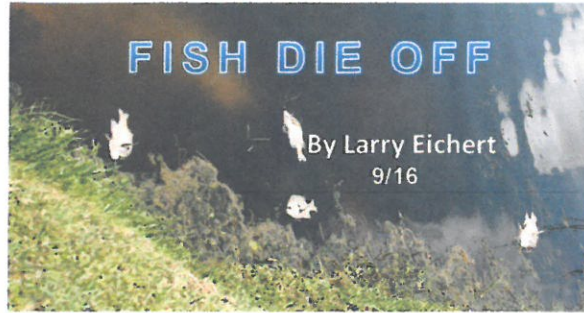


Another fish die off. some of the possible Beacon Lake. Again I to determine the 12th hole lake of the Aug. 11th. However facing the lake a high strike. They said that several close strikes



Last August I wrote about causes for the fish die off at do not have any available data reason for the die off on the Stoneybrook golf course after talking to some residents possibility would be a lightning the previous night there were with one being instantaneous.

Fish kills are often the first visible signs of environmental stress. A lightning strike would have been quite stressful.

Some other common causes are reduced oxygen in the water, which in turn may be due to a number of factors such as; drought (not likely), algae blooms (little present), overpopulation (possible) or a long term increase in water temperature (could be). Infectious diseases and parasites can also lead to a fish kill. The most common natural cause of fish kills is "Ecological hypoxia" (oxygen depletion). Hypoxia may be brought on by factors such as algae blooms, droughts or high temperatures. (maybe) If we knew the D.O. (dissolved oxygen) test results, plus the amount of surface algae (algae bloom) (little present) (not likely)

An algae bloom will combine H₂O and CO₂ to make (CH₂O)_n into various sugars during photosynthesis and liberates O₂. Some of the O₂ given off is trapped in the form of bubbles under the algae and then released into the atmosphere, instead of being trapped between the water molecules being re-dissolved, (this is most noticeable in the patches of "pond scum. With little algae present, this cause can be ruled out.)

Another possibility would be the increase in water temperature (thermal pollution). This also allows the D.O. to be liberated, due to the fact that all the molecules are moving faster, and if the surface area is increased by rain fall, more evaporates off the surface. But doesn't rain increase the D.O. on the water? Yes, however there is a delicate balance between both of these factors. Another factor to consider is the barometric pressure. When it rains the pressure in the air decreases, because air pressure is related to the gases in the air, not the water it contains. That is why the barometer drops when it rains and raises when there are less water molecules in the air. With less pressure pushing down on the surface, the lighter molecule will escape. By having less mass than water molecules, oxygen can escape easier from the water, especially if the water molecules are moving faster due to an increase in water temperature, or wave action.



We still need to consider over population as a possible cause. When a fish population exceeds the carrying capacity of its surroundings more stress is placed on the population. Signs of disease include sores, missing scales or lack of slime, strange growths or visible parasites, and abnormal behavior – lazy, erratic, gasping at the water surface or floating head, tail or belly up. Still another factor could be that fish are generally weaker after spawning and are less resilient than usual to smaller changes in the environment. The dead fish I saw had none of these characteristics.

As sad as it seems, the death of the fish provide a food supply for the scavengers of the environment, our local vulture population plus other animals. As the fish decompose, that scent in the air attracts these animals to the sight to feast on the remains, and to supply food for themselves and their newly developing young. In this manner, the nutrients from the fish are recycled back into the environment through other members of the food chain. Ultimately the waste products given off from those who eat the fish remains will recycle nutrients into the soil for plant growth.

These are some possible scenarios to this event. In this case it would seem that lightning would be the most probable cause. [Get to know more about your surrounding environment. Join the Wetland Tour Sept. 10 at 8:00 A.M. at the Stoneybrook golf course club house.](#)

