



Brown Shrimp: CER Student Sheet

Lesson 2 > Part 4 > Sinking Land in the Bayou

Consider the following claim: **Fewer wetlands in Louisiana means less brown shrimp.** Collect evidence to support the claim using the information below, as well as your own experiences and knowledge. Record your evidence and reasoning in the spaces provided.

Brown shrimp harvesting in the Gulf of Mexico

77% of the shrimp harvested in the U.S. come from the Gulf of Mexico, especially Texas and Louisiana. Total domestic shrimp harvest brings around \$500 million per year to US economies.

Source: NOAA Fisheries, July 2019

About brown shrimp:

The brown shrimp life cycle starts and ends in the ocean, but it depends upon wetland nurseries within estuaries for the life stages in-between.

- Adults spawn during the spring or fall months, mostly at night, offshore in the Gulf of Mexico.
- Because the eggs are more dense than seawater, they float down near the seafloor where they hatch into larvae.
- Postlarvae shrimp use tides to migrate to the safety of inshore wetlands, mainly from February through April.
- Postlarvae and juveniles are found in shallow vegetated habitats within estuaries (the wetlands) where the majority of their prey resides. They use the cover provided by the vegetation to avoid predators.
- After about three months of feeding and growing, sub-adult shrimp move out into the slightly deeper, brackish marsh wetlands, and then into coastal waters as they prepare to return to spawning grounds in the open ocean.

Excerpt adapted from [Louisiana Shrimp](#), Fishery Management Plan, Louisiana Department of Wildlife and Fisheries, Office of Fisheries

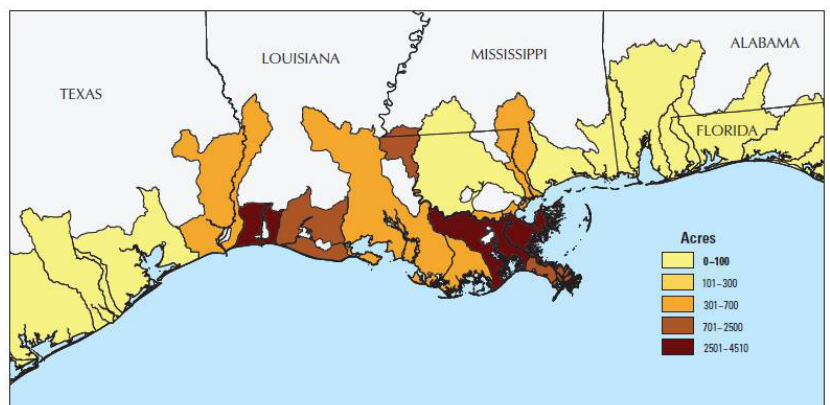
Wetlands loss in Louisiana:

- Coastal Louisiana lost 1.2 million acres of wetlands during the 20th Century and is at risk of losing another 430,000 acres from 2000-2050.
- Since the 1930s, 90% of the wetlands lost within the continental United States have occurred in Louisiana.
- The average loss of Louisiana's coastal wetlands is about 100 km²/yr (Gagliano et al., 1981).

Source: USGS

Saltwater Wetlands Loss in Gulf Coastal States 2004-2009

Source: NOAA/USFWS: <https://blog.nwf.org/2014/01/gulf-coast-wetlands-rapidly-declining/>





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Claim: Fewer wetlands in Louisiana means less brown shrimp.

The **evidence** is the data used to support the claim. It can be either quantitative or qualitative. Only include evidence that directly supports the claim.

The **reasoning** is the explanation of “why” and “how” the evidence supports the claim. There should be reasoning for each piece of evidence.

Evidence:

Reasoning:

Evidence:

Reasoning:

Evidence:

Reasoning:

Evidence:

Reasoning: