

BIOGRAPHICAL SKETCH

Richard W. Murray

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Professional Preparation

B.A. (Honors), Geology	Hamilton College, Clinton, NY	1985
Sea Education Association	Woods Hole, MA	1983
Ph. D., Geology	Univ. of California at Berkeley	1991
Post-doctoral Associate	Grad. School of Oceanography, Univ. Rh. Island	9/91 - 10/92

Appointments

<i>Deputy Director / Vice President for Research</i> , Woods Hole Oceanographic Institution	9/19 – present
<u>Senior Scientist</u> , Department of Marine Chemistry and Geochemistry	
<i>Adjunct Scientist</i> , Dept. of Marine Chemistry & Geochem., Woods Hole Ocean. Inst.	9/18 - 9/19
<i>Dept. of Earth & Environment (prior Earth Sciences, prior Geology)</i> , Boston Univ.	11/92 – 7/19
<u>Professor</u> (9/02-present); Director, Boston University Marine Program (1/07-8/09); Chairman (9/00-9/05); Associate Chairman (1/99-9/00); Associate Professor, tenured; (9/99–9/02); Assistant Professor (9/94-8/99); Assistant Research Professor (11/92-8/94).	
<i>Director, Division of Ocean Sciences, National Science Foundation (IPA detail)</i>	1/15 – 6/18
<ul style="list-style-type: none">• Co-Chair, Sub-committee on Ocean Science & Technology (SOST), Office of Science and Technology Policy (OSTP), Executive Office of the President (EOP).• Steering Committee, National Ocean Council, OSTP (EOP).	
<i>Visiting Scholar</i> (sabbatical), Harvard University, Center for the Environment	01/06 - 12/06
<i>Research and Teaching Assistant</i> , University of California at Berkeley	9/86 - 8/91
<i>Graduate Research Assistant</i> , Sedimentology Group, U. of Wisconsin, Madison	9/85 - 6/86
<i>Geol. Intern / Geologist</i> , USGS Menlo Park, Pacific Marine Geology	Summer 1985, 1986
<i>Teaching and Research Assistant</i> , Dept. of Geology, Hamilton College	9/82 - 12/85

Other Activities and Service (selected)

2019 - :	<i>Board of Directors</i> , American Geophysical Union (AGU). Elected position
2019 - :	<i>Chair</i> (inaugural), Ethics Committee, The Oceanography Society (TOS)

Integrated Ocean Drilling Program (IODP) and ODP Committees and Activities (representative listing)

2013 - 2014:	<i>JOIDES Resolution</i> Facilities Board
2011 - 2013:	Science Implementation and Planning Committee (SIPCom)
2009 - 2012:	Science Planning Committee (SPC)
2002 - 2004:	Co-Chair, Scientific Measurements Panel (SciMP)
2003:	Performance Evaluation Committee (PEC VI), Joint Oceanographic Inst. / ODP
1997 - 2000:	Scientific Measurements Panel (SciMP), Joint Oceanographic Inst. / ODP
1997 - 2000:	U. S. Science Advisory Comm. (USSAC)

Sea Education Association, Woods Hole, MA (undergraduate institution) (representative listing)

1996 - 2014:	Board of Trustees, Executive Committee, Member of Corp. (various capacities)
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Oceanographic Research Cruises

<i>R/V Knorr</i> , Chief Scientist, Atlantic Meridional Circ., Last Glacial Maximum (KN223, 11/14)
Co-Chief Scientist, IODP Expedition 346, Asian Monsoon (08/13 - 09/13)
<i>R/V Marcus G. Langseth</i> , Coring the Line Islands for paleoceanographic research (4/12 - 5/12)
<i>R/V Knorr</i> , Sub-seafloor microbiology of the Equatorial Pacific (KN195-3, 1/09 - 2/09)
<i>Inorganic Chemist</i> on five other ODP/IODP cruises (Legs 127, 165, 175, 185, 329).

