Scott Coffin, Ph.D.

Curriculum Vitae

EDUCATION

PhD, Environmental Toxicology, University of California, Riverside, Riverside, CA, 2018
Dissertation Title: "Plastic as a Vector for Pollutants in Estuarine and Marine Environments"

BS, Chemistry, Spanish Minor, Honors, University of Wyoming, Laramie, WY, 2013
National Student Exchange - University of Puerto Rico, Mayaguez, Fall 2013
National Student Exchange - University of Massachusetts, Amherst, Fall 2011
Grinnell College; Grinnell, IA, Fall 2009 - Spring 2010

WORK HISTORY

Professional Experience

- Research Scientist III (Chemical Sciences), State Water Resources Control Board, Sacramento, CA, 2019-Present
- Environmental Scientist (Range C), State Water Resources Control Board, Sacramento, CA, 2019
- Paid Intern, United States Senate, Senator Mike Enzi (WY), Washington, D.C., 2014
- International Outdoor Guide, Wilderness Adventures, Jackson, WY, 2013-2014

Academic Experience

- Graduate Student Researcher, University of California, Riverside, Riverside, CA 2014-2018
- Teacher's Assistant, Introduction to Environmental Science, University of California, Riverside, Riverside CA 2015-2016
- Academic Tutor, General Chemistry, University of Wyoming, Laramie, WY 2010-2011

Research Fellowships

- National Science Foundation Integrated Graduate Education and Research Traineeship Fellow, University of California, Riverside, Riverside CA 2017-2018
- Chancellor's Distinguished Fellow, University of California, Riverside, Riverside CA 2014-2015
- National Science Foundation Established Program to Stimulate Competitive Research Grant Recipient, University of Wyoming, Laramie, WY 2012-2013

HONORS AND AWARDS

Best Mission Concept. NASA Covid19 Space Apps Challenge, 2020
Global hackathon sanctioned by NASA to develop innovative solutions to global issues related to the Covid-19 pandemic using space data, science and technology. "Shelter in Space" project awarded Best Mission Concept out of 1,422 project submissions by a special committee.

First Place: "Water's Impact on People"; Audience Choice Awards. American Chemical Society Environmental Film competition. San Diego, California, 2019. Documentary: "Getting to Know H2O." https://gluckprogram.ucr.edu/glucktv-steam-channel

Fellow; National Science Foundation Integrated Graduate Education and Research Traineeship.2018.

Best Contribution; Microplastics 2018, Ascona, Switzerland, November 2018
Nominations for this honor are made by a special committee. The Award is given to the best contribution to the field at the Microplastics 2018 conference.

Dean's list, University of Wyoming, Laramie, WY 2013
This Award is made to undergraduate students who have a grade point average of 3.4 or greater.

Eagle Scout Award, Boy Scouts of America, 2008
This is the highest achievement attainable in the Boy Scouts of America.

CONFERENCE PRESENTATIONS

Scott Coffin. "California's Path Towards Assessing Risks and Developing Regulations for Microplastics." *Southern California Regional Chapter of the Society of Environmental Toxicology and Chemistry 2021 Annual Meeting*. April, 2021. Virtual.

Scott Coffin. "California's Regulatory Investigation of Microplastics in Drinking Water." *Groundwater Resources Association of California*. March, 2021. Virtual.

Scott Coffin. "Implementation of Senate Bill 1422 - Microplastics in Drinking Water." *California Assembly Environmental Safety And Toxic Materials Committee Information Hearing: "Microplastics in our Water and Environment: Understanding a Growing Pollution Source."* February, 2021. Virtual.

Scott Coffin and Charles Wong. "Microplastics: Characterization, Identification, Monitoring, and Accreditation." *Forum on Environmental Accreditation*. January, 2021. Virtual.

Scott Coffin. "Science to Policy: California's Path Towards Microplastics Regulations: US *Coastal Research Group Human & Ecosystem Health Workshop*. January, 2021. Virtual.

