United States Environmental Protection Agency

May, 2016

Freshwater HABs News

FUNDING OPPORTUNITIES:

Sensor Technology for the 21st Century

Web page on sensor technology is designed to help sensor developers locate SBIR and/or STTR funding opportunities across federal agencies for investing in low cost, portable, easy-to-use technologies to facilitate the collection of real time, reliable measurement information. Grants.gov provides additional information on federal funding opportunities as well as the federal grants lifecycle, policies on grants management, and profiles on grant-making agencies.

Grants available to develop technology to prevent harmful algal blooms

The DEQ is offering $250,000 in grants to assist in the development of technology to combat harmful algal blooms. The grant is part of the DEQ's initiative to better understand and prevent harmful algal blooms in the Western Lake Erie Basin and other bodies of water. DEQ will prioritize projects that use remote sensing data to assess the presence of cyanotoxins, enhance understanding of the triggers behind cyanotoxin production, develop better cyanotoxin sampling methods, and improve rapid screening methods for cyanotoxins. Local government, academic institutions and nonprofit entities are eligible for funding. Proposals are due June 17.

Shedding Light on Cyanobacteria Webinar

On Wednesday May 11th, USEPA Region 8 hosted a webinar on Wednesday, May 11th, 2016 from 1:00 to 3:00 p.m. (MDT) on field and laboratory methods specific to cyanobacteria sampling. Dr. Barry Rosen (USGS) and Ms. Sarah Rushforth (Phycological Research Consortium) presented an overview of cyanobacteria and their role in natural history as well as in modern aquatic ecosystems. Barry and Sarah also discussed ecological strategies of cyanobacteria such as buoyancy, nutrient storage, nitrogen fixation, and toxicity, as well as types of toxins, potentially toxic genera, means of exposure, mechanisms of action, and adverse effects. Presentations and audio recording are posted.

Great Lakes HABs Collaboratory Launches State of Science Webinar Series

The Great Lakes Commission and United States Geological Survey's Great Lakes HABs Collaboratory, in collaboration with Ohio Sea Grant and LimnoTech, is launching a HABs State of Science Webinar Series, which will focus on the latest research related to Harmful Algal Blooms in the Great Lakes. The series will kick off on Thursday, June 2, 2016 and consist of at least eight one-hour webinars throughout the summer, each featuring a different topic related to HABs. These webinars will have a speed-talk format: eight researchers will speak for five minutes each, followed by a group discussion with all attendees. For more information on the HABs Collaboratory please visit the HABs Collaboratory website at http://glc.org/projects/water-quality/habs/ or contact us at gl.habs.collaboratory@gmail.com.

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For more information visit EPA's CyanoHABs website at www.epa.gov/cyanohabs

Constitution Gardens, Washington, DC
May 4th, 2016

Upcoming Events

HABs Data & Modeling Webinar
June 2, 2016
1-2 p.m. (EDT)

Summer 2016 Field Courses on Algae
May – July, 2015
Iowa Lakeside Laboratory

ASLO 2016
June 5 – 10, 2016
Santa Fe, New Mexico

IAGLR 2016
June 6 to 10, 2016
Guelph, Ontario

IAFP 2016
July 31-Aug 3, 201
St. Louis, Missouri

17th ICHA
October 9-14, 2016
Florianapolis, Brazil

16th GLBAC
October 4-7, 2016
Marquette, Michigan

10th ICTC
October 23-28, 2016
Wuhan, China

SETAC 2016
November 6-10, 2016
Orlando, FL

Toxins **Topical Collection "Freshwater HABs and Health in a Changing World"**

To submit a manuscript please visit www.mdpi.com by registering and logging in to this website.

Recently Published Articles

Book: Harmful Algal Blooms (HABs) and Public Health: Progress and Current Challenges
Lesley D'Anglada, Elizabeth Hilborn and Lorraine C. Backer, May 6, 2016, 316 pages

Journal: Global Expansion of Harmful Cyanobacterial Blooms: Diversity, ecology, causes, and controls
Harmful Algae, Vol. 54, Pages 1-238, April 2016

Newsletter: HARMFUL ALGAE NEWS, on Toxic Algae and Algal Blooms
IOC, No. 53, May 2016

Turbulence increases the risk of microcystin exposure in a eutrophic lake (Lake Taihu) during cyanobacterial bloom periods
Jian Zhou, Boqiang Qin, Xiaoxia Han, Lin Zhu, Harmful Algae, Volume 55, May 2016, Pages 213-220.

Cyanobacteria and cyanotoxins are present in drinking water impoundments and groundwater wells in desert environments
Aspassia D. Chatziefthimiou, James S. Metcalf, W. Broc Glover, Sandra A. Banack, Soha R. Dargham, Renee A. Richer, Toxicon, Volume 114, May 2016, Pages 75-84.

Comparative summer dynamics of surface cyanobacterial communities in two connected lakes from the west of Ireland
N. Touzet, D. McCarthy, A. Gill, G.T.A. Fleming, Science of The Total Environment, Volume 553, 15 May 2016, Pages 416-428.

Temporal dynamics of microcystins in Limnodrilus hoffmeisteri, a dominant oligochaete of hypereutrophic Lake Taihu, China
Qingju Xue, Alan D. Steinman, Xiaomei Su, Yanyan Zhao, Liqiang Xie,Environmental Pollution, Volume 213, June 2016, Pages 585-593.

Cyanobacteria and cyanotoxins in fishponds and their effects on fish tissue
Damjana Drobac, Nada Tokodi, Jelena Lujić, Zoran Marinović, Gordana Subakov-Simić, Tamara Dulić, Tamara Važić, Sonja Nybom, Jussi Meriluoto, Geoffrey A. Codd, Zorica Svirčev, , Harmful Algae, Volume 55, May 2016, Pages 66-76

Seasonal changes of phytoplankton and cyanobacteria/cyanotoxin risk in two shallow morphologically altered lakes: Effects of water level manipulation
Michał Solis, Barbara Pawlik-Skowrońska, Renata Kalinowska, (Wieprz-Krzna Canal System, Eastern Poland), Ecological Indicators, Volume 66, July 2016, Pages 103-112.

Useful Resources

- ✓ California CyanoHAB Network
- ✓ NOAA's Lake Erie and HAB Forecasting
- ✓ Minnesota Department of Health
- ✓ Other HABs-related Listservs:
  - ✓ GLIN announce
  - ✓ Lake Erie HABs Bulletin
  - ✓ Great Lakes Region: Quarterly Climate Impacts and Outlook

HEALTH ADVISORIES AND POSTINGS

Oregon – South Umpqua River and Lawson Bar

Florida – *Karenia Brevis* red tide, Banana River and Indian River Brown Tide bloom, Lake Okeechobee

Washington - Browns Lake, Lincoln; Luther Burbank Beach, King; Anderson Lake, Jefferson, Marine Biotoxin Closure Zones

To sign up for the newsletter, send an email to ***danglada.lesley@epa.gov***