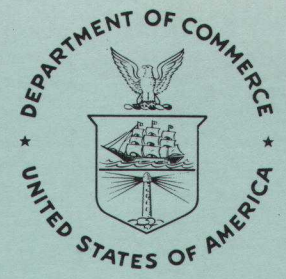

NOAA Technical Memorandum NMFS-SEFC-88

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William G. Gordon, Assistant Administrator of Fisheries

I. Introduction

The need for adequate economic data to understand and analyze U.S. domestic fisheries has been emphasized in all aspects of fishery research and management literature. It is the responsibility of the Southeast Fisheries Center to provide economic data and analysis in support of the management of marine fishery resources in the southeastern United States within the confines of existing manpower and budgetary constraints. This report presents an inventory of the existing economic data useful in the analysis of the invertebrate resources except shrimp within the Southeastern Region. The actual list inventorying existing data is outlined in Appendix A. This inventory describes the available data and provides representative examples. The second section of this report discusses this data inventory and describes near term plans to supplement the existing data bases. A fairly complete list of bibliographical references applicable to economic analysis of the invertebrate fisheries is presented in Appendix B.

It is important to understand which fisheries the data base describes. Historically, the species in the invertebrate fisheries have been sought by both commercial and recreational fishermen. The spiny lobster fishery has developed into the second most valuable commercial fishery in Florida. Also, recreational diving for spiny lobster has become a popular pastime among Florida residents and visitors during the past few years. The stone crab fishery is interdependent with the spiny lobster fishery since similar gear and fishing areas are used. There is no direct employment in collecting, processing, or marketing domestic corals. The recreational fleet for the coral fishery is made up of diving, snorkeling, and sightseeing boats. Thus, it is important to monitor economic information where available on all the economically viable invertebrate species for both commercial and recreational use. Also, procedures should be developed which value the recreational catch so that it includes the nonpecuniary benefits received by recreational fishermen.

The species in the invertebrate fisheries are either managed or proposed to be managed under separate management plans. This is a result of the geographical range of the particular species and the development of the fishery. The species comprising the invertebrate fisheries and the Councils which prepared the fishery management plans (FMP) are listed below. The plans provide the species' scientific name and the description of their biological characteristics and habitats.

Invertebrates

Species	Council
Spiny lobster	Gulf/South Atlantic Caribbean
Stone crab	Gulf
Coral	Gulf/South Atlantic Caribbean
Squid	Gulf*
Sponges	Gulf*

Species	Council
Calico scallops	South Atlantic/Gulf*
Sea scallops	South Atlantic*
Conch	Caribbean*

*Only the spiny lobster and stone crab fishery management plans have been approved to date. However, all the species were included in this data base since these fisheries appear to be economically important to the councils.

II. Data Inventory

This section provides an explicit discussion of the data outline presented in Appendix A. Furthermore, current plans to increase the available data are also discussed.

Dockside Landings & Value

The National Marine Fisheries Service (NMFS) has collected and published landings data since the mid 1950's. The publication of the dollar value of these landings was initiated in the early 1960's. The specific years varied by state and are provided in the Current Fisheries Statistics (CFS) section of the inventory outline. NMFS published these data in both monthly reports and annual summaries. The monthly reports usually provide a more detailed geographical distribution than the annual summaries. Several of these monthly and annual reports are no longer in publication. However, the data are still being collected and are available from 1963 to the most current month by computer printout. Tables 1A and 1B provide examples of this data from the CFS series for Florida landings.

Annual data in landings, value (price per pound), and gear type are available in the Fisheries Statistics of the United States. Tables 2A through 2C provide examples of this type of data for three of these species by region. Currently, work is being done which will provide on-line access to these monthly and annual data. This should greatly facilitate the analysis of proposed management regulations.

Recreational catch data for these species are limited. However, little research has been undertaken on the recreational aspects of the spiny lobster fishery (see Davis, 1979). Table 3 provides an example of recreational catch data for spiny lobsters from the Everglades National Park. A variety of problems prevent an adequate evaluation of the extent of recreational fishing for stone crabs[1] and no information is apparently available concerning recreational employment in the stone crab fishery. Recreational catch for corals is nonexistent, but a coral-related industry does exist.[2]

Wholesale/Retail

The term wholesale may refer to any process or operation beginning with the dockside purchase of the fishery product from the fisherman to, but not including, the sale of the product for consumption. Because of this wide range of activities, it is important to define what is meant by wholesale price and quantity. The wholesale prices for selected sizes of lobster tails are reported at New York for both domestic and imported warm and cold water species. Monthly wholesale price data are available from

the Current Economic Analysis: Shellfish series for spiny lobster and Scallops. Tables 4A and 4B provide examples of these data for spiny lobster. The average price is unweighted and therefore does not reflect the price of the largest quantity landed of any particular species. There is no readily available quantity data to accompany the price data. Total supply and apparent consumption (Table 4B) is available on a monthly and annual basis. These two tables together could provide an indication of supply, demand, and price for warm water lobster tails in the U.S. Similar information is available for scallops (Table 4C, 4D, and 4E).

The wholesale market in New York does not represent the only marketing outlet for the invertebrate fisheries. Unfortunately, the flow or movement of these fishery products from the docks to the final consumers is not well documented. The Gulf of Mexico and South Atlantic FMP does provide some discussion on industry structure and product flow.[3] However, little historical data are available for use in detailed economic analysis. Historical data have not been kept for other invertebrate species because of the nature of their market[4] or because an FMP has not been approved.[5] A request for proposals to perform a methodological study for the collection of this type of product flow data has been completed by SEFC. Although this study will not provide specific data on the quantity received or prices at different marketing levels, it should provide the basis for a pilot study to collect such data during FY82.

Similar to wholesale prices, retail prices are difficult to collect.[6]. For example, a consumer can purchase fish from any market level ranging from dockside purchases to restaurants. NMFS has not collected this type of information for invertebrate fisheries. However, a recent contract which will include the consumption of fish and fishery products on a national survey questionnaire to participating households should provide a better understanding of consumer demand. There are two limitations with this national fish consumption survey. First, it is designed to collect information on the buying and eating habits of a randomly selected group. It does not attempt to measure purchasing price and quantity. Secondly, it will provide one-time cross-sectional data on these consumer characteristics and there are no provisions for the collection of this important price and consumption data over time.[7]

Imports-Exports of Fish and Fishery Products

Imports and exports of fish and fishery products, if of sufficient volume, could significantly affect the demand for the domestically produced product. The extent of this influence depends on many factors, such as existing tariff structures and production costs, which combine to determine the interaction of supply and demand and the resulting market price. These supply and demand curves are difficult to estimate even with adequate data. However, the important data elements in this analysis are the price and quantity of the foreign imports. Only data on the quantity of invertebrate species imported are available (Table 4B, 4E, and Table 5A and 5B). One exception is the U.S. imports of Spiny Lobster with annual prices and landings (Table 6).[8]

