**Caroline Tebes Stevens, Environmental Engineer, in EPA's National Exposure Research Laboratory**

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**Area of Expertise:** My research focus is the development and application of models and model parameterization tools to examine how partitioning and chemical/biological transformation processes affect chemical fate in the environment. My current research efforts are focused on the development of the Chemical Transformation Simulator, which is a web-based screening tool for predicting transformation pathways and physicochemical properties of organic chemicals. Previously, I have worked on research projects addressing a diverse range of topics, including fate and transport of nutrients in an agricultural watershed, metabolism of xenobiotics in microsomes, and column studies on the fate of organic chemicals and radionuclides in porous media.

**Select Publications:**

Endale, D.M., D.S. Fisher, L.B. Owens, M.B. Jenkins, H.H. Schomberg, C.L. Tebes-Stevens and J.V. Bonta, Runoff Water Quality during Drought in a Zero-Order Georgia Piedmont Pasture: Nitrogen and Total Organic Carbon, Journal of Environmental Quality, 40(3): 969-979, 2011.

Cygan, R.T., C.T. Stevens, R.W. Puls, S.B. Yabusaki, R.D. Wauchope, C.J. McGrath, G.P. Curtis, M.D. Siegel, L.A. Veblen, and D.R. Turner, Research activities at U.S. Government Agencies in subsurface reactive transport modeling, Vadose Zone Journal, 6(4), 805-822, 2007.

Mazur, C.S., J.F. Kenneke, C. Tebes-Stevens, M.S. Okino, and J.C. Lipscomb, In vitro metabolism of the fungicide and environmental contaminant trans-bromuconazole and implications for risk assessment, Journal of Toxicology and Environmental Health, Part A, 70, 1241-1250, 2007.

Tebes-Stevens, C.L. and W.J. Jones, Estimation of Microbial Reductive Transformation Rates for Chlorinated Benzenes and Phenols Using a QSAR Approach, Environmental Toxicology and Chemistry, 23(7), 1600-1609, 2004.

Mazur, C.S., W.J. Jones and C. Tebes-Stevens, $H_2$ Consumption during the Microbial Reductive Dehalogenation of Chlorinated Phenols and Tetrachloroethene, Biodegradation, 14, 285-295, 2003.

Tebes-Stevens, C.L., F. Espinoza and A.J. Valocchi, Evaluating the sensitivity of a subsurface multicomponent reactive transport model with respect to transport and reaction parameters, Journal of Contaminant Hydrology, 52, 3-27, 2001.

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**Education:**

- Ph.D., Civil Engineering, University of Illinois at Urbana-Champaign, 1998
- M.S., Civil Engineering, University of Illinois at Urbana-Champaign, 1995
- B.A., Geology & Mathematics, Northwestern University, 1992

**Professional Experience:**

- Environmental Engineer, USEPA, ORD, NERL-ERD/SED, Athens, GA, 2001 to present
    - Co-Project Lead for Sustainable Chemistry Project within the EPA/ORD National Program for Chemical Safety and Sustainability, 2013 to present
    - Acting Branch Chief, 2007 to 2009, three 120-day details
- Postdoctoral Physical Scientist, USEPA, ORD, NERL-ERD, Athens, GA 1998-2001

Honors and Awards:

- US EPA Scientific and Technological Achievement Award (STAA), Honorable Mention, 2008
- US EPA Scientific and Technological Achievement Award (STAA), Honorable Mention, 2004
- US EPA Scientific and Technological Achievement Award (STAA), Level III, 2000