). “Ramped PyrOx ^{14}C with a twist: Improving radiocarbon chronologies on highly detrital marginal Antarctic sediments.” 2016 Ocean Sciences Meeting, American Geophysical Union, New Orleans, LA, 21-26 February 2016.

Vetter, L.; Schreiner, K.M.; Rosenheim, B.E.; Tornqvist, T. (2016). “Coastal marsh longevity, ecological succession, and organic carbon dynamics during early Holocene sea-level rise.” 2016 Ocean Sciences Meeting, American Geophysical Union, New Orleans, LA, 21-26 February 2016.

Walker, B.D.; Druffel, E.R.M.; Griffin, S.; Kolaskinski, J.; Roberts, B.J.; Xu, X.; Muller-Karger, F.; Rosenheim, B.E. (2016). “Sources and cycling of dissolved organic carbon in the Gulf of Mexico: Insights from stable (^{13}C) and radiocarbon (^{14}C) signatures.” 2016 Ocean Sciences Meeting, American Geophysical Union, New Orleans, LA, 21-26 February 2016.

2015

Fernandez, A.; Rosenheim, B.E.; Swart, P.; Lapen, T.; Andreasen, R.; Karnauskas, K. (2015). “What role does the N. Atlantic subtropical cell play in warming the shallow underwater of the Caribbean Sea on decadal to centennial time scales? Constraints from radiocarbon records across the tropical Atlantic.” 2015 Fall Meeting, AGU, San Francisco, CA, 14-18 December 2015.

Rosenheim, B.E., Domack, E.W.; Shevenell, A.; *Subt, C.* (2015). “Time matters: Increasing the efficiency of Antarctic marine geology and paleoceanography expeditions by providing improved sediment chronology.” 2015 Fall Meeting, AGU, San Francisco, CA, 14-18 December 2015.

Rosenheim, B.E.; Vetter, L.; Galy, V.; Plante, A.; Mollenhauer, G.; Hemingway, J.; Grant, K.; Derry, L. (2015). “Thermochemical ^{14}C spectra and carbon turnover time in soils – a (changing?) latitudinal gradient? (**Invited**).” 2015 Fall Meeting, AGU, San Francisco, CA, 14-18 December 2015.

Williams, E.K.; Rosenheim, B.E. (2015). “Impacts of soil organic stability on carbon storage in coastal wetlands.” 2015 Fall Meeting, AGU, San Francisco, CA, 14-18 December 2015.

Shevenell, A.E.; Ishman, S.; Domack, E.W.; Leventer, A.; Rosenheim, B.E.; Vadman, K. (2015). “A complex deglacial retreat history of the Anvers Island Trough paleo-ice stream.” 2015 Fall Meeting, AGU, San Francisco, CA, 14-18 December 2015.

Rosenheim, B.E. (2015). “**Keynote:** Ramped PyrOx ¹⁴C – Advances in the thermochemical

2014

Schreiner, K.; Bianchi, T.; Rosenheim, B.E. (2014). “Sources and reactivity of terrestrial organic carbon to the Colville River Delta, Beaufort Sea, Alaska (**Invited**).” 2014 Fall Meeting, AGU, San Francisco, CA, December 15-19, 2014.

*Guitard, M. **; Shevenell, A.; Domack, E.; Rosenheim, B.E.; Yokoyama, Y. (2014). “Late Quaternary advance and retreat of an East Antarctic Ice Shelf System: Insights from sedimentary beryllium-10 concentrations.” 2014 Fall Meeting, AGU, San Francisco, CA, December 15-19, 2014.

Vetter, L.; Schreiner, K.; *Fernandez, A.*; Rosenheim, B.E.; Tornqvist, T. (2014). “Analysis and characterization of organic carbon in Early Holocene wetland paleosols using ramped pyrolysis ^{14}C and biomarkers.” 2014 Fall Meeting, AGU, San Francisco, CA, December 15-19, 2014.

