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Protecting Torch Lake from Golden Brown Benthic Algae

People come to Northern Michigan to experience all we have to offer: great restaurants, fun hiking trails, and incredible lakes and beaches. Like many kids from around here, the lakes have been a part of my life for as long as I can remember, especially Torch Lake. I have been going to the sandbar since I was a baby and in 2017 my family moved to Torch River, just minutes from the lake. Torch Lake is the lifeblood of our area, and many of the businesses are only open seasonally and rely on the support of ‘fudgies’ to survive. Torch Lake is facing serious threats, and golden algae is one of the greatest concerns.

While the golden algae is, as of right now, considered a non-harmful form of algae, scientists don’t currently know enough about how it is forming to definitively say that it can’t later become dangerous. Studies done by the Three Lakes Association have found that the reason for the algal bloom is septic tanks that haven’t been properly maintained and are leaching into the groundwater. This is proven by the amount of Acesulfame potassium, or Ace-K in Torch Lake. Ace-K is a man-made sugar substitute 200 times sweeter than sugar that is not utilized by the body, so it is eliminated in urine.

Golden algae is caused by the introduction of man-made items like the chemicals leached from septic tanks and lawn treatments. Scientists are concerned that if this algal bloom turns into a harmful form of algae, the results would be catastrophic. According to USGS, “Golden algae can produce toxins that are lethal to aquatic animals and cause considerable ecological and

environmental damage.” While this algae does not harm humans, harming the fish and other wildlife that live in Torch Lake could be disastrous. The algae threatens to harm local wildlife, including loons. According to The National Wildlife Federation, “Loons depend on clean water in lakes and other bodies of water, and are sensitive to the effects of pollution and human disturbances.” If certain species were wiped out by the algae, food chains can collapse and the entire Torch Lake ecosystem could be destroyed.

Another area of concern is the appearance of the algae. Torch Lake is known for its caribbean-like waters and sandy bottom. The algae is ruining this. *The Detroit News* describes what is happening to Torch Lake best when they said there’s “An outbreak of brown algae that’s left its sandy bottom covered with mushy, squishy mats.” Many guests visit for the aesthetic and the different activities you can do on and around the lake. Tourism is what keeps our area alive. Many local businesses rely on the summer crowds to help them survive the slow winters. If the lake is cloudy and brown, people will not be drawn to our area.

There should be regulations for using fertilizers and mandatory septic tank maintenance for those who live along the watershed. The Keep Torch Blue campaign is a great start, but there needs to be more serious changes in order to protect this precious resource. Laws need to be considered to prevent human pollutants from entering the water and creating more algae. The algae poses a threat looming in the not so distant future, and unless something is done to prevent it, the algae could turn toxic, ruining this great place we call home.

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