

Commercial Blue Crab Harvesting Industry

In this issue, Dr. Posadas describes the long-term trends in the blue crab industry in the U.S., the Gulf of Mexico, and Mississippi since 1950. The economic contributions of the blue crab harvesting industry in the Gulf of Mexico states show the importance of the industry to fishing households, businesses, and communities in the region. The livelihoods and way of life of the fishing households, businesses, and communities dependent on the blue crab industry are threatened by the man-made disaster associated with the prolonged and twice opening of the Bonnet Carre spillway since February to April and May to July 2019.

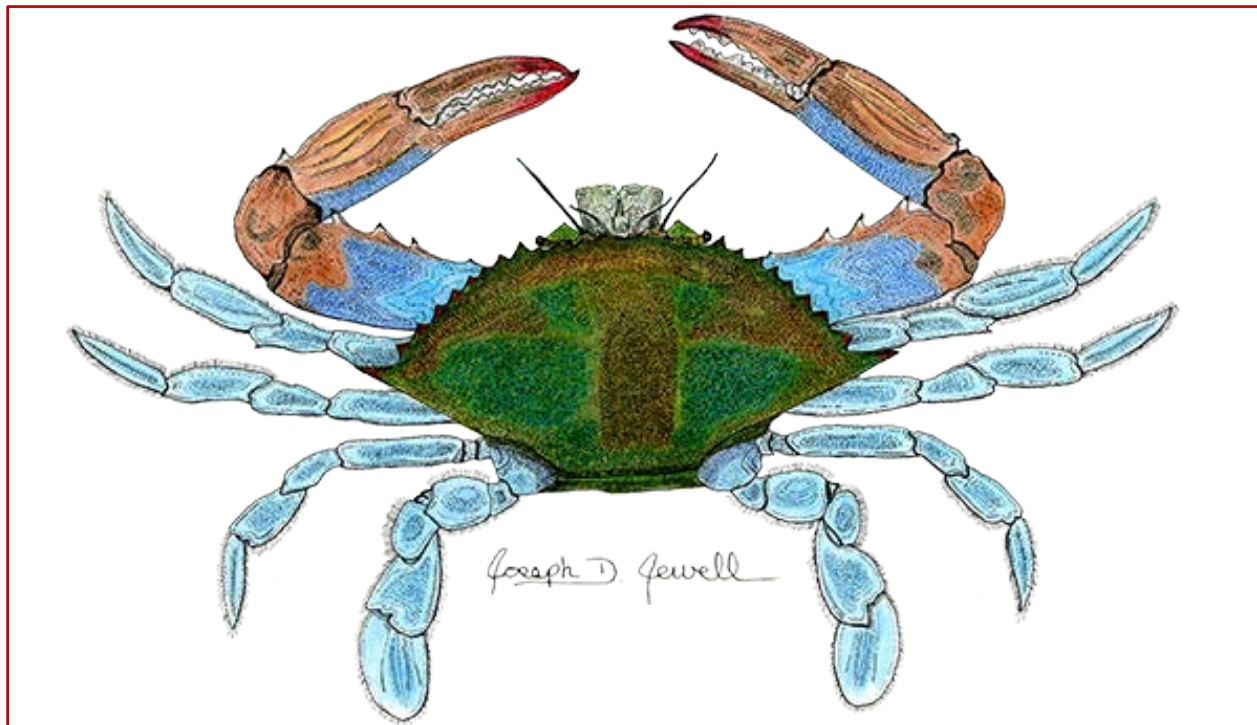


Figure 1. Blue crab. Illustration by Joseph D. Jewell.
<http://www.msseafood.com/catch/blue-crab/>. Last visited: July 31, 2019.

The blue crab (*Callinectes sapidus*) is also known as the blue claw, soft shell crab, blue swimming crab (Fig. 1). According to the Mississippi Department of Marine Resources (<http://www.msseafood.com/catch/blue-crab/>), “Mississippi blue crabs are harvested year-round with the most bountiful harvest occurring in the warm summer and fall months. Named for the light-blue tint on its claws, they have a thick shell that turns orange when cooked.” If you are interested, several Mississippi Gulf blue crab recipes are available for download from <http://www.msseafood.com/category/recipes/crab/>.

