

COMMERCIAL FISHING ACTIVITY AND FACILITY NEEDS IN FLORIDA:
HILLSBOROUGH, MANATEE, PASCO, PINELLAS,
AND SARASOTA COUNTIES

a report by
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The Florida Agricultural Market Research Center
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Finally, all the Florida fishermen and seafood dealers who took the time to complete questionnaires and add comments have our thanks.

SUMMARY

This is one of a series of four reports on published data and survey findings concerned with commercial fishing activity and needed onshore facilities and services in 17 counties of central and south Florida: Brevard, Broward, Charlotte, Collier, Dade, Hillsborough, Indian River, Lee, Manatee, Martin, Monroe, Palm Beach, Pasco, Pinellas, St. Lucie, Sarasota, and Volusia.

The five counties, discussed here, Hillsborough, Manatee, Pasco, Pinellas, and Sarasota, have experienced very rapid population growth since 1960 and further increases are projected for the future.

The number of pleasure boats registered in these five counties has increased from 25,394 in 1963-64 to 79,922 by 1977-78. Commercial boat numbers declined from 3,660 to 2,442 during the same period.

Landings in the five counties declined from 1971 to 1976 in volume but values are greater than in 1971. Total landings in all five counties were valued at \$11.6 million in 1976, with shellfish making up 67 percent of that value.

Landings are highly seasonal in the region, averaging highest in the winter, and dropping substantially during the summer months.

It is estimated there are about 730 commercial boat owners actively fishing and 50 dealers operating in the five counties. About half of all fishermen responding catch 5,000 pounds or less, while nearly 30 percent land 25,000 pounds or more of fish and shellfish.

Most fishermen returning questionnaires from Hillsborough County said they landed in Tampa. The majority of fishermen from Manatee County landed at Cortez. About a third of Sarasota County fishermen used Sarasota.

Fishermen use a variety of facilities and services at these landing sites, but fish houses, ice and fuel sales and docks are used by the greatest number of boat owners. Also, a sizeable number of fishermen in the region use repair and supply services for gear, engines, and electronics.

Dealers offer most facilities for handling the catch and provide consumable supplies such as bait, ice and fuel. Hillsborough, Manatee and Pinellas County dealers offer very few repair facilities.

Fishermen feel docking needs improvement in most landing sites, along with gear and electronics repair freezer and cold storage, and waste disposal facilities. Dealers also would like improved docking and said they would like improved fish, shrimp and lobster houses, ice plants, and freezer and cold storage facilities.

Information and assistance is available to groups or individuals interested in improving commercial seafood facilities and services in this region. The County Extension Office and other agencies should be contacted by those desiring help.

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INTRODUCTION

The commercial seafood industry is an important source of income and employment along Florida's extensive coastline. Values of marine landings for coastal counties are shown in Figure 1. Of the 35 coastal counties in Florida 18 had seafood landings of \$1 million or more in 1976. The relatively small number of major seafood ports in the state are all in counties with \$1 million or more in landings values (Table 1). Urban and recreational development in most coastal areas of central and north Florida has put great pressure on commercial fishermen and seafood dealers operating there. Counties with seafood landings under \$1 million have significant numbers of fishermen but port and landing facilities are often limited. Even though the remaining counties have substantial volumes of seafood and significant numbers of fishermen, port and landing facilities are often limited. These limitations and other restrictions may hamper the seafood industry in these areas.

This publication is one of a series of four which reports analysis of data from published sources and from surveys of commercial fishermen and seafood dealers in 17 counties of central and south Florida. Counties included are: Brevard, Broward, Charlotte, Collier, Dade, Hillsborough,

Kary Mathis, James C. Cato and Fred J. Prochaska are associate professors, Robert L. Degner is assistant professor and Paul D. Landrum is assistant in food and resource economics, University of Florida.

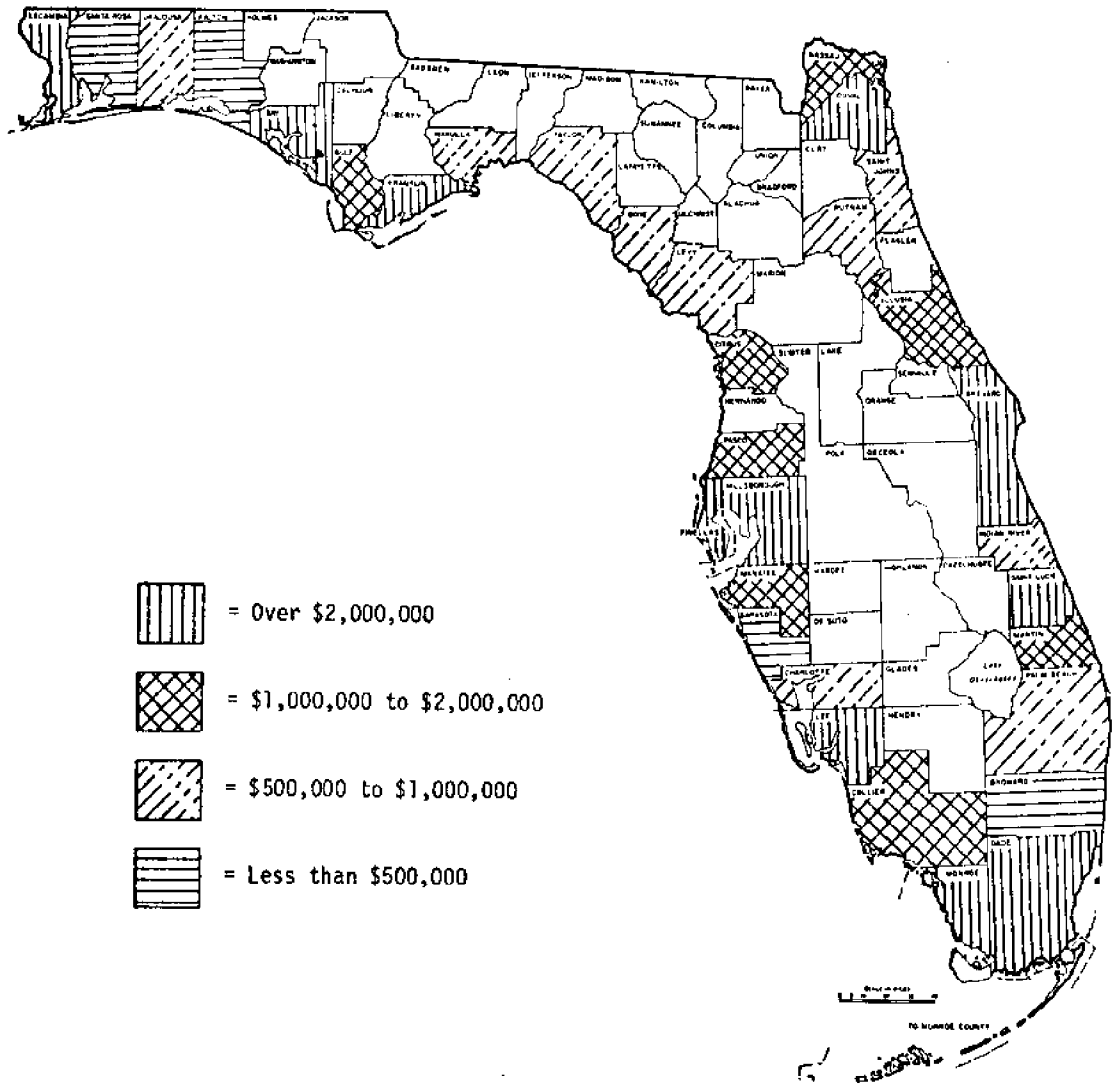


Figure 1.--Value of fish and shellfish landings by county in Florida, 1976.

Indian River, Lee, Manatee, Martin, Monroe, Palm Beach, Pasco, Pinellas, St. Lucie, Sarasota, and Volusia (Figure 2).

Table 1.--Florida counties with fish and shellfish landings in excess of \$1 million, and rank in state, 1976.

County	Value of landings			Rank in state
	Fish	Shellfish	Total	
	----- \$1,000 -----			
Bay	3,247	1,790	5,037	5
Brevard	1,120	1,496	2,616	9
Citrus-Pasco	471	1,018	1,489	14
Collier	666	732	1,398	15
Dade	520	2,463	2,984	7
Duval	787	1,702	2,388	10
Escambia	927	1,752	2,679	8
Franklin	431	7,837	8,268	3
Gulf	305	865	1,170	17
Hillsborough	197	2,933	3,103	6
Lee	3,434	9,284	12,718	2
Manatee	1,350	298	1,648	13
Martin	1,013	3	1,016	18
Monroe	3,640	19,965	23,605	1
Nassau	213	1,733	1,946	12
Pinellas	2,169	3,070	5,239	4
St. Lucie	2,353	12	2,365	11
Volusia	662	592	1,254	16

Source: Florida Department of Natural Resources, Summary of Commercial Marine Landings, 1976.

Research reported here was done as a continuation of a larger project concerned with the feasibility of seafood industrial port development in north Florida. Results of the more detailed study are reported in a separate publication (see reference list).

This report is organized into four major sections: this introduction, a discussion of the commercial fishing industry in the region, results of the mail survey, and conclusions. Relevant published data were used

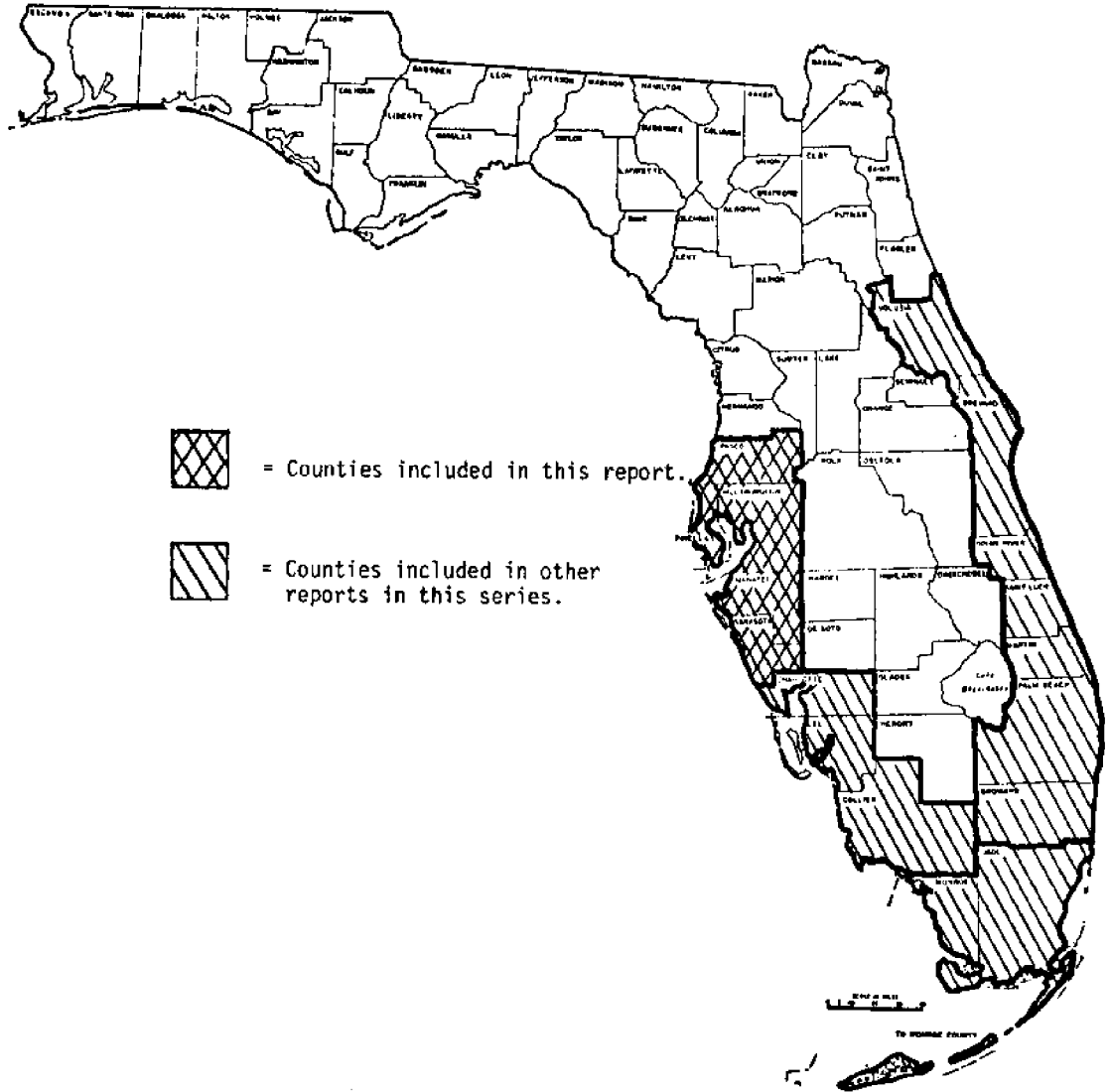


Figure 2.--Central and south Florida coastal counties included in study.

in the first two sections. Summaries of responses by fishermen and dealers on the mailed questionnaires provided information for the third section. Information and survey findings are reviewed and conclusions drawn in the final portion.

Population Growth

All 17 counties included in this phase of the overall seafood port study have experienced almost explosive population growth in the past two decades. Population in the five-county region covered in this report doubled from 1960 to 1977, with additional growth projected through the year 2000 (Table 2).

Table 2.--Population, five west coast counties, 1940, 1950, 1960, 1970, 1977, and projected 1980, 1990, 2000.

Year	Hillsborough	Manatee	Pasco	Pinellas	Sarasota
1940	180,148	26,098	13,981	91,852	16,106
1950	249,894	34,187	20,529	159,249	28,827
1960	397,788	69,168	36,785	374,665	76,895
1970	490,265	97,115	75,955	522,329	120,413
1977	602,667	129,313	142,264	687,204	170,621
Projected					
1980	640,200	140,000	171,300	725,400	189,200
1990	763,400	174,800	250,700	872,700	246,300
2000	883,900	202,400	290,300	1,010,400	285,200

Source: Bureau of Economic and Business Research.

Hillsborough and Pinellas Counties have been the most populous in the region since 1940. Pasco and Sarasota Counties had the most rapid rate of population growth in the region while Manatee County showed a growth rate of about the average for the region.

THE COMMERCIAL FISHING INDUSTRY IN THE REGION

Population growth, and accompanying residential and recreational development have put heavy pressure on waterfront property used by the fishing and seafood industry. Docking space has been converted from commercial to recreational use as the number of pleasure boats has increased in the region.

Boat Registrations

The number of commercial boats registered in each of the five counties has declined over the past 15 years, while the number of pleasure boats has tripled. The number of commercial boats reached a high of 4,339 in 1965-66, then generally declined. Pleasure boats grew from 29,000 to almost 77,500 in number (Table 3). Pinellas County had the largest number of commercial boats registered in 1976-77 with 1,136 while Pasco County had the fewest in the region with 208 (Appendix Table 1). Hillsborough County showed the most pleasure boats with 26,900 while Pinellas County had 23,387.

Landings

Seafood landings as reported by the Florida Department of Natural Resources show considerable variation among the counties. Pinellas and Hillsborough Counties have the largest landings in the five-county region, with each having total landings valued at over \$3 million in 1976. Manatee and Pasco¹ Counties showed seafood landings of well over

¹Landings in Pasco County are combined with those in Citrus County for reporting. See page following.

\$1 million while Sarasota, the lowest producing county in this region, handled less than \$200,000 in landings.

Table 3.--Boats registered annually, in the five west coast counties, 1963-64 through 1977-78.

Year ^a	Boats registered		Total
	Commercial	Pleasure	
	----- Number -----		
1963-64	3,660	25,394	29,054
1964-65	3,652	26,720	30,372
1965-66	4,339	27,945	32,284
1966-67	4,087	30,052	34,139
1967-68	3,213	32,524	35,737
1968-69	3,380	34,518	37,898
1969-70	3,331	38,046	41,377
1970-71	3,168	40,137	43,305
1971-72	2,736	43,900	46,636
1972-73	2,543	48,803	51,346
1973-74	2,197	49,151	51,348
1974-75	2,297	65,457 ^b	67,754
1975-76	2,816	74,858	77,674
1976-77	2,578	74,897	77,475

^aJuly 1 to June 30.

^bBefore January 1, 1975, pleasure boats with engines of less than 10 horsepower were not required to be registered.

Source: Bureau of Boat Registration, Florida Department of Natural Resources.

Hillsborough County

Hillsborough County ranked sixth in the state in 1976 with \$3.1 million in landings (Table 1). Total value of fish and shellfish increased from 1971 through 1976 even though volume declined (Figure 3). Fish landings fell drastically in 1975 and 1976 while shellfish volume remained fairly stable during this period. Shellfish represented most of seafood landings volume and value (Table 4).

Table 4.--Volume and value of landings, Hillsborough County, 1971-1976.

Year	Fish		Shellfish		Total	
	Volume	Value	Volume	Value	Volume	Value
1971	1,383,319	213,293	1,683,601	1,062,828	3,066,920	1,276,121
1972	1,491,153	226,310	2,345,963	1,725,943	3,837,116	1,952,253
1973	1,466,658	197,874	2,107,134	2,030,832	3,573,792	2,228,706
1974	2,267,114	306,867	2,286,625	1,692,614	4,553,739	1,999,481
1975	659,747	163,415	3,626,762	3,120,345	4,286,509	3,283,760
1976	544,321	169,825	2,297,457	2,933,185	2,841,778	3,103,010

Source: Florida Department of Natural Resources, Summary of Florida Commercial Marine Landings, 1971-1976.

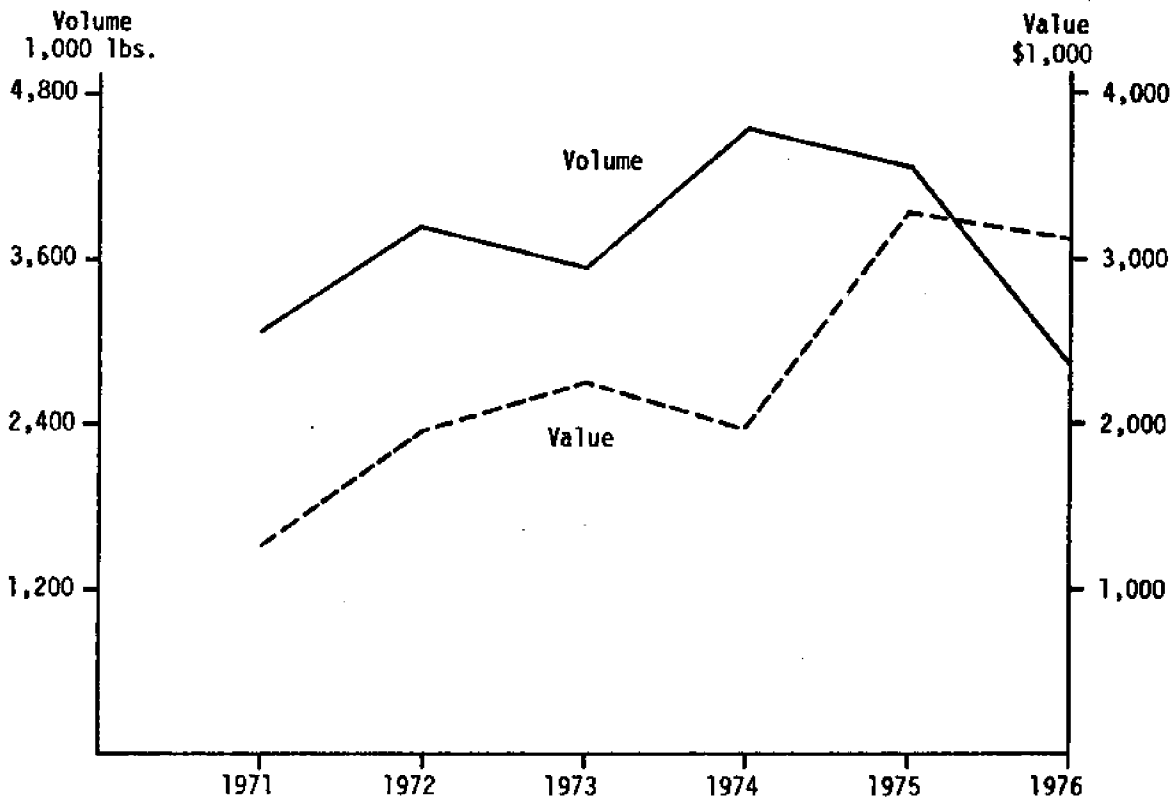


Figure 3.--Volume and value of seafood landings, Hillsborough County, 1971-1976.

