Source Water Collaborative “Protect the Source” Story Map

The Source Water Collaborative recently released Protect the Source, a visually-engaging ESRI Story Map that highlights projects across the country working to reduce nutrient pollution of drinking water sources. This visually engaging presentation weaves together images, graphics, data, and interactive maps to tell the “story” of nutrient pollution and to introduce solutions. Viewers are invited to submit project descriptions to the Project Inventory map. The Source Water Collaborative is a partnership of twenty-seven national organizations united to protect sources of drinking water. See more events and resources at the Collaborative’s Learning Exchange page.

EPA’s Critical Loads Mapper Tool

EPA published the Critical Loads Mapper Tool to enable decision makers, researchers, and the public to easily access information for the coterminous U.S. on atmospheric deposition of nitrogen and sulfur, critical loads, and critical load exceedances to better understand local and regional vulnerability to atmospheric pollution. This interactive mapping tool displays nitrogen and sulfur deposition levels through time for several air quality models, critical load levels for terrestrial and aquatic ecosystems from the National Atmospheric Deposition Program’s National Critical Loads Database, and the exceedance of critical loads by deposition as an estimate of ecological vulnerability to air pollution. (Click on the red “Deposition” tile and then “Get Started” to access the CL Mapper Tool portion of the Global Change Explorer). For more information, please contact Christopher Clark at Clark.Christopher@epa.gov.

CYANOCOST New website/blog and Newsletter

CYANOCOST published a new blog, Facebook page and twitter. A bimonthly newsletter, CYANOnews, was also published with news on cyanobacteria and cyanotoxins and from the CYA-NOCOST network.

This newsletter was created by Dr. Lesley V. D’Anglada, (danglada.lesley@epa.gov) Office of Water, Office of Science and Technology, U. S. EPA
For more information, visit EPA’s CyanoHABs website at www.epa.gov/cyanohabs
HABs, BEACH CLOSURES and HEALTH ADVISORIES, JANUARY 2017

⚠️ Oregon : South Umpqua River - Permanent Advisory

RECENTLY PUBLISHED ARTICLES

**Biotransport of Algal Toxins to Riparian Food Webs**
Nicholas J. Moy, Jenna Dodson, Spencer J. Tassone, Paul A. Bukaveckas, and Lesley P. Bulluck
*Environmental Science & Technology* 2016 50 (18), 10007-10014

**New SPE-LC-MS/MS method for simultaneous determination of multi-class cyanobacterial and algal toxins**

**Assessment of the roles of reactive oxygen species in the UV and visible light photocatalytic degradation of cyanotoxins and water taste and odor compounds using C-TiO₂**

**Network analysis reveals seasonal variation of co-ocurrence correlations between Cyanobacteria and other bacterioplankton**

**Histopathological alterations in triangle sail mussel (Hyriopsis cumingii) exposed to toxic cyanobacteria (Microcystis aeruginosa) under hypoxia**
Fangli Wu, Hui Kong, Yueyong Shang, Zuoqiang Zhou, Yasmeen Gul, Qigen Liu, Menghong Hu, Aquaculture, Volume 467, 20 January 2017, Pages 182-189

Coming Soon! 🎉 FROM EPA’s Office of Research and Development

EPA’s [NERL](https://nerl.epa.gov) and [NRMRL](https://nrmrl.epa.gov), along with colleagues from Thomas More College, Northern Kentucky University, and the Ohio River Valley Sanitation Commission (ORSANCO), are working on a cyanobacteria detection project to identify rare but toxic algal blooms as much as a day before they become a danger to drinking water. The project consists of a wireless camera on the banks of the Ohio River that will take a picture each hour and transmit it to a website where the pixels will be examined to determine the ratio of green to cyanobacteria. The app’s algorithm used an artificial neural network to detect HABs via water color variances in the pictures. Drinking water operators will then be able use this information to plan accordingly for potential blooms. See [NPR’s article](https://www.npr.org).

Toxins Journal Topical Collection

"Freshwater HABs and Health in a Changing World"

Manuscripts on cyanobacterial exposure assessment; health outcomes; outbreak investigations; wild and domestic animal poisonings; toxicology of cyanobacterial toxins in animals and humans, production of toxins in the environment, absorption, distribution, and elimination of toxins in animals and humans, and the control of toxins in the built and natural environment, are invited.

Go to [www.mdpi.com](http://www.mdpi.com) and register to login and to submit a manuscript.

Useful Resources

- [Source Water Collaborative](https://www.sourcewatercollaborative.org)
- [CYANOCOST](https://www.cyanocost.eu)
- [CynoBase](https://cynobase.org)
- [EPA’s Climate Change Impacts and Risk Analysis](https://www.climatechange.gov)
- [EPA’s Green Infrastructure Modeling Toolkit](https://www.epa.gov)

To sign up for the newsletter please send an email to Dr. Lesley V. D’Anglada at danglada.lesley@epa.gov