Vessel Characteristics

It is basic to both the management and analysis of fisheries that a list of vessels utilizing the respective fishery resource be available. Changes in the number of vessels fishing or types of gear used in a given fishery or between fisheries could indicate economic or biological problems within the fishery. Unfortunately, the National Marine Fisheries Service and the state regulatory agencies do not maintain complete or compatible vessel registration files. The NMFS uses the U.S. Coast Guard documented vessel file, which defines a vessel as a craft larger than five net tons and supplements these records with information on the type and amount of gear and crew size for commercial vessels.[9]

Obviously, if one attempts to describe the financial well-being of a fleet of vessels, it is fundamental that revenue and cost information be available (Table 7). In order to analyze the economic and regulatory changes in the market one needs to be able to measure gross revenue, the fixed and variable costs, and the resulting profit or net income to the fleet over time. The data comprising these costs and revenues can be disaggregated or collected in any way consistent with the purpose of the analysis.

While these data are useful for the commercial fleet, it is of limited usefulness analyzing the recreational portion of the fishery. First, recreational fishermen do not use species specific gear. Second, their catch is not valued simply at the market price since it includes a non-pecuniary value. Finally, a portion of the recreational fleet is made up of private boat owners who are not subject to the same profit and loss constraints as are the commercial fishermen or the glass-bottom sightseeing and snorkle/diving boats. However, since recreational fishing does not make up a large portion of the catch of most invertebrate species, its impact is less significant.

III. Data Deficiencies

This section provides a brief discussion of the most critical data deficiencies with respect to economic analyses. The following discussion presents these needs in priority order beginning with the most critical.

It is fundamental to an economic analysis and to management decision making in general that reasonably current and reliable data be available on the number of fishing vessels and their catch per unit of fishing effort. The important problems of measuring and/or standardizing appropriate units of effort are well documented in the general fisheries literature. However, even more basic than measuring fishing effort is the need for a data collection system which provides monthly data on the number of vessels in these fisheries, the amount and species they are landing, and the value of the catch.

A second critical need is to obtain cost and revenue data for vessels operating in these fisheries. Studies have been performed for commercial and recreational vessels[10] in different fisheries, but no detailed historical data are available. Also, it is important to relate the cost and revenue data to the fishing effort of the respective vessel. In short, the collection of these data should be closely associated with the collection of the data on fishing effort discussed above.

Also, monthly information is needed on the quantity and value of invertebrate species imports and exports. Since imports of lobster tails makes up a large percentage of the New York market's reported supply (Table 4B), it can be expected to have a large impact on ex-vessel price at the dockside[11]. Monthly data would provide an indication of the seasonal trend in imports and whether it acts to stabilize or depress price during peak domestic production periods.

The last informational need is for data on the price and quantity purchased at the retail or consumer level. These data while not yet available are costly to collect and therefore may be prohibitive to collect routinely under existing budgetary constraints.

FOOTNOTES

[1](A) Defining the recreational fisherman is exceedingly difficult because nearly all stone crab fishermen sell at least some of their catch. (B) Most stone crab fishermen are involved in some other occupation or fishery making a percent of income demarcation between commercial and recreational fishermen very difficult. (C) Both commercial and recreational stone crab fishermen may have any number of traps, preventing a definition of recreational fishermen by a survey of the number of traps utilized. (D) No registration of the number of traps employed is required, nor is there a permit fee, allowing anyone to easily obtain a permit and preventing the separation of recreational and commercial fishermen by using permit data. Also, many individuals obtain permits but do not put any traps in the water. (E) Vessel registration provides a limited estimate of larger commercial crabbing operations, since recreational crabbers would probably not have boats of this size. However, both commercial and recreational boats are registered in state waters and cannot be discriminated.

[2]Shell and coral shops which sell imported coral, glass bottom boats, snorkel and dive boats, tropical fish businesses, and party boats depend to some extent upon the living corals and coral reef resources for their income.

[3]For example, much of the Florida production of spiny lobster is shipped to Puerto Rico to satisfy tourist related consumer demand.

[4]Corals are protected from being harvested and, therefore, no data collection has been undertaken.

[5]This is the case for conch.

[6]The Current Economic Analysis S-42, Shellfish Market Review series provides some retail prices for Sea Scallops on a monthly basis for the Baltimore, Maryland market (see Table 4D). This publication does not provide the same information for spiny lobsters.

[7]The Economic Research Working Papers Series published by the Bureau of Commercial Fisheries provide the results of a statistical survey of the pattern of fish purchases according to socio-economic characteristics for the year 1969. This survey may be used as a comparison to the recent contract provided they are statistically compatible.

[8]This table is calculated in terms of product weight. The table is being revised so that conversion factors may be used to convert to round or live weight to improve analysis starting in 1981.

[9]This information has been requested from TIMS and will be included in this report as soon as it is made available.

[10]See Prochaska and Landrum (1980), Abgrall (1975), and Gentle (1977). Also, the SEFC is developing an index of fishing costs to aid in historical analysis.

[11]It may be that the retail or wholesale market price quoted by sales in the nearest competitive market could be reflected in the price the fisherman receives at the dockside minus a transportation differential.

Appendix A

As discussed in the Introduction, this appendix provides an itemized list inventorying the available published and unpublished economic data pertinent to the invertebrate fisheries in the Gulf of Mexico and south Atlantic area. The format of this data inventory follows previous data base reports and is presented in outline form with the major topic areas being identified by Roman numerals. The text of this report provides a more detailed description of the data contained in the inventory. The text also provides references and brief discussions of economic analyses existing in both the published and unpublished literature.

Data Inventory

I. Dockside Price and Landings

A. Monthly data by state

1. Computer Records
   a. This data base provides monthly landings and values of fish species by state.
   b. The data begins in 1963 and continues to the most current month.
      i. Florida landings may begin in 1977.
   c. This information should be accessable in the near future.

2. CFS Data: Tables

N. Carolina
- Monthly Report: Landings (no prices) by county beginning January, 1962.
- Annual Summary: Annual landings by county and monthly landings by state beginning 1961 through 1970.
- Price (value) data beginning with 1963 annual summary.
- Species: clams, oysters, bay and calico scallops, squid, turtles (snapper), & octopus.

S. Carolina
- Annual Summary: Landings (no price) beginning 1961 through 1963 (price) and 1964 through 1970.
- Species: clams, oysters, squid, spiny lobster, and octopus.

Georgia
- Annual Summary: Landings beginning 1961, 1963 (price) through 1970.
- Price (value) data begins in 1963.
- Species: clams, oysters, calico scallops, spiny lobster.

Florida
- Annual Summaries: Beginning 1965 through 1977, East and West coast, landings by county.
- Species: clams, conch, stone crabs, spiny lobsters, oysters, bay and calico scallops, squid, turtles, and sponges.

