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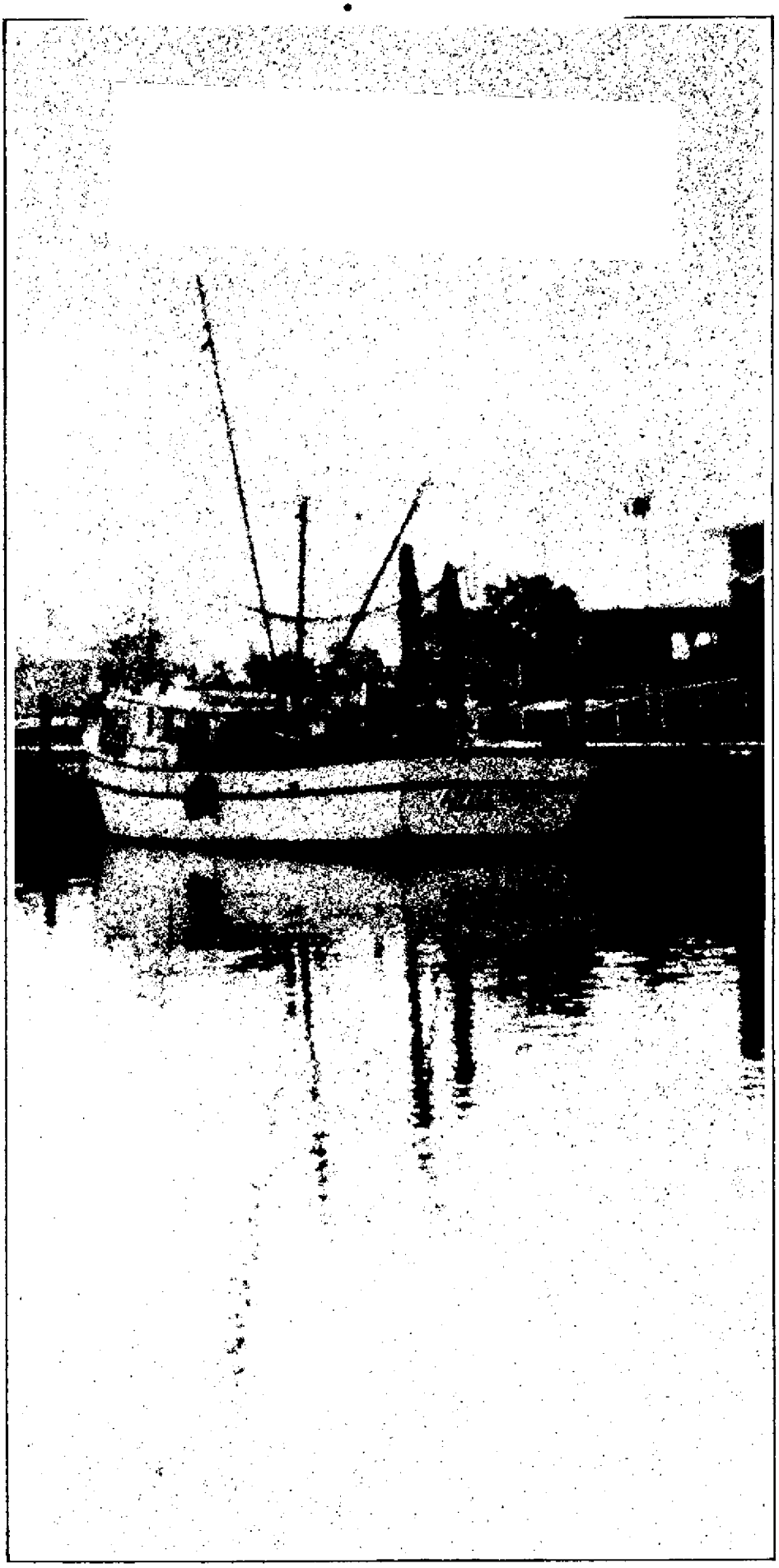
the coastal fisheries of texas



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the coastal fisheries of texas

Johnie H. Crance*

The Texas seafood industry is big business. Fishermen landed 146,936,300 pounds of fish and shellfish valued at $53,243,600 at dockside in Texas ports during 1969. This sprawling industry, located along the more than 1,000 miles of bay and estuary shoreline from Port Isabel to Sabine Lake, employs about 13,000 people. During 1969, the total direct sales impact was $218.9 million. The 1,669 vessels of the Texas shrimp fleet had a fixed asset value in excess of $133 million during 1967 and vessels have been added to the fleet each year.

Statistics on Texas fisheries are gathered and published by the National Marine Fisheries Service and the Texas Parks and Wildlife Department. Data gathered by these agencies provide important information to the fishing industry, governmental agencies and others. This information is useful in evaluating the production trends and management practices of our fishery resources which are becoming more important each year as we depend on the sea for more high-quality protein.

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United States Fisheries

During 1969, total U. S. fishery landings were 4.3 billion pounds (round weight) and imports were 7.5 billion pounds. Americans ate about 2.2 billion pounds of fish and shellfish meat. The remainder was used for fish meal and other industrial purposes. States along the Gulf of Mexico accounted for 38 percent of the weight and 29 percent of the value of all fishery products landed in the U. S. during 1969.

