

CURRICULUM VITAE

John R. Delaney
2006

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Education

1977 Ph.D. Geological Sciences, University of Arizona, Tucson, Arizona
1967 M.S. Geological Sciences, University of Virginia, Charlottesville, Virginia
1964 B.A. Geology, Lehigh University, Bethlehem, Pennsylvania

Employment

1988-present **Professor**, School of Oceanography, University of Washington
1983-1988 **Associate Professor**, School of Oceanography, University of Washington
1982-1983 **Research Associate Professor**, School of Oceanography, U of Washington
1977-1982 **Research Assistant Professor**, School of Oceanography, U of Washington
1977-1980 **Visiting Scientist**, Lunar and Planetary Institute and Johnson Space Center
1968-1977 **Mineral Exploration Geologist & Graduate Student**, Tucson, Arizona
1965-1967 **Mineral Exploration Geologist**, North American Exploration, Inc., Charlottesville, VA

Scientific Expeditions

2005 Co-Chief Sci. R/V Thompson, ROV Jason 2 VISIONS05 Keck Proto-Neptune Observatory††
2004 Co-Chief R/V Thompson Keck Observatory Cruise*
2003 Chief Scientist R/V Thompson-ROV-ROPOS Establish KECK Observatory on Endeavour*
2002 Chief Scientist R/V Western Flyer, RV Tiburon. KECK proto-Neptune Observatory Cruise-Endeavour & Nootka
Co-Chief R/V Thomas G. Thompson, Mapping Endeavour to Nootka & mud volcanoes*
2000 R/VAtlantis-Alvin, RIDGE Observatory cruise, Endeavour Segment*
R/VAtlantis-Alvin-Jason, RIDGE Observatory cruise, Endeavour Segment
1980-2000 24 cruises as Chief Scientist, including 12 using Alvin, 7 using the Jason ROV and 3 using the Canadian ROPOS ROV.

††See <http://www.researchchannel.org/visions05/multimedia.asp>

*Cruises included the REVEL Project see <http://www.ocean.washington.edu/outreach/revel/>).

Other cruise web sites: <http://www.bbc.co.uk/science/horizon/1999/vents.shtml>
<http://www.amnh.org/nationalcenter/expeditions/blacksmokers/>
<http://www.pbs.org/wgbh/nova/abyss/>

Awards and Honors:

1979-1980 Teaching Award, University of Washington
1991-1992 Distinguished Research Award, University of Washington
1995 Fellow, American Geophysical Union.

2005-present	Member Health and Security Panel, under the Board on Environmental Studies and Toxicology, National Research Council. (Rita Colwell/Mark Wilson, Chairs)
2004-present	Executive Steering Committee for NSF Ocean Observatories Initiative, Member http://www.orionprogram.org/ (Successor to DEOS Committee)
2003-present	Member NASA Science Definition Team for the Jupiter Icy Moons Orbiter Mission
2000	Testimony before the House Science Subcommittee on Basic Research and the House Science Subcommittee on Energy and the Environment, July 27, 2000,
1998-2004	Committee Dynamic Earth and Ocean Systems (DEOS), Charter Member–Designed Ocean Observatories program for NSF
1999-present	NEPTUNE Program, Director
1999-2000	NASA Committee to plan the Europa Orbiter Mission.
1992-1994	NAE Committee on Undersea Vehicles and National Needs, Member.
1990-1994	InterRidge Founder and First - Chair. An International Organization of >20 Nations focused Ridge Crest Research
1988-1992	RIDGE Steering Committee, First Chair.
1987	NAS Workshop on the mid-oceanic ridge: a dynamic global system, Convenor.
1985	NATO Advanced research institute on marine resource assessment.
1984-1987	NSF Oceanography panel, Marine geology and geophysics.
1985	Workshop on long-term ocean bottom observatories, Convenor.
1983-1986	JOI U.S. Science advisory committee for the Ocean Drilling Program
1983-1984	JOI U.S. Shipboard science sub-committee, Chairman.
1983-1987	JOIDES Lithosphere panel.
1982	Workshop on long-term ocean bottom observatories, Co-Convenor.

