

Commercial Crawfish Fishing in the Gulf of Mexico States

Crawfish (*Procambarus clarkii*) are crustaceans and are also known as crayfish, crawdads, and mudbugs¹. Crawfish are native to the Gulf Coast from Texas to Alabama, and their range extends northward up the Mississippi River¹. They have been introduced to Hawaii and several other countries worldwide¹.

Crawfish shells (or "carapaces") are made of chitin¹. Like other crustaceans, crawfish must molt (shed their shells) to grow³. It takes about 3 to 5 months post-hatching for a crawfish to grow to harvest size³. Adults range in size from 2.2 - 4.7 inches⁴. Crawfish have eight legs; four are used for walking, and four are used for swimming². They walk forwards and swim backwards². Crawfish are relatively short-lived (2 years or less), have high juvenile survival rates, and can spawn year-round in the southern U.S.³ Crawfish are omnivorous, consuming plant material and decomposing matter containing microorganisms and invertebrates^{1,3}. Crawfish mainly live in swamps and ditches and prefer areas covered by rocks or vegetation¹. They avoid areas with strong currents⁵. Crawfish grow during wet periods and dig burrows during dry/cold periods to survive¹.

For more than two decades, the Mississippi Coast Coliseum has hosted the Crawfish Music Festival to provide quality entertainment and family fun to the Southeast⁶. The 26th Crawfish Music Festival was held on April 19-22, 2018⁶. Each night of the Festival was full of fun, excitement, and a little something new⁶! At the center of all of the excitement was the main attraction; piping hot and perfectly spicy boiled crawfish served with new potatoes⁶.

In Louisiana where almost all of the commercial crawfish landings are reported, there are no limits on the season, size, or possession for commercial crawfish harvest. Harvest controls are not necessary as crawfish populations are productive, resilient, and influenced by environmental conditions, rather than fishing⁷.

References:

1. <https://fisheries.tamu.edu/pond-management/species/crawfish/>
2. <https://www.gulfcoastweekend.com/crawfish-15-things-didnt-know/>
3. <http://www.lsuagcenter.com/NR/rdonlyres/0C66733C-FB75-4140-9458-2DE4BF0C0BCF/40398/SRAC2403.pdf>
4. <https://nas.er.usgs.gov/queries/factsheet.aspx?SpeciesID=217>
5. <http://eol.org/pages/344571/details#habitat>
6. <https://www.mscoastcoliseum.com/p/crawfishmusicfestival>
7. <http://www.wlf.louisiana.gov/fishing/crawfish-regulations>

Old-Fashioned Crawfish Boil Recipe



Figure 1. This recipe is courtesy of Epicurious. For ingredients and cooking instructions, please visit <https://www.epicurious.com/recipes/food/views/old-fashioned-crawfish-boil-105854>.

Gulf Commercial Landings Provided Eight Percent of Total Domestic Crawfish Supply

The long-term annual commercial crawfish landings in the Gulf of Mexico states are shown in Fig. 2. Since 2011, Louisiana supplied 100% of the entire domestic crawfish landings averaging 11.8 million pounds and valued at \$11.9 million annually.

