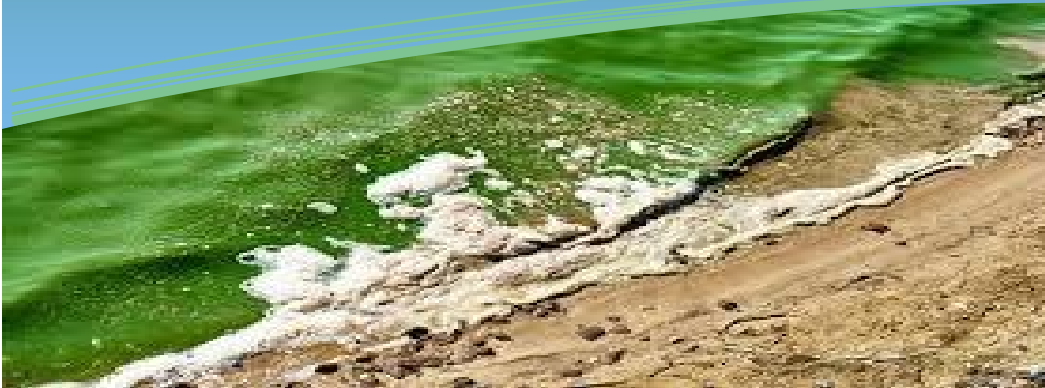




Freshwater Harmful Algal Blooms (HABs) Newsletter



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News

USGS Integrated Water Science Basin Studies

The U.S. Geological Survey (USGS) Water Resources Mission Area (WMA) is planning to intensively study 10 [Integrated Water Science \(IWS\) basins](#) throughout the U.S. over the coming decade.

To date, IWS basin activities are underway in the [Delaware River Basin](#) and in the [Upper Colorado River Basin](#). Starting in 2021, the relationship between nutrients, associated HABs, and water availability in the [Illinois River Basin](#) will be studied.

Over the course of 2021, USGS will begin broad internal and external stakeholder engagement to help develop a science and monitoring plan for the Illinois River Basin that will guide USGS IWS activities in the basin over the coming years.

EPA Updates: *EPA's Research, Resources, and Tools on HABs*

EPA Sanitary Survey App



An updated version of [EPA's Sanitary Survey App for Fresh and Marine Waters](#) is available and can be used to identify sources of fecal pollution in recreational waters. At this time, the app is only available for use by states, territories and tribes.

The App now includes the ability to gather more detailed Harmful Algal Bloom information. The update also includes the ability to monitor fresh waters in addition to marine waters. Additionally, updates were also made to improve usability. For example, the app does not require the use of the Internet or WiFi while the user is out in the field, and survey data can be stored on [EPA's GeoPlatform](#) at no cost.

To improve data collection, the updated app has the following new functions:

- Storing photos
- Geolocating sites where data is collected
- Linking to websites, such as the National Weather Service, for weather related information (e.g., rainfall, air temperature)

Click [here](#) for more information or email EPA at EPA_SanitarySurveyApp@epa.gov

Recently Published Articles*

[Oral Microcystin-LR Does Not Cause Hepatotoxicity in Pigs: Is the Risk of Microcystin-LR Overestimated?](#)

Welten, Richard & Meneely, Julie & Chevallier, Olivier & Kosek, Vít & Greer, Brett & Hajšlová, Jana & Elliott, Christopher, 2019, Exposure and Health, December 2, 2019.

[Electrocoagulation/flocculation of cyanobacteria from surface waters](#)

Alejandro de la Fuente, Alicia M. Muro-Pastor, Francisco Merchán, Fernando Madrid, José Ignacio Pérez-Martínez, Tomás Undabeytia, Journal of Cleaner Production, Volume 238, 2019, 117964.

[Acute toxicity of dihydroanatoxin-a from Microcoleus autumnalis in comparison to anatoxin-a](#)

Jonathan Puddick, Roel van Ginkel, Carrie D. Page, J. Sam Murray, Hannah E. Greenhough, Joel Bowater, Andrew I. Selwood, Susanna A. Wood, Mich_ ele R. Prinsep, Penelope Truman, Rex Munday, Sarah C. Finch. Chemosphere 263 (2021) 127937.

