

Dr. Jeremy L. Conkle

Texas A&M University-Corpus Christi

Science & Engineering, Physical & Environmental Sciences

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Education

PhD, Louisiana State University, 2010.

MS, The College of Charleston, 2006.

BS, Longwood University, 2003.

BS, Longwood University, 2003.

Licensures and Certifications

Certificate of Professional Development in Best Practices for Online Course Development, Office of Distance Education and Learning Technology. (2015 - Present).

Professional Employment

Research Fellow, Louisiana State University Coastal Sustainability Studio. (February 2014 - August 2014).

Lecturer, Louisiana State University. (January 2014 - May 2014).

Postdoctoral Scholar, University of California Riverside. (June 2010 - December 2013).

Examined fate and transport processes of organic contaminants in soils, sediments and water. These contaminants included contaminants of emerging concern, legacy compounds such as DDT, PCBs and chlordane as well as current-use pesticides and methyl bromide alternatives.

Field Chemist, Earth Tech. (2002 - 2006).

Emergency response to biological and chemical contamination. Characterization of unknown chemicals and validation of lab analysis.

Professional Memberships

Association for the Science of Limnology & Oceanography
Society of Environmental Toxicology & Chemistry
Soil Science Society of America
American Chemical Society
Society for Wetland Scientists

TEACHING

Teaching Experience

BIOL 5940, PROJECT RESEARCH
CHEM 4443, ENVIRONMENTAL CHEMISTRY
CHEM 4490, WETLANDS AND WATER QUALITY
CHEM 5417, ADV ENVIRONMENTAL CHEMISTRY

CHEM 5490, Wetlands & Water Quality
CMSS 5392, THESIS I: THESIS PROPOSAL
CMSS 5393, THESIS II: THESIS RESEARCH
CMSS 6596, Concepts of Separation Sciences
CMSS 6996, RESEARCH
ESCI 4490, WETLANDS AND WATER QUALITY
ESCI 5392, THESIS I: THESIS PROPOSAL
ESCI 5393, THESIS II: THESIS RESEARCH
ESCI 5490, WETLANDS AND WATER QUALITY
ESCI 5596, DIS: Critical review of sampling and analytical methods of microplastics in sediment
ESCI 5940, PROJECT RESEARCH

Non-Credit Instruction

Moving on from Academia. (March 2016).
(March 2015).
(March 2015).

SCHOLARLY AND CREATIVE ACTIVITIES

Publications

Refereed

Book Chapters

Conkle, J. L., White, J. R., Metcalfe, C. D. (2013). Methods for determining emerging contaminants in wetland matrices. *Methods in Biogeochemistry of Wetlands*. Madison, WI: Soil Science Society of America.

White, J. R., Hendrickson, J., Conkle, J. L. (2008). Effect of changing land use on water quality in the coastal zone. In Ali Fares, Aly I. El-Kadi (Ed.), *Coastal Watershed Management*. Boston, MA: WIT Press.

Journal Articles

Wu, X., Dodgen, L. K., Conkle, J. L., Gan, J. (2015). Plant uptake of pharmaceutical and personal care products from recycled water and biosolids: A review. *Science of the Total Environment*, 536, 11. <http://www.sciencedirect.com/science/article/pii/S0048969715304708>

Jiang, W., Luo, Y., Conkle, J. L., Li, J., Gan, J. (2015). Pesticides on residential outdoor surfaces: Runoff model prediction and aquatic toxicology. *Pest Management Science*.

Conkle, J. L., Cabrera, A., Thomas, J., Wang, D., Gan, J. (2015). Effects of CO₂ dissolution on phase distribution and degradation of dimethyl disulfide (DMDS) in soils under grape production. *Pest Management Science*.

Wu, X., Conkle, J. L., Ernst, F., Gan, J. (2014). Treated Wastewater Irrigation: Uptake of Pharmaceutical and Personal Care Products by Common Vegetables under Field Conditions. *Environmental Science & Technology*, 48(19), 7.

Young, M. H., Green, R. L., Conkle, J. L., McCullough, M., Devitt, D. A., Wright, L., Vanderford, B., Snyder, S. A. (2014). Field-scale monitoring of pharmaceutical compounds

applied to active golf courses by recycled water. *Journal of Environmental Quality*. *Journal of Environmental Quality*, 43(2), 658-670.

