

# Finding solutions to reviving the gulf of mexico dead zone



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## **The Gulf of Mexico Dead Zone**

The Gulf of Mexico has an area known as a dead zone. This is an area of low-oxygen in bodies of water, which is caused by large amounts of pollution.

The pollution such as animal wastes, sewage, fertilizers from farming states, and chemicals from factories, comes from states along the Mississippi River.

The pollution travels down the Mississippi River and empties out into the Gulf of Mexico where the areas of low-oxygen or hypoxic waters are created.

Minnesota, Wisconsin, Iowa, Illinois, Missouri, Kentucky, Tennessee,

Arkansas, Mississippi, and Louisiana are the ten states that border the

Mississippi River and play a key role in creating the dead zone. Compared to

some other dead zones around the world, the Gulf of Mexico dead zone is

small. Even though it is small compared to others, it is still a big issue for

fishermen, the seafood industry, shellfish and fish.

DuringThe dead zone is present year-round, but during the spring time is

when the sun's heat createsmakes the dead zone. worse. The freshwater

runoff from the Mississippi River creates a barrier that cuts off the salt water

below it from getting any oxygen from the air. The nitrogen from the sewage

and fertilizers, that comes from the Mississippi River, create algae blooms.

Algae blooms grow at a rapid speed and produce toxins that are harmful for

shellfish and people. When these algae die, they sink into the salt water to

decompose. They end up using all the oxygen that is available there and

they even make the water more acidic. Since the salt water beneath the

runoff from the Mississippi River is oxygen-deprived, the deep water then

becomes a dead zone. Fish and shellfish have to either avoid it or they will

die. When winter comes around the dead zone gets a lot better for the life in the Gulf of Mexico to live.

The Gulf of Mexico dead zone is never the same size each time it comes about during spring time. Its average size is about 5, 309 square miles. It can cover between 6, 000 and 7, 000 square miles across the coasts of Louisiana, Mississippi, part of Alabama, and part of Texas. It begins at the site of the Mississippi River delta and spreads across until the upper Texas and Alabama coasts. The ten states that contribute to the pollution being washed into the dead zone do not all contribute the same amount. The Midwestern states; Iowa, Illinois, Minnesota, Wisconsin, and Missouri, play a bigger role in causing this issue because they are the big farming states for corn. These states let the nutrients from the fertilizers that they use for the corn be drained into the Mississippi River which then washes down into the Gulf of Mexico. Louisiana does not play as big of a roll in causing the problem as much as the other states do, but it is the one state that has to deal with the burden of the dead zone the most.

Scientists have been studying the Gulf of Mexico dead zone since the 1970s. Ever since then, it has been growing larger. It can be larger one year and smaller the next. The largest Gulf of Mexico dead zone that was ever recorded was in 2017. It was 8, 776 square miles, the size of New Jersey. It was not as big as it was just because of the regular pollution. It was so large because there were a lot of rain falls and floods around the Mississippi River that year, which washed more nutrients from fertilizers than usual into the Gulf of Mexico. The estimated amount of fertilizer that was washed into the Gulf of Mexico during 2017 could have filled about 2, 800 train cars. The <https://assignbuster.com/finding-solutions-to-reviving-the-gulf-of-mexico-dead-zone/>

largest dead zone before the 2017 one was in 2002. It was measured to be 8, 497 square miles. Dead zones do not occur naturally, but they can be affected by climate changes or patterns of weather washing more pollution down the Mississippi River.

It might not seem like a big deal to people in some states because they may think that this only affects the life in the Gulf of Mexico. I would have to say that those people are wrong, this can affect people's jobs, eating habits, and hobbies. I find that it mostly affects the people of Louisiana and Mississippi because people that live in those places fish in the Gulf of Mexico as their source of income from the seafood industry. The Gulf of Mexico is a large supplier for the seafood industry. It supplies 72% of shrimp, 66% of oysters, and 16% of fish that are sold throughout the seafood industry. If there are no shrimp, oysters, or fish to catch because there is no oxygen for them to breath in the water, then people could lose the only job that they have ever known and prices for seafood will skyrocket. Prices going up can cause people to either spend more money than the seafood is supposed to be worth, go buy seafood from another state that is along a coast, or have to resort to other sources of food. Dead zones can also impact the reproduction of some species because they could be forced to retrieve to an area that they are not familiar with or because they do not like the habitat, such as the temperature, of the area that they have to go to. Moving to an unfamiliar area could cause them to not want to reproduce because that place is not home to them. Having a decline in the reproduction of a species can cause seafood industries to have a huge decline in their sales and income. Food chains can also be impacted. If some species' food sources are not available

anymore that can cause those species to have a decline in their growth.