Rosenheim, B.E.; Roberts, B.; *Williams, E.K.* (2014). “Ramped pyrolysis ^{14}C age spectra of riverine particulate organic matter through a record hydrograph – the Great Atchafalaya Flood of 2011.” 2014 Fall Meeting, AGU, San Francisco, CA, December 15-19, 2014.

Wallace, D.; Rosenheim, B.; Roberts, M.; Burton, J.; Donnelly, J.; Woodruff, J. (2014). “Paleotempestological chronology developed from gas ion source AMS analysis of carbonates determined through real-time Bayesian statistical approach.” 2014 Fall Meeting, AGU, San Francisco, CA, December 15-19, 2014.

*Smith, C. **; Domack, E.W.; Shevenell, A.; Rosenheim, B.E.; Yoo, K.-C.; Lavoie, C. (2014). “The last stand of the Gerlache-Boyd paleo-ice stream and paleo-mega fjord?” The Geologic Society of America Annual Meeting, Vancouver, Canada, October 19-22, 2014.

*Fernandez, A. **; Rosenheim, B.E.; Tang, J. (2014).

Rosenheim, B.E. ; Kolasinski, J. ; *Pendergraft, M.A.* (2014). “Isoscape de la matière organique sédimentaire dans le golfe de Mexique – utilisation comme traceur de contamination du pétrole.” SFIsoTrace 2014, Brest, France, September 8-12.

Kolasinski, J.; Rosenheim, B.E.; (2014). “Caractérisation de la présence et de la transformation des hydrocarbures issus de la marée noire du Deepwater Horizon dans les sédiments” *Journal of Environmental Science and Technology*, 8(3), 242-248.

Williams, E.K.; Rosenheim, B.E.; McNichol, A.P.; Roberts, M.L.; Xu, L. (2012). “The impact of varying depositional processes on the preservation of lignin from the Mississippi and Amazon Rivers: A dual application of compound-specific and ramped pyrolysis radiocarbon dating.” Abstract B13D-0560 presented at the 2012 Fall Meeting, AGU, San Francisco, CA 3 December*

Finkelstein, D.B.; Schimmelmann, A.; Rosenheim, B.E.; Pendergraft, M.A. (2012). “Geochemical and isotopic time series of oil deposited in Baratavia Bay and on Grand Isle, Louisiana, after the Deepwater Horizon Oil Spill.” Abstract B21A-0336 presented at the 2012 Fall Meeting, AGU, San Francisco, CA 4 December*

Rosenheim, B.E.; Williams, E.K.; Pendergraft, M. (2012). “Chemistry of ramped pyrolysis radiocarbon dating.” 21st International Radiocarbon Conference, Paris, France

Rosenheim, B.E., Roberts, B.J.; Galy, V.; Allison, M.A.; Kolker, A.S.; Beaupré, S.; Roe, K.M. (2012). “Radiocarbon age distributions in riverine POC.” 21st International Radiocarbon Conference, Paris, France

2011

Williams, E.K.; Rosenheim, B.E. (2011). “Chemistry of decomposition of freshwater wetland sedimentary organic material during ramped pyrolysis.” Abstract B21E-0297 presented at the 2011 Fall Meeting, AGU, San Francisco, CA 6 December.*

Telfeyan, K.*, Chevis, D.A., Rosenheim, B.E.

Waite, A.J.*, Swart, P.K., Rosenheim, B.E., (2009). "A new calibration for the Sr/Ca-

14-C Accelerator Mass Spectrometry system," The 11th International Conference on Accelerator Mass Spectrometry, Rome, Italy.

Rosenheim, B.E., Correa, T., Swart, P.K., Eberli, G., Grasmueck, M. (2008), "Deep reef radiocarbon records from the Straits of Florida." The 11th International Coral Reef Symposium, Fort Lauderdale, FL

2007

Rosenheim, B.E., Swart, P.K. (2007). "The challenges of using sessile proxies for oceanography

Rosenheim, B.E.; Swart, P.K. (2005). "Shallow subsurface marine radiocarbon records from Bahamas sclerosponge skeletons." *Eos Transactions, AGU*, v.86(52), Fall Meeting Supplement, Abs. PP31B-1531

2004

Rosenheim, B.E.; Swart, P.K.; Thorrold, S.R. (2004). "N. Atlantic salinity change during the last century: Surface forcing at the salinity maximum propagated to the central Caribbean by subsurface waters." *Eos Transactions, AGU*, v. 85(46), Fall Meeting Supplement, Abs. PP51C-1346.

