

Presentation Type (specify podium or poster presentation): Podium

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Title: *Mapping the expansion, contraction, and causes of the dead zone in the Gulf of Mexico over the past 16 years.*

Abstract

Researchers have identified a dead zone in the Gulf of Mexico that expands and contracts seasonally. This dead zone is an area of hypoxic or under-oxygenated water that is caused by the decomposition of phytoplankton and is exacerbated by nutrient inputs. This research uses GIS mapping, and data from the USDA, NOAA, USGS, and multiple peer reviewed articles to visualize the expansion and contraction of the dead zone over the past 16 years. The data suggest that the leading cause of the dead zone in the Gulf of Mexico is due to agriculture and urbanization along the Mississippi river watershed and amount of rainfall and flooding that occurs the fall and spring leading up to summer. Knowing this scientist and farmers can find more sustainable ways to farm and raise livestock to prevent the dead zone from expanding and worsening.