Having a decline in the growth of a species, such as shrimp, can cause there to be more small shrimp than large shrimp. This would make the prices for the larger shrimp rise. Most people want larger seafood when they are buying it. If the prices for larger shrimp went up, this could cause people to buy the smaller shrimp—what they will be unsatisfied with—or cause them to buy larger shrimp for a better price from another state.

There are many steps to reduce the problem of the dead zone. Using less fertilizers and chemicals on farms and limiting the amount of chemicals from factories nearby the Mississippi River will reduce the amount that can end up in the river. But, having these people that provide food and goods for us cut down what they are doing would be too large of a task and a risk for the country. Taking control over animal wastes by dumping them somewhere other than the Mississippi River or the Gulf of Mexico can also help. An alternate solution for that would be for the government to pay farmers to build a fence close to waterways within their farm to keep the farm animals away from contaminating the fresh water. Monitoring sewage can help it to not be drained into the river if there can be an alternate route or place for the sewage to go. By not dumping anything into the Mississippi River or the Gulf of Mexico, this can aid in reducing the amount of nitrogen being drained into the Gulf of Mexico. By solving the problem of the dead zone, it could help to bring some species away from almost being extinct. If we were to stop dumping or reduce the amount of pollution that goes into the Mississippi River right now, it would still take many years, possibly decades even, for the Gulf of Mexico to be fully clear of the dead zone.

The Gulf of Mexico is not the only body of water that dead zones occur in, they occur around the world also. With all of the dead zones put together, they cover or have covered about 100, 000 square miles. Every year, nearly 10 million tons of organisms have to either move from the deadly areas or die in the dead zones. Some of these dead zones, oxygen-deprived waters, can and do occur naturally. The Gulf of Mexico dead zone is one that does not occur naturally because humans play a part in causing it. Though some people might think the biggest dead zone was in the Gulf of Mexico, it was not. The biggest was actually in the Baltic Sea, which is located in northern Europe. Its dead zone was once measured to be over 23, 000 square miles. That is about 14, 224 square miles larger than the Gulf of Mexico's dead zone. The Chesapeake Bay is another area that a dead zone was formed in because of northern states in the United States. The largest dead zone in the Chesapeake Bay was in 2011 at 2. 7 cubic miles. The dead zone in the Chesapeake Bay has been cleared up. By having this dead zone cleared up, it even brought back a fish species from almost being extinct. I hope that is something we can do one day with the dead zone in the Gulf of Mexico.

The Gulf of Mexico dead zone has been around for a longer time than we know. Scientists have only been studying the dead zone since the 1970s. As of now, we know that the largest one yet happened in 2017, it was 8, 776 square miles. Even though this dead zone does not occur naturally, natural events are what made it worse in 2017. Having large amounts of rain falls and floods, along with the regular human pollution problem, did not help the dead zone situation to become any better. Over the years, the dead zone has impacted people's jobs, eating habits, hobbies, and some shellfish and

fish reproduction. A decline in shellfish and fish reproduction has caused problems for some species' extinctions and the amount of seafood collected by fishermen to sell in the seafood industry. Using less fertilizers and chemicals from farms and factories, taking control over wastes and sewage, and not dumping anything into the Mississippi River or the Gulf of Mexico can help in reducing the dead zone problem. Reducing the dead zone problem would be a huge help to all of the factors it impacts. Comparing the dead zone in the Gulf of Mexico to other dead zones around the world helped me to realize there are things that can be done to reduce the problem. I also realized that our dead zone can get a lot worse if we do not do something about it. I believe that we should start do something about the Gulf of Mexico's dead zone problem now. If we do not start thinking about solutions that will aid in helping the issue now it can get even worse than it is now throughout the upcoming years.