

Dr. Lori A. Ziolkowski

CURRICULUM VITAE

PERSONAL INFORMATION

University of South Carolina
School of the Earth, Ocean and Environment
701 Sumter St., EWS 617
Columbia, SC 29208

Office: (803) 777-0035
Fax: (803) 777-6610
Email: loriz@sc.edu
Web: <http://www.science.loriz.ca>

EDUCATIONAL BACKGROUND

2009 Ph.D. **University of California Irvine**, Department of Earth System Science
Thesis title: Radiocarbon of black carbon in marine dissolved organic matter

2000 M.Sc. **Dalhousie University**, Department of Oceanography
Thesis title: Marine photochemical production of carbon monoxide

1998 B.Sc. **University of Waterloo**, Department of Chemistry

PROFESSIONAL EXPERIENCE

2013 - present **Assistant Professor**, University of South Carolina
School of the Earth, Ocean and the Environment

2009 – 2013 **Post-doctoral Fellow**, McMaster University
Origins Institute and School of Geography and Earth Sciences

2004 – 2009 **Graduate Research Assistant**, University of California Irvine
Department of Earth System Science

2000 – 2004 **Research Technician**, Dalhousie University
Department of Oceanography

1998 – 2000 **Graduate Research Assistant**, Dalhousie University
Department of Oceanography

01/1997 – 08/1997 **Guest Student Investigator**, Woods Hole Oceanographic Institution
Marine Chemistry and Geochemistry

Graduate Advisors:

M.Sc: Dr. William L. Miller, Dalhousie University, *now at* University of Georgia Athens

Ph.D.: Dr. Ellen R.M. Druffel, University of California Irvine

Postdoctoral Advisor: Dr. Gregory F. Slater, McMaster University

GRANTS and AWARDS

Current:

Baillet Latour Antarctica Fellowship: Radiocarbon estimates of microbial activity and carbon accumulation surrounding the Princess Elisabeth Station (REMACA), funding for two field seasons at the Belgian Antarctic station, Lori Ziolkowski (sole PI), €150,000 12/2016-11/2018. Includes unfunded collaboration with Liane Benning (GFZ Potsdam)

NSF ANS Bioavailability of Arctic Soil Carbon: Examining the Relationship Between Chemical Composition and Lability During the Holocene, Lori Ziolkowski (sole PI), \$336,872, 08/01/2014-07/31/2018

University of South Carolina ASPIRE-III: Acquisition of Equipment for Preparing Compound Specific Radiocarbon Samples Lori Ziolkowski, Susan Lang and Ronald Benner (Ziolkowski is lead PI), \$76,338, 07/01-2016 – 9/30/2018

Concluded:

NSF EAR Early Career: Instrumentation and Technician Support for the Isotopic Analysis of Individual Organic Compounds in the Earth System, Susan Lang (PI), Ronald Benner (co-I) and Lori Ziolkowski (co-I), \$99,934, 05/01/2014 – 04/30/2015

University of South Carolina ASPIRE-I: Are Supraglacial Microbes Consuming Fossil Fuel Derived Carbon? Lori Ziolkowski (sole PI), \$15,000, 07/01/2016 – 09/30/2017

PUBLICATIONS (Peer reviewed)

*Z-lab student or supervisee

Web of Science: Cited 464 times. h-index: 13. Average citations per item: 20.17. Citation data: 6/27/2018