[Manganese-oxidizing bacteria isolated from natural and technical systems remove cylindrospermopsin](#)

Erika Berenice Martínez-Ruiz, Myriél Cooper, Jutta Fastner, Ulrich Szewzyk, Chemosphere, Volume 238, 2020, 124625.

[Combined Danio rerio embryo morbidity, mortality and photomotor response assay: A tool for developmental risk assessment from chronic cyanoHAB exposure](#)

Amber Roegner, Lisa Truong, Chelsea Weirich, Macarena Pérez-Schirmer, Beatriz Brena, Todd R. Miller, Robert Tanguay, Science of The Total Environment, Volume 697, 2019, 134210.

[Deriving safe short-term chemical exposure values \(STEV\) for drinking water](#)

Frederic D.L. Leusch, Stuart J. Khan, Daniel Deere, David Cunliffe, Peta A. Neale, Andrew Humpage, Regulatory Toxicology and Pharmacology, Volume 110, 2020, 104545.

[Degradation of cyanotoxin microcystin-LR in synthetic and natural waters by chemical-free UV/VUV radiation](#)

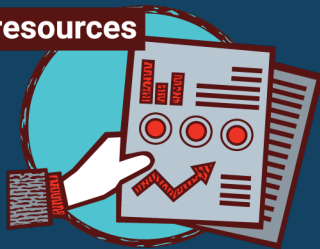
Pranav Chintalapati, Madjid Mohseni, Journal of Hazardous Materials, Volume 381, 2020, 120921.

[Ecotoxicity assessment of microcystins from freshwater samples using a bioluminescent cyanobacterial bioassay](#)

Miguel González-Pleiter, Samuel Cirés, Lars Wörmer, Ramsy Agha, Gerardo Pulido-Reyes, Keila Martín-Betancor, Andreu Rico, Francisco Leganés, Antonio Quesada, Francisca Fernández-Piñas, Chemosphere, Volume 240, 2020, 124966.

* Articles are retrieved from Science Direct research database searching for the following key words: cyanobacteria, cyanotoxins, harmful algal blooms, and HAB(s).

resources



PREVENTING AND CONTROLLING CYANOHABs

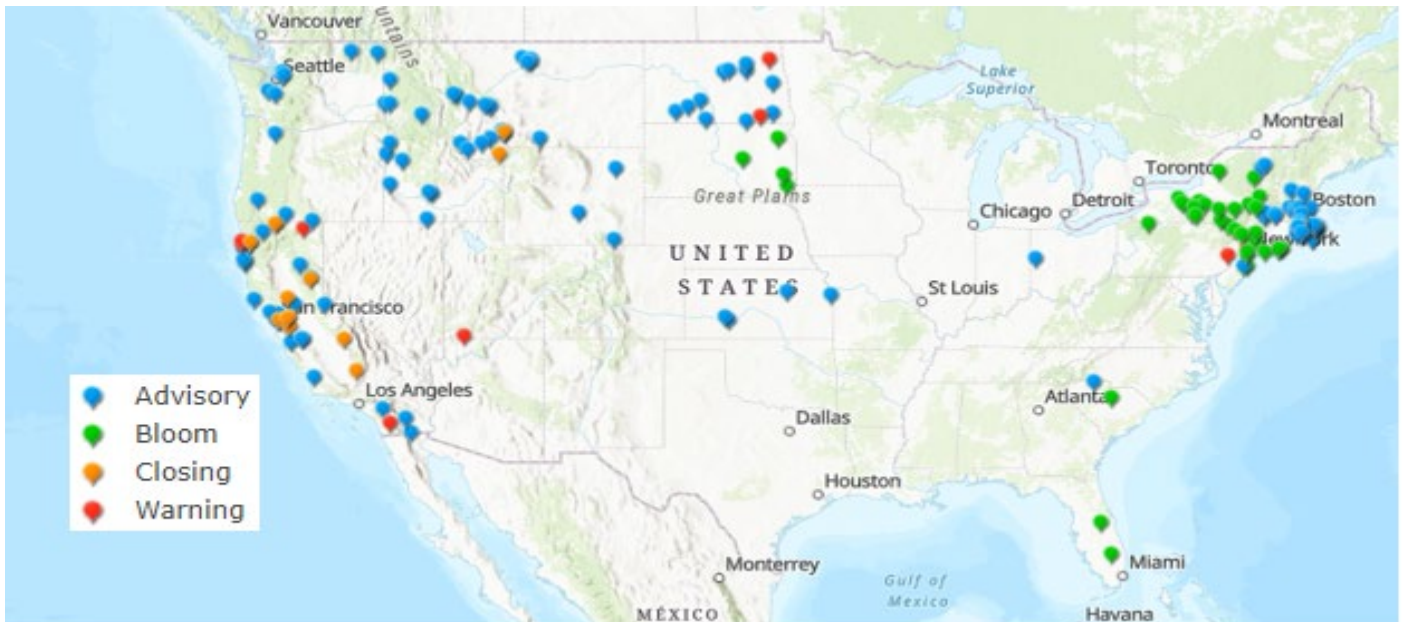
Useful resources if you are trying to prevent or control
HABs in your area:

- [Preventative Measures for Cyanobacterial HABs in Surface Water](#)
- [Control Measures for Cyanobacterial HABs in Surface Water](#)
- [Algae Mitigation technique Selection Process for Lakes Flowchart, California Water Quality Monitoring Council](#)
- [Management Strategies for Cyanobacteria \(Blue-Green Algae\): A guide for Water Utilities](#)
- [Report: Solutions for managing cyanobacterial blooms: A scientific summary for policy makers](#)



Reported Blooms, Beach Closures and Health Advisories* - October 2020

* This list is comprised of 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, cautions, warnings, public health advisories, closings and detections may have not been reported.

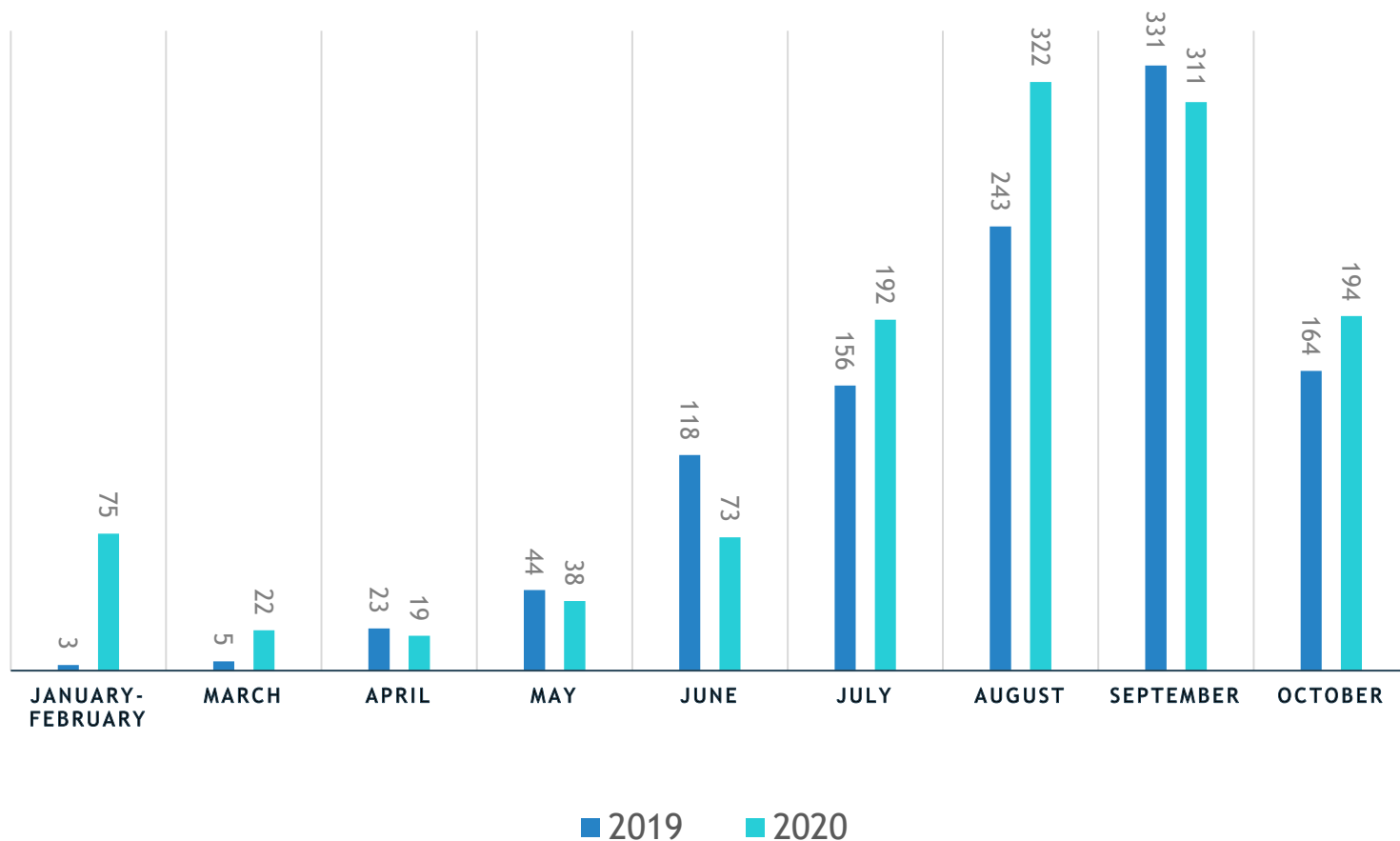


- **California (37):** CAUTION – Lake Chabot, Lake Temescal, Quarry Lakes, Shadow Cliffs Arroyo, Van Duzen River (Grizzly Creek Campground – Redwoods State Park), Mad River at Blue Lake, South Fork Eel River, Swimmers Delight, Trinity River mouth, New River near Fig Lagoon, Gualala River, O’Neill Forebay, San Luis Reservoir, Lake Almanor, Lily Lake, San Jacinto Wildlife Area ponds, Salton Sea, Sacramento River, Laguna Lake, Meadow Creek, Santa Margarita Lake (Salinas Reservoir), Scott River; WARNING – Red Lake, Big Lagoon, Stone Lagoon, Lake Henshaw; DANGER – Lake Anza, Lake Del Valle, Big Break Regional Shoreline, Contra Loma Reservoir, Klamath River, Lake Isabella, Clear Lake, Mystic Lake, Big Bear Lake, Copco Reservoir, Iron Gate Reservoir
- **Florida (2):** Lake Anderson, Lake Okeechobee
- **Idaho (11):** Brownlee Reservoir, Hells Canyon Reservoir, Fernan Lake, Cedar Creek Reservoir, Thorn Creek Reservoir, Mormon Reservoir, Lake Lowell, Hordemann Pond, Spring Valley Reservoir, Cascade Reservoir, Round Lake
- **Kansas (4):** WATCH – Hain State Fishing Lake, Horsethief Reservoir, Milford Lake, Roses Pond