Alabama
- Annual Summary: Landings and value (1961) beginning 1956 through 1964, 1968 through 1970, 1972 through 1975, and 1977.
- Species: oysters, spiny lobster, and squid.

Mississippi
- Annual Summary: Landings and value (61) for 1956 through 1968, 1970 through 1975, and 1977.
- Species: spiny lobster, squid, and oysters.

Louisiana
- Annual Summary: Landings and value (61) for 1958, 1962 through 1973, and 1977.
- Species: oyster, squid and turtles (sea).

Texas
- Annual Summary: Landings and values for 1962 through 1973, 1975, and 1977.

B. Annual Data

1. Tables 2A-2C provide these data by gear type for the South Atlantic and Gulf Coast for the commercial fishery.
2. Table 3 provides an example of the type of recreational fishery data available.

II. Wholesale Price and Quantity

A. Current Economic Analysis
   1. Tables 4A and 4B provide monthly data on value per size class and quantity received at the New York market for lobster tails.
   2. Table 4C-4E provide the same type of information on scallops and, in addition, wholesale and retail prices for sea scallops.

III. Import-Export

A. Tables 5A and 5B provide examples of the existing data on imports and exports of invertebrate species to the United States.
B. Table 6 provides an example of the quantity and value of imports of spiny lobster to the United States.

IV. Vessel

A. Computer Records
   1. Characteristics of the commercial vessels engaged in the invertebrate fishery are:
      i) vessel name
      ii) documentation number
      iii) year the vessel operated in the fishery
      iv) crew size: full and part time employment
      v) construction code
      vi) propulsion: type and horsepower of engine
      vii) weight
      viii) length
      ix) year built
      x) gear code: type and quantity of gear utilized
      xi) auxiliary boats: motor and non-motor
      xii) region, state, and county codes.
   2. This information has been requested from TIMS and will be included in this report when it becomes available.
B. Cost-revenue data for vessels engaged in these fisheries (Table 7) should be obtainable from Prochaska and Landrum (1980), Abgrall (1975), Gentle (1977), Prochaska and Williams (1976), and Williams and Prochaska (1976). In addition, an analysis is underway at the SEFC to provide an index of vessel operating costs over time.
C. The number of operating units by region and type of gear for commercial vessels will be provided when data become available from TIMS.

Table 1A
Florida Landings
by Districts
1975

SHELLFISH ET AL.	1975 East Coast Pounds	1975 East Coast Dollars	1975 West Coast Pounds	1975 West Coast Dollars	1975 Total Pounds	1975 Total Dollars	1976 Total Pounds	1976 Total Dollars
CLAMS HARD	73,233	90,394			73,233	90,394	94,130	96,258
CLAMS, SUNRAY VENUS							7,987	2,127
CONCH	59	96			59	96		
CRABS, BLUE; HARD	4,185,470	630,617	12,806,481	1,586,895	16,991,951	2,221,512	17,609,626	2,197,569
CRABS, BLUE; SOFT	410	326	1,696	1,342	2,106	1,668	281	169
CRABS, STONE	41,955	35,467	2,118,701	1,765,735	2,160,656	1,801,202	2,590,630	1,899,613
LOBSTER, SPANISH			5,565	5,735	5,565	5,735	1,826	1,705
LOBSTER, SPINY (CRAWFISH)	2,319,355	3,025,700	5,089,094	6,837,287	7,408,449	9,862,987	10,874,689	13,382,179
OYSTERS	79,613	76,891	2,133,452	1,182,730	2,213,065	1,259,621	2,751,389	1,609,239
SCALLOPS, BAY			13,573	10,027	13,573	10,027	73,244	49,756
SCALLOPS, CALICO	1,444,150	899,035	548,089	350,475	1,992,239	1,249,510	1,074,354	587,709
SHRIMP, BAIT	405,745	829,695	614,486	810,376	1,020,231	1,640,071		
SHRIMP, ROCK	226,062	121,487	1,689,249	750,216	1,915,311	871,703		
SHRIMP, EAST COAST	2,380,427	3,041,120	4,919	7,557	2,385,346	3,048,677	3,996,150	3,896,116
SHRIMP, CAMPECHE			1,061,895	1,289,626	1,061,895	1,289,626	3,169,494	1,752,011
SHRIMP, CARIBBEAN								
SHRIMP, CENTRAL WEST COAST			2,909,643	3,150,067	2,909,643	3,150,067	1,797,686	1,605,603
SHRIMP, TORTUGAS			14,147,116	13,904,681	14,147,116	13,904,681	16,682,250	12,765,269
SHRIMP, UPPER WEST COAST			8,436,891	8,696,595	8,436,891	8,696,595	6,808,365	5,598,396
SPONGES, GLOVE			2	21	2	21		
SPONGES, GRASS	2,600	6,600	1,665	7,045	4,265	13,645	4,899	12,990
SPONGES, SHEEPSWOOL	5,847	40,273	8,076	72,320	13,923	112,593	11,791	99,513
SPONGES, YELLOW	3,251	8,694	1,104	3,878	4,355	12,572	5,698	17,416
SQUID	6,311	893	35,073	7,723	41,384	8,616	69,408	10,983
TURTLE, GREEN							20,668	5,866
TURTLE, LOGGERHEAD							7,605	1,096
TOTAL SHELLFISH ET AL.	11,374,288	9,613,078	51,626,950	40,444,329	63,001,238	50,057,407	67,652,734	64,769,327
GRAND TOTAL	46,207,103	16,390,377	116,448,680	57,341,319	162,655,783	73,731,696	174,183,904	68,078,770

(1) THE PRODUCTION OF FRESHWATER CATFISH REPRESENTS THAT PORTION HANDLED BY DEALERS OF MARINE SPECIES.

NOTE:--DATA ON LANDINGS OF FRESHWATER CATFISH, SOFT-SHELL TURTLES, AND TILAPIA (ALSO KNOWN AS NILE PERCH OR PERCH IN FLORIDA) NOT HANDLED BY MARINE DEALERS ARE AS FOLLOWS: FRESHWATER CATFISH 9,066,100 POUNDS VALUED AT $2,780,473; SOFT-SHELL TURTLES, 61,000 POUNDS VALUED AT $10,830; TILAPIA 1,201,100 POUNDS VALUED AT $153,799, AND GIZZARD SHAD 100,000 POUNDS VALUED AT $3,000.