8) Professional Societies

American Geophysical Union (AGU)
Geological Society of America (GSA)

Graduate Students Advised and Postdoctoral Scholars Hosted:

Students: V. Baht, A. Daly, B. Holmen, J. Karsten, D. Kelley, D. Naidoo, J. Palmer, C. Parker, M. Rovetta, M.K. Tivey, S. Veirs, K.F. Shaw, B. Kristall
Postdocs: P. Nehlig, Deborah Kelley

Publications

Delaney, J.R., and A.D. Chave, NEPTUNE: Implementation of an ocean sciences paradigm shift, Proc. SSC06, Dublin, Ireland, Paper SSC-024, 6 pp.
Chave, A.D., M. Arrott, L. Smarr, J.A. Orcutt, E. Lazowska, **J.R. Delaney**, and M. Abbott, LOOKING: Cyberinfrastructure for ocean observatories, *Proc. SSC06*, Dublin, Ireland, Paper SSC-029, 6 pp.
Delaney, J.R., D.S. Kelley, R.E. McDuff, D.A. Butterfield, M.D. Lilley, and W.D. Wilcock, **2006**, Tidal Perturbations in High-Temperature Submarine Hydrothermal Systems. Final draft complete, to be submitted April 2006 to *Earth and Planetary Science Letter*.
Kristall, B., D.S. Kelley, M.D. Hannington, **J.R. Delaney**, **2006**, Growth history of an intermediate temperature, diffusely venting sulfide pinnacle from the Juan de Fuca Ridge: A petrological and geochemical study. *Geochemistry, Geophysics, Geosystems*, *accepted pending revisions*.
Chave, A.D., B. St. Arnaud, M. Abbott, J.R. Delaney, R. Johnson, E. Lazowska, A.R. Maffei, J.A. Orcutt, and L. Smarr, A management concept for ocean observatories based on web services, *Proc. Oceans '04/Techno-Ocean '04*, Kobe, Japan, 9-12 Nov 2004, 7 pp.
Schrenk M.O., D.S. Kelley, J.R. Delaney, J.A. Baross **2003** Incidence and diversity of microorganisms within the walls of an active deep-sea sulfide chimney. *Appl. Environ. Micro.*, 69, 3580-3592.

