MARIA T. KAVANAUGH **BIOGRAPHICAL SKETCH**

Postdoctoral Scholar
Marine Chemistry & Geochemistry
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PROFESSIONAL PREPARATION

Undergraduate:	Oregon State University	Zoology	B.S., 6/2000
Graduate:	Oregon State University	Marine Ecology/Statistics	M.S., 3/2006
Graduate:	Oregon State University	Oceanography/Statistics	Ph.D., 10/2012

APPOINTMENTS

2012 – present: Postdoctoral Scholar, Woods Hole Oceanographic Institution, Woods Hole, MA.
2007 – 2011: Graduate Research Fellow, College of Oceanic and Atmospheric Sciences, Oregon State University, Corvallis, OR.
2006—2007: Graduate Research Assistant. College of Oceanic and Atmospheric Sciences, Oregon State University, Corvallis, OR.
2003—2006: Graduate Teaching Assistant. Zoology Department, Oregon State University, Corvallis, OR.
2000—2003: Faculty Research Assistant, Partnership for Interdisciplinary Studies of Coastal Oceans, Oregon State University, Corvallis, OR.

RELEVANT PUBLICATIONS (5)

1. **Kavanaugh, M.T.,** Hales, B., Saraceno, M., Spitz, Y.H., White, A.E., Letelier, R.M. Hierarchical and dynamic seascapes: a quantitative framework for scaling pelagic biogeochemistry and ecology. *In review, **Progress in Oceanography**. This manuscript transfers concepts from landscape ecology to the marine environment. The major result is that improved understanding of biogeochemical patterns and processes can be obtained using a spatial and temporally nested, comparative approach.*
2. Lockwood D, Quay, P.D., **Kavanaugh, M.T**, Juranek, LW, Feely, R. 2012. Influence of net community production on air-sea CO_2 flux in the Northeast Pacific. ***Global Biogeochemical Cycles*** 26: GB4010. doi:10.1029/2012GB004380. *This article combines cruise results and model output to establish the relative importance of the biological pump compared to the solubility pump in drawing down atmospheric CO_2 across the NE Pacific transition zone.*
3. Hamme, R., and 15 others. 2010. Volcanic ash fuels anomalous plankton bloom in the subarctic NE Pacific. ***Geophysical Research Letters*** VOL. 37, L19604, doi:10.1029/2010GL044629, *This article presents multiple lines of evidence to document the effect of a natural, wide-spread iron fertilization event induced by volcanic eruption on the phytoplankton assemblage, primary and export production.*
4. **Kavanaugh, M.T**., Nielsen, K.J., Chan, F.T, Menge, B.A., Letelier, R.M., and Goodrich, L.M.. 2009. Experimental assessment of shading on an intertidal kelp: do phytoplankton inhibit open-coast macroalgae? ***Limnology and Oceanography*** (54) 276-288. *This article combines remote sensing, simple optical modeling, and in situ experiments to demonstrate the shading effect of phytoplankton on kelp in an energetic, open coast environment.*

5. Schoch, G.C., Menge, B.A., Allison, G.W., **Kavanaugh, M.T**., Thompson, S.A., and Wood, S.A. 2006. Fifteen degrees of separation: Examining patterns and processes on Pacific coast rocky intertidal benches. ***Limnology and Oceanography*** (52): 2564-2585. *This article considers multi-scale oceanographic processes and assemblage level data to illuminate underlying mechanisms of abundance and diversity patterns.*

SELECTED SYNERGISTIC ACTIVITIES (5)

1. 2011. **Underrepresented Groups in STEM.** Advancing Toward Professorship in Biology, Ecology and Earth System Sciences. Co-authored sub-award and coordinated professional development workshop as part of NSF Advance-funded program. Conducted longitudinal survey of participants to illuminate potential co-factors that contribute to attrition during pursuit of tenure track careers. Initial results presented at annual Ecological Society of America meeting. (Portland, 2012). *Publication in prep.*

2. 10/2010. **Interdisciplinary Collaboration.** EcoDAS: Ecological Dissertations in the Aquatic Sciences. NSF-sponsored symposium to engage PhD-level scientists in interdisciplinary research. Honolulu HI. *Two publications to be submitted January, 2013 (Ecological Applications and ASLO Bulletin).*

3. 9/2010. **Current and Future Ocean Observing.** Sea change: charting the course for ecological and biogeochemical time series research. Ocean Carbon Cycles and Biogeochemistry Workshop, Honolulu HI.

4. 2005-2009. **Undergraduate Research and Advising**. Research supervisor: Lea Goodrich (2005), Pamela Tyhurst (2008-2009), Andrew Traylor (2008-2010), Erin Wells (2008-2009). Honors Thesis Advisor: Andrew Traylor (2010).

5. 2003-2007. **Educational Module Development**. Science Connections: Developed coastal oceanography module and coordinated faculty and students from the College of Science, Oregon State University and Portland Public schools, Portland, Oregon. Center for Microbial Oceanography, Research and Education (NSF C-MORE): remote sensing module for teacher education.

SUPERVISORS AND COLLABORATORS

Postdoctoral Supervisor: Scott Doney, Marine Chemistry and Geochemistry,WHOI
Ph.D. Advisor: Ricardo Letelier, College of Earth, Ocean and Atmospheric Science, OSU
M.S. Advisors: Bruce Menge and Jane Lubchenco, Department of Zoology, OSU

Current Collaborators:

OSU-CEOAS: Curtiss Davis, Russ Desiderio, Burke Hales, Evelyn Sherr, Yvette Spitz, Nick Tuffillario, Angelicque White; OSU-Forestry: Lisa Ganio, Barbara Lachenbruch; UW: Steve Emerson, Gordon Holtgrieve, Deirdre Lockwood, Paul Quay; WHOI: Ivan Lima, Severine Sailley; U. Queensland: Megan Saunders, Dana Burfiend, Christopher Brown; Melissa Foley (USGS); Catherine Febria (U. Maryland); Rebecca Albright (AIMS, Queensland); Molly Mehling (Chatham U.).