Moses, C.S.; Swart, P.K.; Rosenheim, B.E.; Thorrold, S.; Zhang, D. (2004). "Centennial-scale changes in tropical North Atlantic Salinity inferred from scleractinian corals." *Eos Transactions, AGU*, v. 85(46), Fall Meeting Supplement, Abs. PP51C-1347.

Rosenheim, B.E.; Swart, P.K.; Thorrold, S.R.; Latkoczy, C.; Eisenhauer, A. (2004). "Significant changes in temperature and salinity of the Caribbean Sea indicated by Sr/ca ratios and $\delta^{18}\text{O}$ in the aragonite skeletons of sclerosponges." *Eos Transactions, AGU*, v. 84(52), Ocean Science Meeting Supplement, Abs. OS51I-03.

Swart, P.K.; Dodge, R.E.; Quinn, T.; Moses, C.; Rosenheim, B.E.; Helmle, K.; Mackenzie, G.; Clement, A. (2004). "A long term history of salinity changes in the Caribbean using stable isotopes in coral skeletons." *Eos Transactions, AGU*, v. 84(52), Ocean Science Meeting Supplement, Abs. OS41A-04.

2002

Rosenheim, B.E.; Swart, P.K.; Willenz, P.; Thorrold, S.; Eisenhauer, A. (2002). "Calibration of Caribbean sclerosponges to their ambient environment: Indirect and direct methods." *Eos Transactions, AGU*, v. 83(47), Fall Meeting Supplement, Abs. PP52B-06.

Swart, P.K.; Rosenheim, B.; Thorrold, S.; Eisenhauer, T. (2002). "Uranium, barium, lead, and lead isotopes in sclerosponges: New proxies in sclerosponges." *Eos Transactions, AGU*, v. 83(47), Fall Meeting Supplement, Abs. PP51A-0286.

2001

Swart, P.K.; Rosenheim, B.; Thorrold, S.; Rubenstone, J. (2001). "Annual variation in the chemical composition of sclerosponges." *Eos Transactions, AGU*, v. 82(47), Fall Meeting Supplement, Abs. OS31C-0446.

Rosenheim, B.E.; Swart, P.K.; Thorrold, S.R. (2001). "Calibration of Sr/Ca with temperature in sclerosponges." *Eos Transactions, AGU*, v. 82(47), Fall Meeting Supplement, Abs. OS31C-0447.

Rosenheim, B.; Swart, P.; Thorrold, S.; Rubenstone, J. (2001). "Annual cyclicity in high resolution Sr records from sclerosponges." *Geological Society of America Abstracts with Programs*, v. 33.

2000

Mehrtens, C.; Modley, M.; Rosenheim, B.E.; Newberry, R.; Young, R.S. (2000).
“Sedimentation and water quality: Mesoamerican reef, Roatan, Honduras.” Geological
Society of America Abstracts with Programs, v. 32(7).

1999

Rosenheim, B.E., Lini, A.; Mehrrens, C.; Young, R.S. (1999). Freshwater Dilution Observed in
the Stable Oxygen Isotope Record of the Scleractinian Coral *Montastrea annularis*:
Roatan, Honduras. Geological Society of America y 186 /P 3 BDC BT3 -1.15 Td7 12 72 625.78 Tm(-/P,

OCE6972.648 (USF): Directed Research: I teach graduate students individually when they need to learn special topics intensively or for which there is not enough demand to warrant a formal course. Students design syllabi for these courses and I help them prepare learning outcomes, schedules of activities, and assessment in an iterative process. With limited TAs at CMS, this is valuable for learning curriculum development. We then use that syllabus as a template to conduct advanced literature research (with writing of an introduction to a manuscript as assessment), laboratory experiments (with writing manuscript drafts as an exercise for assessment), and research expeditions (for students that need to spend a large portion of the semester at sea, usually involving a presentation at sea graded by expedition participants).