The Texas Catch

Shrimp is the most valuable fishery in Texas. During 1969, total Texas fishery landings were 159.3 million pounds, valued at $47.3 million at dockside. The Texas shrimp catch that year was 70.7 million pounds and was valued at $42.9 million at dockside representing 22 percent of the weight and 35 percent of the value of the total U. S. shrimp landings. Brown shrimp make up about 75 to 80 percent of the Texas shrimp catch. The remainder is mostly white shrimp and pink shrimp. Shrimp are caught primarily by a double-rig trawler in Gulf water, figure 1. Smaller boats operate in inshore waters and in bays. Shrimp are a very popular food on many menus today. They also are prized by many species of fish and thus are in demand for use as bait.

The oyster fishery ranks second in value in Texas. About 4.7 million pounds of oyster meats, valued at $2 million at dockside, were landed in Texas during 1970. The American oyster is the popular species and is found in most Texas bays. Oysters are harvested primarily by dredges, although tongs sometimes are used and a few are harvested by wading over shallow reefs and picking them up by hand. Oysters are plagued by many natural predators, diseases and parasites and in some areas they may become unsafe for human consumption as a result of pollution. For this reason, oyster production is subject to wide fluctuation.

The menhaden fishery is Texas' third most valuable fishery. These small fish are not eaten

Shrimp, the most valuable fishery in Texas, is a favorite on many menus and can be prepared in a variety of ways.
Photo courtesy of "Galveston Daily News"

by man but their weight accounted for about 36 percent of the total U. S. catch during 1969. The principal uses of menhaden are fish meal and oil. Menhaden meal has a high protein value and is used in livestock feeds. Schools of menhaden are located from "spotter" planes. Boats are used to surround a school of menhaden with a purse seine. About 200,000 fish may be caught by one seine set.

Blue crab, red snapper, redfish, spotted seatrout, black drum and flounder are other valuable species landed by Texans. The value and quantity of these and other species landed in Texas coastal ports during 1970 and the averages for the 5 previous years are given in Table 1.

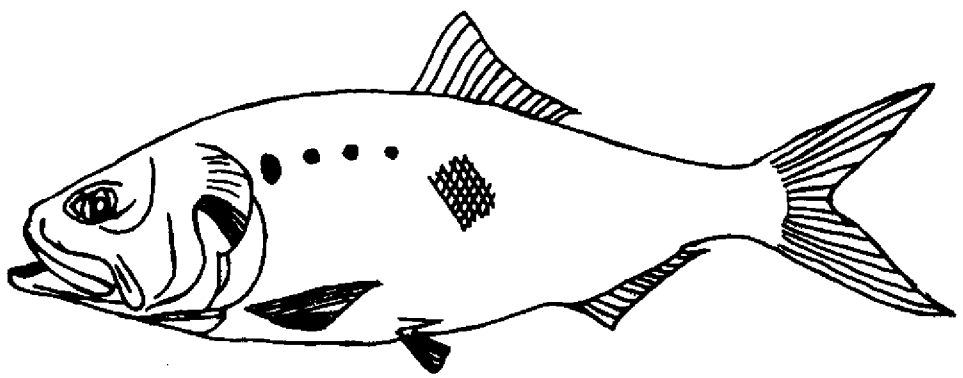
When Fish and Shellfish are Caught

For most seafood crops there is a season of peak harvest. Major shrimp harvests occur from July through October, figure 2. This period corresponds to the time when most brown shrimp have left the estuaries as subadults and returned to the Gulf to mature and spawn. A substantial quantity of shrimp is landed each month.

The menhaden fishery is seasonal. Harvest occurs from May through October, figure 3. The fishery is inactive during part of the year and processing plants remain closed from about December to April.

About 4.7 million pounds of oyster meats, valued at $2 million at dockside, were landed in Texas during 1970.
Photo courtesy of "Galveston Daily News"

During 1970, 5,525,400 pounds of blue crab were landed by Texans.
Photo courtesy of Texas Parks and Wildlife.



Menhaden, which make up Texas' third most valuable fishery, are small fish used primarily for fish meal and oil.

Oysters are harvested primarily during the fall and winter months, figure 4. This is largely caused by a designated season for harvest of commercial oysters from public reefs.

Crabs are harvested monthly. The harvest peak is from May to November, figure 4. Monthly landings of redfish and black drum are shown in figure 5. Figure 6 shows the monthly landings of red snapper and spotted sea trout.

Where Fish and Shellfish are Caught

Most of the shrimp and all of the menhaden and red snapper that are landed in Texas are caught in the Gulf of Mexico. The percentages of some major species caught in various water areas are listed in Table 2. About 86 percent of the oysters landed in Texas during 1969 and 1970 were caught in Galveston and Trinity Bays. No oysters are harvested from the Gulf. The highest percentage of blue crabs also was caught in Galveston and Trinity Bays. Most other species of fin fish, Table 1, are caught in central and lower Laguna Madre, Table 2.

