# Priya M. Ganguli

Woods Hole Oceanographic Institution, Marine Chemistry & Geochemistry, 266 Woods Hole Rd, MS#51, Woods Hole, MA 02543 pganguli@whoi.edu 508-289-3954 <u>website</u>

### Education

| 2013 | Doctorate in Earth and Planetary Sciences, University of California, Santa Cruz, CA (Advisor: |
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|      | A.R. Flegal); Dissertation: Mercury Speciation and Transport at the Land-Sea Margin.          |

- 1998 Master of Science in Earth Sciences, University of California, Santa Cruz, CA (Advisor: A.R. Flegal); Thesis: *Mercury Speciation in Acid Mine Drainage: New Idria Quicksilver Mine, CA.*
- 1995 Bachelor of Science with honors in Geology (major) and Mathematics (minor), Indiana University, Bloomington, IN (Advisor: R.P. Wintsch); Thesis: *High Precision Sanidine* <sup>40</sup>Ar/<sup>39</sup>Ar Results from Mesozoic Rhyolite Dikes Near Lake Gaston, N.C. and VA.

## **Professional Experience**

| Dec 2013- | Postdoctoral Scholar, Woods Hole Oceanographic Institution (WHOI). Woods Hole, MA        |
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| Present   | Evaluating mercury biogeochemical cycling in salt marsh ponds as part of a US Geological |
|           | Survey project to quantify carbon sequestration and greenhouse gas emissions.            |

- Feb 2010- Technical Consultant, Innovative Technological Solutions, Inc. (ITSI), Walnut Creek, CA
- Dec 2011 (US EPA contract) Provided technical assistance on remediation strategies for the Klau/Buena Vista Mines EPA Superfund Site. Held trainings for ITSI and EPA staff on trace metal clean sampling techniques and mercury biogeochemistry; helped develop sampling design; processed data; wrote and reviewed sections of reports.
- Mar 2008- Teaching Assistant, University of California, Santa Cruz, CA
- Mar 2013 Courses: <u>Hydrology</u>, <u>Groundwater</u>, <u>Field Methods</u>, <u>Evolution of the Earth</u>, <u>Geologic Principles</u>, <u>Microbiology</u> (Jul 1996 - Dec 1997: <u>Geology of National Parks</u>, <u>Aquatic Toxicology</u>, <u>Mineralogy</u>)
- May 2001- Engineering Geologist, SF Bay Regional Water Quality Control Board, Oakland, CA
- July 2006 Drafted Water Board Orders for waste discharge and cleanup requirements; approved groundwater, surface water, and sediment remediation plans at sites contaminated with inorganic (e.g., metals) and/or organic (e.g., petroleum, PCBs) pollutants.
- Dec 1999- **Environmental Specialist**, Association of Bay Area Governments (contract position with May 2001 the SF Bay Water Board), Oakland, CA
  - Evaluated effectiveness of remediation efforts at an abandoned mercury mine by monitoring sediment transport and fate. Utilized geochemistry and geomorphology to conduct on-site investigations and assess impacts to Tomales Bay (downstream estuary).
- Oct 1998- Staff Research Associate I, University of California, Santa Cruz, CA
- Jan 2000 Participated in field investigations of trace metal cycling in San Francisco Bay Estuary and fresh water tributaries. Coordinated sampling events; analyzed samples for trace metals (Ag, Cd, Cr, Cu, Ni, Pb, and Zn); trained laboratory personnel.
- July 1995- Graduate Student Researcher, University of California, Santa Cruz, CA
- Sept 1998 Participated in studies of trace metal cycling in aqueous environments analyzed freshwater, estuarine water, and ocean water for trace metal concentrations, mercury speciation, and lead isotopes.
- Summer Research Assistant, Intergovernmental Oceanographic Commission (IOC), W. Atlantic Leg.
   Performed on-board analysis of arsenic and antimony speciation in Western Atlantic surface water and deep water.