Average monthly landings of both fish and shellfish are fairly stable through the first 10 months of the year, with sizeable increases in November and December (Figure 4 and Appendix Table 2). Major species in Hillsborough County are grouper, black mullet, blue crab and shrimp (Appendix Table 3).

Manatee County

Total value of seafood in Manatee County increased from 1971 to 1976, reaching over \$1.6 million in 1976 (Figure 5). Volume of seafood has shown a downward trend since 1971 with all the decline in fish, which constitute the majority of Manatee County landings (Table 5).

Average monthly landings peak in December climbing from a summer low (Figure 6 and Appendix Table 2). Major fish species landed in Manatee County are grouper, black mullet, red snapper, and jack crevalle (Appendix Table 4).

Pasco County

Most recent published reports on landings combine data for Pasco County with either Hernando or Citrus Counties (Table 6). The combined value of landings for Citrus-Pasco in 1976 was about \$1.5 million. This ranks the two-county area 14th in the state (Table 1). Pasco County alone had relatively small seafood landings. Citrus County seafood data were reported separately in 1971 through 1973, and represented 83 percent of the total value of seafood in Pasco and Citrus Counties together.²

²See Industry Report 78-2, Commercial Fishing Activity and Facility Needs in Florida: Citrus County.

Table 5.--Volume and value of landings, Manatee County, 1971-1976.

Year	Fish		Shellfish		Total	
	Volume	Value	Volume	Value	Volume	Value
	<u>Pounds</u>	<u>Dollars</u>	<u>Pounds</u>	<u>Dollars</u>	<u>Pounds</u>	<u>Dollars</u>
1971	6,569,576	994,418	57,028	21,951	6,626,604	1,016,369
1972	6,229,962	1,093,243	83,949	67,089	6,313,911	1,160,332
1973	5,697,469	1,006,501	92,853	79,894	5,790,322	1,086,395
1974	4,958,351	1,186,656	82,988	68,135	5,041,339	1,254,791
1975	5,374,902	1,223,584	319,683	212,773	5,694,585	1,436,357
1976	4,510,595	1,350,067	359,386	298,007	4,869,981	1,648,074

Source: Florida Department of Natural Resources, Summary of Florida Commercial Marine Landings, 1971-1976.

Table 6.--Volume and value of landings, Pasco County, 1971-1976.

Year	Fish		Shellfish		Total	
	Volume	Value	Volume	Value	Volume	Value
	<u>Pounds</u>	<u>Dollars</u>	<u>Pounds</u>	<u>Dollars</u>	<u>Pounds</u>	<u>Dollars</u>
1971 ^a	648,493	99,165	-	-	648,493	99,165
1972 ^a	955,956	107,952	-	-	955,956	107,952
1973 ^a	438,515	71,180	30	6	438,545	71,186
1974 ^b	2,363,431	356,419	1,819,202	310,267	4,182,633	666,686
1975 ^b	2,913,668	473,279	2,009,519	768,206	4,923,187	1,241,485
1976 ^b	2,360,244	470,656	2,693,407	1,018,137	5,053,651	1,488,793

^a Includes Hernando County.

^b Includes Citrus County.

Source: Florida Department of Natural Resources, Summary of Commercial Marine Landings, 1971-1976.

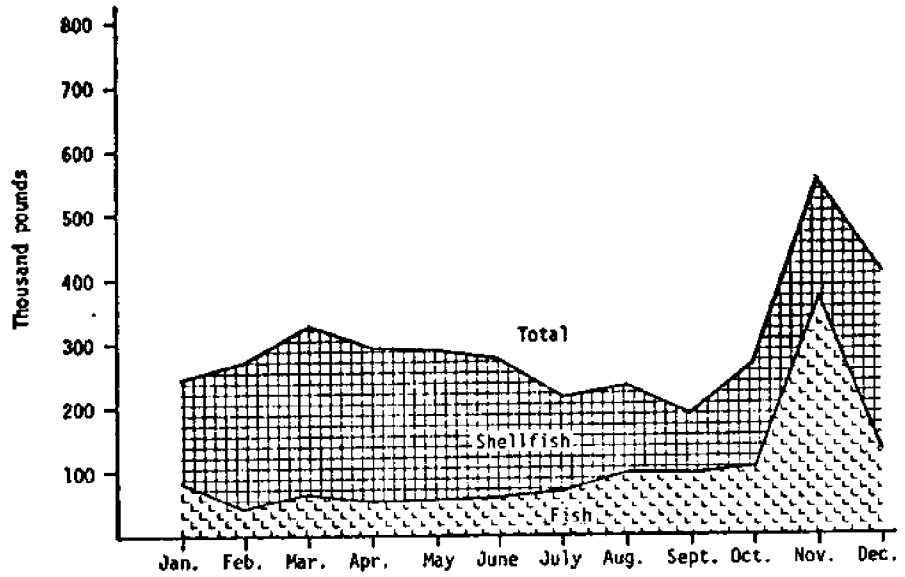


Figure 4.-- Average monthly landings of fish and shellfish, Hillsborough County, 1971-1976.

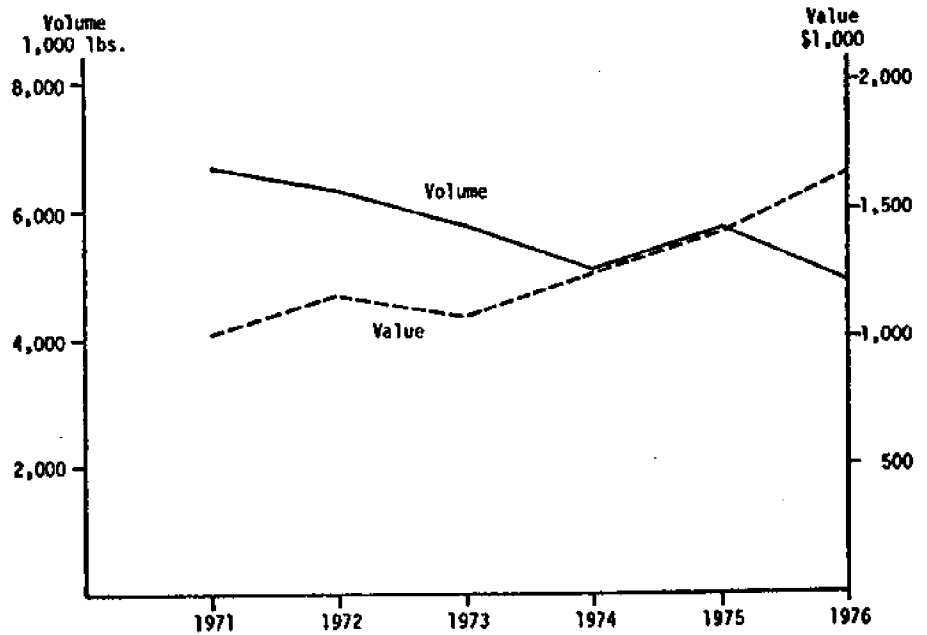


Figure 5.--Volume and value of seafood landings, Manatee County, 1971-1976.

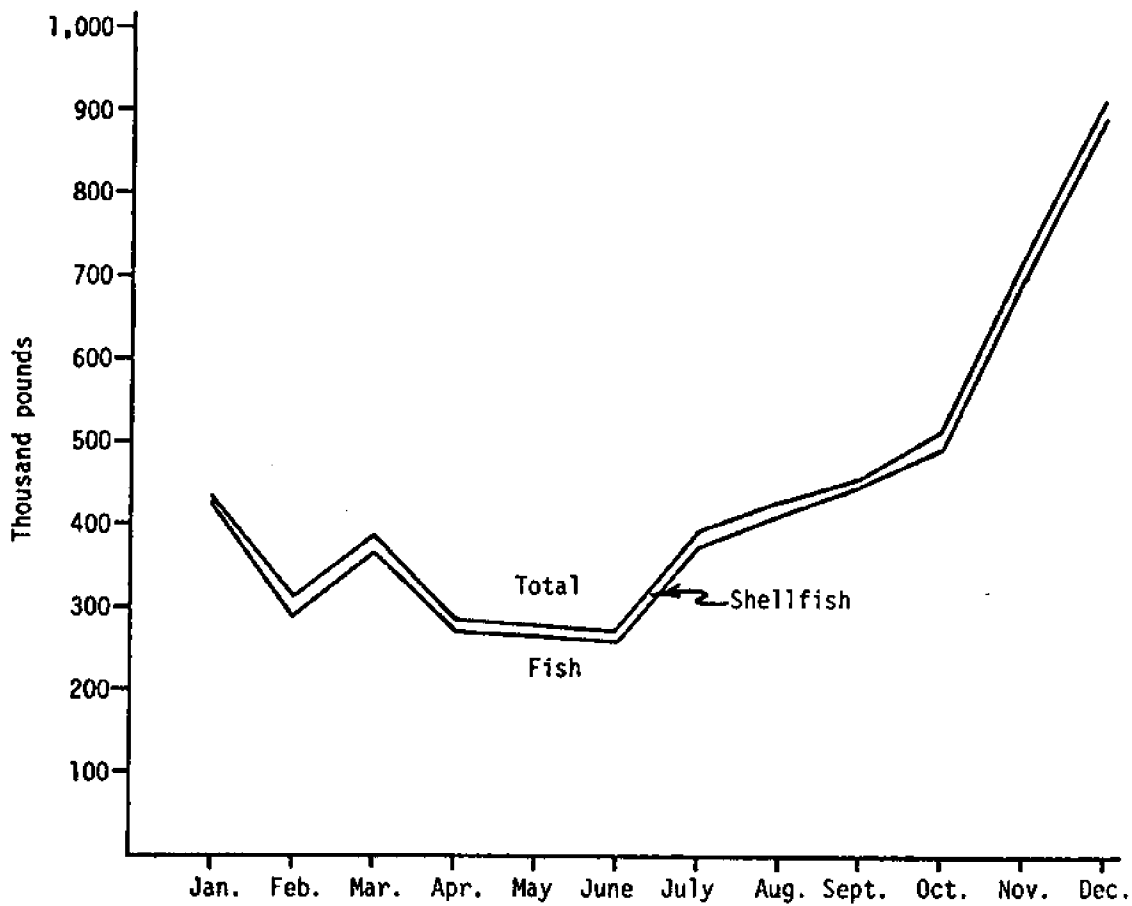


Figure 6.--Average monthly landings of fish and shellfish, Manatee County, 1971-1976.

Average monthly landings for the Citrus-Pasco area peak in June and again in November and December (Appendix Table 2). Important fish species in this area are jack crevalle, grouper, black mullet, and spotted sea trout. Blue crabs are the major shellfish landed (Appendix Table 5).

Pinellas County

Pinellas County is ranked fourth in the state with fish and shellfish landings totaling over \$5.2 million for 1976 (Table 1). Total value of seafood landed has shown a continual increase from 1971, as volume rose substantially along with prices (Figure 7). Annual fish landings have fluctuated from 4.2 to 6.5 million pounds while shellfish volume has increased markedly since 1971 (Table 7).

Average monthly landings in Pinellas County show a peak in November and December, due mostly to an increase in fish landings in those months (Figure 8). Important fish species in Pinellas County are grouper, black mullet, and red snapper. Shrimp represent most of the shellfish landed (Appendix Table 6).

Sarasota County

Both volume and value of landings in Sarastoa County have decreased since 1971 (Table 8 and Figure 9). Average monthly landings follow the same seasonal pattern as the other counties in the region, with highest volumes in November and December (Figure 10 and Appendix Table 2). Grouper and black mullet are the major species handled (Appendix Table 7).

Table 7 .--Volume and value of landings, Pinellas County, 1971-1976.

Year	Fish		Shellfish		Total	
	Volume	Value	Volume	Value	Volume	Value
	<u>Pounds</u>	<u>Dollars</u>	<u>Pounds</u>	<u>Dollars</u>	<u>Pounds</u>	<u>Dollars</u>
1971	4,865,348	866,045	327,336	363,205	5,192,684	1,229,250
1972	4,751,863	1,076,891	621,132	635,003	5,372,995	1,711,894
1973	4,222,827	1,099,151	536,170	455,820	4,758,997	1,554,971
1974	5,836,967	2,084,062	1,140,212	731,323	6,977,177	2,815,385
1975	6,510,305	2,360,921	2,070,828	1,943,224	8,581,133	4,304,145
1976	5,115,572	2,169,166	2,590,563	3,070,116	7,706,135	5,239,282

Source: Florida Department of Natural Resources, Summary of Florida Commercial Marine Landings, 1971-1976.

Table 8.--Volume and value of landings, Sarasota County, 1971-1976.

Year	Fish		Shellfish		Total	
	Volume	Value	Volume	Value	Volume	Value
	<u>Pounds</u>	<u>Dollars</u>	<u>Pounds</u>	<u>Dollars</u>	<u>Pounds</u>	<u>Dollars</u>
1971	1,714,866	208,265	18,126	8,338	1,732,992	216,603
1972	1,622,791	239,897	23,949	15,419	1,646,740	255,316
1973	1,461,331	244,488	37,417	25,623	1,498,748	270,111
1974	813,620	201,207	280	210	813,900	201,417
1975	553,962	177,479	157,156	20,364	711,118	197,843
1976	310,936	128,210	12,985	12,062	323,921	140,272

Source: Florida Department of Natural Resources, Summary of Florida Commercial Marine Landings, 1971-1976.

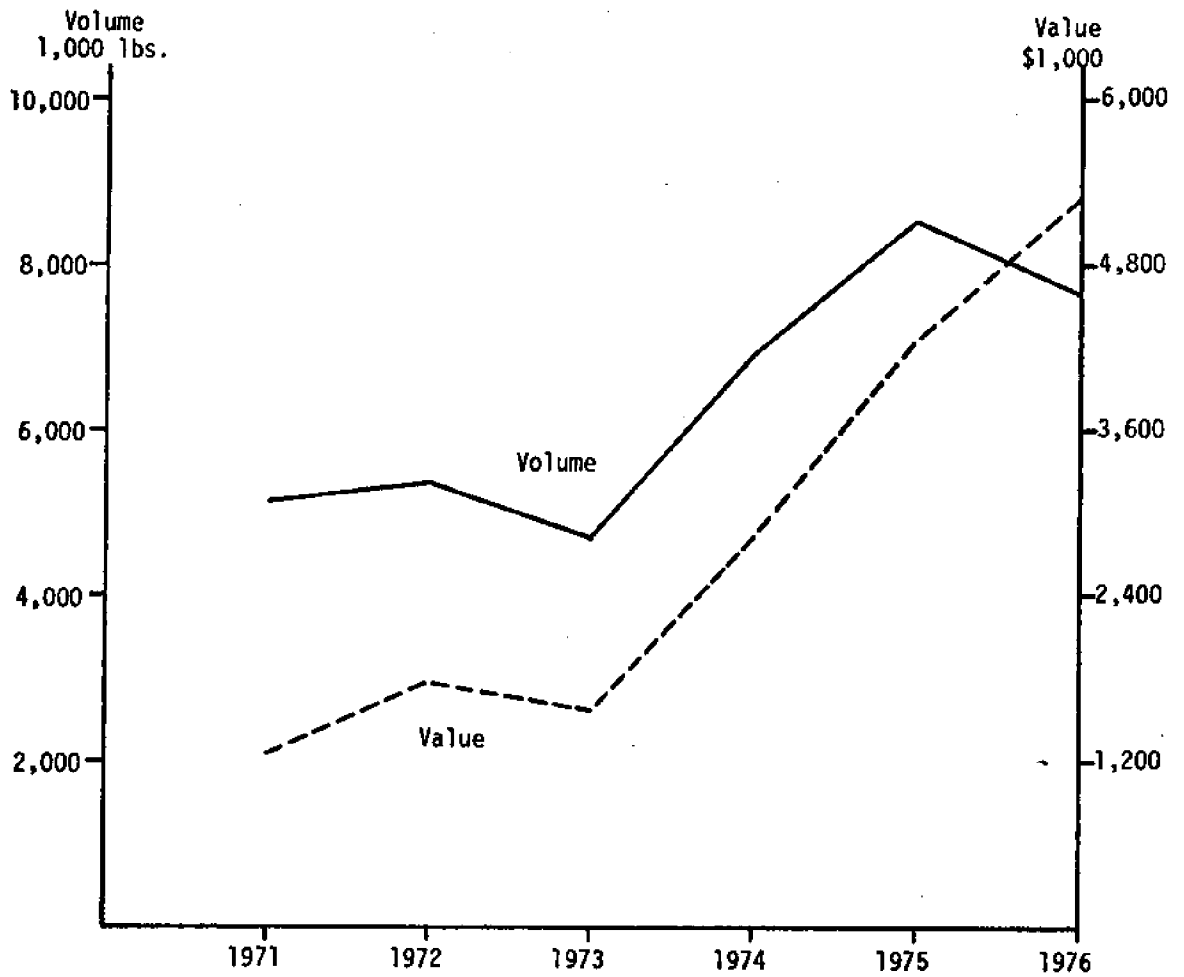


Figure 7.-- Volume and value of seafood landings, Pinellas County, 1971-1976.