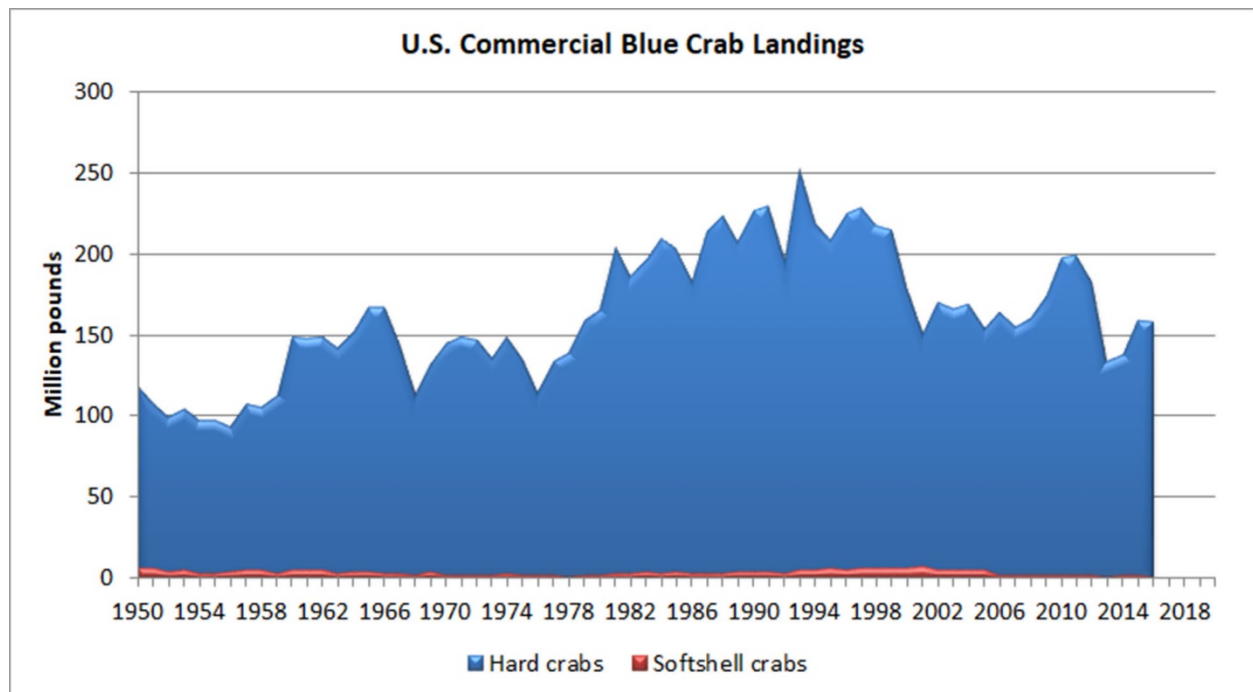


Figure 2. The primary vertical axis shows the yearly commercial landings in million pounds. Source of raw data: NOAA Fisheries. <http://www.st.nmfs.noaa.gov/>. Last visited: July 31, 2019. Legend: Hard crabs – hard blue crab landings, Softshell crabs – soft and peeler blue crab landings (in million pounds).

Commercial Landings

The long-term commercial landings of blue crabs harvested from the U.S. since 1950 are shown in Fig. 2. The databases on commercial landings were compiled from the NOAA Fisheries websites. On average, about 164 million pounds of blue crabs were landed in the U.S. each year, valued at \$204 million, during the past six years after the Deepwater Horizon oil spill. Almost 99 percent of these annual landings consisted of hard blue crabs with the rest comprising of soft and peeler blue crabs.

The top producing states in the U.S. for the hard blue crabs in 2016 were Louisiana (25%), Maryland (23%), Virginia (17%), and North Carolina (16%). The major suppliers of soft and peeler blue crabs in 2016 were Virginia (75%), Louisiana (16%), and Florida (6%).

Dockside Values

The total dockside values of blue crabs harvested in the United States grew to more than \$200 million during the past five years (Fig. 3). Since 2011, the Gulf of Mexico states supplied about one-third of the blue crabs harvested in the U.S (Fig. 4). Florida West Coast landed 2.9 percent of the domestic landings. Alabama harvested 0.4 percent. Mississippi produced 0.4 percent. Louisiana supplied 26.9 percent of the domestic oysters. Texas added 1.9 percent to the domestic harvests.