### Journal Publications

- In press Johnson C.D., Swarzenski, P.W., Richardson, C.M., Smith, C.G., Kroeger, K.D., **Ganguli, P.M.**, Ground-truthing electrical resistivity methods in support of submarine groundwater discharge studies: Examples from Hawaii, Washington, and California. *Journal of Environmental & Engineering Geophysics*, in press.
- 2014 **Ganguli, P.M.**, Swarzenski, P.W., Dulaiova, H., Glenn, C.R., and Flegal, A.R. Mercury dynamics in a coastal aquifer: Maunalua Bay, O'ahu, Hawai'i. *Estuarine, Coastal and Shelf Science*, 140, 52-65. <u>http://dx.doi.org/10.1016/j.ecss.2014.01.012</u>
- 2012 Flegal, A.R., Gallon, C., Conaway, C.H., **Ganguli, P.M.** All the lead in China. *Critical Reviews in Environmental Science and Technology*, 43 (17), p. 1869-1944. http://www.tandfonline.com/doi/abs/10.1080/10643389.2012.671738
- 2012 **Ganguli, P.M.**, Conaway, C.H., Swarzenski, P.W., Izbicki, J.A., and Flegal, A.R. Mercury speciation and transport via submarine groundwater discharge at a Southern California coastal lagoon system. *Environmental Science and Technology*, vol. 46 (3), p. 1480-1488. <u>http://pubs.acs.org/doi/abs/10.1021/es202783u</u>
- 2009 Black, F.J., Paytan, A., Knee, K.L., De Sieyes, N.R., **Ganguli, P.M.**, Gray, E., and Flegal, A.R. Submarine groundwater discharge of total mercury and monomethylmercury to central California coastal waters. *Environmental Science and Technology*, vol. 43 (15), p. 5553-5559. <u>http://pubs.acs.org/doi/abs/10.1021/es900539c</u>
- 2009 Johnson, B.E., Esser, B.K., Whyte, D.C., **Ganguli, P.M.**, Austin, C.M., and Hunt, J.R. Mercury accumulation and attenuation at a rapidly forming delta with a point source of mining waste. *Science of the Total Environment*, vol. 407 (18), p.5056-5070. <u>http://dx.doi.org/10.1016/j.scitotenv.2009.05.025</u>
- 2001 Alleman, L.Y., Church, T.M., Ganguli, P.M., Véron, A.J., Flegal, A.R., and Hamelin, B. Role of oceanic circulation on pollutant lead distribution in the South Atlantic. Deep Sea Research Part II: Topical Studies in Oceanography vol. 48 (13), p. 2855-2876. <u>http://dx.doi.org/10.1016/S0967-0645(01)00021-2</u>
- 2000 **Ganguli, P.M.**, Mason, R.P., Flegal, A.R., Abu-Saba, K.E., and Anderson, R.S. Mercury speciation in drainage from the New Idria Mine, CA. *Environmental Science and Technology*, vol. 34 (22), p. 4773-4779. <u>http://pubs.acs.org/doi/abs/10.1021/es991364y</u>

### **Conference Abstracts** (\*undergraduate mentee)

- 2014 **Ganguli, P.M.**, Swarzenski, P.W., Dulaiova, H., Glenn, C.R., and Flegal, A.R. (<u>poster</u>) Mercury dynamics in a coastal aquifer: Maunalua Bay, Oahu, Hawaii. Feb 2014 *Ocean Sciences Meeting* (*ASLO, TOS, AGU*), Honolulu, HI, USA.
- 2014 Swarzenski, P.W., Kroeger, K.K., Smith, C.G., Frackell, J., C.G., Storlazzi, C.D., Prouty, N.G., Dulaiova, H., Glenn, C.R., Ganguli, P.M. (platform) Tracers, processes, and associated impacts of submarine groundwater discharge in Hawaii: Examples from Maui, Hawaii, and Oahu. Feb 2014 Ocean Sciences Meeting (ASLO, TOS, AGU), Honolulu, HI, USA.
- \*Hohn, R., Ganguli, P.M., Swarzenski, P.W., Odigie, K.O., Richardson, C.M., Merckling, J., Johnson, C., and Flegal, A.R. (poster) Mercury concentrations in coastal sediment from Younger Lagoon, Central California. Dec 2013 American Geophysical Union (AGU) Fall Meeting, San Francisco, CA, USA.
- 2013 \*Lurz, I.L., **Ganguli, P.M.**, Swarzenski, P.W., Richardson, C.M., \*Merckling, J., Johnson, C.D., Hibdon, S., and Flegal, A.R. (<u>poster</u>) Assessing geochemical controls on mercury transformations

and transport at a coastal lagoon site. Oct 2013 SACNAS National Conference, San Antonio, TX, USA.

