

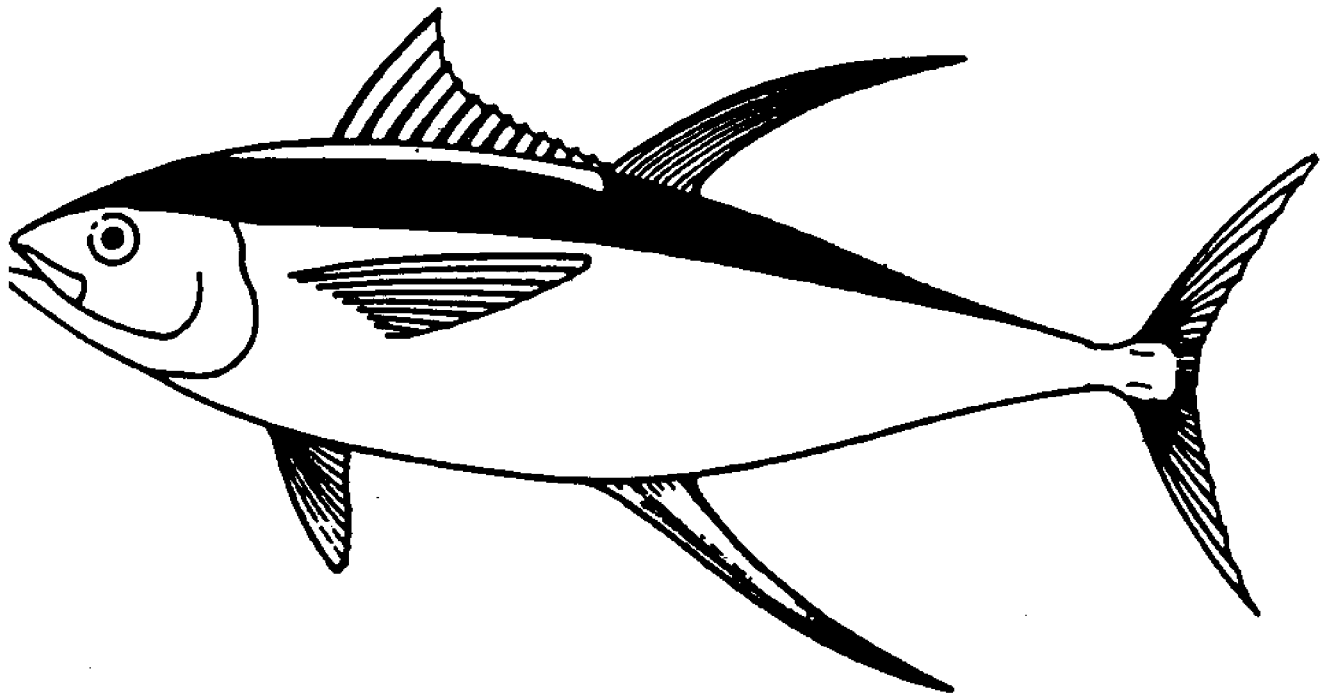
CIRCULATION COPY
Sea Grant Depository

LOAN COPY ONLY

FLSGP-T-89-002 C2

Technical Paper No. 59

TRENDS IN THE IMPORTATION OF SELECTED FRESH AND FROZEN SEAFOOD PRODUCTS INTO THE SOUTHEASTERN UNITED STATES



CHARLES M. ADAMS

FRANK J. LAWLOR



FLORIDA SEA GRANT PUBLICATION

TRENDS IN THE IMPORTATION OF SELECTED FRESH AND FROZEN SEAFOOD PRODUCTS INTO THE SOUTHEASTERN UNITED STATES

By

**Charles M. Adams
Florida Sea Grant Marine Economist
Food and Resource Economics Department
Institute of Food and Agricultural Sciences
University of Florida, Gainesville, FL**

**Frank J. Lawlor, III
Florida Sea Grant Marine Agent
Florida Sea Grant Extension Program
Institute of Food and Agricultural Sciences
Palm Beach Gardens, FL**

*Project No. IR-88-3
NA86AA-D-SG068
Technical Paper TP-59
Florida Sea Grant College Program
November 1989*

TABLE OF CONTENTS

<u>Text</u>	<u>Page</u>
List of Tables	ii
List of Figures	iii
Executive Summary	vii
Introduction	1
Data	2
Discussion	5
All Key Species.....	5
Snapper	9
Grouper	12
Mahi-mahi	17
Conch Meat	20
Corvina	25
Black Drum	28
Kingclip	30
Lobster	33
Scallops	37
Shark	41
Pompano	44
Swordfish	49
Red Drum	52
Sea Trout	54
King Mackerel	58
Spanish Mackerel	61
Marlin	64
Tilefish	65
Conclusions	66
Data Sources	70

LIST OF TABLES

<u>Table</u>		<u>Page</u>
Table 1:	Finfish and Shellfish Species Included	4
Table 2:	Summary of Import and Landings Data by Species	68

LIST OF FIGURES

<u>Figure</u>	<u>Page</u>
Figure 1: Imports of Key Species Into Southeastern Ports of Entry: 1983-87.....	6
Figure 2: Numbers of Key Species Imported Into Southeastern Ports of Entry 1983-87	6
Figure 3: Imports of Key Species Into Southeastern Ports of Entry: 1983-87 Fresh vs Frozen.....	8
Figure 4: Imports of Key Species Into Southeastern Ports of Entry: 1983-87 Whole vs Fillets.....	8
Figure 5: Imports of Key Species By Countries of Origin: 1983 and 1987	10
Figure 6: Southeast U.S. Snapper Landings and Imports: 1983-87	10
Figure 7: Five-Year Average Monthly Distribution of Southeast U.S. Snapper Imports	11
Figure 8: Imports of Snapper Into Southeastern Ports of Entry: 1983-87 Fresh vs Frozen	11
Figure 9: Imports of Snapper Into Southeastern Ports of Entry: 1983-87 Product Forms	13
Figure 10: Imports of Snapper By Country of Origin 1983 and 1987	13
Figure 11: Southeast U.S. Grouper Landings and Imports: 1983-87	15
Figure 12: Five-Year Average Monthly Distribution of Southeast U.S. Grouper Imports	15
Figure 13: Imports of Grouper Into Southeastern Ports Of Entry: 1983-87 Fresh vs Frozen	16
Figure 14: Imports of Grouper Into Southeastern Ports Of Entry: 1983-87 Product Forms	16
Figure 15: Imports of Grouper By Country of Origin: 1983 and 1987	18
Figure 16: Southeast U.S. Dolphin (Mahi-mahi) Landings and Imports: 1983-87	18
Figure 17: Five-Year Average Monthly Distribution of Southeast U.S. Mahi-mahi Imports	19

<u>Figure</u>	<u>Page</u>
Figure 18: Imports of Mahi-mahi Into Southeastern Ports of Entry: 1983-87 Fresh vs Frozen.....	19
Figure 19: Imports of Mahi-mahi Into Southeastern Ports of Entry: 1983-87 Product Forms.....	21
Figure 20: Imports of Mahi-mahi By Countries of Origin: 1983 and 1987	21
Figure 21: Imports of Conch Meat Into Southeastern U.S. Ports of Entry: 1983-87	23
Figure 22: Five-Year Average Monthly Distribution of Southeast U.S. Conch Meat Imports	23
Figure 23: Imports of Conch Meat Into Southeastern Ports of Entry: 1983-87 Fresh vs Frozen.....	24
Figure 24: Imports of Conch Meat By Countries of Origin: 1983 and 1987	24
Figure 25: Southeast Corvina Imports: 1984-87.....	26
Figure 26: Three-Year Average Monthly Distribution of Southeast U.S. Corvina Imports.....	26
Figure 27: Imports of Corvina Into Southeastern Ports of Entry: 1984-87 Fresh vs Frozen.....	27
Figure 28: Imports of Corvina Into Southeastern Ports of Entry: 1984-87 Product Forms.....	27
Figure 29: Imports of Corvina By Country of Origin: 1985 and 1987	29
Figure 30: Southeast U.S. Black Drum Imports: 1983-87	29
Figure 31: Five-Year Average Monthly Distribution of Southeast U.S. Black Drum Imports.....	31
Figure 32: Southeast U.S. Kingklip Imports: 1985-87.....	31
Figure 33: Three-Year Average Monthly Distribution of Southeast U.S. Kingklip Imports.....	32
Figure 34: Imports of Kingklip Into Southeastern Ports of Entry: 1985-87 Fresh vs Frozen	32
Figure 35: Imports of Kingklip Into Southeastern Ports of Entry: 1985-87 Product Forms.....	34
Figure 36: Southeast U.S. Lobster Landings And Imports: 1983-87	34

<u>Figure</u>	<u>Page</u>
Figure 37: Five-Year Average Monthly Distribution of Southeast U.S. Lobster Imports	36
Figure 38: Imports of Lobster By Country of Origin: 1983 and 1987	36
Figure 39: Southeast U.S. Scallop Imports: 1983-87.....	39
Figure 40: Southeast U.S. Scallop Landings: 1983-87.....	39
Figure 41: Four-Year Average Monthly Distribution of Southeast U.S. Scallop Imports.....	40
Figure 42: Imports of Scallops Into Southeastern Ports of Entry: 1983-87 Fresh vs Frozen	40
Figure 43: Imports of Scallops By Countries of Origin: 1984 and 1987	42
Figure 44: Southeast U.S. Shark Landings and Imports: 1983-87	42
Figure 45: Three-Year Average Monthly Distribution of Southeast U.S. Shark Imports.....	43
Figure 46: Imports of Shark Into Southeastern Ports of Entry: 1983-87 Fresh vs Frozen.....	43
Figure 47: Imports of Shark Into Southeastern Ports of Entry: 1983-87 Product Forms.....	45
Figure 48: Imports of Shark By Countries of Origin: 1986 and 1987	45
Figure 49: Southeast U.S. Pompano Landings and Imports: 1983-87	47
Figure 50: Five-Year Average Monthly Distribution of Southeast U.S. Pompano Imports.....	47
Figure 51: Imports of Pompano Into Southeastern Ports of Entry: 1983-87 Fresh vs Frozen	48
Figure 52: Imports of Pompano By Countries of Origin: 1983 and 1987	48
Figure 53: Southeast U.S. Swordfish Landings and Imports: 1983-87	50
Figure 54: Five-Year Average Monthly Distribution of Southeast U.S. Swordfish Imports.....	50
Figure 55: Imports of Swordfish Into Southeastern Ports of Entry: 1983-87 Fresh vs Frozen	51

<u>Figure</u>	<u>Page</u>
Figure 56: Imports of Swordfish By Countries of Origin: 1983 and 1987	51
Figure 57: Southeast U.S. Red Drum Imports: 1983-87.....	53
Figure 58: Southeast U.S. Red Drum Landings: 1983-87	53
Figure 59: Five-Year Average Monthly Distribution of Southeast U.S. Red Drum Imports.....	55
Figure 60: Imports of Red Drum Into Southeastern Ports of Entry: 1983-87 Fresh vs Frozen	55
Figure 61: Imports of Red Drum Into Southeastern Ports of Entry: 1983-87 Product Forms.....	56
Figure 62: Southeast U.S. Sea Trout Imports: 1983-87.....	56
Figure 63: Southeast U.S. Sea Trout Landings: 1983-87	57
Figure 64: Five-Year Average Monthly Distribution of Southeast U.S. Sea Trout Imports.....	57
Figure 65: Imports of Sea Trout Into Southeastern Ports of Entry: 1983-87 Fresh vs Frozen	59
Figure 66: Imports of Sea Trout Into Southeastern Ports of Entry: 1983-87 Product Forms.....	59
Figure 67: Imports of Sea Trout By Countries of Origin: 1983 and 1987	60
Figure 68: Southeast U.S. King Mackerel Landings And Imports: 1983-87	60
Figure 69: Five-Year Average Monthly Distribution of Southeast U.S. King Mackerel Imports.....	62
Figure 70: Imports of King Mackerel Into Southeastern Ports of Entry: 1983-87 Fresh vs Frozen	62
Figure 71: Imports of King Mackerel Into Southeastern Ports of Entry: 1983-87 Product Forms.....	63

EXECUTIVE SUMMARY

Imported seafoods have continuously represented over 50 percent of the total edible seafood supplies in the U.S. since 1966. Since 1980, imports of edible seafood products have increased at an average annual rate of over 6 percent, compared to a decline of about 2 percent for domestic landings. Edible seafood imports reached 6.6 billion pounds in 1987.

All Species

The total volume of imports of the 68 species arriving in the southeast U.S. ports of entry increased from 17.4 million pounds in 1983 to 70.4 million pounds in 1987. As the total volumes of imports have increased, so have the numbers of individual species imported.

Prior to 1986, the volume of frozen seafood products imported into the southeast U.S. exceeded that for fresh products. However, in 1986 and 1987, fresh imports exceeded frozen by approximately 25 percent.

In 1983, the major country of origin for imports was Mexico, followed by Costa Rica, Peru, Honduras, Belize, and Bahamas. Mexico was still the leading source in 1987, followed by Ecuador, Costa Rica, Panama, Peru, and Chile.

Snapper

Imports of all species of snapper into southeastern U.S. ports of entry increased from 4.8 million pounds in 1983 to 14.0 million pounds in 1987. During this same period, snapper landings in the region declined by an annual average rate of 6.8 percent. Imports exceeded landings volumes for the first time in 1985.

Import volume of fresh snapper consistently exceeded that for frozen products during the 1983-87 period. By 1987, fresh snapper imports accounted for 87 percent of the total. In 1987, 90 percent of the total snapper import volume was whole product.

In 1987, Mexico was the most important single source of snapper, with Venezuela and Costa Rica each supplying 18 percent of the total import volume.

Grouper

Grouper imports increased from .5 million pounds in 1983 to 8.9 million pounds in 1987. Grouper landings in the southeast region remained stable through 1986, but decreased to 9.5 million pounds in 1987.

Import volumes of fresh grouper have dominated the southeastern grouper import market since 1984, although declining somewhat in importance relative to frozen product from 1986 to 1987. Grouper imported in whole form remained the most important product form during the 1983-87 period.

Mexico was the most important source of grouper product from 1983 to 1987, providing approximately one half the total supply. Costa Rica and Chile were also important sources of grouper.

Mahi-mahi

Mahi-mahi imports remained below 1 million pounds through 1985, doubled in 1986, and increased dramatically to 7.4 million pounds in 1987. Landings of mahi-mahi in the southeastern region have been relatively stable, with production increasing from 318,000 pounds in 1983 to 645,000 pounds in 1987.

Fresh product represented 74 percent of the total import volume in 1986 and 83 percent in 1987. Whole product accounted for 84 percent of the total volume in 1987.

In 1983, Southeast Asian sources dominated the mahi-mahi import market. However, by 1987 Central and South American sources were capturing the largest share of the market, with Ecuador and Costa Rica accounting for 51 and 40 percent, respectively, of the total volume of mahi-mahi import volume in 1987.

Conch Meats

Imports of conch meats into southeastern ports of entry increased from 998,000 pounds in 1983 to 1.94 million pounds in 1987.

Conch meats were imported primarily in the frozen form, with less than one percent imported as fresh product in 1987.

The major countries of origin for conch meat imports in 1987 were British West Indies, Honduras, Colombia, Haiti, and the Dominican Republic.

Corvina

Imports of Corvina were somewhat erratic prior to 1985. However, corvina imports increased from 101,000 pounds in 1985 to 279,000 pounds in 1987. Landings data for corvina are not available.

Corvina were imported primarily as fresh product. In 1987, 210,000 pounds were imported fresh, while the remaining 69,000 pounds were frozen. In 1987 201,000 pounds were imported whole, while the remaining 78,000 pounds were imported as fillets.

During the 1983-87 period, Costa Rica remained as the leading source of corvina. Other important sources of corvina in 1987 were Ecuador and El Salvador.

Black Drum

Imports of black drum were erratic during the 1983-87 period. However, black drum imports experienced a slight increase from 64,000 pounds in 1983 to 69,000 pounds in 1987. Regional black drum landings,

however, increased dramatically from 5.4 million pounds in 1983 to 10.8 million pounds in 1987.

Black drum were imported as fresh product. In addition, all reported imports arrived in the whole form.

All imports of black drum reported in the southeast region during the 1983-87 period originated from Mexico.

Kingklip

A total of 63,000 pounds of kingklip were imported during the latter half of 1985. This volume increased to 483,000 pounds in 1986 and further increased by threefold to 1.5 million pounds in 1987.

Kingklip were imported primarily as frozen product. In 1987, 87 percent of the total import volume was frozen product. In addition, the major product form was fillets, with one million pounds of fillets, or 64 percent of the total import volume, being reported for 1987.

In 1987, 81 percent of the total import volume originated from Chile, while imports from Peru accounted for 14 percent.

Lobster

Lobster imports totaled approximately 4 million pounds in 1983 and increased to 7 million pounds in 1986. Lobster imports then declined to 5.5 million pounds in 1987, representing a decline of approximately 21 percent from the previous year and roughly equal to import volumes reported in 1984.

In 1987, 97 percent of the lobster import were received as frozen product. In addition, lobster were imported primarily as tail meats.