- **Massachusetts (30):** Billy Ward Pond, Lake Winnekeag, Charles River, Stiles Pond, Brookline Reservoir, Chilmark Pond, Squibnocket Pond, Chebacco Pond, Lake Cochituate (South Pond), Lake Warner, Bare Hill Pond, Plunkett Reservoir, Cabot Pond, Santuit Pond, Sassaquin Pond, Magnolia Pond, Triangle Pond, Nashua River, Big Sandy Pond, Big West Pond, Billington Sea, Clear Pond, Ezekiel Pond, Grassy West Pond, Halfway Pond, Island Pond, Little West Pond, Merrimack River, Hardy Pond, Lake Pearl
- **Montana (20):** CAUTION - Bailey Reservoir, Hauser Lake, Valley West Pond, Beaver Creek Reservoir, Bearpaw Lake, Canyon Ferry, Harrison Lake, Lake Helena, Valley Grove and Rustler Trail Pond, Clark Canyon Reservoir, Dry Fork Reservoir, Cooney Reservoir, Ennis Lake, Ruby River Reservoir, Mystic Heights Subdivision pond, Salmon Lake, Nevada Creek Reservoir, Placid Lake; CLOSED - Sundance Spring Subdivision pond, Hebgen Lake
- **New Hampshire (2):** Tucker Pond, Harvey Lake
- **New Jersey (4):** WATCH - Sylvan Lake; ADVISORY - Manasquan Reservoir; WARNING - Tappan Lake, Spruce Run Reservoir
- **New York (31):** Owasco Lake, Wainscott Pond, Prospect Park Lake, Central Park Lake, Iroquois Lake, Skaneateles Lake, Song Lake, Cayuta Lake, Mountain Lake, Lake Lacoma, Barger Pond, Seneca Lake, Indian Pond, Dead Lake, Goose Pond, Roaring Brook Lake, Bear Gulch Pond, Agawam Lake, Truesdale Lake, Canadaigua Lake, Cayuga Lake, Cannonsville Reservoir, Little Fresh Pond, Quaker Lake, Morningside Lake, Vosburg Pond, Chenango Lake, Winding Hills Park Lake, Lake Ronkonkoma, Lindsay-Parsons Biodiversity Preserve Lake, Allegheny Reservoir
- **North Dakota (13):** ADVISORY – Antelope Lake, Buffalo Lake, Dead Colt Creek, Devils Lake, Dry Lake, Froelich Dam, Larson Lake, South Golden Lake, Sweetbriar Lake, Lake Tschida, Wood Lake; WARNING – Homme Dam, Lake LaMoure
