Laura A. Boczek, Microbiologist in EPA's National Risk Management Research Laboratory

Water Systems Division
Mailing Address

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Areas of Expertise:

- Drinking water disinfection studies of microorganisms using various chemical and physical disinfectants
- Drinking water premise plumbing pathogens, with an emphasis on Legionella, the ecology of these organisms, and understanding how they persist and what steps can be taken to mitigate the risk of infection to insure public health protection
- The occurrence and evolution of antibiotic resistance in microorganisms in environmental matrixes
- Biosolids research with respect to public health and disinfection, treatment efficacy and sustainability

Select Publications:

Ryu, H., K.A. Schrantz, N.E. Brinkman, and L.A. **Boczek**. 2018. Applicability of integrated cell culture reverse transcriptase quantitative PCR (ICC-RTqPCR) for the simultaneous detection of the four human enteric enterovirus species in disinfection studies. Journal of Virological Methods 258: 35-40.

Beck, S.E., H. Ryu, L.A. **Boczek**, J.L. Cashdollar, K.M. Jeanis, J.S. Rosenblum, O.R. Lawal, K.G. Linden. 2017. Evaluating UV-C LED disinfection performance and investigating potential dual-wavelength synergy. Water Research 109:207-216.

Boczek, L.A., E.R. Rhodes, J.L. Cashdollar, J.L. Ryu, J. Popovici, J.M. Hoelle, M. Sivaganesan, S.L. Hayes, M.R. Rodgers, and H. Ryu. 2016. Applicabilty of UV resistant Bacillus pumilus endospores as a human adenovirus surrogate for evaluating the effectiveness of virus inactivation in low-pressure UV treatment systems. Journal of Microbiological Methods 122:43-49.

Rhodes, E.R, L.A.**Boczek**, M.W. Ware, M. Mckay, J.M. Hoelle, M.Schoen, and E.N. Villegas. 2015. Determining pathogen and indicator levels in class B municipal organic residuals used for land application. Journal of Environmental Quality 44(1):265-74.

Weigand, M. R., H. Ryu, L. **Boczek**, K. T. Konstantinidis, and J. W. Santo Domingo. Draft Genome Sequence of Catellicoccus marimammalium, a Novel Species Commonly Found in Gull Feces. Genome Announcements. American Society for Microbiology, Washington, DC, 1(1):e00019-12, (2013).

Keya, S., J.L. Sinclair, L.A. **Boczek**, and E.W. Rice. 2011. Development of a Sensitive Detection Method for Stressed E. coli O157:H7 in Source and Finished Drinking Water by Culture-qPCR. Environmental Science and Technology 45(6):2250-2256**.**

View more research publications by Laura Boczek

Education:

- M.S., University of Cincinnati, Cincinnati, OH; Biological Science, 2005.
- B.S., Northern Kentucky University, Highland Heights, KY; Biological Science, 1998.

Professional Experience:

Workgroup and Project Leads

- Chairperson for EPA's Pathogen Equivalency Committee
- Disinfection Studies of CCL organisms; utilizing classical microbiological techniques coupled with molecular biology procedures to answer research questions.

Committees, Memberships, and Affiliations

- AWWA – Standard Methods Committee
- Member, Water Environment Federation – Residuals & Biosolids and Disinfection & Public Health Subcommittee
- Member, American Water Works Association

Selected Appointments/Honors/Major Awards:

- ORD Honor Award - 2017
- Level III Scientific and Technological Achievement Award - 2008