Table 1B
Florida Landings
by Month
1975

SHELLFISH ET AL. (POUNDS)	January East Coast	January West Coast	January Total	February East Coast	February West Coast	February Total	March East Coast	March West Coast	March Total
CLAMS HARD	8,053		8,053	4,900		4,900	11,003		11,003
CLAMS, SUNRAY VENUS									
CONCH									
CRABS, BLUE; HARD	257,323	1,162,387	1,419,710	190,171	1,217,960	1,408,131	228,562	926,439	1,155,001
CRABS, BLUE; SOFT		1,096	1,096		231	231	35	81	116
CRABS, STONE	7,920	345,717	352,927	11,456	313,181	324,637	3,718	315,461	324,189
LOBSTER, SPANISH		16	16		67	67		1,187	1,187
LOBSTER, SPINY (CRAWFISH)	132,745	300,347	433,092	208,888	221,756	430,644	256,045	197,570	453,615
OYSTERS	10,313	333,889	[illegible]	10,219	[illegible]	[illegible]	11,913	200,102	[illegible]
SCALLOPS, BAY									
SCALLOPS, CALICO	73,368		73,368	147,600		147,600	115,640		115,640
SHRIMP, BAIT	33,487	47,861	81,348	32,676	65,838	98,514	24,015	65,217	89,232
SHRIMP, ROCK	41,294	132,443	173,737	1,837	179,243	181,080	9,508	64,204	73,712
SHRIMP, EAST COAST	102,773		102,773	34,533		34,533	25,366		25,366
SHRIMP, CAMPECHE		82,106	82,106		203,722	203,722		177,144	177,144
SHRIMP, CARIBBEAN									
SHRIMP, CENTRAL WEST COAST		104,904	104,904		470,254	470,254		384,658	384,658
SHRIMP, TORTUGAS		2,146,955	2,146,955		1,476,062	1,476,062		1,854,891	1,854,891
SHRIMP, UPPER WEST COAST		339,219	339,219		333,104	333,104		508,320	508,320
SPONGES, GLOVE									
SPONGES, GRASS	435	614	1,049	245	75	320	160	56	216
SPONGES, SHEEPSWOOL	364	717	1,081	803	966	1,769	318	879	1,197
SPONGES, YELLOW	292	137	429	386	143	529	253	64	317
SQUID	216	3,053	3,269	945	2,676	3,621	405	3,380	3,785
TURTLE, GREEN									
TURTLE, LOGGERHEAD									
TOTAL SHELLFISH ET AL.	668,383	5,083,641	5,752,024	664,655	4,807,164	5,471,819	692,121	4,787,713	5,479,834
GRAND TOTAL	2,734,985	11,618,666	14,353,651	3,987,408	9,904,703	13,892,111	3,219,434	8,267,135	11,486,569

SEE DEFINITIONS ON PAGE 3 AND FOOTNOTE ON PAGE 4.

(CONTINUED ON NEXT PAGE)

Table 1B
(continued)

FLORIDA LANDINGS BY MONTHS, 1975

SHELLFISH ET AL.	APRIL EAST COAST	APRIL WEST COAST	APRIL TOTAL	MAY EAST COAST	MAY WEST COAST	MAY TOTAL	JUNE EAST COAST	JUNE WEST COAST	JUNE TOTAL
	POUNDS								
CLAMS HARD	9,411		9,411	5,781		5,781	4,072		4,072
CLAMS, SUNRAY VENUS									
CONCH									
CRABS, BLUE: HARD	320,447	1,379,754	1,700,201	373,087	1,601,620	1,974,707	412,761	1,272,995	1,685,756
CRABS, BLUE: SOFT	52	228	280	40		40	30		30
CRABS, STONE	6,159	209,527	215,686	2,114	49,784	51,898			
LOBSTER, SPANISH		403	403		206	206			
LOBSTER, SPINY (CRAWFISH)	93,789	100,559	194,348	206,001	37,908	243,909	203,335	40,074	243,409
OYSTERS	6,153	236,920	243,073	1,867	47,532	49,399	600		600
SCALLOPS, BAY								3,436	3,436
SCALLOPS, CALICO	106,336		106,336	139,672		139,672	153,061		153,061
SHRIMP, BAIT	33,112	50,376	83,488	31,754	59,108	90,862	30,195	39,408	69,603
SHRIMP, ROCK	3,059	84,136	87,195	2,133	93,634	95,767	5,240	43,121	48,361
SHRIMP, EAST COAST	38,814		38,814	176,493		176,493	201,390		201,390
SHRIMP, CAMPECHE		280,294	280,294		151,378	151,378		1,067	1,067
SHRIMP, CARIBBEAN									
SHRIMP, CENTRAL WEST COAST		474,409	474,409		386,001	386,001		372,933	372,933
SHRIMP, TORTUGAS		1,039,929	1,039,929		1,170,029	1,170,029		816,101	816,101
SHRIMP, UPPER WEST COAST		852,908	852,908		1,241,222	1,241,222		1,377,762	1,377,762
SPONGES, GLOVE		2	2						
SPONGES, GRASS	307	99	426	189	74	263			
SPONGES, SHEEPSWOOL	391	826	1,217	753	1,032	1,785		170	170
SPONGES, YELLOW	604	177	781	270	179	449		39	39
SQUID	210	1,270	1,480	195	5,131	5,326	239	2,356	2,795
TURTLE, GREEN									
TURTLE, LOGGERHEAD									
TOTAL SHELLFISH ET AL.	825,266	4,707,619	5,532,885	938,809	4,823,238	5,762,047	1,070,923	3,970,470	5,041,393
GRAND TOTAL	3,821,224	8,561,517	12,382,741	5,774,737	10,070,565	15,845,302	5,369,963	8,241,021	13,610,984

SEE DEFINITIONS ON PAGE 3 AND FOOTNOTE ON PAGE 4.

(CONTINUED ON NEXT PAGE)

SHELLFISH ET AL.	JULY EAST COAST	JULY WEST COAST	JULY TOTAL	AUGUST EAST COAST	AUGUST WEST COAST	AUGUST TOTAL	SEPTEMBER EAST COAST	SEPTEMBER WEST COAST	SEPTEMBER TOTAL
	POUNDS								
CLAMS HARD	4,763		4,763	3,502		3,502	5,713		5,713
CLAMS, SUNRAY VENUS									
CONCH	59		59						
CRABS, BLUE: HARD	510,766	1,202,245	1,713,011	409,214	1,088,892	1,498,106	397,895	994,422	1,392,317
CRABS, BLUE: SOFT	18		18	20		20	28		28
CRABS, STONE									
LOBSTER, SPANISH		12	12						
LOBSTER, SPINY (CRAWFISH)	225,037	68,528	293,565	313,310	1,467,456	1,780,766	144,719	897,203	1,041,922
OYSTERS	785		785	540		540	2,240	152,361	154,601
SCALLOPS, BAY		6,048	6,048		3,562	3,562		502	502
SCALLOPS, CALICO	190,380	658	191,038	159,608	160	159,768	148,687	36,049	184,736
SHRIMP, BAIT	46,476	41,480	87,956	59,695	68,989	128,684	20,451	45,364	65,815
SHRIMP, ROCK		96,010	96,010		274,079	274,079		294,475	294,475
SHRIMP, EAST COAST	268,976		268,976	180,000		180,000	377,744		377,744
SHRIMP, CAMPECHE									
SHRIMP, CARIBBEAN									
SHRIMP, CENTRAL WEST COAST		246,365	246,365		126,883	126,883		92,082	92,082
SHRIMP, TORTUGAS		477,001	477,001		603,139	603,139		702,134	702,134
SHRIMP, UPPER WEST COAST		693,913	693,913		591,689	591,689		476,555	476,555
SPONGES, GLOVE									
SPONGES, GRASS	243	322	565	252	180	432	121	88	209
SPONGES, SHEEPSWOOL	1,024	853	1,877	372	781	1,153	575	487	1,062
SPONGES, YELLOW	272	40	312	298	78	376	291	99	390
SQUID	877	2,838	3,715	1,259	4,772	6,031	179	3,896	4,075
TURTLE, GREEN									
TURTLE, LOGGERHEAD									
TOTAL SHELLFISH ET AL.	1,209,878	2,835,713	4,045,591	1,130,078	4,230,460	5,360,538	1,098,643	3,695,717	4,794,360
GRAND TOTAL	3,252,481	7,023,384	10,275,865	4,780,811	9,865,881	14,646,692	2,870,127	8,370,358	11,240,485

SEE DEFINITIONS ON PAGE 3 AND FOOTNOTE ON PAGE 4.

(CONTINUED ON NEXT PAGE)

Table 1B
(continued)

	OCTOBER			NOVEMBER			DECEMBER		
	EAST COAST	WEST COAST	TOTAL	EAST COAST	WEST COAST	TOTAL	EAST COAST	WEST COAST	TOTAL
				POUNDS					
SHELLFISH ET AL.									
CLAMS, HARD	6,318		6,318	7,411		7,411	2,304		2,304
CLAMS, SUNRAY VENUS									
CONCH									
CRABS, BLUE, HARD	492,770	944,989	1,437,759	337,130	483,935	818,065	244,344	539,843	783,207
CRABS, BLUE, SOFT	82	60	142	75		75	30		30
CRABS, STONE	1,488	102,383	103,871	2,282	427,822	429,104	1,418	381,846	383,264
LOBSTER, SPANISH		180	180		2,940	2,940		134	134
LOBSTER, SPINY (CRAWFISH)	111,291	939,438	1,050,289	171,421	567,712	739,133	150,126	351,963	501,089
OYSTERS	9,326	204,930	214,076	9,332	198,477	208,709	13,927	286,995	300,922
SCALLOPS, BAY		29	29						
SCALLOPS, CALICO	142,066	85,901	227,967	71,040	139,952	210,992	35,712	286,269	321,981
SHRIMP, BAIT	36,177	44,302	80,539	31,549	46,354	78,003	25,750	41,029	66,787
SHRIMP, ROCK	3,542	301,269	304,810	47,989	103,909	148,898	111,460	65,727	177,187
SHRIMP, EAST COAST	303,333	2,400	330,019	308,349	2,239	310,588	304,474		304,474
SHRIMP, CAMPECHE		65,811	65,811		85,727	85,727		13,846	13,846
SHRIMP, CARIBBEAN									
SHRIMP, CENTRAL WEST COAST		38,351	38,351		69,630	69,630		124,979	124,979
SHRIMP, TORTUGAS		1,079,070	1,079,070		961,216	961,216		1,824,989	1,874,989
SHRIMP, UPPER WEST COAST		780,331	780,331		819,416	819,416		610,232	610,232
SPONGES, GLOVE									
SPONGES, GRASS	175	100	275	228	49	277	185	48	233
SPONGES, SHEEPSWOOL	176	563	739	321	317	638	592	635	1,227
SPONGES, YELLOW	92	43	135	240	61	301	253	44	297
SQUID	837	5,746	6,583		1,100	1,100	949	581	1,530
TURTLE, GREEN									
TURTLE, LOGGERHEAD									
TOTAL SHELLFISH ET AL.	1,408,413	4,581,133	5,989,546	987,967	3,098,122	4,086,089	898,952	4,466,140	5,365,092
GRAND TOTAL	3,625,634	11,131,114	14,756,748	2,830,329	10,408,761	13,239,090	3,936,780	12,989,465	16,925,233

SEE DEFINITIONS ON PAGE 3 AND FOOTNOTE ON PAGE 4.

CONVERSION FACTORS USED IN PREPARING THIS REPORT

SPECIES	DATA COLLECTED AS	CONVERTED TO AND PUBLISHED IN POUNDS AS	BY MULTIPLYING BY
CLAMS	GALLONS	MEATS	8.75
DO.	U.S. BUSHELS	DO	*
OYSTERS	GALLONS	DO	8.75
DO.	U.S. BUSHELS	DO	*
SCALLOPS, CALICO	GALLONS	DO	8
DO.	U.S. BUSHELS	DO	*
CRABS:			
BLUE	ROUND WEIGHT	ROUND WEIGHT	1
STONE	DO	DO	1
DO.	CLAWS	DO	2
SHRIMP:			
BROWN	POUNDS OF TAILS	DO	1.61
PINK	DO	DO	1.6
ROCK	DO	DO	1.67
ROYAL RED	DO	DO	1.6
SEA BOB	DO	DO	1.53
WHITE	DO	DO	1.54
SPINY LOBSTER	ROUND WEIGHT	DO	1
DO	TAIL WEIGHT	DO	3
SPONGES:			
GLOVE:			
DIVING	PIECES	CLEANED (DRY) WEIGHT	.06
HOOKING	DO	DO	.048
GRASS:			
DIVING	DO	DO	.085
HOOKING	DO	DO	.071
SHEEPSWOOL:			
DIVING	DO	DO	.091
HOOKING	DO	DO	.182
YELLOW:			
DIVING	DO	DO	.071
HOOKING	DO	DO	.071

*CONVERSION FACTOR IS NOT CONSTANT AND IS BASED ON REPORTS OF PRODUCING FIRMS.

