Matthew S. Landis, Research Environmental Health Scientist, in EPA's National Exposure Research Laboratory

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Area of Expertise: Matthew's current research focuses on the impact that hydraulic fracturing for fossil fuels has on air and drinking water resources. As a principal investigator in the national hydraulic fracturing research study, Matthew is leading the development and implementation of a source apportionment study investigating the impact of hydraulic fracturing flowback and production waste water discharges on public drinking water supplies in Pennsylvania.

As the NERL atmospheric mercury research principal investigator, Matthew continues to look for opportunities to build upon the world class research conducted by NERL. As the mercury research program winds down, he has refocused his efforts to publish the results of recently completed research studies. These studies evaluate the impact of specific atmospheric mercury sources to wet and dry deposition, investigate long range atmospheric transport, and improve understanding of dry deposition processes.

Select Publications:

Landis, M.S.; Pancras, J.P.; Graney, J.R.; Stevens, R.K.; Percy, K.E.; Krupa, S (2012). Receptor Modeling of Epiphytic Lichens to Elucidate the Sources and Spatial Distribution of Inorganic Air Pollution in the Athabasca Oil Sands Region. In Alberta Oil Sands: Energy, Industry and the Environment. Kevin Percy ed., Elsevier, Oxford, England.

Landis, M.S.; Lewis, C.W.; Stevens, R.K.; Keeler, G.J.; Dvonch, T.; Tremblay, R. (2007). Ft. McHenry Tunnel Study: Source Profiles and Mercury Emissions from Diesel and Gasoline Powered Vehicles. Atmos Environ. 41, 8711-8724.

Landis, M.S.; Lynam, M.; Stevens, R.K. (2005). The Monitoring and Modeling of Mercury Species in Support of Local Regional and Global Modeling. In Dynamics of Mercury Pollution on Regional and Global Scales, Pirrone, N. and Mahaffey, K.R. eds, Kluwer Academic Publishers, New York, NY.

Landis, M.S.; Keeler, G.J.; Al-Wali, K.I.; Stevens, R.K. (2004). Divalent inorganic reactive gaseous mercury emissions from a mercury cell chlor-alkali plant and the effect on near field atmospheric dry deposition. Atmos Environ. 38, 613-622.

Landis, M.S.; Stevens, R.K. (2003). Comments on "Measurements of atmospheric mercury species at a coastal site in the Antarctic and over the South Atlantic Ocean during polar summer" by Temme et al. Environmental Science and Technology 37 (2003), 22-31. Environ. Sci. Technol. 37, 3239-3240.

Landis, M.S.; Vette, A.F.; Keeler G.J. (2002). Atmospheric mercury in the Lake Michigan basin: influence of the Chicago/Gary urban area. Environ. Sci. Technol. 36, 4508-4517.

View more research publications by Matthew Landis.

Education:

- Ph.D., Environmental Health Science- Air Quality Program, University of Michigan, 1998
- M.S., Environmental Health Science- Air Quality Program, University of Michigan, 1995
- B.A., Geography-Environmental Planning, Bloomsburg University of Pennsylvania, 1989

Professional Experience:

- Research Environmental Health Scientist, USEPA, ORD, NERL-HEASD, RTP, NC 2000 – present
- Post Doctorate Research Fellow, USEPA, ORD, NERL-HEASD, RTP, NC 1998-2000
- Graduate Student Research Assistant, University of Michigan Air Quality Laboratory, 1993-1998
- Air Quality Specialist, Pennsylvania Department of Environmental Resources, 1990-1993