<http://www.researcherid.com/rid/C-6752-2012>

Google Scholar: 656 citations, h-index 14, data accessed: 6/27/2018

- (26.) Lupascu, M., C.I. Czimczik, M.C. Welker, **L.A. Ziolkowski**, E.J. Cooper, J.M. Welker, Winter ecosystem respiration and sources of CO₂ from the High Arctic tundra of Svalbard: Response to deeper snow experiment, *Journal of Geophysical Research: Biogeosciences*, accepted pending minor revisions, July 2018.
25. *McCrimmon, D.O., M. Bizimis, A. Holland, **L.A. Ziolkowski**, Supraglacial microbes use young carbon and not aged cryoconite carbon, *Organic Geochemistry*, 118, 63 – 72, **2018**.
24. Schroer, W.F., C.R. Benitez-Nelson, E.M. Smith, **L.A. Ziolkowski**, Drivers of sediment accumulation and nutrient burial in coastal stormwater detention ponds, South Carolina, USA, *Ecosystems*, **2018**, doi: 10.1007/s10021-017-0207-z
23. *Bostic, J.T., C. Aeppli, R.F. Swarthouth, C.M. Reddy, **L.A. Ziolkowski**, Ongoing biodegradation of Deepwater Horizon oil in beach sands: Insights from tracing petroleum carbon into microbial biomass, *Marine Pollution Bulletin*, 126, 130-136, **2018**.
22. Bradford, L.M., **L.A. Ziolkowski**, C. Goad, L.A. Warren, G.F. Slater, Elucidating Carbon Sources Driving Microbial Metabolism During Oils Sands Reclamation, *Journal of Environmental Management*, 188, 246-254, **2017**.
21. Trumbore, S.E., X. Xu, G.M. Santos, C.I. Czimczik, S.R. Beaupre, M.A. Pack, F.M. Hopkins, A. Stills, M. Lupascu, **L.A. Ziolkowski**, Preparation for Radiocarbon Analysis, book chapter in “Radiocarbon and Climate Change”, Springer International, 275-315, **2016**.
20. Druffel, E.R.M, S.R. Beaupre, **L.A. Ziolkowski**, Radiocarbon in the Ocean, book chapter in “Radiocarbon and Climate Change”, Springer International, 139-166, **2016**.
19. Coppola, A.I., **L.A. Ziolkowski**, C. Masiello and E.R.M. Druffel, Aged black carbon in marine sediments and sinking particles, *Geophysical Research Letters*, 41, 7, 2427-2433, **2014**.
18. **Ziolkowski, L.A.**, J. Wierzchos, A.F. Davila and G.F. Slater. Radiocarbon evidence of active endolithic microbial communities in the hyper-arid core of the Atacama Desert. *Astrobiology*, 13(7), 607-616, **2013**.
17. Coppola, A.I., **L.A. Ziolkowski** and E.R.M. Druffel, Extraneous carbon corrections for radiocarbon measurements of black carbon in sediments using the benzene polycarboxylic acid method. *Radiocarbon*. 55 (2-3), 1631-1640, **2013**.
16. **Ziolkowski, L.A.**, N. Myktyczuk, C.R. Omelon, L. Whyte and G.F. Slater, Arctic gypsum endoliths: a biogeochemical characterization of a viable and active microbial gypsum community. *Biogeosciences* 10, 7661-7675, **2013**.
15. Mailloux, B. J., A. Dochenetz, M.E. Bishop, H. Dong, **L.A. Ziolkowski**, K.E. Wommack, E. G.

