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## Algae are killing fish, but how is a mystery

Experts puzzle over latest fish deaths in White River

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Several hundred dead fish, one large algae plume and a "perfect storm" that led to it all have state officials and Rocky Ripple residents scratching their heads over what's killing fish in the White River.

Since July 17, the Indiana Department of Natural Resources has received reports of hundreds of dead fish alongside the White River near Rocky Ripple, just north of Butler University.

Although officials blame a naturally occurring algae plume for the kill, how the single-cell organisms are killing the fish remains a mystery.

Algae can kill fish by creating too much or a lack of oxygen in the water, said Bill James, DNR fisheries chief. In this fish kill, though, no dangerously low or high level of oxygen has been reported.

Other possibilities range from increased pH levels in the water to gill damage caused by the fish taking in the algae.

The time of year for the overgrowth also is unusual, officials say, and the cycle could continue until a heavy, cleansing rain moves through the area.

"Think of it as a natural process gone awry," said Lenore Tedesco, director of the Center for Earth and Environmental Science at Indiana University-Purdue University Indianapolis. "It's kind of the perfect storm."

The algae growth stems from an excess of nutrients in the water, which can include sediment, fertilizer and sewage. Take the nutrients and add a relatively wet and cool July, and there's a recipe for a "very, very impressive" overload of algae, James said.

"This is definitely not normal," said Joshua Taflinger, 30, who has lived near the river for two years. "There's definitely something irregular up."

DNR officials say they are increasing their checks of the river, but there's not much that can be done, at least in the short term.

Unlike the 1999 White River fish kill that destroyed millions of fish across three counties and stemmed from a chemical release into the water, the algae growth would have happened with or without human influences, James said.

"Most of our water bodies in this state have excessive nutrients," IUPUI's Tedesco said. "And this is the biological response."

### Additional Facts

Alert: Geist, Morse

Increased levels of blue-green algae at Geist and Morse Reservoirs have led the state to issue a warning about use of both bodies of water.

People should avoid swallowing any water when swimming, water-skiing, or tubing in either reservoir, the Indiana State Department of Health cautioned Wednesday.

Tests have also shown an increase in the level of microcystin, an algal toxin, at Geist. The World Health Organization classifies low risk for recreational contact with water at two to four parts of microcystin per billion. Recent tests have shown the current level is six parts per billion.

Blue-green algae can irritate the skin. Consuming microcystin toxin in water can cause stomach ailments or more severe illness.

Star report

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