

## **Jesse Bash, Physical Scientist, in EPA's National Exposure Research Laboratory**

Computational Exposure Division

[Mailing Address](#)

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**Area of Expertise:** My work at the EPA has focused on improving dry deposition parameterizations in the Community Multiscale Air Quality (CMAQ) model, to better understand ecosystem exposure to air pollutants. This includes working with scientists in the modeling community to develop air-surface exchange algorithms for use in regional air quality models and collaborating with scientists in the measurement community. My recent research involves modeling air-surface mercury and ammonia exchange and collaborating with measurement groups to design experiments to measure critical parameters in their air-surface exchange algorithms.

### **Select Publications:**

Bash, J., K. Baker, AND M. Beaver. Evaluation of improved land use and canopy representation in BEIS v3.61 with biogenic VOC measurements in California. Geoscientific Model Development . Copernicus Publications, Katlenburg-Lindau, Germany, 9:2191-2207, (2016).

Bash, J., John Walker, M. Shephard, K. Cady-Pereira, S. Napelenok, D. Henze, AND E. Cooter. Modeling Atmospheric Reactive Nitrogen. American Society of Animal Science 2016 JAM, Salt Lake City, UT, July 19 - 23, 2016.

Cooter, E., L. Ran, AND J. Bash. Response of a One-Biosphere Nutrient Modeling System to Regional Land Use and Management Change. International Society for Ecological Modelling (ISEM) Global Conf, Baltimore, MD, May 08 - 12, 2016.

View more research publications for [Jesse Bash](#).

### **Education:**

- B.S. Geography, New Mexico State University, 2000
- M.S. Natural Resources: Land, Air, Water, University of Connecticut, 2003
- Ph.D. Natural Resources: Land, Air, Water, University of Connecticut, 2006

### **Professional Experience:**

- Physical Scientist, U.S. Environmental Protection Agency, Research Triangle Park, NC, 2007 – Present
- Graduate Research Assistant, Department of Natural Resources Management and Engineering, University of Connecticut, Storrs, CT, 2000 – 2007
- Image Analyst, Center for Applied Remote Sensing in Agriculture, Meteorology, and the Environment, New Mexico State University, Las Cruces, NM, 1998 – 2000