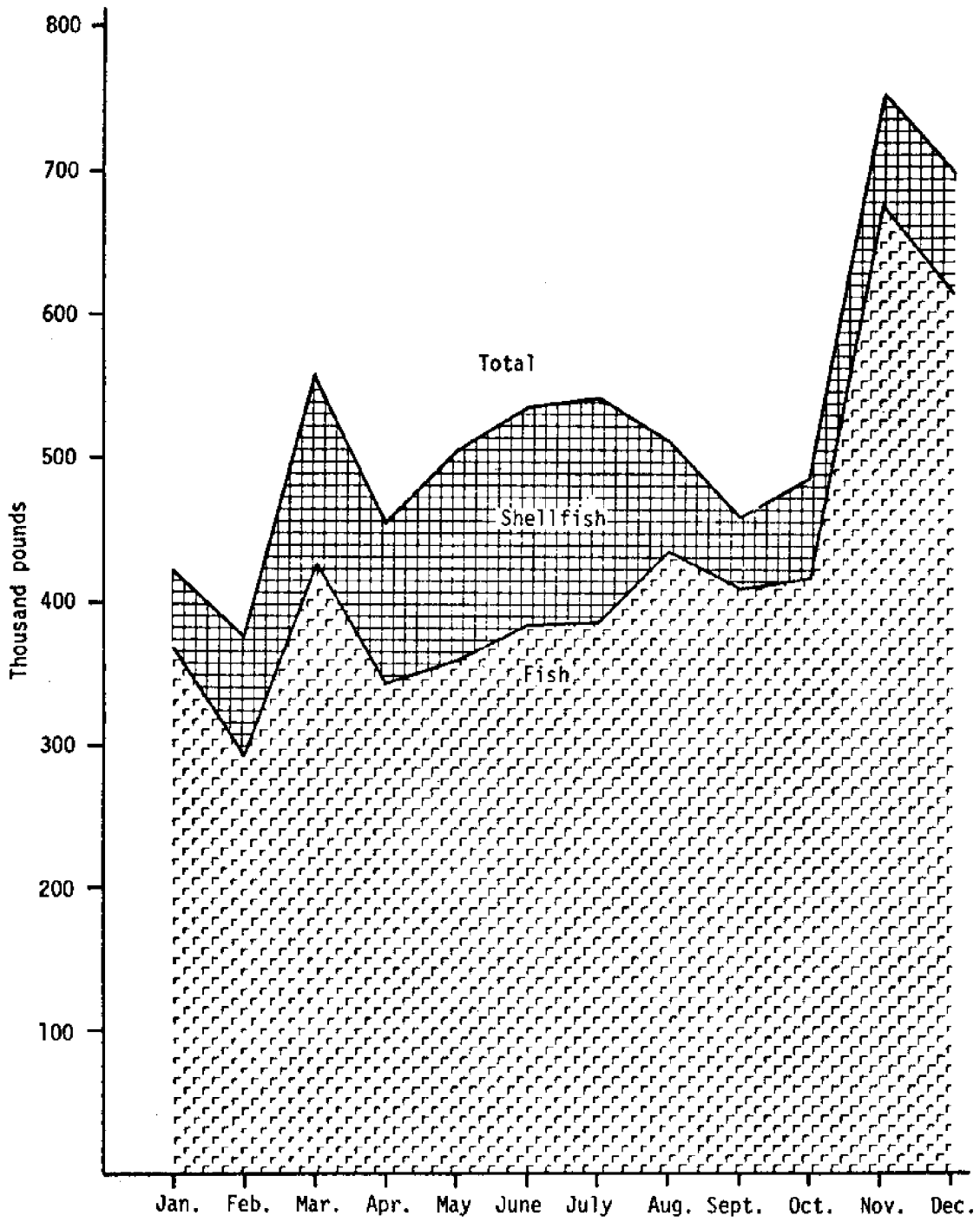


Figure 8.--Average monthly landings of fish and shellfish, Pinellas County, 1971-1976.

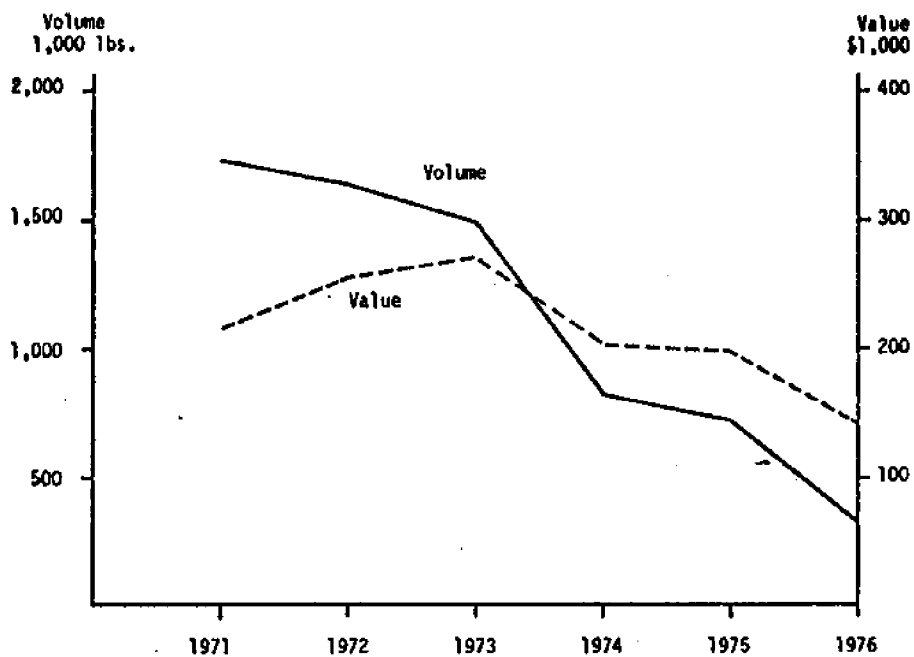


Figure 9.--Volume and value of seafood landings, Sarasota County, 1971-1976.

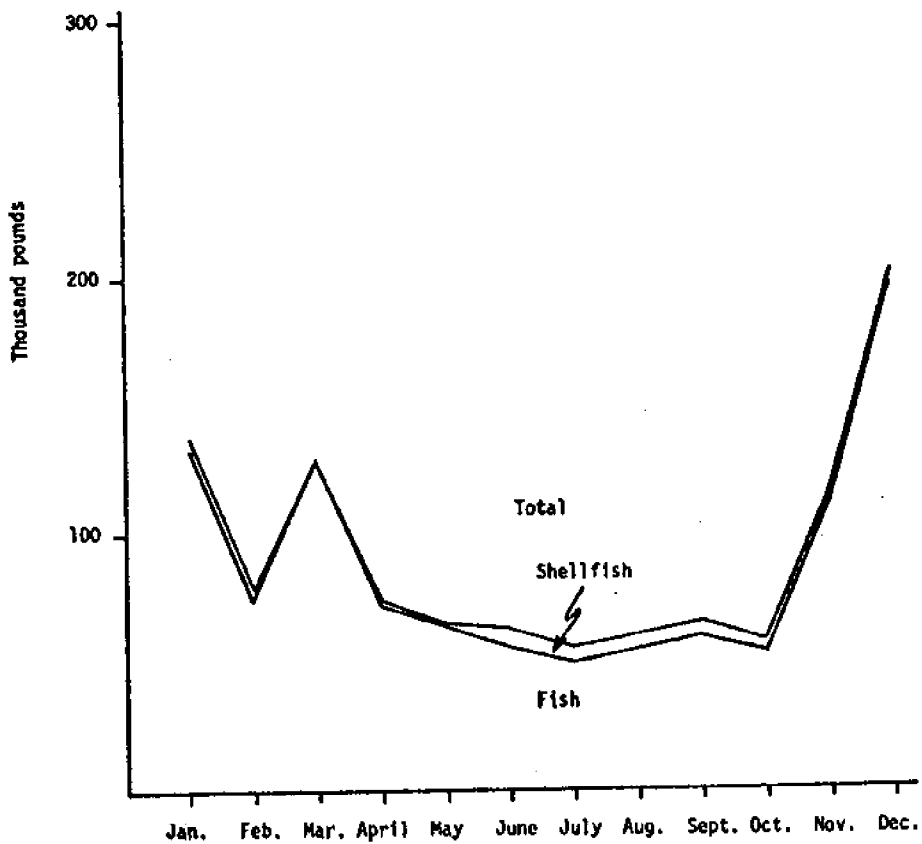


Figure 10--Average monthly landings of fish and shellfish, Sarasota County, 1971-1976.

SURVEY RESULTS

The mail survey conducted during the fall of 1978 provided considerable insight into fishing industry problems in Hillsborough, Manatee, Pasco, Pinellas, and Sarasota Counties. Questionnaires were mailed to all residents in each county having a commercial boat registered during 1977-78 with the Florida Department of Natural Resources. All seafood dealers listed with the National Marine Fisheries Services in 1976 were also surveyed. Copies of the questionnaires used are included in the Appendix.

A total of 1,316 questionnaires were sent to commercial boat owners in all five counties with 573 or 44 percent returned. The largest number of questionnaires, 521, was sent to Pinellas County, and 49 percent were returned. Hillsborough County fishermen received 328 questionnaires. However, only 38 percent were returned, the lowest in the region. Sarasota, Manatee, and Pasco Counties received 179, 146 and 142 questionnaires, respectively.

Of the individuals responding, the number who still owned one or more boats and were actively fishing ranged from 44 percent in Pinellas to 66 percent in Manatee County (Table 9). It was assumed that people who did not return the questionnaire were active commercial fishermen in the same proportion as those completing the survey. The percentage actively fishing was multiplied times the total number of boat registrations to provide an estimate of total active commercial fishermen in each county. These estimates indicate that there are from 91 to 302 boat owners actively fishing in each of the counties (Table 9).

Dealer responses were greatest from Hillsborough County which had the largest number of dealers in the region. Pinellas County followed

Table 9. --Questionnaire dispositions and responses, fisherman survey, five west coast counties.

Disposition or response	County									
	Hillsborough		Manatee		Pasco		Pinellas		Sarasota	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total mailed	328	100	146	100	142	100	521	100	179	100
Returned unable to deliver	16	5	5	3	7	5	32	6	11	6
Individuals receiving questionnaires	312	95	141	96	135	95	489	94	168	94
Individuals receiving questionnaires	312	100	141	100	135	100	489	100	168	100
Questionnaires not returned	193	62	82	58	66	49	250	51	81	48
Questionnaires returned	119	38	59	42	69	51	239	49	87	52
Questionnaires returned	119	100	59	100	69	100	239	100	87	100
No longer own boat	15	13	9	15	10	14	37	15	10	11
No longer in business ^a	52	44	11	19	15	22	63	26	28	32
Still in business	52	44	39	66	44	64	139	58	49	56
Estimated active commercial fishermen ^b	144		96		91		302		100	

^aNot fishing commercially but had commercial boat registrations in 1977

^bEstimate is based on the proportion of the respondents still in business and the total number mailed, i.e., the total 1977 commercial boat registrants.

with six of the 14 dealers responding and three of the seven Manatee County dealers returned questionnaires. Only one of the five Sarasota County dealers responded, and that dealer was no longer in business. There were no responses from Pasco County (Table 10). The five west coast counties had a total of 53 or 28 percent of the 190 dealers registered in the 17 coastal counties. The 25 dealers from the five counties who returned questionnaires represented 29 percent of all responses (Appendix Table 9).

Characteristics of Fishermen

Volumes Handled

Most fishermen in Hillsborough, Pasco, and Sarasota Counties handle relatively small volumes of finfish. Seventy-one percent, 66 percent, and 54 percent, respectively, of the fishermen responding from those counties indicated catching less than 10,000 pounds per year (Table 11). Manatee County had the largest percentage of fishermen handling over 25,000 pounds, while 30 percent of Pinellas County fishermen handled over 25,000 pounds.

The number of fishermen handling shellfish is considerably smaller than those handling finfish. Only 76 fishermen reported handling shellfish compared to 227 handling finfish. The largest number of those catching shellfish was 33 in Pinellas County, while 18 Hillsborough County fishermen handled shellfish (Table 12). Only four Pasco County fishermen reported catching shellfish and three of those caught less than 5,000 pounds. Only in Hillsborough County did fewer than 60 percent of fishermen responding handle over 5,000 pounds of shellfish. Eleven or 61 percent of those catching shellfish in Hillsborough County handled over 25,000 pounds (Table 21).

Tables 10.--Questionnaire dispositions and responses, dealer survey, five west coast counties.

Disposition or response	Hillsborough		Manatee		Pasco		Pinellas		Sarasota	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total mailed	26	100	7	100	1	100	14	100	5	100
Returned unable to deliver	4	15	0	0	0	0	2	14	0	0
Individuals receiving questionnaires	22	100	7	100	1	100	12	100	5	100
Individuals receiving questionnaires	22	100	7	100	1	100	12	100	5	100
Questionnaires not returned	7	32	4	57	1	100	6	50	4	80
Questionnaires returned	15	68	3	43	0	0	6	50	1	20
Questionnaires returned	15	100	3	100	0	0	6	100	1	100
No longer in business ^a	0	0	0	0	0	0	0	0	1	100
Still in business	15	100	3	100	0	0	6	100	0	0

Table 11.-- Classification of commercial fishermen in five west coast counties by volume of fish sold in 1977.

County	Pounds sold										Total	
	Under 5,000	5,000-10,000	10,000-25,000	Over 25,000								
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
Hillsborough	13	54	4	17	2	8	5	21	24	100	24	100
Manatee	7	23	2	6	4	13	18	58	31	100	31	100
Pasco	17	59	2	7	3	10	7	24	29	100	29	100
Pinellas	41	39	8	8	24	23	31	30	104	100	104	100
Sarasota	16	41	5	13	11	28	7	18	39	100	39	100
Total	94		21		44		68		227		227	

Table 12.--Classification of commercial fishermen in five west coast counties by volume of shellfish sold in 1977.

County	Pounds sold						Total			
	Under 5,000	5,000-10,000	10,000-25,000	Over 25,000	Total					
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>		
Hillsborough	6	33	1	6	0	0	11	61	18	100
Manatee	3	75	0	0	0	0	1	25	4	100
Pasco	9	82	0	0	2	18	0	0	11	100
Pinellas	21	64	5	15	1	3	6	18	33	100
Sarasota	6	60	4	40	0	0	0	0	10	100
Total	45		10		3		18		76	

Distances Traveled

The distances commercial fishermen travel from their homes to the ports they use are similar among four of the five counties. Fishermen in Hillsborough County travel further from home to port than fishermen in the other four counties. Forty-three percent of the Hillsborough County respondents travel 10 or more miles to use a port facility while 25 percent or less of the fishermen in the other counties travel that far (Table 13).

A majority of fishermen in each county travel less than 25 miles from port to their fishing grounds. Hillsborough and Pinellas Counties have a substantial percentage of fishermen going more than 50 miles from port, 36 percent and 35 percent, respectively (Table 14). This reflects the large numbers of shrimp boats and snapper-grouper boats operating from these counties.

Landing Areas Used

Usual landing areas were indicated by most fishermen completing questionnaires. Over half the fishermen responding in Hillsborough County used Tampa as a port with about a quarter using Tarpon Springs (Table 15). Nearly all Manatee County fishermen used Cortez, as did a few from Hillsborough and Sarasota Counties. Fishermen in Pasco County were about equally divided between New Port Richey and Hudson. Pinellas County fishermen indicated using the largest number of different ports in the region. About a third of the respondents landed in Tarpon Springs, as did fishermen from three of the other counties. Substantial numbers of Pinellas County respondents indicated St. Petersburg, Clearwater and Johns Pass as their landing sites (Table 15). Sarasota was the site preferred in Sarasota County, but Englewood and Placida were also used.

Table 13--Distance from home to fishing port traveled by commercial fishermen responding in the five west coast counties.

County	1 or less miles		2-3 miles		4-6 miles		7-10 miles		Over 10		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
Hillsborough	3	7	6	15	6	15	8	20	18	43	41	100
Manatee	8	23	3	9	7	20	8	23	9	25	35	100
Pasco	11	27	11	27	4	10	4	10	10	25	40	100
Pinellas	22	18	24	20	37	31	73	11	23	19	119	100
Sarasota	8	20	8	20	8	20	7	18	9	22	40	100
Total	52	100	52	100	62	100	50	100	69	100	275	100

^aPercentage may not sum to 100 due to rounding.

Table 14-- Distance from fishing port to fishing grounds traveled by commercial fishermen responding in the five west coast counties.

County	Under 10 miles		11-25 miles		26-50 miles		51-75 miles		Over 75 miles		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
Hillsborough	15	37	7	17	4	10	2	5	13	31	41	100
Manatee	11	38	8	28	4	14	1	3	5	17	29	100
Pasco	15	38	11	28	5	12	2	5	7	17	40	100
Pinellas	47	40	20	17	9	8	7	6	34	29	117	100
Sarasota	23	57	8	20	6	15	1	3	2	5	40	100
Total	111	100	54	100	28	100	13	100	61	100	267	100

^aPercentage may not sum to 100 due to rounding.

Table 15.--Landing areas used by commercial fishermen in five west coast counties, 1977.

Landing place	Fishermen	Landing place	Fishermen
Hillsborough		Pasco	
Tampa	23	New Port Richey	9
Tarpon Springs	10	Hudson	13
Ruskin	3	Tarpon Springs	5
Cortez	1	Aripeka	1
High City	1	Bayport	1
Homosassa	1	Crystal River	1
New Port Richey	1	Homosassa	1
Oldsmar	1	Palm Harbor	1
St. Petersburg	1	Port Salerno	1
	—		—
Total	42		39
Manatee		Pinellas	
Cortez	25	Tarpon Springs	35
Ruskin	3	St. Petersburg	18
Palmetto	1	Clearwater	16
Marathon	1	Johns Pass	10
Tampa	1	Tampa Bay	5
Tarpon Springs	1	Ozona	5
	—	Gulfport	3
Total	32	Madeira Beach	3
		New Port Richey	2
Sarasota		Dunedin	1
Sarasota	10	Indian Rocks Beach	1
Englewood	6	Oldsmar	1
Placida	4	Anclote River	1
Cortez	3	Apollo Beach	1
Nokomis	2	Everglades City	1
Venice	2	Homosassa	1
Midnight Pass	1	Hudson	1
Osprey	1	Marathon	1
Ft. Pierce	1	Port Canaveral	1
Ozona	1		—
West Palm Beach	1	Total	107
	—		
Total	32		

Port Facilities: Use and Rating by Fishermen

Inadequate, deteriorated or unsuited port facilities can seriously hamper commercial fishing in a region and retard or prevent growth in the commercial seafood industry. An important step in identifying fishing port needs in the five counties studied was determining facilities available in each port and how well those facilities serve the fishing industry. The mail survey described earlier asked fishermen and dealers to specify which facilities and services they used and to evaluate those facilities.

Port services were grouped into five categories shown in Table 16. The mail survey asked fishermen to indicate those facilities and services used in each port and to them as satisfactory or needing improvement. Dealers were asked which facilities and services they provided and to indicate those need addition or improvement. Both commercial fishermen and seafood dealers were given the opportunity to add comments.

Table 16.--Groups of facilities and services evaluated by port users in the central and south Florida survey, 1978.

<u>Handling and processing</u> Shrimp unloading house Crab unloading house Lobster unloading house Fish house Processing unused fish Freezer and cold storage	<u>Docking and repair</u> Docking facilities Gear storage Gear repair Gear supply Electronics service Engine repair Marine railway
<u>Supplies</u> Bait sales Ice plant Fuel sales Groceries	<u>Retail</u> Restaurant Retail seafood market Fishermen's meeting room
<u>Waste removal</u> Solid waste Liquid waste	

Hillsborough County

Commercial fishermen from Hillsborough County indicated greatest use of fish houses, ice and fuel sales, and docking. A significant number also used shrimp houses, gear supply, electronics and diesel repair, and marine railway. Processing of unused fish and a marine railway were the two facilities fishermen would use if made available or improved (Table 17).

Docking was the main facility used by large numbers of Hillsborough fishermen that needs improvement. Fifty-nine percent of those rating the facility noted improvement was needed (Table 18). Some boat owners commented on the need for fishing dock space in the Tampa port areas. A number of fishermen also indicated improvement needed in shrimp houses, ice supplies, and all repair facilities.

A number of Hillsborough County fishermen made additional comments in the space provided on the questionnaires. Some indicated a need for additional information on laws, taxes and financing for commercial fishermen as well as information pertaining to biological background of marine species and new fishing techniques. Other fishermen indicated the need for improved marketing. They also stressed a need for more regulation and enforcement aimed at conserving fishery resources.

