

ECONOMIC CONTRIBUTION OF COMMERCIAL SPANISH MACKEREL FISHING IN THE GULF OF MEXICO STATES

Spanish mackerel (*Scomberomorus maculatus*) are also known as “mackerel,” “spotted cybium,” “bay mackerel,” and “spotted mackerel”¹. They have tiny scales, a greenish back, and silver sides; their bodies are covered with yellow oval spots¹. Spanish mackerel can be distinguished from king mackerel in that Spanish mackerel are generally smaller in size and lack a steep drop in the lateral line¹. Spanish mackerel inhabit the U.S. Atlantic Coast and the Gulf of Mexico from Florida to the Yucatan^{1,2}. They prefer to live in warm (above 68 degrees Fahrenheit) open waters in depths of 30-115 feet but are sometimes found over deep grass beds and reefs, as well as in estuaries^{1,2}.

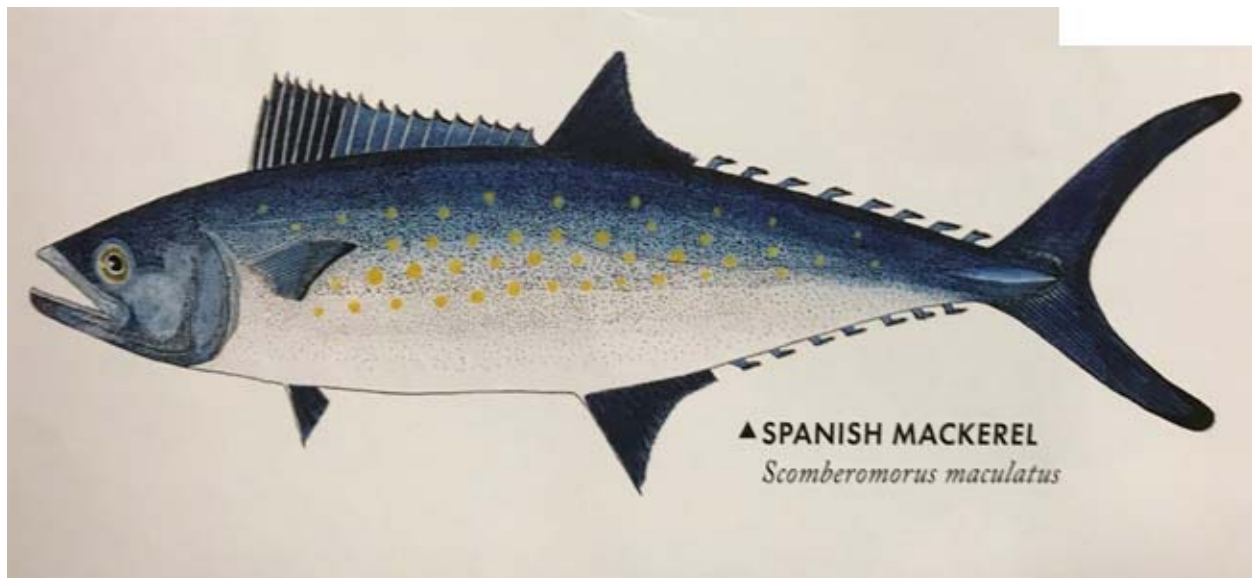


Figure 1. Spanish mackerel (*Scomberomorus maculatus*). Source: Mississippi Saltwater Fish. Mississippi Department of Marine Resources, Biloxi, Mississippi. Illustration by Joe Jewell.

Spanish mackerel grow quickly and can reach a maximum of 36 inches and 13 pounds^{1,2}. They also mature quickly and are capable of reproducing by age 2¹. Spanish mackerel spawn from April – September off the coasts of North Carolina and Virginia and in the eastern Gulf of Mexico¹. Females release 500,000-1.5 million eggs in batches throughout a spawning season¹. Spanish mackerel swim together in large, fast-moving schools, and migrate as water

temperatures change with the seasons^{1, 2}. They consume small fishes like herring, menhaden, sardines, mullet, needlefish, and anchovy, and sometimes eat crustaceans as well^{1, 2}.