- Sakowski, T.C. Onstott and G.F. Slater. A Carbon Free Filter for Collection of Large Volume Samples of Cellular Biomass from Oligotrophic Waters. *Journal of Microbiological Methods*. 90(3) pg 145-151. doi:10.1016/j.mimet.2012.04.016, **2012**.
14. Druffel, K.C., D. Vetter, S.M. Griffin, E.R.M. Druffel, R.B. Dunbar, D.A. Mucciarone, **L.A. Ziolkowski** and J. Sanchez-Cabez, Radiocarbon and stable isotopes in Palmyra corals during the past century, *Geochimica et Cosmochimica Acta*, pg 154-162, 10.1016/j.gca.2010.11.028, **2012**.
 13. **Ziolkowski, L.A.**, J. Greaves, A.R. Chamberlin, E.R.M. Druffel. Quantification of black carbon in marine systems using the polycarboxylic acid method: a mechanistic and yield study. *Limnology and Oceanography Methods*, 9, pg 140-149, 2011.
 12. Harvey, M.J., C.S. Law, M.J. Smith, J.A. Hall, E.R. Abraham, C.L. Stevens. M.G. Hadfield, D.T. Ho, B. Ward, S.D. Archer, J.M. Caine, K.I. Currie, D.Devries, M.J. Ellwood, P. Hill, G.B. Jones, D. Katz, J. Kuparinen, B. Muscaskill, W. Main, A. Marriner, J. McGregor, C. McNeil, P.J. Minnett, S.D. Nodder, J.Peloquin, S. Pickmere, M.H. Pinkerton, K.A. Safi, R. Thompson, M. Walkington, S.W. Wright and **L.A. Ziolkowski**. The SOLAS air-sea gas exchange experiment (SAGE) 2004, *Deep Sea Research II*, 58(6), pg 753-763, **2011**.
 11. **Ziolkowski, L.A.** and E.R.M. Druffel. Aged black carbon identified in marine dissolved organic matter, *Geophysical Research Letters*, 37, L16601, **2010**.
 10. Santos, G.M., J. R. Southon, N. J. Drenzek, **L. A. Ziolkowski**, E. R.M. Druffel, X. Xu, D. Zhang, S.E. Trumbore, T.I. Eglinton and K.A. Hughen. Blank assessment for ultra-small samples: chemical extraction and separation vs. AMS, *Radiocarbon*, 52(3), 1322-1335, **2010**.
 9. Druffel, E.R.M., D. Zhang, X. Xu, **L.A. Ziolkowski**, J.R. Southon, G.M. Santos, S.E. Trumbore. Compound specific radiocarbon analyses of phospholipid fatty acids, alkanes and black carbon in oceanic sediments, *Radiocarbon*, 52(3) 1215-1223, **2010**.
 8. **Ziolkowski, L.A.** and E.R.M. Druffel. Quantification of extraneous carbon during the radiocarbon analysis of black carbon, *Analytical Chemistry*, 81(24), 10156-10161, **2009**. doi:10.1021/ac901922s.
 7. **Ziolkowski, L.A.** and E.R.M. Druffel. Feasibility of isolating and detecting fullerenes and carbon nanotubes using the benzene polycarboxylic acid method, *Marine Pollution Bulletin*, 59, 126-131, **2009**. doi:10.1016/j.marpolbul.2009.04.018.
 6. **Ziolkowski, L. A.** and W. L. Miller. Variability of the apparent quantum efficiency of CO photoproduction in the Gulf of Maine and Northwest Atlantic Ocean. *Marine Chemistry*, **2007**. doi:10.1016/j.marchem.2007.02.004.
 5. Bouillon, R.C., W.L. Miller, M. Lévassieur, M. Scarratt, A. Michaud, and **L. Ziolkowski**. The effects of mesoscale iron enrichment on the marine photochemistry of dimethylsulfide in the NE subarctic Pacific, *Deep-Sea Research Part II – Topical studies in Oceanography*, 53(20-22): 2384-2397, **2006**. doi:10.1016/j.dsr2.2006.05.024.
 4. Clark, C.D., W.T. Hiscock, F.J. Millero, G. Hitchcock, L. Brand, W.L. Miller, **L. Ziolkowski**, R.F. Chen and R.G. Zika, **2004**. CDOM distribution and CO₂ production on the southwest Florida shelf, *Marine Chemistry* 89(1-4): 145-167.
 3. Xie, H., S.S. Andrews, W.R. Martin, J. Miller, **L. Ziolkowski**, C.D. Taylor, and O.C. Zafiriou, **2002**. Validated methods for sampling and headspace analysis of carbon monoxide in seawater, *Marine Chemistry* 77(2-3), 93-108.
 2. **Ziolkowski, L.**, K. Vinodgopal, and P.V. Kamat, 1997. Photostabilization of organic dyes on poly(styrenesulfonate)-capped TiO₂ nanoparticles, *Langmuir*, 13(12): 3214-3128.
 1. Bourbonniere, R.A., S.L. Telford, **L.A. Ziolkowski**, J. Lee, M.S. Evans and P.A. Meyers, **1997**. Biogeochemical marker profiles in cores of dated sediments from large North American lakes, *Molecular Markers in Environmental Geochemistry*, ACS Symposium Series, 671, 133-150.

