

PUBLICATIONS

- **Noble, AE**; Tuit, CB; Maney, JP; Wait, AD. "A Review of Marine Water Sampling Methods for Trace Metals." *In review* at Environmental Forensics.
- Bundy, RM; Tagliabue, A; Hawco, NJ; Morton, PL; Twining, BS; Hatta, M; **Noble, AE**; Cape, MR; John, SG; Cullen, JT; Saito, MA. Elevated sources of cobalt in the Arctic Ocean." *In review* at Biogeosciences.
- Hawco, NJ; Lam, PJ; Lee, JM; Ohnemus, DC; **Noble, AE**; Wyatt, NJ; Lohan, MC; Saito, MA. 2017, "Cobalt scavenging in the mesopelagic ocean and its influence on global mass balance: Synthesizing water column and sedimentary fluxes." *Marine Chemistry* doi:10.1016/j.marchem.2017.09.001.
- Saito, MA; **Noble, AE**; Hawco, N; Twining, BS; Ohnemus, DC; John, SG; Lam, P; Conway, TM; Johnson, R; Moran, D; McIlvin, M. 2017, "The Acceleration of Dissolved Cobalt's Ecological Stoichiometry due to Biological Uptake, Remineralization, and Scavenging in the Atlantic Ocean." *Biogeosciences*, <https://doi.org/10.5194/bg-14-4637-2017>.
- **Noble, AE**; Ohnemus, DC; Lam, PJ; Saito, MA. 2017, "Coastal sources, sinks, and strong organic complexation of dissolved cobalt within the US North Atlantic GEOTRACES transect GA03." *Biogeosciences* 14 :2715-2739.
- The GEOTRACES Group (comprises 135 authors, of which **AE Noble** is one). 2015, "The GEOTRACES Intermediate Data Product 2014." *Marine Chemistry* doi:10.1016/j.marchem.2015.04.005.
- **Noble, AE**; Echegoyen-Sanz, Y; Boyle, EA; Ohnemus, DC; Lam, PJ; Kayser, R; Reueur, M; Wu, J; Smethie, W. 2015, "Dynamic variability of dissolved Pb and Pb isotope composition from the U.S. North Atlantic GEOTRACES Transect." *Deep-Sea Res. II*. 116(208-225)
- Guannel, ML; Harine, D; Twiner, MJ; Wang, Z; **Noble, AE**; Lee, PA; Saito, MA; Rocap, G. 2015. "Toxicogenicity and biogeography of the diatom *Pseudo-nitzschia* across distinct environmental regimes in the South Atlantic Ocean." *Marine Ecology Progress Series*. 526:67-87.
- Boyle, EA; Lee, JM; Echegoyen, Y; **Noble, AE**; Moos, S; Carrasco, G; Zhao, N; Kayser, R; Zhang, J; Gamo, T; Obata, H; Norisuye, K. 2014, "Anthropogenic Lead Emissions in the Ocean: The Evolving Global Experiment.", *Oceanography, Special Issues on Changing Ocean Chemistry*, Vol. 27, No. 1, 69-75.
- Cox, AD; **Noble, AE**; Saito, MA. 2014. "Cadmium enriched stable isotope uptake and addition experiments with natural phytoplankton assemblages in the Costa Rica Upwelling Dome." *Marine Chemistry* 166: 70-81.
- Ahlgren, NA; **Noble, A**; Patton, AP; Roache-Johnson, K; Jackson, L; Robinson, D; McKay, C; Moore, LR; Saito, MA; Rocap, G. 2014. The unique trace metal and mixed layer conditions of the Costa Rica upwelling dome support a distinct and dense community of *Synechococcus*. *Limnol. and Oceanogr.* 59(6):2166-2184.
- **Noble, AE**; Moran, DM; Allen, AE; Saito, MA. 2013. "Dissolved and particulate trace metal micronutrients under the McMurdo Sound seasonal sea ice: basal sea ice communities as a capacitor for iron." *Frontiers in Chemistry* (1). doi: 10.3389/fchem.2013.00025.
