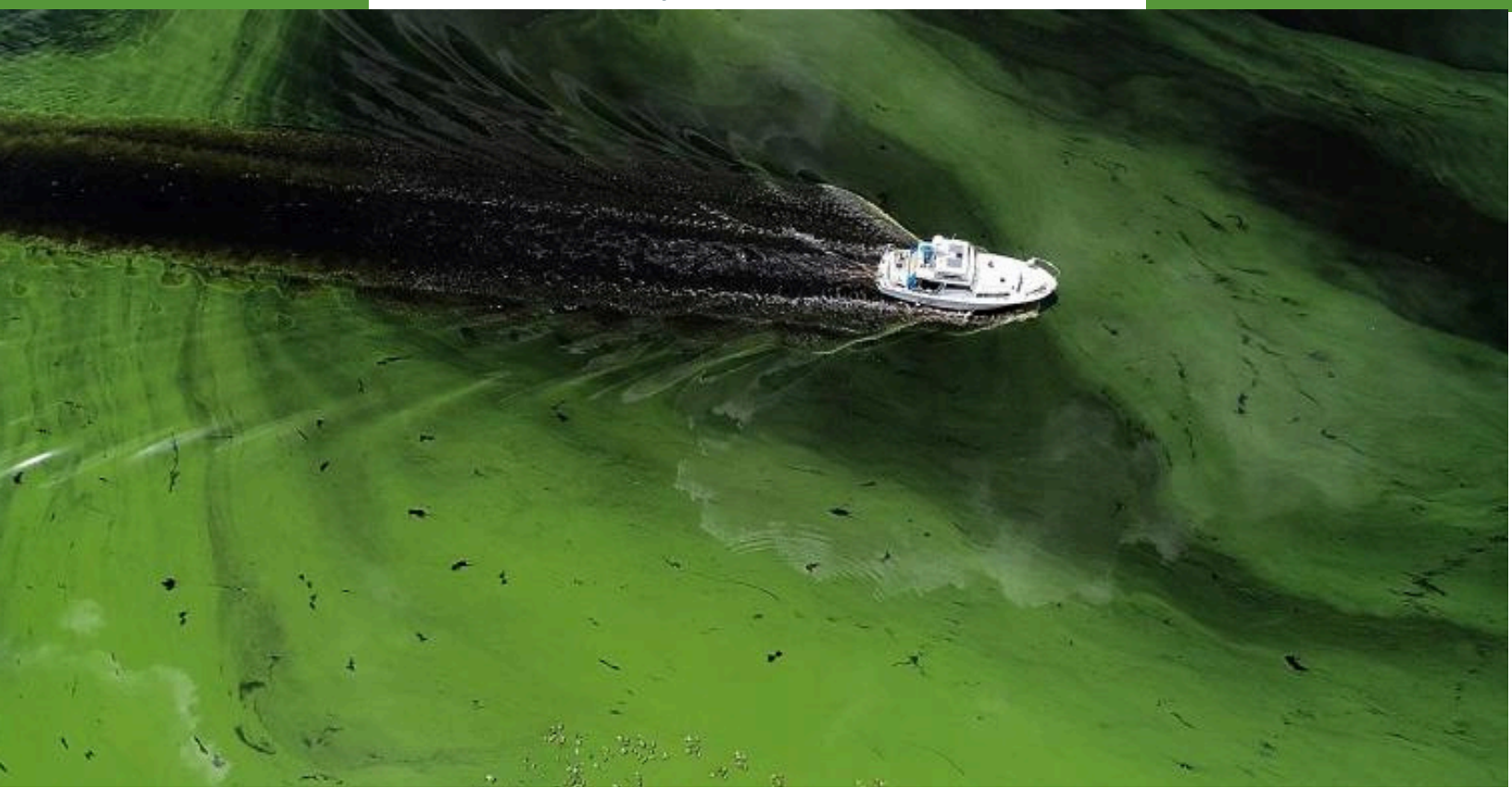


# ALGAE CRISIS IN GEORGIA

by Jordan Sellers



**A BOAT SAILS THROUGH A DEEPENING ALGAE BLOOM ACROSS THE CALOOSAHATCHEE RIVER ON JUNE 27, 2018, IN LABELLE, FLORIDA.**

*PEDRO PORTAL / MIAMI HERALD VIA GETTY IMAGES FILE*

## Introduction

Algae blooms, characterized by the rapid proliferation of algae in aquatic environments, have emerged as a critical environmental issue in the state of Georgia, posing threats to aquatic ecosystems, water quality, and public health. This article comprehensively explores the causes of algae blooms, provides detailed information on their occurrence in Georgia, and delves into the far-reaching impacts algae has on the environment and the people of the region. This article is meant to inform the public, in order to combat and mitigate the negative environmental impacts caused by algae blooms.

# General Information on Algae Blooms

“Algae and cyanobacteria are simple organisms that live in the water. Algae and cyanobacteria can rapidly grow out of control, or ‘bloom,’ when water is warm, slow-moving, and full of nutrients.” (CDC, 2023)

Georgia's diverse aquatic ecosystems, including rivers, lakes, and coastal areas, provide fertile grounds for algae proliferation. Georgia has identified algae blooms, with notable occurrences in the Skidaway River (Landers, 2023), and even West Point Lake suffering a dramatic spike in algae (Hunter, 2024).

The National Oceanic and Aeronautical Administration (NOAA) states: “Harmful algal blooms, or HABs, occur when colonies of algae ... grow out of control and produce toxic or harmful effects on people, fish, shellfish, marine mammals and birds” (NOAA, 2016).

HABs have become a growing problem in every U.S. coastal and Great Lakes state. (NOAA, 2016)