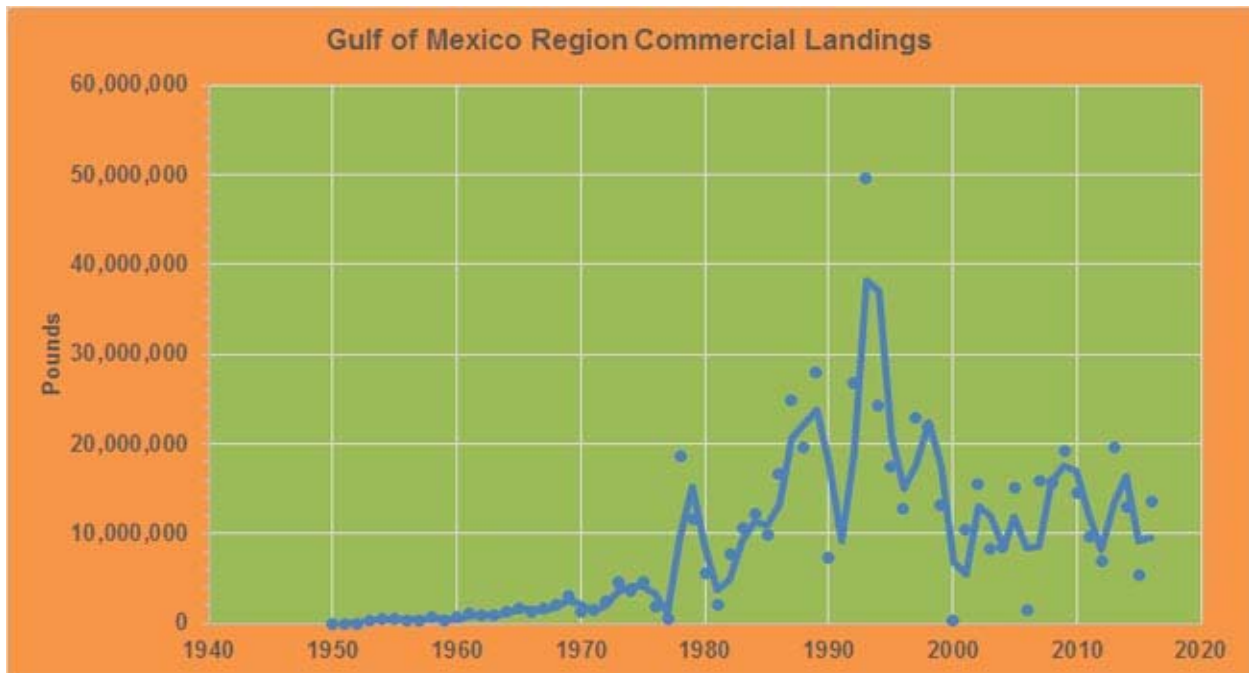


Figure 2. Annual commercial crawfish landings in the Gulf of Mexico states. Source of raw data: NOAA Fisheries.

The apparent equation for the crawfish supply in the United States is expressed as follows: Total supply = domestic landings + domestic farm production + imports - exports. Fig. 3 shows the long-term commercial landings and farm production of crawfish.

Since 2011, the total landings and production of domestic crawfish averaged 130 million pounds per year with dockside and farm-gate value averaging \$188 million per year. The contribution of commercial landings to total domestic pounds averaged about 8 percent with the remaining more significant portion (92%) coming from crawfish ponds mostly in Louisiana and some in Texas.