Where Fish and Shellfish are Landed

Fish and shellfish usually are landed at the port nearest the harvest site. The amounts and values of fish and shellfish that were landed in the coastal counties of Texas during 1970 are listed in Table 3. Jefferson County landings, comprised primarily of menhaden, represented the greatest amount. Cameron County landings had the highest value because of the large quantity of shrimp.

As the human population and the need for more quality protein increases, the sea must help fulfill this need. Texas fishermen will play an increasingly important role in providing food for our expanding population.

Table 1. Species, quantity and value of fish and shellfish landed on the Texas coast during 1970 and the preceding 5-year period (1965-1969) average.

Species	1970		1965-69 average	
	Pounds	Value ($)	Pounds	Value ($)
Fish				
Cabio (ling)	18,500	2,000	11,500	1,300
Croaker	107,200	6,100	83,300	4,400
Drum (black)	782,700	83,900	965,100	105,000
Drum (redfish)	1,586,200	349,900	821,100	198,700
Flounders	297,200	64,900	309,500	73,800
Groupers	59,300	5,600	89,100	9,200
King whiting	62,600	3,800	151,300	7,700
Menhaden	43,059,600	902,700	49,603,000	812,900
Mullet	11,100	600	50,700	1,900
Pompano	1,700	800	9,300	3,700
Sea catfish	32,900	1,800	78,000	6,100
Sea trout (spotted)	1,156,800	256,500	1,449,900	355,700
Sea trout (white)	1,000	100	16,400	1,600
Sheepshead	175,500	14,700	203,100	17,800
Snapper (red)	916,400	379,900	1,465,100	462,400
Spanish mackerel	.....	.....	900	100
Warsaw	.....	.....	15,600	1,600
Unclassified:				
Food	105,300	5,500	280,300	14,700
Bait, reduction, etc.	26,800	900	122,800	4,700
TOTAL FISH	**48,400,800**	2,079,700	55,726,000	2,083,300
Shellfish				
Crabs (blue)	5,525,400	508,800	3,890,200	333,100
Oyster meats[1]	4,674,700	2,040,700	4,035,900	1,583,100
Squid	9,700	900	15,200	1,500
Shrimp (heads-on)				
Brown and pink	69,252,000	38,406,700	65,935,300	33,363,900
White	19,071,100	10,206,500	14,765,900	7,593,300
Other	2,600	300	67,100	9,600
Total shrimp	88,325,700	48,613,500	80,768,300	40,966,800
TOTAL SHELLFISH	**98,535,500**	51,163,900	88,709,600	42,884,500
GRAND TOTAL	**146,936,300**	53,243,600	144,435,600	44,967,800

[1]**Oysters are reported in weight of meats (8.75 pounds per gallon). All other species are reported in round weight.**

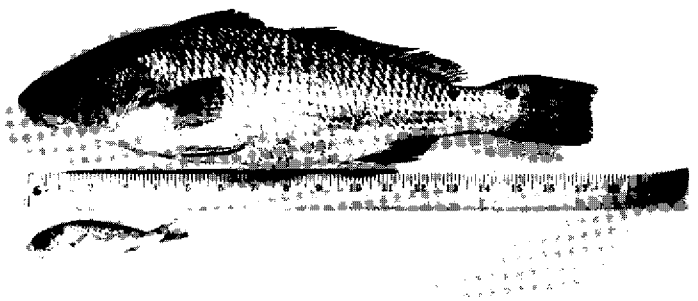
Table 2. The fishery and the percent of the total weight caught during 1969 and 1970 from the Gulf of Mexico and Texas bays.

Where they were caught	Species and percentage of total weight harvested from area					All finfish
	Shrimp	Oysters	Crab	Menhaden	Red snapper	
Gulf of Mexico	88.2	....	0.4	100	100	19.4
Sabine Lake	0.1	....	12.7			0.7
Galveston and Trinity Bays	6.2	86.4	36.5			10.0
Matagorda, East Matagorda and Lavaca Bays	2.2	8.3	14.1			9.9
San Antonio, Mesquite, Espiritu Santo Bays and Green Lake	1.5	3.3	17.0			3.3
Aransas and Copano Bays	1.3	1.9	13.5			13.1
Corpus Christi and Nueces Bays	0.4	....	1.3			2.3
Baffin Bay and Upper Laguna Madre	T[1]	....	4.5			19.1
Central and Lower Laguna Madre	....	T[1]	....			22.2