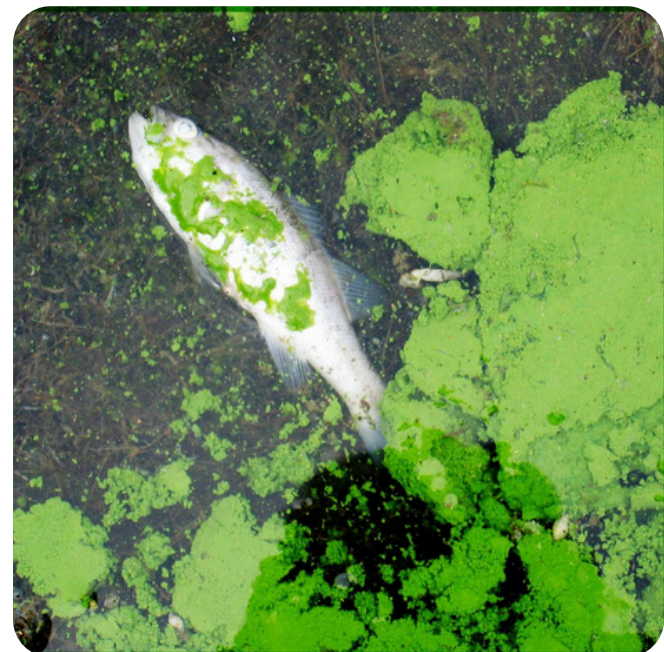
## CAUSES OF ALGAE BLOOMS

CDC reports that “blooms occur in freshwater, marine water, and brackish water. A bloom can change the color of the water to green, blue, brown, red, or another color.” (CDC, 2022b)

“The extensive use of fertilizers, agricultural runoff, stormwater, and wastewater discharge are major contributors to elevated nutrient levels.” (Oleniacz, 2020) Nutrient pollution creates favorable conditions for algae growth, resulting in the growth of harmful algal species, some of which can produce toxins harmful to aquatic life and public health.

“Additionally, climate change-induced variations in temperature are expected to increase the magnitude and duration of cyanoHABs. Rainfall patterns can also influence the frequency and intensity of algae blooms” (EPA, 2024)

These blooms exhibit seasonal variability, with peak occurrences often observed during warm weather months.



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# THE IMPACT OF ALGAE BLOOMS

## IMPACTS ON THE ENVIRONMENT

The environmental consequences of algae blooms in Georgia are extensive and multifaceted. “If a bloom becomes so dense that sunlight cannot go through, it can block other plants and animals in the water from getting the sunlight they need to survive. Dense blooms can also clog the gills of fish, shellfish, and other animals, preventing them from breathing” (CDC, 2022b)

“Furthermore, the toxins released by certain algae species during HABs can contaminate fish and shellfish, posing risks to both aquatic life and human consumers” (CDC, 2022a). Additionally, altered water chemistry and reduced water clarity associated with algae blooms further exacerbate the environmental consequences.