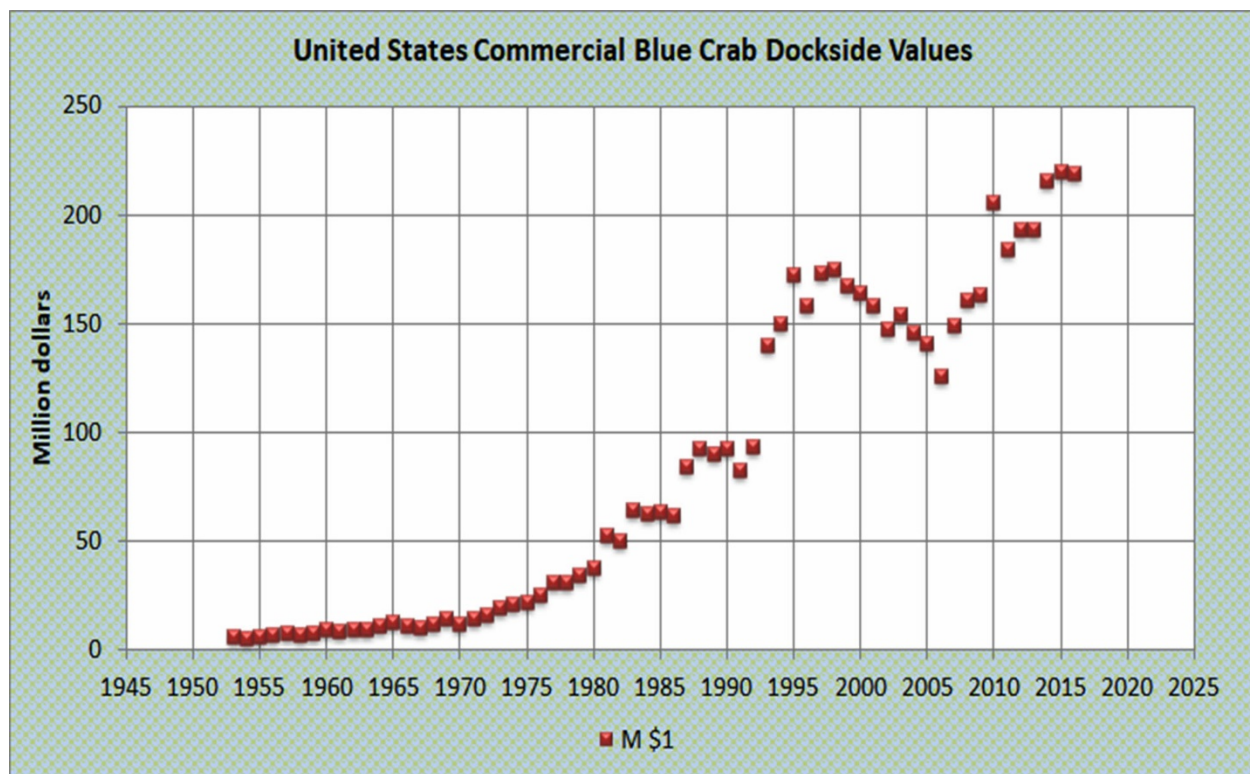


Figure 3. The primary vertical axis shows the yearly commercial landing values in dollars. Source of raw data: NOAA Fisheries. <http://www.st.nmfs.noaa.gov/>. Last visited: July 31, 2019. Legend: \$M1 – dockside values (in \$M).

