Algal Bloom Action

The Illinois EPA

Last year we shared with our readers the dangers of blue-green algae in our surface waters. Though most of us know the dangers of drinking water directly from these bodies, some of our beloved course animals may like to take a nip or two throughout the day. Sadly, some have died from the ingestion of a specific toxin caused by some algae. The Illinois EPA has launched a new website (the outcome from a public meeting of allied groups and stakeholders this past winter) to help manage this problem that really became apparent during last year's drought and low lake and pond levels. The following is from a release from the Illinois EPA.

With summer in full swing, Illinois Environmental Protection Agency (IEPA) Director Lisa Bonnett today announced a new effort to help protect the public against harmful algal blooms that are being found in lakes and streams across Illinois. IEPA has just launched a new website (http://www.epa.state.il.us/water/algal-bloom/index.html) with information about how to spot blooms, who to contact with a problem and what can be done to protect yourself and others. "With so many people enjoying the summer on the water, everyone needs to know what to look for to avoid algal blooms," said Director Bonnett. "It's important to be cautious and report blooms and not risk exposure that could harm yourself or animal."

What are algal blooms?

Algal blooms are made of dense groups of blue-green algae which are naturally occurring microscopic organisms. They are frequently found in and grow well in shallow bodies of water like lakes and streams that get a lot of sunshine. Its strong color can often make it look like the water is painted pea-green or blue-green, or a reddish-brown. It may also appear with scum or foam on the water surface.

How can they be harmful?

While not always a danger, blue-green algal blooms are capable of producing toxins that could harm the health of humans and animals when they've been exposed to large enough quantities. Exposure can come from recreational pursuits like swimming, boating, tubing and other activities where you come into contact with or could swallow the water.

The most common kind of algal toxin found in Illinois is microcystin, which can cause rashes, asthma-like symptoms, abdominal pain, vomiting, diarrhea, liver damage or severe neurotoxicity depending on the length and level of exposure.

Water monitoring done by IEPA over the years has frequently shown detections of microcystin but concentrations were generally below levels of concern. However, monitoring during last year's drought has shown concentrations that can be harmful if not addressed. In 2012, one northern Illinois lake had a microcystin concentration more than 1,500 times greater than acceptable World Health Organization Guidance values. Other lakes and rivers are also showing concentrations significantly above acceptable levels.

What precautions should be taken?

Don't swim, water ski, or boat in areas where the water is discolored or if there is foam, scum or mats of algae on the water. If you come in contact with water that might have a harmful algal bloom, rinse off with fresh water as soon as possible. Don't

Long strands of green algae, duckweed, and filamentous macro-algae are sometimes confused with blue-green algal blooms as duckweed pictured above.

let pets or livestock swim in or drink from areas where water is discolored, or if there is foam, scum or mats of algae on the water. Don't let pets (especially dogs) lick the algae off their fur after swimming in water with an algal scum. Don't irrigate lawns or golf courses with pond water that looks or has a bad odor.

Don't drink the water. Boiling the water will not make it safe to drink.

The presence or non-presence of algal toxins can only be determined by lab tests. If you believe a body of water is showing signs (strong discoloration or odor) of a harmful algal bloom, cease recreational activities on the water and visit the IEPA's website (http://www.epa.state.il.us/water/algal-bloom/index.html). You can report the bloom to IEPA by taking photographs of the bloom, filling out a Bloom Report form (available on the website), and emailing both to IEPA at EPA.HAB@illinois.gov. IEPA will work with local authorities on a case by case basis to appropriately handle the situation. One potential remedy is the closing of the lake to the public until the algae concentrations go down.

IEPA will be working with other state agencies to address harmful algae blooms.

For more information and more pictures of what algae blooms can look like, visit (http://www.epa.state.il.us/water/algal-bloom/index.html) or contact Barb Lieberoff in IEPA's Office of Community Relations at 217-524-3038.

Identifying Blue-Green Algal Blooms

When blue-green algae reproduce quickly and bloom, there are physical signs. The blooms can look like blue or green paint spilled into the water, thick puffy blue or green foams on the surface of the water (scums), or swirling colors beneath the surface of the water. A blue-green algal bloom will coat an object when it is dipped into the water. Long strands of green algae, duckweed, and filamentous macro-algae are sometimes confused with blue-green algal blooms. Blue-green algae blooms can also have distinct smells. They can smell grassy or septic, and in some cases the smell can cause nausea. These algal blooms can accumulate near the shoreline of lakes and can move based on wind and wave action in the lake.

The presence of algal toxins can only really be determined by lab tests. However, if you see algae that looks like blue and or green paint spilled on the water, or one that has a strong swampy odor, don't hesitate to contact the IEPA.
As pictured to the left, a bloom of blue green algae, notice the swirling colors and foam.