Names:

Brown Shrimp Student Investigation Sheet

Lesson 3 > Part 3 > Changing Ecosystems

Expert Group 4: Dead Zones and Louisiana's Shrimping Industry

Read the article and answer the questions below.

(an excerpt from)

Gulf Shrimpers Fight for the Their Livelihoods in a Fertilizer-fueled Dead Zone

GRAND ISLE, La. — The Ace of Trade trawler motored toward Dean Blanchard's dock early last summer in southern Louisiana, its skipper slowly winching its nets into storage. Blanchard's workers, strengthened by a lifetime at sea, worked shirtless in the humid summer air. It was the beginning of hurricane season, and 2019 was on track to be one of the wettest years on record in the U.S. With cigarettes in their mouths, they vaulted aboard the ship to shovel knee-high piles of fish off the fiberglass deck and into holding tanks, where they awaited the 12-inch-thick, semi-translucent pipes that would suck them into the warehouse.

Dean Blanchard Seafood, headquartered on the barrier island of Grand Isle in the Mississippi River Delta, is one of the largest shrimp suppliers in the United States. Blanchard is a squat man with a boxer's nose, a soft-talking Cajun with the gravelly voice of a lifetime smoker. He fought hard for his livelihood after starting the business 37 years ago, when tensions ran high between established local shrimpers and newly arrived Vietnamese refugees. In the 1990s, Blanchard said that local shrimpers would sometimes pull alongside his dock opening fire with automatic weapons, angry at the market competition Blanchard encouraged through his dealings with the immigrants. He said he always shot back.

In 2010, Blanchard graduated to political battles with BP's Deepwater Horizon disaster, a spill that sent 4.9 million barrels of oil into his fishing ground. Dean Blanchard Seafood took a hit, and Blanchard later told a reporter that he estimated his business was worth 15 percent of what it was before the spill. He testified in Congress and appeared on national news shows to lobby for his industry.

Increasingly, Blanchard and other Gulf Coast fishermen find themselves reckoning with a different type of pollution, a threat to ocean biodiversity and Louisiana's $2 billion seafood industry that's unrelated to oil and much harder to fix.

"Sometimes we'll get thousands of pounds of shrimp a day, then the next day everything's gone," Blanchard said. "When the dead zone comes, it just kills everything."

"Sometimes we'll get thousands of pounds of shrimp a day, then the next day everything's gone," Blanchard said. "When the dead zone comes, it just kills everything."

The Gulf of Mexico dead zone is a massive, oxygen-deprived swath of water concentrated off the coast of Louisiana and Texas, fed by polluted freshwater from states along the Mississippi River.

The Mississippi is born in Minnesota, its cold water bubbling over football-sized rocks that edge the glacial Lake Itasca. From there, it begins a walking-paced meander, 2,320 miles toward New Orleans. Like a topological funnel between the Rocky and Appalachian Mountains, the Mississippi drains 40 percent of the contiguous United States, carrying left-over nitrogen and phosphorus from fertilizer spread on farmland across the Midwest toward the Delta. The chemicals encourage the growth of algae, which suck up oxygen and choke marine life.

Politicians and environmental scientists from the states responsible for allowing the most fertilizer runoff into the Mississippi — Minnesota, Iowa, Illinois, and Indiana — are encouraging farmers to plant cover crops, change how they rotate crops and take other measures to prevent polluted river water from barreling toward the Gulf and creating a zone of hypoxia (low oxygen) in one of the country's most fertile fishing grounds. But these scattered efforts have yet to yield much success.

(Continued from page 27)

(an excerpt from)

Gulf Shrimpers Fight for the Their Livelihoods in a Fertilizer-fueled Dead Zone

Last year, the dead zone measured as much as 6,952 square miles, larger than Connecticut and much bigger than the 5-year average of 5,770 square miles, according to the National Oceanic and Atmospheric Administration. Studies in the journal Science state that the global area of dead zones has quadrupled in the last 50 years, driven by a growing human population and an increase in the need for corn, soybeans, biofuels and livestock feed.

Few places have felt the consequences harder than Louisiana, the country's second-largest source of seafood after Alaska. NOAA estimates the dead zone costs the state's seafood and tourism industries $82 million a year. It has made the work of fishing in the Gulf even more difficult. The dead zone grows in the summer after spring rains from the Midwest wash pollutants south, forcing ocean life to flee to areas where they wouldn't normally be found. They would normally move from inshore nurseries to offshore spawning grounds, but the lack of oxygen blocks their migration.

So trawlers have been winding up with more small shrimp and fewer of the plump ones customers favor. That decreased volume comes even with improved equipment — new evolutions in radar, winches, and net technology. "So far, we have 68,000 pounds a day for the month," Blanchard said in July, usually a peak month. "Normally, we average about 90,000 pounds a day."

The changing climate plays a role, too, with increased and more intense rainfall that speeds up erosion on farmland. In May, the output of the Mississippi River and its distributary, the Atchafalaya River, was 67 percent above the long-term average between 1980 and 2018, according to the U.S. Geological Survey. This discharge carried 156,000 metric tons of nitrate (the weight of more than 750 Statues of Liberty) and 25,300 metric tons of phosphorus into the Gulf of Mexico last May — 18 percent and 49 percent above long-term averages, respectively.

The obvious solution is to stanch the pollution at its source upstream. But if efforts to trap runoff from farms don't succeed, wetland restoration projects in the Delta could form a defense of last resort by redirecting the Mississippi's polluted flow into marshland where contaminants can be absorbed before they hit the ocean.

For shrimpers living along the Delta, like Dean Blanchard and Kim Chauvin, patience is wearing thin. "On a congressional level, we need to say enough is enough," she said. "We need to list annual goals for change and stick to the plan."

She said that shrimpers want face-to-face meetings with large-scale commercial farmers and fertilizer companies. They want to show the consequences of current methods of farming on those who live and fish on the coasts. They want fines and regulations for offending agricultural operations and a return to healthier waters.

"We need them to understand what they're doing to the fishing industry," Chauvin said. "The states above us should be paying something to the industry that they're destroying."

Written by Spike Johnson in partnership with the Pulitzer Center on Crisis Reporting, Jan 2020.
publicintegrity.org/environment/growing-food-sowing-trouble/the-dead-zones-victims-shrimp-louisiana/

The Center for Public Integrity

Brown Shrimp Student Investigation Sheet

1. What is the one main problem identified in the article?

2. What are two questions that you have after reading the article?

3. Write three words that you feel sum up the message of this article (they do not have to form a sentence).

4. How does this article relate to the investigation question for today: *How are brown shrimp impacted by the changing coastal environment? How does this affect the people of Louisiana?*