Manatee County

Nearly all fishermen responding from Manatee County use fish houses, and sizeable proportions use ice and fuel sales and docking. Electronics repair and a meeting room were the only facilities noted as ones they would use by 10 percent or more of those responding (Table 19).

Table 17.--Current and projected use of seafood port facilities by commercial fishermen in Hillsborough County, 1978.

Facility	Fishermen			
	Currently use		Would use	
	Number	Percent	Number	Percent
Shrimp house	11	21	2	4
Crab house	6	12	1	2
Lobster house	0	0	0	0
Fish house	28	54	1	2
Processing unused fish	3	6	7	14
Freezer, cold storage	5	10	3	6
Bait supply	13	25	1	2
Ice plant	24	46	2	4
Fuel sales	28	54	5	10
Groceries	10	19	2	4
Docking	29	56	5	10
Gear storage	3	6	5	10
Gear supply	14	27	2	4
Gear repair	7	14	2	4
Electronics repair	16	31	2	4
Diesel repair	20	39	5	10
Marine Railway	14	27	8	15
Restaurant	9	17	0	0
Retail seafood market	10	19	0	0
Fisherman's meeting room	3	6	4	8
Solid waste	6	12	2	4
Liquid waste	4	8	5	10
Total responses	52	--	-	--

Table 18.--Ratings of seafood port facilities by commercial fishermen
in Hillsborough County, 1978.

Facility	Rating	Fishermen	Share
	facility	Saying needs improvement	
	<u>Number</u>	<u>Number</u>	<u>Percent</u>
Shrimp house	11	8	73
Crab house	6	1	17
Lobster house	--	--	--
Fish house	23	6	26
Processing unused fish	2	1	50
Freezer, cold storage	4	2	50
Bait supply	11	5	46
Ice plant	22	12	55
Fuel sales	26	6	23
Groceries	10	1	10
Docking	27	16	59
Gear storage	3	1	33
Gear supply	12	2	17
Gear repair	7	4	57
Electronics repair	14	5	36
Diesel repair	19	7	37
Marine railway	14	7	50
Restaurant	9	2	22
Retail seafood market	7	1	14
Fishermen's meeting room	2	2	100
Solid waste	6	2	33
Liquid waste	3	1	33

Table 19.--Current and projected use of seafood port facilities by commercial fishermen in Manatee County, 1978.

Facility	Fishermen			
	Currently use		Would use	
	Number	Percent	Number	Percent
Shrimp house	3	8	1	3
Crab house	1	3	0	0
Lobster house	0	0	0	0
Fish house	32	82	1	3
Processing unused fish	2	5	3	8
Freezer, cold storage	9	23	2	5
Bait supply	11	28	0	0
Ice plant	16	41	3	8
Fuel sales	20	51	2	5
Groceries	6	15	1	3
Docking	16	41	2	5
Gear storage	7	18	3	8
Gear supply	7	18	3	8
Gear repair	0	0	3	8
Electronics repair	6	15	5	13
Diesel repair	11	28	3	8
Marine Railway	10	26	0	0
Restaurant	2	5	1	3
Retail seafood market	4	10	0	0
Fisherman's meeting room	1	3	4	10
Solid waste	0	0	1	3
Liquid waste	1	3	0	0
Total responses	39	--	-	--

Fish houses were the only facilities rated by more than 20 fishermen and 35 percent of the 26 rating fish houses said they needed improvement. Bait and ice supplies need improving, according to some fishermen, as do docking and gear supply (Table 20).

Additional comments from a number of fishermen stressed the loss of waterfront property and dock space to sport fishing and recreational development. Shallow channels and shallow water near several fish houses causes difficulty for fishermen.

Pasco County

Facilities and services most used in Pasco County were fish houses, fuel sales, docking, and marine railway (Table 21). Thirty percent of the fishermen indicated they would use an ice plant and 21 percent said they would use fish houses and gear supply areas if made available or improved. Significant percentages said they would use fuel sales, diesel repair, electronics repair, a meeting room, a facility for processing unused fish, freezer and cold storage, and bait supply (Table 21).

Docking was the most heavily-used facility in Pasco County that was rated as needing improvement. Fish houses, fuel sales and marine railway, also showed a significant percent of fishermen favoring improvement (Table 22).

Written comments emphasized the need for additional and improved fish houses, ice facilities, fuel sales and docking. As in the other counties, lack of these facilities and services is related to the urbanization and waterfront development taking place. Electronics repair and marine railway systems also received comment as needing improvement.

Table 20--Ratings of seafood port facilities by commercial fishermen
in Manatee County, 1978.

Facility	Rating facility	Fishermen	
		Saying needs improvement	
	<u>Number</u>	<u>Number</u>	<u>Percent</u>
Shrimp house	2	1	50
Crab house	1	1	100
Lobster house	--	--	--
Fish house	26	9	35
Processing unused fish	2	2	100
Freezer, cold storage	6	2	33
Bait supply	10	5	50
Ice plant	11	6	55
Fuel sales	16	3	19
Groceries	5	0	0
Docking	14	8	57
Gear storage	6	3	50
Gear supply	7	4	57
Gear repair	--	--	--
Electronics repair	6	3	50
Diesel repair	10	2	20
Marine railway	10	2	20
Restaurant	2	0	0
Retail seafood market	3	1	33
Fishermen's meeting room	1	1	100
Solid waste	--	--	--
Liquid waste	1	1	100

Table 21.--Current and projected use of seafood port facilities by commercial fishermen in Pasco County, 1978.

Facility	Fishermen			
	Currently use		Would use	
	Number	Percent	Number	Percent
Shrimp house	7	16	5	11
Crab house	3	7	2	5
Lobster house	0	0	1	2
Fish house	21	48	9	21
Processing unused fish	2	5	8	18
Freezer, cold storage	3	7	8	18
Bait supply	17	39	8	18
Ice plant	15	34	13	30
Fuel sales	28	64	6	14
Groceries	14	32	2	5
Docking	24	55	4	9
Gear storage	2	5	4	9
Gear supply	5	11	9	21
Gear repair	3	7	4	9
Electronics repair	9	21	7	16
Diesel repair	15	34	6	14
Marine Railway	21	48	3	7
Restaurant	9	21	2	5
Retail seafood market	12	27	3	7
Fishermen's meeting room	6	14	7	16
Solid waste	3	7	4	9
Liquid waste	1	2	5	11
Total responses	44	--	-	--

Table 22.--Ratings of seafood port facilities by commercial fishermen
in Pasco County, 1978.

Facility	Fishermen		
	Rating facility	Saying needs improvement	
	Number	Number	Percent
Shrimp house	7	6	9
Crab house	3	1	33
Lobster house	--	--	--
Fish house	18	7	39
Processing unused fish	1	1	100
Freezer, cold storage	2	1	50
Bait supply	15	5	33
Ice plant	12	5	42
Fuel sales	24	11	46
Groceries	11	2	18
Docking	21	11	52
Gear storage	0	0	0
Gear supply	3	1	33
Gear repair	2	2	100
Electronics repair	9	8	89
Diesel repair	13	7	54
Marine railway	19	8	42
Restaurant	8	2	25
Retail seafood market	10	2	20
Fishermen's meeting room	5	4	80
Solid waste	3	2	67
Liquid waste	1	1	100

Pinellas County

Pinellas County fishermen indicated using fish houses, fuel sales and docking areas. A large number also use ice and bait supply, groceries, electronics and diesel repair, and marine railway. Nineteen fishermen said they would use a facility to process unused fish while 14 said they would use a meeting room, if both were made available or improved (Table 23).

Fish houses, ice plants, and docking were the facilities used by a large number of fishermen that needed improvement. Other areas that need improvement include freezer and cold storage, bait supply, gear repair, electronics and deisel repair, a meeting room and liquid waste disposal (Table 24).

A large number of respondents from Pinellas County, 35 percent of 139 active fishermen, made comments on the questionnaires. Some of the main problem areas indicated by fishermen were waterfront development and population pressures resulting in loss of dock space and location for fish houses and related facilities, as well as damage to fishing grounds. Several comments called for increased conservation measures affecting seasons, sizes caught and habitats of Fish and shellfish

Sarasota County

Fish houses were most used by Sarasota County fishermen, while significant numbers used ice plants, fuel sales, and docking. From 16 to 27 percent of the respondents indicated they would use gear supply, gear storage, freezer and cold storage, fishermen's meeting room, a facility to process unused fish, and an ice plant (Table 25).

Table 23.--Current and projected use of seafood port facilities by commercial fishermen in Pinellas County, 1978.

Facility	Fishermen			
	Currently use		Would use	
	Number	Percent	Number	Percent
Shrimp house	11	8	2	1
Crab house	18	13	3	2
Lobster house	2	1	0	0
Fish house	99	71	3	2
Processing unused fish	5	4	19	14
Freezer, cold storage	28	20	8	6
Bait supply	58	42	2	1
Ice plant	68	49	10	7
Fuel sales	89	64	4	3
Groceries	49	35	4	3
Docking	83	60	5	4
Gear storage	13	9	9	7
Gear supply	37	27	9	7
Gear repair	24	17	5	4
Electronics repair	53	38	2	1
Diesel repair	56	40	5	4
Marine railway	42	30	3	2
Restaurant	33	24	3	2
Retail seafood market	30	22	9	7
Fishermen's meeting room	9	7	14	10
Solid waste	7	5	6	4
Liquid waste	6	4	7	5
Total responses	139	--	-	-

Table 24.--Ratings of seafood port facilities by commercial fishermen
in Pinellas County, 1978.

Facility	Rating facility	Fishermen	
		Saying needs improvement	
	<u>Number</u>	<u>Number</u>	<u>Percent</u>
Shrimp house	10	3	30
Crab house	17	6	35
Lobster house	2	0	0
Fish house	93	38	41
Processing unused fish	5	3	60
Freezer, cold storage	26	12	46
Bait supply	52	19	37
Ice plant	62	37	60
Fuel sales	80	20	25
Groceries	44	5	11
Docking	79	41	52
Gear storage	11	2	18
Gear supply	32	9	28
Gear repair	21	7	33
Electronics repair	50	12	24
Diesel repair	53	21	40
Marine railway	41	11	27
Restaurant	33	2	6
Retail seafood market	28	8	29
Fishermen's meeting room	8	3	38
solid waste	7	2	29
Liquid waste	6	3	50

Table 25.--Current and projected use of seafood port facilities by commercial fishermen in Sarasota County, 1978.

Facility	Fishermen			
	Currently use		Would use	
	Number	Percent	Number	Percent
Shrimp house	2	4	1	2
Crab house	7	14	4	8
Lobster house	0	0	1	2
Fish house	36	74	6	12
Processing unused fish	0	0	13	27
Freezer, cold storage	11	23	10	20
Bait supply	10	20	3	6
Ice plant	18	37	13	27
Fuel sales	16	33	5	10
Groceries	7	14	3	6
Docking	17	35	3	6
Gear storage	3	6	9	18
Gear supply	5	10	8	16
Gear repair	6	12	6	12
Electronics repair	7	14	2	4
Diesel repair	12	25	3	6
Marine Railway	5	10	3	6
Restaurant	8	16	2	4
Retail seafood market	8	16	3	6
Fisherman's meeting room	0	0	10	20
Solid waste	1	2	2	4
Liquid waste	1	2	3	6
Total responses	49	--	--	--

Fish houses were in need of improvement according to 43 percent of the Sarasota County fishermen rating them. Docking and ice plants also needed improvement as did supply, storage, and repair facilities (Table 26).

Over half of the 49 active commercial fishermen responding from Sarasota County made additional comments. These responses indicated two major areas of concern. One, as in the other four west coast counties, was the development of waterfront property and population pressure which affects the seafood industry adversely. Needed dockage and channel improvements were included in this category. Improving the marketing system, especially pricing and selling, was the other major area in which fishermen indicated concern.

Dealer Characteristics, Facilities Provided and Ratings

As noted earlier, 25 dealers in the five-county area returned questionnaires and 24 are still in business (Table 10). All responses came from Hillsborough, Manatee and Pinellas Counties.

Fifteen of the dealers handled fish and 20 handled shellfish. Most handle fairly large volumes as 11 of the fish dealers and 14 of the shellfish dealers reported 100,000 pounds or more in 1977 (Table 27). Dealer characteristics and other topics in this section are discussed for Hillsborough, Manatee and Pinellas Counties.

Hillsborough County

Six of the 15 dealers responding from this county handle fish while 12 handle shellfish. Fish dealers handle smaller volumes, as four of the six handled 100,000 pounds or less, while nine shellfish dealers reported over 300,000 pounds (Table 28).

Table 26.--Ratings of seafood port facilities by commercial fishermen
in Sarasota County, 1978.

Facility	Fishermen		
	Rating facility	Saying needs improvement	
	<u>Number</u>	<u>Number</u>	<u>Percent</u>
Shrimp house	2	1	50
Crab house	5	2	40
Lobster house	--	--	--
Fish house	28	12	43
Processing unused fish	--	--	--
Freezer, cold storage	10	3	30
Bait supply	9	4	44
Ice plant	17	6	35
Fuel sales	13	3	23
Groceries	6	3	50
Docking	17	8	43
Gear storage	3	2	67
Gear supply	5	3	60
Gear repair	5	2	40
Electronics repair	7	4	57
Diesel repair	11	4	36
Marine railway	5	2	40
Restaurant	6	1	17
Retail seafood market	7	2	29
Fishermen's meeting room	--	--	--
Solid waste	1	0	0
Liquid waste	1	0	0

Table 27.--Classification of seafood dealers in the five west coast Counties by volume of fish and shellfish handled in 1977.

Pounds handled	Dealers			
	Fish		Shellfish	
	Number	Percent	Number	Percent
Under 50,000	1	7	6	30
50,000 - 100,000	3	20	0	0
100,000 - 300,000	5	33	2	10
Over 300,000	6	40	12	60
Total	15	100	20	100

Table 28.--Classification of seafood dealers in Hillsborough, Manatee, and Pinellas Counties by volume of fish and shellfish handled in 1977.

Pounds handled	Dealers					
	Fish			Shellfish		
	Hillsborough	Manatee	Pinellas	Hillsborough	Manatee	Pinellas
	----- <u>Number</u> -----					
Under 50,000	1	0	0	2	3	1
50,000 - 100,000	3	0	0	0	0	0
100,000 - 300,000	1	2	2	1	0	1
Over 300,000	1	1	4	9	0	3
Total	6	3	6	12	3	5

One or more Hillsborough County dealers operated shrimp and fish houses, processed unused fish, provided freezer and cold storage facilities, and sold ice, fuel, and groceries. They also provide docking, gear storage and supply, a restaurant, retail seafood markets, and solid waste disposal (Table 29). Only shrimp houses, freezer and cold storage and docking were noted as needing improvement by three or more Hillsborough County dealers.

Some Hillsborough County dealers commented on the serious lack of dock and unloading space in Tampa, especially for shrimp boats. Fishermen, dealers and processors have been adversely affected by the dislocation of commercial fishing docks in the Tampa port area. Members of these industry groups are working actively with fishery organizations and government agencies to relocate the fishing port and develop new facilities in the Tampa area.

Manatee County

All three dealers responding in Manatee County handle both fish and shellfish. All handle 100,000 pounds or more of fish but under 50,000 pounds of shellfish (Table 28).

Manatee County dealers provide crab and fish houses, process unused fish, and offer freezer and cold storage facilities. In addition, those dealers sell bait, ice, and fuel, provide docking and operate retail seafood markets (Table 29). Only one dealer said improvement was needed in a crab house, freezer and cold storage, bait supply, and docking.

Manatee County dealers commented on some of the same problems as did fishermen. Shallow channels were problems noted, as were the need for improving markets for Spanish sardines and mullet.

Table 29.--Port facilities and services in Hillsborough, Manatee, and Pinellas Counties: Facilities offered and those needing improvement, according to one or more dealers, 1978.

Facility	Dealers					
	Hillsborough		Manatee		Pinellas	
	Offer	Need improving	Offer	Need improving	Offer	Need improving
Shrimp house	X	X			X	X
Crab house			X	X	X	
Lobster house						
Fish house	X	X	X		X	
Processing unused fish	X		X			
Freezer, cold storage	X	X	X	X	X	
Bait supply			X	X	X	
Ice plant	X	X	X		X	
Fuel sales	X		X		X	
Groceries	X					
Docking	X	X	X	X	X	X
Gear storage	X	X				
Gear supply	X					
Gear repair		X				
Electronics repair		X				
Diesel repair		X				
Marine railway		X				
Restaurant	X					
Retail seafood market	X		X		X	
Solid waste	X	X				X
Liquid waste						X

Pinellas County

Six dealers responded from Pinellas County. All six handle fish and five deal in shellfish. Most handle large volumes, as four fish dealers and three handling shellfish reported over 300,000 pounds in each category in 1977 (Table 28). One or more of these dealers operate shrimp, crab and fish house and provide freezer and cold storage. Pinellas County dealers also sell bait, ice, and fuel, had dockage available, and had retail markets (Table 29). Only shrimp houses, docking and waste disposal were rated as needing improvement.

CONCLUSIONS

Commercial fishing is an important industry in the five-county area of Florida's west coast covered in this report. Total landings ranged in value from \$5.2 million in Pinellas County to \$140,000 in Sarasota County in 1976. Landings in Hillsborough, Manatee and Citrus-Pasco Counties were valued at \$1 million or more, ranking those counties 6th, 13th and 14th, respectively, in Florida. Total landings in 1976 in Hillsborough County were about 1971 levels but values increased considerably during the 1971-76 period as average prices for fish and shellfish rose. Volume and value decreased in Sarasota County and volume was down but value up in Manatee County. Both volume and value increased significantly in Pinellas County.

About 730 commercial fishermen operate one or more boats from the five counties. Pinellas County has the most with 300 fishermen. About 50 dealers operate in the area, with 26 in Hillsborough County, 14 in Pinellas County, seven in Manatee County, four in Sarasota County, and one in Pasco County. The number of commercial boats registered in the

five counties has declined during the last 15 years while pleasure boat registrations have increased threefold.

The rapid rise in pleasure boat numbers is a result of population growth in the west coast area. Total population in the five-county region doubled from 1960 to 1977, and population projected for 2000 is 65 percent above the 1977 level. This growth has, no doubt, benefitted the seafood industry of the area in many ways but problems have also developed. Heavy pressure on fishery resources, pollution, destruction of habitat and competition for waterfront property have affected the fishing industry adversely.

Shore facilities and services for the commercial fishing and seafood industry are generally available at ports and landings places used by fishermen in the five counties. Fish houses and other outlets handling catch need improvement in several counties, however. Docking space is particularly restricted according to users (Table 30). A major redevelopment is underway in the Tampa port area.

Processing for underutilized fish is needed in four of the five counties, and freezer and cold storage facilities in two. Fishermen in Manatee County need bait supplies, and those in Hillsborough, Manatee, and Pinellas Counties feel ice plants need improving. Nearly all repair and supply services were noted as needing improvement in Manatee, Pasco, and Sarasota Counties, while gear storage was needed in two counties. Fishermen's meeting rooms and waste disposal facilities are needed in three counties, as well (Table 30).