Theriot, J., Conkle, J. L., Pezeshki, R., DeLaune, R. D., White, J. R. (2013). Will hydrologic restoration of Mississippi River riparian wetlands improve their critical biogeochemical functions? *Ecological Engineering*(60), 192-198.

Wu, X., Ernst, F., Conkle, J. L., Gan, J. (2013). Comparative uptake and translocation of pharmaceuticals and personal care products (PPCPs) by common vegetables. *Environment International*(60), 15-22.

Anderson, M. A., Conkle, J. L., Pacheco, P., Gan, J. (2013). Use of hydroacoustic measurements to characterize bottom sediments and guide sampling and remediation of organic contaminants in lake sediments. *Science of the Total Environment*(458-460), 117-124.

Wu, X., Conkle, J. L., Gan, J. (2012). Multi-residue determination of pharmaceutical and personal care products in vegetables. *Journal of Chromatography A*(1254), 78-86.

Wang, W., Delgado-Moreno, L., Conkle, J. L., Anderson, M., Amrhein, C., Ye, Q., Gan, J. (2012). Characterization of sediment contamination patterns by hydrophobic pesticides to preserve ecosystem functions of drainage lakes. *Journal of Soils and Sediments*, 12(9), 1407-1418.

Conkle, J. L., Gan, J., Anderson, M. A. (2012). Degradation and sorption of commonly detected PPCPs in wetland sediments under aerobic and anaerobic conditions. *Journal of Soils and Sediments*, 12(7), 1164-1173.

Conkle, J. L., White, J. R. (2012). An initial screening of antibiotic effects on microbial respiration in wetland soils. *Journal of Environmental Science & Health, Part A*, 47(10), 1381-1390.

Conkle, J. L., Lattao, C., White, J. R., Cook, R. L. (2010). Competitive sorption and desorption behavior for three fluoroquinolone antibiotics in a wastewater treatment wetland soil. *Chemosphere*(80), 1353-1359.

Conkle, J. L., Lattao, C. V., White, J. R., Cook, R. L. (2009). Pharmaceutical analysis for environmental samples: Individual and simultaneous determination of ciprofloxacin, ofloxacin and norfloxacin using an HPLC with fluorescence and UV detection with a wetland soil matrix. *Analytical Letters*, 42(18), 2937-2950.

Conkle, J. L., White, J. R., Metcalfe, C. D. (2008). Reduction of pharmaceutically active compounds by a lagoon wetland wastewater treatment system in Southeast Louisiana. *Chemosphere*, 73(11), 1741-1748.

Akers, S. M., Conkle, J. L., Thomas, S. N., Rider, K. B. (2006). Determination of the heat of combustion of biodiesel using bomb calorimetry - A multidisciplinary undergraduate chemistry experiment. *Journal of Chemical Education*, 83(2), 260-262.

Non-Refereed

Technical Reports

Conkle, J. L., Delgado-Moreno, L., Anderson, M., Gan, J. (2012). *Survey of organochlorine pesticides and PCBs in McGrath Lake*. Riverside, CA: California State Water Resources Control Board.

Huang, W., Conkle, J. L., Sickman, J. O., Gan, J. (2012). *Water quality assessment of the Beaumont Management Zone: Identifying sources of groundwater contamination using chemical and isotopic tracers*. Riverside, CA: California State Water Resources Control Board.

Presentations

Mullins, M. (Author & Presenter), Conkle, J. L. (Author), Brooks, B. (Author), Scarpa, J., Balboa, B. (Author), "Engaging High School Students in Future Water Quality Challenges," Conference for the Advancement of Science Teaching 2017, Science Teachers Association Of Texas, Houston, TX. (November 10, 2017).

Conkle, J. L., "Most microbeads in a preliminary survey of personal care products are smaller than the typical 330 μ m trawl mesh size used in surface water surveys," 2016 Ocean Sciences Meeting, Association for the Science of Limnology & Oceanography, New Orleans, LA. (February 2016).

Conkle, J. L., "Emerging Contaminants," USACE ERDC-EL, Vicksburg, M.S. (January 2016).

Conkle, J. L. (Author), Scarpa, J. (Author & Presenter), Brooks, B. W. (Author), Balboa, W. (Author), "Potential Water Quality Challenges for Aquaculture," Texas Aquaculture Association 46th Annual Conference & Trade Show, Texas Aquaculture Association, Fredericksburg, TX. (January 21, 2016).

