

EMILY B. OSBORNE

Physical Scientist, NOAA Atlantic Oceanographic and Meteorological Laboratory
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EDUCATION

College of Charleston, Charleston, SC. Geology, Bachelor of Science, 2012
University of South Carolina, Columbia SC. Marine Science, Doctor of Philosophy, 2016

APPOINTMENTS

Physical Scientist, NOAA Atlantic Oceanographic and Meteorological Laboratory, Miami, FL

August 2020-Present

Physical Scientist investigating regional and global biogeochemical issues as related to ocean health and climate through the use of a combination of paleoceanographic approaches, new autonomous sensors, and conventional measurements on large multi-disciplinary oceanographic cruises.

Visiting Scientist, NOAA Ocean Acidification Program, Silver Spring, MD

April 2019-August 2020

Provided scientific and programmatic input to the Ocean Acidification Program, which supports research investigating complex interactions between the oceans and atmosphere to understand environmental processes in the coastal and open-ocean and the impacts to chemical and biological processes. Served as Coordinating Editor and Lead Author of the 2020-2029 NOAA Ocean, Coastal, and Great Lakes Research Plan, which identifies agency-wide ocean acidification science priorities

Adjunct Professor, University of the District of Columbia, Washington, DC

January 2020-May 2020

Instructor of record for Climate Change and Carbon Reduction, an upper-level course for Urban Sustainability within the College of Agriculture, Urban Sustainability and Environmental Sciences.

Program Manager, NOAA Arctic Research Program, Silver Spring, MD

January 2018-March 2019

Led day-to-day program operations including strategic program planning, budget formulation and execution, coordination and support of research activities and internal and external (interagency and international) representation of NOAA's Arctic research. Served as Editor for the NOAA Arctic Report Card and BAMS State of the Climate Report Arctic Chapter and represented these reports as the lead author and scientist for public affairs and communication outreach.

Sea Grant John A. Knauss Fellow, NOAA Arctic Research Program, Silver Spring, MD

February 2017-December 2017

Selected to the Knauss Fellowship program, which provides a unique educational and professional experience to graduate students who have an interest in ocean, coastal and Great Lakes resources and the national policy decisions affecting those resources. The fellowship matches highly qualified graduate students with hosts in the legislative and executive branch of government in Washington, D.C., for a one year paid fellowship.

SELECTED PUBLICATIONS

- Osborne, E. B.**, Umling, N. E., Bizimis, M., Buckley, W., Sadekov, A., Tappa, E., et al. (2020). A sediment trap evaluation of B/Ca as a carbonate system proxy in asymbiotic and nondinoflagellate hosting planktonic foraminifera. *Paleoceanography and Paleoclimatology*, 35, e2019PA003682. <https://doi.org/10.1029/2019PA003682>
- Osborne, E. B.**, R. C. Thunell, N. Gruber, R. Feely and C. Benitez-Nelson, (2019). Decadal variability in twentieth-century ocean acidification in the California Current Ecosystem, *Nature Geoscience*, 13, <https://doi.org/10.1038/s41561-019-0499-z>.
- Davis, A. N., Davis, C. V., Thunell, R. C., **Osborne, E. B.**, Black, D. E., & Benitez-Nelson, C. R. (2019). Reconstructing 800 years of carbonate ion concentration in the Cariaco Basin using the area density of planktonic foraminifera shells. *Paleoceanography and Paleoclimatology*, 34 <https://doi.org/10.1029/2019PA003698>
- Richter-Menge, J., **E. Osborne**, M. Druckenmiller, and M. O. Jeffries, Eds., (2018). The Arctic [in "State of the Climate in 2018"]. *Bulletin of the American Meteorological Society*, 100 (9), S169–S188, doi:10.1175/2019BAMSStateoftheClimate.1.
- Osborne, E.**, J. Richter-Menge, and M. Jeffries, Eds., (2018) Arctic Report Card 2018 <https://www.arctic.noaa.gov/Report-Card>.
- Bellerby, R., L. Anderson, **E. Osborne**, N. Steiner, I., J. Cross, M. Chierici, A. Fransson, K. Azetsu-Scott, J. Ólafsson, L. Miller (2018). AMAP Assessment 2018: Arctic Ocean Acidification. Arctic Monitoring and Assessment Programme (AMAP), Tromsø, Norway.
- Richter-Menge, J., M. O. Jeffries, and **E. Osborne**, Eds., (2018). The Arctic [in "State of the Climate in 2017"]. *Bulletin of the American Meteorological Society*, 99 (8), S143–173, doi:10.1175/2018BAMSStateoftheClimate.1.
- Osborne, E.**, T. Cronin, and J. Farmer (2018). Paleoclimate records: Providing context and understanding of current Arctic change [in "State of the Climate in 2017"]. *Bulletin of the American Meteorological Society*, 99 (8), S150–S152, doi:10.1175/2018BAMSStateoftheClimate.1.
- Richter-Menge, J., J.E. Overland, J. T. Mathis, and **E. B. Osborne**, Eds., (2017). Arctic Report Card 2017, <http://www.arctic.noaa.gov/Report-Card>.
- Osborne, E.B.**, T. Cronin and J. Farmer, 2017: Paleoclimate Perspectives on Arctic Ocean Change [in Arctic Report Card 2017], <http://www.arctic.noaa.gov/Report-Card>.
- Osborne, E. B.**, R. C. Thunell, B. J. Marshall, J. A. Holm, E. J. Tappa, C. Benitez-Nelson, W.J. Cai, and B. Chen (2016). Calcification of the planktonic foraminifera *Globigerina bulloides* and carbonate ion concentration: Results from the Santa Barbara Basin, *Paleoceanography*, 31, doi:10.1002/2016PA002933.

SYNERGISTIC ACTIVITIES

- 1) Steering committee member for ocean and climate science working groups often leading to the creation of publishable reports
- 2) Frequent session convener at national and international conferences
- 3) Instructor and guest lecturer for a number of introductory and upper-level science college courses and high school classes
- 4) STEM recruitment leader focused on creating a safe, diverse, inclusive and equitable community by engaging in various diversity and inclusion groups
- 5) Previous program manager with experience in formulation and execution of grant calls and service as a panel reviewer for a number of peer-review panels