- 2013 **Ganguli, P.M.**, Swarzenski, P.W., Kroeger, K.D., Smith, C.G., Johnson, C., \*Merckling, J., and Flegal, A.R. (<u>poster</u>) Mercury speciation and transport associated with groundwater discharge in a tidally dominated coastal system: Hood Canal, Washington. July 2013 *International Conference on Mercury as a Global Pollutant (ICMGP)*, Edinburgh, Scotland.
- 2013 \*Cossaboon, J.M., Ganguli, P.M., Flegal, A.R. (poster) Mercury speciation in nearshore seawater at Año Nuevo State Reserve: An assessment of elevated mercury concentrations due to Northern Elephant Seal site colonization. July 2013 International Conference on Mercury as a Global Pollutant (ICMGP), Edinburgh, Scotland.
- 2013 The MMHg Intercalibration Group. (<u>poster</u>) An intercalibration project to evaluate analytical techniques for the determination of monomethylmercury (MMHg) in seawater. July 2013 *International Conference on Mercury as a Global Pollutant (ICMGP)*, Edinburgh, Scotland.
- 2013 \*Cossaboon, J.M., **Ganguli, P.M.**, Flegal, A.R. (<u>poster</u>) Impacts of Northern elephant seal colonization on mercury concentrations in coastal seawater at Año Nuevo, CA. April 2013 44<sup>th</sup> Annual International Association for Aquatic Animal Medicine (IAAAM), Sausalito, CA, USA.
- 2013 Johnson C., Swarzenski, P.W., Smith, C., Kroeger, K., **Ganguli, P.**, \*Merckling, J. (<u>poster</u>) Groundtruthing electrical resistivity methods in support of submarine groundwater discharge studies: Examples from Hawaii, Washington, and California. March 2013 *Symposium on the Application* of Geophysics to Engineering and Environmental Problems (SAGEEP), Denver, CO, USA.
- 2012 Swarzenski P.W., Smith C.A., **Ganguli P.M.**, Izbicki J.A., Sheibley R.W. (<u>platform</u>) An assessment of submarine groundwater discharge and its nearshore ecological impacts: Examples from the U.S. west-coast and Hawai'i. June 2012 *Goldschmidt Conference*, Montréal, Canada.
- 2011 Ganguli P.M., Conaway C.H., Dimova N.T., Swarzenski P.W., \*Kehrlein N.C., Flegal A.R. (poster) Seasonal variability in mercury speciation within select coastal lagoons of Central California. Abstract No. B33H-0572, Dec 2011 American Geophysical Union (AGU) Fall Meeting, San Francisco, CA, USA.
- 2011 **Ganguli P.M.**, Dimova N.T., Conaway C.H., Swarzenski P.W., \*Kehrlein N.C., Flegal A.R. (<u>platform</u>) Mercury speciation and transport via submarine groundwater discharge at a coastal lagoon in Central California. Oct 2011 *28<sup>th</sup> Biennial Groundwater Conference and 20<sup>th</sup> GRA Annual Meeting, Sacramento*, CA, USA.
- 2011 Ganguli P.M., Conaway C.H., Swarzenski P.W., Izbicki, J.A., \*Kehrlein N.C., Flegal A.R. (poster) Mercury speciation in Coastal California barrier beach lagoons. Abstract No. TG10-P8, July 2011 10<sup>th</sup> International Conference on Mercury as a Global Pollutant (ICMGP), Halifax, Nova Scotia, Canada.
- 2010 **Ganguli P.M.**, Black F.J., Swarzenski P.W., Conaway C.H., Paytan A., Miller L.G., Flegal A.R. (<u>platform</u>) Mercury speciation and transport in submarine groundwater discharge. May 2010 *Annual NorCal SETAC Conference*, Berkeley, CA, USA.
- 2009 Ganguli P.M., Fisher A.T., Flegal A.R. (<u>poster</u>) Evaluating the influence of surface water groundwater interaction on mercury bioavailability in a mine-impacted California coastal stream.
   2009 TSR&TP Research Symposium, Berkley, CA, USA.
- 2008 Jennings, L.L., **Ganguli, P.M.**, Black, F.J., Paytan, A., Flegal, A.R., (<u>poster</u>) Submarine Groundwater Discharge of Mercury in Central California Waters. Oct 2008 *SACNAS National Conference*, Salt Lake City, UT, USA.

