

2019 'dead zone' may be the second largest on record

June 10 2019



Credit: CC0 Public Domain

A recent forecast of the size of the "Dead Zone" in the northern Gulf of

Mexico for late July 2019 is that it will cover 8,717-square-miles of the bottom of the continental shelf off Louisiana and Texas. The unusually high Mississippi River discharge in May controls the size of this zone, which will likely be the second largest zone since systematic measurements began in 1985. The water mass with oxygen concentrations less than 2 parts per million forms in bottom waters each year primarily as a result of nitrogen and phosphorus loading from the Mississippi River watershed, which fertilizes the Gulf of Mexico's surface waters to create excessive amounts of algal biomass. The decomposition of this plant material in the bottom layer leads to oxygen loss.

The [low oxygen conditions](#) in the gulf's most productive waters stresses organisms and may even cause their death, threatening living resources, including fish, shrimp and crabs caught there. Low oxygen conditions started to appear 50 years ago when agricultural practices intensified in the Midwest. No reductions in the nitrate loading from the Mississippi River to the Gulf of Mexico have occurred in the last few decades.

The predicted hypoxic area is about the size of the land area of New Hampshire and about 4.5 times the size of the Hypoxia Action Plan goal. This estimate assumes that there are no significant tropical storms in the two weeks before the monitoring cruise or during the cruise. The estimate is made each year by LSU scientists Eugene Turner and Nancy Rabalais.

The report is posted at https://gulfhypoxia.net/research/shelfwide-cruise/?y=2019&p=hypoxia_fc.

Provided by Louisiana State University

Citation: 2019 'dead zone' may be the second largest on record (2019, June 10) retrieved 25 April

2024 from <https://phys.org/news/2019-06-dead-zone-largest.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.