Conkle, J. L., "Plastic: Reshaping our Lives and Environment," Rockport Aquarium Lecture Series, Rockport Aquarium, Rockport, Texas. (December 2015).

Conkle, J. L., "Plastic: Reshaping our Lives and Environment," Lecture Series, Department of Engineering, TAMUK, Kingsville, TX. (November 2015).

Conkle, J. L., "Plastics Debris in the Aquatic Environment," Annual Fundraiser, Coastal Bend Sierra Club, Corpus Christ, TX. (October 22, 2015).

Conkle, J. L., "How do you take your vegetables; With or without drugs?," Regional Annual meeting, South Central SETAC, Lafayette, LA. (May 2015).

Conkle, J. L., "Plastic: Reshaping our Lives and Environment," Coastal Issues Forum, Coastal Bend Bays Foundation, Del Mar Center for Economic Development. (May 11, 2015).

Conkle, J. L., "Adventures in academia: Things you should know before you get started," Meeting, Beta Beta Beta @ TAMUCC, EN 101. (April 22, 2015).

Conkle, J. L. (Author & Presenter), Wu, X. (Author), Ernst, F. (Author), Gan, J. (Author), "Drug accumulation in vegetables from irrigation with recycled wastewater," University of Texas Brownsville, Edinburg, TX. (October 23, 2014).

Conkle, J. L. (Author & Presenter), Wu, X. (Author), Ernst, F. (Author), Gan, J. (Author), "Drug accumulation in vegetables from irrigation with recycled wastewater," University of Texas Pan American, Edinburg, TX. (October 23, 2014).

Conkle, J. L., "How do you like your veggies; with or without drugs?," Harte Research Institute Weekly Seminar, Harte Research Institute, Corpus Christ, TX. (September 19, 2014).

Conkle, J. L. (Author & Presenter), Wu, X. (Author), Ernst, F. (Author), Gan, J. (Author), "Treated wastewater irrigation and subsequent crop uptake of pharmaceuticals and personal care products," Weekly Seminar, LSU School of the Coast & Environment, Baton Rouge, LA. (March 2014).

Conkle, J. L., "Adventures in Academia: Things you should know but have probably never been told," Northern Gulf of Mexico Graduate Student Symposium (GSS), LSU, DISL, USM, Cocodrie, LA. (February 2014).

Conkle, J. L., "Water quality in wetlands and agricultural systems," Department of Physical & Environmental Sciences, Corpus Christ, TX. (February 2014).

Conkle, J. L., "Water quality in wetlands and agricultural systems: Implications for public health," Tulane University School of Public Health and Tropical Medicine, New Orleans, LA. (September 2013).

Conkle, J. L., "Emerging contaminants in the Environment," Villanova University Department of Geography, Villanova, PA. (July 2013).

Conkle, J. L., "Wetlands and water quality," Savannah State University Department of Marine Sciences, Savannah, GA. (May 2013).

Conkle, J. L., "Career Development," University of California Postdoc Union, Los Angeles, CA. (April 2013).

Conkle, J. L., "Choosing a path for your postdoc," University of California Graduate Student Resource Center, Riverside, CA. (January 2013).

Conkle, J. L., "Emerging contaminants in Wetlands," Skidaway Institute of Oceanography, Savannah, GA. (January 2013).

Conkle, J. L., "Assessment of total PPCP pollution in water samples using a new contamination index," American Geophysical Union Annual Meeting, American Geophysical Union, San Francisco, CA. (December 2012).

Conkle, J. L., "A novel approach to describe the total PPCP contamination in aqueous environments," 33rd North American Annual Meeting, Society of Environmental Toxicology & Chemistry (SETAC), Long Beach, CA. (November 2012).

Conkle, J. L., "Tips on resume and C.V. writing," 33rd North American Annual Meeting, Society of Environmental Toxicology & Chemistry (SETAC) North American Student Advisory Council, Long Beach, CA. (November 2012).

Conkle, J. L., "Degradation and adsorption of carbonated dimethyl disulfide in soils with grape production in California," Methyl Bromide Alternatives and Emissions Reductions Annual Meeting, Orlando, FL. (November 2012).

Conkle, J. L., "Environmental fate of chemicals from the past, present and future," BASF, Raleigh, NC. (October 2012).

