

Harmful Algal Blooms

Who:

Potentially Toxic Cyanobacteria or “Blue-green Algae’

What:

Release of toxins that affect liver, nervous & respiratory systems, and skin.

Where:

Lakes, ponds, slow moving stream sections.

When:

Mid to late summer, but possible throughout year.

Why:

Nutrient pollution and warming temperatures



What are HABs?

Harmful Algal Blooms, or HABs, are periods of dense growth of toxic blue green algae known as cyanobacteria. Toxins released by the microscopic organisms can be hazardous to humans, animals, and the aquatic



ecosystem. HABs occur when species of cyanobacteria undergo a period of rapid growth where the population size can double overnight. Affected waterbodies are usually slow-moving waters, exposed to excess nutrients, abundant sunlight, warm temperatures.

HABs Characteristics

Harmful algal blooms have a variety of appearances; foam, bubbling scum, spilled paint, green streaks/ dots/ clumps, hairy/silky strands, as well as no visible characteristics. The coloring of an algal bloom can range from blue-green, to brown, yellow, orange, and red. The bloom eventually dies and decomposes, resulting in a very distinct smell (typically an unpleasant, rotting odor). The process of decomposition can remove oxygen from the water column, resulting in fish kills and other negative affects to aquatic life.

Why are we seeing more HABs warnings?

Harmful algal blooms are linked to high nutrients loads and warm temperatures in slow moving surface water. While there are natural sources of nutrients in our waterways (ducks, geese, deer, etc.), it is human land use patterns and behaviors that introduce much of the nutrient pollution to aquatic systems. Agricultural and residential runoff delivers phosphorus from fertilizers and detergents, and suspended solids from erosion into waterways. Point sources of nutrient pollution include wastewater treatment plants, stormwater discharge, and leaky septic systems. The introduction of monitoring programs is increasing HABs advisories and general awareness.

How are HABs harmful?

Cyanobacteria can produce toxins that are harmful to the liver and the central nervous system. Contact with contaminated water might include:

- Recreational activities such as swimming, kayaking, fishing, or wading in the water.
- Inhaling contaminated water droplets.
- Drinking the contaminated water.
- Eating contaminated seafood.

Symptoms vary on type and length of exposure. Typical symptoms might include skin, eye, and nose irritations. When swallowed, individuals can develop more severe symptoms including diarrhea, vomiting, abdominal pain, among other indicators. It is important to note that these toxins impact pets and wildlife, as well as people.



What if my pet drinks the water?

Dogs are particularly vulnerable to HABs since they can be exposed these toxins through drinking, eating washed up mats or scum of toxins, and through skin contact with the water. Dogs are often attracted to the HABs odor, and after leaving the water, they may ingest the toxin later while grooming themselves.

Symptoms for dogs can include excessive salivation, weakness, staggered walking, difficulty breathing, or convulsions. Symptom onset can occur a few minutes or a few hours after exposure, depending on the size of the dog, how much the dog ingested, and the concentration of the toxin itself.

How do I know if there is a HABs?

Be aware of posted HAB **watch**, **advisory**, and **warning** signs around the park. Colorless toxins can remain in the water after the visible blooms dissipate. Confirmation of HABs can only be made through water samples and laboratory tests.

How can I help?

Reduce polluted runoff from your yard or business. Be mindful of the chemicals you use outside and use native vegetation to filter runoff as it leaves your property, so it doesn't enter waterways.

LOOK OUT FOR Harmful Algal Blooms

Be Alert! Water conditions at this location make the water susceptible to harmful algal blooms (HABs). HABs occur when certain cyanobacteria or other harmful organisms that can harm people, pets, or wildlife in Pennsylvania. HABs are most commonly caused by cyanobacteria.

What to Look For: HABs can be hard to detect and detect HABs can only be confirmed with water testing. Local conditions can often indicate a potential HAB. Before entering the water, check for and avoid areas with:
- Microscopic blue-green, blue, green, yellow, or red colors in, on, or near the water's edge
- Odors that smell like paint, milk, or sewage
- Other like areas.

Follow Safe Water Recreation Practices

ALWAYS
WASH WITH SOAP AND WATER IMMEDIATELY
After all contact with untreated water.

ADVISORY AVISO

TOXIC ALGAE MAY BE PRESENT - BE ALERT
Algas tóxicas pueden estar presentes - Esté atento

DO NOT Ingest untreated water. No ingiera agua no tratada.

CAUTION: Avoid contact with discolored water or scum. Precaución: Evite el contacto con agua descolorida o espumada.

WASH IMMEDIATELY after contact with untreated water. Lávese inmediatamente después de contacto con agua no tratada.

DO NOT TOUCH UNTREATED WATER No toque el agua no tratada.

Keep out of water - No swimming. Manténgase fuera del agua - No nadar en el agua.

Do not ingest untreated water. No ingiera agua no tratada.

Keep pets out of water and from drinking untreated water. Manténgalos fuera del agua y de beber agua no tratada.

Do not boat or paddleboard in water with scum or discoloration. No use ni pase a bordo en el agua con descoloración o espumada.

Call your doctor, veterinarian, or the poison control center if you or your pet becomes ill or shows signs of poisoning. Llame a su médico, veterinario, o Centro de Toxicología si usted o su mascota tiene una enfermedad o síntomas de envenenamiento.
Poison Control Center: 800-222-1222

WARNING ALERTA

TOXIC ALGAE PRESENT
Algas tóxicas están presentes

Call your doctor, veterinarian, or poison control center if you or your pet becomes ill or shows signs of poisoning. Llame a su médico, veterinario, o Centro de Toxicología si usted o su mascota tiene una enfermedad o síntomas de envenenamiento.
Poison Control Center: 800-222-1222
Animal Poison Control Center: 888-426-4435
For more information: HABs@pa.gov
Para más información: HABs@pa.gov

What can I do if I see a HABs?

- Stay out of the water!
- Don't let children or pets play in the water and HAB debris on shore.
- After swimming, with or without visible HABs, rinse or shower with fresh water as soon as possible.
- Avoid swallowing water.
- Don't let pets lick or eat HABs material from their fur, or surrounding areas.
- Don't drink or cook with suspected water.

See a doctor or veterinarian as soon as possible if you suspect yourself, children, or your pet might be ill from HAB toxins.

If you would like to report a potential HAB, or have other questions, contact HABS@PA.gov.