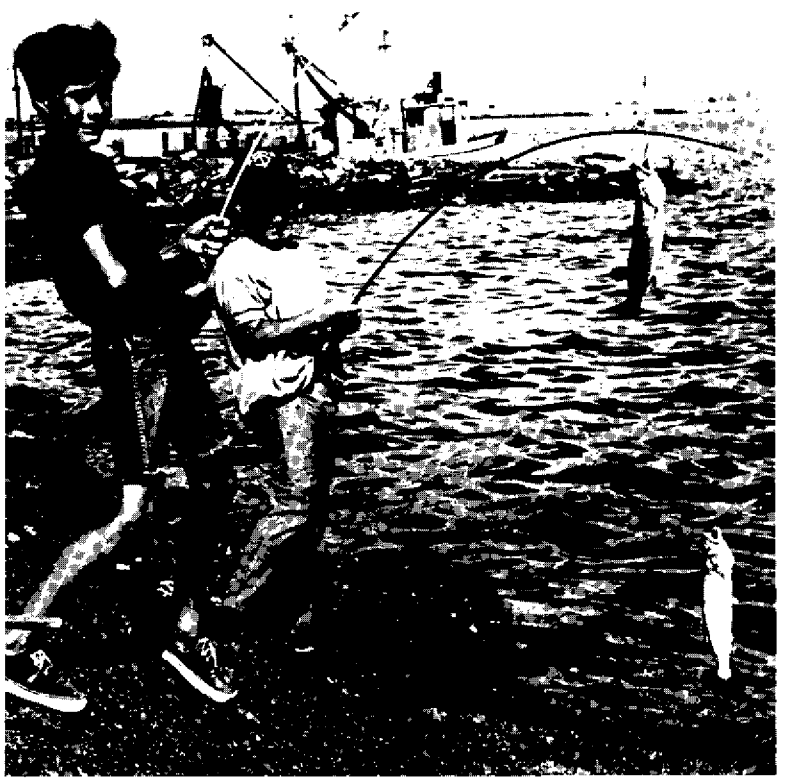
[1]**Less than 0.1 percent.**

Table 3. Quantity and value of fish and shellfish landed in coastal counties of Texas during 1970.

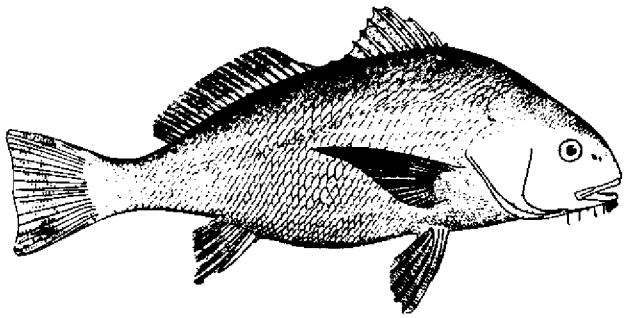
County	Fish		Shellfish		Total	
	Pounds	Value ($)	Pounds	Value ($)	Pounds	Value ($)
Aransas	691,200	137,700	18,452,500	10,275,200	19,143,700	10,412,900
Brazoria	154,800	35,200	16,505,500	9,232,500	16,660,300	9,267,700
Calhoun	262,700	52,200	6,681,100	2,715,700	6,943,800	2,767,900
Cameron	1,276,000	377,400	32,510,200	18,815,800	33,786,200	19,193,200
Chambers	33,400	5,700	864,300	259,200	897,700	264,900
Galveston	458,600	71,800	13,273,100	5,612,600	13,731,700	5,684,400
Harris	149,300	23,700	3,225,900	1,228,000	3,375,200	1,251,700
Jefferson	43,239,800	954,600	2,811,500	1,146,100	46,051,300	2,100,700
Kenedy	6,200	1,000	.....	.....	6,200	1,000
Kleberg	175,900	26,500	.....	.....	175,900	26,500
Matagorda	411,400	71,000	3,069,200	1,305,300	3,480,600	1,376,300
Nueces	1,192,700	246,300	1,142,200	573,500	2,334,900	819,800
Willacy	348,800	76,600	.....	.....	348,800	76,600
TOTAL	**48,400,800**	**2,079,700**	**98,535,500**	**51,163,900**	**146,936,300**	**53,243,600**



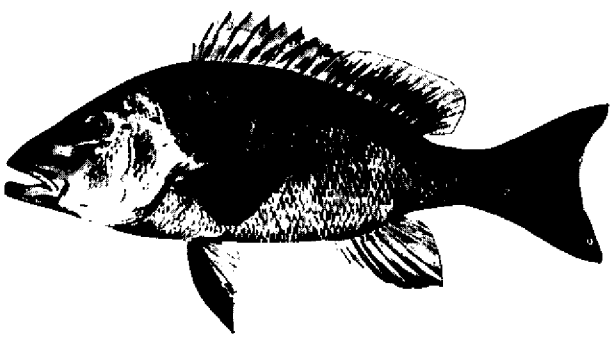
There were 1,586,200 pounds of redfish landed in Texas coastal ports in 1970.
Photo courtesy of Texas Parks and Wildlife.



Commercial and sport fishermen harvest the spotted seatrout. About 1.2 million pounds, valued at $256,500 at dockside, were landed in Texas during 1970.
Photo courtesy of "Galveston Daily News"



During 1970, 782,700 pounds of black drum (above) and 916,400 pounds of red snapper (below) were landed by Texans.