A number of countries exported lobster to southeastern ports of entry. Honduras was the most important single country source for lobster imports, representing 23 percent of the total volume. Mexico and Bahamas were also important sources.

Scallops

Scallops imports increased steadily from 1.9 million pounds in 1983 to 7.6 million pounds in 1986. Scallops imports then declined to 4.7 million pounds in 1987, representing a 40 percent decline from the previous year. In contrast, domestic scallop landings in the region were very erratic during the 1983-87 period.

Scallops were imported into the southeast in the form of shucked meats. In 1987, approximately 72 percent of the scallop meats were imported as fresh product.

In 1987, Panama accounted for 91 percent of the total scallop imports, while Chile and Peru accounted for 6 and 1 percent, respectively.

Shark

Shark imports totaled 3,000 and 30,000 pounds in 1983 and 1984, respectively. Shark imports increased dramatically to 2.2 million pounds in 1987. Total reported regional landings volumes increased from 1.4 million pounds in 1983 to 2.4 million pounds in 1987.

Of the total 2.2 million pounds imported in 1987, 68 percent were received as frozen product. In addition, approximately three-fourths of the total volume of shark imports reported for 1987 were received in whole form. The remaining volume was reported as fillets, loins, and portions.

In 1987, Ecuadorian imports accounted for 60 percent of the total shark imports, with Peru, Chile, and Guyana accounting for 23, 5, and 5 percent, respectively.

Pompano

Pompano imports increased from 82,000 pound in 1983 to 342,000 pounds in 1985. Imports then declined to 106,000 pounds in 1987. Regional landings of pompano approached 843,000 pounds in 1987, representing an average annual increase since 1984 of 8 percent.

Frozen pompano represented approximately 66 percent of the total volume imported in 1987. In addition, pompano were typically imported in whole form, with only small quantities of fillets being reported for 1987.

In 1987, Mexico supplied 51 percent of the total pompano imports, with Peru and Ecuador supplying 39 and 10 percent, respectively.

Swordfish

Only 65,000 pounds of swordfish imports were reported for the region in 1983. However, the volume of swordfish imports increased steadily to approximately 3.7 million pounds in 1987. Regional swordfish landings decreased from 4.8 million pounds in 1983 to 2.8 million pounds in 1987.

In 1987, 93 percent of the imported swordfish were received as fresh product. In addition, 95 percent of the swordfish were shipped in the whole form.

Ecuador, Chile, Spain, and Brazil were the major suppliers of swordfish for the Southeastern U.S. in 1987.

Red Drum

Red drum imports increased from approximately 200,000 pounds in 1983 to 626,000 pounds in 1986. Red drum imports then declined in 1987 to 272,000 pounds. Regional landings increased from 3.5 million pounds in 1983 to 15.4 million pounds in 1986. Landings then decreased, as a result of management initiatives, to 5.2 million pounds in 1987.

Red drum imports consisted almost entirely of whole, fresh product. In 1987, whole and fresh product each represented approximately 98 percent of the total import volume.

Mexico accounted for virtually 100 percent of the reported red drum imports for the southeastern region during the 1983-87 period.

Sea Trout

Sea trout imports increased from 716,000 pounds in 1983 to 839,000 pounds in 1984. Import volumes then decreased over the next four years to 429,000 pounds in 1987. Regional landings alternately increased and decreased during the 1983-87 period, with a 15 percent decline from 18.4 million pounds in 1986 to 15.6 million pounds in 1987.

Fresh sea trout imports accounted for approximately 93 percent of the total 1987 sea trout imports. In terms of product form, sea trout were imported primarily in the whole form.

In 1987, Mexico accounted for 93 percent of the sea trout received by regional ports of entry. Argentina and Panama also supplied product.

King Mackerel

King mackerel imports decreased from 1.2 million pounds in 1983 to 626,000 pounds in 1984. However, king mackerel imports exhibited a steady increase to 1.8 million pounds in 1987. Regional landings decreased from 6.7 million pounds in 1983 to 4.6 million pounds in 1987.

The majority of king mackerel imported in 1987 arrived as frozen, whole fish.

Mexico supplied 96 percent of the 1987 king mackerel imports while Peru and Panama supplied the remaining reported volume.

Marlin

Marlin imports totaled 471,000 pounds for 1987. Previous reported import levels were very erratic. During the 1983-87 period, regional landings increased from 38,000 pounds to 238,000 pounds.

Marlin imports typically arrive as fresh, whole product.

In 1987, Ecuador accounted for 91 percent of the marlin imports, while Mexico, Grenada, and Antigua accounted for lesser volumes.

Tilefish

Prior to 1987, tilefish was being imported in small, inconsistent quantities. In 1987, 39,000 pounds of tilefish were imported into southeastern ports of entry. Regional landings of tilefish have declined steadily since 1983, with 500,000 pounds being reported for 1987.

Tilefish imports arrived primarily as fresh product in the whole form.

Mexico supplied 60 percent of the tilefish imported in 1987, with Brazil and Argentina providing smaller volumes.

**TRENDS IN THE IMPORTATION OF SELECTED FRESH AND
FROZEN SEAFOOD PRODUCTS INTO THE
SOUTHEASTERN UNITED STATES**

Charles M. Adams
Food and Resource Economics Department,
University of Florida.

Frank J. Lawlor, III
Florida Sea Grant Extension Program,
Institute of Food and Agricultural Sciences,
Palm Beach Gardens, Florida

INTRODUCTION

Imported seafoods are becoming an increasingly important source of product for America's seafood consumer. Imported seafoods have continuously represented over 50 percent of the total edible seafood supplies in the U.S. since 1966. From 1966 to 1987, imports increased at an average annual rate of approximately 5 percent, in contrast to the domestic landings rate of increase of about 2 percent. Yet the rate of increase in imports is becoming even greater. Since 1980, imports of edible seafood products have increased at an average annual rate of over 6 percent, compared to a decline of about 2 percent for domestic landings. Imports of edible seafood products reached a record 6.6 billion pounds (round weight) in 1987, which accounted for 63 percent of the total U.S. seafood supplies.

Although imports are important to U.S. seafood suppliers in general, imported product is even more important in meeting the demand for certain key southeastern species. Faced with a growing domestic demand for high-quality finfish and shellfish products and stable sources of domestic product, suppliers of key southeastern species will need to become better informed of import product sources, product form, seasonal

availability and obtainable volumes. This information will be particularly important to seafood suppliers wishing to begin import activities or expand existing operations. In addition, regional fishery managers need this information to gain a better appreciation for how imported seafood is becoming an increasingly important element of the domestic seafood market.

The purpose of this paper is to describe general trends in imports for selected seafood products arriving at southeastern U.S. ports of entry. These trends will be discussed in terms of volumes, seasonality, fresh versus frozen, product form, and country of origin. The major ports of entry will also be identified.

DATA

The paper presents import data collected by the National Marine Fisheries Service (NMFS). These data were originally reported in the New Orleans "Goldenrod" Market News Report. Imports of many shellfish and finfish products are reported each Wednesday in the New Orleans Market News Report by port of entry, species, fresh or frozen, product form (i.e. whole, fillet, loins, other), country of origin, and volume received. "Whole" refers to product received eviscerated and/or head off. Although seafood imports are reported on a Wednesday, a lag of several days between product actually passing U.S. Customs and being reported in the Market News Report may occur. Import weight presented is product weight (i.e. weight of items received by Customs regardless of product form -- not converted to whole weight). Where possible, import volumes are compared to regional NMFS landings data for each species. "Country of origin" refers to country where product was first landed and exported (not transhipped).

A primary objective of the study was to compile the data, which had never been databased, and examine trends in imports of species key to the southeast U.S. region. For the purpose of the study, only marine tropical and subtropical species (i.e. freshwater and cold water marine species are not included), arriving from primarily Latin American countries of origin, and entering southeastern ports of entry (i.e. Brownsville/Port Isabel, TX; New Orleans, LA; Tampa, FL; Port Everglades, FL; Miami, FL; West Palm Beach, FL; Savannah, GA; Charleston, SC) were utilized. In addition, only data from fresh and frozen product were analyzed (e.g. canned/cured products excluded). Imports of shrimp products were also not included in the study since these data are already comprehensively reported in the monthly NMFS report entitled "Shrimp Statistics".

NMFS Market News data for 1983-1987 were utilized which included eight ports of entry, 54 countries of origin, and 68 finfish and shellfish species (Table 1). For the sake of brevity, only 18 species are reported in this study. Species nomenclature was taken from the U.S. Food and Drug Administration "Fish List".

For each species, the average monthly distribution import volumes are discussed. The term "availability" is used in each of these discussions. This term implies that the volumes of imported product arriving each month reflects the relative availability of the species in the original country of origin. The reader should note, however, that this discussion does not account for volumes of a given species which may have been exported to other destinations not reported by NMFS Market News.

TABLE 1

**FINFISH AND SHELLFISH
SPECIES INCLUDED**

Albacore	Whiting	Snapper, Mutton
Amberjack	Kingclip¹	Snapper, Mangrove
Sea Bass	Langostinos	Snapper, Red
Cobia	Mackerel, King¹	Snapper, Spotted
Conch¹	Mackerel, Spanish¹	Snapper, Vermillion
Congrio	Marlin	Snapper, Yellowtail
Corvina¹	Mullet	Squid
Stone Crab	Octopus	Swordfish¹
Lobster¹	Pomfrets	Tilefish¹
Mahi Mahi¹	Pompano¹	Tongue
Drum Black¹	Scallops¹	Triggerfish
Drum Red	Shark^{1,2}	Trout, Sea^{1,2}
Flounder	Shark, Mako	Trout, Sand
Grouper^{1,2}	Shark, Thresher	Trout, Spotted
Grouper, Black	Sheepshead	Trumpeter
Grouper, Red	Snapper^{1,2}	Tuna
Grouper, Yellowedge	Snapper, Black	Tuna, Big Eye
Grouper, Warsaw	Snapper, Lane	Tuna, Yellowfin
		Wahoo

¹ Species discussed in this study

² Species discussed in aggregate, without details presented on individual species of grouper, snapper, or shark

DISCUSSION

All Species

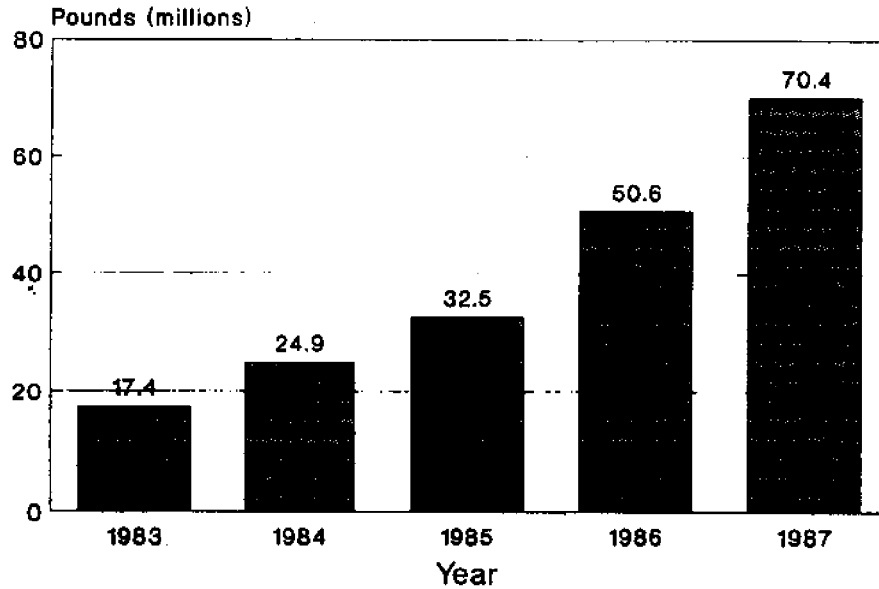
The total volume of imports for the 68 species arriving in the southeast U.S. ports of entry increased from 17.4 million pounds in 1983 to 70.4 million pounds in 1987 (Figure 1). This represents an approximate fourfold increase or an annual percentage increase of 42 percent over the 5-year period. Monthly volumes varied considerably. Although the seasonal distribution of imported product varies by species, monthly 5-year averages indicate that import volumes for all species remain fairly consistent from month to month, with the late summer and fall months accounting for a slightly larger share of the volume for an average year.

As the total volumes of imports have increased, so have the numbers of species imported. Although snapper, grouper, seatrout, swordfish, and mackerel continue to be important mainstays, new species such as congrio, dorado, pomfrets, corvina, kingclip, mako shark, and others are being imported in increasing amounts. In 1983, a total of 32 species were being reported by Customs (Figure 2). By 1987, the number of species had risen to 60. The growing strength of the U.S. seafood market has provided inroads for some of these lesser known, "non-traditional" species. Development of markets for such species may become increasingly important if the domestic demand for seafood continues to grow at current paces.

Prior to 1986, the volume of frozen seafood products imported into the southeast U.S. exceeded that for fresh products. In 1983, the volume of frozen exceeded fresh product by nearly threefold (Figure 3). However, in 1986 and 1987, fresh imports exceeded frozen by approximately 25 percent.

Figure 1

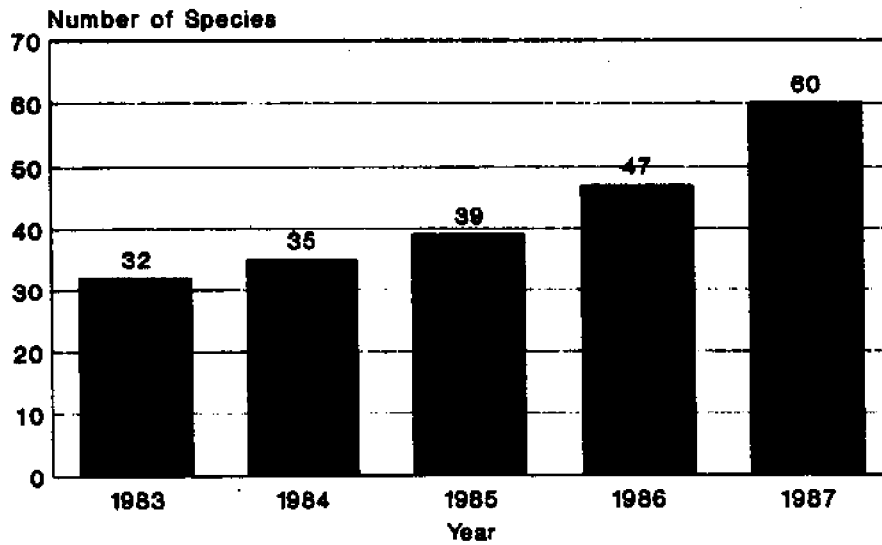
**IMPORTS OF KEY SPECIES INTO
SOUTHEASTERN PORTS OF ENTRY: 1983-87**



DATA SOURCE: NMFS Market News Reports

Figure 2

**NUMBERS OF KEY SPECIES IMPORTED
INTO SOUTHEASTERN PORTS OF ENTRY
1983-87**



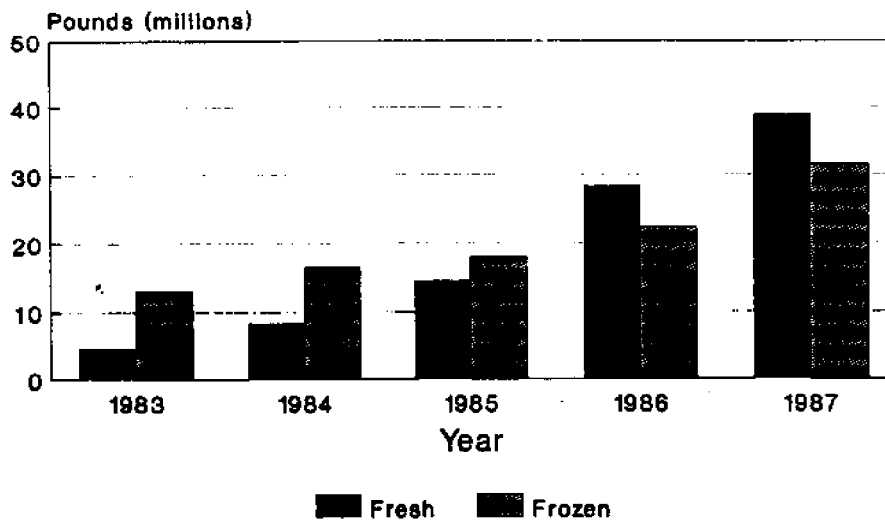
DATA SOURCE: NMFS Market News Reports

Seafood is imported in a variety of product forms. Brokerage reports indicate that product is received in whole form, fillets, loins, portions, and "other". The latter term refers primarily to shellfish products, such as crab meat, lobster tails, and scallop meats. The predominant product form in general, for all species imported during the 1983-87 period was whole product. However, the importance of this product form declined following 1986 (Figure 4). For example, whole product represented 93 percent of the seafood imports in 1983, but declined to 58 percent in 1987. A rapid increase in the import volume of fillets (6.8 million pounds in 1986 to 15.5 million pounds in 1987) suggests an increase in demand for the more processed finfish products. Although the advent of reporting miscellaneous product forms in 1986 somewhat clouds the message statistically, the data suggest that the import market is responding to an increased market demand for prepared (i.e. filleted) finfish product.