Spanish mackerel exist in two separate populations, or stocks: one in the South Atlantic and one in the Gulf of Mexico¹. Before 1980, Spanish mackerel were heavily fished, and the fishery was unregulated¹. Regulations have helped the stocks return to healthy levels¹. According to a 2013 stock assessment, the South Atlantic and Gulf of Mexico stocks are neither overfished nor subject to overfishing¹. Spanish mackerel are marketed fresh, frozen, or smoked; they are eaten pan-fried, broiled, and baked².

References:

¹ <https://www.fishwatch.gov/profiles/spanish-mackerel>.

² <http://www.fishbase.org/Summary/SpeciesSummary.php?ID=126&AT=spanish+mackerel>.

Recipe for Mediterranean Oven Roasted Spanish Mackerel Recipe



Figure 2. This article is courtesy of <https://www.themediterraneandish.com/>. For ingredients and cooking instructions, please visit <https://www.themediterraneandish.com/oven-roasted-spanish-mackerel/>. Last visited: January 8, 2019.

Commercial Landings

The long-term annual commercial Spanish mackerel landings in the Gulf of Mexico states are shown in Fig. 3. Since 2011, the Gulf supplied 28.6% of the total Spanish mackerel domestic landings (Fig. 4) averaging 1.29 million pounds and valued at \$1.20 million annually.

In 2016, Alabama (19.0%) and Florida West Coast (11.6%) were the most significant suppliers from the Gulf of Mexico with some landings from Louisiana (0.19%, Fig. 5). The bulk of the Spanish mackerel was landed in Florida East Coast (54.6%). North Carolina landed 13.3%, and the rest was harvested in other Atlantic states.

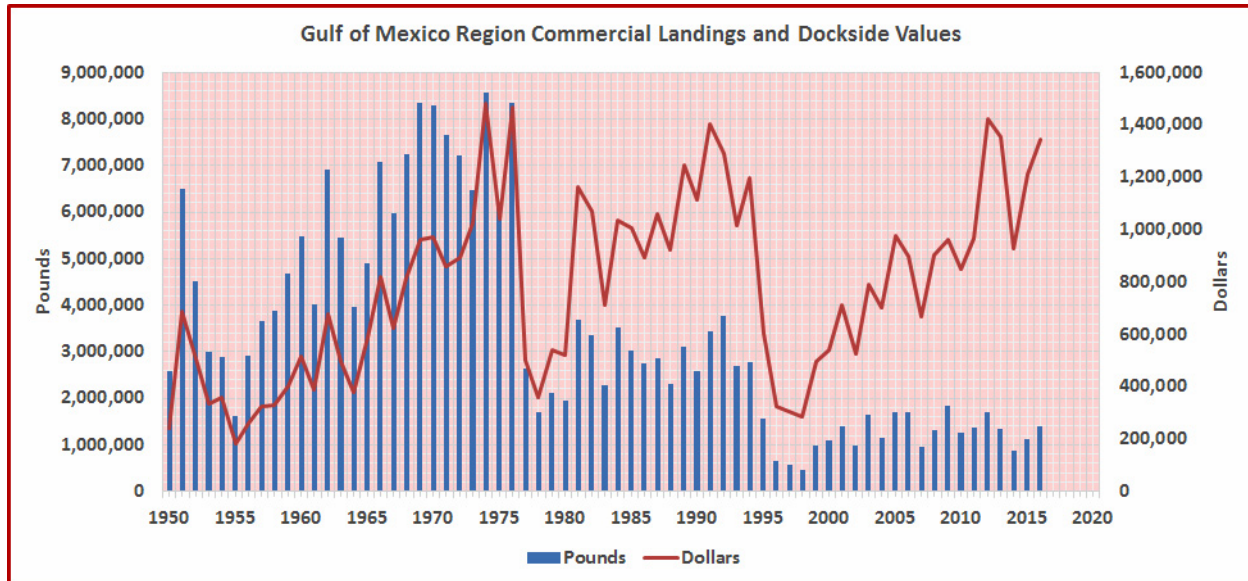


Figure 3. Commercial landings and dockside values of Spanish mackerel in the Gulf of Mexico region. The primary vertical axis shows the yearly commercial landings in pounds while the secondary vertical axis indicates the annual commercial dockside values in dollars. Source of raw data: NOAA Fisheries. <http://www.st.nmfs.noaa.gov/>. Last visited: December 20, 2018.

