Gulf of Mexico dead zone to be studied by marine scientists

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University of Texas at Austin marine scientists have been awarded $781,000 by the National Oceanic and Atmospheric Association (NOAA) to better understand how nutrient pollution from the Mississippi River affects the large area of low oxygen water called the “Dead Zone” in the Gulf of Mexico, and consequently its impact on commercially and recreationally important fish and shellfish.

The funds were awarded to researchers at the University of Texas at Austin Marine Science Institute (UTMSI) through NOAA’s Northern Gulf of Mexico (NGOMEX) Hypoxia and Ecosystems Research Program.

UTMSI researchers will collect experimental data to verify water quality models and help resource managers determine the relationships between nutrient pollution and development, magnitude, longevity, and distribution of the Dead Zone.

Their findings will also support the creation of more accurate models that predict the development of hypoxia on the Louisiana continental shelf.

The project will be led by Dr. Wayne Gardner, professor of marine science. It complements research already underway on the Dead Zone by Professors Peter Thomas and Ed Buskey. Thomas and Buskey are studying the impacts of hypoxia on the biology of fish and benthic invertebrates, respectively.

Hypoxia in aquatic systems refers to waters where the dissolved oxygen concentrations are below 25 percent of their capacity. Most organisms avoid, or become physiologically stressed in, waters with oxygen below these levels. While hypoxia can occur naturally, large events often reflect environments stressed by human impacts. More than half of United States estuaries experience natural or human-induced hypoxic conditions at some time, but the frequency and duration of hypoxic events have increased during the past few decades. These hypoxic events degrade affected ecosystems and associated commercial fisheries.

This past summer off the coast of Louisiana, an area of deep water the size of New Jersey became hypoxic, as measured by NGOMEX-supported scientists. This event was the second largest recorded dead zone area since measurements began in 1985. The largest area was 8,500 square miles in 2002.

Source: University of Texas at Austin