Table 2A
Spiny Lobster Landings & Value by Gear Type

Year	S. Atlantic						Gulf					
	Pots/Traps		By Hand		Diving Outfit		Pots/Traps		By Hand		Diving Outfit	
	lbs	$	lbs	$	lbs	$	lbs	$	lbs	$	lbs	$
1975	2,208,300	2,881,205	1,300	1,848	109,700	12,500	4,987,100	6,695,379	-	-	12,500	16,702
1974	4,107,300	5,018,774	600	877	39,300	48,019	6,325,900	7,816,154	-	-	158,500	195,857
1973	5,471,600	5,594,531	-	-	150,000	153,000	5,523,400	5,885,174	-	-	4,100	4,369
1972	6,262,300	6,248,962	-	-	5,200	5,226	5,108,200	5,471,389	-	-	1,600	1,720

Table 2B
Stone Crab Landings & Value by Gear Type

Year	S. Atlantic		Gulf	
	Pots/Traps		Pots/Traps	
	lbs	$	lbs	$
1975	112,000	35,467	2,118,800	1,765,735
1974	66,800	50,990	2,524,100	1,848,623
1973	53,700	39,317	2,034,100	1,386,147
1972	67,300	47,375	1,925,100	1,180,526

Table 2C
Calico Scallops Landings & Value by Gear Type

	S. Atlantic		Gulf	
	Otter Trawls		Otter Trawls	
Year	lbs	$	lbs	$
1975	1,444,200	899,035	548,100	350,475
1974	1,131,300	619,127	-	-
1973	557,900	355,812	-	-
1972	1,352,800	899,798	300	131

Table 3
Recreation Catch Data
Example

Residence of Sportfishermen in Everglades National Park - 1977-78 Season

	Summer	Fall	Winter	Spring	Total
Number of Fishermen	16,500	22,800	23,900	22,500	85,700
Percent by Residence[1]					
Local	17.4	8.4	5.5	4.5	8.7
South Florida	69.9	78.1	81.3	85.5	79.0
Other Florida	11.7	12.1	4.6	8.3	9.3
Out-of-State	0.9	1.3	8.6	1.6	2.9

[1] Local: Everglades City, Chokoloskee, Homestead, Florida City, Upper Keys.
South Florida: Dade, Monroe and Collier Counties, except local.

Note: Percentages may not sum to 100 due to rounding.

Sourc : Davis (1979)

Table 4A
Wholesale Prices for Selected Sizes of Cold- and Warm-Water Lobster Tails at New York, Monthly, 1978-80

MONTH	COLD-WATER					WARM-WATER				
	4-6 oz.	6-8 oz.	8-10 oz.	10-12 oz.	12-16 oz.	4-6 oz.	6-8 oz.	8-10 oz.	10-12 oz.	12-16 oz.
	DOLLARS PER POUND									
1978										
JANUARY	7.46	7.52	7.34	7.34	6.83	5.63	5.71	5.20	4.86	4.66
FEBRUARY	7.27	7.27	7.21	7.20	6.75	5.65	5.74	5.19	4.85	4.67
MARCH	7.30	7.31	7.21	7.17	6.74	5.72	5.82	5.28	4.94	4.75
APRIL	7.43	7.41	7.35	7.25	6.82	5.85	5.93	5.43	5.10	4.90
MAY	7.50	7.54	7.51	7.33	6.74	6.30	6.42	5.76	5.41	5.24
JUNE	7.65	7.58	7.52	7.35	6.83	6.62	6.69	6.01	5.58	5.40
JULY	7.67	7.60	7.58	7.40	6.76	6.81	6.91	6.33	5.76	5.52
AUGUST	7.75	7.59	7.53	7.43	6.79	7.01	7.12	6.48	5.89	5.66
SEPTEMBER	7.82	7.62	7.58	7.40	6.76	7.05	7.11	6.56	5.99	5.71
OCTOBER	7.89	7.69	7.63	7.34	6.80	7.16	7.19	6.73	6.18	5.82
NOVEMBER	7.98	7.83	7.71	7.31	6.91	7.32	7.31	6.94	6.35	6.66
DECEMBER	8.00	7.79	7.76	7.50	6.90	7.39	7.37	7.01	6.48	6.63
AVERAGE	7.64	7.56	7.49	7.34	6.80	6.54	6.61	6.08	5.61	5.47
1979										
JANUARY	8.07	7.84	7.79	7.59	7.13	7.38	7.38	6.96	6.54	6.85
FEBRUARY	8.14	7.88	7.78	7.63	7.19	7.30	7.31	6.57	6.18	-
MARCH	8.27	7.90	7.78	7.60	7.28	7.30	7.33	7.02	6.67	6.93
APRIL	8.45	7.91	7.79	7.66	7.36	7.43	7.44	7.13	6.85	6.72
MAY	8.82	8.01	7.87	7.90	7.77	7.49	7.52	7.21	6.90	6.79
JUNE	9.05	8.42	8.09	8.00	7.65	7.44	7.37	7.20	6.90	6.81
JULY	9.26	8.48	8.05	8.20	7.80	7.34	7.25	7.06	6.89	6.70
AUGUST	9.40	8.69	8.33	8.35	7.78	7.33	7.25	7.09	6.92	6.70
SEPTEMBER	9.58	8.89	8.86	8.56	8.23	7.35	7.21	7.09	6.92	6.70
OCTOBER	10.13	9.52	9.33	9.20	9.00	7.40	7.23	7.05	6.90	6.67
NOVEMBER	10.40	9.66	9.70	9.40	-	7.35	7.25	7.01	6.80	6.65
DECEMBER	10.25	9.98	9.80	9.80	-	7.50	7.24	6.95	6.79	6.63
AVERAGE	9.15	8.60	8.43	8.33	7.72	7.38	7.32	7.03	6.77	6.74
1980										
JANUARY	9.51	9.47	9.39	9.46	9.22	7.33	7.21	6.96	6.76	6.62
FEBRUARY	9.23	9.15	9.27	9.29	9.28	7.26	7.23	7.00	6.77	7.02
MARCH	9.23	9.12	9.02	9.06	9.08	7.16	7.12	6.89	6.62	6.91
APRIL	9.01	8.74	8.74	8.62	8.73	7.18	7.11	6.90	6.57	6.79
MAY	9.01	8.58	8.58	8.40	8.50	7.50	7.05	6.87	6.61	6.86
JUNE	9.13	8.67	8.34	8.42	8.45	7.13	7.06	6.84	6.64	6.94
JULY	9.30	9.01	8.44	8.58	8.50	7.18	7.14	6.88	7.06	6.93
AUGUST	9.60	9.47	8.65	8.69	8.62	7.36	7.28	7.00	7.24	7.02
SEPTEMBER										
OCTOBER										
NOVEMBER										
DECEMBER										
AVERAGE										

Source: Current Economic Analysis: Shellfish Market Review, S-42, Washington, D.C., Nov., 1980.

