

Ronald F. Bond
Water Quality Researcher
Field Coordinator

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Research Interest

Microbial Water Quality

1993-2003-University of Southern Mississippi (Shellfish Sanitation Laboratory)

Prior to beginning my career at the University of California, Davis-Western Institute for Food Safety and Security, I spent 10 years at the University of Southern Mississippi's Gulf Coast Research Laboratory where my primary duties were to manage field and laboratory logistics for the Mississippi Beach Monitoring Program (1996-2003) and the Mississippi Shellfish Sanitation Program administered by the Mississippi Department of Environmental Quality's and the Mississippi Department of Marine Resources, respectively. The Shellfish Sanitation Laboratory was the only certified USFDA shellfish water analysis laboratory. We also conducted microbial analysis for drinking and ambient waters for the U.S. Park Service and Mississippi Department of Environmental Quality.

2004- Present-University of California, Davis (Atwill Water and Foodborne Disease Laboratory)

My current research interest is measuring the variability of microbial water quality in agricultural systems. This research focuses on how physical/chemical processes within watersheds and agricultural water infrastructure create ecologically important conditions favorable to proliferation of disease causing bacteria, this includes monitoring and sampling of water, directing data collection of geographic, hydrologic and meteorological conditions.

Journal Articles

Chase, J. A., E. R. Atwill, M. L. Partyka, **R. F. Bond**, and D. Oryang. 2017. Inactivation of *E. coli* O157:H7 in a fecal slurry matrix when inoculated onto romaine lettuce grown in the Salinas Valley, CA. *J Food Prot*, *in press*.

Partyka, M. L., **R. F. Bond**, J. A. Chase, and E. R. Atwill. 2017. [Monitoring bacterial indicators of water quality in a tidally influenced delta: A Sisyphean pursuit](https://doi.org/10.1016/j.scitotenv.2016.10.179). *Science of The Total Environment* 578: 346-356. doi:<http://dx.doi.org/10.1016/j.scitotenv.2016.10.179>.

Partyka, M.L., **R.F. Bond**, J.A. Chase, L. Kiger and E.R. Atwill. 2016. [Multistate Evaluation of Microbial Water and Sediment Quality from Agricultural Recovery Basins](https://doi.org/10.2134/jeq2015.06.0323). *Journal of Environmental Quality* 45: p. 657-665. doi:10.2134/jeq2015.06.0323.

Atwill, E. R., J. A. Chase, D. Oryang, **R. F. Bond**, S. T. Koike, M. D. Cahn, M. Anderson, A. Mokhtari, and S. Dennis. [Transfer of Escherichia coli O157:H7 from Simulated Wildlife Scat onto Romaine Lettuce during Foliar Irrigation](#). Journal of Food Protection 78: 240-247. doi:10.4315/0362-028X.JFP-14-277.

Li, X., E. R. Atwill, E. Antaki, O. Applegate, B. Bergamaschi, **R. F. Bond**, J. Chase, K. M. Ransom, W. Samuels, N. Watanabe, and T. Harter. 2015. [Fecal Indicator and Pathogenic Bacteria and Their Antibiotic Resistance in Alluvial Groundwater of an Irrigated Agricultural Region with Dairies](#). Journal of Environmental Quality 44:1435-1447.

Partyka, M.L., **R.F. Bond**, J. Farrar, A. Falco, B. Cassens, A. Cruse, E.R. Atwill 2014. Quantifying the Sensitivity of Scent Detection Dogs to Identify Fecal Contamination on Raw Produce. Journal of Food Protection 77: 6-14. doi:10.4315/0362-028X.JFP-13-249.

Lewis, D.J., E.R. Atwill, M.d.G.C. Pereira and **R.F. Bond**. 2012. [Spatial and Temporal Dynamics of Fecal coliform and Escherichia coli Associated with Suspended Solids and Water within Five Northern California Estuaries](#). Journal of Environmental Quality 42: 229-238. doi:10.2134/jeq2011.0479.

Reports and Media

Bond, R. F., M. L. Partyka, and J. A. Chase. 2016. [Water Sampling 101](#). Good Fruit Grower Magazine. July 13th 2016. Article by Shannon Dininny-Good Fruit Grower.

Partyka, M.L., **R. F. Bond**, and I. Hanrahan. 2016. [Water Sampling Done Simply](#). Washington State University Tree Fruit Extension. Washington State University/Washington State Tree Fruit Research Commission/Western Center for Food Safety.

Partyka, M. L., **R. F. Bond**, and E. R. Atwill. 2016. [Grazing management practice implementation and assessment in one or more targeted watersheds in the Lahontan Region, or "Rivers and Ranches"](#) Final Report prepared for the Lahontan Regional Water Quality Control Board, Agreement Number (BSTP-UCD-11-01).

Li, X., E. R. Atwill and **R. F. Bond**. 2015. [Developing and validating methods for accurately measuring the shedding of Escherichia coli O157:H7 by rangeland cattle and assessing water quality](#). Final Report: Russell L. Rustici Rangeland and Cattle Research Endowment, CAES, UC Davis. March 31st.

Bond, R. F., M. L. Partyka, and E. R. Atwill. 2010. [Source identification, optimized monitoring, and local outreach for reducing animal agricultural inputs of pathogens into the Sacramento-San Joaquin Delta Estuary](#). State Water Resources Control Board, Sacramento-San Joaquin Delta. http://www.vetmed.ucdavis.edu/atwill/local-assets/pdfs/DeltaFinalReport_2.9.4_04-122-555-0.pdf

Books

Atwill, E. R., M. L. Partyka, **R. F. Bond**, X. Li, C. Xiao, B. Karle, and L. Kiger. 2012. An introduction to waterborne pathogens in agricultural watersheds. 2nd edition. Nutrient Management Technical Note No. 9. National Resource Conservation Service, United States Department of Agriculture. https://efotg.sc.egov.usda.gov/references/public/NJ/NMTN_9_Waterborne_Pathogens.pdf

Conference Presentations

Partyka, M.L. and **R. F. Bond**. 2016. Agricultural Water Testing under FSMA-Where to Start: Washington State Tree Fruit Association Annual Meeting, Wenatchee, WA. December 5th-8th.

Partyka, M.L. and **R. F. Bond**. 2016. Agricultural Water Testing under FSMA: Getting There from Here. Washington State University Extension 36th Annual Food Safety and Sanitation, Portland, OR. November 8th-9th.

E.R. Atwill, M. L. Partyka and **R. F. Bond**. 2015. Challenges and Opportunities for Implementing FSMA's Irrigation Water Quality Regulations Washington State Water Resources Association 2015 Annual Conference and Membership Meeting. Spokane, Washington. December 4th.

Partyka, M. L., **R. F. Bond**, J. A. Chase, and E. R. Atwill. [Clamming for bacteria: impacts of human disturbance on sediment microbial quality in two California bays](#). 23rd Biennial Coastal and Estuarine Research Federation Conference. Portland, OR. November 8th-12th.

Bond, R. F., M. L. Partyka, and E. R. Atwill. 2010. [The occurrence of indicator bacteria and waterborne zoonotic pathogens in the California Delta](#). 6th Biennial Bay-Delta Science Conference, Sacramento, CA. September 27th-29th.

Posters Presentations

M.L Partyka, **Bond, R.F.**, and E.R. Atwill. 2012. [Salmonella in the Delta: Implications for Human Health, Ecosystem Services, and Resource Management](#). 2012 Bay-Delta Science Conference. Sacramento, CA., October 16-18th.

R.F. Bond, M. L. Partyka, P. Aminabadi, C. M. Rock, K. D. Nolte, E. R. Atwill and M. Jay-Russell. 2014. [Evaluation of indicator *Escherichia coli*, fecal coliforms, *E. coli* O157 and salmonella spp. in surface waters of the southwest desert canal network](#). Journal of Food Protection Abstracts. Supplement A, Vol 77. IAFP Annual Meeting, Indianapolis, IN., August 3-6th. ISSN: 0362-028X.

Lewis, D.J., E.R. Atwill, M.D.G. Pereira, **R.F. Bond**, M. Huerta. 2008. Estuary sediment and suspended solids bacteria: implications for microbial pollution sources and monitoring. 2008 USDA-CSREES National Water Conference. Sparks, NV. February 3-7.

Workshops

May 17th-19th, 2016, Washington State Tree Fruit Association, FSMA Water Sampling Workshops, Wenatchee, Yakima, and Salish, WA.

February 1st-2nd, 2016, Western Institute for Food Safety and Security, 2nd Annual NAU-UC Davis Graduate Education Conference on One Health. Monterey, CA.

August 2013, U.S. Food and Drug Administration, Emergency Response Course 321. Visalia, CA.

June 2013, U.S. Food and Drug Administration, Emergency Response Course 321. Monterey, CA.

March 2013, U.S. Food and Drug Administration, Emergency Response Course 321. Tampa, FL.

January 2013, U.S. Food and Drug Administration, Emergency Response Course 321. Homestead, FL.