- **Ohio (1):** Grand Lake St. Mary’s
- **Oregon (3):** South Umpqua River and Lawson Bar, Willow Creek Reservoir, Upper Klamath Lake
- **Rhode Island (16):** Willow Lake, Almy Pond, JL Curran Reservoir, Upper Melville Pond, Barney Pond, Blackamore Pond, Barber Pond, Elm Lake, Spectacle Pond, Pleasure Lake, Edgewood Lake, Mashapaug Pond, Polo Lake, Roosevelt Lake, Wenscott Reservoir, Lower Melville Pond
- **South Carolina (2):** Lake Whelchel, Lake Wateree
- **South Dakota (4):** Wall Lake, Lake Herman, Waubay Lake, Lake Louise
- **Utah (1):** Virgin River north fork (danger)
- **Vermont (2):** Lake Champlain, Shelburne Pond (low alerts)
- **Washington (8):** Anderson Lake, Blackmans Lake, Cottage Lake, Crescent Lake, Curlew Lake, Lacamas Lake, Palmer Lake, Spanaway Lake
- **Wyoming (3):** Jackson Lake, Gillette Fishing Lake, Huck Finn Pond

SUMMARY OF HABs-RELATED ADVISORIES POSTED JANUARY - OCTOBER for 2019 and 2020

The graph below summarizes the monthly state reports of blooms, cautions, warnings, public health advisories, and closings postings due to the presence of algae, toxins, or both from January 2019 through October 2020. Blooms and advisories for most months in 2019 are published on EPA's [CyanoHABs Freshwater Newsletters 2019](#) webpage.

**Number of Blooms and/or Advisories Reported
Monthly from January 2019 through October 2020**



Look for our new format in 2021! Future information on HABs will be included in a new quarterly newsletter providing highlights from the Office of Science and Technology within EPA's Office of Water.

Mention of trade names, products, or services in this newsletter does not convey and should not be interpreted as conveying official EPA endorsement, approval, or recommendation for use.