Major sources of imported product also changed over the 5-year period. In both 1983 and 1987, six countries provided at least 70 percent of the seafood import volume, while the remaining 30 percent was exported to the southeastern U.S. from a number of other countries. The leading six countries, however, changed following 1983 (Figure 5). In 1983, the major country of origin for imports was Mexico (31 percent), followed by Costa Rica, Peru, Honduras, Belize, and Bahamas. By 1987, three new countries had moved into the top six, with all six contributing a more equal share of the seafood export market to the U.S. Mexico was still the leading source in 1987, followed by Ecuador, Costa Rica, Panama, Peru, and Chile. Other countries exporting lesser volumes to the U.S., include Venezuela, Honduras, El Salvador, and Argentina.

Figure 3

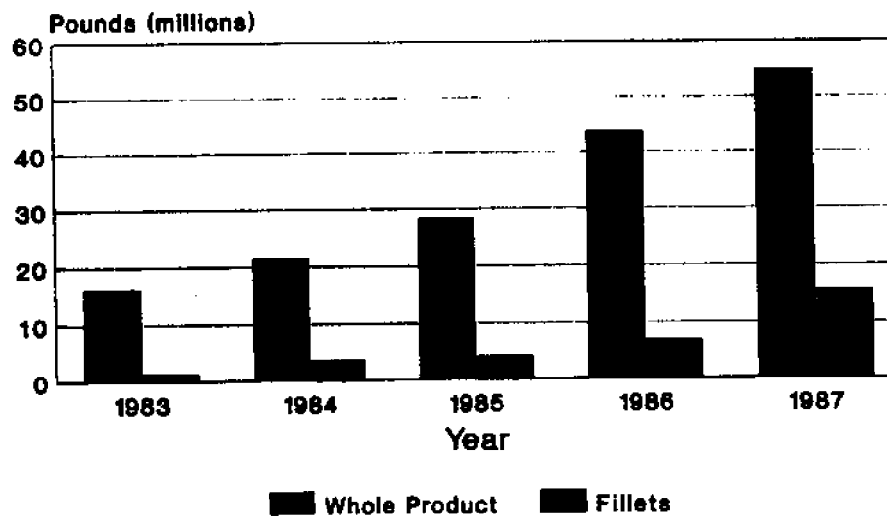
IMPORTS OF KEY SPECIES INTO SOUTHEASTERN PORTS OF ENTRY: 1983-87 FRESH vs FROZEN



DATA SOURCE: NMFS Market News Reports

Figure 4

IMPORTS OF KEY SPECIES INTO SOUTHEASTERN PORTS OF ENTRY: 1983-87 WHOLE vs FILLETS



DATA SOURCE: NMFS Market News Reports

Snapper

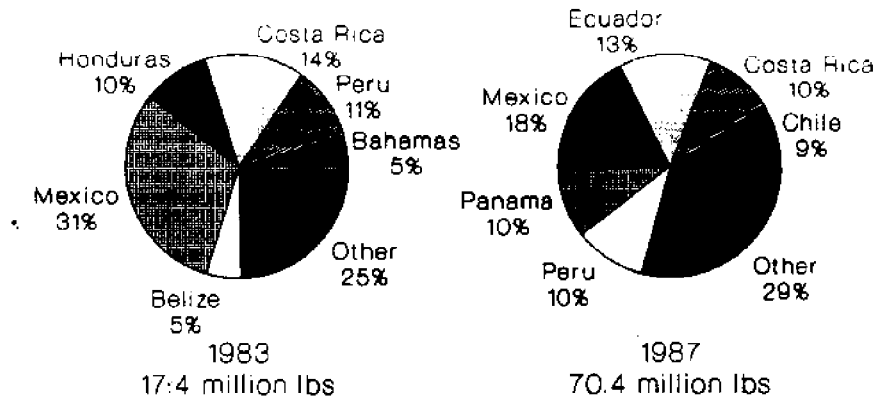
Imports of all species of snapper into southeastern U.S. ports of entry increased from 4.8 million pounds in 1983 to 14.0 million pounds in 1987 (Figure 6). This reflects an average annual percentage increase of 33 percent. Snapper imports nearly doubled from 1984 to 1985. The significance of these imported products to meeting domestic demand for snapper is suggested by comparing southeast snapper landings to imports. As imports increased during the 1983-87 period, landings of snapper in the southeast declined by annual average rate of 6.8 percent. Imports exceeded landings volume for the first time in 1985. Landings of snapper declined dramatically in 1987, as import volume continued to rise. The monthly distribution of snapper imports is somewhat variable, with peak 5-year averages occurring in April, July, and September (Figure 7). Imported snapper products are apparently not as readily available in the winter months.

Market News data identifies several species of snapper being imported into southeastern ports of entry. Those include black, lane, mutton, red, spotted, vermillion, yellowtail, and "tomatoe" snapper. In addition, a large category of unclassified volume is reported. In 1987, the unclassified snapper imports represented 88 percent of the total volume, followed by red (9 percent), yellowtail (2 percent), and lane (1 percent). The remaining species represented only a small volume of the total.

Import volume of fresh snapper consistently exceeded that for frozen products. In 1983, fresh snapper imports represented 68 percent of the total snapper imports (Figure 8). By 1987, fresh snapper imports

Figure 5

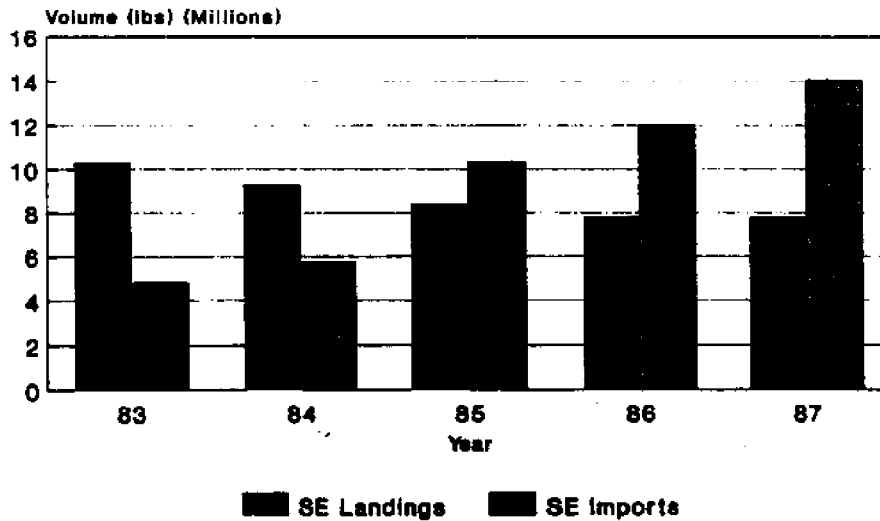
IMPORTS OF KEY SPECIES BY COUNTRIES OF ORIGIN: 1983 and 1987



DATA SOURCE: NMFS Market News Reports

Figure 6

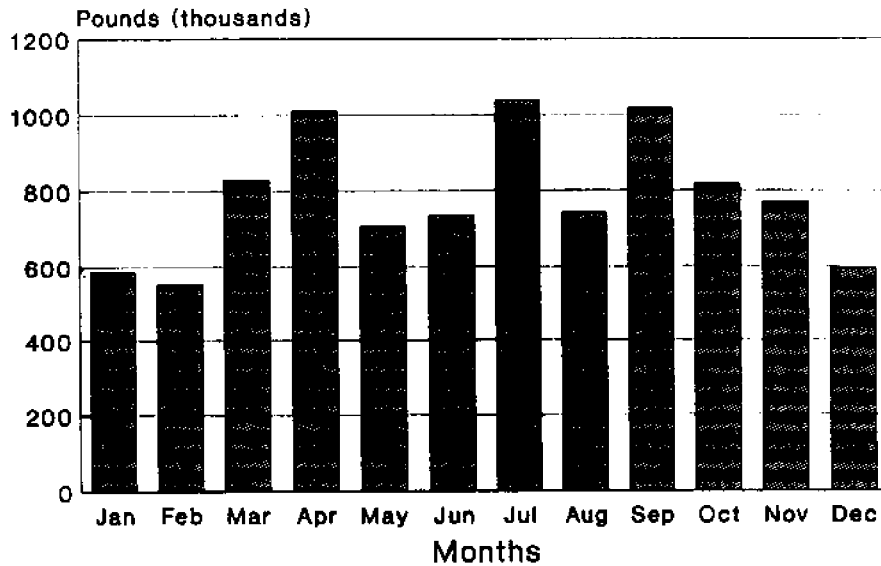
SOUTHEAST U.S. SNAPPER LANDINGS AND IMPORTS: 1983-87



DATA SOURCE: NMFS data. Import product weight given. All species included.

Figure 7

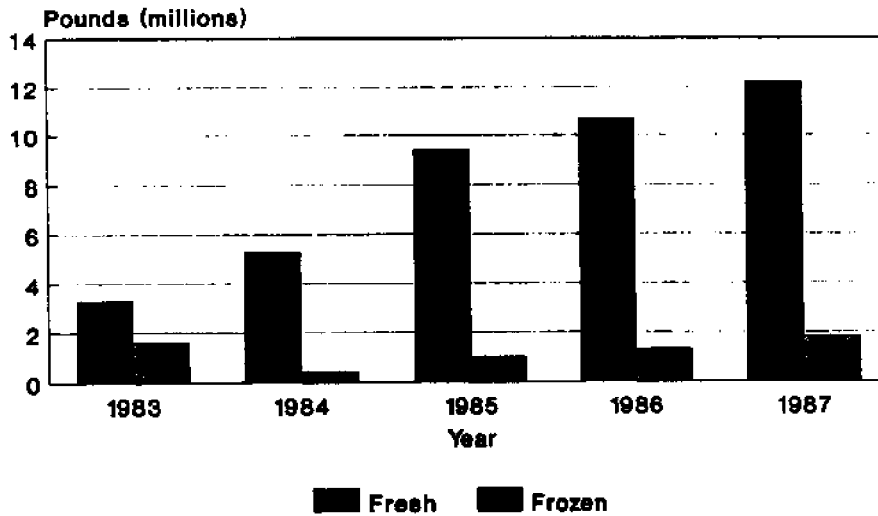
**FIVE-YEAR AVERAGE MONTHLY DISTRIBUTION
OF SOUTHEAST U.S. SNAPPER IMPORTS**



DATA SOURCE: NMFS Market News Report
Data. Data pertains to 1983-87.

Figure 8

**IMPORTS OF SNAPPER INTO SOUTHEASTERN
PORTS OF ENTRY: 1983-87
*FRESH vs FROZEN***



DATA SOURCE: NMFS Market News Reports

accounted for 87 percent of the total. Frozen snapper imports in 1987 (1.8 million lbs.) were only slightly higher than reported for 1983 (1.6 million pounds).

Snapper is primarily imported in whole form. In 1987, 12.6 million pounds of whole snapper was imported to southeastern U.S. ports of entry, which represented 90 percent of the total snapper import volume (Figure 9). This percentage distribution between whole and filleted product has remained relatively constant during the 1983-87 period.

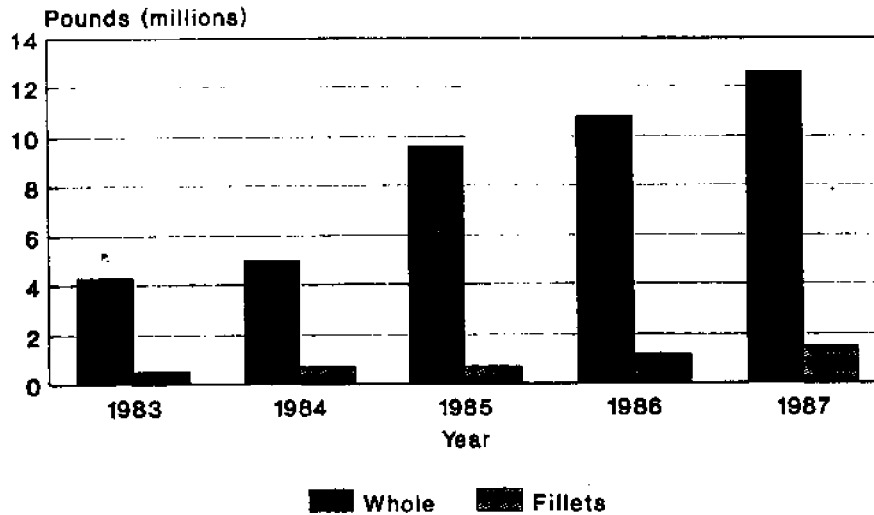
The major countries of origin for snapper products has remained relatively constant over the past five years. In 1983, Costa Rica and Mexico contributed 44 and 30 percent, respectively, of the total volume of snapper imports reported (Figure 10). Brazil and Venezuela were also major sources of product. By 1987, Mexico remained the most important single source of snapper, with Venezuela and Costa Rica each supplying 18 percent of the volume arriving at southeastern U.S. ports of entry. Panama and Guatemala provided 12 and 5 percent, respectively. The Central American region has, therefore, become the leading source of snapper products for the southeastern U.S. region. Approximately 86 percent of the total volume of snapper imports arrived through Miami. The remaining volume arrived through Brownsville and Port Everglades.

Grouper

The volume of grouper imports into the southeastern U.S. increased dramatically during the 1983-87 period. Grouper imports increased from .5 million pounds in 1983 to 8.9 million pounds in 1987 (Figure 11). This represents an average annual increase of 122 percent over the five-year period! Grouper landings in the Southeast region remained stable through 1986, but decreased to 9.5 million pounds in 1987.

Figure 9

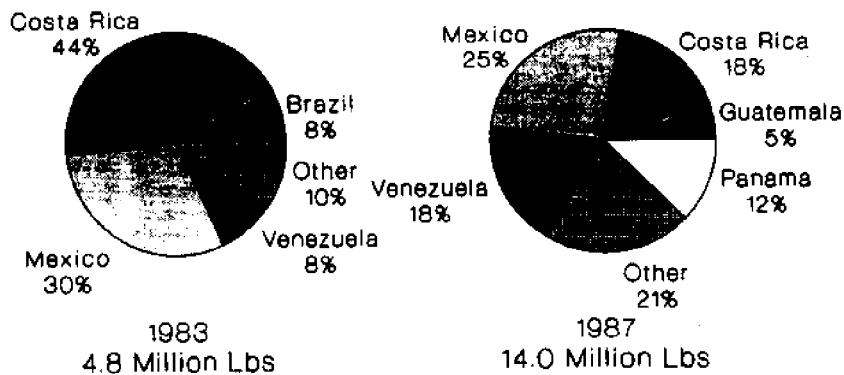
IMPORTS OF SNAPPER INTO SOUTHEASTERN PORTS OF ENTRY: 1983-87 PRODUCT FORMS



DATA SOURCE: NMFS Market News Reports

Figure 10

IMPORTS OF SNAPPER BY COUNTRY OF ORIGIN 1983 AND 1987



DATA SOURCE: NMFS Market News Reports

This represents an annual average decrease in grouper landings of 5.8 percent since 1983. Grouper imports are relatively more abundant in the fall months, with April also being an important month for grouper import arrivals (Figure 12).

Several varieties of grouper are imported from Latin American sources. In 1987, the species reportedly imported were black, red, yellowedge, and warsaw grouper. As with snapper, the majority of grouper imported were unclassified by Customs. This unclassified category represented 96 percent of the total grouper imports in 1987. Yellowedge and red grouper represented 2 and 1 percent of the total, respectively.

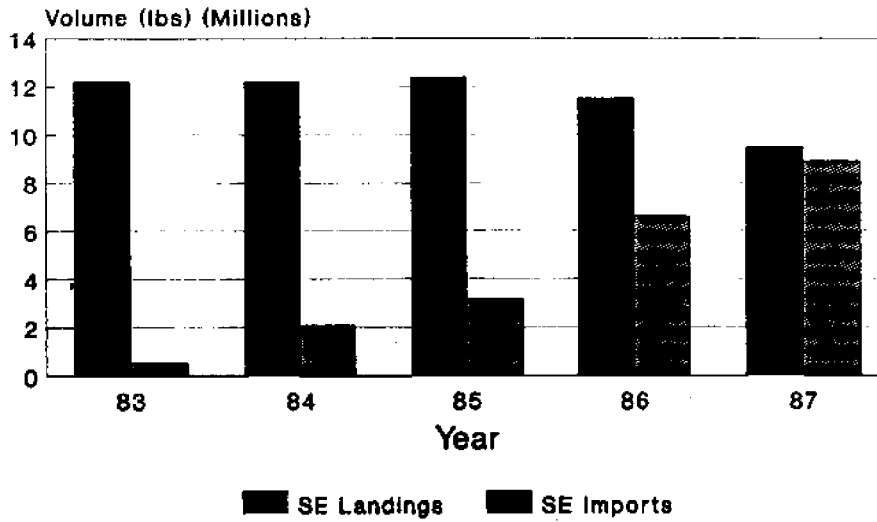
Import volumes of fresh grouper have dominated the southeastern grouper import market since 1984 (Figure 13). However, the rate of increase in fresh imports declined dramatically from 1986 to 1987. During the same period, frozen grouper imports increased from 1.4 million pounds in 1986 to 3.3 million pounds in 1987, after having remained stable for 1983 to 1985. Currently unavailable data for 1988 will be needed to determine if the increased importance of frozen grouper will continue.