Scott Coffin. "Microplastics in drinking water: California's path towards assessing risks and developing regulations." Society for Risk Analysis Annual Meeting. December, 2020. Virtual.

Scott Coffin. "California Water Board Perspective." *Human and Ecological Health Effects of Microplastics in Water: Characterizing Current Knowledge and Identifying Research Priorities, Southern California Coastal Water Research Project.* 2020. Virtual.

Scott Coffin. "California Division of Drinking Water Update on Microplastics." *American Water Works Association California-Nevada Section Annual Fall Conference.* 2020. Virtual.

Scott Coffin, Wesley Smith. "Human Exposure to Microplastics from Food and Water." *International Society of Exposure Science.* 2020. Virtual.

Scott Coffin. "Microplastics in Drinking Water: California' Regulatory Actions". *National Environmental Monitoring Conference*, 2020. Virtual.

Scott Coffin, Shahla Farahnak, Dan Kippen. "Regulatory Update on PFAS and Microplastics." *Los Angeles County Bar Association*, 2020. Los Angeles, CA.

Scott Coffin. "Microplastics Regulatory Efforts." *Forum on Environmental Accreditation,* 2020*.* Santa Ana, CA.

Scott Coffin, Shahla Farahnak. "California Water Board's Actions on Per-and Polyfluoroalkyl Substances (PFAS)." Groundwater Resource Association, 2019. Sacramento, CA.

Scott Coffin. "Plastic as a Vector for Pollutants in Estuarine and Marine Environments." *Impacts of Microplastics in the Urban Environment* (2019). Rutgers University, New Brunswick, NJ. *Expert Panelist.*

Scott Coffin. "Analytical and *in vitro* estimates of estrogenicity from simulated digests of plastic items." *Microplastics 2018*, Ascona, Switzerland. *Best Contribution Award.*

Scott Coffin. "Characterization of Estrogenic Compounds from Simulated Digests of Plastic Items." *Southern California Society of Toxicology and Chemistry* (2018). Los Angeles, CA. *Organizer.*

Scott Coffin. "Characterization of Estrogenic Compounds from Simulated Digests of Plastic Items." *Southern California Chapter of Society of Toxicology and Chemistry Conference*, April, 2018. Platform Presentation.

Scott Coffin. "Comparisons of biological activities of extracts from North Pacific Gyre Plastics with UV-treated and untreated materials using In Vitro and In Vivo Model." · *Pollutant Responses in Marine Organisms*, Matsuyama, Japan, June, 2017. Poster Presentation.

Scott Coffin. "Biological and chemical activities of extracts from plastics collected from the North Pacific Gyre and plastics treated with UV-light." *Southern California Society of Toxicology and Chemistry*, April 2017, Dana Point, CA. Platform Presentation.

Scott Coffin. "Use of solid phase microextraction and laboratory models to estimate risk of DDTs from consumption of fish from contaminated sediments in Palos Verdes California." *Superfund Research Program*, San Juan Puerto Rico, November, 2015. Poster Presentation

Scott Coffin. "Understanding the Ecological effects of North Pacific Gyre Plastics using *In Vitro* Models.**"** *Society of Environmental Toxicology and Chemistry*, Salt Lake City, November 1-5, 2015. Poster Presentation

PUBLICATIONS

Grønnestad, Randi, Daniel Schlenk, Åse Krøkje, Veerle L.B. Jaspers, Bjørn Munro Jenssen, **Scott Coffin**, Luísa Becker Bertotto, Marissa Giroux, Jan L. Lyche, and Augustine Arukwe. 2020. "Alteration of Neuro-Dopamine and Steroid Hormone Homeostasis in Wild Bank Voles in Relation to Tissue Concentrations of PFAS at a Nordic Skiing Area." *Science of*

The Total Environment, November, 143745. https://doi.org/10.1016/j.scitotenv.2020.143745.

Coffin, **Scott**, Holly Wyer, and J.C. Leapman. 2020. "Addressing the environmental and health impacts of microplastics requires open collaboration between diverse sectors." *PLOS Biology*. In Press.