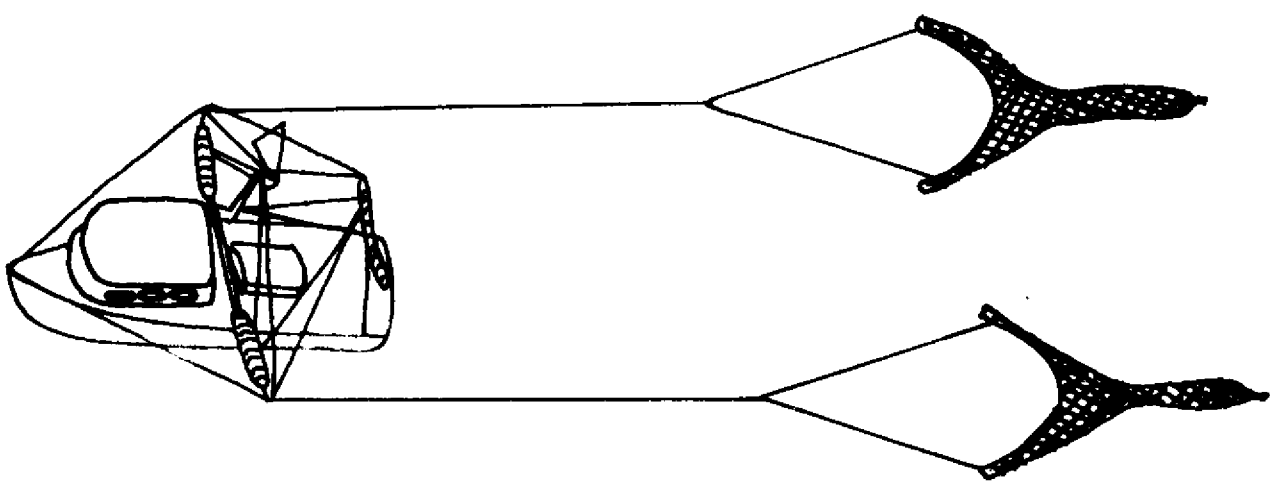


Fig. 1. Gulf shrimp are caught primarily by a double-rig trawler.
Of the total weight of shrimp landed in Texas during 1969 and 1970, 88.2 percent were caught in the Gulf of Mexico.

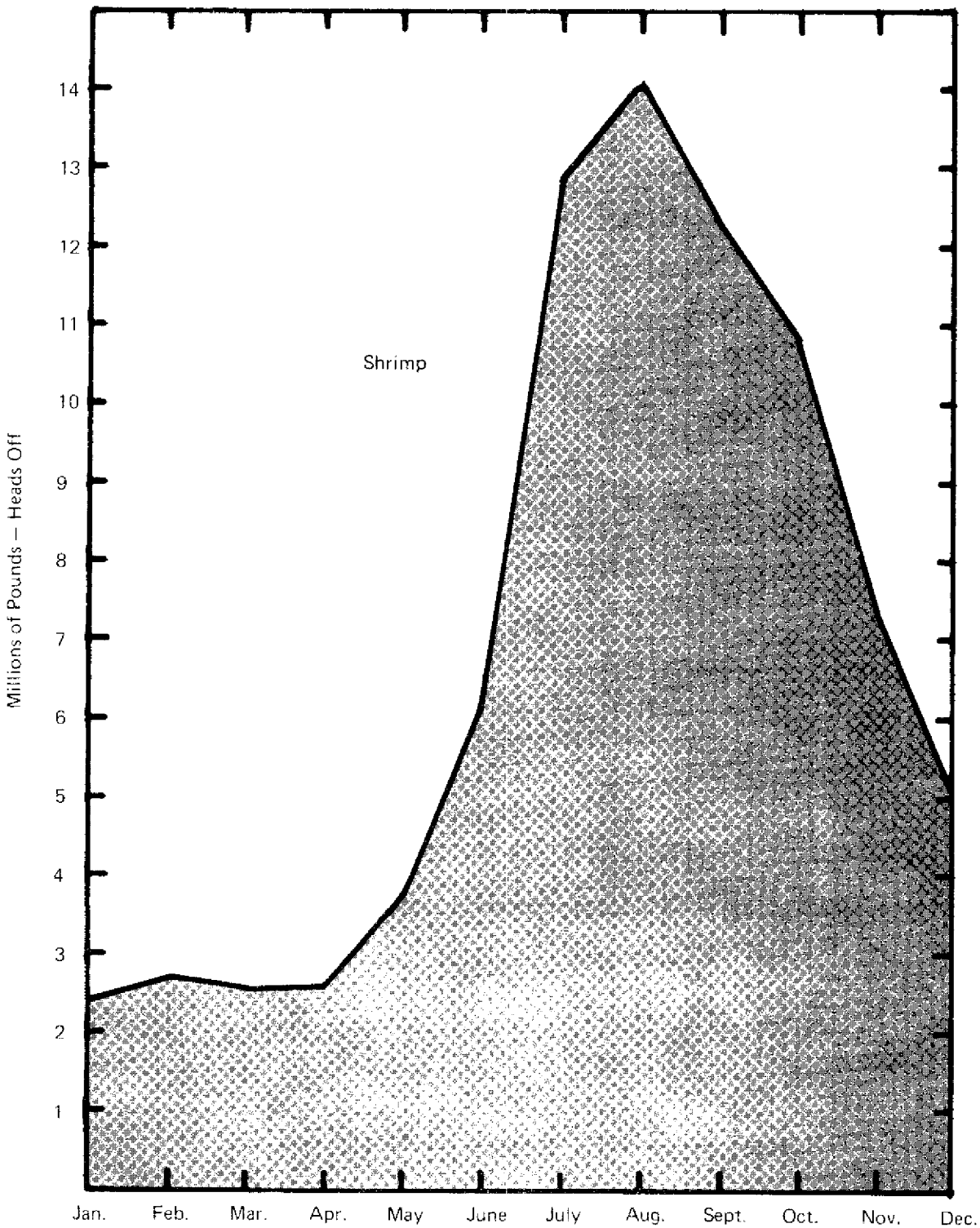


Figure 2. Texas shrimp landings by months (5-year average, 1966--1970).

