

Toxic Algae — Is it in our lake?

There's been a buzz on the internet about toxic algae the past few months. Last month, three dogs died after a swim at a pond in North Carolina. Another incident occurred in Austin, Texas, where, after swimming in Ladybird Lake, three more dogs died. And a third incident came from next door in Georgia when a dog died after a swim in Lake Allatoona.

Lake Watch of Lake Martin received several inquiries concerning the risk of letting family pets swim in the lake, as well as the risk to their owners. Other incidents have involved the deaths or sickening of livestock, taste and odor problems with municipal drinking water supplies, sickening of people and closures of swim beaches.

While researching the topic, I came upon a toxic algal blooms primer from Auburn University's Dr. Alan Wilson, whose specialty for two decades has been the ecology of algal blooms in bodies of water that are used for recreation, drinking water, aquaculture and zoos. *Lake* readers can find the article on the Alabama Water Watch *AWWareness* blog at wp.auburn.edu/aww (scroll to *Expert View: Toxic Algal Blooms*), Wilson answered frequently asked questions, including:

- What is blue-green algae, and what makes it toxic?
- What types of water bodies does it affect?
- What precautions should people take for themselves and for their pets or livestock?
- Can you tell by looking at the water if it is safe?
- What are the symptoms for people and animals?
- He included links to more information on toxic algal blooms, also known as HABs (harmful algal blooms) caused by blue-green algae.

An important caveat that Wilson warned about is sight-identification of HABs. While many algal blooms look distinctive and can be identified by sight, some toxic blue-green algae blooms don't typically form scums on the surface of the water, even when abundant, and they cannot always be identified by sight.

Lastly, not all blue-green algal blooms produce toxins, but if they are present in the water – stay out! I would strongly encourage all lake-goers to read Wilson's article, check out information on HABs at lakewatch.org (click the *Information about Toxic Algae* menu), and become familiar with HABs and the dangers they pose to people and their



Blue-green algal bloom in a pond at the E.W. Shell Fisheries Station at Auburn University.
Source: Dr. Alan Wilson

animals.

On a brighter note, to my knowledge, Lake Martin has never had problems with toxic algal blooms. We have had algal blooms but not toxic ones. There was a situation in which an algal bloom was implicated in taste and odor problems in the City of Alexander City's drinking water from Lake

Martin in 2017, but there was no toxic bloom involved.

It is possible that a toxic bloom could in our lake, particularly in isolated sloughs that get a lot of nutrients during the hot summer months. Key ingredients for an algal bloom include warm water, nutrients (nitrogen and phosphorus, fertilizers that might be used on lawns and gardens) and relatively stagnant water.

To prevent it from happening here, the No. 1 practice would be to use fertilizers sparingly around the lake and along streams and the Tallapoosa River and to consider using a no-phosphorus fertilizer. Phosphorus is the most potent nutrient to cause algal blooms in our lake. Most established lawns don't need it (they need the nitrogen), so use the no-phosphorus fertilizer whenever possible.

Preserve/establish vegetated buffer strips/zones along streams that drain into the Tallapoosa River, which drains into Lake Martin (the lake's watershed encompasses almost 1,600 square miles starting below Lake Harris Dam and extending down to the Martin Dam, known as the Middle Tallapoosa Watershed). Of course, these practices are recommended for other watersheds as well.

A developing concern that I'd like to close with is the explosion of chicken houses in the lake's watershed, which was revealed in a recent survey of the watershed. These could be a major source of nutrients coming into the lake if their waste product – chicken litter – is not managed properly. Lake Watch is actively assessing this potential threat to the lake's water quality. I plan to offer additional information in my next article, so stay tuned.

Lastly, we're always looking for folks to help in our water monitoring, public outreach and other watershed stewardship efforts. We'd love to have you come aboard. Go to www.lakewatch.org to sign on.

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LAKE WATCH

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