

## "SUMMER FISH KILLS"

With hot weather warming up lakes and ponds, fish kills may be discovered in some bodies of water. In May, the Division of Fisheries and Wildlife (DFW) fielded reports of fish kills in several locations throughout the state. The sight of dead and dying fish along the shores of a favorite lake, pond or river can be distressing and can trigger concerns about pollution. Fish do act as the "canary in the coalmine," so it's natural to think a fish kill is an indicator of a problem with human caused pollution. However, the vast majority of fish kills reported are natural events.

Natural fish kills are generally the result of low oxygen levels, fish diseases or spawning stress. Depletion of dissolved oxygen is one of the most common causes of natural fish kills. As pond temperature increases, water holds less oxygen. During hot summer weather, oxygen levels in shallow, weedy ponds can further decline as plants consume oxygen at night. This results in low, early morning oxygen levels that can become critical if levels fall below the requirement of fish survival. In addition to reduced oxygen levels, late spring and early summer is when most warm water fish species, such as sunfish (bluegill, pumpkinseed, largemouth bass) begin to spawn. At this time, large numbers of these species crowd into the shallow waters along the shore vying for the best spawning sites. These densely crowded areas become susceptible to disease outbreaks, especially as water temperatures increase. The result is an unavoidable natural fish kill, usually consisting of one or two species of fish.

When a caller reports a fish kill, a DFW fisheries biologist determines if the kill is due to pollution or is a natural event. Generally, pollution impacts all kinds of aquatic life, therefore the most important piece of evidence for the biologists is knowing the number of fish species associated with the fish kill. Fish kills in which only one or two species are involved are almost always a natural event. When it is likely a fish kill is due to pollution, DFW notifies the Department of Environmental Protection (DEP). DEP takes the lead on a formal investigation which includes analysis of water and fish samples to determine the source of pollution. DFW provides DEP with technical assistance by identifying the kinds and numbers of fish involved.

To report a fish kill Monday through Friday between 8:00 am and 4:30 pm, contact Richard Hartley at (508) 389-6330. After normal business hours or on holidays and weekends, call the Fish Kill Pager at (508) 722-9811 or contact the Environmental Police Radio Room at 1-800-632-8075.