Good news from the bad drought: Gulf 'Dead Zone' smallest in years

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The worst drought to hit the United States in at least 50 years does have one benefit: it has created the smallest "dead zone" in the Gulf of Mexico in years, says a Texas A&M University researcher who has just returned from gulf waters.

Oceanography professor Steve DiMarco, one of the world's leading authorities on the dead zone, says he and other Texas A&M researchers and graduate students analyzed the Gulf Aug. 15-21 and covered more than 1,200 miles of cruise track, from Texas to Louisiana. The team found no hypoxia off the Texas coast while only finding hypoxia near the Mississippi River delta on the Louisiana coast.

"We had to really hunt to find any hypoxia at all and Texas had none," he explains.

"The most severe hypoxia levels were found near Terrabonne Bay and Barataria Bay off the coast of southeast Louisiana.

"In all, we found about 1,580 square miles of hypoxia compared to about 3,400 square miles in August 2011. What has happened is that the drought has caused very little fresh-water runoff and nutrient load into the Gulf, and that means a smaller region for marine life to be impacted."

DiMarco has made 27 research trips to investigate the dead zone since 2003.

DiMarco says the size of the dead zone off coastal Louisiana has been routinely monitored for about 25 years. Previous research has also shown that nitrogen levels in the Gulf related to human activities have tripled over the past 50 years. During the past five years, the dead zone has averaged about 5,700 square miles and has reached as high as 9,400 square miles.

Hypoxia is when oxygen levels in seawater drop to dangerously low levels, defined as concentrations less than 2 milligrams per liter, and persistent hypoxia can potentially result in fish kills and harm marine life, thereby creating a "dead zone" of life in that particular area.

The Mississippi is the largest river in the United States, draining 40 percent of the land area of the country. It also accounts for almost 90 percent of the freshwater runoff into the Gulf of Mexico.

"These findings confirm what we found in a trip to the Gulf back in June, and also what other researchers in Louisiana have discovered, so there is general agreement that the dead zone this year is a very, very small one.

"But the situation could certainly change by next spring," DiMarco adds.

"The changes we see year to year are extreme. For example, last year, record flooding of the Mississippi River and westerly winds in the Gulf led to a much larger hypoxic area, particularly earlier in the summer. We'll just have to wait and see what kind of rainfall is in store for the Midwest over the next 8-10 months."

Provided by Texas A&M University

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