- Saito, MA; **Noble, AE**; Tagliabue, A; Goepfert, TJ; Lamborg, CH; Jenkins, WJ. 2013. "Slow-spreading submarine ridges in the South Atlantic as a significant oceanic iron source." *Nature Geosciences* doi: 10.1038/NCEO1893.
- **Noble, AE**. 2012. "Influences on the Oceanic Biogeochemical Cycling of the Hybrid-Type Metals: Cobalt, Iron and Manganese [Thesis]." Submitted to MIT/WHOI. 296p.
- **Noble, AE**; Lamborg, CH; Ohnemus, DC; Lam, PJ; Goepfert, TJ; Measures, CI; Frame, CH; Casciotti, KL; DiTullio, GR; Jennings, J; Saito, MA. 2012. "Basin-scale inputs of cobalt, iron, and manganese from the Benguela-Angola front to the South Atlantic Ocean." *Limnol. and Oceanogr.* 57(4):989-1010.
- Sohm, JA; Hilton, JA; **Noble, AE**; Zehr, JP; Saito, MA; Webb, EA. 2011. "Nitrogen fixation in the South Atlantic Gyre and the Benguela Upwelling System." *Geophys. Res. Letters*. 38. doi: 10.1029/2011GL048315.
- Saito, MA; Goepfert, TJ; **Noble, AE**; Bertrand, EM; Sedwick, PN; DiTullio, GR. 2010. "A seasonal study of dissolved cobalt in the Ross Sea, Antarctica: micronutrient behavior, absence of scavenging, and relationships with Zn, Cd, and P." *Biogeosciences* 7:4059-4082.
- Hearn, MJ; Cynamon, MH; Chen, MF; Coppins, R; Davis, J; Joo-On Kang, H; **Noble, A**; Tu-Sekine, B; Terrot, MS; Trombino, D; Thai, M; Webster, ER; Wilson, R. 2009. "Preparation and antitubercular activities in vitro and in vivo of novel Schiff bases of isoniazid." *European Journal of Medicinal Chemistry* 44:4169-4178.
- **Noble, AE**; Saito, MA; Maiti, K; Benitez-Nelson, C. 2008. "Cobalt, manganese, and iron near the Hawaiian Islands: A potential concentrating mechanism for cobalt within a cyclonic eddy and implications for the hybrid-type trace metals." *Deep-Sea Res. Part II* 55:1473-1490.
- Bertrand, EM; Saito, MA; Rose, JM; Riesemann, CM; Lohan, MC; **Noble, AE**; Lee, PA; DiTullio, GR. 2007. "Vitamin B12 and iron colimitation of phytoplankton growth in the Ross Sea." *Limnol. and Oceanogr.* 52(3): 1079-1093.
- Ma S; **Noble, A**; Butcher, D; Trouwborst, R; Luther, GW. 2006. "Removal of H₂S via an iron catalytic cycle and iron sulfide precipitation in the water column of dead end tributaries." *Estuarine and Coastal Shelf Science* 70:461-472.

PRESENTATIONS AND INVITED LECTURES

- **Noble, A. E.**; C. Butler, T. Lunsman, T. Verslycke, A. Lewis. A Comprehensive Approach to Evaluating the Hazards of Microplastics in the Marine Environment. A.S.L.O. Ocean Sciences Meeting New Orleans, LA. February 2016. Oral Presentation.
- **Noble, A. E.**, D. Moran, and M.A. Saito. Dissolved and particulate trace metal micronutrients under the McMurdo Sound seasonal sea ice and implications for regional biogeochemical cycling. A.S.L.O. Aquatic Sciences Meeting. New Orleans, LA. February 2013. Oral Presentation.
- **Noble, A.E.** Hybrid-type metal biogeochemical cycling: from basin scale to ocean scale and back to the coast. Oregon State University, Corvallis, OR. January 31, 2013. Invited Lecture.
- **Noble, A.E.**, Y. Echegoyen-Sanz, E. A. Boyle. Preliminary Pb and Pb isotopes from the US GEOTRACES North Atlantic Transect. Goldschmidt Conference. Montreal, Canada. June 2012. Poster Presentation.
- **Noble, A.E.**, Y. Echegoyen-Sanz, E.A. Boyle. Pb isotopic signatures in the North Atlantic: Some results from the US North Atlantic GEOTRACES Transect. A.G.U. Fall Meeting. San Francisco, CA. December 2012. Oral Presentation.
- **Noble, A.E.** and M.A. Saito. Insight Into the Chemical Speciation of Cobalt in the North Atlantic and OMZs (Preliminary results for the chemical speciation of cobalt during the North Atlantic GEOTRACES Zonal Transect). A.S.L.O Ocean Sciences Meeting. Salt Lake City, Utah. February 2012. Poster Presentation.
- **Noble, A.E.** and M.A. Saito. Distributions of dissolved cobalt from the US North Atlantic GEOTRACES cruise: Comparisons of cobalt ecological stoichiometries and scavenging in regions of the Atlantic Ocean. Gordon Research Conference in Chemical Oceanography, Andover, NH. August 2011. Poster Presentation.
- **Noble, A.E.**, M.A. Saito, C. Lamborg, T. Goepfert. Dissolved cobalt distributions in the North and South Atlantic Oceans. A.S.L.O. Aquatic Sciences Meeting. San Juan, Puerto Rico. February 2011. Oral Presentation.
- **Noble, A. E.**, D. Moran, and M.A. Saito. Iron, Cobalt, and Manganese beneath the McMurdo Sound Seasonal Sea Ice. Gordon Research Conference in Environmental Bioinorganic Chemistry. Newport, RI. June 2010. Poster Presentation.
- **Noble, A.E.** and M.A. Saito. Analytical considerations in the determination of iron, cobalt, and manganese on a full-depth zonal section of the Southern Atlantic Ocean. A.S.L.O. Ocean Sciences Meeting. Portland, OR. February 2010. Poster Presentation.
- **Noble, A.E.**, T. Goepfert, M.A. Saito Hybrid-type metal Biogeochemistry in the South Atlantic: Full-Depth Zonal Ocean Sections of Total Dissolved Iron, Total Dissolved Manganese, Total Dissolved Cobalt, and Labile Cobalt. Gordon Research Conference in Chemical Oceanography. Tilton, NH. August 2009. Poster Presentation.
- **Noble, A.E.**, T. Goepfert, M.A. Saito Hybrid-type metal Biogeochemistry in the South Atlantic: Full-Depth Zonal Ocean Sections of Total Dissolved Iron, Total Dissolved Manganese, Total Dissolved Cobalt, and Labile Cobalt. Goldschmidt Conference. Davos, Switzerland. June 2009. Poster Presentation.
- **Noble, A.E.**, T. Goepfert, M.A. Saito. Cobalt Biogeochemistry in the South Atlantic: An Ocean Section of Total Dissolved Cobalt, and Prospects for a High Throughput ICP-MS Method. American Geophysical Union Conference. San Francisco, CA. December 2008. Poster Presentation.
- **Noble, A.E.**, M. A. Saito, C. Benitez-Nelson, K. Maiti. Cobalt, manganese, and iron near the Hawaiian Islands: A concentrating mechanism for cobalt within a cyclonic eddy and implications for the hybrid-type trace metals. Gordon Research Conference in Chemical Oceanography. Tilton, NH. August 2007. Poster Presentation.
- **Noble, A.E.**, M. A. Saito, C. Benitez-Nelson, K. Maiti. Cobalt, manganese, and iron near the Hawaiian Islands: A concentrating mechanism for cobalt within a cyclonic eddy and implications for the hybrid-type trace metals. Center for Environmental Bioinorganic Chemistry Conference. Princeton, NJ. June 2007. Poster Presentation.
- **Noble, A.E.**, M. A. Saito, C. Benitez-Nelson, K. Maiti. Cobalt, Manganese, Cadmium, and Iron among the Hawaiian Islands: The influence of cyclonic eddies and hydrothermal signals. A.S.L.O. Ocean Sciences Meeting. Victoria, Canada. June 2006. Poster Presentation.
- **Noble, A.E.**, M. A. Saito, C. Benitez-Nelson, K. Maiti. Cobalt, Manganese, Cadmium, and Iron among the Hawaiian Islands: Hydrothermal Sources or Island Effects? Center for Environmental Bioinorganic Chemistry Conference. Princeton, NJ. June 2006. Poster Presentation.