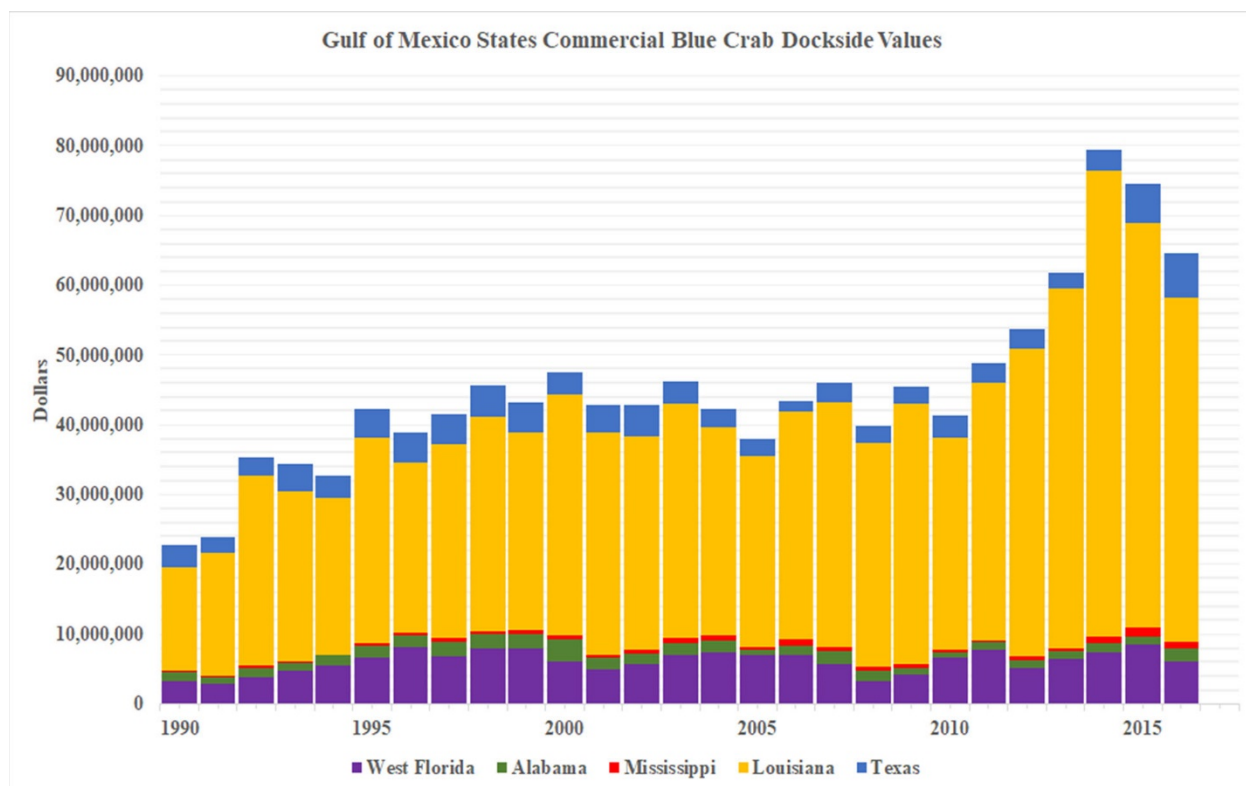


Figure 4. The primary vertical axis shows the annual dockside values in dollars. Source of raw data: NOAA Fisheries. <http://www.st.nmfs.noaa.gov/>. Last visited: July 31, 2019.

MarketMaker Seafood Businesses

In 2016, the Gulf-wide commercial landings of blue crabs reached 51.3 million pounds with dockside values about \$64.6 million. Blue crab harvesting is regulated in the Gulf of Mexico states. Monthly landings data in 2015-16 showed that blue crabs are available year-round with peaks between May to August (Fig. 5).

More than 12,000 businesses which catch, process, and sell seafood products are registered in MarketMaker nationwide. There are more than 200 businesses which promote their seafood products and services in Mississippi MarketMaker. To search for seafood businesses in MarketMaker, perform the following procedures:

1. Go to <https://ms.foodmarketmaker.com/main/mmsearch/>
2. Click "search" and type "**Seafood**" in the product box.
3. You can sort the search results by relevance and name.
4. You can also limit online searches by state, and type of business.