- 2000 Whyte D.C., **Ganguli P.M.** (<u>platform</u>) Impact of Mercury Mining on Tomales Bay Biota. *EPA Conference on Assessing and Managing Mercury from Historic and Current Mining Activities*, p. 98-100. San Francisco, CA, USA.
- 1999 **Ganguli P.M.**, Abu-Saba K.E., Mason R.P., Flegal A.R. (<u>platform</u>) The source, concentration, and fate of mercury in acid mine drainage from the New Idria Mine: San Benito County, CA. *Geological Society of America Cordilleran Section 1999 Abstracts with Programs.* Vol. 31 (6), p. A-56. Berkeley, CA, USA.
- 1999 **Ganguli P.M.**, Mason R.P., Anderson R.P., and Flegal A.R. (<u>poster</u>) Transport of Mercury from the New Idria Quicksilver Mine to the San Joaquin Valley Drainage Basin. *4th Biennial State of the Estuary Conference Abstract Book*, p. 68. San Francisco, CA, USA.
- 1997 **Ganguli P.M.**, Mason R.P., Flegal, A.R. (<u>poster</u>) Mercury and arsenic speciation in mine water discharge. *Society of Environmental Toxicology and Chemistry 18<sup>th</sup> Annual Meeting.*
- 1997 Cutter G.A., Cutter L.S., and **Ganguli P.M.** (<u>poster</u>) Arsenic and antimony cycling in the equatorial Atlantic ocean. *American Society of Limnology and Oceanography Aquatic Sciences Meeting Program and Abstracts 1997*, p. 138.
- 1996 Ramirez, R.E., **Ganguli, P.M.**, Beck, N.M., Ritson, P.I.; Flegal, A.R., Stable Isotope Tracing of Contaminant Lead in Produced Water. *Geological Society of America Abstracts with Programs* 28(5), p. 103.
- 1995 **Ganguli P.M.**, Kunk M.J., Wintsch R.P., Dorais M.J., and Sacks P.E. (<u>platform</u>) High precision sanidine <sup>40</sup>Ar/<sup>39</sup>Ar results from Mesozoic rhyolite dikes near Lake Gaston, N.C. and VA: GSA 30<sup>th</sup> Annual Northeastern Section Abstracts with Programs, 27(1), p. 45.

#### Theses

- 2013 **Ganguli, P.M.** Mercury Speciation and Transport at the Land-Sea Margin. PhD dissertation in Earth and Planetary Sciences, University of California, Santa Cruz, CA.
- 1998 **Ganguli P.M.** Mercury Speciation in Acid Mine Drainage: New Idria Quicksilver Mine, California. Master's thesis in Earth Sciences, University of California, Santa Cruz, CA.
- 1995 **Ganguli P.M.** High Precision Sanidine <sup>40</sup>Ar/<sup>39</sup>Ar Results from Mesozoic Rhyolite Dikes Near Lake Gaston, N.C. and VA. Honors Undergraduate Thesis in Geological Sciences, Indiana University, Bloomington, IN.

#### Grants and Fellowships

| Mar | 2013 | Woods Hole Oceanographic Institution Postdoctoral Fellowship (Dec 1, 2013 start date)  |
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| Jan | 2013 | Mildred E. Mathias Graduate Student Research Grant, University of California Natural<br>Reserve System (\$2750)                        |
| May | 2012 | Switzer Foundation Environmental Fellowship (\$15,000)   |
| May | 2012 | Doctoral Student Sabbatical Fellowship, Winter 2013 - Graduate Council, UCSC (~\$11,700)   |
| Feb | 2012 | Teaching Service Award, Summer 2012 Fellowship - Earth & Planetary Sciences<br>Department, UCSC (~\$11,700)                            |
| Dec | 2009 | Graduate Student NorCal SETAC Research Scholarship (\$1,000)   |
| May | 2009 | Dr. Earl H Myers and Ethel M Myers Oceanographic and Marine Biology Trust Graduate<br>Student Research Award, Santa Cruz, CA (\$2,000) |
| Jan | 2009 | Friends of Long Marine Lab Student Research Award, UCSC (\$1,000)  |
| Jul | 2008 | University of California Toxic Substances Research & Teaching Program Student Fellowship (\$30,000)                                    |