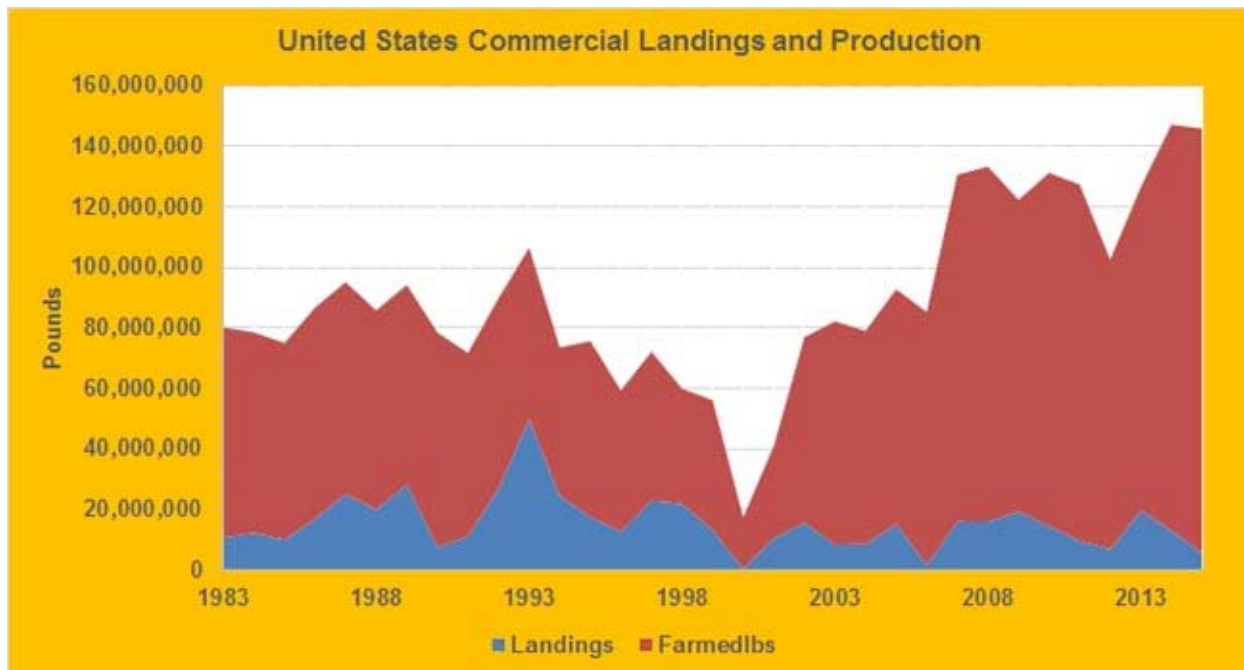


Figure 3. Annual commercial crawfish landings and farm production in the United States. Source of raw data: NOAA Fisheries.

Crawfish Dockside Prices Versus Farm-gate Prices

The imputed annual crawfish prices at the dockside and farm-gate levels are shown in Fig. 4. These prices are deflated by the consumer price index (CPI) with 2016 as the base year.

Since 2011, the imputed annual prices for the crawfish at the dockside level averaged \$1.11 per pound. The imputed farm-gate prices of farmed crawfish averaged \$1.55 per pound. These price differentials between wild and farmed crawfish are significant, averaging 40 percent during the past five years.

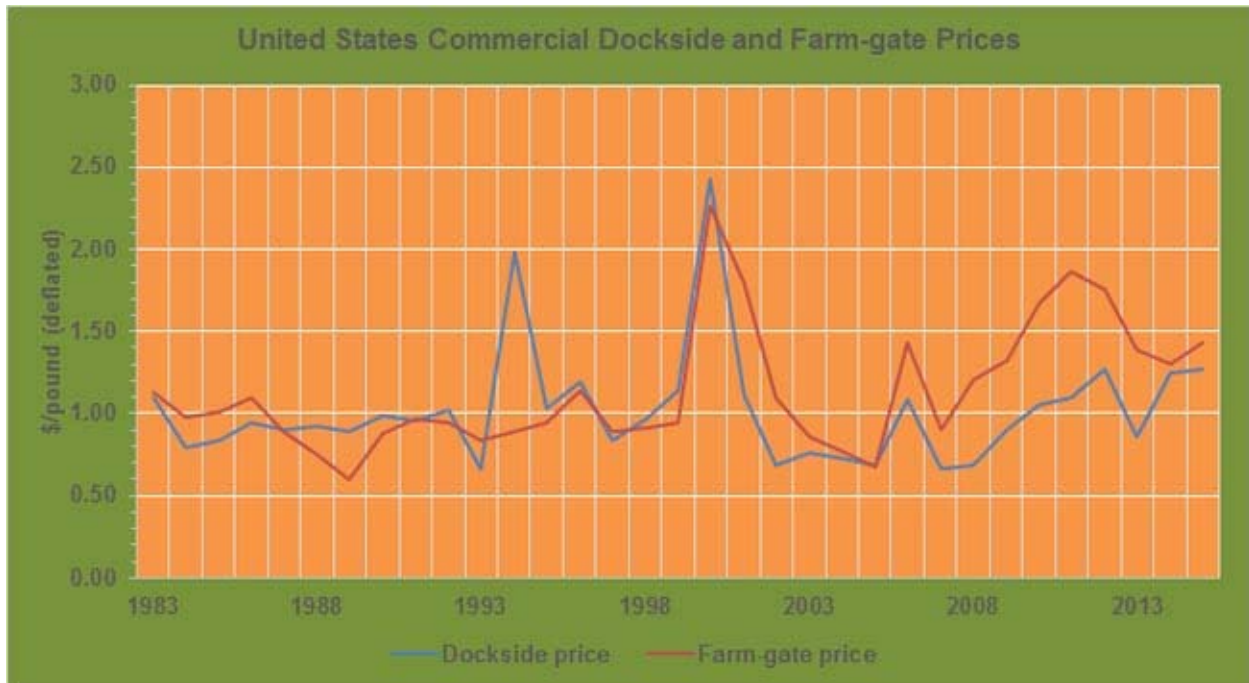


Figure 4. Imputed annual docksides and farm-gate prices of commercial crawfish harvest and farm production in the United States. Source of raw data: NOAA Fisheries.

