

Blake A. Schaeffer, Research Physical Scientist, in EPA's National Exposure Research Laboratory

Exposure Methods and Measurements Division

[Mailing Address](#)

schaeffer.blake@epa.gov

Area of Expertise: Satellite technology and methods to derive water quality products have primarily focused on oceanic waters and are significantly improving in coastal, estuarine, and inland waters. My work focuses on the use of satellite observations in optically complex and shallow coastal waters, which traditionally have been challenging environments for remote sensing applications. My research niche is the development of applications using “ocean color” technologies and optical instruments to meet end-user needs for water quality monitoring and assessment. Generally, interests include the use of field-based optical instruments and satellite remote sensing data to study ecosystem exposures, dynamics and responses.

Select Publications:

Schaeffer, Loftin, Stumpf, & Werdell. 2015. Agencies collaborate, develop a cyanobacteria assessment network. *Eos*, 96, 16-20.

Mattas-Curry, Schaeffer, Conmy, & Keith. 2015. A satellite perspective to monitor water quality using your mobile phone. *Lake Line*. 35(2): 28-31.

Schaeffer, Conmy, Duffy, Aukamp, Yates, & Craven. 2015. Northern Gulf of Mexico estuarine colored dissolved organic matter derived from MODIS data. *International Journal of Remote Sensing*. 36(8): 2219-2237.

Lunetta, Schaeffer, Keith, Jacobs, Stumpf, & Murphy. 2015. Evaluation of cyanobacteria cell count detection derived from MERIS imagery across the eastern USA. *Remote Sensing of Environment*. 157: 24-34.

Keith, Schaeffer, Lunetta, Gould, Rocha & Cobb. 2014. Remote sensing of selected water-quality indicators with the hyperspectral imager for the coastal ocean (HICO) sensor. *International Journal of Remote Sensing*. 35(9): 2927-2962.

Schaeffer, Hagy, & Stumpf. 2013. An approach to developing numeric water quality criteria for coastal waters: transitioning from SeaWiFS to MODIS and MERIS. *Journal of Applied Remote Sensing*. 7: 073544-1.

View more research publications by [Blake Schaeffer](#).

Education:

- Ph.D., Marine Earth & Atmospheric Sciences, North Carolina State University, Raleigh, NC, 2006
- B.S., Biochemistry and Biology, Albright College, Reading, PA, 2000
- A.A., Biology, Ocean County College, Toms River, NJ 1997

Professional Experience:

- Research Physical Scientist, U.S. Environmental Protection Agency, National Exposure Research Laboratory, Exposure Methods and Measurements Division, Sensing and Spatial Analysis Branch: 2015 – Present
- Assistant Laboratory Director, U.S. Environmental Protection Agency, National Exposure Research Laboratory, Immediate Office, Research Planning and Coordination Staff: 2012-2015
- Research Ecologist, U.S. Environmental Protection Agency, National Health and Environmental Effects Research Laboratory, Gulf Ecology Division, Ecosystem and Effects Branch: 2008-2012
- Post-doctorate Research Ecologist, U.S. Environmental Protection Agency, National Health and Environmental Effects Research Laboratory, Gulf Ecology Division, Ecosystem and Effects Branch: 2007-2008