Wang, Jie, **Scott Coffin**, Daniel Schlenk, and Jay Gan. 2020. "Accumulation of HOCs via Precontaminated Microplastics by Earthworm *Eisenia Fetida* in Soil." *Environmental Science & Technology*, August, acs.est.0c02922. https://doi.org/10.1021/acs.est.0c02922.

Wang, Jie, **Scott Coffin**, Chengliang Sun, Daniel Schlenk, and Jay Gan. 2019. "Negligible Effects of Microplastics on Animal Fitness and HOC Bioaccumulation in Earthworm Eisenia Fetida in Soil." *Environmental Pollution* 249 (June): 776–84. https://doi.org/10.1016/j.envpol.2019.03.102.

Coffin, **Scott**, Jason T. Magnuson, Sara M.F. Vliet, David C. Volz, and Daniel Schlenk. 2020. "Effects of Short-Term Exposure to Environmentally-Relevant Concentrations of Benzo(a)Pyrene-Sorbed Polystyrene to White Seabass (Atractoscion Nobilis)☆." *Environmental Pollution* 263 (August): 114617. https://doi.org/10.1016/j.envpol.2020.114617.

Wyer, Holly, Darrin Polhemus, Shelly Moore, Steve Weisberg, **Scott Coffin**, and Chelsea Rochman. 2020. "EXPRESS: Steps Scientists Can Take to Inform Aquatic Microplastics Management: A Perspective Informed by the California Experience." *Applied Spectroscopy*, July, 000370282094603. https://doi.org/10.1177/0003702820946033.

Li, Shuying, Yao Jiang, Qianqian Sun, **Scott Coffin**, Lili Chen, Kun Qiao, Wenjun Gui, and Guonian Zhu. "Tebuconazole induced oxidative stress related hepatotoxicity in adult and larval zebrafish (Danio rerio)." *Chemosphere* 241 (2020): 125129.

Coffin, **Scott**, Guo-Yong Huang, Ilkeun Lee, and Daniel Schlenk. 2019. "Fish and Seabird Gut Conditions Enhance Desorption of Estrogenic Chemicals from Commonly-Ingested Plastic Items." *Environmental Science & Technology* 53 (8): 4588–99. https://doi.org/10.1021/acs.est.8b07140.

Coffin, **Scott**, Ilkeun Lee, Jay Gan, and Daniel Schlenk. 2019. "Simulated Digestion of Polystyrene Foam Enhances Desorption of Diethylhexyl Phthalate (DEHP) and In Vitro Estrogenic Activity in a Size-Dependent Manner." *Environmental Pollution* 246 (March): 452–62. https://doi.org/10.1016/j.envpol.2018.12.011.

Wang, Jie, **Scott Coffin**, Chengliang Sun, Daniel Schlenk, and Jay Gan. 2019. "Negligible Effects of Microplastics on Animal Fitness and HOC Bioaccumulation in Earthworm Eisenia Fetida in Soil." *Environmental Pollution* 249 (June): 776–84. https://doi.org/10.1016/j.envpol.2019.03.102.

Li, Shuying, Kun Qiao, Yao Jiang, Qiong Wu, **Scott Coffin**, Wenjun Gui, and Guonian Zhu. 2019. "Disruptive Effects of Two Organotin Pesticides on the Thyroid Signaling Pathway

in Xenopus Laevis during Metamorphosis." *Science of The Total Environment* 697: 134140.

Li, Shuying, Qiong Wu, Qianqian Sun, **Scott Coffin**, Wenjun Gui, and Guonian Zhu. 2019. "Parental Exposure to Tebuconazole Causes Thyroid Endocrine Disruption in Zebrafish and Developmental Toxicity in Offspring." *Aquatic Toxicology* 211 (June): 116–23. https://doi.org/10.1016/j.aquatox.2019.04.002.