- Delaney, J.**, C. Barnes, P. Beauchamp, A. Chave, J. Madden, and M. McNutt, Project NEPTUNE: An interactive, regional cabled ocean observatory in the northeast Pacific, *Proc. IEEE Oceans 2003*, San Diego, CA, 22-26 Sep 2003, 1231-1235.
- Kelley, D.S., J.A. Baross, **J.R. Delaney 2002**, Volcanoes, Fluids, and Life at Mid-Ocean Ridge Spreading Centers. *Ann. Rev. Earth. Planet. Sci.*, 30, 385-491.
- Karson, J.A., M.A. Tivey, and **J.R. Delaney 2002**, Internal structure of uppermost oceanic crust along the western Blanco transform scarp; implications for subaxial accretion and deformation at the Juan de Fuca Ridge. *J. Geophys. Res.*, 107, 9-17.
- Kelley, D.S., **J.R. Delaney**, and D.A. Yoerger, **2001**, Geology and venting characteristics of the Mothra Hydrothermal Field, Endeavour Segment, Juan de Fuca Ridge, *Geology*, 29, 959-962.
- Delaney, J.R.**, D.S. Kelley, E. A. Mathez, D.R. Yoerger, J. Baross, M. Schrenk, M.K. Tivey, J. Kaye, V. Robigou **2001** Edifice Rex Sulfide Recovery Project: Analysis of a Sulfide-Microbial Habitat from a Submarine Hydrothermal System, *EOS, Trans. Amer. Geophys. Union*, 82, 67-73.
- Thomson, R.E. and **J.R. Delaney 2001**, Evidence for a weakly stratified European ocean sustained by seafloor heat flux, *J. Geophys. Res.*, 106, 12,355-12365, 2001.
- Yoerger, D.R., D.S. Kelley, and **J.R. Delaney, 2000** Fine-Scale Three Dimensional Mapping of a Deep-Sea Hydrothermal Vent Site using the Jason ROV System, *J. International Robotics*, 19, 1000-1014.
- Delaney, J.R.**, and A.D. Chave **2000**, NEPTUNE: A fiber-optic telescope to inner space, *Oceanus*, 42, 10-11.
- Delaney, J.R.**, G.R. Heath, A.D. Chave, B.M. Howe, and H. Kirkham **2000**, NEPTUNE: Real-time ocean and earth sciences at the scale of a tectonic plate, *Oceanography*, 13, 71-83.
- Veirs, S.R., R.E. McDuff, M.D. Lilley and **J.R. Delaney 1999**, Locating hydrothermal vents by detecting buoyant, advected plumes. *J. Geophys. Res.*, 104, 12, 29,239-29,247.
- Delaney, J.R.**, D.S. Kelley, M.D. Lilley, D.A. Butterfield, J.A. Baross, R.W. Embley and M. Summit **1998**, The quantum event of oceanic crustal accretion: Impacts of diking at mid-ocean ridges, *Science*, 281, 222-230.
- Delaney, J.R., 1998**, Floor Show: Forged in volcanoes, nursed on sulfur, the first organisms may have evolved at the bottom of the sea-here and on other celestial bodies, *The Sciences*, July-August 1998, 27-33.
- Delaney, J.R., 1998**, Life on the seafloor and elsewhere in the solar system. *Oceanus*, 41 (2), 10-13.
- Dengliang, G., S.D. Hurst, J.A. Karson, **J.R. Delaney 1998**. Computer-aided interpretation of side-looking sonar images from the eastern intersection of the Mid-Atlantic Ridge with the Kane Transform. *J. Geophys. Res.*, 103, 9, 20,997-21,014.
- Delaney, J.R.**, D.S. Kelley, M.D. Lilley, D.A. Butterfield, R.E. McDuff, W.S. Wilcock **1997**, The Endeavour Hydrothermal System I: Cellular circulation above an active cracking front yields large sulfide structures, "fresh" vent water, and hyperthermophilic archae, *RIDGE Events*, 11-19.
- Sarrazin, J., V. Robigou, K. Juniper and **J.R. Delaney 1997**, Biological and geological dynamics over four years on a high temperature sulfide structure at the Juan de Fuca Ridge hydrothermal observatory, *Marine Ecology Progress Series*, 153, 5-24.
- Wilcock, W.S. and **J.R. Delaney 1996**, Mid-ocean ridge sulfide deposits: evidence for heat extraction from magma chambers or cracking fronts? *Earth Planet. Sci. Lett.*, 145, 49-64.
- Robigou, V., **J. R. Delaney** and D. Stakes **1993**, The High-Rise hydrothermal vent field, Endeavour Segment, Juan de Fuca Ridge, *Geophys. Res. Lett.*, 20, 1887-1890.
- Blank, J. G., **J. R. Delaney** and D.J. Des Marais **1993**, The concentration and isotopic composition of carbon in basaltic glasses from the Juan de Fuca Ridge, Pacific Ocean. *Geochim. Cosmochim. Acta*, 57, 875-887.