May 2008 Center for the Dynamics and Evolution of the Land-Sea Interface Graduate Student Research Award, UCSC (\$1,500)

#### Awards

June 2013 (also received in June 2012, 2011 and 2009) Departmental Award for Outstanding Teaching Assistant, Earth & Planetary Sciences Department, UCSC (\$100) 3<sup>rd</sup> Place Award for Student Platform Presentation, May 2010 Annual NorCal SETAC May 2010 Conference, Berkeley, CA (\$75) Dec 2000 Association of Bay Area Governments Outstanding Staff Award, Oakland, CA June 1998 University Award for Outstanding Teaching Assistant, UCSC Apr 1995 Faculty Senior Award, Indiana University (Brunton compass) Professional Development Award, Indiana University (Hastings triplet hand lens) Apr 1994 Apr 1993 N. Gary Lane Beginning Geologist Award, Indiana University

# Invited Presentations & Course Lectures

| Jun 2014 | <b>Co-Instructor</b> for the Chemical Oceanography module of <u>Ocean and Environmental</u><br><u>Sciences: Global Climate Change</u> ( <i>The Woods Hole Partnership Education Program:</i><br><i>Increasing Diversity in the Ocean and Environmental Sciences</i> ). Summer science internship<br>program in Woods Hole, MA. |
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| May 2014 | The influence of submarine groundwater discharge on mercury cycling in coastal systems.<br>Invited presentation for <u>Groundwater Contamination</u> , UCSC.   |
| May 2013 | (also presented in Nov 2012, May 2012, May 2010, May 2009, and Nov 2005)<br>Geochemistry of San Carlos Creek: Impacts from the New Idria Mercury Mine, CA.<br>Reoccurring <b>invited presentation</b> for <u>Field Methods in Geology</u> , UCSC   |
| Oct 2012 | Radioactive Decay and Crustal Formation in the Hadean & Archean Eons. Substitute lecturer for <u>Evolution of the Earth</u> , UCSC.  |
| Oct 2012 | Mercury Biogeochemical Cycling: The Convergence of Geochemistry and Microbiology.<br>Invited presentation for Interdisciplinary Approaches in Environmental Toxicology, UCSC.  |
| May 2012 | Wetland Remediation in Peyton Slough, Martinez, CA. Invited presentation for Fates and Sources of Pollutants, UCSC.  |
| Apr 2012 | Relative and Absolute Time. Substitute lecturer for Geologic Principles, UCSC.   |
| Mar 2012 | Salt Water Intrusion. Substitute lecturer for Groundwater Geology, UCSC.   |
| Nov 2011 | Mercury Speciation and Transport at the Land-Sea Margin: The Role of Submarine Groundwater Discharge and Barrier Beach Lagoons. Invited presentation for <u>Fates and Sources of Pollutants</u> , UCSC.  |
| Jan 2010 | Mercury Contamination and Environmental Impacts. Invited presentation for<br>Environmental Geology, UCSC.  |
| Apr 2006 | Remediating Petroleum Hydrocarbon Impacted Groundwater. Invited presentation for Groundwater Contamination, UCSC.  |
| Nov 2005 | Environmental Degradation from Mining Operations. Invited presentation for <u>Aquatic</u><br><u>Toxicology</u> , UCSC.   |
| Apr 2001 | Tomales Bay Watershed: Impacts from Historic Mining Operations. Invited presentation for Population and Community Ecology, Integrative Biology Dept, UC Berkeley.  |

Oct 2001 An Overview of Groundwater Remediation and Waste Containment Projects at the San Francisco Bay Water Board. **Invited presentation** for Aquatic Toxicology, UCSC.

