

Fish Kills caused by Natural Bacteria

With water temperatures rising in area lakes, a naturally occurring bacteria may cause local fish kills. The bacteria is commonly known as columnaris (*Flavobacterium columnare*). Columnaris outbreaks typically occur when water temperatures reach 65° to 70° F and rain events cause organic material to run into lakes and streams causing the bacteria to thrive and multiply. These conditions, combined with increases in spawning hormones (or other stressors such as low dissolved oxygen) which suppress fishes' immune systems make columnaris outbreaks more likely.

The most commonly affected fish in Wisconsin are bluegills, crappies, yellow perch and bullheads. Columnaris is aggressive and can rapidly spread and kill fish in a short (24 hour) time frame. Disease characteristics include yellowish mucus on part of the fins or gills, usually surrounded by an area with a reddish tinge, and associated sloughing skin. "In most cases, columnaris bacteria destroy gill tissue, causing the fish to become listless. Sick fish may be observed at the water surface and may have difficulty swimming and maintaining their balance," according to Sue Marcquenski, a DNR fish health specialist.

Columnaris outbreaks are typically seasonal, and pose no threat to humans. However, you should not eat fish you find dead, decomposing, or that appear sick, regardless of cause. Decomposing fish may attract other bacteria harmful to people, so you should always wash your hands after handling fish especially if the fish is dead or appears diseased. Dead fish and fish with sores may be contaminated with bacteria and it is a good idea to wear protective gloves when handling dead fish.

Although it can appear to produce large scale fish losses in a matter of several days, columnaris usually does not have a catastrophic impact on overall fish populations in the bigger picture of a lake ecosystem, according to fishery biologists.

If you catch a diseased fish or observe a fish kill take the following steps:

- Note the waterbody, date, fish species, and approximate number of dead/dying fish.
- Anglers should retain suspicious looking fish as part of their daily bag limit for examination by the local fisheries biologist. Place the fish in a plastic bag and then in a cooler on ice. Do not transport the fish to a DNR office or hatchery.
- Do not collect fish samples from a fish kill.
- Contact the DNR TIP line (800-TIP-WDNR or 800-847-9367) or your local fish biologist (Kristina Pechacek at 920-838-5281).

The local fisheries biologist will contact you as soon as they are available and will make the determination about whether the fish should be examined or not. DNR staff will not have time to visit every occurrence of dead fish or examine every potentially diseased caught fish.