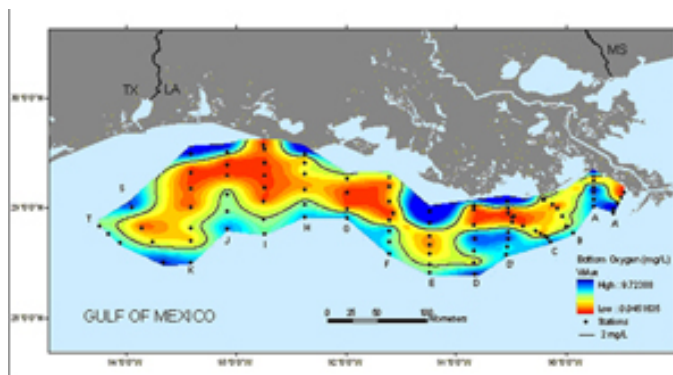


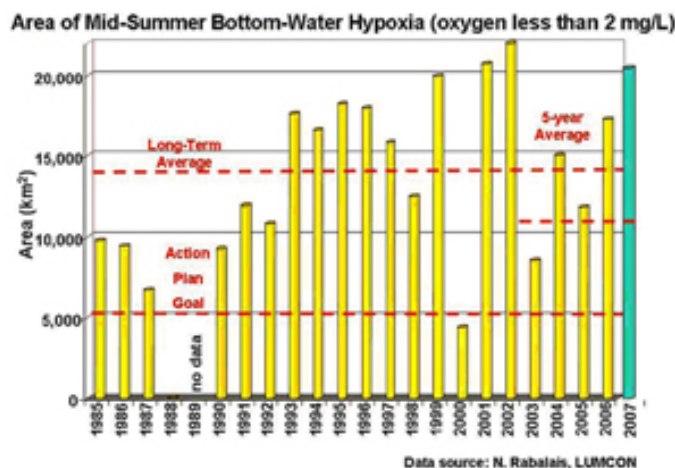
SURVEY CRUISE RECORDS THIRD-LARGEST "DEAD ZONE" SINCE 1985 AREA SIZE OF NEW JERSEY CLOSE TO NOAA-LSU PREDICTION



August 1, 2007 — Scientists from the Louisiana Universities Marine Consortium, led by Nancy Rabalais, Ph.D., after completing a NOAA-sponsored survey cruise to measure the actual size of the northern Gulf of Mexico hypoxic zone have indicated an actual Dead Zone of 7,900 square miles, a difference from the predicted value of only 7 percent. **(Click image for a larger view of bottom-water dissolved oxygen concentrations in the Gulf of Mexico from July 21-28, 2007. Click [here](#) for high resolution version. Please credit "NOAA/A. Sapp, Louisiana**

Universities Marine Consortium.")

The result is the third largest on record since measurements began in 1985 and represents an area approximately the size of the state of New Jersey. It also is more than one and a half times the average annual Dead Zone area measured since 1990 (4,800 square miles). The largest "dead zone" ever recorded 8,494 square miles in 2002. **(Click image for a larger view of graph showing total area of seasonal dead zone in the Gulf of Mexico from 1985 to the present. Click [here](#) for high resolution version. Please credit "NOAA/N. Rabalais, LUMCOM)**



Earlier this summer, a NOAA-sponsored forecast model developed by Eugene Turner, PH.D. at Louisiana State University, predicted that the "Dead Zone," a large area of low oxygen (hypoxic) bottom water located in the northern Gulf of Mexico off the coast of Louisiana and Texas, could have reached **8,500 square miles**. This would have been the largest area measured since mapping began in 1985. The forecast was based on nitrate loads from the Mississippi and Atchafalaya rivers in May 2007 (provided by the [U. S. Geological Survey](#)) and also incorporated data on 2006 loads.

Scientists say that the difference between predicted and observed areas may have been due to weather conditions that partially disrupted the hypoxia area prior to measurement. These included stormy conditions in early July and a tropical low pressure disturbance near the western boundary of the Dead Zone.

The weather-dependent variability in hypoxic zone area emphasizes the need for greater temporal coverage through monitoring, and NOAA is leading efforts to develop a long-term sustainable and integrative monitoring plan for the Dead Zone that would link closely with the Integrated Ocean Observing System ([IOOS](#)) and Gulf of Mexico Coastal Ocean Observing System ([GCOOS](#)). However, the closeness of Turner's model predictions in this and previous years suggests a consistent association between springtime nitrate loading and hypoxic zone area in the absence of major weather disturbances.

[NOAA](#), an agency of the [U.S. Commerce Department](#), is celebrating [200 years of science and service](#) to the nation. From the establishment of the Survey of the Coast in 1807 by Thomas Jefferson to the formation of the Weather Bureau and the Commission of Fish and Fisheries in the 1870s, much of America's scientific heritage is rooted in NOAA.

NOAA is dedicated to enhancing economic security and national safety through the prediction and research of weather and climate-related events and information service delivery for transportation, and by providing environmental stewardship of our nation's coastal and marine resources. Through the emerging Global Earth Observation System of Systems ([GEOSS](#)), NOAA is working with its federal partners, more than 70 countries and the European Commission to develop a global monitoring network that is as integrated as the planet it observes, predicts and protects.

Relevant Web Sites

[NOAA](#)

[NOAA National Ocean Service](#)

[NOAA National Centers for Coastal Ocean Science](#)

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