Groups or individuals interested in improving conditions in the seafood industry in these counties can use this report as a starting

Table 30.--Port facilities and services needing improvement, as rated by 50 percent or more commercial fishermen responding from five west coast counties, 1978.^a

Facility	Hillsborough	Manatee	Pasco	Pinellas	Sarasota
Shrimp house	X	X			X
Crab house		X			
Lobster house					
Fish house					
Processing unused fish	X	X	X	X	
Freezer, cold storage	X		X		
Bait supply		X			
Ice plant	X	X		X	
Fuel sales					
Groceries	X				X
Docking	X	X	X	X	
Gear storage		X			X
Gear supply		X			X
Gear repair	X		X		
Electronics repair		X	X		X
Diesel repair			X		
Marine railway	X				
Restaurant					
Retail seafood market					
Fishermen's meeting room	X	X	X		
Solid waste				X	
Liquid waste		X	X	X	

point for identifying problems and for working toward possible solutions. The County Extension Director in each county can assist groups in organizing to solve problems and in contacting other groups and agencies for assistance. Sources for marine economics information and publications are listed in the Appendix.

APPENDIX

Appendix Table 1.--Boats registered annually, 1963-64 through 1976-77, the five west coast counties.

Year ^a	Hillsborough		Manatee		Pasco		Pinellas		Sarasota		Total of five counties							
	Comm.	Pleas. Tot.	Comm.	Pleas. Tot.	Comm.	Pleas. Tot.	Comm.	Pleas. Tot.	Comm.	Pleas. Tot.	Comm.	Pleas. Tot.						
Number																		
1963-64	876	8,467	5,343	440	2,635	3,075	217	990	1,207	1,655	9,000	10,655	472	4,302	4,774	3,660	25,394	29,054
1964-65	827	9,138	9,965	434	2,700	3,134	209	1,026	1,235	1,708	9,322	11,030	474	4,534	5,008	3,652	26,720	30,372
1965-66	1,123	9,568	10,691	495	2,790	3,286	233	1,215	1,448	1,924	9,806	11,730	563	4,566	5,129	4,339	27,945	32,284
1966-67	974	10,179	11,153	459	3,036	3,496	222	1,346	1,568	1,864	10,589	12,453	568	4,902	5,470	4,087	30,052	34,139
1967-68	809	10,796	11,605	380	3,230	3,610	176	1,571	1,747	1,392	11,487	12,879	456	5,440	5,896	3,213	32,524	35,737
1968-69	904	11,019	11,923	376	3,420	3,796	196	1,788	1,984	1,385	12,288	13,673	519	5,003	6,522	3,380	34,518	37,898
1969-70	833	11,774	12,607	361	3,679	4,040	271	2,101	2,372	1,340	13,746	15,086	526	6,746	7,272	3,331	38,046	41,377
1970-71	730	12,635	13,365	339	3,784	4,123	284	2,402	2,686	1,270	13,928	15,198	545	7,388	7,933	3,168	40,137	43,305
1971-72	662	13,755	14,417	280	4,094	4,374	248	2,870	3,118	1,076	15,231	16,307	470	7,950	8,420	2,736	43,900	46,636
1972-73	618	15,069	15,687	270	4,504	4,774	188	3,497	3,685	1,030	16,590	17,620	437	9,143	9,580	2,543	48,803	51,346
1973-74	539	15,098	15,637	214	4,466	4,680	161	3,722	3,883	923	16,510	17,433	360	9,355	9,715	2,197	49,151	51,348
1974-75	539	21,387	21,926	228	6,687	6,915	189	5,850	6,039	989	20,823	21,812	352	10,710	11,062	2,297	65,457	67,754
1975-76	592	25,278	25,970	243	7,431	7,674	235	6,751	6,986	1,233	24,070	25,303	413	11,328	11,741	2,816	74,858	77,674
1976-77	592	26,308	26,900	264	7,707	7,991	208	7,027	7,235	1,136	22,251	23,387	358	11,604	11,962	2,578	74,897	77,475

^aJuly 1 to June 30

Source: Bureau of Boat Registration, Florida Department of Natural Resources.

Appendix Table 2 .--Average monthly landings of fish and shellfish for the five west coast counties from 1971-1976

Month	Hillsborough			Manatee			Pasco ^a			Pinellas		
	Fish	Shellfish	Total	Fish	Shellfish	Total	Fish	Shellfish	Total	Fish	Shellfish	Total
January	84	157	241	426	8	434	206	111	317	364	57	421
February	42	230	272	292	17	309	140	144	284	292	85	377
March	64	261	325	368	17	385	122	201	323	425	131	556
April	51	246	297	269	9	278	107	207	314	342	111	453
May	55	236	291	266	11	277	131	262	393	359	146	505
June	60	218	278	259	12	271	116	311	427	382	150	532
July	69	146	215	375	13	388	144	179	323	383	156	539
August	98	136	234	414	10	424	182	189	371	436	74	510
September	98	87	185	444	10	454	199	186	385	408	50	458
October	107	158	265	492	20	512	224	166	390	415	69	484
November	373	178	551	698	16	714	373	133	506	674	77	751
December	132	279	411	891	19	910	321	109	430	613	81	694
-----1,000 pounds-----												
Month	Sarasota			Five County Total								
	Fish	Shellfish	Total	Fish	Shellfish	Total						
January	133	5	138	1,213	338	1,551						
February	74	3	77	840	479	1,319						
March	126	1	127	1,105	611	1,716						
April	72	1	73	841	574	1,415						
May	64	-	64	875	555	1,530						
June	55	6	61	872	697	1,569						
July	50	5	55	1,021	499	1,520						
August	54	5	59	1,184	414	1,598						
September	59	7	66	1,208	340	1,548						
October	53	4	57	1,291	417	1,708						
November	110	2	112	2,228	406	2,634						
December	199	2	201	2,156	490	2,646						
-----1,000 pounds-----												

^aIncludes Citrus County.

Source: Derived from Florida Landings, Monthly issues, U.S. Department of Commerce.

Appendix Table 3.--Total landings of selected fish and shellfish species by months, Hillsborough County, 1971-1976

Year	Month	Grouper	Black mullet	Spotted sea trout	Red snapper	Blue crab	Shrimp	Total fish	Total shellfish	Total
-----Pounds-----										
1971	January	19,534	32,636	5,700	9,717	8,073	132,524	73,765	140,597	214,362
	February	18,165	25,577	3,214	13,853	5,483	167,371	66,328	172,854	239,182
	March	19,599	30,603	1,511	7,253	4,660	182,644	62,751	187,304	250,055
	April	13,961	21,360	1,427	4,161	7,496	180,282	60,858	187,778	248,636
	May	44,397	29,861	959	11,485	12,931	127,491	92,432	140,422	232,854
	June	57,370	36,734	779	2,127	16,392	166,934	108,782	183,326	292,108
	July	52,268	74,323	215	4,076	11,034	21,669	143,767	32,703	176,470
	August	68,698	46,847	122	2,741	23,061	1,896	144,188	24,957	169,145
	September	52,735	63,157	485	4,889	51,058	16,379	143,188	67,437	210,625
	October	51,106	96,529	1,860	2,550	44,794	76,527	178,450	121,321	299,771
	November	25,947	113,948	2,413	3,116	32,822	125,361	150,744	158,183	308,927
	December	19,195	123,703	2,901	2,201	32,252	177,728	152,740	270,448	423,188
	Total	442,975	695,278	21,586	68,169	250,056	1,376,806	1,377,993	1,687,330	3,065,323

Appendix Table 3.--Total landings of selected fish and shellfish species by months, Hillsborough County, 1971-1976--Continued

Year	Month	Grouper	Black mullet	Spotted sea trout	Red snapper	Blue crab	Shrimp	Total fish	Total shellfish	Total
-----Pounds-----										
1972	January	23,807	29,756	2,294	15,591	24,334	167,588	78,248	191,922	270,170
	February	777	24,885	1,045	0	26,467	163,088	29,891	189,555	219,446
	March	26,465	26,395	1,649	8,805	51,061	277,990	68,159	329,107	397,266
	April	37,446	14,480	499	11,747	69,950	377,665	73,453	447,636	521,089
	May	37,451	14,635	1,080	2,801	63,166	194,958	63,231	258,134	321,365
	June	18,973	10,922	777	557	40,658	91,283	39,000	131,941	170,941
	July	13,310	44,636	579	1,745	19,988	131,785	66,314	151,773	218,087
	August	24,170	133,650	1,075	975	14,520	158,083	176,794	172,603	349,397
	September	13,309	83,494	2,352	2,301	5,501	18,986	123,596	24,507	148,103
	October	12,699	104,489	5,777	706	3,493	62,715	145,425	66,208	211,633
	November	11,758	196,020	3,347	706	1,921	91,834	223,517	93,755	317,272
	December	7,027	67,279	7,029	395	290	224,165	87,971	224,455	312,426
	Total	227,192	750,641	27,503	46,329	321,349	1,960,140	1,175,599	2,281,596	3,457,195

Appendix Table 3.--Total landings of selected fish and shellfish species by months, Hillsborough County, 1971-1976--Continued

Year	Month	Grouper	Black mullet	Spotted sea trout	Red snapper	Blue crab	Shrimp	Total fish	Total shellfish	Total
1973	January	13,625	168,739	7,227	1,010	45	111,117	198,283	111,162	309,445
	February	7,804	25,068	2,945	924	0	153,321	40,088	153,321	193,409
	March	18,683	25,532	759	1,376	2,868	203,306	49,851	206,174	256,025
	April	13,230	29,977	431	910	2,716	148,654	54,723	151,370	206,093
	May	20,272	39,779	867	1,237	3,072	297,277	69,296	300,349	369,645
	June	10,520	60,461	606	523	11,637	198,964	78,464	210,601	289,065
	July	12,523	50,927	762	744	11,284	48,242	72,994	59,526	132,520
	August	6,695	85,168	785	1,240	6,780	37,582	97,413	44,362	141,775
	September	5,204	112,674	1,098	663	4,910	10,940	123,557	15,880	139,437
	October	452	105,867	1,156	242	5,990	77,082	113,708	83,072	196,780
	November	3,276	275,066	5,192	2,152	2,718	313,718	291,152	378,936	670,088
	December	6,160	247,131	8,942	4,014	843	194,675	276,637	258,255	534,892
	Total	118,444	1,226,389	31,770	15,035	52,863	1,794,878	1,466,166	1,973,008	3,439,174

-----Pounds-----

Appendix Table 3.--Total landings of selected fish and shellfish species by months, Hillsborough County, 1971-1976--Continued

Year	Month	Grouper	Black mullet	Spotted sea trout	Red snapper	Blue crab	Shrimp	Total fish	Total shellfish	Total
		-----Pounds-----								
1974	January	9,113	35,885	3,494	3,147	1,519	135,461	58,622	137,240	195,862
	February	8,840	20,524	2,475	5,374	1,589	216,580	41,050	218,205	259,255
	March	23,172	57,616	5,648	13,262	4,970	167,975	115,644	173,043	288,687
	April	9,392	18,073	87	6,434	3,302	169,053	48,476	172,470	220,946
	May	9,317	14,351	648	5,410	5,416	263,203	38,066	268,725	306,791
	June	9,839	15,965	696	3,485	3,582	176,528	38,317	180,235	218,552
	July	8,774	31,269	391	6,127	4,087	199,432	50,465	203,519	253,984
	August	11,411	45,324	879	10,115	2,549	63,072	71,483	65,621	137,104
	September	3,471	54,823	1,242	5,318	4,149	30,327	70,803	34,476	105,279
	October	5,213	78,868	2,263	6,669	1,234	96,021	97,685	97,255	194,940
	November	5,198	1,491,955	2,464	5,986	1,095	239,841	1,509,504	240,936	1,750,440
	December	7,554	99,157	2,909	6,973	1,292	417,301	120,054	418,593	538,647
	Total	111,294	1,963,810	23,196	78,300	34,784	2,174,794	2,260,169	2,210,318	4,470,487

Appendix Table 3.--Total landings of selected fish and shellfish species by months, Hillsborough County, 1971-1976--Continued

Year	Month	Grouper	Black mullet	Spotted sea trout	Red snapper	Blue crab	Shrimp	Total fish	shellfish	Total
1975	January	18,655	27,512	2,608	6,022	10,908	167,524	58,367	254,634	313,001
	February	3,249	37,013	979	1,138	51,117	339,120	47,187	452,843	500,030
	March	6,544	32,369	1,306	3,169	110,224	335,615	50,237	447,558	497,795
	April	6,160	26,569	812	0	15,226	258,553	41,319	293,953	335,272
	May	6,803	26,012	1,072	67	23,221	284,590	39,849	311,331	351,180
	June	19,209	17,790	798	5,600	11,622	338,657	58,510	354,847	413,357
	July	6,425	20,477	448	2,816	73,970	92,932	33,626	237,226	270,852
	August	9,265	28,971	480	5,560	41,226	104,461	47,517	285,332	332,849
	September	7,795	47,711	2,019	2,221	10,262	47,911	62,427	179,999	242,426
	October	6,613	47,497	1,744	2,127	3,436	168,047	62,690	414,202	476,892
	November	5,259	76,814	3,470	1,168	7,747	49,515	90,990	81,217	172,207
	December	3,137	53,770	3,315	3,121	6,790	211,553	67,034	239,166	306,200
	Total	99,114	442,505	19,051	33,009	365,749	2,398,478	659,753	3,552,308	4,212,061

Appendix Table 3.--Total landings of selected fish and shellfish species by months, Hillsborough County, 1971-1976--Continued

Year	Month	Grouper	Black mullet	Spotted sea trout	Red snapper	Blue crab	Shrimp	Total fish	Total shellfish	Total
1976	January	3,394	18,477	3,611	5,489	7,326	78,735	35,028	108,790	143,818
	February	5,475	11,808	1,416	3,914	2,264	178,712	24,809	195,629	220,438
	March	14,211	13,667	1,471	3,000	12,892	194,388	35,034	222,016	257,050
	April	5,867	15,364	710	1,378	8,896	205,808	27,946	220,182	248,128
	May	9,187	8,509	97	2,305	1,360	134,608	25,612	137,866	163,478
	June	12,489	13,888	320	4,112	3,556	230,237	34,691	246,559	281,250
	July	8,196	24,436	514	3,428	3,129	105,933	45,959	194,359	240,318
	August	9,429	27,462	592	3,054	2,339	50,119	52,330	224,544	276,874
	September	11,627	39,349	957	2,457	5,028	54,643	62,140	199,994	262,134
	October	4,705	23,900	2,480	1,025	900	83,020	41,950	167,572	209,522
	November	5,263	57,966	2,333	1,140	2,466	111,615	71,705	116,544	188,249
	December	21,609	47,648	5,379	8,926	5,206	234,675	87,117	263,402	350,519
	Total	111,452	302,474	19,880	40,228	55,362	1,662,493	544,321	2,297,457	2,841,778

Source: Florida Landings, monthly issues. U.S. Department of Commerce.

Appendix Table 4 .--Total landings of selected fish and shellfish species by months, Manatee County, 1971-1976

Year	Month	Jack crevalle	Red drum	Grouper	Black mullet	Pompano	Spotted sea trout	Red snapper
-----Pounds-----								
1971	January	0	19,473	58,077	340,797	11	17,676	52,319
	February	34	13,366	72,523	159,702	13	19,713	43,581
	March	972	16,644	82,217	94,722	1,593	15,736	47,341
	April	5,613	7,364	74,601	101,958	5,190	7,186	33,059
	May	2,373	2,134	95,330	137,277	3,883	3,803	28,725
	June	437	302	90,265	108,623	1,927	3,372	28,012
	July	812	807	124,128	215,194	3,490	2,480	30,877
	August	4,484	8,342	67,068	251,000	7,625	2,926	43,112
	September	7,353	21,289	43,741	258,317	3,427	3,670	21,578
	October	8,176	31,633	48,397	355,542	10,617	12,860	33,178
	November	31,863	10,283	34,637	656,112	1,982	13,171	30,187
	December	9,140	10,464	56,178	707,389	1,962	17,832	37,792
	Total	71,257	142,101	847,162	3,386,633	41,720	120,425	429,761

Appendix Table 4.--Total landings of selected fish and shellfish species by months, Manatee County, 1971-1976--Continued

Year	Month	Spanish mackerel	Blue crab	Stone crab	Shrimp	Total fish	Total shellfish	Total
1971	January	12	603	7,938	0	540,485	8,541	549,026
	February	15	783	3,200	3,906	341,517	7,888	349,405
	March	91,962	1,542	5,400	0	411,083	6,942	418,025
	April	57,985	2,003	3,340	0	358,045	5,343	363,388
	May	4,209	3,928	2,880	0	308,195	6,808	315,003
	June	1,123	2,879	0	0	250,564	2,879	253,443
	July	124	2,997	0	2,326	424,104	5,323	429,427
	August	76	3,304	0	1,729	422,025	5,033	427,058
	September	1,093	2,773	0	2,248	392,534	5,021	397,555
	October	7,086	1,620	0	0	567,244	1,620	568,864
	November	855	1,103	0	0	804,386	1,103	805,489
	December	5,706	527	0	0	885,192	527	885,719
	Total	170,246	24,062	22,758	10,209	5,705,374	57,028	5,762,402

-----Pounds-----

Appendix Table 4.--Total landings of selected fish and shellfish species by months, Manatee County, 1971-1976--Continued

Year	Month	Jack crevalle	Red drum	Grouper	Black mullet	Pompano	Spotted sea trout	Red snapper
1972	January	584	18,185	43,696	433,561	720	15,440	13,725
	February	1,304	22,646	44,379	155,138	809	18,348	34,157
	March	4,732	13,234	71,289	57,230	5,669	11,343	31,610
	April	9,659	7,577	73,796	66,201	8,982	3,229	37,533
	May	2,151	1,592	68,837	170,374	3,105	4,413	25,529
	June	195	5,532	53,337	114,377	3,466	2,420	20,013
	July	892	8,578	148,936	233,439	12,236	4,884	26,986
	August	3,934	2,255	149,241	187,204	943	1,361	22,004
	September	28,842	55,844	114,240	342,275	8,472	12,004	18,976
	October	4,712	15,413	94,324	233,459	12,391	12,171	33,332
	November	9,666	3,979	61,483	710,938	7,101	9,148	48,440
	December	7,129	11,011	45,938	561,406	1,332	11,968	21,498
	Total	73,800	165,846	969,496	3,265,602	65,226	106,729	333,803

-----Pounds-----

Appendix Table 4.--Total landings of selected fish and shellfish species by months, Manatee County, 1971-1976--Continued

Year	Month	Spanish mackerel	Blue crab	Stone crab	Shrimp	Total fish	Total shellfish	Total
-----Pounds-----								
1972	January	39	368	0	4,247	555,595	4,615	560,210
	February	4,824	549	0	1,310	313,117	1,859	314,976
	March	70,965	0	0	7,645	311,405	7,645	319,050
	April	70,366	1,033	0	3,747	303,821	4,780	308,601
	May	2,188	871	0	0	299,127	871	299,998
	June	9,627	576	0	5,221	220,584	5,797	226,381
	July	4,752	2,618	0	2,493	464,637	5,111	469,748
	August	88	1,931	0	6,710	378,527	8,641	387,168
	September	1,996	4,750	0	7,163	612,328	11,913	624,241
	October	26,785	2,478	0	7,091	496,025	9,569	505,594
	November	22,043	630	6,080	9,224	898,277	15,934	914,211
	December	30,239	1,675	5,158	381	712,532	7,214	719,746
	Total	243,912	17,479	11,238	55,232	5,565,975	83,949	5,649,924

