

FRESHWATER HABs NEWSLETTER



[CyanoScope & CyanoMonitoring Kit](#)
Cyanobacteria Monitoring Collaborative



Picture 1. Lake Taihu, City of Wuxi, China



Picture 2. Mesocosm Study Enclosures, China

Mesocosms Laboratory Experiments to Tackle China's "Green Monster" Toxic Cyanobacterial Blooms

Four out of five of China's largest lakes as well as vast number of its smaller lakes and reservoirs are under siege of rapidly proliferating toxic cyanobacterial blooms (Picture 1); largely attributable to nitrogen and phosphorus over-enrichment resulting from its accelerating urban, agricultural and industrial expansion. Researchers from the Universities of NC-Chapel Hill, Texas, Northeastern, Wright, and Tennessee, Knoxville, are working with Chinese collaborators at the Nanjing Institute of Geography and Limnology Chinese Academy of Science, employing outdoor mesocosms (Picture 2) in which nutrient manipulations (additions and reductions) are conducted to determine which nutrients are controlling or "limiting" blooms and to establish specific nutrient-bloom thresholds as a guideline for setting nutrient reduction targets. They are also investigating cyanobacterial and associated microbial community functional and compositional responses to these manipulations, and the roles of sediments as "internal" stores of nutrients. This work is supported by the US and Chinese National Science Foundations and the Chinese Ministry of Science and Technology. For more information, please contact Dr. Hans Paerl at hans.paerl@unc.edu

UPCOMING EVENTS

Workshops/Webinars

[WRF Cyanotoxin Webcast Series](#)

[July 13 - Methods](#)

[August 15 - Treatment](#)

[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

[5th Iberoamerican Cyanotoxins Meeting](#)

July 17-19, 2017

Lugo, Spain

[9th Symposium on Harmful Algae](#)

November 11-17, 2017
Baltimore, MD

NEWS* NEWS

[Algal Indicators in Streams: A Review of their Application in Water Quality Management of Nutrient Pollution](#)

On June 27th, US EPA published a summary paper that describes the use of algal indicators to develop water quality diagnostics for nutrient pollution in the United States and reviews scientific developments in the application of algal indicators across the world. Water quality managers can use this paper to better understand when and how to utilize algae as indicators of nutrient pollution in stream ecosystems.

This newsletter was created by [Dr. Lesley V. D'Anglada](#), Office of Science and Technology, Office of Water, U.S. Environmental Protection Agency. Mention of trade names, products, or services does not convey and should not be interpreted as conveying official EPA approval, endorsement, or recommendation for use.

Michigan releases draft plan to improve Lake Erie water quality

A targeted approach for improving water quality and helping to prevent algal blooms, is available for public review and comment through Friday, July 14 at

www.michigan.gov/deqgreatlakes

Comments can be emailed to DEO-LakeErieDAP@michigan.gov

or mailed to: Michigan Department of Environmental Quality, Water Resources Division, Attn: Lake Erie DAP, P.O. Box 30458, Lansing, MI 48909.

HABs, BEACH CLOSURES AND HEALTH ADVISORIES, JUNE 2017



- California:** Pyramid Lake, Pond on Helmet Golf Course, Black Butte, Clear Lake, Upper Blue Lake, Lake Anza, Lake Chabot, Lake Temescal, Shadow Cliffs, Lake del Valle, San Luis Reservoir, Kissack Cove in Lake Isabella, Pyramid Lake
- Indiana:** Woster Lake, Lake James, Sand Lake., Mississinewa Lake, Cecil; M. Hardin lake, Monroe Lake, Starve Hollow Lake, Hardy Lake, Brookville Lake, Whitewater Lake, Brookville Lake, Deam Lake
- Iowa:** Black Hawk Beach, Nine Eagles Beach, Lake of Three Fires Beach, Green Valley Beach, Clear Lake, McIntosh Woods Beach, Lake Darling Beach, Lake Anita Beach, Denison Beach (for the presence of MCs)
- Kansas:** Keith Sebelius Reservoir, Marion Reservoir, Marion County Lake, Webster Lake, Kirwin Lake, Milford Reservoir, Sam's Pond
- Kentucky:** Boltz Lake, Grant Co.
- Nebraska:** Iron Horse Trail Lake, Pawnee Lake
- New Hampshire:** Elm Brook Park Beach, Silver lake State Park Beach
- New York:** Agawan Lake, Allison Lake, Arctic Lake, Bedford Lake, Bowne Pond, Burden Third Lake, Chautauqua Lake, Dean Pond, Glen Lake, Indian Lake, Kissena Lake, Lake Lacoma, Lake Moraine, Lake Neatahwanta, Maratooka Lake, Mariaville lake, Mill Pond, Old Town Pond, Orange Lake, Prospect Park Lake, Roaring Brook Lake, Roth Pond, Smith Pond, The Lake in Central Park
- North Dakota:** Stanley Pond, Harvey Dam and Homme Dam
- Ohio:** Buckeye Lake - Crystal Beach and Fairfield, Grand Lake Saint Marys, Kiser Lake,
- Oklahoma:** Fly Creek, off the Horse Creek Arm of Grand Lake
- Oregon:** South Umpqua River - Permanent Advisory, Detroit Lake, South Tenmile Lake, Upper Klamath Lake
- Rhode Island:** *Pseudo-nitzschia spp.* detected at several stations in the lower Narragansett Bay and in Block Island Sound.
- Texas:** Golden Algae (*P. parvum*) in the Colorado River Basin (Colorado and Concho river confluence).
- Utah:** Provo Bay, Utah Lake
- Washington:** Anderson Lake, [Bay Lake](#), [Harts Lake](#), [Silver Lake](#), [Ohop Lake](#), [Whitman Lake](#), [Lake Tapps](#), [Summit Lake](#) – Do not drink, No Contact with the Water, [Razor Clam Digging Closing](#)

RECENTLY PUBLISHED ARTICLES

[Euglenophycin is produced in at least six species of euglenoid algae and six of seven strains of Euglena sanguinea](#)

Paul V. Zimba, I-Shuo Huang, Danielle Gutierrez, Woongghi Shin, Matthew S. Bennett, Richard E. Triemer. Harmful Algae, Volume 63, March 2017, Pages 79-84.

[Identification of a new-to-science cyanobacterium, *Toxifilum mysidocida* gen. nov. & sp. nov. \(Cyanobacteria, Cyanophyceae\)](#)


Zimba, P. V., Huang, I.-S., Foley, J. E. and Linton, E. W. (2017), J. Phycol., 53: 188–197.

[Changes on cylindrospermopsin concentration and characterization of decomposition products in fish muscle \(*Oreochromis niloticus*\) by boiling and steaming](#)

Remedios Guzmán-Guillén, Sara Maisanaba, Ana I. Prieto Ortega, Rocio Valderrama-Fernández, Ángeles Jos, Ana M. Cameán, Food Control, Volume 77, July 2017, Pages 210-220.

[Microcystin in aquatic food webs of the Baltic and Chesapeake Bay regions](#)

Paul A. Bukaveckas, Jūratė Lesutienė, Zita R. Gasiūnaitė, Linas Ložys, Irina Olenina, Renata Pilkaitytė, Žilvinas Pūtys, Spencer Tassone, Joseph Wood, Estuarine, Coastal and Shelf Science, Volume 191, 15 May 2017, Pages 50-59.

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