Coffin, **Scott**, Stacia Dudley, Allison Taylor, Douglas Wolf, Jie Wang, Ilkeun Lee, and Daniel Schlenk. 2018. "Comparisons of Analytical Chemistry and Biological Activities of Extracts from North Pacific Gyre Plastics with UV-Treated and Untreated Plastics Using in Vitro and in Vivo Models." *Environment International* 121 (December): 942–54. https://doi.org/10.1016/j.envint.2018.10.012.

Moreira, Lucas Buruaem, Graciel Diamante, Marissa Giroux, **Scott Coffin**, Elvis Genbo Xu, Denis Moledo de Souza Abessa, and Daniel Schlenk. 2018. "Impacts of Salinity and Temperature on the Thyroidogenic Effects of the Biocide Diuron in Menidia Beryllina." *Environmental Science & Technology* 52 (5): 3146–55.

Huang, Ying, Yiqing Liu, Minghao Kong, Elvis Genbo Xu, **Scott Coffin**, Daniel Schlenk, and Dionysios D Dionysiou. 2018. "Efficient Degradation of Cytotoxic Contaminants of Emerging Concern byUV/H_2O_2." *Environmental Science: Water Research & Technology* 4 (9): 1272–81.

Huang, Ying, Minghao Kong, Danielle Westerman, Elvis Genbo Xu, **Scott Coffin**, Kristin H. Cochran, Yiqing Liu, Susan D. Richardson, Daniel Schlenk, and Dionysios D. Dionysiou. 2018. "Effects of HCO3– on Degradation of Toxic Contaminants of Emerging Concern by UV/NO3–." *Environmental Science & Technology* 52 (21): 12697–707. https://doi.org/10.1021/acs.est.8b04383.

Huang, Ying, Minghao Kong, Danielle Westerman, Elvis Genbo Xu, **Scott Coffin**, Kristin H. Cochran, Yiqing Liu, Susan D. Richardson, Daniel Schlenk, and Dionysios D. Dionysiou. 2018. "Effects of HCO3– on Degradation of Toxic Contaminants of Emerging Concern by UV/NO3–." *Environmental Science & Technology* 52 (21): 12697–707. https://doi.org/10.1021/acs.est.8b04383.

Coffin, **Scott**, Jay Gan, and Daniel Schlenk. 2017. "Comparisons of Field and Laboratory Estimates of Risk of DDTs from Contaminated Sediments to Humans That Consume Fish in Palos Verdes, California, USA." *Science of the Total Environment* 601: 1139–46.

ARTICLES AND TECHNICAL REPORTS

Coffin, Scott. Staff Report for Proposed Definition of 'Microplastics in Drinking Water.' June 3, 2020. *State Water Resources Control Board*. https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/docs/stffrprt_jun3.pdf

Hayman, Nicholas and Coffin, Scott. Per- and polyfluoroalkyl substances (PFAS): Overview and Recent California Actions. Feature Article. *SoCal SETAC* News Volume 27, Number 2. 2020.

Martindale, Scott; Weisberg, Stephen; Coffin, Scott. "Status of Legislation and Regulatory Drivers for Microplastics in California." *HORIBA Readout*; No. 54, May 2020.

Coffin, Scott. "Plastic as a Vector for Pollutants in Estuarine and Marine Environments." *Doctoral dissertation, University of California, Riverside* (2018).

COMMUNITY SERVICE

Project Adviser. *University of California, Berkeley*. SDG Undergraduate Research Group. 2021.

Guest Lecturer. *University of California, Berkeley School of Public Health.* January, 2021.

Interviewee
"Endocrine Disruptors and Plastics." *The Zero Waste Countdown Podcast.* October 2020.

Guest Speaker
Scott Coffin, Susanne Brander, Anastasia Telesetsky. "Microplastics: Science and Policy." *University of Oregon School of Law.* September 2020

Guest Speaker
"Microplastics: Human and Ecological Impacts." *Rotary International, Cheyenne Chapter.* September 2020.

Guest Speaker
"Microplastics in Drinking Water: California's Investigations." *Microplastics Awareness Day. County of Santa Clara.* September 2020.