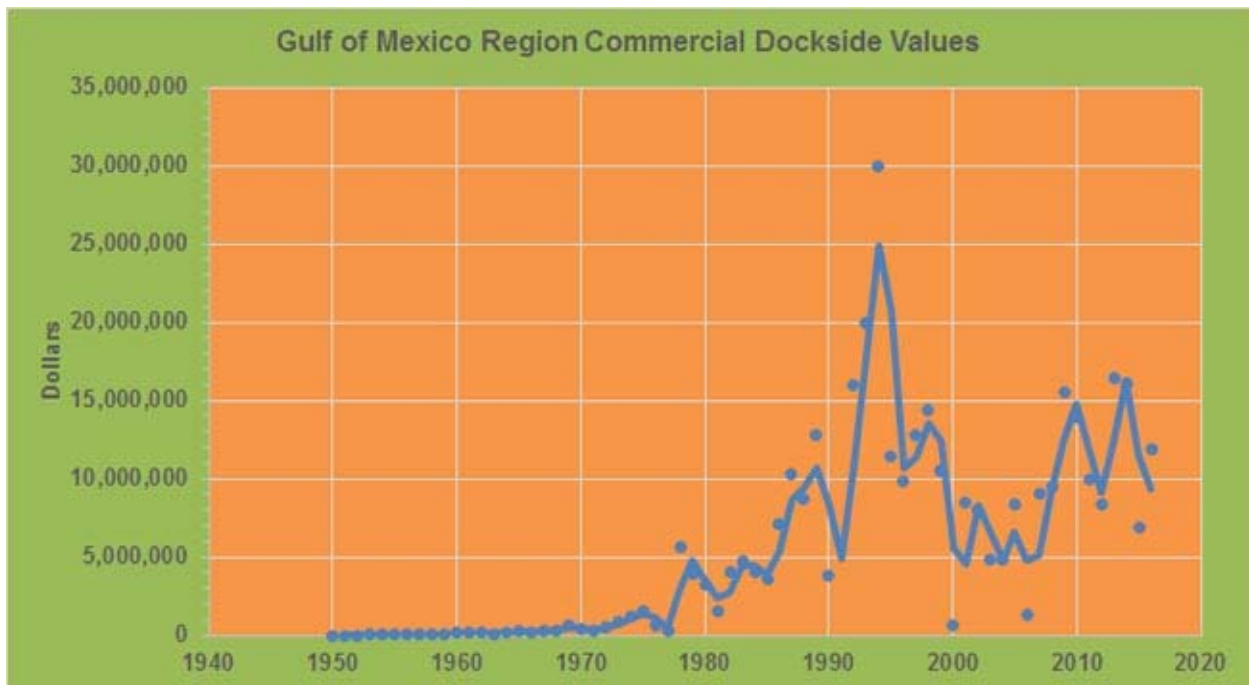


Figure 5. Annual commercial crawfish docksides values in the Gulf of Mexico States. Source of raw data: NOAA Fisheries.

Seafood Businesses that are Registered in MarketMaker

In 2016, the Gulf-wide commercial landings of crawfish reached 13.6 million pounds with dockside values of \$11.9 million. Crawfish are harvested from the wild during spring months (Fig. 6). Farmed crawfish are typically harvested from late fall to spring.

