

## Tom Purucker, Ecologist, in EPA's National Exposure Research Laboratory

Computational Exposure Division

[Mailing Address](#)

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**Area of Expertise:** My current research involves parameter estimation and model selection for ecological risk assessment algorithms used by the EPA for pesticide registration. My lab has updated many of these models so they are hosted in the “cloud” and can be accessed and executed from a web browser, the *übertool*, which is an ecological risk web application for pesticide modeling. We also conduct applied research on amphibian exposures, implementing lab and field studies to characterize pesticide transfer rates across the dermis and subsequent impacts on amphibian metabolism. More recently, we initiated a Regional Applied Research Effort with Ohio State University to investigate pesticide exposures and effects on honeybee colonies in the Midwest. This research is also expected to assist the Office of Pesticide Program's Environmental Fate and Effects Division in developing a model to estimate impacts for pesticide registration decisions. In addition, I teach introductory courses in biology and statistics at the University of North Georgia.

### Select Publications:

Wolfe, K., N. Pope, R. Parmar, M. Galvin, C. Stevens, E. Weber, J. Flaishans, AND Tom Purucker. [Chemical Transformation System: Cloud Based Cheminformatic Services to Support Integrated Environmental Modeling](#). 8th International Congress on Environmental Modelling and Software, Toulouse, FRANCE, July 10 - 14, 2016.

Ignatius, A., K. Wolfe, R. Parmar, J. Flaishans, L. Harwell, S. Yee, Tom Purucker, AND M. Galvin. [Design and Implementation of a REST API for the ?Human Well Being Index \(HWBI\)](#). 8th International Congress on Environmental Modelling and Software, Utrecht, FRANCE, July 10 - 14, 2016.

Kuan, C., B. Curry, G. DeGrandi-Hoffman, K. Garber, A. Kanarek, AND Tom Purucker. [Parameter sensitivity analysis for pesticide impacts on honeybee colonies](#). Association of Southeastern Biologists, Concord, NC, March 31 - April 03, 2016.

View more research publications by [Tom Purucker](#).

### Education:

- Ph.D. Ecology and Evolutionary Biology, University of Tennessee, 2006
- B.A. Zoology, University of Tennessee, 1991

**Professional Experience:**

- Research Ecologist, USEPA, ORD, NERL-ERD, Athens, GA, 2009–present
- Instructor, Adjunct Faculty, College of Science & Mathematics, University of North Georgia, 2013-present
- Instructor, Adjunct Faculty, School of Science, Technology, Engineering, and Mathematics, Gainesville State College, 2007-2012
- Postdoctoral Fellow, Ecologist, USEPA, ORD, NERL-ERD, Athens, GA, 2006–2009
- Senior Research Associate, Institute Environmental Modeling, University of Tennessee, 1999–2006
- Research Associate, Oak Ridge National Laboratory, Health Sciences Research Division, 1992–1999