Grouper imported in whole form remained the most important product form during the 5-year period. However, filleted grouper accounted for 33 percent of total import volumes in 1987. Loins and portions were of less importance, representing only 2 percent of the total (Figure 14).

During the 1983-87 period, three countries provided over 80 percent of the imported grouper product arriving at southeastern U.S. ports of entry (Figure 15). Mexico was the most important source of grouper product from 1983 to 1987, providing approximately one half the total

Figure 11

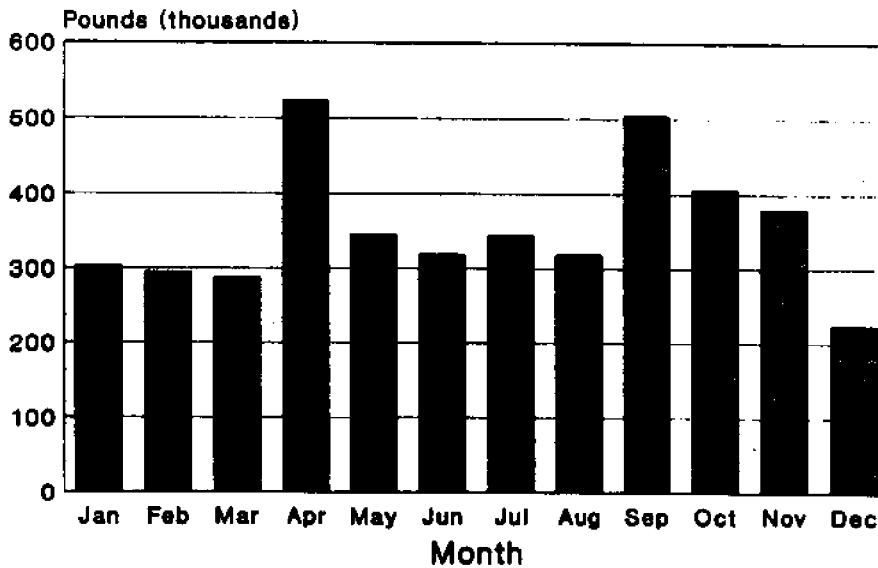
SOUTHEAST U.S. GROUPEL LANDINGS AND IMPORTS: 1983-87



DATA SOURCE: NMFS data. Import product weight given. All species included.

Figure 12

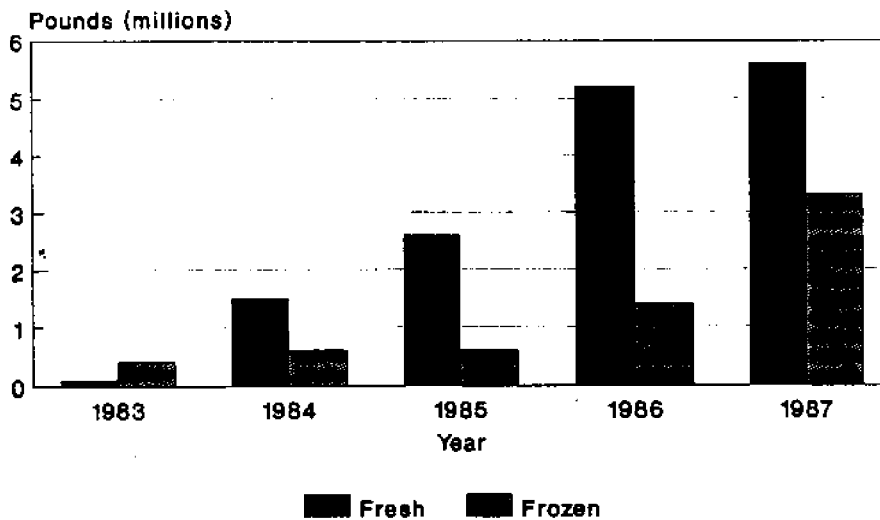
FIVE-YEAR AVERAGE MONTHLY DISTRIBUTION OF SOUTHEAST U.S. GROUPEL IMPORTS



DATA SOURCE: NMFS Market News Report Data. Data pertains to 1983-87.

Figure 13

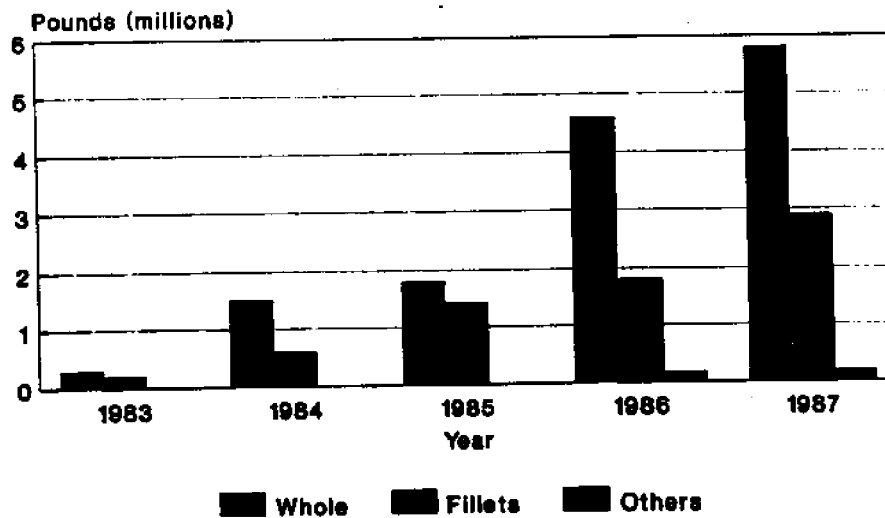
IMPORTS OF GROUPER INTO SOUTHEASTERN PORTS OF ENTRY: 1983-87 *FRESH vs FROZEN*



DATA SOURCE: NMFS Market News Reports

Figure 14

IMPORTS OF GROUPER INTO SOUTHEASTERN PORTS OF ENTRY: 1983-87 *PRODUCT FORMS*



DATA SOURCE: NMFS Market News Reports

supply. Costa Rica and Chile provided an additional 12 and 10 percent, respectively, in 1987. Ecuador also became an important source by 1987, providing 7 percent of the total volume exported to the southeastern U.S. The remaining 20 percent was supplied by Ecuador, Dominican Republic, Argentina, Panama, Guyana (in order of importance), and others. Miami served as the major port of entry for grouper products. Approximately 82 percent of the grouper imports arrived through Miami, with 18 percent arriving in Brownsville. Lesser volumes arrived in Savannah, Port Everglades, West Palm Beach and New Orleans.

Mahi-Mahi (Dolphin)

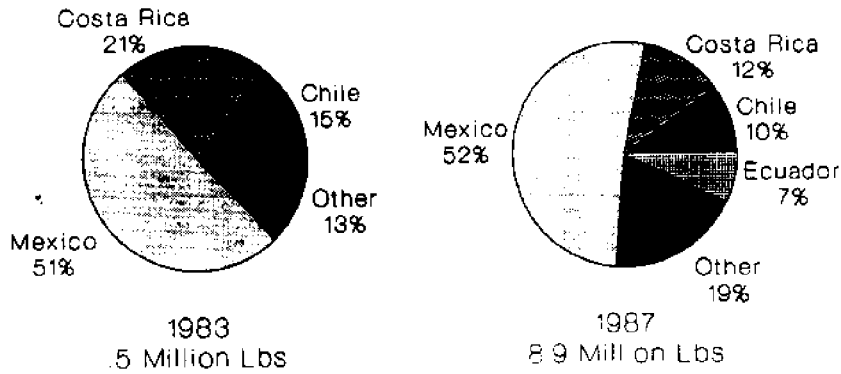
Mahi-mahi imports remained below 1 million pounds through 1985, doubled in 1986, and increased dramatically to 7.4 million pounds in 1987 (Figure 16). Monthly distribution of imported product is fairly even, with peak 5-year average months being April, May, and June (Figure 17). Landings of mahi-mahi in the southeast region have been fairly stable, with production increasing from 318,000 pounds in 1983 to 507,000 pounds in 1986. Landings then increased to 645,000 pounds in 1987. Import volumes exceeded landings for the first time in 1985.

Prior to 1986, mahi-mahi was imported primarily as frozen product (Figure 18). In contrast to snapper and grouper, however, the majority of mahi-mahi imported into southeastern ports of entry since 1985 has been fresh product. In 1986, fresh product represented 74 percent of the total import volume. This increased to 83 percent in 1987.

Prior to 1987, the composition of the total volume of mahi-mahi imports was not consistently dominated by either whole or filleted product. However, whole product accounted for 84 percent of the total volume in 1987, as compared to 74 percent in 1986 (Figure 19). The

Figure 15

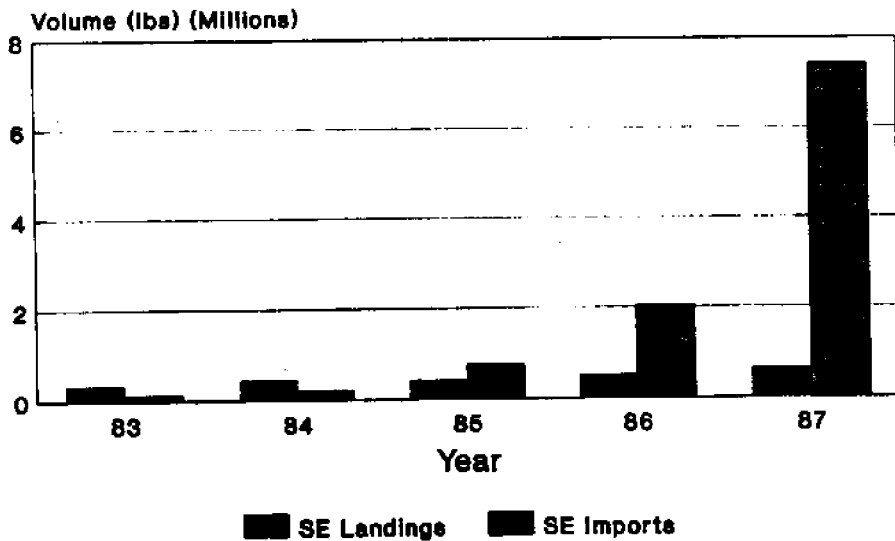
IMPORTS OF GROUPER BY COUNTRY OF ORIGIN: 1983 AND 1987



DATA SOURCE: NMFS Market News Reports

Figure 16

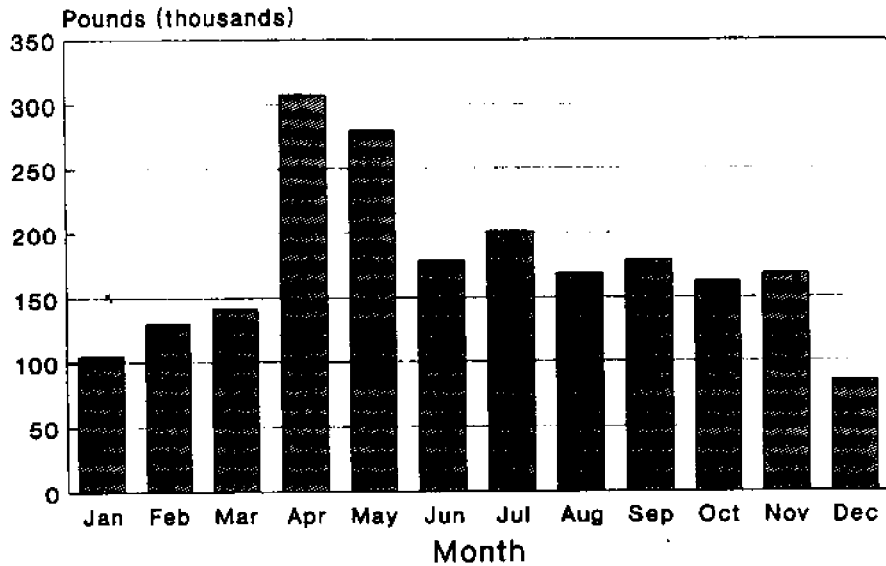
SOUTHEAST U.S. DOLPHIN (MAHI-MAHI) LANDINGS AND IMPORTS: 1983-87



DATA SOURCE: NMFS Market News Data.
Import product weight given.

Figure 17

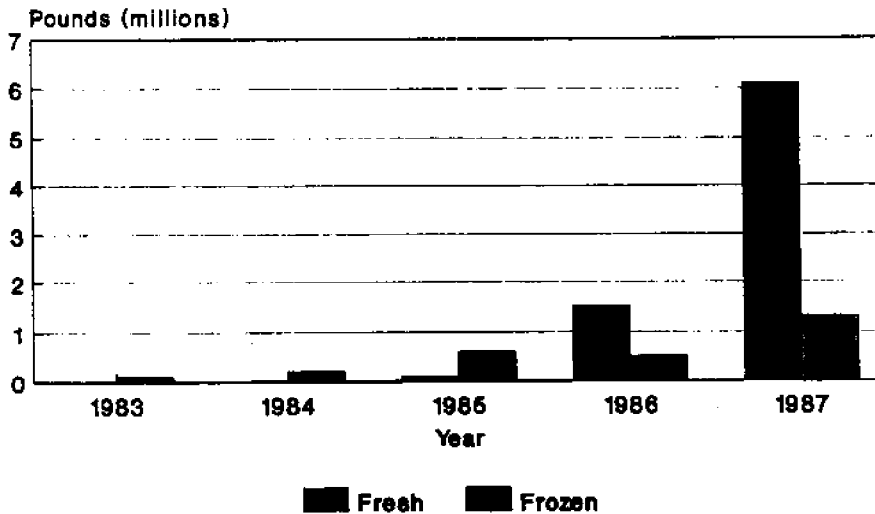
**FIVE-YEAR AVERAGE MONTHLY DISTRIBUTION
OF SOUTHEAST U.S. MAHI-MAHI IMPORTS**



DATA SOURCE: NMFS Market News data.
Data refers to 1983-87.

Figure 18

**IMPORTS OF MAHI-MAHI INTO SOUTHEASTERN
PORTS OF ENTRY: 1983-87
*FRESH vs FROZEN***



DATA SOURCE: NMFS Market News Reports

dramatic increase in the volume of whole product may be due to the versatility demanded by a strengthening domestic restaurant market for mahi-mahi, although market data are not available to support this hypothesis.

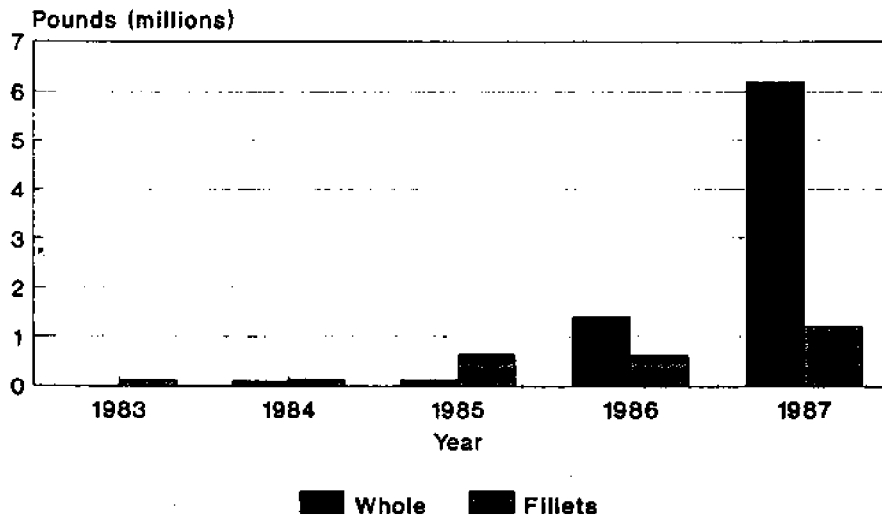
A shift in countries of origin has occurred for mahi-mahi during the 1983-87 period (Figure 20). Approximately 99 percent of the mahi-mahi exported to the southeastern U.S. ports of entry in 1983 originated from oriental countries. Taiwan and Japan provided 65 and 34 percent, respectively, of the total volume in 1983. By 1987, however, Central and South American sources were dominating the market. Ecuador and Costa Rica accounted for 51 and 40 percent, respectively, of the total volume of mahi-mahi import volume in 1987. The remaining 9 percent came primarily from Peru. All reported mahi-mahi imports arrived through Miami.