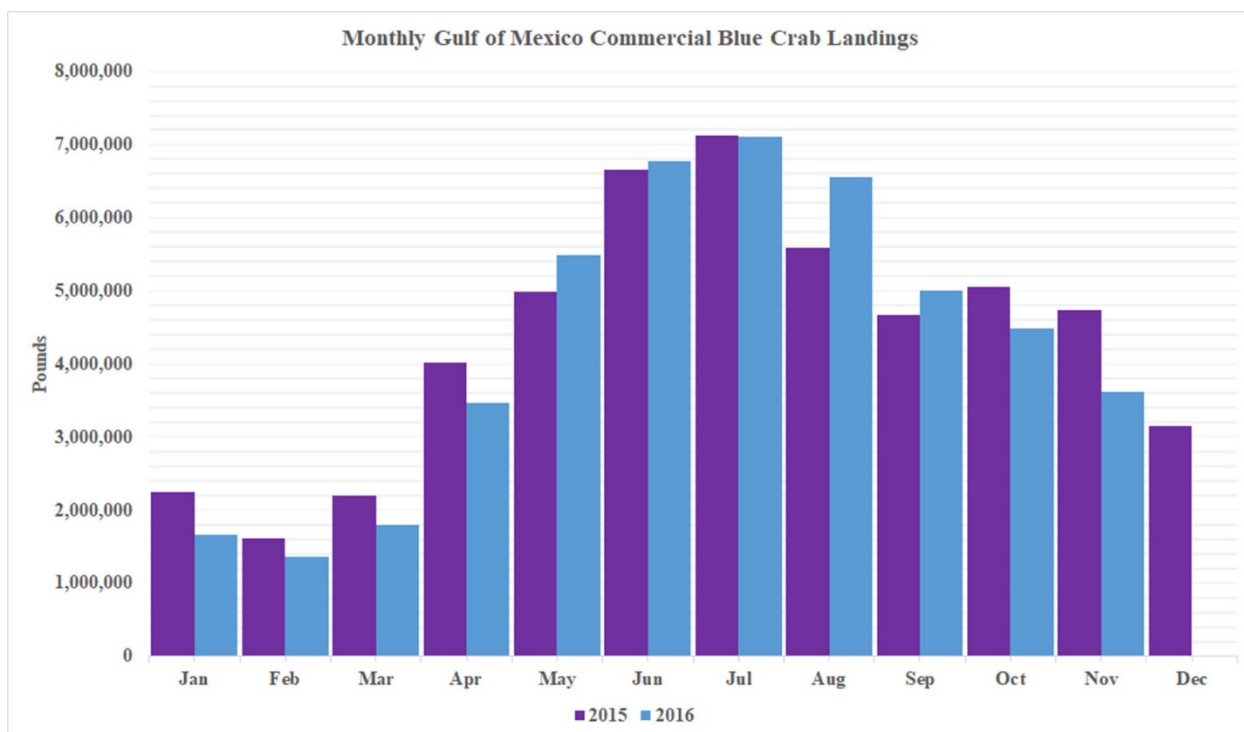


Figure 5. The primary vertical axis shows the monthly commercial landings in pounds. Source of raw data: NOAA Fisheries. <http://www.st.nmfs.noaa.gov/>. Last visited: July 31, 2019.

Economic Contributions

The economic contribution that commercial blue crab harvesting makes region-wide is crucial information in making private investment decisions, formulating government policy, and developing research and extension programs for the industry. The economic contribution of blue crab harvesting in the Gulf of Mexico states shows the importance of the industry to fishing households, businesses, and communities in the region.

The IMPLAN (<http://implan.com/>) software and the 2013 input-output data for the five Gulf States were used in creating the regional economic model of commercial fishing in the Gulf of Mexico in 2016. The economic analysis used sector 17 or commercial fishing of the 2013 IMPLAN input-output data.

The annual commercial dockside values of blue crabs in the Gulf of Mexico States in 2016 reached \$64.6 million, which was about 1.3 percent higher than the average dockside values in the region since 2011. The total output contribution of commercial blue crab fishing in 2016 reached \$123.3 million (Fig. 6). This output of goods and services created by the commercial harvesting of blue crabs and related industries

supported more than 1,699 jobs and generated labor income amounting to \$44.2 million in the Gulf regional economy.

Commercial blue crab harvesting generates annual tax revenues for the Gulf States and the U.S. federal government. It was estimated that more than \$7.6 million would have been paid by households and businesses in 2016 to the federal government as social insurance tax, tax on production and imports, corporate profit tax, and personal income tax. The Gulf States were anticipated to have collected taxes from households and businesses in 2016 amounting to more than \$3.7 million in social insurance tax, tax on production and imports, corporate profits tax, and personal tax.

Economic contribution of commercial blue crab harvesting in the Gulf of Mexico region				
Impact Type	Employment (Jobs)	Labor Income (\$M)	Total Value Added (\$M)	Output (\$M)
Direct Effect	1,381	27.3	33.5	64.6
Indirect Effect	104	6.8	13.3	28.5
Induced Effect	214	10.1	18.4	30.2
Total Effect	1,699	44.2	65.2	123.3

Figure 6. The total economic contribution includes direct, indirect, and induced effects estimated by using 2016 annual landing values and 2013 IMPLAN data. The local purchases percentage was set at 100%. The number of jobs is rounded off.

Disaster Implications

The livelihoods and way of life of the fishing households, businesses, and communities dependent on the blue crab industry are threatened by the man-made disaster associated with the prolonged and twice opening of the Bonnet Carre spillway since February to April and May to July 2019. To save lives, properties and the way of life in New Orleans and surrounding communities, the Bonnet Carre spillway was opened to release floodwater into Lake Pontchartrain and eventually into the Mississippi Sound. These massive volumes of freshwater were dumped into the fertile fishery grounds of the Mississippi Sound.

The commercial blue crab fishery impacts consist of losses of wild blue crab harvests by commercial Mississippi crabbers due to the prolonged freshwater intrusion. Recent state reports indicate that Mississippi commercial blue crab landings between March and June 2019 declined by about 25 percent as compared to the previous five-year average (<https://hortmarine.wordpress.com/category/disaster-economics/>).

This man-made disaster is an externality that causes consumer and producer losses. Market forces cannot create a system of payments for the offended parties. The government needs to intervene and compensate for the losses suffered by consumers and producers. The effects of the disaster confronting the Mississippi Sound will linger for some time, and the economic hardships will further erode the quality of life of fishing households, businesses, and communities.

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<http://extension.msstate.edu/newsletters/mississippi-marketmaker>.