CURRICULUM VITAE

SCOT PAUL BIRDWHISTELL
Senior Research Assistant I
Department of Marine Chemistry & Geochemistry
Woods Hole Oceanographic Institution
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EDUCATION:

M.S. Chemical Oceanography, University of Hawaii, 1981.
B.S. Chemistry, University of West Florida, 1977.

Additional Short Courses:
American Vacuum Society Vacuum Technology School, November 1983.
Electronics, WHOI (Dr. A.J. Williams), 1986.
High Resolution Inductively Coupled Plasma Mass Spectrometer Conference, 2007
Element 2 Software Training Course, 2007

WORK EXPERIENCE:

2006-Present: Acting WHOI-ICP Facility Manager: Sr. Research Assistant I, Marine Chemistry and Geochemistry, Dr. B. Peucker-Ehrenbrink, Supervisor.
2005-2006: Sr. Research Assistant I, Marine Chemistry and Geochemistry, L. Ball, Supervisor.
2003-2005: Sr. Research Assistant I, Marine Chemistry and Geochemistry , Dr. S. Thorrold, Supervisor.
2001-6/2002: Sr. Research Assistant I, Marine Chemistry and Geochemistry, Dr. J. Ledwell, Supervisor.
2000-2001 : Sr. Research Assistant I, Marine Chemistry and Geochemistry, Dr. H. Hoskins, Supervisor.
10/97-10/99: Sr. Research Assistant I, Marine Chemistry & Geochemistry, Dr. F.L. Sayles, Supervisor.
7/97-9/97: Sr. Research Assistant I, Marine Chemistry & Geochemistry, Dr. W.R. Martin, Supervisor.
2/92-6/97: Sr. Research Assistant I, Marine Chemistry & Geochemistry, Dr. W.J. Jenkins, Supervisor.
1/87-2/92: Res. Assistant III, Marine Chemistry & Geochemistry, WHOI, Dr. W.J. Jenkins, Supervisor.
9/83-12/86: Res. Assistant II, Marine Chemistry & Geochemistry, WHOI, Dr. W.J. Jenkins, Supervisor.
8/81-8/83: Res. Assistant II, Marine Chemistry and Geochemistry, WHOI, Dr. F.L. Sayles, Supervisor.
1/81-7/81: Research Assistant, Geology & Geophysics Department, WHOI, Dr. David Hurd, Supervisor.
1/80-12/80: Research Assistant for Research Corp. of Hawaii at WHOI, Dr. David Hurd, Supervisor.
8/78-12/79: Research Assistant, Marine Chemistry, Dept. of Oceanography, University of Hawaii.
6/77-7/78: Department Head (Toxicology), Regional Medical Laboratory.

TECHNICAL EXPERIENCE:

Inductively Coupled Plasma Mass Spectrometry
Laser Ablation Introduction Systems
High Pressure Liquid Chromatograph
Gas Chromatograph
Spectrophotometer – I.R./U.V. Vis.
Fluorimeter
Atomic Absorption
Vacuum Technology/Mass Spectrometry
High Pressure Hydraulic Systems
Programming and interfacing for process control

SPECIALIZED RESEARCH:

"Factors effecting dissolution rates of biogenic silica" under Dr. David C. Hurd.
"The concentration of dissolved aluminium in seawater: Control by aluminosilicates"

SHIPBOARD EXPERIENCE:

February 2001:R/V *Oceanus*, Chief Scientist Dr. J Ledwell.
April 2000: R/V *N. Palmer*, Chief Scientist Dr. J. Austin.
September 1999: R/V *Thalassa*, Chief Scientist Dr. H. Claustre.
September 1997: R/V *Edwin Link*, Chief Scientist Dr. F.L. Sayles.
July 1997: R/V *Knorr*, ACCE Leg 4, Chief Scientist Dr. M. Hall.
December 1995-February 1996: R/V *Knorr*, WOCE Indian Leg 10, Chief Scientist Dr. B. Warren.
July 1995: R/V *Knorr*, WOCE Indian Ocean, Chief Scientist Dr. J. Toole.
March-April 1994: R/V *Discover*, WOCE P18, Chief Scientist Dr. D.G. Johnson.
September-November 1993: R/V *T. Thompson*, WOCE P10, Chief Scientists Dr. T. Joyce and Dr. M. Hall.
October-November 1992: R/V *Knorr,* WOCE P165 and 175, Chief Scientist Dr. M. Hall.
June-August 1992: R/V *Knorr,* WOCE P2, Chief Scientist Dr. M. McCartney.
July 1991: R/V *Washington*, Leg 2, WOCE 91, Chief Scientists Drs. Jim Swift and Ray Peterson.
March 1991: R/V *Endeavor* 223, Subarctic Intermediate Waters, Chief Scientists Drs. R. Ackert and W. Smethie.
February 1989: R/V *Moana Wave*, Trans Pacific Section 10°N, Chief Scientists Drs. H. Bryden and J. Toole.
December 1988: R/V *Melville*, South Atlantic Ventilation Exp. Leg 4, Chief Scientists Drs. R. Key and A. Piola.
December 1987: R/V *Knorr*, SAVE Legs 1&2, Chief Scientists Dr. T. Takahashi and W. Smethie.
September 1986: U.S.N.S. *Lynch*, Hydrographic sampling for helium, tritium and CFM, Chief Scientists Dr. N. Bray and T. Kinder.
May 1986: R/V *Endeavor* 143, Hydrographic sampling for helium and tritium, Chief Scientist Dr. T. Joyce.
April 1985: R/V *Endeavor* 129, Hydrographic sampling for helium and tritium, Chief Scientist Dr. M. McCartney.
November 1982: R/V *Knorr* 99, Hydrographic and pore water sampling, Chief Scientist Dr. F.L. Sayles.
November 1980: R/V *Knorr* 85, Hydrographic sampling and chemistry.
June 1979: R/V *Townsend Cromwell*, Biological and hydrographic sampling.

PUBLICATIONS:

Hurd, D.C. and S.P. Birdwhistell (1983). On producing a general model for the accurate description of biogenic silica dissolution in natural waters: Part I. Inter-relation and laboratory testing of existing equations. *Am. J. Sci*. **283**, 1-28.

ACKNOWLEDGEMENTS:

Miller, C.A., B. Peucker-Ehrenbrink, B.D. Walker, and F. Marcantonio (submitted) Re-assessing the surface cycling of molybdenum and rhenium. Geochim. Cosmochim. Acta,
Case, D.L., L.F. Robinson, and M.E. Auro (in revision) Environmental and biological controls on Mg and Li in deep-sea scleractinian corals. Earth Planet. Sci. Lett.
Humston, R., B. Priest, W. Hamilton, R. Bogas (2010) Dispersal between tributary and main-stem rivers by juvenile smallmouth bass evaluated using otolith microchemistry. Trans. American Fisheries Society 139, 171-184.
Holcomb, M., A.L. Cohen, R.I. Gabitov, J. Hutter (2009) Compositional and morphological features of aragonite precipitated experimentally from seawater and biogenically by corals. Geochim. Cosmochim. Acta 73 (14), 4166-4179.
Fiege, K., C.A. Miller, L. Robinson, R. Figueroa, B. Peucker-Ehrenbrink (2009) Strontium isotopes in Chilean rivers: The flux of unradiogentic continental Sr to Seawater. Chem. Geol. 268 (3-4), 337-343.

Miller, C.A., B. Peucker-Ehrenbrink, L. Ball (2009) Precise determination of rhenium isotope composition by multi-collector inductively-coupled plasma mass spectrometry. J. Anal. Atom. Spectrom. 24, 1069-1078.

Kenna, T.C. and F.L. Sayles (2002) The distribution and history of nuclear weapons related contamination in sediments from the Ob River, Siberia as determined by isotopic ratios of plutonium and neptunium. J. Environmental Radioactivity, 60, 105-137.

Sayles, F.L. and H.D. Livingston (1987) The distribution of ^{239,240}Pu, ^{137}Cs and ^{55}Fe in continental margin sediments: relation to sedimentary redox environment. In: Oceanic Processes in Marine Pollutio, Vol 2: Physicochemical Processes and Wastes in the Ocean (T.P. Oconnor, et al., Eds), Chapter 15, p. 175-194. Robert E. Krieger Publishing Co. Malabar, FL.

ACKNOWLEDGEMENTS IN MIT/WHOI THESES:

Waters, C.L. (2010) Temporal and petrogentic constraints on volcanic accretionary processes at 9-10 degrees North, East Pacific Rise. MIT/WHOI 2010-06.

Miller, C.A. (2009) Surface-cycling of rhenium and its isotopes. MIT/WHOI 2009-13.

Saenger, C.P. (2009) Low-latitude Western North Atlantic climate variability during the past millennium: Insights from proxies and models. MIT/WHOI 2009-09.

Timothy C. Kenna (2002) The distribution and history of nuclear weapons related contamination in sediments from the Ob River, Siberia, as determined by isotopic ratios of plutonium, neptunium, and cesium. MIT/WHOI 2002-02.

William R. Martin (1985) Transport of trace metals in nearshore sediments. MIT/WHOI 1985-04.