Appendix Table 4.--Total landings of selected fish and shellfish species by months, Manatee County, 1971-1976--Continued

Year	Month	Jack crevalle	Red drum	Grouper	Black mullet	Pompano	Spotted sea trout	Red snapper
1973	January	3,563	22,737	33,165	183,653	10,988	19,278	19,761
	February	2,046	21,958	37,582	119,389	4,000	19,154	25,748
	March	19,014	13,755	65,947	105,207	2,665	13,917	19,832
	April	8,593	5,297	57,655	60,987	9,962	4,580	16,776
	May	2,389	6,024	51,377	108,048	6,972	5,918	13,564
	June	2,216	1,867	84,746	177,519	2,584	4,980	17,655
	July	8,856	3,145	57,602	191,262	1,428	3,631	14,840
	August	17,496	19,524	96,885	306,982	1,638	4,683	18,815
	September	13,116	22,459	55,987	325,961	3,068	4,445	11,252
	October	12,481	15,306	39,310	393,979	2,704	10,242	20,434
	November	10,739	23,119	54,693	649,330	2,093	18,524	30,688
	December	402,671	15,283	21,463	907,084	151	18,782	21,922
	Total	503,180	170,474	656,412	3,529,401	48,253	128,134	231,287

-----Pounds-----

Appendix Table 4.--Total landings of selected fish and shellfish species by months, Manatee County, 1971-1976--Continued

Year	Month	Spanish mackerel	Blue crab	Stone crab	Shrimp	Total fish	Total shellfish	Total
1973	January	7,001	1,089	2,762	5,282	325,983	9,133	335,116
	February	4,625	679	5,392	2,986	267,708	9,057	276,765
	March	54,964	1,651	6,300	4,334	348,835	12,285	361,120
	April	7,006	517	4,200	3,685	195,744	8,402	204,146
	May	9,350	54	784	6,728	215,449	7,566	223,015
	June	1,395	853	0	7,114	315,527	7,967	323,494
	July	410	2,501	0	11,458	296,131	13,959	310,090
	August	197	3,234	0	0	482,405	3,234	485,639
	September	1,533	947	0	0	455,053	947	456,000
	October	17,675	1,144	2,484	2,408	545,154	6,036	551,190
	November	32,924	990	964	5,216	845,967	7,170	853,137
	December	11	0	4,044	3,053	1,403,513	7,097	1,410,610
	Total	137,091	13,659	26,930	52,264	5,697,469	92,853	5,790,322

-----Pounds-----

Appendix Table 4.--Total landings of selected fish and shellfish species by months, Manatee County, 1971-1976--Continued

Year	Month	Jack crevalle	Red drum	Grouper	Black mullet	Pompano	Spotted sea trout	Red snapper
1974	January	12,599	2,448	43,981	358,792	93	24,924	44,356
	February	3,086	15,829	34,266	107,998	142	11,059	26,304
	March	6,628	70,278	162,102	122,016	3,796	54,140	76,130
	April	9,530	5,447	60,472	39,139	1,048	3,822	15,721
	May	4,888	3,579	78,923	31,826	8,696	1,525	29,884
	June	5,865	3,278	59,056	61,789	7,983	1,609	35,899
	July	4,100	4,318	62,377	136,495	7,591	1,499	22,623
	August	17,684	19,131	65,948	215,109	3,866	2,749	35,912
	September	13,545	27,974	29,656	157,562	2,597	3,440	13,379
	October	89,539	17,589	35,748	243,027	12,589	5,984	22,461
	November	48,314	6,009	34,972	363,074	5,190	5,853	21,607
	December	13,274	5,495	20,070	612,274	922	11,494	27,260
	Total	229,052	181,375	687,571	2,449,101	54,513	128,098	371,536

-----Pounds-----

Appendix Table 4.--Total landings of selected fish and shellfish species by months, Manatee County, 1971-1976--Continued

Year	Month	Spanish mackerel	Blue crab	Stone crab	Shrimo	Total fish	Total shellfish	Total
1974	January	8,914	0	560	5,735	208,809	200	209,009
	February	22,814	0	0	2,499	251,365	2,499	253,864
	March	73,198	0	0	15,213	620,350	15,213	635,563
	April	1,507	0	0	0	156,002	0	156,002
	May	15	42	0	0	172,051	42	172,093
	June	66	641	0	0	185,767	641	186,408
	July	691	4,235	0	15,866	259,161	20,101	279,262
	August	951	2,126	0	7,479	386,821	9,605	396,426
	September	1,900	0	0	0	285,771	0	285,771
	October	2,607	4,909	856	0	522,222	5,765	527,987
	November	12,775	0	578	3,120	549,820	3,698	553,518
	December	2,237	381	346	4,024	722,191	4,751	726,942
	Total	127,675	12,334	2,340	53,986	4,320,330	62,515	4,382,845

Appendix Table 4.--Total landings of selected fish and shellfish species by months, Manatee County, 1971-1976--Continued

Year	Month	Jack crevalle	Red drum	Grouper	Black mullet	Pompano	Spotted sea trout	Red snapper
-----Pounds-----								
1975	January	22,036	13,234	37,451	440,539	557	2,608	18,084
	February	46,056	3,550	68,059	135,995	1,809	4,876	24,179
	March	28,267	1,545	55,334	31,546	8,857	1,225	17,075
	April	11,011	2,668	50,085	96,879	10,281	2,878	18,341
	May	8,921	985	50,856	124,225	7,786	3,323	12,869
	June	4,477	1,680	68,273	133,033	3,026	1,599	25,440
	July	8,096	179	42,474	158,965	10,590	2,223	15,705
	August	26,610	6,014	64,911	190,449	15,294	3,516	24,204
	September	44,185	13,290	34,518	195,115	2,427	8,968	12,169
	October	9,809	13,350	75,593	283,123	3,117	13,958	29,829
	November	36,141	6,067	61,503	497,880	9,462	10,762	16,952
	December	39,283	5,722	72,747	925,118	24,154	15,179	14,689
	Total	284,892	68,284	681,804	3,212,867	97,420	71,115	229,536

Appendix Table 4.--Total landings of selected fish and shellfish species by months, Manatee County, 1971-1976--Continued

Year	Month	Spanish mackerel	Blue crab	Stone crab	Shrimp	Total fish	Total shellfish	Total
-----Pounds-----								
1975	January	5	225	628	9,741	576,381	17,487	593,868
	February	21,693	3,478	120	12,520	337,957	20,130	358,087
	March	34,184	5,772	1,818	15,325	196,064	25,754	221,818
	April	31,456	4,721	1,254	4,570	255,891	12,481	268,372
	May	14,950	3,800	0	10,182	254,536	14,323	268,859
	June	48	7,264	0	9,638	271,498	25,512	297,010
	July	1,563	2,356	0	3,500	341,575	13,969	355,544
	August	8,576	17,206	0	7,898	440,200	27,529	467,729
	September	9,694	12,091	0	5,805	405,328	18,315	423,643
	October	32,345	54,657	0	3,715	502,011	59,146	561,157
	November	4,386	7,400	1,046	5,020	661,527	16,227	667,754
	December	736	52,793	796	6,778	1,131,934	64,923	1,196,857
	Total	159,636	171,763	5,662	94,692	5,374,902	315,796	5,690,698

Appendix Table 4.--Total landings of selected fish and shellfish species by months, Manatee County, 1971-1976--Continued

Year	Month	Jack crevalle	Red drum	Grouper	Black mullet	Pompano	Spotted sea trout	Red snapper
1976	January	3,674	13,465	41,442	189,560	347	27,475	16,866
	February	5,907	10,414	43,921	75,439	570	19,234	21,050
	March	32,433	1,203	64,447	52,603	12,816	5,489	19,879
	April	27,433	3,130	67,265	124,096	10,451	5,364	25,741
	May	3,399	722	46,327	104,774	4,000	2,071	28,541
	June	1,416	299	55,260	89,147	2,237	2,208	29,670
	July	6,787	412	73,758	160,678	9,494	2,468	43,054
	August	29,054	6,132	63,625	174,706	3,737	4,397	31,037
	September	15,037	16,284	93,021	214,452	1,170	7,201	101,839
	October	50,828	10,642	41,150	138,985	1,564	6,993	13,381
	November	42,147	30,778	47,039	213,077	11,346	25,688	7,669
	December	1,405	13,600	40,660	371,222	677	16,567	10,593
	Total	219,520	107,081	677,915	1,908,739	58,409	125,155	349,320

-----Pounds-----

Appendix Table 4.--Total landings of selected fish and shellfish species by months, Manatee County, 1971-1976--Continued

Year	Month	Spanish mackerel	Blue crab	Stone crab	Shrimp	Total fish	Total shellfish	Total
1976	January	22	0	2,390	0	351,121	7,057	358,178
	February	2,217	51,065	2,020	5,939	241,446	61,737	303,183
	March	65,270	15,285	378	20,250	319,656	36,079	355,735
	April	30,382	3,408	430	16,869	348,232	20,797	369,029
	May	7,941	26,258	62	11,987	347,885	38,369	386,254
	June	43	4,569	0	15,325	309,757	26,763	336,520
	July	1,975	4,987	0	11,394	467,193	20,987	488,180
	August	328	3,479	0	4,054	372,276	9,237	381,513
	September	966	19,569	0	1,160	513,129	20,729	533,858
	October	9,058	13,594	20,441	3,320	317,317	37,836	355,153
	November	12,444	19,250	22,592	5,231	430,835	49,911	480,746
	December	104	11,437	14,422	1,000	491,748	29,884	521,632
	Total	130,750	172,901	62,735	96,529	4,510,595	359,386	4,869,981

Source: Florida Landings, monthly issues. U.S. Department Commerce.

Appendix Table 5.--Total landings of selected fish and shellfish species by months, Pasco County, 1971-1976

Year	Month	Jack crevalle	Red drum	Groupers	Grunts	Black mullet	Spotted sea trout
1971 ^a	January	0	3,844	10,743	18,210	116,204	17,282
	February	173	1,704	1,100	0	50,637	4,538
	March	0	609	677	0	29,539	1,245
	April	277	566	9,466	27,417	35,970	8,764
	May	13,500	824	12,718	25,340	71,929	1,685
	June	660	404	7,742	20,000	55,287	1,683
	July	180	0	382	0	52,681	8,448
	August	679	1,427	4,354	10,255	90,792	2,051
	September	0	1,242	9,368	6,335	113,758	2,826
	October	3,607	3,417	5,612	8,726	136,330	9,145
	November	2,240	670	0	0	148,259	6,516
	December	9,441	3,189	13,197	15,693	290,449	28,545
	Total	30,757	17,896	75,359	131,976	1,191,835	92,728

-----Pounds-----

Appendix Table 5.--Total landings of selected fish and shellfish species by months, Pasco County,
1971-1976--Continued

Year	Month	Blue crab	Stone crab	Total fish	Total shellfish	Total
1971 ^a	January	206,676	10,068	194,865	216,988	411,853
	February	124,294	12,388	62,343	136,682	199,025
	March	161,625	8,058	35,369	169,683	205,052
	April	290,589	724	93,221	291,405	384,626
	May	368,326	2,148	135,134	370,474	505,608
	June	311,775	0	95,920	311,775	407,695
	July	260,275	0	72,636	260,275	332,911
	August	277,081	0	125,559	277,081	402,640
	September	264,068	0	137,885	264,068	401,953
	October	245,724	3,406	179,261	249,130	428,391
	November	172,490	13,450	163,906	185,940	349,846
	December	214,303	4,358	382,704	218,661	601,365
	Total	2,897,226	54,600	1,678,803	2,952,162	4,630,965

^aIncludes Citrus County.

Appendix Table 5.--Total landings of selected fish and shellfish species by months, Pasco County, 1971-1976--Continued

Year	Month	Jack crevalle	Red drum	Grouper	Grunts	Black mullet	Spotted sea trout
1972 ^a	January	0	6,477	7,888	13,446	96,662	26,287
	February	0	3,064	8,474	9,641	76,759	13,355
	March	0	1,365	10,157	8,711	55,377	12,258
	April	923	810	760	327	50,334	3,961
	May	0	3,523	4,899	9,821	61,318	2,814
	June	781	628	0	0	62,660	554
	July	0	723	4,938	6,366	78,850	538
	August	3,600	1,972	8,333	6,315	128,055	2,669
	September	5,500	3,901	6,128	4,389	134,160	5,995
	October	4,150	3,311	4,611	11,186	108,654	1,485
	November	21,414	5,294	6,284	9,951	636,400	17,952
	December	12,590	10,478	6,821	10,403	198,886	23,350
	Total	48,958	41,546	69,293	90,556	1,688,115	111,218

-----Pounds-----

Appendix Table 5.--Total landings of selected fish and shellfish species by months, Pasco County, 1971-1976--Continued

Year	Month	Blue crab	Stone crab	Total fish	Total shellfish	Total
1972 ^a	January	197,578	0	165,636	197,578	363,214
	February	174,646	7,748	129,467	182,394	311,861
	March	212,913	1,952	105,241	214,865	320,106
	April	212,938	4,804	63,051	217,771	280,822
	May	300,711	0	93,897	300,711	394,608
	June	191,609	0	70,006	191,609	261,615
	July	180,591	0	98,036	180,591	278,627
	August	189,285	0	160,312	189,285	349,597
	September	208,112	0	179,233	208,112	387,345
	October	171,650	2,002	144,042	173,652	317,694
	November	93,970	5,770	713,635	99,740	813,375
	December	88,148	5,636	288,339	93,784	382,123
	Total	2,222,151	27,912	2,210,895	2,250,092	4,460,987

^aIncludes Citrus County.

Appendix Table 5.--Total landings of selected fish and shellfish species by months, Pasco County, 1971-1976--Continued

Year	Month	Jack crevalle	Red drum	Grouper	Grunts	Black mullet	Spotted sea trout
1973 ^a	January	4,421	8,619	3,200	4,454	107,868	36,220
	February	3,243	9,766	1,251	4,912	84,132	16,273
	March	6,843	4,665	502	3,802	60,722	11,139
	April	8,710	973	2,717	4,285	46,307	2,121
	May	2,518	1,058	3,624	5,929	71,672	1,581
	June	2,957	1,573	2,144	9,924	90,792	629
	July	4,685	2,312	3,536	5,425	124,533	1,164
	August	2,124	1,788	5,487	5,040	163,152	480
	September	5,233	3,705	5,209	6,672	214,494	2,943
	October	13,100	5,438	3,698	6,414	208,934	5,555
	November	31,630	6,419	8,991	15,962	298,324	9,239
	December	18,776	13,869	5,474	6,621	129,052	22,777
	Total	104,240	60,185	45,833	79,440	1,599,982	110,121

Appendix Table 5.--Total landings of selected fish and shellfish species by months, Pasco County, 1971-1976--Continued

Year	Month	Blue crab	Stone crab	Total fish	Total shellfish	Total
1973 ^a	January	94,991	2,070	181,381	97,061	278,442
	February	73,372	4,876	138,295	80,011	218,306
	March	126,527	8,572	97,241	135,289	232,530
	April	159,142	7,748	73,785	169,560	243,345
	May	220,718	368	95,334	225,786	321,120
	June	181,357	0	117,140	181,357	298,497
	July	192,752	0	148,649	192,766	341,415
	August	176,182	0	185,691	176,182	361,873
	September	148,531	0	247,135	155,575	402,710
	October	136,229	2,042	261,358	138,501	399,859
	November	79,112	10,798	389,211	94,548	483,759
	December	54,919	6,996	212,424	61,915	274,339
	Total	1,643,832	43,470	2,147,644	1,708,551	3,856,195

^aIncludes Citrus County.

Appendix Table 5.--Total landings of selected fish and shellfish species by months, Pasco County, 1971-1976--Continued

Year	Month	Jack crevalle	Red drum	Grouper	Grunts	Black mullet	Spotted sea trout
1974 ^a	January	9,738	11,997	1,783	50	109,477	37,008
	February	16,480	8,072	1,770	216	78,311	13,247
	March	28,734	11,220	8,432	20,666	149,908	18,288
	April	12,114	11,176	5,145	10,893	58,086	4,526
	May	7,644	4,068	8,067	8,832	85,775	2,137
	June	1,511	642	4,348	6,313	66,459	435
	July	2,552	634	2,679	1,672	101,396	429
	August	1,432	1,798	1,909	3,577	128,438	315
	September	17,520	3,939	2,795	4,361	144,620	1,325
	October	26,750	8,245	2,460	3,098	228,637	4,295
	November	8,812	3,568	5,370	7,093	244,122	1,515
	December	12,449	6,257	781	1,189	147,894	23,616
	Total	145,736	71,616	45,539	67,960	1,543,123	107,136

-----Pounds-----

Appendix Table 5.--Total landings of selected fish and shellfish species by months, Pasco County, 1971-1976--Continued

Year	Month	Blue crab	Stone crab	Total fish	Total	
					shellfish	Total
-----Pounds-----						
1974 ^a	January	7,522	6,772	226,201	34,524	260,725
	February	82,400	9,504	168,060	96,083	264,143
	March	252,232	13,388	257,060	272,284	529,344
	April	148,468	972	115,411	153,215	268,626
	May	173,859	562	140,905	185,584	326,489
	June	163,203	5,934	95,550	173,267	268,817
	July	150,271	0	115,816	153,775	269,591
	August	121,588	0	158,954	121,644	280,598
	September	143,081	0	188,040	147,721	335,761
	October	104,037	6,108	293,096	115,982	409,078
	November	122,282	8,476	310,173	134,496	444,669
	December	90,332	9,620	211,635	103,011	314,646
	Total	1,559,275	61,336	2,280,901	1,691,586	3,972,487

^a Includes Citrus County.

Appendix Table 5.--Total landings of selected fish and shellfish species by months, Pasco County, 1971-1976--Continued

Year	Month	Jack crevalle	Red drum	Grouper	Grunts	Black mullet	Spotted sea trout
1975 ^a	January	37,034	7,254	2,638	6,006	143,839	17,438
	February	19,505	3,885	2,771	8,505	131,058	4,294
	March	14,407	1,681	2,145	3,411	89,228	8,747
	April	14,661	993	7,760	16,447	91,297	4,963
	May	4,941	1,348	24,682	12,329	123,855	1,539
	June	3,750	1,007	14,551	9,990	128,954	960
	July	4,365	1,216	14,049	7,180	157,813	1,241
	August	15,436	3,445	13,998	3,403	166,661	1,032
	September	19,873	4,837	8,092	4,188	159,923	2,728
	October	41,666	3,829	14,573	12,452	114,105	8,333
	November	45,361	5,974	2,803	2,227	368,090	9,714
	December	41,065	9,398	6,559	1,900	437,569	29,268
	Total	262,064	44,867	114,621	88,038	2,112,392	90,257

-----Pounds-----

Appendix Table 5.--Total landings of selected fish and shellfish species by months, Pasco County, 1971-1976--Continued

Year	Month	Blue crab	Stone crab	Total fish	Total shellfish	Total
1975 ^a	January	19,223	464	246,462	37,704	284,166
	February	129,541	7,424	188,846	174,614	363,460
	March	133,809	10,526	125,810	179,219	305,029
	April	139,758	4,632	153,863	171,716	325,579
	May	156,648	890	194,396	240,039	434,435
	June	136,103	0	173,883	163,679	337,562
	July	112,974	0	203,900	133,224	337,124
	August	152,662	0	219,620	174,843	394,463
	September	132,336	0	213,268	156,988	370,256
	October	131,112	19,478	215,212	179,711	396,923
	November	83,819	28,882	442,455	156,117	598,572
	December	71,878	16,104	535,957	112,789	648,746
	Total	1,399,863	88,400	2,913,672	1,880,643	4,796,315

^a Includes Citrus County.

