



What Does a Fish Kill Mean for the Lake?



NH LAKES occasionally gets calls from concerned individuals who have observed dead fish in the lake or washing up on shore. While alarming, fish kills do not always indicate that the water is polluted or unsafe for swimming and recreation. With that said, it is important to keep people and pets out of the water until you know for certain.

Stressful factors such as warm water temperatures, spawning, and disease can naturally lead to a fish kill. In these cases, the fish kill will likely include fish of the same species or age. Spawning stress is a likely cause during late-spring and early-summer, especially for fish such as bass and sunfish, which can be extremely abundant in New Hampshire's lakes and ponds.

Fish use up a lot of energy fighting for mates and building nests during spawning, leaving them susceptible to environmental factors like illness and infections. If the fish you see washing up have wounds or white fungus, they may have died from bacterial infection (which does not affect humans). Spawning stress-related deaths happen after the fish have already mated and should not affect the species population levels in the following years. In fact, it may even result in more resources being freed up for young and healthy fish!

In addition, low oxygen levels from late ice-out or extremely high pollen levels may limit the amount of oxygen available in the water causing fish kills. Sometimes, poor catch and release procedures result in dead fish, and the wind and wave patterns may lead to dead individuals washing up together in the same location.

Large fish kills that affect all species and ages of fish may indicate toxic water conditions. Changing weather patterns and development on the landscape typically contributed polluted water runoff into our lakes, resulting in increased algal or toxic cyanobacteria growth. When algae or cyanobacteria blooms die off, the oxygen available to other species becomes temporarily limited, causing fish to suffocate. A cyanobacteria bloom die-off may also release toxins into the water that can kill fish and other aquatic life.



To report a fish kill:

- Call the New Hampshire Fish and Game Department Inland Fisheries Division at (603) 271-2501
- Make sure that children and pets do not drink, wade, swim, or make contact with the water.
- If you are able, take photos of the dead fish to help biologists identify the species.

If you suspect a cyanobacteria bloom:

- Please text a photo of the bloom and location to the Harmful Algal and Cyanobacterial Bloom Program at NHDES at 603-848-8094 or email photos to HAB@des.nh.gov.
- Make sure that children and pets do not drink, wade, swim, or make contact with the water.
- If you are instructed to collect a water sample by NHDES, please wear a mask and gloves and use a clean glass or hard plastic container. Cap the bottles and rinse them off with freshwater to remove bloom material from the bottle's exterior. Label bottle(s) with contact info, waterbody, town, location, time, weather, or other notes if applicable. Place the sample on ice and drop it off at the NHDES Limnology Center for microscopic analysis (29 Hazen Drive, Concord at the main entrance). The NHDES beach program will post an advisory for the beach area if necessary.
- Look for any advisory signs that may be posted at the beach entrance that indicate recent water testing results. It's important to keep in mind that the absence of an advisory sign does not necessarily mean that NHDES has recently monitored the beach. To see the most recent testing results, visit the NHDES beach advisory page at:
<https://www.des.nh.gov/organization/divisions/water/wmb/beaches/advisories.htm>.

NH LAKES is the only statewide, member-supported nonprofit organization working to keep New Hampshire's lakes clean and healthy, now and in the future. The organization works with partners, promotes clean water policies and responsible use, and inspires the public to care for our lakes. For information, visit nhlakes.org email info@nhlakes.org, or call (603) 226.0299.

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