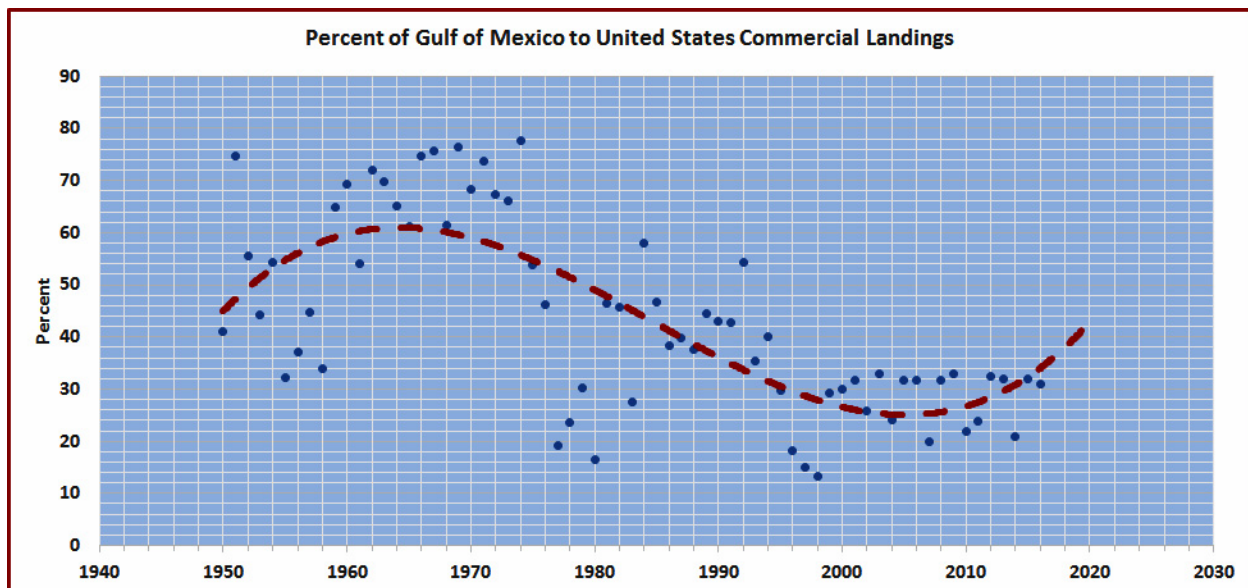


Figure 4. The vertical axis shows the percent of Gulf of Mexico to United States commercial landings of Spanish mackerel. Source of raw data: NOAA Fisheries. <http://www.st.nmfs.noaa.gov/>. Last visited: December 20, 2018.