Appendix Table 5.--Total landings of selected fish and shellfish species by months, Pasco County, 1971-1976--Continued

Year	Month	Jack crevalle	Red drum	Grouper	Grunts	Black mullet	Spotted sea trout
1976 ^a	January	38,068	12,159	4,190	1,759	124,271	29,088
	February	22,659	11,894	2,819	1,440	93,456	9,409
	March	17,365	1,900	5,641	11,179	57,983	4,009
	April	22,405	1,678	13,202	18,893	69,264	3,454
	May	4,161	255	23,262	8,622	70,571	1,527
	June	333	126	25,385	6,219	91,130	1,731
	July	4,524	2,014	20,491	2,954	178,400	954
	August	13,628	2,091	9,241	3,585	194,196	1,003
	September	15,213	3,921	4,755	6,165	187,575	2,205
	October	51,271	2,368	1,753	2,811	176,454	6,444
	November	10,696	6,486	1,039	1,813	181,465	8,348
	December	31,112	5,357	8,032	664	216,922	23,956
	Total	231,435	50,249	119,810	66,104	1,641,687	92,128

-----Pounds-----

Appendix Table 5.--Total landings of selected fish and shellfish species by months, Pasco County, 1971-1976--Continued

Year	Month	Blue crab	Stone crab	Total fish	Total shellfish	Total
1976 ^a	January	55,001	13,842	223,614	79,055	302,669
	February	129,144	33,326	150,523	191,618	342,141
	March	166,020	12,242	108,304	235,286	343,590
	April	172,402	32,626	143,241	236,058	379,299
	May	196,191	7,972	126,731	248,875	375,606
	June	807,649	0	142,327	844,020	986,347
	July	121,542	0	225,166	154,613	379,779
	August	136,455	0	243,114	193,266	436,380
	September	155,487	0	230,270	184,345	414,615
	October	69,867	43,042	251,150	137,096	388,246
	November	55,554	35,666	221,294	126,620	347,914
	December	25,743	19,594	294,510	62,555	357,065
	Total	2,091,055	198,310	2,360,244	2,693,407	5,053,651

-----Pounds-----

^a Includes Citrus County.

Source: Florida Landings, monthly issues. U.S. Department of Commerce.

Appendix Table 6 .--Total landings of selected fish and shellfish species by months, Pinellas County, 1971-1976

Year	Month	Jack crevalle	Grouper	King mackerel	Black mullet	Spotted sea trout	Red snapper	Spanish mackerel
1971	January	0	151,961	428	59,122	10,078	10,333	59
	February	0	153,777	0	36,199	6,402	16,004	0
	March	0	145,821	2,172	33,213	3,232	9,553	798
	April	0	193,011	47,109	33,419	4,950	12,057	4,179
	May	1,950	240,786	1,149	33,714	4,595	29,807	942
	June	0	190,704	864	56,410	5,087	16,851	3,527
	July	135	190,512	1,212	105,325	1,989	21,633	286
	August	435	251,599	126	132,188	2,624	25,191	194
	September	4,619	140,461	36	188,086	2,128	15,219	556
	October	8,718	131,434	174	146,345	2,370	6,864	4,303
	November	7,252	83,376	531	419,088	9,013	15,318	128,109
	December	964	129,624	2,529	345,799	10,537	24,363	258,461
	Total	24,073	2,003,066	56,330	1,588,908	63,005	203,193	401,414

-----Pounds-----

Appendix Table 6.--Total landings of selected fish and shellfish species by months, Pinellas County, 1971-1976--Continued

Year	Month	Stone crab	Spiny lobster	Shrimp	Total fish	Total shellfish	Total
1971	January	200	0	7,817	257,340	9,279	266,619
	February	124	0	9,102	236,038	9,680	245,718
	March	136	0	16,710	220,396	17,015	237,411
	April	0	0	15,360	312,606	15,918	328,524
	May	0	0	72,987	331,644	76,553	408,197
	June	0	0	109,341	291,834	113,390	405,224
	July	0	0	38,572	358,938	42,376	401,314
	August	0	1,068	749	435,614	4,829	440,443
	September	0	0	0	373,177	983	374,160
	October	0	0	0	330,017	2,110	332,127
	November	0	0	10,384	681,587	12,022	693,609
	December	0	0	22,135	805,321	23,180	828,501
	Total	460	1,068	303,157	4,634,512	327,335	4,961,847

-----Pounds-----

Appendix Table 6.--Total landings of selected fish and shellfish species by months, Pinellas County, 1971-1976 --Continued

Year	Month	Jack crevalle	Grouper	King mackerel	Black mullet	Spotted sea trout	Red snapper	Spanish mackerel
1972	January	0	131,130	916	90,422	4,660	19,982	113,788
	February	1,153	88,047	0	62,444	3,594	18,598	69,705
	March	176	164,197	1,055	64,228	4,752	28,730	34,170
	April	382	141,933	33,604	52,798	5,056	19,225	4,233
	May	187	141,700	1,079	72,850	7,764	15,910	176
	June	2,118	151,161	5,383	51,639	2,353	62,479	727
	July	3,627	270,664	164	71,785	1,125	23,430	64
	August	8,189	291,841	63	101,641	2,568	17,391	1,574
	September	43,237	234,636	0	81,391	3,694	11,631	2,236
	October	0	209,340	340	40,467	2,096	6,930	10,506
	November	8,944	167,194	7,923	261,995	6,237	22,141	0
	December	0	171,026	6,827	154,042	11,382	12,696	190,052
	Total	68,013	2,162,869	57,354	1,105,702	55,281	259,143	427,231

-----Pounds-----

Appendix Table 6.--Total landings of selected fish and shellfish species by months, Pinellas County, 1971-1976--Continued

Year	Month	Stone crab	Spiny lobster	Shrimp	Total fish	Total shellfish	Total
1972	January	0	0	12,915	392,568	13,364	405,932
	February	422	0	73,029	268,899	74,023	342,922
	March	174	0	29,779	338,344	30,476	368,820
	April	0	0	53,714	290,406	53,903	344,309
	May	0	78,000	39,128	260,476	118,217	378,693
	June	0	0	16,752	302,858	19,298	322,156
	July	0	0	56,867	394,286	57,724	452,010
	August	0	0	28,864	451,454	30,390	481,844
	September	0	0	9,914	412,112	12,820	424,932
	October	2,592	0	9,769	298,729	13,851	312,580
	November	6,011	0	23,611	516,097	30,047	546,144
	December	4,474	0	10,992	595,320	15,651	610,971
	Total	13,673	78,000	365,334	4,521,549	469,764	4,991,313

-----Pounds-----

Appendix Table 6.--Total landings of selected fish and shellfish species by months, Pinellas County, 1971-1976--Continued

Year	Month	Jack crevalle	Grouper	King mackerel	Black mullet	Spotted sea trout	Red snapper	Spanish mackerel
1973	January	0	138,861	56	64,133	7,156	11,927	3,140
	February	602	122,861	0	30,230	2,298	5,125	26,246
	March	1,219	156,415	1,226	39,079	3,631	21,939	0
	April	1,440	102,664	2,803	34,557	1,642	11,013	210
	May	4,930	253,227	343	35,974	6,166	28,854	171
	June	8,962	339,234	1,124	58,744	3,559	20,163	763
	July	1,478	225,631	171	93,426	3,139	21,491	252
	August	17,276	133,460	0	117,681	4,240	12,627	978
	September	7,063	106,167	393	171,275	3,105	12,777	1,178
	October	10,747	100,789	891	177,338	3,085	15,029	2,169
	November	9,705	159,483	4,724	388,650	7,019	36,705	45,068
	December	1,738	98,153	208	194,202	11,409	29,150	3,088
	Total	65,160	1,936,945	11,939	1,405,289	56,449	226,800	83,263

-----Pounds-----

Appendix Table 6 .--Total landings of selected fish and shellfish species by months, Pinellas County, 1971-1976--Continued

Year	Month	Stone crab	Spiny lobster	Shrimp	Total fish	Total shellfish	Total
1973	January	4,503	0	17,139	268,850	21,732	290,582
	February	2,338	0	14,424	231,199	16,846	248,045
	March	1,877	0	36,472	259,809	38,441	298,250
	April	1,194	0	34,813	188,794	36,007	224,801
	May	516	0	82,768	375,905	83,354	459,259
	June	0	0	53,342	466,924	53,854	520,778
	July	0	0	71,734	369,026	72,533	441,559
	August	0	0	17,093	302,978	19,059	322,037
	September	0	0	27,760	318,965	29,145	348,110
	October	5,612	0	51,637	331,416	58,989	390,405
	November	12,610	0	69,352	683,526	94,548	483,759
	December	8,480	0	14,995	369,271	23,666	392,937
	Total	37,130	0	491,529	4,166,663	548,174	4,420,522

Appendix Table 6.---Total landings of selected fish and shellfish species by months, Pinellas County, 1971-1976--Continued

Year	Month	Jack crevalle	Grouper	King mackere1	Black mullet	Spotted sea trout	Red snapper	Spanish mackere1
1974	January	1,033	207,530	1,113	143,002	15,656	72,466	196
	February	6,035	118,216	1,802	61,856	5,737	50,453	767
	March	28,734	482,210	28,390	79,060	19,736	156,200	452
	April	5,894	218,691	7,159	29,373	1,359	69,535	173
	May	5,291	263,733	394	20,634	1,277	64,184	88
	June	2,312	257,876	22	26,918	821	77,140	0
	July	5,387	177,812	198	34,440	645	49,405	129
	August	6,643	148,704	129	124,677	831	59,907	216
	September	3,122	118,323	19	104,193	1,025	38,540	520
	October	24,022	117,485	749	152,057	2,114	52,095	4,156
	November	8,812	204,871	601	403,258	1,870	89,377	90,342
	December	1,380	170,835	323	360,207	9,389	73,734	107
	Total	98,665	2,486,286	40,899	1,539,675	60,460	853,036	97,146

-----Pounds-----

Appendix Table 6.--Total landings of selected fish and shellfish species by months, Pinellas County, 1971-1976--Continued

Year	Month	Stone crab	Spiny lobster	Shrimp	Total fish	Total shellfish	Total
1974	January	4,547	0	61,747	506,238	66,641	572,879
	February	627	0	72,254	269,742	72,881	342,623
	March	292	0	202,768	906,256	203,604	1,109,860
	April	1,683	0	66,061	348,825	67,965	416,790
	May	0	0	97,559	380,627	98,184	478,811
	June	0	0	0	388,006	995	389,001
	July	0	0	272,916	297,985	273,944	571,929
	August	0	0	49,758	365,553	51,541	417,094
	September	0	0	61,409	286,906	63,399	350,305
	October	1,678	0	74,951	383,575	77,653	461,228
	November	7,750	60	48,966	832,158	57,167	889,325
	December	7,214	51	68,728	639,497	76,332	715,829
	Total	23,791	111	1,077,117	5,605,368	1,110,306	6,715,674

Appendix Table 6.--Total landings of selected fish and shellfish species by months, Pinellas County, 1971-1976--Continued

Year	Month	Jack crevalle	Grouper	King mackerel	Black mullet	Spotted sea trout	Red snapper	Spanish mackerel
1975	January	11,428	147,575	33	155,339	9,642	83,371	165
	February	3,625	7,123	519	40,600	5,085	74,144	508
	March	6,202	178,637	48,441	58,580	2,088	60,233	814
	April	9,716	250,441	10,662	42,358	4,467	70,800	7,686
	May	11,277	295,236	3,986	46,256	5,701	68,685	433
	June	3,172	254,122	231	67,480	3,596	78,965	275
	July	9,407	228,164	835	78,278	3,263	61,796	98
	August	13,992	209,067	88	184,930	5,429	75,905	2,147
	September	36,838	182,081	9	216,671	4,756	65,952	1,358
	October	68,381	374,066	4,441	196,585	9,264	109,529	2,029
	November	20,570	231,104	8,791	417,665	11,955	46,357	31,301
	December	6,157	305,034	4,554	360,465	18,546	52,090	42,144
	Total	200,765	2,662,650	82,590	1,865,207	83,792	847,827	88,958

-----Pounds-----

Appendix Table 6 .--Total landings of selected fish and shellfish species by months, Pinellas County, 1971-1976--Continued

Year	Month	Stone crab	Spiny lobster	Shrimp	Total fish	Total shellfish	Total
-----Pounds-----							
1975	January	1,726	108	131,519	448,057	144,108	592,165
	February	1,478	0	154,209	407,672	227,747	635,419
	March	2,528	0	108,753	381,494	116,468	497,962
	April	1,382	0	164,607	426,857	259,966	686,823
	May	266	0	241,094	472,376	292,912	765,288
	June	0	0	364,550	437,334	375,476	812,810
	July	0	0	157,204	415,569	177,942	593,511
	August	0	0	103,022	541,992	121,164	663,156
	September	0	0	71,117	542,305	84,389	626,694
	October	3,318	180	52,622	803,092	68,234	871,326
	November	15,058	140	46,428	805,665	68,124	873,789
	December	20,370	134	104,513	828,231	134,298	962,529
	Total	46,126	562	1,699,638	6,510,644	2,070,828	8,581,472

Appendix Table 6.--Total landings of selected fish and shellfish species by months, Pinellas County, 1971-1976--Continued

Year	Month	Jack crevalle	Grouper	King mackerel	Black mullet	Spotted sea trout	Red snapper	Spanish mackerel
1976	January	3,335	144,195	162	33,269	24,862	49,739	40
	February	749	184,886	1,172	23,881	10,659	53,209	2,677
	March	6,707	237,467	33,455	24,962	14,224	62,270	14,674
	April	16,455	251,369	36,595	36,068	7,075	66,317	9,524
	May	1,494	188,076	1,005	31,698	3,477	54,447	232
	June	4,750	250,608	243	38,023	3,236	72,787	156
	July	13,383	208,675	432	94,292	2,827	94,488	1,105
	August	22,910	197,512	347	146,525	5,784	53,724	131
	September	64,494	204,897	1,774	137,274	6,572	44,488	221
	October	14,368	124,773	404	130,706	9,130	29,205	751
	November	15,524	126,326	504	282,271	24,741	36,888	1,115
	December	2,000	122,024	116	232,257	29,246	27,358	17
	Total	166,169	2,240,808	76,209	1,211,226	141,833	644,920	30,643

-----Pounds-----

Appendix Table 6 .--Total landings of selected fish and shellfish species by months, Pinellas County, 1971-1976--Continued

Year	Month	Stone crab	Spiny lobster	Shrimp	Total fish	Total shellfish	Total
1976	January	11,014	0	67,783	311,067	86,381	397,448
	February	9,764	64	94,496	336,019	109,303	445,322
	March	13,148	0	351,154	444,000	377,301	821,301
	April	10,863	0	212,657	483,883	232,476	716,359
	May	4,072	0	194,062	332,464	205,650	538,114
	June	0	0	322,069	404,926	338,782	743,708
	July	0	0	294,086	464,444	311,504	775,948
	August	0	0	155,571	516,040	217,707	733,747
	September	0	0	82,131	513,389	107,149	620,538
	October	42,280	97	137,185	342,886	192,310	535,196
	November	29,110	70	155,159	523,222	201,649	724,871
	December	7,372	0	191,379	443,232	210,351	653,583
	Total	127,623	231	2,257,732	5,115,572	2,590,563	7,706,135

-----Pounds-----

Source: Florida Landings, monthly issues. U.S. Department of Commerce.

Appendix Table 7.--Total landings of selected fish and shellfish species by months, Sarasota County, 1971-1976

Year	Month	Grouper	Black mullet	Pompano	Spotted sea trout	Red snapper
1971	January	26,830	137,705	103	6,331	643
	February	16,752	31,206	106	6,923	399
	March	33,251	31,631	1,232	4,511	265
	April	15,664	56,933	4,584	3,712	238
	May	15,437	55,294	2,304	2,997	489
	June	10,591	24,592	775	1,538	628
	July	22,015	29,445	2,328	1,616	582
	August	6,674	32,322	1,445	1,648	490
	September	3,633	58,525	3,430	2,354	273
	October	4,817	43,459	2,192	1,935	269
	November	0	111,717	2,704	2,700	0
	December	1,654	175,583	2,332	1,838	60
	Total	157,318	788,412	23,535	38,103	4,336

-----Pounds-----

Appendix Table 7.--Total landings of selected fish and shellfish species by months, Sarasota County, 1971-1976

Year	Month	Spanish mackerel	Stone crab	Total fish	Total shellfish	Total
1971	January	2,832	4,100	206,248	5,027	211,275
	February	4,533	2,400	121,776	3,210	124,986
	March	38,942	2,700	153,937	3,786	157,723
	April	42,252	1,800	158,562	2,770	161,332
	May	2,134	800	120,420	1,250	121,670
	June	544	0	50,424	0	50,424
	July	0	0	61,777	0	61,777
	August	305	0	51,090	0	51,090
	September	459	0	113,135	0	113,135
	October	615	70	79,574	270	79,844
	November	51,514	400	196,044	700	196,744
	December	102,068	1,113	310,185	1,113	311,298
	Total	246,198	13,383	1,623,172	18,126	1,641,298

-----Pounds-----

Appendix Table 7.--Total landings of selected fish and shellfish species by months, Sarasota County, 1971-1976--Continued

Year	Month	Spanish mackerel	Stone crab	Total fish	Total shellfish	Total
-----Pounds-----						
1972	January	1,040	1,338	169,493	1,698	171,191
	February	3,928	1,208	116,153	1,275	117,428
	March	53,420	1,510	121,707	1,510	123,217
	April	50,058	68	110,886	68	110,954
	May	3,749	52	76,016	52	76,068
	June	2,863	0	80,147	0	80,147
	July	453	0	73,023	0	73,023
	August	330	0	91,911	0	91,911
	September	524	0	84,437	0	84,437
	October	5,700	5,510	73,237	5,510	78,747
	November	657	6,412	129,691	6,412	136,103
	December	60,362	7,424	416,073	7,424	423,497
	Total	183,084	23,522	1,542,774	23,949	1,566,723

Appendix Table 7.--Total landings of selected fish and shellfish species by months, Sarasota County, 1971-1976--Continued

Year	Month	Grouper	Black mullet	Pompano	Spotted sea trout	Red snapper
1972	January	5,461	145,039	3,501	1,846	130
	February	10,622	86,844	2,212	2,239	74
	March	11,157	36,178	6,140	1,853	116
	April	6,314	31,808	7,128	1,023	297
	May	10,576	49,790	4,928	1,218	156
	June	9,150	58,907	2,614	1,223	195
	July	12,550	43,966	4,660	1,727	282
	August	13,454	63,578	2,855	2,722	594
	September	6,415	61,068	2,322	3,608	170
	October	3,210	45,492	3,423	2,870	132
	November	800	113,389	2,922	2,561	0
	December	2,246	333,954	3,424	2,160	70
	Total	91,955	1,070,013	46,129	25,050	2,216

Appendix Table 7.--Total landings of selected fish and shellfish species by months, Sarasota County, 1971-1976--Continued

