

FRESHWATER HABs NEWSLETTER



Cylindrospermopsis.sp
Photo by Jennifer Maucher
Fuquay, NOAA

EPA's Webinar on the Draft Recreational Criteria and/or Swimming Advisories for Cyanotoxins

EPA held a webinar on February 15, 2017 to discuss the basic science used in the development of the Recreational Criteria and/or Swimming Advisory for Cyanotoxins released for public comments on December 2016. The webinar also discussed implementation considerations for the criteria, and provided an opportunity to receive feedback from participants. The public comments period has been extended to March 20th. For more information or to review the draft document please visit the criteria website here: <https://www.epa.gov/wqc/microbial-pathogenrecreational-water-quality-criteria#swimming>

Lake Erie HABs

The University of Toledo published a web based online information database tool for research and studies on Lake Erie HABs. This website sources of information on various Lake Erie HABs-related science and public policy research including: public health, water quality, monitoring, land use management practices, drinking water treatment technologies, policies and regulations, economics, and general related information related to the Lake Erie.

Possible Funding Sources for Managing Cyanobacterial Harmful Algal Blooms and Cyanotoxins in Drinking Water Fact Sheet

On January 2017, EPA published a fact sheet with possible funding sources that can be used to manage cyanobacterial harmful algal blooms and cyanotoxins. These sources include the Safe Drinking Water Act and Clean Water Act revolving funds and other possible funding sources to support drinking water systems in managing risks to drinking water from harmful algal blooms and cyanotoxins.

Inland HABs Discussion Group Webinar

On February 14th, the Inland HABs Discussion Group hosted a webinar on toxin monitoring for HABs in freshwater systems, including a presentation on the Solid Phase Adsorption Toxin Tracking (SPATT) and the Cyanobacteria Monitoring Collaborative. Presentations are posted [here](#).

Updated Sampling Guidance for Unknown Contaminants in Drinking Water

The guidance provides utilities, emergency responders, and laboratories with recommended procedures for conducting routine and baseline monitoring in response to a contamination incident and sampling in support of remediation or decontamination efforts. It covers the collection, storage, preservation and transport of potentially contaminated water samples and provides recommendations for better supporting the detection and identification of many types of contaminants.

UPCOMING EVENTS

Webinars

HABs Collaboratory Webinar

March 7th, 1:00pm

EPA Region 9 Virtual Harmful Algal Blooms Workshop

April 5, 11am EST

Workshops

OSU's Workshops

Dealing with Cyanobacteria
Algal Toxins and Taste & Odor Compounds
[August 7-8, 2017](#)
[August 9-10, 2017](#)

Algae ID Workshop
[August 7-8, 2017](#)
[August 9-10, 2017](#)

Taxonomic ID of Harmful Algae in U.S. Marine Waters

August 13-23, 2017
East Boothbay, ME

Conferences

IAGLR

May 15-19, 2017
Detroit, Michigan

USA Water Conference Toxins, Treatments and Tomorrow's Technologies

May 31st - June 1, 2017
Akron, OH

Gordon Research Conference

Biotoxins
June 18-23, 2017
Easton, MA

This newsletter was created by Dr. Lesley V. D'Anglada, Office of Water, Office of Science and Technology, United States Environmental Protection Agency
For more information, please visit the [USEPA's CyanohABs Website](#)

HABs, BEACH CLOSURES and HEALTH ADVISORIES, FEBRUARY 2017



[Oregon](#) : South Umpqua River - Permanent Advisory

RECENTLY PUBLISHED ARTICLES

[Eutrophication and Warming Boost Cyanobacterial Biomass and Microcystins](#)

Lürling M, van Oosterhout F, Faassen E. *Toxins*. 2017; 9(2):64.

[Occurrence and State Approaches for Addressing Cyanotoxins in US Drinking Water](#)

Tarrah, H., Plummer, S., and Roberson, A. Journal of American Water Works Association. February 2017. No. 109:2. Pages 40-47.

[Spatial and temporal variation in microcystins occurrence in wadeable streams in the southeastern USA](#)

Keith A. Loftin, Jimmy M. Clark, Celeste A. Journey, Dana W. Kolpin, Peter C. Van Metre, and Paul M. Brad Environmental Toxicology and Chemistry. February, 2016; Pages 1–7.

[Pulmonary and hepatic injury after sub-chronic exposure to sublethal doses of microcystin-LR](#)

Giovanna Marcella Cavalcante Carvalho, Vinicius Rosa Oliveira, Natália Vasconcelos Casquilho, Andressa Cristine Pereira Araujo, Raquel Moraes Soares, Sandra Maria F.O. Azevedo, Karla Maria Pereira Pires, Samuel Santos Valença, Walter Araujo Zin, *Toxicon*, Volume 112, 15 March 2016, Pages 51-58.

[Engineering *Escherichia coli* to bind to cyanobacteria](#)

Zijian Zhang, Liuyi Meng, Congjian Ni, Lanqiu Yao, Fengyu Zhang, Yuji Jin, Xuelang Mu, Shiyu Zhu, Xiaoyu Lu, Shiyu Liu, Congyu Yu, Chenggong Wang, Pu Zheng, Jie Wu, Li Kang, Haoqian M. Zhang, Qi Ouyang. *Journal of Bioscience and Bioengineering*, Volume 123, Issue 3, March 2017, Pages 347-352.

[Characteristics of water obtained by dewatering cyanobacteria-containing sludge formed during drinking water treatment, including C-, N-disinfection byproduct formation](#)

Hangzhou Xu, Haiyan Pei, Yan Jin, Hongdi Xiao, Chunxia Ma, Jiongming Sun, Hongmin Li. *Water Research*, Volume 111, 15 March 2017, Pages 382-392.

[Carotenoid glycosides from cyanobacteria are teratogenic in the zebrafish \(*Danio rerio*\) embryo model](#)

Asha Jaja-Chimedza, Kristel Sanchez, Miroslav Gantar, Patrick Gibbs, Michael Schmale, John P. Berry. *Chemosphere*, Volume 174, May 2017, Pages 478-489.

[Advanced oxidation processes to remove cyanotoxins in water](#)

Saad Y. Jasim, Jayaprakash Saththasivam, *Desalination*, Volume 406, 16 March 2017, Pages 83-87.

Useful Resources

- ✓ [Great Lakes HABs Collaboratory](#)
- ✓ [9th Biennial State of Lake Michigan/ 15th Annual Great Lakes Beach Association Joint Conference Slides](#)
- ✓ [Climate Change Indicators in the US Report](#)
- ✓ [NCCOS Phytoplankton Monitoring Network](#)
- ✓ [EPA Tools and Resources Webinar: HABs](#)

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 and [register](#) to [login](#) and to submit a manuscript.



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