*Mentorship for Undergraduate Research* (\*1<sup>st</sup> author or co-author on conference abstract)

- \*Rachel Hohn. Earth and Planetary Sciences Department, UCSC.
   Thesis: Linking mercury concentrations in sediment to lagoon surface water and shallow groundwater at a Central California coastal lagoon system. Awards: \$1150 Myers Trust research fellowship; \$500 Weber-Holtz field camp scholarship.
   1<sup>st</sup> author: AGU 2013 (poster)
- \*Jennifer Cossaboon. Department of Molecular Cell & Developmental Biology, UCSC.
   Thesis: Mercury speciation in nearshore seawater at Año Nuevo: An assessment of mercury inputs from elephant seal colonization. Awards: \$500 Myers Trust research fellowship; \$500 Stevenson College Student Research Project Funds; \$650 Friends of Long Marine Lab research fellowship.

1<sup>st</sup> author: ICMGP 2013 (poster) and IAAAM 2013 (poster)

\*Ivy L. Lurz. UCSC ACCESS Summer Research Institute: opportunities for underrepresented students in Science, Technology, Engineering, and Mathematics (STEM)
 Thesis: Assessing geochemical controls on mercury transformations and transport at a coastal lagoon site.

1<sup>st</sup> author: ACCESS 2013 Symposium (platform and poster) and SACNAS 2013 (poster)

- \*Jeremy Merckling. Earth and Planetary Sciences Department, UCSC.
   Thesis: Bioavailable mercury in nearshore environments: The importance of surface water and groundwater at a coastal lagoon system. Awards: \$700 Friends of Long Marine Lab research fellowship; \$500 Myers Trust research fellowship.
   Co-author: ICMGP 2013 (poster), SAGEEP 2013 (poster)
- 2011 Christopher Morrow. Department of Chemistry and Biochemistry, UCSC. Thesis (with honors): *Analyses of trace metal diagenetics in estuarine systems: Lead and cadmium in Younger Lagoon, CA.* **Awards**: \$1000 Myers Trust research fellowship.
- \*Nicholas Kehrlein. Earth and Planetary Sciences Department, UCSC.
   Thesis: Linking barrier beach lagoon geochemistry to mercury bioavailability: California Central Coast. Awards: \$700 Friends of Long Marine Lab research fellowship.
   Co-author: AGU 2011 (poster), GRA 2011 (platform), ICMGP 2011 (poster)
- 2010 Scott Katz. Department of Chemistry and Biochemistry, UCSC.
   Thesis (with honors): *The distribution of dissolved Mn, Co and Ni in Elkhorn Slough, CA.* Awards: \$700 Friends of Long Marine Lab research fellowship.
- \*Lydia Jennings. UCSC ACCESS Summer Research Institute: opportunities for underrepresented students in Science, Technology, Engineering, and Mathematics (STEM) Thesis: Submarine Groundwater Discharge of Mercury in Central California Waters.
   1<sup>st</sup> author: ACCESS 2008 Symposium (platform and poster) and SACNAS 2008 (poster)

# **Public Service Activities**

- 2014 Science Fair Judge the Massachusetts State High School Science & Engineering Fair, May 2, 2014. MIT Campus, Cambridge, MA.
- 2013 *(also in 2009)* Graduate Student Mentor for ACCESS Program (research opportunities for disadvantaged or underrepresented students)
- 2013 Designed and participated in science outreach activities for 5<sup>th</sup>, 6<sup>th</sup>, and 7<sup>th</sup> grade classes at the *Edward A. Hall Middle School*, Watsonville, CA (Pajaro Valley Unified School District)

- 2013 (also in 2012) Laboratory tour and overview of mercury analysis to a 6<sup>th</sup> grade class of ~20 students from the *Watsonville Charter School of the Arts* (Pajaro Valley Unified School District)
- 2012 Participated on a Student Panel for the *Earth Sciences Mentorship* class to address questions about exploring graduate school programs and the application process.
- 2012 Discussion about the history of mercury and gold mining in California for the *Science and Society Group* at the DeAnza Senior Residential Community, Santa Cruz, CA.
- 2011 Lead a discussion on mercury cycling in the environment at the UCSC *Geology Club*
- 2010 Santa Clara County Boy Scout Geology Merit Badge Day Volunteer

# News Coverage of Research and Work Projects

| Jan | 2012 | Radio broadcast on EPA's remediation efforts at the New Idria Mine Site. 90.3 KAZU, NPR |
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|     |      | for the Monterey Bay Area. <u>http://www.kazu.org/post/epa-puts-new-idria-map</u>       |
| Oct | 2009 | Mercury in San Francisco Bay (KOED OUEST video)   |

- Oct 2009 Mercury in San Francisco Bay. (KQED QUEST video) <u>http://science.kqed.org/quest/video/mercury-in-san-francisco-bay/</u> (minute 2:05)
- Jun
   2009
   Groundwater fingered as a source of methylmercury in coastal waters.