Year	Month	Grouper	Black mullet	Pompano	Spotted sea trout	Red snapper
1973	January	7,281	58,997	4,359	1,805	430
	February	5,252	31,033	3,923	2,910	429
	March	6,005	29,582	4,168	2,250	430
	April	1,203	24,321	4,571	2,521	0
	May	13,766	29,176	7,097	2,260	1,289
	June	16,887	50,401	3,249	2,793	1,245
	July	13,630	38,842	1,990	2,973	2,387
	August	15,220	66,121	2,324	3,234	3,166
	September	5,537	50,178	2,439	2,783	1,892
	October	3,996	21,820	2,672	4,059	1,091
	November	7,243	163,413	1,132	3,047	2,058
	December	3,981	317,746	600	2,994	3,295
	Total	100,001	881,630	38,524	33,629	17,712

-----Pounds-----

Appendix Table 7.--Total landings of selected fish and shellfish species by months, Sarasota County, 1971-1976--Continued

Year	Month	Spanish mackerel	Stone crab	Total fish	Total shellfish	Total
-----Pounds-----						
1973	January	29,353	21,390	122,748	21,390	144,138
	February	1,100	12,380	52,833	12,380	65,213
	March	140,320	1,724	209,407	1,724	211,131
	April	1,477	200	49,475	200	49,675
	May	4,137	200	69,719	200	69,919
	June	424	0	106,857	420	107,277
	July	108	0	69,943	0	69,943
	August	312	0	101,112	0	101,112
	September	969	0	70,104	0	70,104
	October	3,808	226	59,217	226	59,443
	November	15,675	200	216,372	200	216,572
	December	515	200	333,544	677	334,221
	Total	198,198	36,520	1,461,331	37,417	1,498,748

Appendix Table 7.--Total landings of selected fish and shellfish species by months, Sarasota County, 1971-1976--Continued

Year	Month	Grouper	Black mullet	Pompano	Spotted sea trout	Red snapper
1974	January	13,449	145,965	1,012	3,817	2,286
	February	7,315	32,892	2,366	2,378	764
	March	27,190	55,700	5,420	4,368	7,190
	April	4,462	13,303	2,467	293	1,283
	May	10,880	7,352	1,716	1,805	3,826
	June	9,132	7,579	1,732	1,318	2,596
	July	13,302	13,949	2,776	2,257	4,019
	August	891	15,295	2,266	1,674	0
	September	9,247	9,531	2,663	2,729	7,439
	October	960	18,475	4,594	690	1,026
	November	5,269	38,428	4,673	560	6,510
	December	5,528	29,285	636	1,679	4,373
	Total	107,625	387,754	32,321	23,568	41,312

-----Pounds-----

Appendix Table 7.---Total landings of selected fish and shellfish species by months, Sarasota County, 1971-1976--Continued

Year	Month	Spanish mackerel	Stone crab	Total fish	Total shellfish	Total
1974	January	7,967	200	208,809	200	209,009
	February	24,363	0	79,872	0	79,872
	March	13,040	0	151,288	0	151,288
	April	12,590	0	45,330	0	45,330
	May	631	0	31,179	0	31,179
	June	795	0	37,181	0	37,181
	July	0	0	39,327	0	39,327
	August	0	0	25,164	0	25,164
	September	1,743	0	37,964	0	37,964
	October	1,647	0	36,899	0	36,899
	November	2,071	0	64,620	0	64,620
	December	20	80	48,287	80	48,367
	Total	64,867	280	805,920	280	806,200

-----Pounds-----

Appendix Table 7.--Total landings of selected fish and shellfish species by months, Sarasota County, 1971-1976--Continued

Year	Month	Spanish mackerel	Stone crab	Total fish	Total shellfish	Total
-----Pounds-----						
1975	January	600	0	57,700	0	57,700
	February	5,032	0	37,132	0	37,132
	March	2,487	0	35,465	0	35,465
	April	1,000	0	42,538	0	42,538
	May	2,375	0	58,626	0	58,626
	June	40	0	39,036	32,024	71,060
	July	200	0	42,663	29,428	72,091
	August	300	0	42,940	31,258	74,198
	September	3,000	0	34,176	43,128	77,304
	October	1,891	0	58,448	19,908	77,956
	November	3,492	860	35,874	1,810	37,684
	December	1,000	0	70,477	0	70,477
	Total	21,417	860	555,075	157,547	712,231

Appendix Table 7.--Total landings of selected fish and shellfish species by months, Sarasota County, 1971-1976--Continued

Year	Month	Grouper	Black mullet	Pompano	Spotted sea trout	Red snapper
1975	January	9,130	27,594	1,709	13,433	6,594
	February	5,288	9,753	2,752	1,781	2,405
	March	12,818	7,375	2,367	670	4,521
	April	13,736	11,394	1,936	1,539	7,694
	May	11,764	23,355	3,474	2,073	6,553
	June	9,755	16,995	657	2,103	4,827
	July	10,354	22,309	334	1,399	5,052
	August	8,399	21,721	1,156	2,698	3,867
	September	1,561	21,504	683	2,101	2,112
	October	10,311	31,507	1,423	2,003	5,944
	November	8,052	14,256	1,798	1,376	3,647
	December	13,192	35,908	3,621	596	6,147
	Total	114,360	243,671	21,910	31,772	59,363

Appendix Table 7.---Total landings of selected fish and shellfish species by months, Sarasota County, 1971-1976--Continued

Year	Month	Grouper	Black mullet	Pompano	Spotted sea trout	Red snapper
1976	January	5,246	7,139	25,735	2,127	3,047
	February	11,177	5,405	1,042	1,594	7,158
	March	31,831	9,894	4,492	1,221	8,184
	April	4,777	10,996	1,155	2,042	2,435
	May	6,947	8,403	1,088	1,717	4,226
	June	5,358	5,461	1,008	2,090	3,483
	July	448	8,974	944	1,133	0
	August	612	9,505	203	806	0
	September	471	7,325	907	1,761	0
	October	102	4,917	1,781	920	0
	November	0	9,522	4,102	1,569	0
	December	0	8,025	2,289	1,229	0
	Total	66,969	95,566	44,746	18,209	28,533

Appendix Table 7.--Total landings of selected fish and shellfish species by months, Sarasota County, 1971-1976--Continued

Year	Month	Spanish mackerel	Stone crab	Total fish	Total shellfish	Total
-----Pounds-----						
1976	January	500	80	31,796	80	31,876
	February	600	800	36,902	800	37,702
	March	12,335	1,400	85,524	1,400	86,924
	April	727	0	27,335	400	27,735
	May	200	0	25,649	600	26,249
	June	400	0	18,794	0	18,794
	July	2	0	12,844	1,004	13,848
	August	0	0	13,343	913	14,256
	September	0	0	11,851	0	11,851
	October	875	800	11,130	800	11,930
	November	600	0	20,159	3,569	23,728
	December	300	0	15,609	3,419	19,028
	Total	16,539	3,080	310,936	12,985	323,921

Source: Florida Landings, monthly issues. U.S. Department of Commerce.

Appendix Table 8 .--Questionnaires mailed and responses or disposition, commercial fishermen, all counties and five west coast counties.

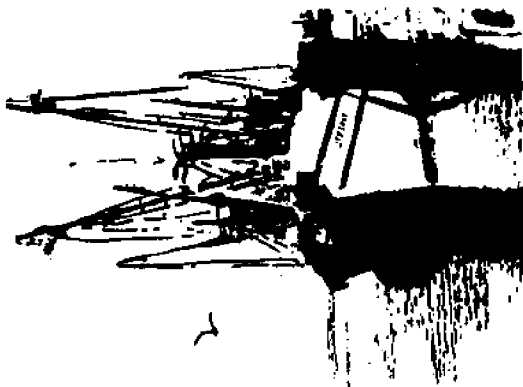
Disposition or response	All counties		Five west coast counties		Five counties as a share of total
	Number	Percent	Number	Percent	Percent
Total mailed	6,114	100	1,316	100	22
Unable to deliver	410	7	71	5	17
Individuals receiving questionnaires	5,704	93	1,245	95	22
Questionnaires not returned	3,217	53	672	51	21
Questionnaires returned	2,487	51	573	44	23
Respondents:					
No longer own boat	350	6	81	6	23
No longer fishing ^a	683	11	169	13	25
Still active	1,454	24	323	25	22

^a Not fishing commercially, but had commercial boat registration in 1977.

Appendix Table 9. --Questionnaires mailed and responses or disposition, dealer survey, all counties and five west coast counties.

Disposition or response	All counties		Five west coast counties		The five counties as a share of total
	Number	Percent	Number	Percent	Percent
Total mailed	190	100	53	100	28
Unable to deliver	16	8	6	11	38
Individuals receiving questionnaires	174	92	47	89	27
Questionnaires not returned	88	46	22	42	25
Questionnaires returned	86	45	25	47	29
Respondents:					
No longer dealer	9	5	1	2	11
Still active	77	40	24	45	31

FLORIDA SEAFOOD PORT STUDY



Dear Seafood Dealer:

Are commercial fishing facilities adequate in your area? The Gulf and South Atlantic Fisheries Development Foundation and your industry associations have asked us to determine the need for new or improved port facilities and possible locations for them.

Your opinions are important to us. Even if you are not now a seafood dealer, please complete the part of the form that pertains to you and return it to us today — it will only take a few minutes. Your answers will show whether or not commercial fishing port improvements are needed.

Your prompt attention is appreciated.

Sincerely,

James C. Cato
Marine Economist

Fred J. Plochaska
Marine Economist

JCC:FJP:pb

A Cooperative Project of:
Florida Agricultural Market Research Center
Gulf & South Atlantic Fisheries Development Foundation, Inc.
Florida Sea Grant

Note: To seal for mailing pull off paper backing and press firmly

BUSINESS REPLY MAIL

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University of Florida
Gainesville, Florida 32611

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GAINESVILLE
FLORIDA



SEAFOOD DEALER - PROCESSOR SURVEY

1. You were a seafood dealer and/or processor in 1977 according to our records. Are you still in this business?
 Yes, please continue
 No, if no, please return today so we will know you received the questionnaire. (NO POSTAGE REQUIRED) Thank you

2. If you are in the seafood business please check the most important products you handle:

FISH	SHELLFISH
<input type="checkbox"/> Groupers	<input type="checkbox"/> Blue crabs
<input type="checkbox"/> Spanish mackerel	<input type="checkbox"/> Stone crabs
<input type="checkbox"/> King mackerel	<input type="checkbox"/> Scallops
<input type="checkbox"/> Pompano	<input type="checkbox"/> Shrimp
<input type="checkbox"/> Red snapper	<input type="checkbox"/> Spiny lobster
<input type="checkbox"/> All other snapper	<input type="checkbox"/> Other shellfish (list)
<input type="checkbox"/> Sea trout	_____
<input type="checkbox"/> Bait	_____
<input type="checkbox"/> Other fish (list)	_____

3. Please complete the following about your seafood business
 A. In column A, check the facilities and services you now offer. Then,
 B. In column B, check the facilities and services you would like added or improved

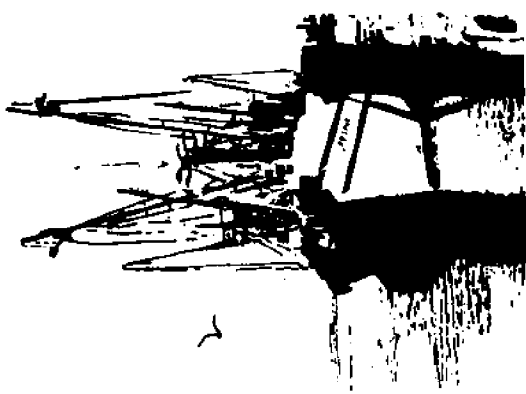
Facilities or services	Column A Those you now offer	Column B Those you would like added or improved
1. Shrimp unloading house	<input type="checkbox"/>	<input type="checkbox"/>
2. Crab unloading	<input type="checkbox"/>	<input type="checkbox"/>
3. Lubster house	<input type="checkbox"/>	<input type="checkbox"/>
4. Fish house	<input type="checkbox"/>	<input type="checkbox"/>
5. Processing of unused fish	<input type="checkbox"/>	<input type="checkbox"/>
6. Bait sales and supply	<input type="checkbox"/>	<input type="checkbox"/>
7. Docking facilities	<input type="checkbox"/>	<input type="checkbox"/>
8. Freezer and cold storage	<input type="checkbox"/>	<input type="checkbox"/>
9. Ice house	<input type="checkbox"/>	<input type="checkbox"/>
10. Gear storage area	<input type="checkbox"/>	<input type="checkbox"/>
11. Gear supply	<input type="checkbox"/>	<input type="checkbox"/>
12. Gear repair service	<input type="checkbox"/>	<input type="checkbox"/>
13. Electronics service	<input type="checkbox"/>	<input type="checkbox"/>
14. Engine repair service	<input type="checkbox"/>	<input type="checkbox"/>
15. Marine railway	<input type="checkbox"/>	<input type="checkbox"/>
16. Fuel sales	<input type="checkbox"/>	<input type="checkbox"/>
17. Groceries	<input type="checkbox"/>	<input type="checkbox"/>
18. Restaurant	<input type="checkbox"/>	<input type="checkbox"/>
19. Retail seafood market	<input type="checkbox"/>	<input type="checkbox"/>
20. Liquid waste disposal	<input type="checkbox"/>	<input type="checkbox"/>
21. Solid waste disposal (shrimp heads, fish scrap, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
22. Other (list)	_____	_____

4. What other items are needed to improve your seafood business, or to help you meet government requirements?
 Needed improvements: _____ Check all that apply
 More seafood from fishermen
 More workers
 Better trained workers
 Better roads or trucking
 Financial assistance to meet sanitation or pollution control requirements
 Others (list) _____

5. How many pounds did you sell in 1977?
 (CONFIDENTIAL)

FISH	SHELLFISH
<input type="checkbox"/> Under 50,000 lbs	<input type="checkbox"/> Under 50,000 lbs
<input type="checkbox"/> 50,000-100,000 lbs	<input type="checkbox"/> 50,000-100,000 lbs
<input type="checkbox"/> 100,000-300,000 lbs	<input type="checkbox"/> 100,000-300,000 lbs
<input type="checkbox"/> Over 300,000 lbs	<input type="checkbox"/> Over 300,000 lbs

FLORIDA SEAFOOD PORT STUDY



Dear Commercial Boat Owner:

Are commercial fishing facilities adequate in your area? The Gulf and South Atlantic Fisheries Development Foundation and your industry associations have asked us to determine the need for new or improved port facilities and possible locations for them.

Your opinions are important to us. Even if you are not engaged in commercial fishing, please complete the part of the form that pertains to you and return it to us today — it will only take a few minutes. Your answers will show whether or not commercial fishing port improvements are needed.

Your prompt attention is appreciated.
Sincerely,

Jim Gato

James C. Gato
Marine Economist

Fred J. Mochaska

Fred J. Mochaska
Marine Economist

JCC:FJP:pb

A Cooperative Project of:
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Gainesville, Florida 32611

FIRST CLASS
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FLORIDA



COMMERCIAL FISHERMAN SURVEY

1. You owned a commercial fishing boat in 1977 according to state boat registration records. Do you still own one or more commercial boats?
 Yes... Please continue. No... If no, please return today so we will know you received the questionnaire (NO POSTAGE REQUIRED). Thank you.
2. Do you use your boat for commercial fishing?
 Yes... Please continue. No... If no, please return today so we will know you received the questionnaire (NO POSTAGE REQUIRED). Thank you.
3. In column A, check and rate the facilities and services that you now use.
4. In column B, check which facilities or services you would use if available or improved.

Facilities or services	Column A		Needs improving	Column B		Comments
	Check only those you use	Rating		Check those you would use if available or improved	Rating	
1. Shrimp unloading house	<input type="checkbox"/>	OK	<input type="checkbox"/>	<input type="checkbox"/>		
2. Crab unloading	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
3. Lobster house	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
4. Fish house	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
5. Processing of unused fish	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
6. Bait sales and supply	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
7. Docking facilities	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
8. Freezer and cold storage	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
9. Ice house	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
10. Gear storage area	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
11. Gear supply	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
12. Gear repair service	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
13. Electronics service	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
14. Engine repair service	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
15. Marine railway	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
16. Fuel sales	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
17. Groceries	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
18. Restaurant	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
19. Retail seafood market	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
20. Fishermen's meeting room	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
21. Liquid waste disposal	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
22. Solid waste disposal	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
23. Other (list)	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		

3. Check if you are also a dealer _____ or a supplier _____.
4. What Florida port do you use most? _____ Miles
5. How far is it from your home to this port? _____ Miles
6. On the average, how far is this port from your usual fishing grounds? _____ Miles
7. How many pounds did you sell in 1977? (CONFIDENTIAL)

<input type="checkbox"/>	0 - 5,000 lbs	<input type="checkbox"/>	0 - 5,000 lbs
<input type="checkbox"/>	5,000 - 10,000 lbs	<input type="checkbox"/>	5,000 - 10,000 lbs
<input type="checkbox"/>	10,000 - 25,000 lbs	<input type="checkbox"/>	10,000 - 25,000 lbs
<input type="checkbox"/>	25,000 or more	<input type="checkbox"/>	25,000 or more

Comments: _____

Mail Survey Procedures and Responses

Each of the two questionnaires shown previously were sent to commercial fishermen or seafood dealers in the 17 county areas of central and south Florida (Figure 2). The questionnaire to commercial boat owners was sent to 6,114 holders of 1977-78 Florida commercial boat registrations listed with the Florida Department of Natural Resources (Appendix Table 6). A total of 190 seafood wholesalers and/or processors, listed with the National Marine Fisheries Service in 1976, received the dealer questionnaire (Appendix Table 10). A second copy of questionnaire was sent to those who had not responded in each group approximately four weeks after the first mailing.

The response from commercial boat owners, considered commercial fishermen in this study, was about 16 percent from the first mailing with a slightly higher rate of return from the second questionnaire. Total return was 2,487 completed questionnaires from fishermen or about 41 percent of the initial number mailed. Of the 2,487 respondents, 1,454 were still active commercial fishermen (Appendix Table 7).

It is assumed that boat owners not replying after the second mailing were active commercial fishermen in the same proportion as boat owners returning the questionnaires. Applying the percentage that active fishermen in each county are of respondents from the county to total county boat registrations gives an estimated 3,574 commercial fishermen who are active of the 6,114 registered commercial boat owners in this 17 county region (Appendix Table 8).

The response from the total number of seafood dealers in the 17 county area were about 27 percent for the first mailing which was much

higher during the same period of time than for the commercial fishermen. At the end of the second mailing, 45 percent or 86 dealers returned questionnaires. This resulted in a slightly larger net-rate of return than the commercial fishermen response (Appendix Table 7). Eighty-six of the 77 respondents were still active dealers.

Additional Information Sources

Research and extension education in marine economics constitutes an important program segment of the Food and Resource Economics Department at the University of Florida. A large number of publications relating to economic activity in the general area of Florida commercial fishing as well as specific publications on mullet, shrimp, spiny lobster, snapper, grouper, blue crabs, king mackerel and Spanish mackerel are available on request. For a listing of Publications in Marine Economics write:

James C. Cato
1170 McCarty Hall
Food and Resource Economics
University of Florida
Gainesville, FL 32611

The Marine Advisory Program of the SUS Sea Grant Program also provides educational services through the Florida Cooperative Extension Service. For a Florida Sea Grant Program Directory write:

Mr. Tom Leahy
G-022 McCarty Hall
University of Florida
Gainesville, FL 32611

or contact your local county Cooperative Extension Service Office.

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