Jeffrey W. Hollister, Research Ecologist, in EPA's National Health and Environmental Effects Research Laboratory

Atlantic Ecology Division
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Area of Expertise: I am a landscape ecologist with expertise in the spatial component of ecology and environmental sciences. My research focuses on the application of geospatial sciences to the understanding of water quality in fresh and estuarine waters, and on the use of informatics and information management tools in environmental research. I have developed tools and methodologies (GIS and statistical) using numerous software packages and languages (R, ArcGIS, GRASS, Python, MS Excel). Currently, I am co-leading a project that is modelling how nutrients and temperature drive risk of cyanobacterial blooms in lakes and ponds. A unifying theme to his research is using Open Science (Open Access, Open Source, and Open Data) to benefit environmental science. In that vein, I am active in the R community within EPA and outside (e.g. rOpenSci and Data Carpentry) through contributions to package development, package review, and R training efforts.

Select Publications (Several links exit this site)**:**

Hart, E., P. Barmby, D. LeBauer, F. Michonneau, S. Mount, P. Mulrooney, T. Poisot, K. H. Woo, N. Zimmerman, and J. W. Hollister. (2016). Ten simple rules for digital data storage. Accepted to *PLoS Computational Biology*.

Hollister, J. W., W. B. Milstead, and B. J. Kreakie. 2016. Modeling Lake Trophic State: A Random Forest Approach. *Ecosphere* **7**:3.

Hollister, J. W. and B. J. Kreakie. 2016. Associations between Chlorophyll *a* and various Microcystin-LR Health Advisory Concentrations. *F1000Research* **5**:151.

Milstead, W. B., J. W. Hollister, R. B. Moore, and H. A. Walker. 2013. Estimating Summer Nutrient Concentrations in Northeastern Lakes from SPARROW Load Predictions and Modeled Lake Depth and Volume. *PLoS ONE* **8**(11): e81457.

Hollister, J. W., W. B. Milstead, M. A. Urrutia. 2011. Predicting Maximum Lake Depth from Surrounding Topography. *PLoS ONE* **6**(9): e25764.

Hollister, J. W. and W. B. Milstead. 2010. Using GIS to Estimate Lake Volume from Limited Data. *Lake and Reservoir Management*. **26**(3)194-199.

View more research publications by Jeffrey Hollister.

Education:

- Ph.D., University of Rhode Island, Kingston, RI; Environmental Sciences, 2004

- Masters of Environmental Management, Duke University, Durham, NC; Resource Ecology, 1997
- B.S., Baker University, Baldwin City, KS; Biology, 1995

Professional Experience:

- Research Ecologist, U.S. Environmental Protection Agency, National Health and Environmental Effects Research Laboratory, Atlantic Ecology Division, Monitoring and Assessment Branch, 2008 – Present
- Adjunct Assistant Professor, University of Rhode Island, Department of Natural Resources Science, 2007 – Present
- Postdoctoral Landscape Ecologist, U.S. Environmental Protection Agency, National Health and Environmental Effects Research Laboratory, Atlantic Ecology Division, Monitoring and Assessment Branch, 2006 – 2008.
- Postdoctoral Fellow, U.S. Coast Guard Academy, Department of Science, Marine Sciences Section, 2005 – 2006
- Postdoctoral Associate, American Institute of Biological Sciences, National Ecological Observatory Network (NEON) Project Office, 2005
- Lead Research Technician, Joseph W. Jones Ecological Research Center, Landscape Ecology Laboratory, 1998 - 2000