Table 4B
Supply and Use of Lobster Tails, Monthly, 1978-80

(PRODUCT WEIGHT)

MONTH	SUPPLY			USE	
	BEGINNING STOCKS	IMPORTS	TOTAL	ENDING STOCKS	APPARENT CONSUMPTION
	MILLION POUNDS				
1978					
JANUARY	5.0	3.1	8.1	5.5	2.6
FEBRUARY	5.5	3.7	9.2	5.4	3.8
MARCH	5.4	2.7	8.1	5.3	2.8
1ST QTR	5.0	9.5	14.5	5.3	9.2
APRIL	5.3	3.1	8.4	5.0	3.4
MAY	5.0	3.1	8.1	4.7	3.4
JUNE	4.7	3.5	8.2	5.2	3.0
2ND QTR	5.3	9.7	15.0	5.2	9.9
JULY	5.2	2.6	7.7	5.2	2.5
AUGUST	5.2	2.4	7.6	5.2	2.5
SEPTEMBER	5.2	1.9	7.1	5.0	2.1
3RD QTR	5.2	6.9	12.1	5.0	7.1
OCTOBER	5.0	1.8	6.8	5.5	1.3
NOVEMBER	5.5	1.7	7.1	5.0	2.1
DECEMBER	5.0	1.7	6.7	5.9	0.8
4TH QTR	5.0	5.1	10.1	5.9	4.2
YEAR	5.0	31.3	36.3	5.9	30.4
1979					
JANUARY	5.9	1.9	7.8	4.9	2.9
FEBRUARY	4.9	2.9	7.8	4.5	3.2
MARCH	4.5	4.1	8.7	3.5	5.2
1ST QTR	5.9	8.9	14.8	3.5	11.3
APRIL	3.5	3.9	7.4	3.9	3.5
MAY	3.9	2.6	6.5	4.0	2.5
JUNE	4.0	3.8	7.9	4.6	3.2
2ND QTR	3.5	10.4	13.9	4.6	9.2
JULY	4.6	2.3	7.0	5.2	1.7
AUGUST	5.2	1.8	7.0	5.1	1.9
SEPTEMBER	5.1	1.9	7.0	4.8	2.2
3RD QTR	4.6	6.0	10.6	4.8	5.9
OCTOBER	4.8	1.7	6.5	5.9	0.5
NOVEMBER	5.9	1.7	7.6	5.8	1.8
DECEMBER	5.8	2.4	8.2	5.7	2.5
4TH QTR	4.8	5.8	10.5	5.7	4.9
YEAR	5.9	31.1	36.9	5.7	31.3
1980					
JANUARY	5.7	2.7	8.3	5.4	3.0
FEBRUARY	5.4	2.8	8.2	4.8	3.3
MARCH	4.8	2.6	7.5	6.3	1.2
1ST QTR	5.7	8.1	13.8	6.3	7.5
APRIL	6.3	2.6	8.8	7.0	1.9
MAY	7.0	3.5	10.5	4.5	5.9
JUNE	4.5	2.5	7.0	4.7	2.3
2ND QTR	6.3	8.5	14.8	4.7	10.1
JULY	4.7	2.0	6.7	4.1	2.6
AUGUST	4.1				
SEPTEMBER					
3RD QTR					
OCTOBER					
NOVEMBER					
DECEMBER					
4TH QTR					
YEAR					

Source: Same as Table 4A

Table 4C
Wholesale Prices for Scallops at New York for Selected Countri s, Monthly, 1976-80

	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.	AVERAGE
	DOLLARS PER POUND												
UNITED STATES													
1976	2.89	2.85	2.79	2.65	2.19	2.19	1.89	1.78	1.97	2.32	2.33	2.15	2.33
1977	2.34	2.17	2.03	1.92	1.72	1.69	1.72	1.98	2.04	2.28	2.43	2.46	2.07
1978	2.63	2.64	2.47	2.37	2.25	2.65	3.04	2.91	3.43	3.53	3.44	3.79	2.93
1979	3.95	4.06	3.82	3.51	3.47	3.34	3.66	3.83	4.12	4.15	4.16	4.33	3.87
1980	4.78	4.52	4.49	4.00	3.63	3.94	4.27	4.76					
CANADA													
1976	2.92	2.95	2.85	2.74	2.46	2.51	2.22	1.97	2.16	2.29	2.19	1.98	2.44
1977	1.94	2.02	1.91	1.88	1.81	1.69	1.69	1.87	2.03	2.24	2.39	2.42	1.99
1978	2.55	2.52	2.25	2.29	2.26	2.79	3.54	3.34	3.35	3.47	3.51	3.55	2.95
1979	3.61	3.65	3.93	3.65	3.57	3.53	3.75	3.85	4.24	4.24	4.18	4.06	3.85
1980	4.29	4.26	4.25	4.35	3.84	3.95	4.32	4.73					
UNITED KINGDOM													
1976	2.70	2.73	2.72	2.63	2.29	2.36	2.40	-	-	-	2.45	2.45	2.52
1977	-	-	-	-	-	-	-	-	2.45	-	-	2.43	2.44
1978	2.51	2.53	2.38	2.31	2.39	-	-	-	-	-	-	-	2.42
1979	3.68	3.75	3.66	3.62	3.63	3.59	3.65	3.65	-	4.20	-	3.99	3.74
1980	4.06	4.10	4.05	3.80	3.50	3.50	3.38	-					

Table 4D
Exvessel, Wholesale, and Retail Prices for Sea Scallops, Monthly, 1976-80

	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.	AVERAGE
	DOLLARS PER POUND												
EXVESSEL (1)													
1976	2.45	2.43	2.39	2.10	1.87	1.87	1.54	1.38	1.57	2.00	2.00	1.75	1.84
1977	1.94	1.73	1.66	1.48	1.39	1.36	1.42	1.62	1.74	1.98	2.01	2.07	1.66
1978	2.48	2.16	2.16	1.96	1.94	2.42	2.72	2.53	3.06	3.18	3.09	3.21	2.53
1979	3.22	3.70	3.35	3.32	2.95	3.01	3.36	3.52	3.75	3.81	3.77	3.88	3.42
1980	4.20	4.07	4.01	3.59	3.17	3.60	3.77	4.31					
WHOLESALE (2)													
1976	2.72	2.85	2.97	2.89	-	-	2.00	2.00	2.01	2.11	2.13	2.10	2.38
1977	2.08	2.07	2.00	1.99	1.89	1.68	1.65	1.80	1.88	2.13	2.35	2.35	1.99
1978	2.40	2.56	2.55	2.45	2.38	2.84	3.25	2.99	3.31	3.47	3.47	3.44	2.93
1979	3.52	3.62	3.70	3.56	3.41	3.42	3.70	3.82	4.14	4.21	4.16	4.06	3.78
1980	4.30	4.27	4.23	4.16	3.95	3.97	4.15	4.67					
RETAIL (3)													
1976	4.24	3.80	3.72	3.78	3.47	3.34	3.37	2.80	3.07	3.37	3.42	3.54	3.49
1977	3.70	3.53	3.45	3.25	2.94	2.81	2.60	2.83	3.03	3.19	3.04	3.09	3.12
1978	3.37	3.85	3.69	3.70	3.42	3.57	4.01	4.20	4.33	4.53	4.88	4.74	4.02
1979	5.18	5.64	5.89	4.96	5.42	5.23	5.53	5.53	5.99	6.09	6.29	6.00	5.65
1980	6.41	6.63	6.59	6.58	5.69	5.59	6.17	6.65					

(1) WEIGHTED AVERAGE AT NEW BEDFORD, MASS.
(2) AT BOSTON, MASS.
(3) AT BALTIMORE, MD.