Selected Publications in the Last Three Years

(*italics* = student of RWM)

- Vuillemin A., Wankel S. D., Coskun O. K., Magritsch T., Vargas S., Estes E. R., Spivack A., Smith D. C., Pockalny R., Murray R. W., D'Hondt S. D., and Orsi W. D., 2019. Archaea dominate oxic seafloor communities over multimillion-year timescales. *Science Advances*, **5**:eaaw4108.
- Wang P., Clemens S. C., Tada R., and Murray R. W., 2019. Blowing in the monsoon wind. *Oceanography*, **32**, 48-59, <https://doi.org/10.5670/oceanog.2019.119>.
- Anderson C. H.*, Murray R. W., Dunlea A. G., Giosan L., Kinsley C. W., McGee D., and Tada R., 2019. Aeolian delivery to Ulleung Basin, Korea (Japan Sea) during development of the East Asian Monsoon through the last 12 Ma. *Geological Magazine, Special Issue: Asian Dust from Land to Sea: Processes, History and Effect* (Editors: Wan S., Sun Y., and Nagashima K.), <https://doi.org/10.1017/S001675681900013X>.
- Estes E. R., Pockalny R., D'Hondt S., Inagaki F., Morono Y., Murray R. W., Nordlund D., Spivack A. J., Wankel, S. D., Xiao N., and Hansel C., 2019. Persistent organic matter in oxic seafloor sediment. *Nature Geoscience*, <http://dx.doi.org/10.1038/s41561-018-0291-5>.
- Buchwald C., Homola K., Spivack A. J., Estes E. R., Murray R. W., and Wankel S. D., 2018. Isotopic constraints on nitrogen transformation rates in the deep sedimentary marine biosphere. *Global Biogeochemical Cycles*, **32**, <https://doi.org/10.1029/2018GB005948>.
- Anderson C. H.*, Murray R. W., Dunlea A. G., Giosan L., Kinsley C. W., McGee D., and Tada R., 2018. Climatically driven changes in the supply of terrigenous sediment to the East China Sea. *G³ (Geochemistry, Geophysics, Geosystems)*, **19**, <https://doi.org/10.1029/2017GC007339>.
- Scudder R.P.*, Murray R.W., Kutterolf S., Schindlbeck J.C., Underwood M. B., and Wang K.-L., 2018, Sedimentary inputs to the Nankai Subduction Zone: The importance of dispersed ash. *Geosphere*, **14**, no. 4, <https://doi.org/10.1130/GES01558.1>.
- Dunlea A. G.*, Murray R. W., Santiago Ramos D. P., and Higgins J. A., 2017, Cenozoic global cooling and increased seawater Mg/Ca via reduced reverse weathering. *Nature Communications*, **8**, doi:10.1038/s41467-017-00853-5.
- Dunlea A. G.*, *Scudder R. P.*, and Murray R. W., 2017, Marine Sediment, in *Encycl. Geochemistry*, W.M. White (Ed.), Springer-Verlag, doi 10.1007/978-3-319-39193-9_105-1.
- Lepore K. H., Fassett C. I., Breves E. A., Byrne S., Giguere S., Boucher T., Rhodes J. M., Vollinger M., *Anderson C. H.*, Murray R. W., and Darby Dyar M., 2017, Matrix effects in quantitative analysis of laser induced breakdown spectroscopy (LIBS) of rock powders doped with Cr, Mn, Ni, Zn, and Co. *Applied Spectroscopy*, **71**, 1-27, doi:10.1177/0003702816685095.
- Williams R. H., McGee D., Kinsley C. W., Ridley D. A., Hu S., Fedorov A., Tal I., Murray R. W., and deMenocal P. B., 2016, Glacial to Holocene changes in trans-Atlantic Saharan dust transport and dust-climate feedbacks. *Science Advances*, **2**, e1600445.
- Walsh E. A., Kirkpatrick J. B., Pockalny R., Sauvage J., Spivack A. J., Murray R. W., Sogin M. L., and D'Hondt S., 2016, Relationship of bacterial richness to organic degradation rate and sediment age in seafloor sediment. *Applied and Environmental Microbiology*, **82**, 4994-4999.

Scudder R.P., Murray R.W., Schindlbeck J.C., Kutterolf S., Hauff F., Underwood M. B., Gwizd S., Lauzon R., and McKinley C. C., 2016, Geochemical approaches to the quantification of dispersed volcanic ash in marine sediment. *Progress in Earth and Planet. Science*, **3**, 1, doi:10.1186/s40645-015-0077-y.