Conch Meat

The commercial harvest of queen conch in Florida has not been allowed since 1985. As early as 1971, Florida commercial fishermen were significantly restricted in the volume of conch meat they could harvest. Although landings of whelk and helmet conch continues in relatively small amounts (i.e. approximately 5000 pounds in 1987), the market demand for conch meat has continued to remain strong. Therefore, imported conch meat, which has historically been an important source of product for the domestic market, exhibited a recent dramatic increase in volume. Imports of conch meats (which includes product from a variety of species) into southeastern ports of entry increased from 998,000 pounds in 1983 to 1.94 million pounds in 1987 (Figure 21). This represents a doubling of import volume over the five-year

Figure 19

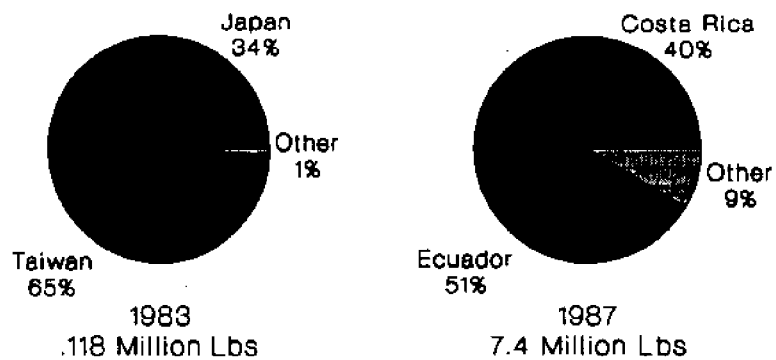
IMPORTS OF MAHI-MAHI INTO SOUTHEASTERN PORTS OF ENTRY: 1983-87 PRODUCT FORMS



DATA SOURCE: NMFS Market News Reports

Figure 20

IMPORTS OF MAHI-MAHI BY COUNTRIES OF ORIGIN: 1983 AND 1987



DATA SOURCE: NMFS Market News Reports

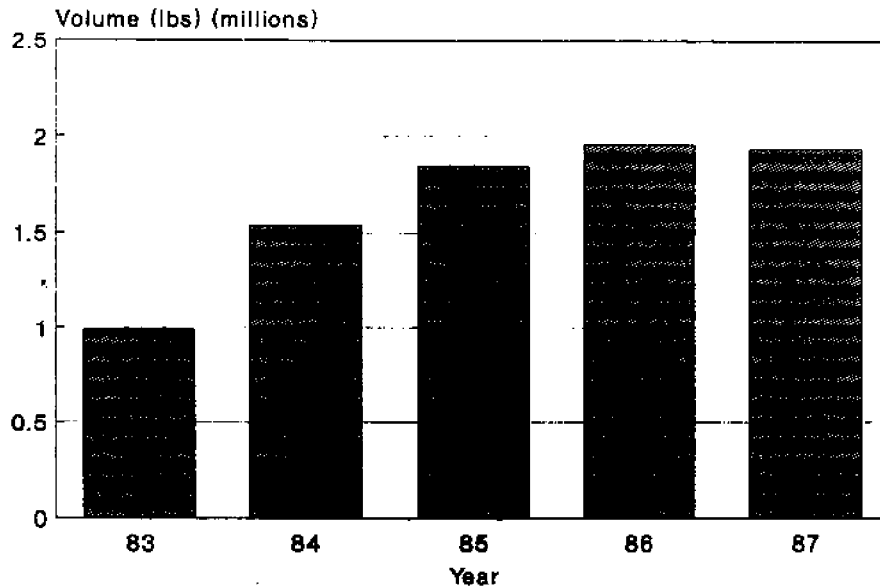
period. The greatest year-to-year increase, however, occurred in 1984. The monthly distribution of conch meat imports indicates that availability increases during the late spring and summer months, with an additional peak occurring during the late fall (Figure 22).

Conch meats are imported primarily in the frozen form. Virtually all of the product imported in 1987 was frozen (Figure 23). Less than one percent was reportedly imported as fresh. There is no information on the specific product forms in which the meats are imported. It is likely the meats are simply imported as whole, cleaned meats ready for further preparation.

The major countries of origin for conch meats remained relatively constant over the 1983-87 period (Figure 24). In 1983, the major sources of conch meats were British West Indies (35 percent), Belize (20 percent), Colombia (18 percent), and Haiti (14 percent). The Turks and Caicos Islands contribute the largest percent of the production reported for the British West Indies. The Dominican Republic and Mexico also accounted for a smaller share of the 1983 import volumes. The list of major sources has changed slightly since then. The major countries of origin for conch meat imports in 1987 were British West Indies (32 percent), Honduras (28 percent), Colombia (17 percent), Haiti (10 percent), and the Dominican Republic (10 percent). Jamaica and Belize contributed 8 and 7 percent, respectively. Therefore, the most notable changes have been that Belize has become less important as a source of conch meat, while Honduras and the Dominican Republic have increased their respective share of the market. Ninety percent of the conch imports arrived through Miami, while the remaining quantities arrived through Port Everglades and West Palm Beach.

Figure 21

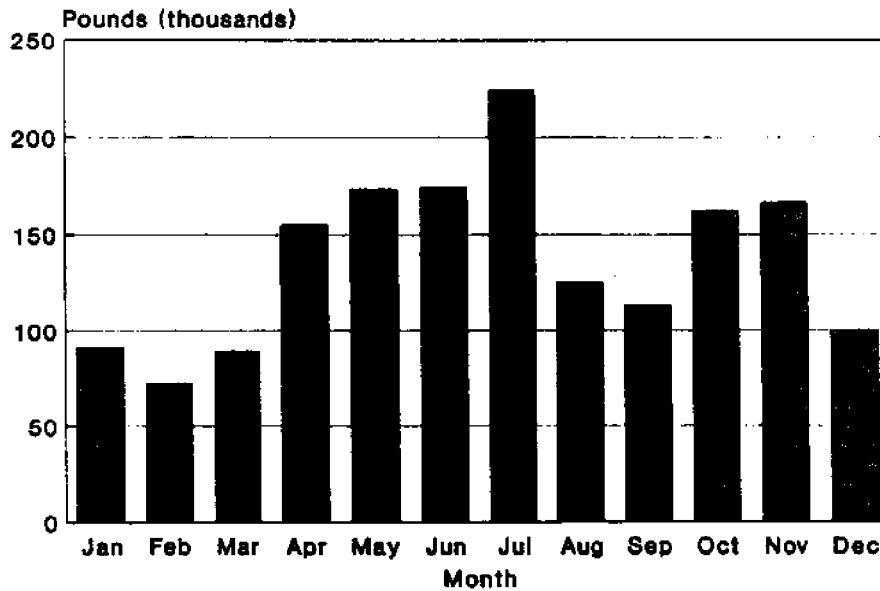
IMPORTS OF CONCH MEAT INTO SOUTHEASTERN U.S. PORTS OF ENTRY: 1983-87



DATA SOURCE: Market News Reports

Figure 22

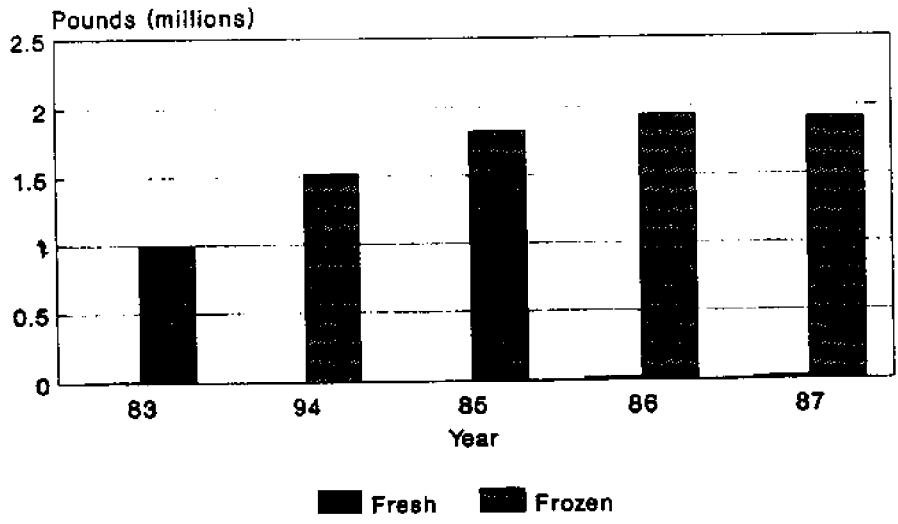
FIVE-YEAR AVERAGE MONTHLY DISTRIBUTION OF SOUTHEAST U.S. CONCH MEAT IMPORTS



DATA SOURCE: NMFS Market News data.

Figure 23

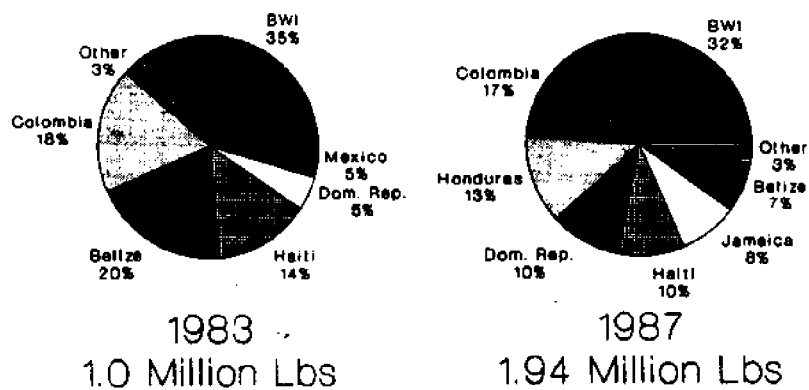
**IMPORTS OF CONCH MEAT INTO SOUTHEASTERN
PORTS OF ENTRY: 1983-87
FRESH vs FROZEN**



DATA SOURCE: NMFS Market News Reports

Figure 24

**IMPORTS OF CONCH MEAT BY COUNTRIES OF
ORIGIN: 1983 AND 1987**



DATA SOURCE: NMFS Market News Reports

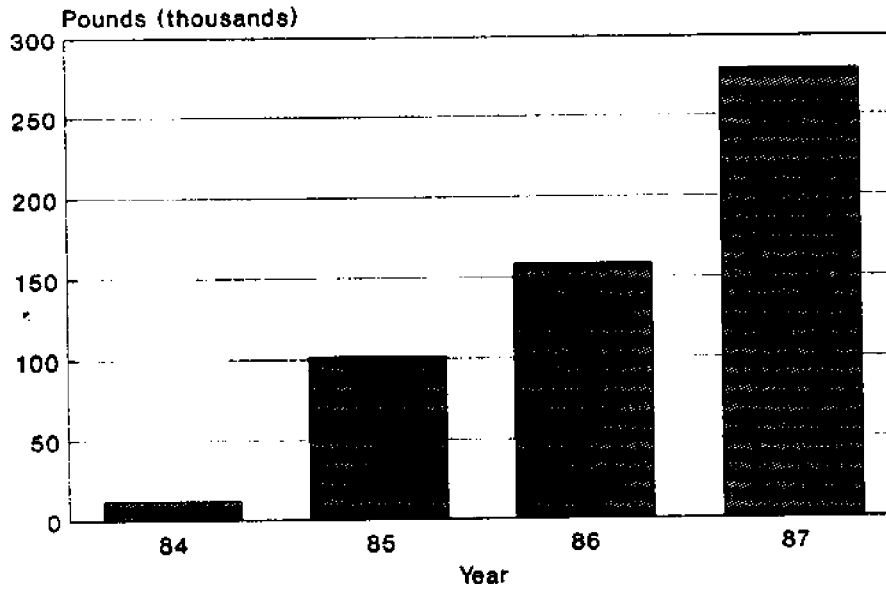
Corvina

The market for corvina has apparently strengthened in recent years. The term "corvina" loosely refers to a variety of species primarily in the Cynoscion, Isopisthus, and Micropogonius genera. These species are also referred to in regional markets as croaker, seabass, seatrout, and others. Thus, the exact definition of "corvina" is rather loose. Imports of corvina were somewhat erratic prior to 1985. Regular monthly shipments of corvina were not reported prior to the fall of 1984. One relatively large shipment of "corvina" (approximately 212,000 pounds) was reported in Miami for March 1983. Given the import quantities prior to and following 1983, the accuracy of the report is of question. Regular shipments of corvina began to appear in Market News reports in February 1985 and continued through the end of 1987 (Figure 25). Imports of corvina increased from 101,000 pounds in 1985 to 279,000 pounds in 1987. Landings data for corvina are not available. The monthly distribution of import shipments (for years 1985-87 only) indicates that corvina are more available during the winter and spring months, with the largest import quantities being reported during February and May (Figure 26).

Corvina are imported primarily as fresh product. In 1987, 210,000 pounds were imported fresh, while the remaining 69,000 pounds were frozen (Figure 27). The predominant product form for corvina imports is whole product. In 1987, 201,000 pound were reportedly imported whole, while the remaining 78,000 pounds were imported as fillets (Figure 28). In 1986, a small quantity (approximately 5,000 pounds) were reportedly imported as portions or loins.

Figure 25

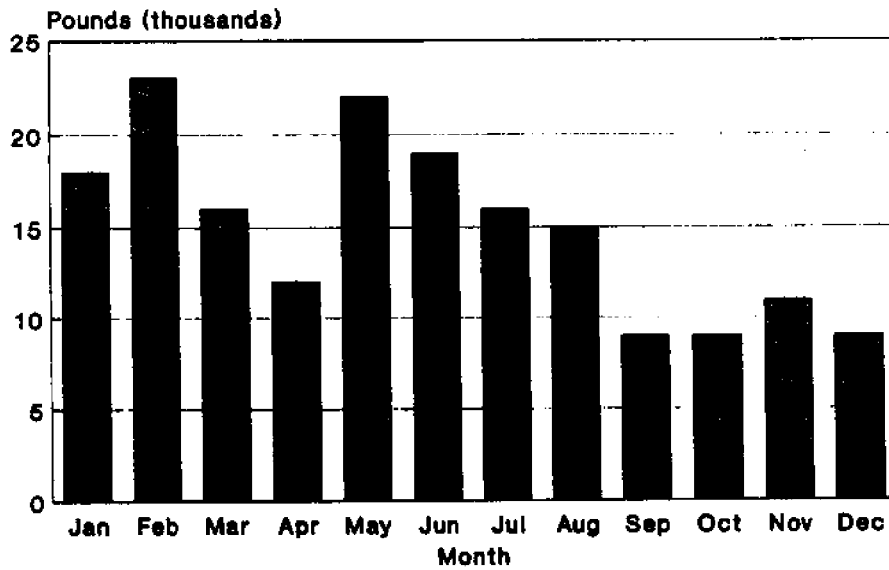
SOUTHEAST U.S. CORVINA IMPORTS: 1984-87



DATA SOURCE: NMFS Market News Reports

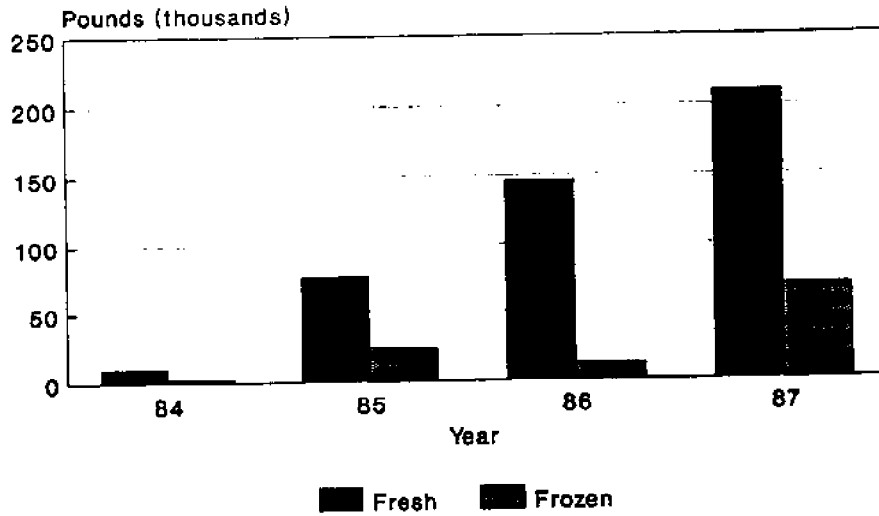
Figure 26

THREE-YEAR AVERAGE MONTHLY DISTRIBUTION OF SOUTHEAST U.S. CORVINA IMPORTS



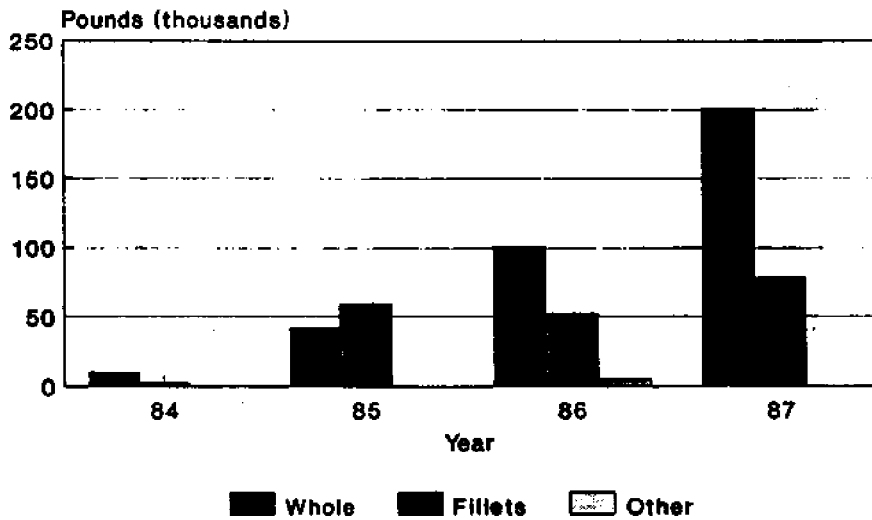
DATA SOURCE: NMFS Market News Reports.
Data for 1985-87 only.