   <a href="https://cbse.soe.ucsc.edu/news/article/1755?ID=1755">https://cbse.soe.ucsc.edu/news/article/1755?ID=1755</a>
- Jun 2009 Sea Grant News Releases: Newly Discovered Source of Methylmercury: Groundwater. <u>http://www-csgc.ucsd.edu/NEWSROOM/NEWSRELEASES/2009/MethylMercury.html</u> and Groundwater Discharge of Mercury to California Coastal Waters. <u>http://www-csgc.ucsd.edu/RESEARCH/PROJPROF\_PDF/RCONT-135PD-Flegal.pdf</u>
- Jun 2009 Scientists Discover Methylmercury Contamination In Groundwater; 'Surprisingly High Levels'. <u>www.underwatertimes.com/news.php?article\_id=10548309671</u>
- Jul
   2008
   Toxic mercury cleanup ordered in West Marin.

   <u>http://www.marinij.com/marinnews/ci\_9890872</u>
- Feb
   2006
   Progress in Cleanup at Peyton Slough.

   http://www.accessmylibrary.com/article-1G1-141581529/progress-cleanup-peyton-slough.html
- Winter 2001 Mercury: a toxic legacy (Feature Story). http://review.ucsc.edu/winter.01/toxic\_legacy.html
- Dec 2001 Old dump, secret mine overlooked by regulators. Point Reyes Light, Dec. 13, 2001 (no internet archive available)
- Nov 2000 Inoperative mercury mines fingered as a major source of mercury contamination in California waters. <u>http://www1.ucsc.edu/currents/00-01/11-06/pollution.html</u>
- Nov 2000 Heavy Metal. http://www.metroactive.com/papers/cruz/11.22.00/nuz-0047.html
- Nov
   2000
   Old Mercury Mines Contaminate California Waters.

   http://www.ens-newswire.com/ens/nov2000/2000-11-10-09.asp

# Professional Development Workshops and Trainings

- 2013 Pursuing an Academic Career Early Career Negotiations (NAGT Webinar Workshop)
- 2013 Workshop on Mentoring Undergraduate Researchers (hosted by the Undergraduate Research Opportunities Center (UROC), California State University, Monterey Bay)
- 2012 Communications Training by COMPASS (2-day workshop hosted by the Switzer Foundation)
- 2012 Working and Collaborating Remotely (Switzer Foundation)
- 2012 Developing Communication Skills Using Improvisation Techniques (Alex Lamb/WiSE)
- 2012 Retaining Women in STEM fields (WiSE Workshop)
- 2010 Preparing for an Academic Career in the Geosciences (On the Cutting Edge Professional Development for Geoscience Faculty/SERC Carleton)

### **Professional Associations**

- American Geophysical Union (AGU)
- National Association of Geoscience Teachers (NAGT)
- Geological Society of America (GSA)

#### References

Carl T. Lamborg, PhD, Associate Scientist, Woods Hole Oceanographic Institution, Dept of Marine Chemistry & Geochemistry, 266 Woods Hole Road, MS#51, Woods Hole, MA 02543, 508-289-2556, clamborg@whoi.edu

A. Russell Flegal, PhD, Professor, University of California, Santa Cruz, 1156 High Street, Microbiology & Environmental Toxicology Dept, PSB 430, Santa Cruz, CA 95064, 831-459-2093, flegal@ucsc.edu

Peter W. Swarzenski, PhD, Oceanographer, US Geological Survey Pacific Coastal & Marine Science Center, 400 Natural Bridges Drive, Santa Cruz, CA 95060, 831-427-4729, pswarzen@usgs.gov