

Freshwater HABs Newsletter

States Resources



[New International Benthic HABs Workgroup](#)

A scientific workgroup has formed in order to accelerate mutual learning and understanding of research gaps issues associated with benthic HABs including toxicity, monitoring, management, and mitigation. The focus of this new international collaborative is to better understand benthic HABs in rivers and lake systems, by sharing data and monitoring protocols, experiences and lessons learned related to species identification, genetic and toxin analysis, and in general, gain a better understanding of benthic cyanobacteria, their habitat preferences, and the toxins they produce. This is an open workgroup driven by its members with volunteer coordinators and presenters helping to set agendas and guide meeting content. Next workgroup meeting: May 22, 2018.

For more information, please contact the Workgroup Facilitators:

- Lisa Bernard, North Coast Regional Water Board, CA
(Lisa.Bernard@waterboards.ca.gov)
- Christine Joab, Central Valley Regional Water Board, CA
(Christine.Joab@waterboards.ca.gov)
- Jade L. Young, U.S. Army Corps of Engineers, Louisville District, KY
(Jade.L.Young@usace.army.mil).

[Toxic cyanobacteria and cyanotoxins in European waters – A review of CYANOCOST contributions](#)

A review published within the CYANOCOST Special Issue in *Advances in Oceanography and Limnology* summarizes the outcomes of some recent European research concerning toxic cyanobacteria and cyanotoxins, with an emphasis on developments within the framework of the CYANOCOST Action. Highlights of the Action include phyecological and ecological studies, development of advanced techniques for cyanotoxin analysis, elucidation of cyanotoxin modes of action, management techniques to reduce cyanobacterial mass development, and research on methods and practices for cyanotoxin removal during drinking water treatment. The authors have identified a number of gaps in knowledge. Proposed directions for future research on toxic cyanobacteria and cyanotoxins are also discussed. The review is open-access and can be downloaded [here](#).

[Great Lakes HABs Collaboratory Video: A Collaborative Approach: Linking science and management to reduce harmful algal blooms](#)

The [Great Lakes HABs Collaboratory](#) released a video highlighting the work being done around the Great Lakes to address HABs and underlying causes of the problem. The video features interviews with researchers, engineers, and advocates who participate in the Collaboratory. The video is the newest addition in a series of three outreach products produced by the HABs Collaboratory and can be found [here](#), along with the two other products. For more information, contact Victoria Pebbles at vpebbles@glc.org

UPCOMING EVENTS

Webinars

[NWQMC Webinar: Observing the microscopic living ocean from space](#)

February 7, 2018

1:00 – 2:00pm EST

[EPA/USGS's Surface Water Toolbox](#)

February 8, 2018

1:00-3:00pm EST

Conferences

[SETAC Europe HABs Special Session](#)

May 13–17, 2018

Rome, Italy

[ASLO 2018 HABs Special Session](#)

June 10-15, 2018

Victoria, BC, Canada

[IAGLR 2018 Conference HABs Special Session](#)

June 18-22, 2018

Toronto, Canada

[UCOWR & NIWR 2018 Annual Water Resources Conference](#)

June 26-28, 2018

Pittsburgh, PA

This newsletter was created by [Dr. Lesley V. D'Anglada](#), Office of Science and Technology, Office of Water, EPA. Mention of trade names, products, or services does not convey and should not be interpreted as conveying official EPA endorsement, approval or recommendation for use. For previous newsletters, go to [Freshwater HABs Newsletter](#).

BIOOMS, BEACH CLOSURES and HEALTH ADVISORIES*, JANUARY 2018

 [California](#) (5)  [Idaho](#) (2)  [Ohio](#) (2)  [Oregon](#) (1)  [Washington](#) (1)

* Include blooms, cautions, warnings, public health advisories, closings and detections over the State's threshold, due to the presence of algae, toxins or both. This is NOT a comprehensive list, and many blooms may have not been reported.

RECENTLY PUBLISHED ARTICLES

[Estimate of incidence and cost of recreational waterborne illness on United States surface waters](#)

Stephanie DeFlorio-Barker, Coady Wing, Rachael M. Jones, Samuel Dorevitch. Environmental Health, 2018; 17:3.

[Microcystin accumulation and potential effects on antioxidant capacity of leaves and fruits of *Capsicum annuum*](#)

Damjana Drobac, Nada Tokodi, Biljana Kiproviski, Djordje Malenčić, Tamara Važić, Sonja Nybom, Jussi Meriluoto and Zorica Svirčev. Journal of Toxicology and Environmental Health, 2017. Part A, 80:3, 145-154.

[Declining oxygen in the global ocean and coastal waters](#)

Denise Breitburg, Lisa A. Levin, Andreas Oschlies, Marilaure Grégoire, Francisco P. Chavez, Daniel J. Conley, Véronique Garçon, Denis Gilbert, Dimitri Gutiérrez, Kirsten Isensee, Gil S. Jacinto, Karin E. Limburg, Ivonne Montes, S. W. A. Naqvi, Grant C. Pitcher, Nancy N. Rabalais, Michael R. Roman, Kenneth A. Rose, Brad A. Seibel, Maciej Telszewski, Moriaki Yasuhara, Jing Zhang. *Science*, January 2018 Vol. 359, Issue 6371.

[Effect of hydrogen peroxide on *Microcystic aeruginosa*: Role of cytochromes P450](#)

Jia Wang, Zunwei Chen and Yuezhong Wen. Science of the Total Environment. 2018. Vol. 626, pp. 211-218.

[Estrogenic activity of cylindrospermopsin and anatoxin-a and their oxidative products by FeIII-B*/H2O2](#)

Jishan Liu, Sandra E. Hernández, Simon Swift, Naresh Singhal. Water Research. 2018. Vol.132, pp. 309-319.

[Effects of different light source and media on growth and production of phycobiliprotein from freshwater cyanobacteria](#)

Helena Khatoon, Lai Kok Leong, Norazira Abdu Rahman, Sohel Mian, Hasina Begum, Sanjoy Banerjee, Azizah Endut, Bioresource Technology. February 2018. Vol. 249, pp. 652-658.

Important Links

- ✓ [USGS's GeoHealth Newsletter - January 2018](#)
- ✓ [IJC's Great Lakes Connection Newsletter - January 2018](#)
- ✓ [CYANONews - January-February 2018](#)
- ✓ [CYANOCOST Special Issue: Cyanobacterial blooms. Ecology, prevention, mitigation and control](#)
- ✓ [Great Lakes Observing System Webinar Recording: Insights from S. California and EPA CYAN \(January 17th, 2018\)](#)
- ✓ [2018 EPA Environmental Education Local Grants](#)
- ✓ [Interstate Shellfish Sanitation Conference Biotxin Workshop Report](#)
- ✓ [USDA's Nutrient Tracking Tool \(NTT\)](#)



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