Table 4E
Supply and Utilization of all Scallops, Annual, 1960-79
(product weight)

Year	Supply				Utilization		
	Beginning stocks	Landings	Imports	Total	Ending stocks	Apparent consumption	
						Total	Per capita
	Million pounds						Pounds
1960	3.5	28.7	6.9	39.1	3.1	36.0	0.200
1961	3.1	29.2	8.7	41.0	3.0	38.0	.208
1962	3.0	27.8	11.6	42.4	2.7	39.7	.214
1963	2.7	21.5	13.4	37.6	3.3	34.3	.182
1964	3.3	18.8	16.2	38.3	3.1	35.2	.184
1965	3.1	22.8	16.5	42.4	5.9	36.5	.189
1966	5.9	19.6	16.7	42.2	3.4	38.8	.198
1967	3.4	12.8	13.5	29.7	1.2	28.5	.144
1968	1.2	15.4	14.6	31.2	3.1	28.1	.141
1969	3.3	11.6	14.3	29.0	2.2	26.8	.133
1970	2.2	10.8	16.8	29.8	2.4	27.4	.134
1971	2.4	10.2	17.4	30.0	1.6	28.4	.138
1972	1.6	10.4	20.8	32.8	3.7	29.1	.140
1973	3.7	8.0	19.8	31.5	4.5	27.0	.129
1974	4.5	9.1	18.1	31.7	2.6	29.1	.137
1975	2.6	13.7	19.7	36.0	2.0	34.0	.160
1976	2.0	23.7	25.2	51.0	4.9	46.1	.215
1977	4.9	27.8	29.8	62.5	5.9	56.6	.261
1978	5.9	33.3	28.4	67.6	5.1	62.4	.286
1979	5.1	34.1	25.2	64.4	5.5	58.9	.268

Table 5A
U.S. Imports of Lobst r Tails by Country of Origin, 1960-79
(product weight)

Year	Australia	Brazil	Rep. of S. Africa	New Zealand	Other	Total
			-Million pounds-			
1960	7.3	2.4	9.2	2.6	6.4	27.9
1961	6.7	3.6	9.7	2.1	5.5	27.6
1962	9.7	4.6	11.3	2.6	3.1	31.3
1963	8.9	4.0	10.2	2.8	2.9	28.8
1964	7.7	2.9	13.2	2.5	3.0	29.3
1965	8.5	2.6	12.2	2.7	4.9	30.9
1966	8.5	2.4	10.8	3.0	4.6	29.3
1967	8.5	2.0	8.6	3.6	4.6	27.3
1968	10.0	3.4	11.2	4.9	6.3	35.8
1969	8.7	5.7	9.2	5.1	8.6	37.3
1970	8.2	5.8	6.0	4.1	8.4	32.5
1971	10.0	5.1	5.2	4.1	10.2	34.6
1972	10.0	6.0	4.5	3.4	10.2	34.1
1973	8.7	5.4	5.0	3.1	8.6	30.8
1974	8.0	5.9	5.5	2.9	8.9	31.2
1975	9.0	4.9	5.6	2.6	8.2	30.3
1976	9.3	4.9	6.0	2.6	10.5	33.3
1977	9.1	5.2	5.9	2.5	11.2	33.9
1978	9.0	6.5	5.2	2.7	8.1	31.3
1979	9.8	6.0	4.0	2.4	8.8	31.1

Note: Figures may not add to total because of rounding.

Table 5B
U.S. Imports of Scallops by Country of Origin, January-June and January-December, 1978-80
(product weight)

Country	1978		1979		1980
	Jan.-June	Jan.-Dec.	Jan.-June	Jan.-Dec.	Jan.-June
			-Thousand pounds-		
Canada	11,693	24,333	9,539	19,922	6,358
Iceland	214	1,412	727	2,064	686
Brazil	-	-	153	1,054	445
U. Kingdom	363	906	394	1,353	414
Denmark	61	341	86	132	177
Other	664	1,375	358	630	87
Total	12,995	28,367	11,257	25,155	8,167

Source: Current Economic Analysis: Shellfish Mark t Review, S-42, Washington, D.C., Nov., 1980

Table 6
U. S. Imports of Spiny Lobster

	Fresh & Frozen		Canned	
Year	Lbs (000)	Value (000 dollars)	Lbs (000)	Value (000 dollars)
66	36,847		158	
67	35,340		149	
68	42,955		213	
69	44,992		301	
70	37,691		101	
71	41,792	105,717	105	256
72	43,009	127,490	95	237
73	38,733	122,480	134	286
74	40,329	150,107	95	335
75	42,329	157,104	112	427
76	48,495	204,520	719	2,968
77	45,027	216,405	337	1,371
78	43,034	222,474	125	455
79	44,417	259,421	134	743

Source: Fisheries of the United States

Table 7

Spiny Lobster Cost and Earnings
1978-79 Season

	Average of Firms	Averages for Boat Length Classes (feet)							
		27 and Under		28 to 34		35 to 42		Over 42[c]	
		---Dollars---							
Season Totals:									
Total Revenue Costs:	(18,183 lbs) 40,912	(9,272 lbs)	20,862	(15,286 lbs)	34,395	(17,655)	39,725	(27,538 lbs.)	61,961
Variable	23,067		9,751		16,766		23,491		38,056
Fixed	2,969		1,184		2,849		2,519		4,669
Total	26,036		10,935		19,615		26,010		42,726
Net Revenue	14,875		9,927		14,780		13,715		19,235
Per Day Totals:[a]									
Total Revenue Costs	266		205		268		220		337
Variable	150		96		130		130		207
Fixed	19		12		22		14		25
Total	169		107		153		144		233
Net Revenue	97		98		115		76		105
Production Items:									
No. of firms	30		5		9		8		8
Trips per season	116		102		129		121		1 5
Days per trip	1.3		1		1		1.5		1.8
Days per season	154		102		129		181		184
Percent of net revenue from lobster	95		95		89		82		105[b]
Traps fished per day	256		180		224		280		314

[a] Due to rounding some per day costs and returns do not add.

[b] Estimate exceeds 100 percent because of losses in secondary fisheries.

[c] Most relevant comparison for large scale mackerel vessel.)

Source: Research in progress by Fred J. Prochaska, University of Florida.

See: Socio-Economic Study of Mackerel Purse Fishery, Centaur Associates, Inc., NMFS, Contract no. NA-79-GA-C-00049, Washington, D.C., p. 107, 1981.

Appendix B

This appendix provides a comprehensive bibliography of literature, both published and unpublished, which contains economic data and analyses on the invertebrate fisheries in the southeastern United States.

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