OCE6971.648 (USF): Thesis: Masters. Mentoring of M.S. students as primary adviser. This involves weekly progress meetings and filing of progress forms so that students participate actively in formulating goals and evaluating their performance.

OCE7910.648 (USF): Doctoral Dissertation Research. Mentoring of Ph.D. students as primary adviser. This involves weekly progress meetings and filing of progress forms so that

EENS/EBIO 2230 (Tulane University): Introductory Oceanography. This course is aimed at science majors, but accessible to non-majors as well. It involves 3 lectures per week, plus a field trip to LUMCON to perform oceanographic measurements aboard a coastal research vessel.

MSC 101 (University of Miami): Introduction to Oceanography, Non-Science Majors. This course gave me the opportunity to teach lectures on topics as broad as wave physics to coral physiology in a delivery suitable for all backgrounds. I have received excellent reviews from students in these classes and have succeeded in presenting both traditional blackboard lectures and multi-media presentations.

Students Advised Directly

Tynisha Martin, M.S., in progress, USF
Kiersten Monahan, Ph.D., in progress, USF
Carolyn Schafer, M.S., in progress, USF
Dylan Peck, M.S., in progress, USF
Theresa King, Ph.D., in progress, USF
Ryan Venturelli, Ph.D., in progress, USF
Caitlin Reynolds, M.S., 2018, USF
Devon Firesinger, M.S., 2017, USF
Cristina Subt, Ph.D., 2017, USF
Alvaro Fernandez, Ph.D., 2015, Tulane University
Elizabeth Williams, Ph.D., 2014, Tulane University
Matthew Pendergraft, M.S., 2013, Tulane University
Emily Cardarelli, B.S. with honors, 2012, Tulane University
Kimberly Roe, M.S. 2011, Tulane University
Gabiella March, B.S. with honors, 2010, Tulane University
Jennifer Douglass, B.S. with honors, 2009, Tulane University

Students Visiting from Other Universities

Ryan Clarke, Tulane University, United States – June 2019
Dayang Sun, Zhejiang University, China – September 2018 – March 2019
Simon Reeve, University of Otago, New Zealand – August 2018

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Students Advised on Research Committee

Jonathan Sharp, Ph.D., USF, in progress

Julie Vecchio, Ph.D., USF, in progress

Travis Mellett, Ph.D., USF, in progress

Kara Vadman, Ph.D., USF, in progress

Jongjin Lee, M.S., USF, 2018

Selena Johnson, Ph.D., USF 2019

Yingli Zhu, Ph.D., USF, 2019

Rebekah Larson, Ph.D., USF, 2018

Joshua Breithaupt, Ph.D., 2017, USF

Sean Murray, Ph.D., 2016, University of Miami Rosenstiel School of Marine and Atmospheric Science

Meredith Moss Evans, M.S., 2016, University of Texas Marine Science Institute

Michelle Guitard, M.S., 2015, USF

Victoria Troeger, B.S. with honors, 2013, Tulane University

Kimberly A. Mead, M.S., 2012, University of Houston

Rebecca L. Freeman, Ph.D., 2011, Tulane University

Benjamin Jones, B.S. with honors, 2011, Tulane University

Frida Zink, B.S. with honors, 2011, Tulane University

Charlotte Sprehn, B.S. with honors, 2011, Tulane University

2015	Session Convener, Goldschmidt Conference, Global Changes in the Fluxes and Reactivity of Riverine Organic Carbon from Channel to Coastal Margin
2015	Session Convener, American Geophysical Union Fall Meeting, Global Changes in the Fluxes and Reactivity of Riverine Organic Carbon from Channel to Coastal Margin
2014	Session Convener, American Geophysical Union Fall Meeting, Global Changes in the Fluxes and Reactivity of Riverine Organic Carbon from Channel to Coastal Margin
2014-2017	National Ocean Sciences Accelerator Mass Spectrometer (NOSAMS) Advisory and Planning Board
2013	Session Convener, Gulf of Mexico Oil Spill and Ecosystem Conference, Models and observations working together to understand the Deepwater Horizon oil spill
2011	National Science Foundation Marine Geology and Geophysics Proposal Review Panel
2011	Technical Session Chair – South Central Sectional Meeting Geologic Society of America, New Orleans
2008	Session Convener, 11 th International Coral Reef Symposium, Coral Reef Organisms as Recorders of Local and Global Environmental Change
2007	Session Convener, American Geophysical Union Fall Meeting, Understanding Tropical Climate Variability: Combining Observations, Models, and Paleoclimate Records