Conkle, J. L., "40 years later: A reconnaissance of DDT in sediments of two southern California lakes," 244th National Meeting and Exposition, American Chemical Society, Philadelphia, PA. (August 2012).

Conkle, J. L., "A survey of groundwater quality in the Beaumont Groundwater Management Zone," Monthly Meeting, Inland Empire Geological Society, Riverside, CA. (July 2012).

Conkle, J. L., "Pharmaceuticals and personal care products in wetlands, wastewater irrigation and groundwater," Working Group W-2082, U.S. Department of Agriculture, Weslaco, TX. (January 2012).

Conkle, J. L., "Removal of pharmaceutically active compounds by a lagoon-wetland wastewater treatment system in southeast Louisiana," 2007 International Annual Meeting, Soil Science, Crop Science and Agronomy Science Societies of America, New Orleans, LA. (November 2011).

Conkle, J. L., "Degradation and sorption of PPCPs in oxic and anoxic wetland soils," 2011 International Annual Meeting, Soil Science, Crop Science and Agronomy Science Societies of America, San Antonio, TX. (October 2011).

Conkle, J. L., Huang, W. (Author & Presenter), Sickman, J. (Author & Presenter), Gan, J. (Author), "Septic waste contamination in the Beaumont groundwater basin," Community Meeting, Beaumont Cherry Valley Water Agency, Beaumont, CA. (April 2011).

Conkle, J. L., "Distribution of organochlorine and current-use pesticides in sediments of the Salton Sea," Southern California Regional Chapter Annual Meeting, Society of Environmental Toxicology & Chemistry (SETAC), Huntington Beach, CA. (April 2011).

Conkle, J. L., "Wetland removal of PPCPs in treated wastewater," Water Reuse Workshop, University of Arizona, Tucson, AZ. (January 2011).

Conkle, J. L., "Antibiotic effects on microbial respiration in two wetland soils," 2010 International Annual Meeting, Soil Science, Crop Science and Agronomy Science Societies of America, Long Beach, CA. (November 2010).

Conkle, J. L. (Author & Presenter), Huang, W. (Author & Presenter), Sickman, J. (Author & Presenter), Gan, J. (Author), "Detection of septic system waste in the groundwater of Beaumont California using chemical and isotopic tracers," Community Meeting, San Geronio Pass Water Agency, Beaumont, CA. (November 2010).

Conkle, J. L., "Pharmaceuticals in environmental systems," Longwood University Department of Chemistry, Farmville, VA. (October 2010).

Conkle, J. L., "Pharmaceuticals and personal care products in terrestrial and aquatic environments," University of California Environmental Toxicology Seminar, University of California Riverside Environmental Toxicology Program, Riverside, CA. (October 2010).

Conkle, J. L., "Effects of antibiotics on soil microbe mediated CO₂, CH₄ and N₂ evolution in wetland peat soil," 10th International Congress on Ecology (INTECOL 10), Brisbane, QLD, AU. (August 2009).

Conkle, J. L., "Sorption and desorption of three fluoroquinolone antibiotics to a wetland soil," 2008 International Meeting, Soil Science, Crop Science and Agronomy Science Societies of America, Houston, TX. (October 2008).

Conkle, J. L., "Sorption and desorption of three fluoroquinolone antibiotics to a wetland soil," 2008 Annual Graduate Student Symposium, LSU Department of Oceanography & Coastal Sciences, Baton Rouge, LA. (April 2008).

Conkle, J. L., "Analysis and sorption of pharmaceutical compounds to organic-rich wetland soil," 235th National Meeting, American Chemical Society, New Orleans, LA. (April 2008).

Conkle, J. L., "Removal of pharmaceutically active compounds by a lagoon-wetland wastewater treatment system in Southeast Louisiana," Northern Gulf of Mexico Graduate Student Symposium (GSS), LSU, DISL, USM, Cocodrie, LA. (February 2008).

Conkle, J. L., "Removal of pharmaceutically active compounds by a lagoon-wetland wastewater treatment system in southeast Louisiana," SWS Seminar Series, Louisiana State University Student Chapter of the Society for Wetland Scientists (SWS), Baton Rouge, LA. (January 2008).

Conkle, J. L., "Removal of pharmaceutically active compounds by a lagoon-wetland wastewater treatment system in southeast Louisiana," 23rd Eastern Canadian Symposium on Water Quality Research, Canadian Association on Water Quality, Sherbrooke, Quebec, Canada. (October 2007).