Figure 27
IMPORTS OF CORVINA INTO SOUTHEASTERN
PORTS OF ENTRY: 1984-87
FRESH vs FROZEN



DATA SOURCE: NMFS Market News Reports

Figure 28
IMPORTS OF CORVINA INTO SOUTHEASTERN
PORTS OF ENTRY: 1984-87
PRODUCT FORMS



DATA SOURCE: NMFS Market News Reports

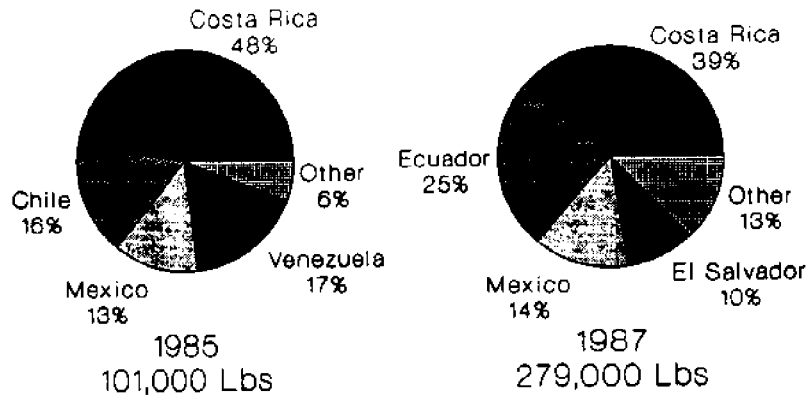
The major countries of origin for corvina have changed somewhat since 1985 (Figure 29). In 1985, Costa Rica supplied 48 percent of the total corvina imports. Venezuela, Chile, and Mexico accounted for 17, 16, and 13, percent of the total import volume, respectively. Costa Rica remained as the leading source of product in 1987 (38 percent), while Ecuador (25 percent) and El Salvador (10 percent) replaced Chile and Venezuela as major sources of corvina. Mexico's contribution to the total volume of corvina exported to the U.S. remained relatively constant at 14 percent for 1987. Other countries exporting corvina to the U.S. during 1985-87 period included Brazil, Panama, and Guyana. Miami was the sole port of entry for corvina imports during the 1983-87 period.

Black Drum

Imports of black drum were somewhat erratic during the 1983-87 period (Figure 30). Black drum imports decreased from 64,000 pounds in 1983 to 38,000 pounds in 1984. Imports then increased dramatically in 1985 to a reported 125,000 pounds, but then decreased to 69,000 pounds in 1986 and 1987. Although 1984 and 1985 were erratic, annual import volumes for black drum averaged 73,000 pounds over the five-year period. The average monthly distribution of landings during the five-year period suggests that black drum are most available during the fall and winter months and less available during the spring and summer (Figure 31). The peak five-year average months were January and February. Landings for black drum in the southeast region increased steadily during the five-year period. Black drum landings increased from 5.4 million pounds in 1983 to 10.8 million pounds in 1987. This represents an average annual percentage increase in black drum landings of 20 percent.

Figure 29

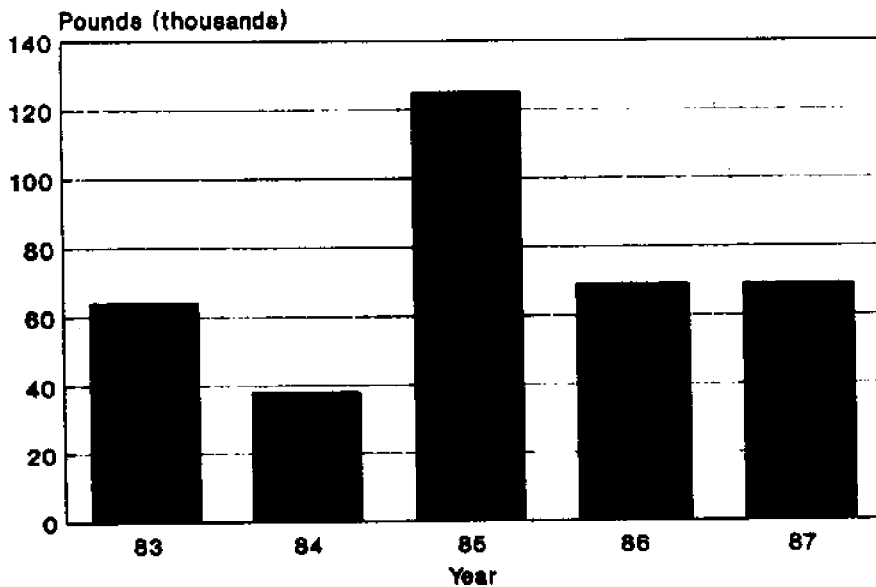
IMPORTS OF CORVINA BY COUNTRY OF ORIGIN: 1985 AND 1987



DATA SOURCE: NMFS Market News Report

Figure 30

**SOUTHEAST U.S. BLACK DRUM IMPORTS:
1983-87**



DATA SOURCE: NMFS Market News Reports

Black drum is imported as fresh product. In addition, all black drum imports reported during the 1983-87 period were shipped in whole form. All imports of black drum reported in the southeast region during the 1983-87 period originated from Mexico. The major port of entry for black drum is Brownsville, Texas.

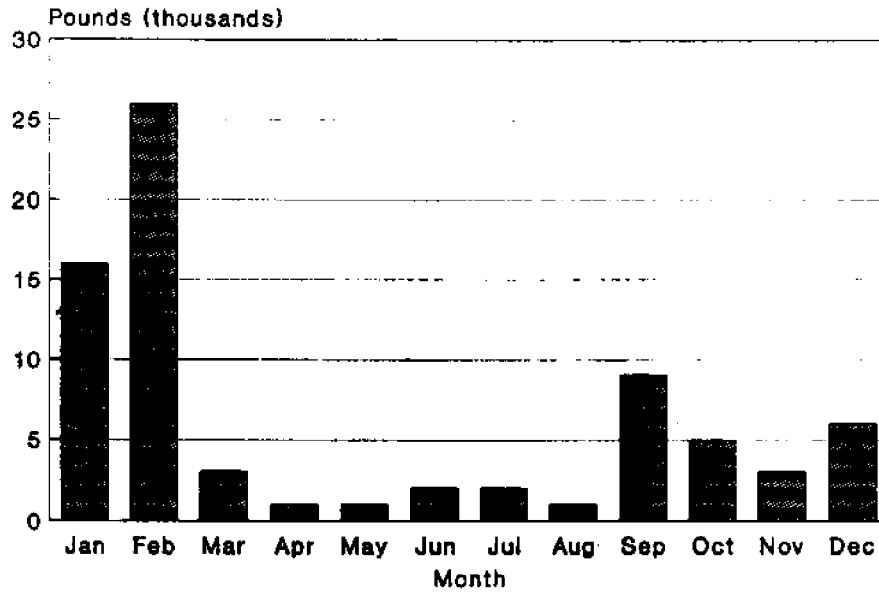
Kingklip

Kingklip represents another species that is relatively new to the domestic seafood market. The common market term "kingklip" refers to several species in the Genypterus genus. Imports of kingklip were not reported until mid-1985 and were inconsistent until 1986 (Figure 32). Only 63,000 pounds of kingklip were reported during the latter half of 1985. This increased to 483,000 pounds in 1986 and further increased by threefold to 1.5 million pounds in 1987. Although consistent data exists for only two years, the monthly distribution of kingklip imports is erratic with no single season demonstrating a dominance in product availability (Figure 33). Landings data are not readily available for kingklip and the percentage of total production that eventually finds its way to the U.S. market is unknown.

Kingklip is imported primarily as frozen product (Figure 34). In 1987, approximately 1.3 million pounds, or 87 percent of total import volume, were imported frozen. The remaining 215,000 pounds were imported as fresh product. The predominant product form of imported kingklip was fillets (Figure 35). One million pounds of fillets, or 64 percent of total import volume, were imported in 1987. Approximately 500,000 pounds were imported in whole form. The remaining 20,000 pounds were imported as loins or portions.

Figure 31

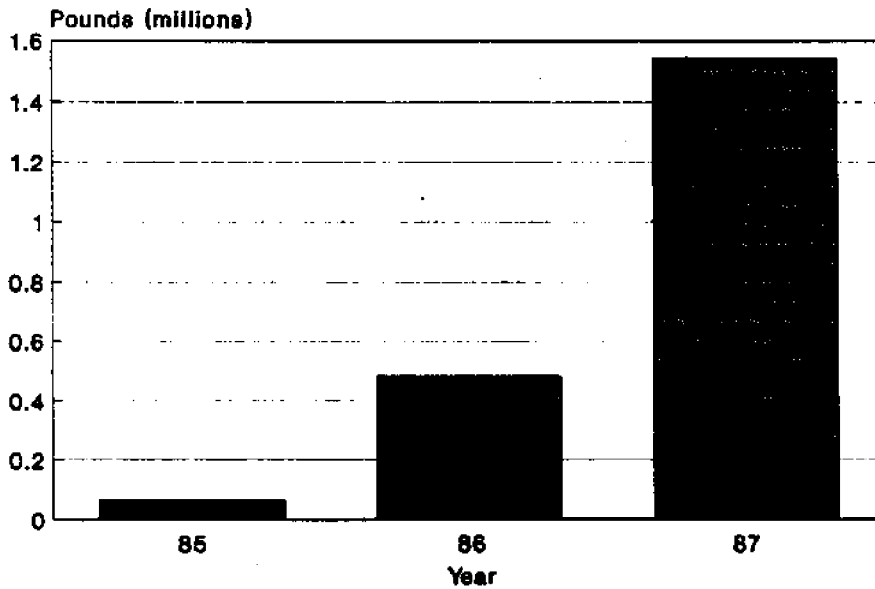
**FIVE-YEAR AVERAGE MONTHLY DISTRIBUTION
OF SOUTHEAST U.S. BLACK DRUM IMPORTS**



DATA SOURCE: NMFS Market News Reports

Figure 32

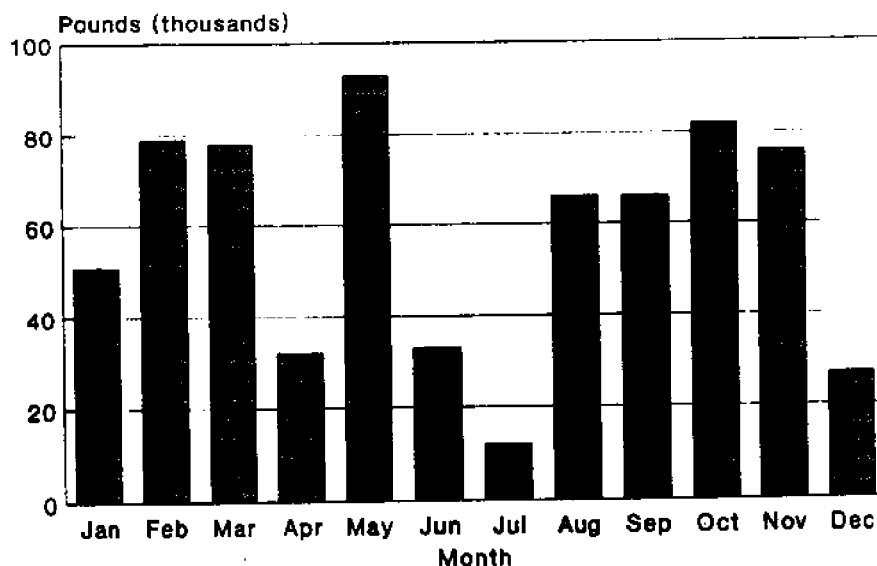
**SOUTHEAST U.S. KINGKLIP IMPORTS:
1985-87**



DATA SOURCE: NMFS Market News Reports

Figure 33

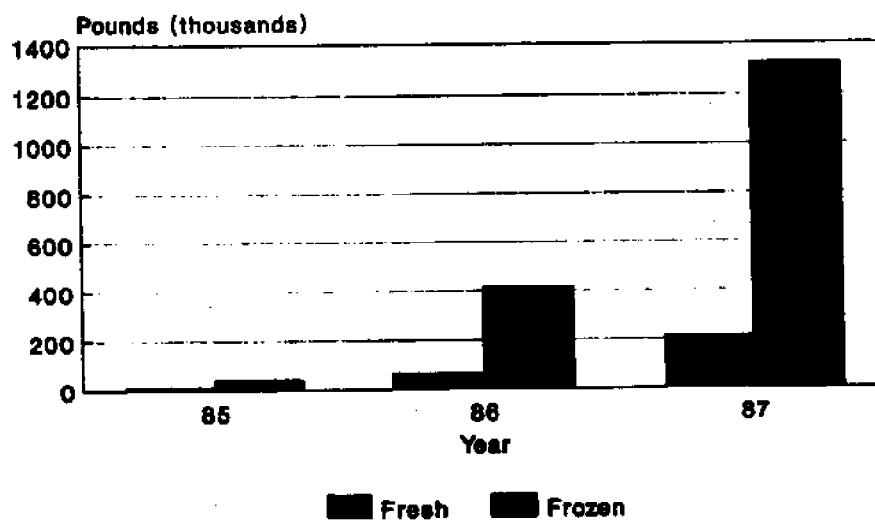
THREE-YEAR AVERAGE MONTHLY DISTRIBUTION OF SOUTHEAST U.S. KINGKLIP IMPORTS



DATA SOURCE: NMFS Market News Reports.
Data only for 1985-87 period.

Figure 34

IMPORTS OF KINGKLIP INTO SOUTHEASTERN PORTS OF ENTRY: 1985-87 FRESH vs FROZEN



DATA SOURCE: NMFS Market News Reports

The primary source of kingklip since 1985 has been Chile. All of the kingklip imports received in 1985 originated from Chile. In 1987, 81 percent of the total import volume originated from Chile, while imports from Peru accounted for 14 percent. Other countries that have exported small kingklip to the U.S. include Argentina, Mexico, and Ecuador. Virtually all of the kingklip imports were received through Miami Customs, with only a very small volume being reported as received through Brownsville.

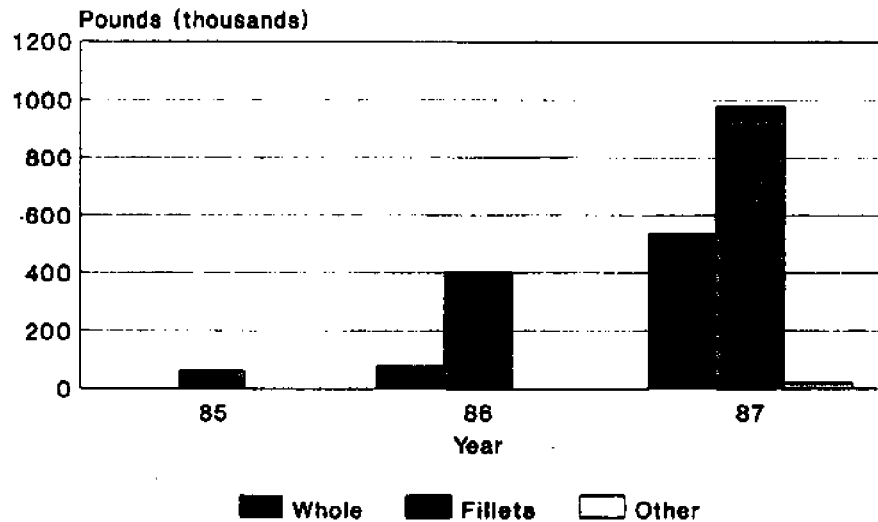
Lobster

The majority of lobster received by Customs in southeastern ports of entry originate from Latin American countries. Although NMFS Market News reports do not indicate species names for imported product, some indication of the variety of lobster is implied by the country of origin. Given the predominant Latin American origin, it is therefore assumed that the lobster products received by southeastern ports of entry and included in this report are warm-water spiny lobster varieties. A very small quantity of cold-water lobster (i.e. American lobster) is received from Canada and France. Since the objective of this study was to focus on tropical and subtropical species, these Canadian and French imports are not included in this report. It is further assumed that these imports are not transshipped from Latin American sources. In addition, products referred to as "langostinos" in the Market News Reports are not included in the following discussion due to the small quantities reported. Further, imports of Spanish or "bulldozer" lobsters are not reported in the Market News reports.

Reported imports of lobster from the Latin American region increased steadily from 1983 to 1986 (Figure 36). Lobster imports totaled

Figure 35.

