Brandon D. Dyer

Topics in Biology

Josh Cannon

Summer Ventures in Science and Mathematics

The University of North Carolina at Charlotte

Abstract

Algae can be beneficial to an ecosystem. It can provide oxygen, food, and shelter for organisms. On the other hand, over population of algae can cause serious problems within the ecosystem resulting in massive fish kills (New Hampshire Public Television, 2006). Algae can become overpopulated when excess nutrients, such as nitrates and phosphates, enter its environment. Fish kills happen because algae takes part in both photosynthesis and respiration at the same rate, allowing no oxygen to be produced for other life around it (C.S. Rao, 2006). Due to the risks and effects of overpopulation of algae, an experiment was designed to control algae growth.

Manipulating one of alga's growth factors, pH, can determine if it thrives or perishes ("Algae growing conditions,"). In the experiment pH levels of one group of alga were lowered, while the other group's pH levels were raised from low to sufficient. Results concluded that pH can act as a source to control algae growth and maintain a healthy ecosystem.