

Miling Li, Sc.D.

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EDUCATION

- 2011- 2016 **Sc.D., Harvard University**
Major: Environmental Health, Harvard T.H.Chan School of Public Health.
Minors: Biostatistics; Exposure assessment.
Thesis title: Environmental origins of methylmercury in aquatic biota and humans.
Advisor: Dr. Elsie Sunderland.
- 2008- 2011 **M.Sc., University of Michigan, Ann Arbor.**
Double majors: Aquatic Sciences, School of Natural Resources and Environment;
Environmental Health Sciences, School of Public Health.
Thesis title: Interactive effects of phosphorus and copper on *Hyaella azteca* and periphyton.
Advisors: Dr. Allen Burton, Dr. Nil Basu.
- 2004- 2008 **B.Sc. (Honours), Zhejiang University of Technology, China.**
Major: Environmental Science, College of Biological Engineering and Environmental Engineering.
Advisor: Dr. Weiping Liu.

ACADEMIC HONORS

- 2011- 2016 Harvard T.H.Chan School of Public Health Graduate Scholarships
- 2015 Gold Award poster presentation, 12th International Conference on Mercury as a Global Pollutant
- 2011 Summer fellowship, Cooperative Institute for Limnology and Ecosystem Research
- 2008 Honours Thesis Student, Zhejiang University of Technology
- 2004-2007 Zhejiang University of Technology Scholarships

Work Experience

- 2017.9 - Present Postdoctoral fellow, Dept. Earth, Ocean, & Atmospheric Sciences, University of British Columbia, Vancouver, BC, Canada.
- 2016.7 - 2017.8 Postdoctoral fellow, Harvard John A. Paulson School of Engineering and Applied Sciences, Cambridge, MA, USA

PUBLICATION

Published or submitted

- 2017 E.M. Sunderland, **M. Li**, K. Bullard. Global sources of methylmercury exposure from marine fish in the United States and recent changes in consumption patterns. *Environmental Health Perspectives*. Under Review.
- 2017 D.J. Madigan*, **M. Li***, R. Yin, H. Baumann, O.E. Snodgrass, H. Dewar, D.P. Krabbenhoft, Z. Baumann, N.S. Fisher, P.H. Balcom, E.M. Sunderland. Mercury stable isotopes reveal influence of foraging depth on mercury concentrations and growth in Pacific bluefin tuna. Submitted.
*Equal contribution to the work.
- 2017 K. von Stackelberg, **M. Li**, E.M. Sunderland. 2017. Results of a national survey of high-frequency fish consumers. *Environmental Research*. 158 (2017): 126-136.
- 2016 **M. Li**, A.T. Schartup, A.P. Valberg, J.D. Ewald, D.P. Krabbenhoft, R. Yin, P.H. Balcom, E.M. Sunderland. 2016. Investigate environmental origins of methylmercury accumulated in subarctic estuarine fish indicated by mercury stable isotopes. *Environmental Science and Technology*. 50 (21): 11559–11568.
- 2016 R.S.D. Calder, A.T. Schartup, **M. Li**, A.P. Valberg, P.H. Balcom, E.M. Sunderland. Future impacts of hydroelectric power development on methylmercury exposures of Canadian indigenous communities. *Environmental Science and Technology*. 50 (23): 13115–13122.
- 2016 **M. Li**, K. von Stackelberg, C. Rheinberger, J.K. Hammitt, D.P. Krabbenhoft, R. Yin, E.M. Sunderland. Insights from mercury stable isotopes into factors affecting the internal body burden of methylmercury in frequent fish consumers. *Elementa: Science of the Anthropocene* 2016, 4 (1), 000103.
- 2014 **M. Li**, L.S. Sherman, J.D. Blum, P. Grandjean, B. Mikkelsen, P. Weihe, E.M. Sunderland, J.P. Shine. 2014. Assessing sources of human methylmercury exposure using mercury stable isotopes. *Environmental Science and Technology*. 48 (15): 8800-8806.
- 2012 **M. Li**, D.M. Costello, G.A. Burton Jr. Interactive effects of phosphorus and copper on *Hyalella azteca* via periphyton in aquatic ecosystems. *Ecotoxicology and environmental safety* 83 (2012): 41-46.

Working papers

- **M. Li**, C. Thackray, V. Lam, W. Cheung, E.M. Sunderland. Global flows of methylmercury and fatty acids from fisheries harvests.
- **M. Li**, A. Juang, J. Ewald, B. Mikkelsen, E.M. Sunderland. Mechanistic understanding on methylmercury metabolism in marine mammals by using mercury stable isotope.
- J. Ewald, **M. Li**, J. Kirk, D. Muir, N. Basu, E.M. Sunderland. Insights from a toxicokinetic model into mercury bioaccumulation in ringed seals