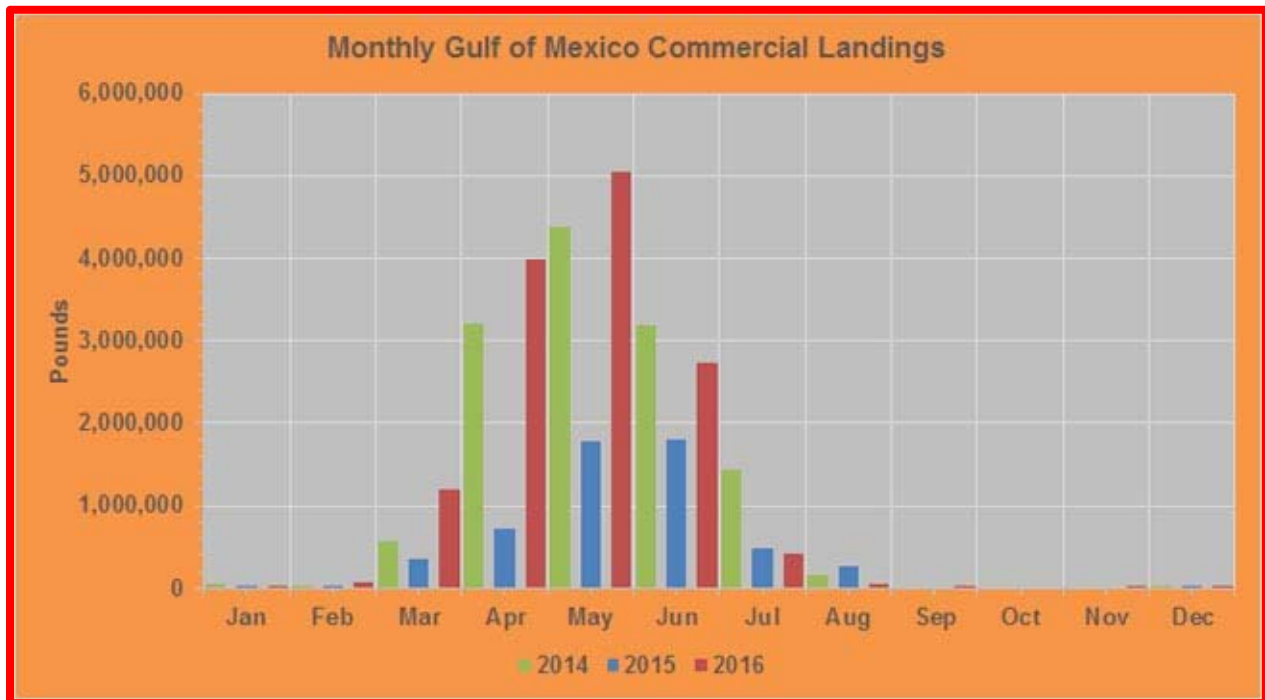


Figure 6. Monthly commercial crawfish landings in the Gulf of Mexico states. Source of raw data: NOAA Fisheries.

To search for crawfish businesses in MarketMaker, perform the following procedures:

1. Go to <https://ms.foodmarketmaker.com/main/mmsearch/>
2. Click "search" and type "Crawfish" in the product box.
3. You can sort the search results by relevance and name.
4. You can also limit online searches by state, county, city or number of miles from a specified location, and type of business.

More than 100 businesses which catch, process, and sell crawfish products are registered in MarketMaker nationwide.

There are some businesses which promote their crawfish products in Mississippi MarketMaker (Fig. 7).

The screenshot shows the Mississippi MarketMaker website interface. At the top, there is a navigation bar with links for Home, About Us, News, Resources, Contact Us, and Log In. Below this, the site logo 'MISSISSIPPI MARKET MAKER™' is displayed with the tagline 'Linking Agricultural and Seafood Markets'. A secondary navigation bar includes Register, Search, Why Marketmaker, Partner States, and Buy/Sell Forum.

The main content area is titled 'Search Markets'. On the left, there is a sidebar with filters. The 'Search by Location' section includes a 'FIND DEVICE LOCATION' button, a 'State' dropdown set to 'Mississippi', and empty fields for 'County' and 'ZIP'. Below this is a 'CLEAR ALL FILTERS' button. The 'Business Type' and 'Products' sections have empty input fields. The 'Producer Verified Attributes' section includes checkboxes for 'Farm Raised (1)', 'Live (1)', and 'Wild Harvest/Caught (1)', with a 'clear' link. The 'Affiliations' section has a checkbox for 'Southern Shrimp Alliance (1)' and a 'clear' link. The 'Certifications' section includes checkboxes for 'County or State Inspected', 'FDA Inspected', 'Source-Verified', and 'USDC Inspected', with a 'clear' link.