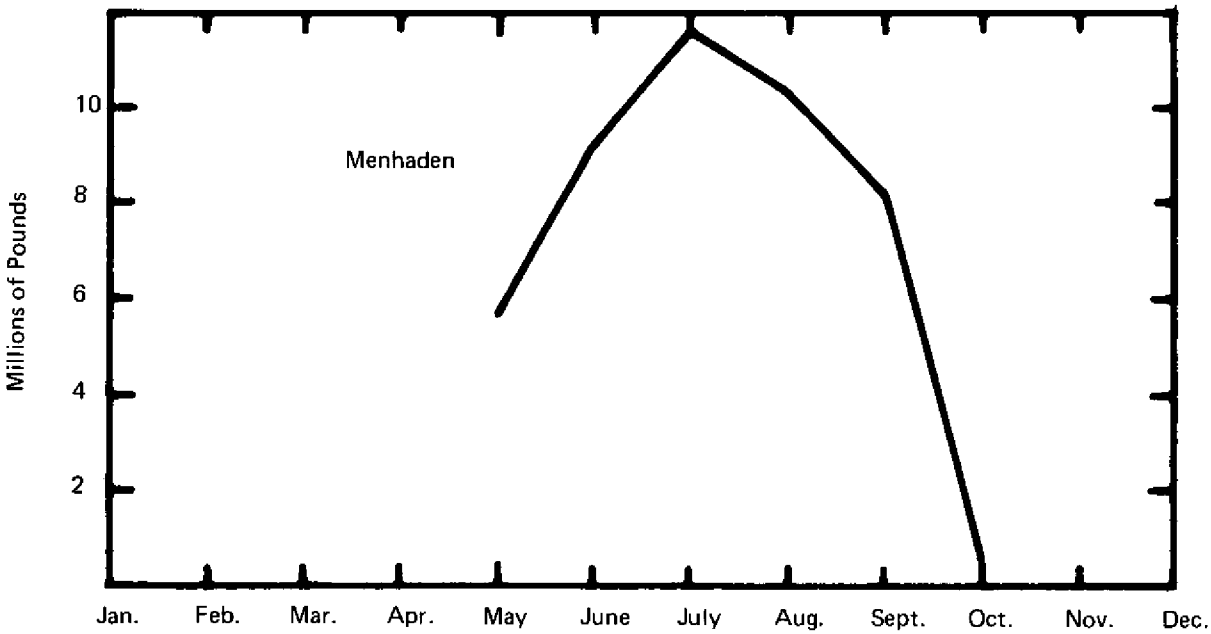


Figure 3. Texas menhaden landings by months (5-year average, 1966–1970).