- Lupton, J.E., D.W. Graham, **J.R. Delaney**, and H.P. Johnson **1993**, Helium isotope variations in Juan de Fuca Ridge basalts. *J. Geophys. Res.*, 20, 1851-1854.
- Delaney, J.R.**, V. Robigou, R. E. McDuff and M. K. Tivey **1992**, Geology of a vigorous hydrothermal system on the Endeavour Segment, Juan de Fuca Ridge, *Jour. Geophys. Res.*, v.97, p.19,663-19,682
- Schultz, A., **J. R. Delaney** and R. E. McDuff **1992**, On the partitioning of heat flux between diffuse and point source seafloor venting, *Jour. Geophys. Res.*, 97, 12,299-12,314.
- Thomson, R.E., **J. R. Delaney**, R. E. McDuff, D. R. Janecky and J. S. McClain **1992**, Physical characteristics of the Endeavour Ridge hydrothermal plume during July 1988, *J. Geophys. Res.*, 111, 141-154.
- Woods, A.W. and **J.R. Delaney** **1992**, The heat and fluid transfer associated with the flanges on hydrothermal venting structures, *Earth Planet. Sci. Lett.*, 112, 117-129.
- Goldstein, S.J., M.T. Murrell, D.R. Janecky, **J.R. Delaney**, and D.A. Clague **1991**, Geochronology and petrogenesis of MORB from the Juan de Fuca and Gorda ridges by ^{238}U - ^{230}Th disequilibrium. *Earth. Planet. Sci. Lett.*, 107, 25-41.
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- Tivey, M. K. and **J. R. Delaney** **1986**, Growth of large sulfide structures on the Endeavour Segment of the Juan de Fuca Ridge, *Earth Planet. Sci. Let.*, 77, 303-317.
- Rovetta., M.R., **J.R. Delaney**, and J.D. Blacic **1986**, A record of high-temperature embrittlement of peridotite in CO_2 permeated xenoliths from basalt. *J. Geophys., Res.*, 91, 3841-3848.
- Lupton, J.E., **J.R. Delaney**, H.P. Johnson, and M.K., Tivey, **1985**, Entrainment and vertical transport of deep-ocean water by buoyant hydrothermal plumes. *Nature*, 316, 621-623
- Tivey, M.K. and **J.R. Delaney**, **1985**, Sulfide deposits from the Endeavor segment of the Juan de Fuca Ridge, *Marine Mining*, 5, 165-179.
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- Normark, W.R., J.W. Murray, J.E. Lupton, **J.R. Delaney**, H.P. Johnson, R.A. Koski, D.A. Clague, J.L. Morton, **1982**, Polymetallic sulfide deposits and water-column of active hydrothermal vents on the southern Juan de Fuca Ridge, *Mar. Tech. Soc. Journ.*, 16, 46-53.
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- Koski, R.A., W.R. Normark, J.L. Morton, **J.R. Delaney**, **1982**, Metal sulfide deposits on the Juan de Fuca Ridge, *Oceanus*, 25, 42-48.
- Mehegen, J.M., P.T. Robinson, **J.R. Delaney**, **1982**, Secondary mineralization and hydrothermal alternation in the Reydarfjordur drill core, eastern Iceland, *J. Geophys. Res.*, 87, 6511-6524.
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- Mathez, E.A., **J.R. Delaney**, **1981**, The nature and distribution of carbon in submarine basalts and periodotite nodules, *Earth Planet. Sci. Lett.*, 56, 217-232.
- Delaney, J.R.**, H.P. Johnson, J.L. Karsten, **1981**, The Juan de Fuca Ridge hotspot propagating rift system—new tectonic, geochemical, and magnetic data, *J. Geophys. Res.*, 86, 1747-1750.
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- Delaney, J.R.**, J.L. Karsten, **1981**, Ion microprobe studies of water in silicate melts—concentration-dependent water diffusion in obsidian, *Earth Planet. Sci. Lett.*, 52, 191-202.
- Delaney, J.R.**, D.W. Muenow and M.O. Garcia **1978**. Abundance and distribution of water, carbon and sulfur in the glassy rims of submarine pillow basalts. *Geochim. Cosmochim. Acta.* 42, 581-94.