## IMPACTS ON PEOPLE

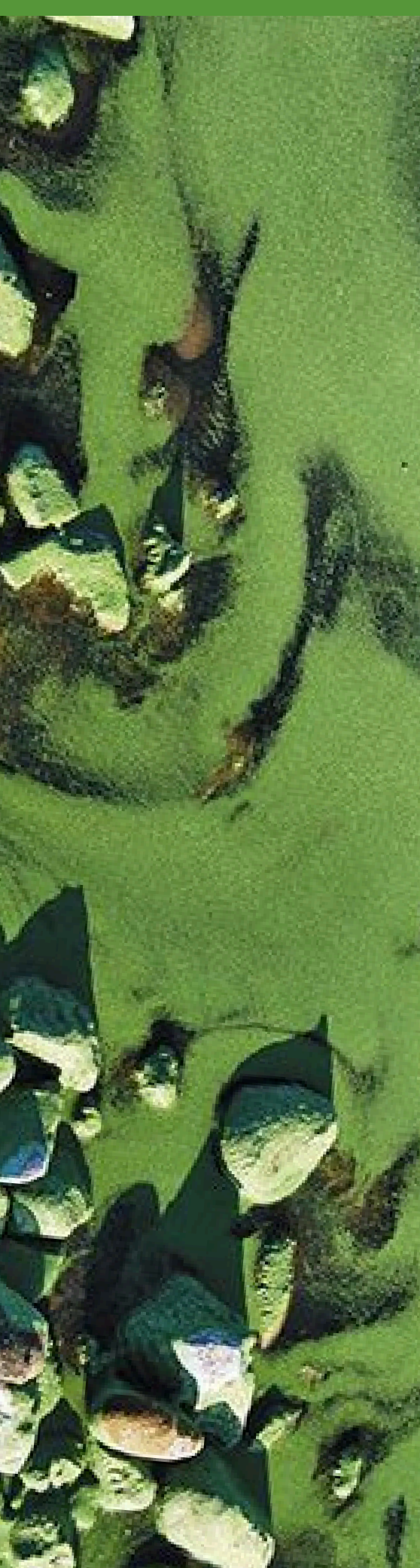
The toxins produced by some algae can lead to serious health concerns, such as skin irritation, gastrointestinal illness, liver damage, and even neurological effects (CDC, 2022a).

Beyond health concerns, the aesthetic degradation of water bodies due to algae blooms negatively impacts recreational activities. Popular activities such as swimming, fishing, and boating are affected, thereby possibly impacting tourism and the quality of life for residents.

## IMPACTS ON PETS

Similarly to humans, harmful algae blooms can also make animals and pets very sick or even kill them. Animals can even die within hours to days of swallowing toxins created from algae.

Seek veterinary care immediately if your pets or livestock seem sick after going in or near water.



# WHAT CAN YOU DO?

## **MITIGATION AND MANAGEMENT:**

Efforts to mitigate and manage algae blooms in Georgia require implementing agricultural practices to reduce nutrient runoff, enhance wastewater treatment processes, and promote sustainable land use.

The best way to mitigate the impacts of algae on a personal level is by watching your nutrient runoff. You can do this by using only the recommended amount of fertilizer and keeping your wastewater from leaking and seeping into nearby bodies of water.

Early detection and monitoring of algal blooms are critical components of effective management plans. The timely identification of blooms allows for swift response and mitigation measures. Additionally, raising awareness about the sources and impacts of nutrient pollution encourages responsible nutrient management practices among various stakeholders.

## **CONCLUSION:**

Algae blooms in Georgia represent a complex and pressing environmental challenge, requiring collaborative efforts from government agencies, environmental organizations, researchers, and the public. By implementing effective mitigation strategies and raising awareness about the importance of nutrient management, Georgia can work towards safeguarding its water resources and ensuring a sustainable future for both the environment and its residents.



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