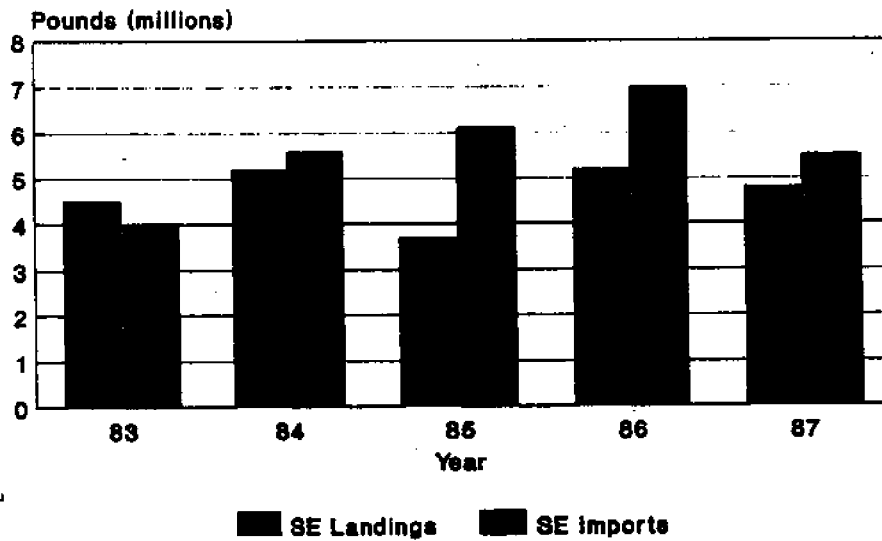
**IMPORTS OF KINGKLIP INTO SOUTHEASTERN
PORTS OF ENTRY: 1985-87
PRODUCT FORMS**



DATA SOURCE: NMFS Market News Reports

Figure 36

**SOUTHEAST U.S. LOBSTER LANDINGS AND
IMPORTS: 1983-87**



DATA SOURCE: NMFS Market News Reports.
Landings data represent spiny lobster.

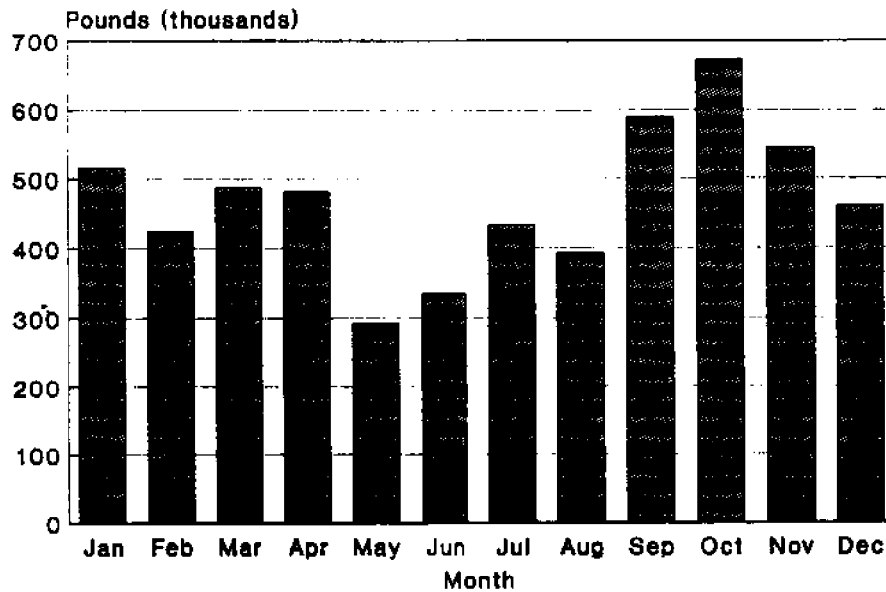
approximately 4 million pounds in 1983 and increased to approximately 7 million pounds in 1986. This represented an average annual increase of 24 percent. Reported lobster imports then declined to 5.5 million pounds in 1987, a decline of approximately 21 percent from the previous year and roughly equal to import volumes observed in 1984. The volume of lobsters imported from Latin America sources is somewhat erratic on a monthly basis (Figure 37). However, apparent availability peaks in the fall, with reduced product available in the summer months. Although imports of lobsters (i.e. spiny lobsters) into southeastern ports of entry have in general been increasing over recent years, this reported volume represents a small percentage of the total U.S. spiny lobster import volume. Total U.S. spiny lobster imports (fresh and frozen) for 1987 totaled 145 million pounds. Thus, reported southeastern regional imports accounted for approximately 4 percent of total U.S. spiny lobster imports. The following discussion will pertain only to that import volume reported in the NMFS Market News reports.

Lobster exported from the Latin American region into the southeast U.S. are received primarily as frozen product. In 1987, approximately 97 percent (5.3 million pounds) of the lobster imports were frozen. In addition, lobster is imported primarily as tail meats. Product forms other than whole tail meats (i.e. whole lobster, tail meat pieces, and others) are not reported by NMFS.

A number of Latin American countries export lobster to Southeastern ports of entry (Figure 38). Of these, Honduras, Bahamas, and Mexico have maintained important shares of the total reported import volume from the Latin American region to the Southeastern U.S. ports of entry. Other than these major sources of lobsters, there has been some

Figure 37

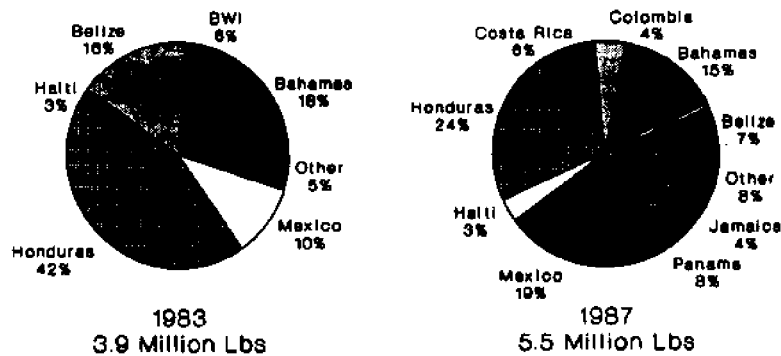
FIVE-YEAR AVERAGE MONTHLY DISTRIBUTION OF SOUTHEAST U.S. LOBSTER IMPORTS



DATA SOURCE: NMFS Market News Reports

Figure 38

IMPORTS OF LOBSTER BY COUNTRY OF ORIGIN: 1983 AND 1987



DATA SOURCE: NMFS Market News Reports

volatility in terms of single country sources of lobster from the Latin American region. In 1983, Honduras accounted for 42 percent of the import volume, while Bahamas, Belize, and Mexico accounted for 18 percent, 16 percent, and 10 percent, respectively. The remaining 14 percent originated from at least 12 other countries, including British West Indies, Colombia, Costa Rica, Haiti, and Panama. By 1987, Honduras' share (although still the most important single country source) had declined to 23 percent. Mexico and Bahamas contributed 18 and 13 percent respectively. The remaining volume was supplied by 15 other countries, the most important of which were Panama, Belize, Costa Rica, Jamaica, and Colombia. Miami is the major port of entry for lobster imports. In 1987, 78 percent of the total lobster import volume arrived in Miami. Brownsville, (12 percent), Port Everglades (6 percent), West Palm Beach (3 percent) and New Orleans (less than 1 percent) served as less important export destinations.

Scallops

Scallop imports reported in NMFS Market News for southeastern ports of entry originate primarily from the Latin American region. Market News reports, however, do not indicate the species of scallops being imported. Given that scallops originate from widely dispersed countries in the Latin American region, several species may be represented by the total import volume.

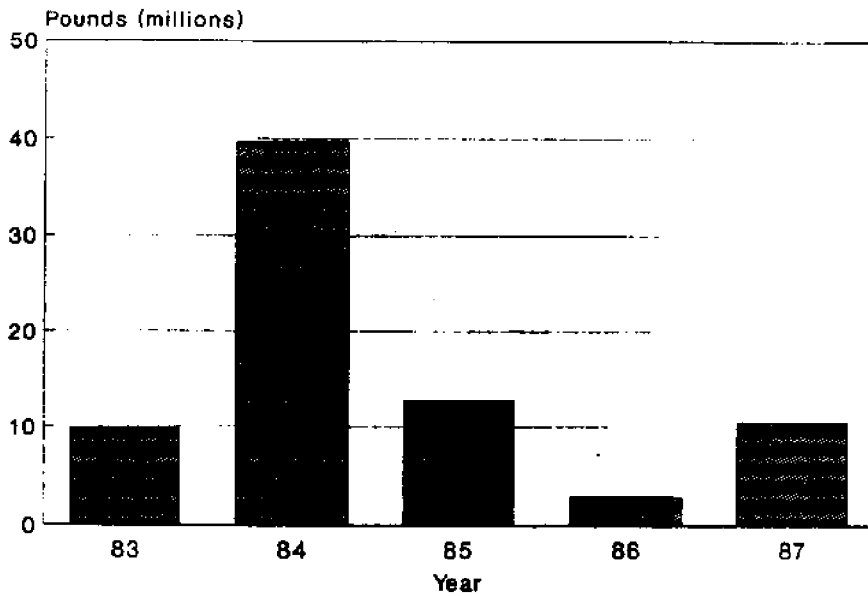
Imports of scallop meats into southeastern ports of entry during the 1983-87 period have followed the same general trend as exhibited by lobster imports (Figure 39). Scallop imports increased steadily from 1.9 million pounds in 1983 to 7.6 million pounds in 1986, representing an average annual increase of 60 percent. Southeastern

scallop import volume then declined to 4.7 million pounds in 1987 or a 40 percent decline from the previous year. Total scallop imports into the U.S. have also been increasing over the past ten years. However, total U.S. scallop imports (as did southeast regional imports) decreased to 40 million pounds in 1987 from the record 48 million pounds in 1986 -- a 17 percent decrease. Scallop imports reported for southeastern ports of entry represent approximately 10 percent of the total U.S. scallop meat imports. In contrast to imported product, domestic scallop landings were very erratic during the 1983-87 period. Landings peaked in 1984, due to Florida calico scallop production (Figure 40). Though somewhat erratic, scallop meat imports do not appear to be characterized by increased availability during any given season (Figure 41). The following discussion pertains only to those scallops being received by Customs in southeastern ports of entry.

Scallops are imported into the southeast in the form of shucked meats. There are no reports of scallops being imported as breaded or specialty products. In 1987, approximately 72 percent of the scallop meats were imported as fresh product (Figure 42). The remainder were imported in frozen form.

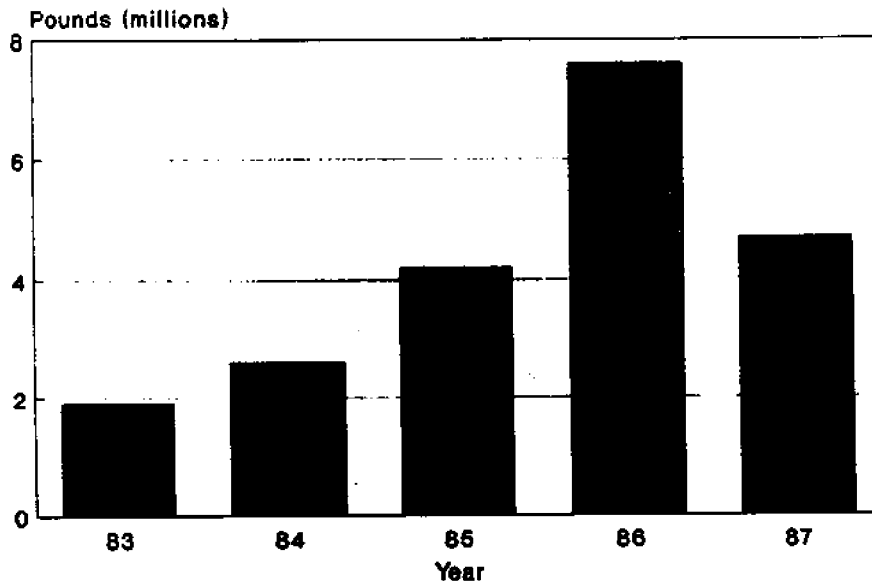
Considerable change has occurred in the ranking of sources for scallop meats arriving at southeastern ports of entry (Figure 43). In 1984, imports from Peru represented 81 percent of the total volume. Chile accounted for 12 percent, while Japan and Costa Rica accounted for 5 and 1 percent, respectively. In 1987, Panama accounted for 91 percent of the total scallop imports, while Chile and Peru accounted for 6 and 1 percent respectively. Other countries contributing lesser volumes include Costa Rica, Honduras, Jamaica, Japan, Mexico, and

Figure 39
SOUTHEAST U.S. SCALLOP LANDINGS:
1983-87



DATA SOURCE: NMFS Landings Data.

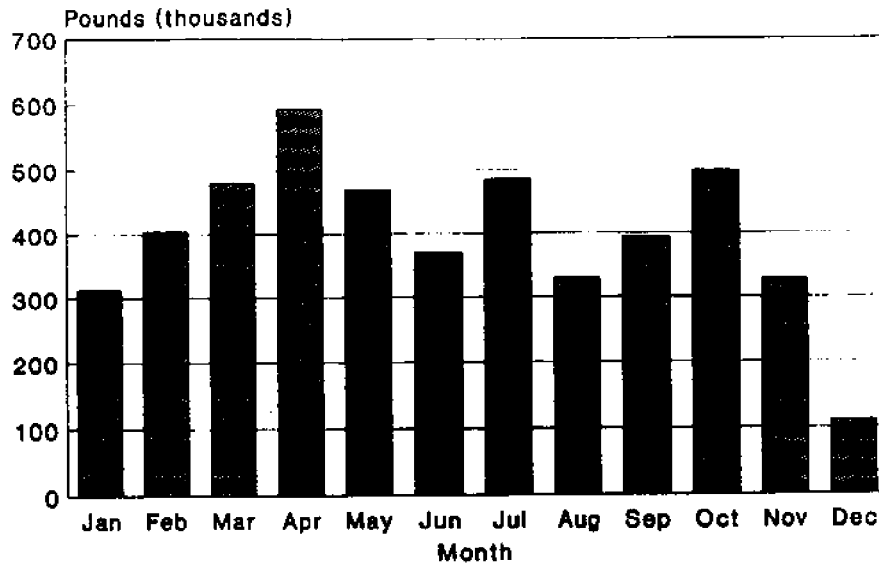
Figure 40
SOUTHEAST U.S. SCALLOP IMPORTS:
1983-87



DATA SOURCE: NMFS Market News Reports

Figure 41

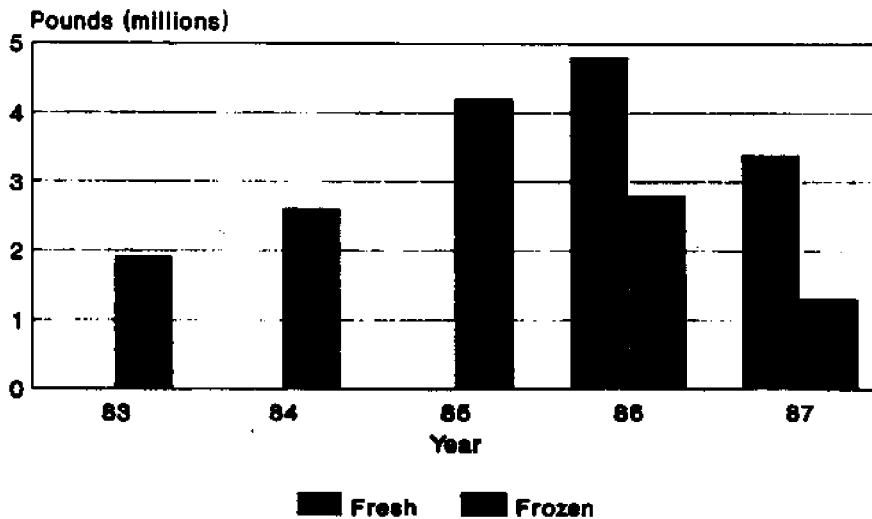
**FOUR-YEAR AVERAGE MONTHLY DISTRIBUTION
OF SOUTHEAST U.S. SCALLOP IMPORTS**



DATA SOURCE: NMFS Market News Reports.
Data refers to 1984-87.

Figure 42

**IMPORTS OF SCALLOPS INTO SOUTHEASTERN
PORTS OF ENTRY: 1983-87
FRESH vs FROZEN**



DATA SOURCE: NMFS Market News Reports

Venezuela. Virtually all of the scallop meats imported into the southeast and reported by NMFS were received in Miami.

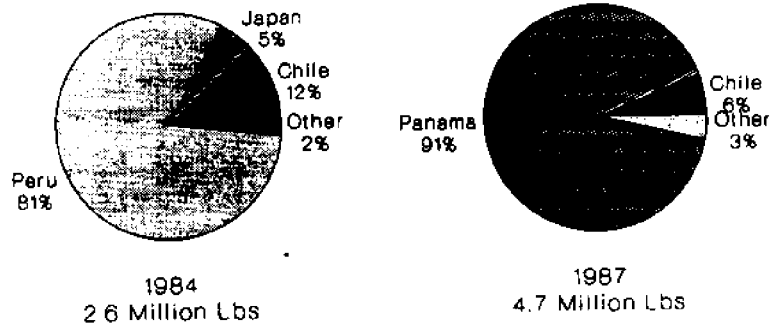
Shark

Imports of shark did not appear regularly in the Market News reports until 1985. Prior to that, shark imports were only occasionally reported and in small quantities. For example, shark imports in 1983 and 1984 were 3,000 and 30,000 pounds, respectively. Although shark imports increased to only 60,000 pounds in 1985, quantities were arriving at southeastern ports of entry on a more regular basis. Shark imports increased dramatically to 768,000 pounds in 1986 (Figure 44). Shark imports increased even more dramatically in 1987, with a nearly threefold increase from the previous year to 2.2 million pounds. The five-year average monthly distributions of shark imports indicate that most shark imports arrive in the late summer and fall months (Figure 45). Southeastern U.S. regional landings of shark has increased steadily since 1983. Total reported landings volumes of all species increased from 1.4 million pounds in 1983 to 2.4 million pounds in 1986. Landings volumes then increased sharply to 4.3 million pounds in 1987. Imported shark represented about 50 percent of the regional shark landings in 1987.