The main search results area shows a search for 'Crawfish (Crayfish)' with a 'SEARCH' button. Below the search bar, there are sorting options: 'Sort by: Relevance' (selected) and 'Name'. The results are listed as '7 businesses'. The list includes:

- Labama Seafood, D'Iberville, Mississippi
- Dominique Thomas, Jackson, Mississippi
- Barnett's Catfish & Seafood Market, Waynesboro, Mississippi
- Pinchers llc, Bay Saint Louis, Mississippi
- Quality Poultry & Seafood, Inc., Biloxi, Mississippi
- Cruise Seafood & Specialty Meats, LLC, Gulfport, Mississippi
- Osyka Seafood Market and Restaurant, Osyka, Mississippi

A 'VIEW MAP' button is located at the bottom of the results list.

Figure 7. Seafood businesses which promote their crawfish products in Mississippi MarketMaker.

Crawfish Fishing Makes Significant Contributions to the Gulf Regional Economy

The economic contribution that commercial crawfish 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 to estimate the economic contribution of commercial fishing to the Gulf of Mexico regional economy in 2016. The economic analysis used sector 17 or commercial fishing of the 2013 IMPLAN input-output data.

The total commercial dockside value of crawfish harvested in the Gulf of Mexico states in 2016 reached \$11.9 million, which was about the average yearly dockside value in the region since 2011. The total output contribution of commercial crawfish fishing in 2016 amounted to \$22.7 million (Fig. 8). The commercial crawfish fishing supported 315 jobs and generated labor income amounting to \$8.1 million in the Gulf regional economy.

The crawfish commercial fishing industry generates annual tax revenues for the Gulf states and the U.S. federal government. More than \$1.3 million was projected to 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 of Mexico states were anticipated to have collected taxes from households and businesses in 2016 amounting to almost \$680,000 as social insurance tax, tax on production and imports, corporate profits tax, and personal tax.

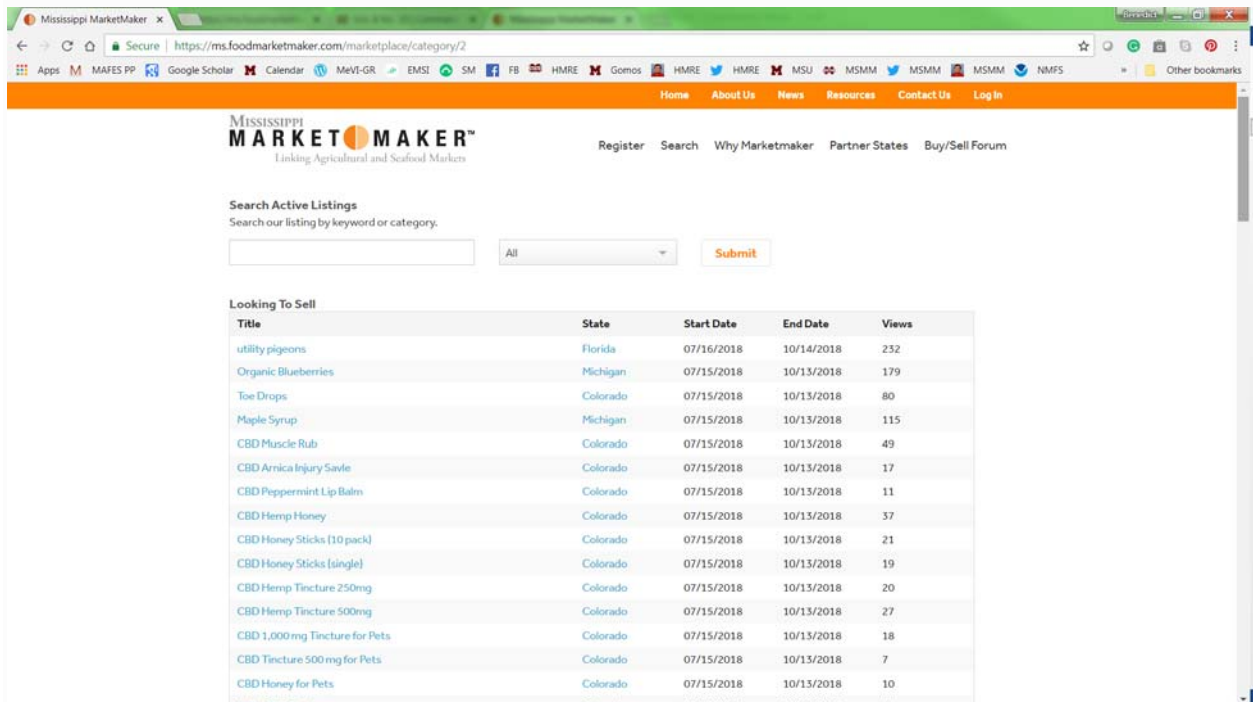
Economic contribution of commercial crawfish fishing in the Gulf of Mexico region				
Impact Type	Employment (Jobs)	Labor Income (\$M)	Total Value Added (\$M)	Output (\$M)
Direct Effect	256	5.0	6.2	11.9
Indirect Effect	19	1.3	2.5	5.2
Induced Effect	39	1.9	3.4	5.5
Total Effect	315	8.1	12.0	22.7