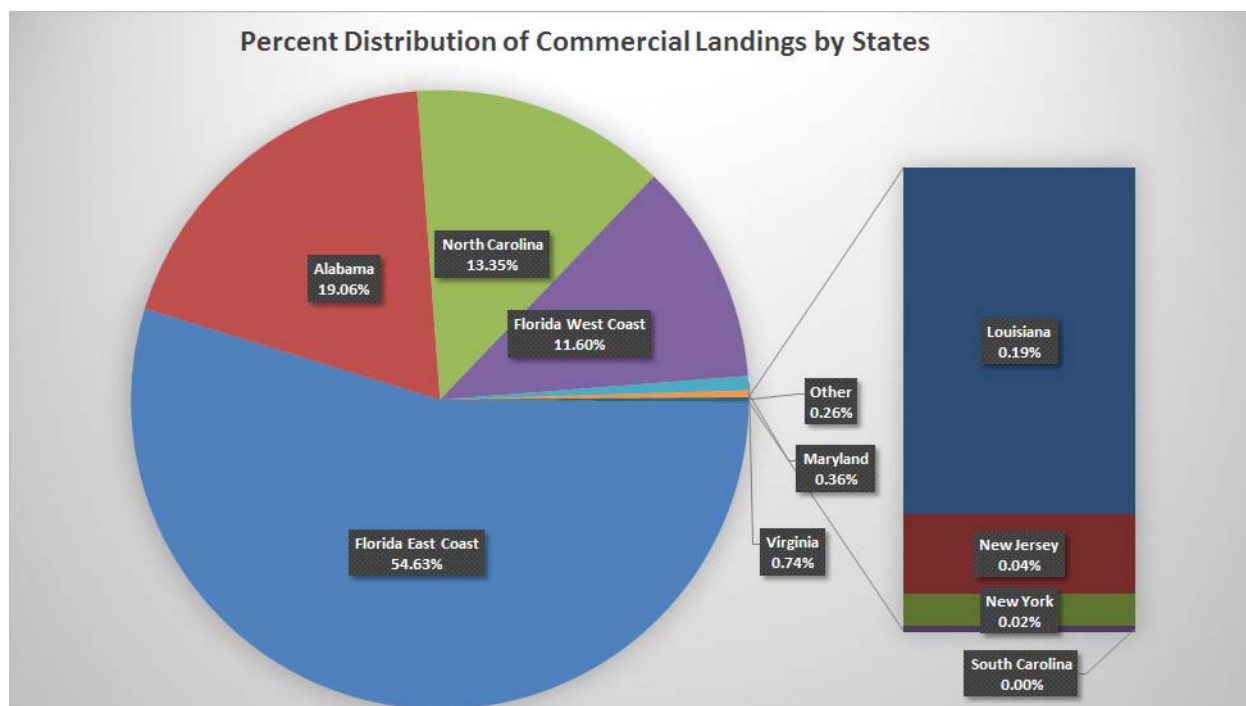


Figure 5. The pie chart shows the 2016 percent distribution of commercial landings of Spanish mackerel by producing states. Source of raw data: NOAA Fisheries. <http://www.st.nmfs.noaa.gov/>. Last visited: December 20, 2018.

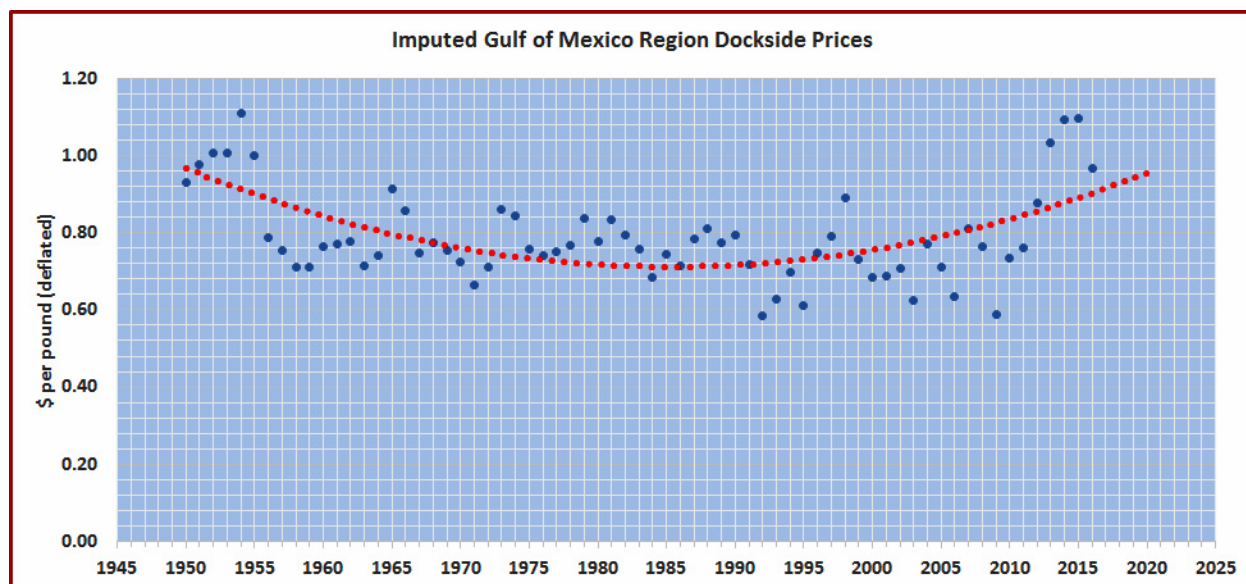


Figure 6. The vertical axis shows the average yearly dockside prices of Spanish mackerel since 1990 in dollars per pound. Source of raw data: NOAA Fisheries. <http://www.st.nmfs.noaa.gov/>. Last visited: December 20, 2018.

The dockside prices of Spanish mackerel in the Gulf of Mexico states averaged about \$0.97 per pound during the past six years (Fig. 6). The ex-vessel prices were deflated by the consumer price index (2016=100).