ACADEMIC ACTIVITIES & RESEARCH PRESENTATIONS

- 2017.09.21 EOAS Department colloquium. Presentation: Applying Geochemical Tools in Environmental Health Studies. University of British Columbia, Vancouver, BC, Canada.
- 2017 13th International Conference on Mercury as a Global Pollutant. Co-chaired the session 3f—Methylmercury Toxicokinetics and Toxicodynamics: Human and Animal Models. Providence, RI, USA.
- 2016- 2017 Co-organizer of Harvard Atmospheric and Environmental Chemistry Seminar Series.
- 2014-2015 Initiate GeoHealth group with Dr. James Shine and Dr. Dan Brabander at Harvard School of Public Health. *This group focused on application of geology and geochemistry in Environmental health related research.*
- 2017 13th International Conference on Mercury as a Global Pollutant. *Oral presentation: Global Flows of Methylmercury from Fisheries Harvests.* Providence, RI, USA.
- 2017 13th International Conference on Mercury as a Global Pollutant. *Oral presentation: Toxicokinetics of Methylmercury in North Atlantic Pilot Whales (Globicephala Melas).* Providence, RI, USA.
- 2017 13th International Conference on Mercury as a Global Pollutant. *Poster presentation: Investigating Methylmercury Exposure in North Atlantic Cetaceans Using Hg Stable Isotopes.* Providence, RI, USA.
- 2015 12th International Conference on Mercury as a Global Pollutant. *Poster Presentation: Use of Mercury Stable Isotopes to Track Environmental Methylmercury Sources of Estuarine Fish.* Jeju, South Korea.
- 2014 Gordon Research Conference—Environmental Sciences: Water. *Poster Presentation: Assessing Sources of Human Mercury Exposure Using Stable Mercury Isotopes.*
- 2013 Society of Environmental Toxicology and Chemistry (SETAC) North America 34th Annual Meeting. *Oral Presentation: Mercury Exposure Assessment for High-End Fish Consumers in the U.S.*
- 2013 11th International Conference on Mercury as a Global Pollutant (ICMGP). *Oral presentation: Source-Receptor Assessment of Mercury Exposure in Humans Using Mercury Stable Isotopes.*
- 2012 SETAC North America 33rd Annual Meeting. *Poster Presentation: Regional Impacts of the Deepwater Horizon Oil Spill on Gulf of Mexico Ecosystem.*
- 2012 Gordon Research Seminar: Environmental Sciences: Water. *Poster presentation: Regional Impacts of the Deepwater Horizon Oil Spill on Gulf of Mexico Ecosystem.*

- 2011 SETAC North America 32nd Annual Meeting. *Poster presentation: Interactive Effects of Phosphorus and Copper on Hyalella Azteca and Periphyton.*
- 2011 MI H2Objective Conference: Research Shaping Michigan's Water Future. *Poster presentation: Impacts of Seasonal Hypoxia on The Bioaccumulation of Methylmercury through the Food Web in the Central Basin, Lake Erie.*

RESEARCH EXPERIENCE

- 2011-2013 **Co-conducted** research project with Dr. Yongmei Shen, Harvard T.H.Chan School of Public Health.
Statistical Analysis of Turbidity Dynamics in the Catskill-Delaware System.
- 2011-2013 **Research assistant** to Dr. Jim Shine, Harvard T.H.Chan School of Public Health.
Fish Trophic Structure, Seafood Consumption, and Human Health Implications of the Deep water Horizon Oil Spill.
- 2011 **Summer fellow** at NOAA and University of Michigan's Cooperative Institute for Limnology and Ecosystem Research
Impacts of seasonal hypoxia on the bioaccumulation of methylmercury through the food web in the central basin, Lake Erie.
- 2009-2011 **Research assistant** to Prof. Allen Burton, University of Michigan.
Culturing aquatic macroinvertebrates and participating in field trips for in-situ sediment toxicity tests in streams.
- 2007-2008 **Team Leader** of undergraduate research project at Zhejiang University of Technology.
Research on Chiral Separation and Enantioselective Toxicity of Pyrethroids Bifenthrin in Zebrafish.
- 2006-2008 **Lab Assistant** to Prof. Weiping Liu at Zhejiang University of Technology.
Chiral separation of pesticide enantiomers by HPLC.

TEACHING & ADVISING EXPERIENCE

- 2016-Present Advising Harvard College undergraduate Alicia Juang on "Mechanistic understanding on methylmercury metabolism in marine mammals by mercury stable isotope".
- 2016-2017 Advising Harvard T.H.Chan School of Public Health M.Sc student Paheliya Aixilafu on "Pilot analysis of nutritional modifiers of methylmercury uptake".
- 2016-2017 Advising Saint Mark's School student Kate Sotir on "Safe to drink: A biofiltration system for copper-contaminated water".
- 2015-2017 Advising Harvard College undergraduate Jessica Ewald on "Modeling toxicokinetics of methylmercury in ringed seal".

- 2016 Guest Lecture ES161 Applied Environmental Toxicology on “Bioaccumulation”. Harvard John A. Paulson School of Engineering and Applied Sciences.
- 2015 Teaching Fellow of ES161 Applied Environmental Toxicology, Harvard John A. Paulson School of Engineering and Applied Sciences.
- 2014 Guest lecture EH257 Water Pollution on “Aquaculture”. Harvard T.H.Chan School of Public Health.
- 2013 Project instructor of MIT1.106 Terrascope course on “Affinity of BAP-E3 phage to indium in solution”. Massachusetts Institute of Technology.
- 2012 Teaching Assistant of RDS500 Risk Assessment, Harvard T.H.Chan School of Public Health.
- 2012 Teaching Assistant of EH257 Water Pollution, Harvard T.H.Chan School of Public Health.
- 2011 Graduate Student Instructor of NRE538 Natural Resource Statistics, University of Michigan, Ann Arbor.