

Harmful Blooms of Cyanobacteria in Cape Cod's Freshwater Ponds



Upper Mill Pond, Brewster

WHAT ARE HARMFUL BLOOMS?

- Cyanobacteria, also referred to as blue-green algae, can grow rapidly in fresh water and form scums or mats in the water. Some blooms can produce toxins harmful to people and animals.
- Blooms on Cape Cod are most common in summer and early fall.

HOW DO I KNOW IF THERE IS A HARMFUL BLOOM IN THE WATER?

Cyanobacteria blooms can change the water's appearance from slightly discolored to resembling pea soup or thick paint.

Blooms frequently appear blue or green but could be another color, such as brown or red. These blooms can also give the water a bad odor or taste.

WHAT CAUSES CYANOBACTERIA BLOOMS?

- Warm weather and lots of nutrients in the water help cyanobacteria grow faster.

- Excessive levels of nutrients in waterbodies can come from human-related sources such as fertilizers, human and pet waste and runoff from roadways.
- Sources of excessive nutrients in waterbodies can be from leaking septic systems, poorly managed stormwater runoff, lawn fertilizers, pet and wildlife waste and agricultural activities.

WHAT ARE THE POSSIBLE HEALTH CONCERNS OF HARMFUL CYANO' BLOOMS?

Health concerns from harmful cyano' blooms and their toxins vary depending on the type of exposure and the amounts and types of toxin present.

- Contact can cause skin and eye irritation.
- Ingesting small amounts can cause gastrointestinal symptoms. Ingesting large amounts of toxins may cause liver or neurological damage.
- Inhaling water spray with cyano toxins in it can cause asthma-like symptoms.
- Small children and pets are more susceptible to the effects of toxins than adults. Livestock and pet deaths from ingesting cyano toxins have occurred.

If you see water that appears to have an algae-type bloom, do not come into contact with or ingest the water. Prevent contact and ingestion by kids and pets.

Dogs can get very ill and even die from licking the cyano' off their fur. Rinse dogs off immediately with clean water if they come into contact with pond scum.

WHAT YOU CAN DO

- Properly maintain septic systems
- Use phosphate-free dishwasher detergent
- If you must fertilize, apply correctly
- Pick up your pet's waste
- Do not feed ducks or geese
- Plant or maintain native vegetation around the water's edge

Many storm drains empty directly into water bodies without treatment. These drains are intended to collect only rainwater. Wash your car in areas away from storm drains or at a commercial car wash.

Use caution when applying fertilizer to avoid getting it on pavement, which may allow for transport to storm drains.

IF YOU SEE A BLOOM, REPORT IT TO THE LOCAL BOARD OF HEALTH OR THE MASSACHUSETTS DEPARTMENT OF PUBLIC HEALTH.

The **Association to Preserve Cape Cod** has developed a citizen scientist program to monitor cyanobacteria in freshwater ponds. APCC's goal is to establish these local programs Cape-wide and to provide education and outreach about harmful cyano' blooms and the steps we can take to minimize their occurrence.

APCC provides presentations about pond health and volunteer training in the EPA-approved sampling protocols. Results of monitoring are shared with the respective towns. In August 2017, identification of a bloom resulted the town of Brewster posting warning signs in Upper Mill Pond. Blooms plagued ponds in late spring of 2019.

Public education & outreach is a critical component to doing a better job of protecting our water quality, the health of the environment, our pets and us.

Please, invite APCC staff to give a presentation to your civic organization or your neighborhood association about pond health and what we must all do to be good stewards of the 1,000 freshwater ponds, the jewels of Cape Cod.

Contact: Kristin Andres, APCC Director of Education & Outreach at kandres@apcc.org / (508)619-3185



For More Information or to report a bloom or health effect contact your local board of health or **Bureau of Environmental Health - Massachusetts Department of Public Health**
Phone: 617-624-5757 | Fax: 617-624-5183 | TTY: 617-624-5286 www.mass.gov/dph/environmental_health

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