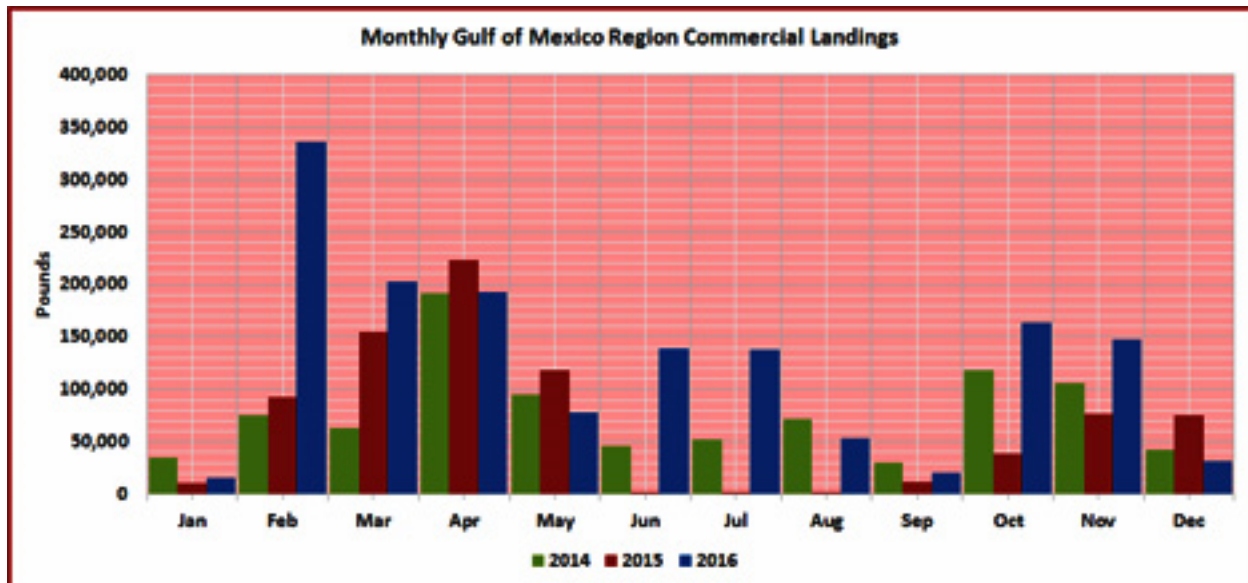


Figure 7. The vertical axis shows the monthly commercial landings of Spanish mackerel in pounds in 2014-2016. Source of raw data: NOAA Fisheries. <http://www.st.nmfs.noaa.gov/>. Last visited: December 20, 2018.

MarketMaker Seafood Businesses

In 2016, the Gulf-wide commercial landings of Spanish mackerel reached more than 1.39 million pounds with dockside values of \$1.34 million. Spanish mackerel are harvested year-round (Fig. 7). 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.

Economic Contributions

The economic contribution that the commercial Spanish mackerel fishing makes region-wide is crucial information in making private investment decisions, formulating government policy, and developing research and extension programs for the industry. 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 Spanish mackerel in the Gulf of Mexico states in 2016 reached \$1.3 million, which was 11.5% more than the average dockside values in the region since 2011. The total output contribution of commercial Spanish mackerel fishing in 2016 reached \$2.6 million (Fig. 8). This output of goods and service created by the Spanish mackerel commercial fishing and related industries supported 36 jobs and generated labor income amounting to \$0.9 million in the Gulf regional economy.

Economic contribution of commercial Spanish mackerel fishing in the Gulf of Mexico region				
Impact Type	Employment (Jobs)	Labor Income (\$M)	Total Value Added (\$M)	Output (\$M)
Direct Effect	29	0.6	0.7	1.3
Indirect Effect	2	0.1	0.3	0.6
Induced Effect	4	0.2	0.4	0.6
Total Effect	36	0.9	1.4	2.6

Figure 8. 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.

The Spanish mackerel commercial fishing industry generates annual tax revenues for the Gulf States and the U.S. federal government. It was projected that more than \$156,000 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 \$76,000 in social insurance tax, tax on production and imports, corporate profits tax, and personal tax.

Suggested citation:

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