Guest Lecturer
"Microplastics in Drinking Water: California's Pioneering Regulatory Investigation." Biological Oceanography Seminar Series. *University of Rhode Island.* September 2020.

Guest Speaker
"Microplastics Hit Home: Human Exposure, Health Effects, and Inland Impacts." *Inland Ocean Coalition, Wyoming Chapter,* Virtual, August 2020.

Interviewee
"Plasticast Episode 3: Dr. Scott Coffin." *Pacific Northwest Consortium on Plastics.*

Guest Speaker
Sacramento Science Distilled, Sacramento, CA, January 2020.

Guest Lecturer
University of Redlands, Redlands, CA, November 2019.

Presenter
Green Jobs Shadowing. California Center for Civic Participation, Sacramento, CA, November 2019

Presenter
America Recycles Day at California EPA, Sacramento, CA, November, 2019

Educational Documentary Producer
*"*Getting to Know H2O"*,* Riverside, CA, 2018-2019.

Presenter
Earth Day Festival, University of California, Riverside, Riverside, CA, 2018.

Presenter
SoCAL SETAC/Earth Day Event, Whittier, CA, 2018.

Organizer and Publicity Manager
Earth Day Festival, University of California, Riverside, Riverside, CA, 2018.

Test Writer
Science Olympiad "Potions and Poisons". Ramona High School, Riverside, CA, 2018.

Organizer
California Public Interest Research Group, UCR chapter. 2014-2016

Presenter
"Environmental Health Day," Nature Center, Riverside, CA, 2016

Graduate Student Peer Mentor
University of California, Riverside, Riverside, CA, 2016-2018

Career Speaker
Amino Ralph Bunche Charter High, Los Angeles, CA, 2015

Presenter
"Environmental Health Day", Riverside, CA, 2014

Science Fair Judge
St. Catherine of Alexandria, Riverside, CA, 2016

Test Writer, Proctor
Science Olympiad "Green Generation", Ramona High School, Riverside, CA, 2016.

Presenter
Annual Science Night, Stork Elementary School, Rancho Cucamonga, CA, 2016

PROFESSIONAL MEMBERSHIPS AND APPOINTMENTS

Review Editor. Frontiers in Water and Human Health, May 2021 - current.

Vice Chair. CA-NV AWWA Research Committee. 2020-2021.

Writer. USCRP Human and Ecosystem Health in Coastal Systems report. 2021.

Grant Committee Member. Plastics Science for a Cleaner Future Selection Committee, Natural Sciences and Engineering Research Council of Canada. 2020-2021.

PAC Member. WRF 5088, Defining Exposures of Microplastics/Fibers (MPs) in Treated Waters and Wastewaters: Occurrence, Monitoring, and Management Strategies, Water Research Foundation. 2020-2021.

Member. Microplastics Grant Selection Committee, California State University Council on Ocean Affairs, Science & Technology (COAST). 2019-2020

Member. Microplastics Policy Advisory Committee; Ocean Science Trust. 2020.

Student Representative. Southern California Society of Toxicology and Chemistry. 2017-2019.

TRAININGS AND CERTIFICATES

ArcGIS Training, University of California, Davis, 2020

Yoga Instructor, 200-hour certification, Western Yoga College, 2018

SCUBA certification, Advanced Open Water, PADI, 2014

SPECIAL PROJECTS

Lead Developer. Toxicity of Microplastics Explorer Application (ToMEx).

Contract Manager. Microplastics in Drinking Water Method Development and Health Effects Workshop. Contractor: Southern California Coastal Water Research Project. State Water Resources Control Board.

NASA Covid19 Space Apps Challenge (2020). Virtual. Participant. *Shelter in Space.*

PFAS Datathon (2019). Sacramento, CA. *Organizer and facilitator.*

Southern California Society of Toxicology and Chemistry (2018). Los Angeles, CA. *Organizer.*

LANGUAGES

English: Native Language
Spanish: Fluent