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.

Promote your Food Products in Season

As a member of MarketMaker, you can promote your food products and services in season at the MarketMaker BUY or SELL Forum. Registration in MarketMaker in the state where your business is located is FREE and simple. Email me at ben.posadas@msstate.edu for assistance.

You can view the current listing of products posted at the MarketMaker BUY or SELL Forum at <https://ms.foodmarketmaker.com/marketplace/category/2> (Fig. 8).



The screenshot shows the Mississippi MarketMaker website interface. At the top, there is a navigation bar with links for Home, About Us, News, Resources, Contact Us, and Log In. Below the navigation bar is the MarketMaker logo and tagline "Linking Agricultural and Seafood Markets". A search bar is present with the text "Search Active Listings" and "Search our listing by keyword or category." Below the search bar is a table titled "Looking To Sell" with columns for Title, State, Start Date, End Date, and Views. The table lists various products such as utility pigeons, Organic Blueberries, Toe Drops, Maple Syrup, CBD Muscle Rub, CBD Arnica Injury Sawle, CBD Peppermint Lip Balm, CBD Hemp Honey, CBD Honey Sticks (10 pack), CBD Honey Sticks (single), CBD Hemp Tincture 250mg, CBD Hemp Tincture 500mg, CBD 1,000 mg Tincture for Pets, CBD Tincture 500 mg for Pets, and CBD Honey for Pets.

Title	State	Start Date	End Date	Views
utility pigeons	Florida	07/16/2018	10/14/2018	232
Organic Blueberries	Michigan	07/15/2018	10/13/2018	179
Toe Drops	Colorado	07/15/2018	10/13/2018	80
Maple Syrup	Michigan	07/15/2018	10/13/2018	115
CBD Muscle Rub	Colorado	07/15/2018	10/13/2018	49
CBD Arnica Injury Sawle	Colorado	07/15/2018	10/13/2018	17
CBD Peppermint Lip Balm	Colorado	07/15/2018	10/13/2018	11
CBD Hemp Honey	Colorado	07/15/2018	10/13/2018	37
CBD Honey Sticks (10 pack)	Colorado	07/15/2018	10/13/2018	21
CBD Honey Sticks (single)	Colorado	07/15/2018	10/13/2018	19
CBD Hemp Tincture 250mg	Colorado	07/15/2018	10/13/2018	20
CBD Hemp Tincture 500mg	Colorado	07/15/2018	10/13/2018	27
CBD 1,000 mg Tincture for Pets	Colorado	07/15/2018	10/13/2018	18
CBD Tincture 500 mg for Pets	Colorado	07/15/2018	10/13/2018	7
CBD Honey for Pets	Colorado	07/15/2018	10/13/2018	10

Figure 9. Food businesses which promote their products and service in MarketMaker Buy and Sell Forum.

<https://ms.foodmarketmaker.com/marketplace/category/2>

Suggested citation:

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