Publications in prep

1. **Ziolkowski, L.A.**, C.I. Czimeczik, H. Li*, S. Holden, A radiocarbon comparison of two methods measuring ecosystem carbon cycling: respired CO₂ and phospholipid fatty acids.
2. **Ziolkowski, L.A.**, G.F. Slater, Slow Carbon Cycling of Ancient Arctic Soils.
3. Holden, S.R., J.M. Welker, **L.A. Ziolkowski**, G. Mortero, H. Li, J.C. Walker, X. Xu, C.I.Z Czimeczik, Implications of shrub expansion on soil carbon dynamics in tussock tundra in Arctic Alaska.
4. **Ziolkowski, L.A.**, D. McCrimmon*, Perspectives on the age and composition of supraglacial material.
5. **Ziolkowski, L.A.** H. Li*, Regional pattern of microbial carbon usage of Arctic soil carbon.
6. Lutz, S., **L. A. Ziolkowski**, and L. G. Benning, The biodiversity and geochemistry of cryoconite holes in Queen Maud Land, East Antarctica.

TEACHING EXPERIENCE

University of South Carolina

Spring 2018		Research release from teaching
Fall 2017	Instructor	Processes of Global Environmental Change Geology/Marine Science 335, 29 students Overall Instructor Evaluation: 5.0, Dept Average: 4.3
Fall 2017	Instructor	Oceans and Society, Marine Science 210, 234 students Overall Instructor Evaluation: 4.6, Dept Average: 4.3
Spring 2017		Research release from teaching
Fall 2016	Instructor	Organic Geochemistry Geology/Marine Science 717, MSCI 599, 13 students Overall Instructor Evaluation: 4.9, Dept Average: 4.5
Spring 2016	Instructor	Processes of Global Environmental Change Geology/Marine Science 335, 36 students Overall Instructor Evaluation: 4.8, Dept Average: 4.3
Fall 2015	Instructor	Oceans and Society, Marine Science 210, 376 students Overall Instructor Evaluation: 4.7, Dept Average: 4.3
Spring 2015	Instructor	Processes of Global Environmental Change Geology/Marine Science 335, 40 students Overall Instructor Evaluation: 4.7, Dept Average: 4.6
Fall 2014	Instructor	Oceans and Society, Marine Science 210, 306 students Overall Instructor Evaluation: 4.2, Dept Average: 4.4
Fall 2013	Instructor	Oceans and Society, Marine Science 210 Honors, 23 students Overall Instructor Evaluation: 4.3, no Dept Average available

Teaching at Other institutions

Sept 2012	Instructor	Astrobiology module Planetary Short Course University of Western Ontario
2007-2009	Instructor	Radiocarbon in Ecology and Earth System Science University of California Irvine, Short Course
2006-2008	Instructor	Teaching Assistant Professional Development Program University of California Irvine
2005, 2007	Teaching Assistant	Introduction to Earth System Science, ESS 25 University of California Irvine
2006	Teaching Assistant	Organic Biogeochemistry, ESS 53 University of California Irvine

SEMINARS

2018	University of South Carolina Alumni Weekend
2018	Explorers Club, Columbia, SC Chapter
2018	Princess Elisabeth Station, Antarctica
2017	Study of U.S. Institutes (SUSI) for Student Leaders, University of South Carolina
2017	Princess Elisabeth Station, Antarctica
2017	Chesapeake Biological Laboratory, University of Maryland
2016	Department of Geology and Geophysics, Louisiana State University
2016	School of Public Health, University of South Carolina
2015	International Conference of Biology and Biotechnology of Thermophilic Bacteria, Yerevan, Armenia
2015	International Conference of Biology and Biotechnology of Thermophilic Bacteria, Tblisi, Georgia
2015	Department of Geology, University of Buffalo
2015	Department of Earth System Science, University of California Irvine
2015	DISCCRS Next Generation Polar Researcher Meeting
2014	Department of Chemistry, University of Bristol, UK
2014	Nerd Nite Honolulu
2013	Large Lakes Observatory, University of Minnesota Duluth
2013	Department of Civil and Environmental Engineering & Earth Sciences, Notre Dame
2013	Marine Science Program, University of South Carolina
2013	Marine Sciences, University of Georgia Athens
2012	Department of Earth Sciences, Carleton University
2012	Department Earth and Atmospheric Sciences, University of Alberta
2012	Department of Earth and Environmental Sciences, University of Waterloo
2012	Department of Geologic Sciences, University of Cincinnati

2011 Bigelow Institute for Ocean Sciences
2011 Origins Institute, McMaster University
2011 Department of Earth Sciences, McGill University

CONTRIBUTED ABSTRACTS (only first author contributions are listed pre-USC, *=trainee)

Ziolkowski, L.A., S. Lutz, J. McCutcheon and L.G. Benning, Sources and ages of soil organic carbon in the Sør Rondane Mountains of East Antarctica, Polar 2018, Davos, Switzerland.