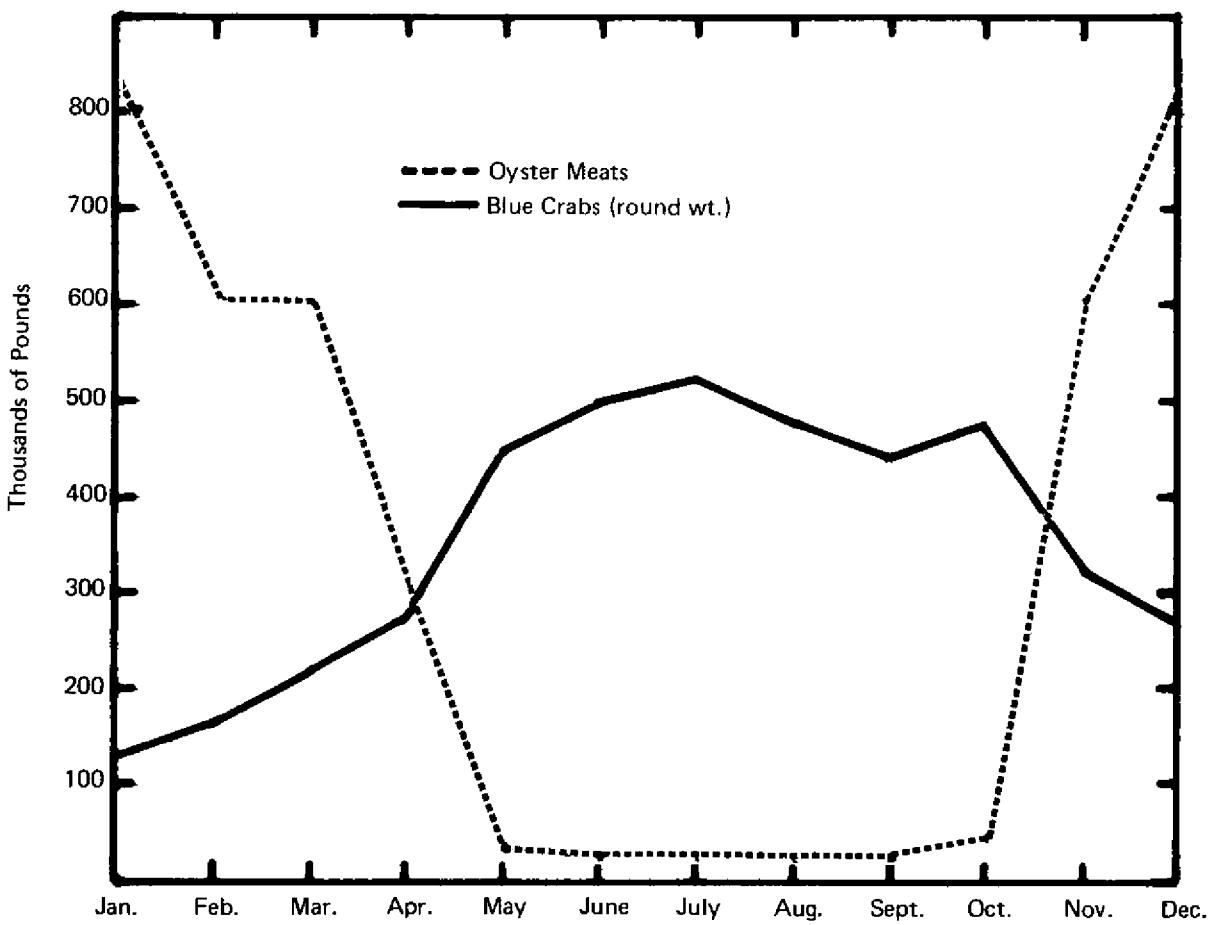


Figure 4. Texas oyster and crab landings by months (5-year average, 1966–1970).