Conkle, J. L., "Removal of anthropogenic nitrogen by marshes in a Mississippi River freshwater diversion project," 10th International Wetlands Biogeochemistry Symposium, Smithsonian Environmental Research Center, Annapolis, MD. (April 2007).

Conkle, J. L., "Biodiesel as an alternate fuel source," Alliance for Planets Earth's Alternative Energy Symposium, The College of Charleston's Alliance for Planet Earth, Charleston, SC. (April 2005).

Contracts, Grants and Sponsored Research

Contract

Conkle, Jeremy L., "Environmental Assessment of Vegetation Management and Control Practices," Sponsored by US Army Corp of Engineers, Federal, \$123,757.00. (November 2015 - October 2016).

Grant

Scarpa, John (Co-Principal), Conkle, Jeremy L. (Principal), Brooks, Bryan W. (Co-Principal), Balboa, William (Co-Principal), "Future Water Quality Challenges to Aquaculture and Influence on Product Safety," Sponsored by USDA-NIFA Water Challenge, Federal, \$450,000.00. (March 1, 2016 - November 30, 2018).

Turner, Jeffrey W (Principal), Zimba, Paul (Supporting), Conkle, Jeremy (Supporting), "Assessing the fate of plastic debris in the marine environment," Sponsored by Texas General Land Office Coastal Management Program, State, \$65,000.00. (October 2016 - March 2018).

Conkle, Jeremy L. (Principal), Scarpa, John (Co-Principal), Brooks, Bryan (Co-Principal), "Future Water Quality Challenges to Aquaculture and Influences on Product Safety," Sponsored by USDA NIFA, Federal, \$450,000.00. (March 15, 2016 - March 2018).

Abdulla, Hussain A. (Principal), Zimba, Paul V. (Co-Principal), Conkle, Jeremy L. (Co-Principal), "Acquisition of hybrid mass spectrometer for geochemistry and environmental studies," Sponsored by NSF, Federal, \$681,416.00. (September 15, 2016 - August 31, 2017).

Conkle, Jeremy L. (Principal), Waddell, Elijah (Co-Principal), "Microplastics as Vectors for Pollutants in the Blue Crab, *Callinectes sapidus*," Sponsored by PADI Foundation, Private, \$5,640.00. (September 1, 2016 - August 31, 2017).

Conkle, Jeremy L. (Principal), "Pesticide loading and sediment accumulation in Baffin Bay: Addressing an important stakeholder concern regarding the bay's health," Sponsored by Texas General Land Office Coastal Management Program Cycle 20, State, \$77,841.00. (October 1, 2015 - March 31, 2017).

Scholarly and Creative Awards and Honors

Dr. Theodore "Ted" Ford Scholarship, LSU Department of Oceanography & Coastal Sciences. (2009).

Joseph Lipsey, Sr. Memorial Scholarship, LSU Department of Oceanography & Coastal Sciences. (2009).

2nd Place Graduate Student Oral Presentation Division S-10, Joint Meeting of the GSA, SSSA, ASA, CSSA, GCAGS and HGS. (2008).

Philip H. Jones award for best graduate student presentation, 23rd Eastern Canadian Symposium on Water Quality Research. (2007).

Beta Beta Beta National Biological Honor Society, Longwood University Department of Biology. (2001).

SERVICE

Department

Committee Member, CMSS Recruitment Committee. (October 2014 - Present).

College

Committee Member, SACNAS. (August 2015 - Present).

Committee Member, S&E Distinguished Lecturers Selection Committee. (October 2014 - Present).

Professional

Reviewer, Journal Article, Journal of Hazardous Materials. (January 2016 - Present).

Reviewer, Journal Article, Environmental Pollution. (February 2016).

Reviewer, Journal Article, Environment International. (December 2015).

Committee Chair, Soil Science Society of America - Early Career Members Committee. (January 2015 - December 2015).

Committee Member, Soil Science Society of America - Early Career Members Committee. (January 2013 - December 2015).

Reviewer, Journal Article, Water Research. (June 2015).

Reviewer, Journal Article, Environmental Science & Technology. (March 2015).

Reviewer, Journal Article, Marine Pollution Bulletin. (August 2014 - September 2014).

Public

Science Fair Judge, Flour Bluff Intermediate Science Fair. (December 2014).