Ziolkowski, L.A., C.I. Czimczik, T.C. Onstott, and G.F. Slater, Arctic soil carbon: does permafrost carbon matter for future climate feedbacks? Goldschmidt meeting, Paris, France, August 2017. invited

McCrimmon D.(*), and **L.A. Ziolkowski**, Cryoconite Carbon: Why local geology matters, Goldschmidt meeting, Paris, France, August 2017.

Schorer, W., C. Benitez-Nelson, E. Smith, and **L. Ziolkowski**, South Carolina Stormwater Detention Ponds: Sediment Accumulation and Nutrient Sequestration, South Carolina Water Resources Conference, Dec 2016.

McCrimmon, D.(*), A. Holland (*), and **L.A. Ziolkowski**, Modern Microbial and Old Carbon Coexist on Glacier Surfaces, AGU Fall Meeting, San Francisco, CA, Dec 2016.

Ziolkowski, L. A., H. Li(*), Nitrogen controls the lability of Alaskan Arctic soil carbon, AGU Fall Meeting, San Francisco, CA, Dec 2016.

Perler, F., E. Becraft, J. Bird, D. McCrimmon(*), D. Polosukhina, R. Ramaley, J. Spear, W. Swingley, **L. Ziolkowski**, T.A. Vishnivetskaya, International Workshop and Evaluation of Science in Countries of the Caucasus Region, American Society of Microbiology, Boston, USA, June 2016.

Ziolkowski, L.A., C. Czimczik, S. Holden, H. Li(*), T.C. Onstott, G. Slater, A. Townsend-Small, Variability of Microbial Soil Carbon Usage: Implications for Climate Feedback, International Conference on Permafrost, Potsdam, Germany, June 2016.

Holland, A.(*), and **L.A. Ziolkowski**, Organic Geochemical Variability of Dark Snow on Two Alaskan Glaciers, SE GSA Meeting, Columbia, SC, March 2016.

McCrimmon, D.(*), and **L.A. Ziolkowski**, Characterization of Microbial Carbon in Cryoconite Holes of Two Alaskan Glaciers, SE GSA Meeting, Columbia, SC, March 2016.

Schroer, W.F., C. Benitez-Nelson, E. Smith and **L.A. Ziolkowski**, South Carolina Stormwater Detention Ponds: Sediment Accumulation and Nutrient Sequestration, SE GSA, Columbia, SC, March 2016.

Bostic, J.(*), C.M. Reddy, C. Aeppeli, R. Swarthout and **L.A. Ziolkowski**, How Bioavailable is Highly Weathered Deepwater Horizon Oil? Ocean Sciences Meeting, New Orleans, Feb 2016.

Onstott, T.C., B. Stackhouse, L. Whyte, S. Myneni and **L.A. Ziolkowski**, Long Term Thawing Experiments of Intact Cores of Arctic Mineral Cryosols: Implications for Greenhouse Gas Feedbacks from Global Warming, AGU Fall Meeting, San Francisco, Dec 2015. LZ delivered the talk

Li, H. (*) and **L.A. Ziolkowski**, Alaskan Arctic soils: relationship between microbial carbon usage and soil composition, AGU Fall Meeting, San Francisco, Dec 2015.

Tibbet, E.J.(*), H. Li(*) and **L.A. Ziolkowski**, Latitudinal Study of the Geochemical Biomarkers in Alaskan Arctic Soils, AGU Fall Meeting, San Francisco, Dec 2015

Ziolkowski, L.A., Insights into organic matter dynamics: a coupled chemical and radiocarbon perspective on stability, SOM6, October 2014. Poster.

Ziolkowski, L.A., What's causing "dark snow"? Let's collaborate and find out! International Glaciology Society British Branch Meeting (IGSBBM), September 2014. Talk.