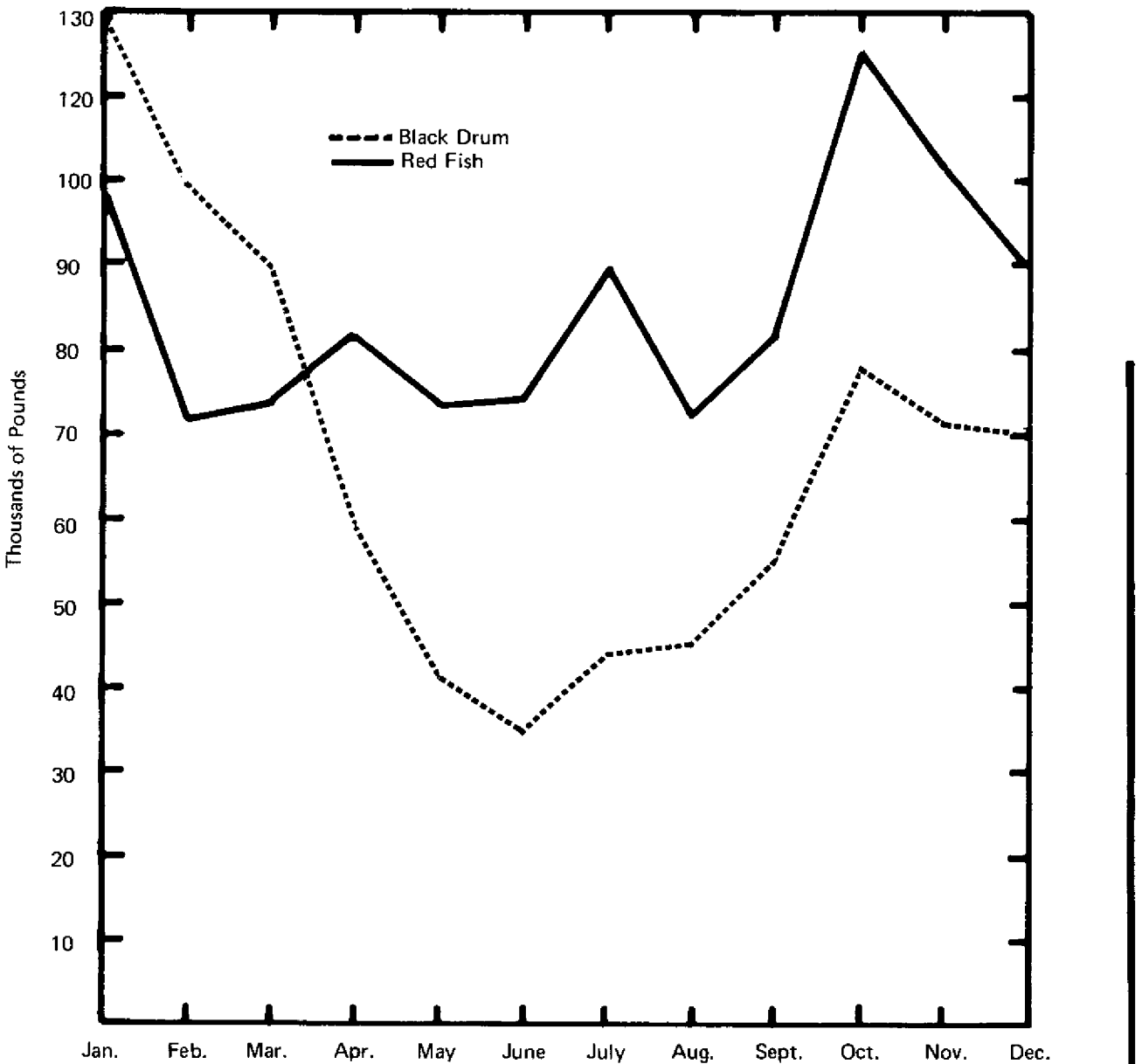


Figure 5. Texas black drum and red fish landings by months (5-year average, 1966–1970).

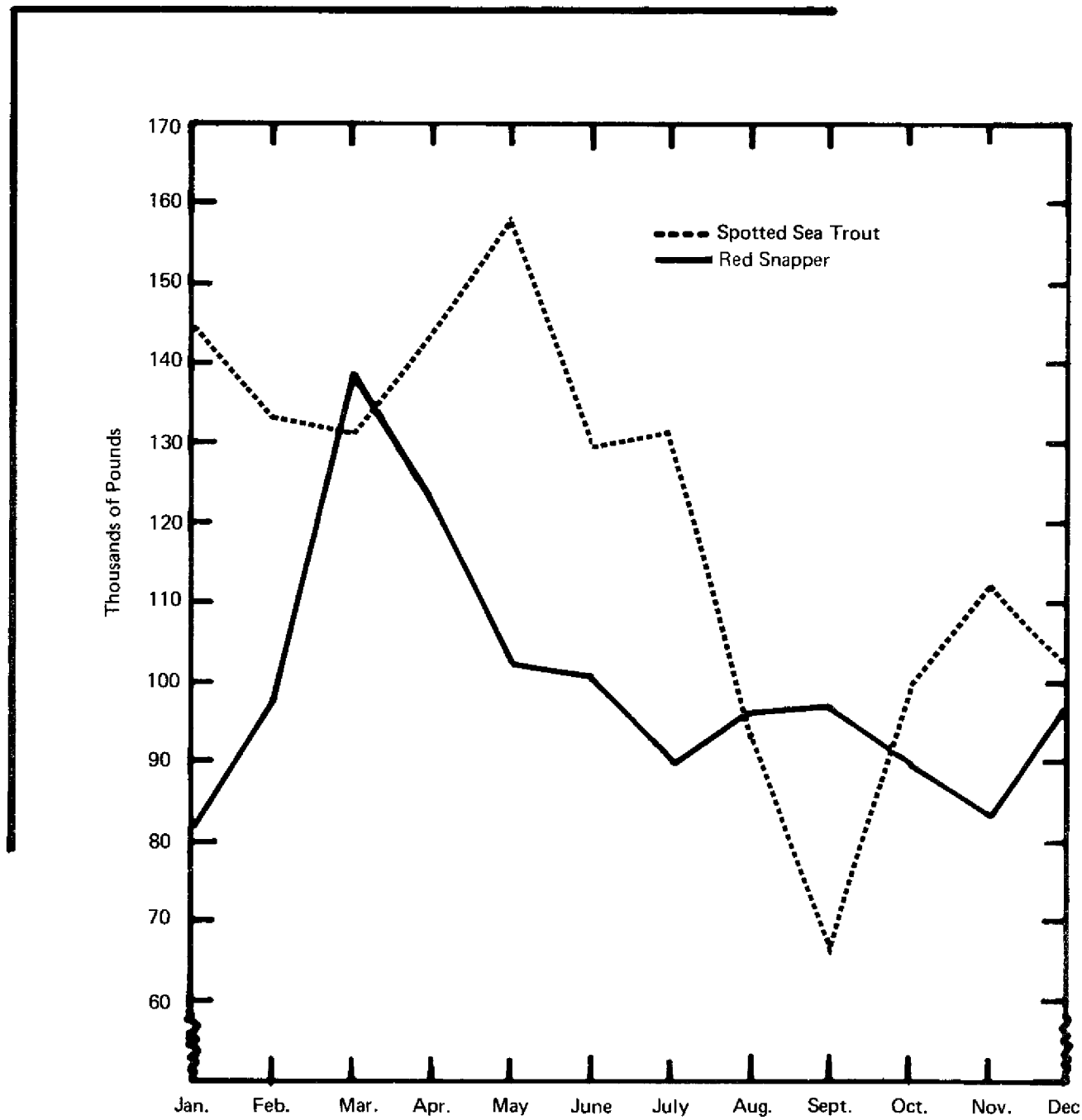


Figure 6. Texas spotted sea trout and red snapper landings by months (5-year average, 1966–1970).

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Acknowledgments

Landing data used in this article were taken from Texas Landings, published by the U. S. Department of the Interior in cooperation with the Texas Parks and Wildlife Department and from unpublished data supplied by the National Marine Fisheries Service, Division of Statistics, Galveston, Texas.