College/Departmental

College of Marine Science Dean Search Committee – 2019-present

Chair, Geological Oceanography Search Committee – 2018-2019

Chair, USF-CMS Web Committee – 2015-present

USF Research Council – 2016-2019

USF-CMS Conduct and Grievance Committee – 2017-current

Chemical Oceanography Search Committee – USF-CMS, 2016

USF-CMS Web Committee – 2014-current

Biological Oceanography Faculty Search Committee – USF-CMS, 2015

Machine Shop Action Committee – Tulane University, 2012

Chair, Departmental Graduate Studies Committee – Tulane University 2009-2012

Journal Referee

Proceedings of the National Academy of Science

Nature Communications

Nature Climate Change

Geophysical Research Letters

Geology

Geochimica et Cosmochimica Acta

Radiocarbon

Crystal Structure

Marine Chemistry

Palaeogeography, Palaeoclimatology, Palaeoecology

Paleoceanography

Earth and Planetary Review Letters

Coral Reefs

Geochemistry, Geophysics, Geosystems

AGU Books

Proceedings, International Coral Reef Symposium

Invited Seminars

2015 Time Matters: Refining regional deglacial chronology from Antarctic marginal marine sediments, University of Kentucky, November 11, 2015

2014 Paleoclimatology at the Human Timescale, Eckerd College, St. Petersburg, Florida, May 7, 2014

- 2014 How to ruin a perfectly good (radiocarbon) date – Ramped pyrolysis and age spectra of riverine POC, University of Florida, Gainesville, Florida, April 11, 2014
- 2014 How to ruin a perfectly good (radiocarbon) date – Ramped pyrolysis and age spectra of riverine POC, Northwestern University, Chicago, Illinois, February 21, 2014
- 2013 Paleoclimatology at the Human Timescale, University of South Florida, College of Marine Science, St. Petersburg, Florida, March 17, 2013
- 2010 Burn, baby, Burn! Using refined pyrolysis techniques and radiocarbon to improve our

measurements at the same precision as more expensive instrumentation, broadening the base of scientists who will participate in developing this method.

Accelerator Mass Spectrometry

- 2014 SOM6 – 6th International Workshop on Soil Organic Matter Stabilization and Destabilization, Kiawah Island, South Carolina
- 2014 4th International Clumped Isotope Workshop, ETH Zurich, Zurich, Switzerland
- 2014 Korean Polar Institute Research Symposium, *invited speaker*.
- 2013 MOSSFA Working Group Meeting, Florida State University, Tallahassee, Florida
- 2013 3rd International Clumped Isotope Workshop, Harvard University, Boston, Massachusetts
- 2011 International Workshop on Small Scale Radiocarbon Analysis, ETH, Zurich, Switzerland
- 2010 1st International Clumped Isotope Workshop, University of Washington, Seattle, Washington
- 2006 IODP Caribbean Gateway Workshop, Austin, Texas
- 2006 CLIVAR Salinity Workshop, Woods Hole Oceanographic Institution, Woods Hole, Massachusetts

Outreach

- 2014 – present. Paleoceanography booth at the Saint Petersburg Science Festival, serving 25,000 students from around the region. I develop content and participate in the booth.
- 2011 National Public Radio Interview “In Cleaning Oiled Marshlands, A Sea of Unknowns” (<http://www.npr.org/2011/04/20/135571426/in-cleaning-oiled-marshlands-a-sea-of-unknowns>)
- 2010 National Geographic News “~~Extinct Reptiles, Fish, and Birds, Tied to~~”