Ziolkowski, L.A., G.F. Slater, T.C. Onstott, L.G. Whyte and A. Townsend-Small, Bioavailability and Chemistry of Arctic Soil Carbon, Goldschmidt Meeting, Sacramento, June 2014. Poster.

Ziolkowski, L.A., G.F. Slater, T.C. Onstott, L.G. Whyte and A. Townsend-Small, Microbes residing in young organic rich Alaskan soils contain older carbon than those residing in old mineral high Arctic soils, AGU Fall Meeting, San Francisco, Dec 2013. Poster.

Ziolkowski, L.A., B.T. Stackhouse, L.G. Whyte, T.C. Onstott and G.F. Slater, Using radiocarbon to examine microbial carbon cycling in permafrost. AGU Fall Meeting, San Francisco, CA, Dec 2012. Talk.

Ziolkowski, L.A. and G.F. Slater, Contemporary microbes in hypersaline springs that contain fossil carbon, *AGU Fall Meeting*, San Francisco, CA. Dec 2011. Talk

Ziolkowski, L.A., G.F. Slater and E.R.M. Druffel, Quantifying extraneous carbon added during GC preparation of CSRA samples, ¹⁴C small sample workshop, ETH Zurich, Switzerland, Sept 2011. Talk

Ziolkowski, L.A., G.F. Slater, A. F. Davila and J. Wierzchos, Constraining carbon sources and cycling in endolithic microbial communities in the Atacama Desert, *AGU Fall Meeting*, San Francisco, CA. Dec 2010. Talk

Ziolkowski, L.A. and E.R.M. Druffel, Black carbon in marine dissolved organic matter, *Ocean Sciences*, Portland, OR. Feb 2010. Poster

Ziolkowski, L.A., Black magic: can we make carbon disappear? UC Irvine, Half-Baked Seminar. Feb 2009. Talk

Ziolkowski, L.A. and E.R.M. Druffel, Radiocarbon values of black carbon using the Benzene Polycarboxylic Acid Method, *AGU Fall Meeting*, San Francisco, CA. Dec 2008. Poster

Ziolkowski L.A. and C. Gardiner, The Professional Utility of Teaching Assistant Training beyond the Classroom, *Lilly West*, Pomona, CA. Mar 2008. Talk

Ziolkowski, L.A. and E.R.M. Druffel. Black carbon measurements using a revised BPCA method. *EGU*, Vienna, Austria. Apr 2007. Talk

Ziolkowski, L.A., E.R.M. Druffel and S. Griffin, Progress Towards an Estimate of the Radiocarbon Content of Black Carbon in Marine Organic Matter, *AGU Ocean Sciences*, Hawaii. Feb 2006. Poster

Ziolkowski, L.A., C.S. Law and W.L. Miller, Investigation of the Marine Photochemical Production of Carbon Monoxide in the Waters South-East of New Zealand, *IGAC Conference*, Christchurch, N.Z. Sept 2004. Poster

Ziolkowski, L.A. and W.L. Miller, U.V. Optical Properties During the Evolution of a Phytoplankton

Dr. Lori A. Ziolkowski

Bloom (SERIES), *ASLO/TOS Ocean Sciences*, Hawaii. Feb 2004. Talk

Ziolkowski, L. A. and W.L. Miller, Spatial and Temporal Variation of CDOM Fading Efficiency, *AGU Ocean Sciences*, Hawaii. Feb 2002. Poster

Ziolkowski, L. A., W.L. Miller, H. Xie and O.C. Zafiriou, Efficiency Spectra for the Marine Photochemical Production of Carbon Monoxide Determined Using a Solar Simulator, *ASLO*, New Mexico. Feb 2001. Talk

PERSONNEL SUPERVISED

Presently:

Natalie Tyler	Masters student, USC Geology	08/2017 - present
Logan Briggs	Undergraduate student, Env. Sci. Honors College USC	5/2018 – present
Peyton Moore	Undergraduate student, Marine Sci, Honors College USC	01/2016 – present

Previously:

Drake McCrimmon	Masters student USC Geology REU MSCI student, Chemistry, LSU	08/2015 – 7/2017 Summer 2014
Emily Burch	Undergraduate student, Geology, USC	08/2016 – 12/2016
Bryan Benitez-Nelson	Laboratory Technician	3/2016 – 11/2016
Joel Bostic	Masters USC Marine Science <i>Now at U. Maryland Ph.D. student Current NSF GRFP recipient</i>	08/2014 – 6/2016
Alexandra Holland	Undergraduate student, Geology USC <i>Now at University of Bristol Ph.D. student</i>	08/2014 – 5/2016
Christian Pullano	Undergraduate student, Geology, USC <i>Now at Clemson University, M.S. student</i>	09/2015 – 5/2016
Dr. Hongyu Li	Postdoctoral Researcher <i>Now at ECI Pharmaceuticals</i>	09/2014 – 3/2016
Karlee Liddy	Undergraduate student, Env. Sci, USC <i>Now with Peace Corps in Honduras</i>	01/2014 – 12/2015
Emily Tibbett	REU student, Soil Science, UC Davis <i>Now at U. Southern California, Ph.D. student</i>	Summer 2015
Jamie Clark	Undergraduate student, Marine Science, USC <i>Complete M.S at USC and now a research technician at NOAA.</i>	01/2014 – 5/2015
Jane Gracie Van Adzin	REU student, Earth System Science, Cornell University <i>Now at Boston Globe</i>	Summer 2014

FELLOWSHIPS

2018	U. South Carolina, McCausland Fellow (3 years, salary and research bonus)
2016	Baillet Latour Fellowship, Belgian Antarctic fellowship noted above under funding, €150,000
2011	NSERC Postdoctoral Fellowship: The impact of climate change on the carbon cycle. Quantifying the potential carbon release from thawing permafrost in the Canadian high Arctic 2 years, \$80,000
2009	Canadian Astrobiology Training Program & Origins Institute Postdoctoral Fellowship 2 years, \$80,000
2008	UC Irvine School of Physical Sciences Faculty Endowed Fellowship

- 2006 Pedagogical Fellowship, University of California Irvine, 3 years
 2004 Jenkins Graduate Fellowship, University of California Irvine, 2 years

OTHER ACADEMIC HONOURS AND AWARDS

- 2017 U. South Carolina, Break Through Rising Star
 2015 Invited participant, Next Generation Polar Researcher (May 2015)
 2010 Invited participant, DISCO XXII (October 2010)
 2009 Isocompound Meeting, Young Investigator Award
 2009 UC Irvine Earth System Science Outstanding Contributions to the Department
 2008 Outstanding Presentation Award, Institute of Geophysics and Planetary Physics UCI

SYNERGISTIC ACTIVITIES

Reviewing efforts

Editorial: Associate Editor, Marine Chemistry, October 2015 – present

Grants:

ACS Petroleum Research Fund	NSF Environmental Chemistry
National Geographic Society	NSF Ocean Technology & Interdisciplinary Coordination
NASA Habitable Worlds	DOE Genomics
NSF Polar Programs	International Polar Foundation
NSF Chemical Oceanography	
NSF Paleo Perspectives on Climate Change	

Journals

Aqueous Geochemistry	Geophysical Research Letters
Aquatic Microbial Ecology	Global Biogeochemical Cycles
Biogeosciences	Journal of Chromatography A
Deep Sea Research	Limnology and Oceanography
Environmental Research Letters	Marine Chemistry
Environmental Science & Technology	Nature Communications
Frontiers in Biogeosciences	PNAS
Frontiers in Earth Sciences	Radiocarbon
Geobiology	Rapid Comm. in Mass Spectrometry
Geochimica et Cosmochimica Acta	Science of the Total Environment

Other: AGU Geophysical Monograph Series
 Climate Literacy and Energy Awareness Network

Number of external documents reviewed annually:

Year	Manuscripts	Proposals
2018	10	4
2017	5	2
2016	9	6 (+DOE + NASA panels)
2015	6	1
2014	9	6 (+ one NSF panel)
2013	9	3

Dr. Lori A. Ziolkowski

2012	5	5
2011	3	2

University of South Carolina:

2018	Panel member, U. of South Carolina SEAS Chasing Coral Screening
2013-present	Graduate Program Committee, Marine Science Program
2017	Undergraduate Curriculum Committee, Geoscience Program, SEOE
2014-2017	Faculty Senate Representative for the Department of Earth and Ocean Sciences
2014	Peer Review Committee, Department of Earth and Ocean Sciences

Broader Scientific Community:

2017	Session co-chair: Geochemistry of the Cryosphere, Goldschmidt, Paris, France
2017	Meeting mentor: Goldschmidt, Paris, France
2016	Session co-chair: Biogeochemistry, Southeastern GSA, Columbia, SC
2015	Session co-chair: Arctic Climate Change: Paleoclimate and Paleohydrology Perspectives, Fall AGU, San Francisco, CA
2014	Session co-chair: Climate and Biogeochemistry of Cryosphere Environments, Goldschmidt, Sacramento, CA
2014	Meeting mentor in the Multicultural Program at the Ocean Sciences Meeting
2012	Session co-chair: Water, elements and life in early-Earth and Mars analogs, Goldschmidt, Montreal, QC
2012	U.S. GEOTRACES Arctic Implementation workshop participant
2011-2012	McMaster University Origin Institute Colloquium committee
2011	McMaster University Women in Science and Engineering (WISE) Panel member
2010	McMaster University Women in Science and Engineering (WISE) workshop leader: Negotiating your way to success
2010	Session co-chair: Radiocarbon insights into the global carbon cycle, Ocean Sciences meeting, Portland, Oregon
2007-2009	AGU Education and Human Resources Student Advisory Board Member
2007-2009	UC Irvine Earth System Science Journal Club Coordinator
2006-2008	Science Fair Judge, California State Science Fair
2005-2006	UC Irvine Earth System Science Departmental Graduate Student Representative

Community at Large:

2018	General audience talk on Antarctica, Explorers Club, Columbia, SC
2017-2018	Outside Committee member, Heathwood Hall (high school) senior thesis
2017	TV appearance, South Carolina ETV, This Week in South Carolina
2016	Westwood High School talked with Grade 9 World Geography Students about Climate Change (four class visits)

FIELD EXPERIENCE

Cruise (~300 days at sea):

R/V Tangaroa (March 2004) Performed photochemical measurements in Southern Ocean during an iron addition experiment

CCGS Martha Black (July 2003) Collected in-situ optical data in North Atlantic

R/V Pelican, (August 2002) Collected in-situ optical data in the Gulf of Mexico

R/V El Puma, (July 2002) Collected in-situ optical data and performed photochemical measurements at station Papa in North Pacific during an iron addition experiment

R/V Pelican (August 2001) Collected in-situ optical data in the Gulf of Mexico

R/V Pelican (April 2001) Collected in-situ optical data in the Gulf of Mexico

R/V Endeavor (March 2000) Performed photochemical measurements in the Sargasso Sea

R/V Endeavor (August 1999) Performed photochemical measurements in the Sargasso Sea

R/V Endeavor (July 1999) Performed photochemical measurements in the Gulf of Maine

R/V New Horizon (April 1997) Collected samples for trace gas analysis in the Southern California Bight

Other field experience: (~200 days in the field)

Sør Ronadne Mountains, Queen Maud Land, Antarctica (2017, 2018) two seasons or a total of twelve weeks collecting samples in East Antarctica to study microbial activity and carbon accumulation.

Mount Baker, WA, USA (2016) *American Alpine Institute:* Crevasse Rescue and Glacier Travel training

Svalbard (2016) Survey of permafrost and periglacial landscapes in Isfjorden

Mountain Glaciers, Alaska (2015, 2016) sampling glaciers for cryoconite and combustion derived material in the ablation zone of Matanuska, Spencer, Mendenhall and Gulkana glaciers

North Slope, AK (2014, 2015, 2016) sampling Arctic soils between Fairbanks and Deadhorse

Expedition Fjord, NU, Canada (2010) sampling hypersaline springs, endoliths and sediments

Thompson, MB, Canada, NASA BOREAS (1993, 1994, 1995) collection of beaver pond water

AFFILIATIONS

American Geophysical Union (AGU)

Earth Science Women's Network (ESWN)

Geochemical Society