Shark imports are received primarily as frozen product (Figure 46). Of the total 2.2 million pounds imported in 1987, 1.5 million pounds (68 percent) were received as frozen product. The remaining 700,000 pounds were imported fresh. In addition, approximately 1.6 million pounds of the total 2.2 million pounds of shark imports reported for 1987 were reportedly received in "whole" form (i.e. headed, eviscerated, and without tails or fins) (Figure 47). Approximately

Figure 43

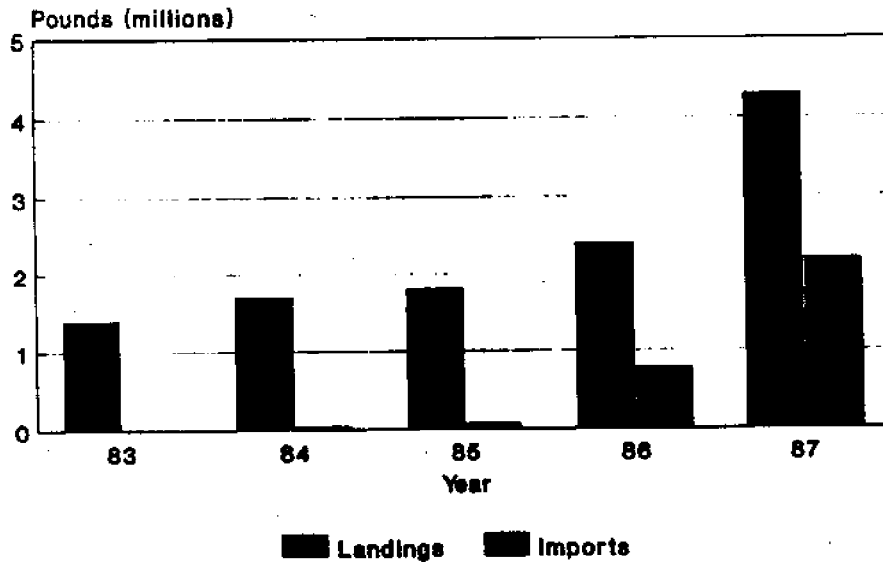
IMPORTS OF SCALLOPS BY COUNTRIES OF ORIGIN: 1984 AND 1987



DATA SOURCE: NMFS Market News Reports

Figure 44

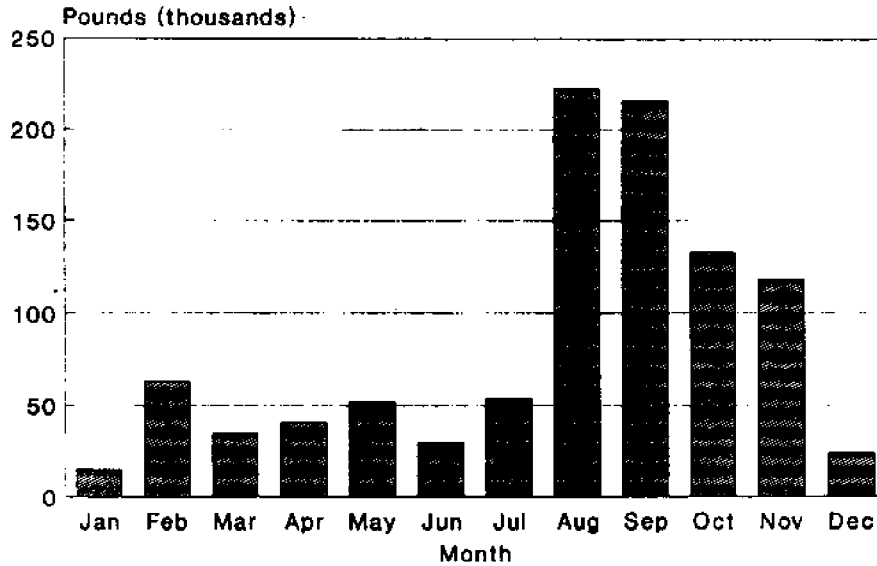
SOUTHEAST U.S. SHARK LANDINGS AND IMPORTS: 1983-87



DATA SOURCE: NMFS Market News Reports

Figure 45

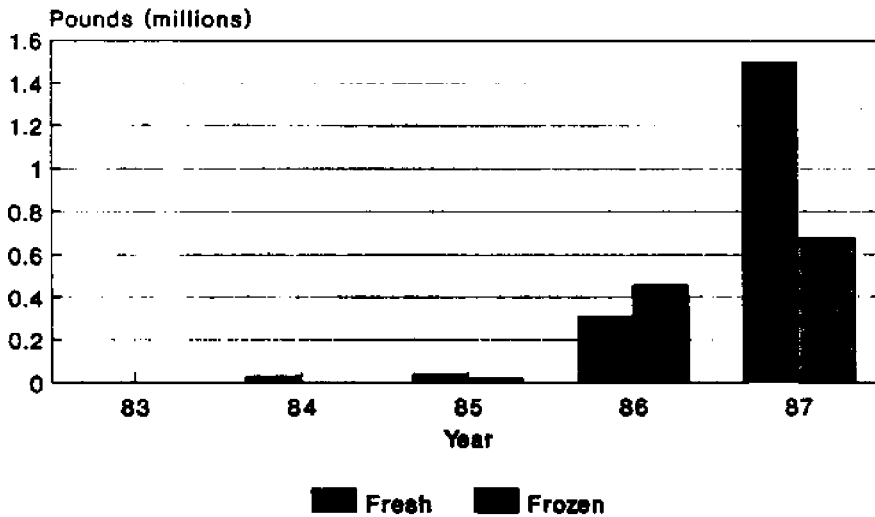
**THREE-YEAR AVERAGE MONTHLY DISTRIBUTION
OF SOUTHEAST U.S. SHARK IMPORTS**



DATA SOURCE: NMFS Market News Reports.
Data refers to 1985-87.

Figure 46

**IMPORTS OF SHARK INTO SOUTHEASTERN
PORTS OF ENTRY: 1983-87
FRESH vs FROZEN**



DATA SOURCE: NMFS Market News Reports

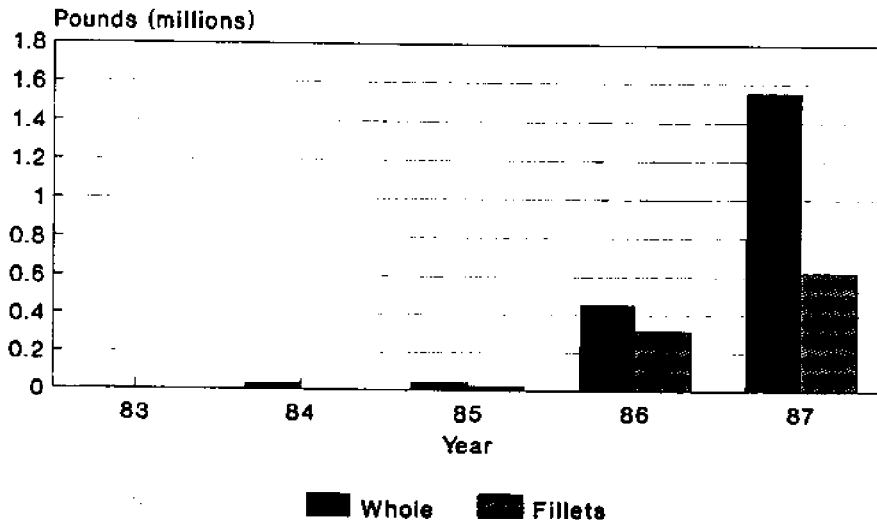
600,000 pounds were imported as fillets, with the remaining volume reported as loins or portions. Although the imports of shark are likely represented by a variety of species, the reported data only recognizes two distinct market names -- mako and thresher. In 1987, mako shark represented approximately 51 percent of the total shark imports. Thresher shark accounted for 29 percent. Unclassified species represented 19 percent, with the remaining one percent being shark fins.

The major single country sources of shark changed considerably during the 1985-87 period (Figure 48). Prior to 1986, Mexico was the leading reported supplier of shark. However, in 1986, Mexico supplied only 5 percent of the total shark imports. That same year Peru supplied 80 percent of the product, followed by Ecuador (10%). In 1987, Ecuadorian imports accounted for 1.3 million pounds (60 percent) of the total shark imports. Peruvian imports totaled 500,000 pounds (23 percent). Chile and Guyana each accounted for 5 percent of the total import volume. Other countries that exported shark to southeastern ports of entry in 1987 include Mexico, Costa Rica, Panama, and Venezuela. The major port of entry for shark is Miami. Lesser quantities of shark imports arrive in Brownsville and New Orleans.

Pompano

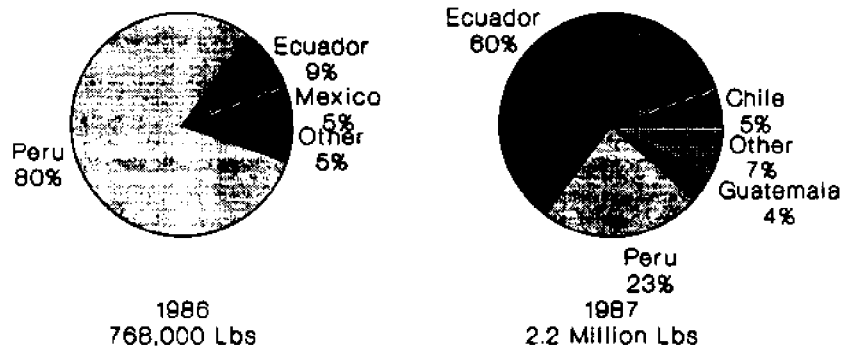
Import volumes of pompano received in the Southeastern U.S. exhibited considerable variability during the 1983-87 period. Pompano imports of 82,000 pounds in 1983 declined to only 24,000 pounds in 1984 and then increased to a peak of 342,000 pounds in 1985 (Figure 49). Import volumes then declined again to 166,000 pounds and 106,000

Figure 47
IMPORTS OF SHARK INTO SOUTHEASTERN
PORTS OF ENTRY: 1983-87
PRODUCT FORMS



DATA SOURCE: NMFS Market News Reports

Figure 48
IMPORTS OF SHARK BY COUNTRIES OF
ORIGIN: 1986 AND 1987



DATA SOURCE: NMFS Market News Reports

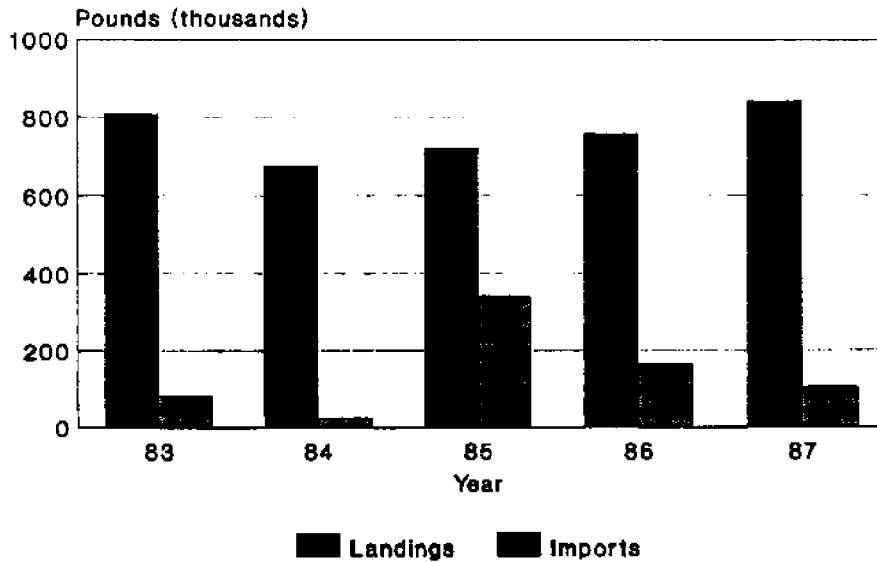
pounds in 1986 and 1987, respectively. Pompano imports have been relatively small in comparison to southeast regional landings. Reported landings of pompano in the southeast region declined 16 percent from 1983 to 1984. However, landings exhibited a steady increase during the 1984-87 period (Figure 49). Pompano landings approached 843,000 pounds in 1987, representing an average annual increase since 1984 of 8 percent. The monthly distribution of pompano imports is somewhat erratic. Imports tend to increase in the spring, with July and October being peak months (Figure 50).

Except in 1984 and 1986, the volume of frozen pompano imports has exceeded that of fresh product. Frozen pompano represented approximately two-thirds of the total volume imported in 1987 (Figure 51). In addition, pompano is typically imported in whole form. Only a small quantity of fillets were imported in 1987.

The distribution of pompano imports across major countries of origin has changed somewhat over the 1983-87 period (Figure 52). Mexico continued to be the major supplier of pompano over the five-year period. Mexican imports accounted for 99 percent of the pompano to arrive at southeastern ports of entry in 1983. Costa Rica supplied the remaining small volumes. In 1987, Mexico supplied 51 percent, with Peru and Ecuador supplying 39 and 10 percent, respectively. Peruvian pompano imports first began showing up in NMFS Market News data in 1985, when Peru accounted for 86 percent of the pompano imports for that year. The major ports of entry for pompano are Miami and Brownsville, with only a small portion of product arriving through New Orleans in 1987.

Figure 49

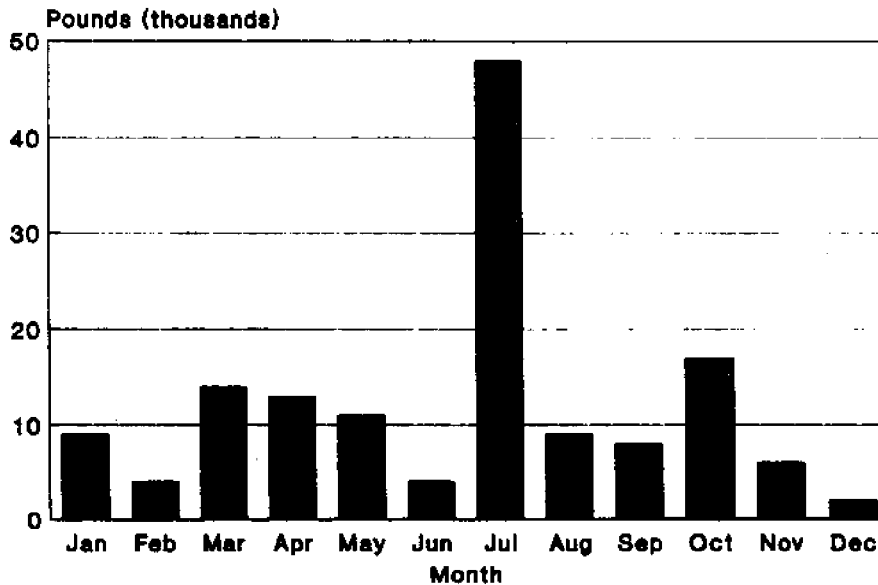
SOUTHEAST U.S. POMPANO LANDINGS AND IMPORTS: 1983-87



DATA SOURCE: NMFS Market News Reports

Figure 50

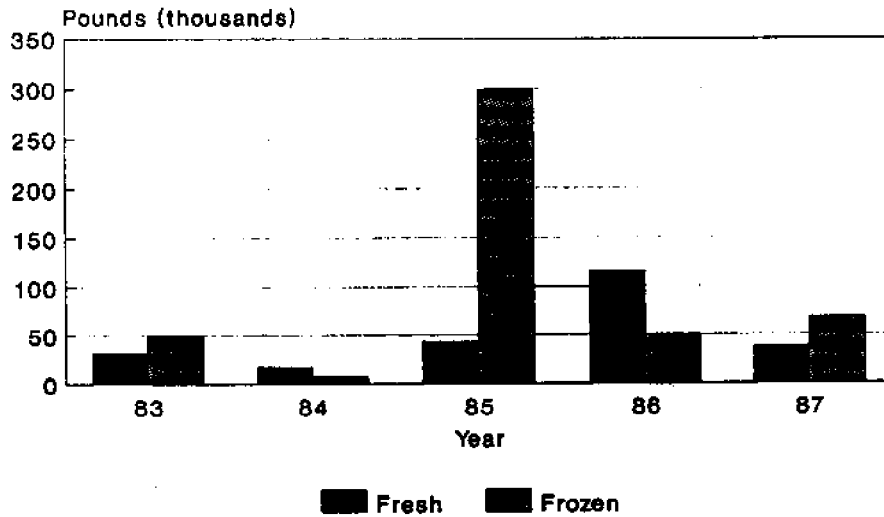
FIVE-YEAR AVERAGE MONTHLY DISTRIBUTION OF SOUTHEAST U.S. POMPANO IMPORTS



DATA SOURCE: NMFS Market News Reports

Figure 51

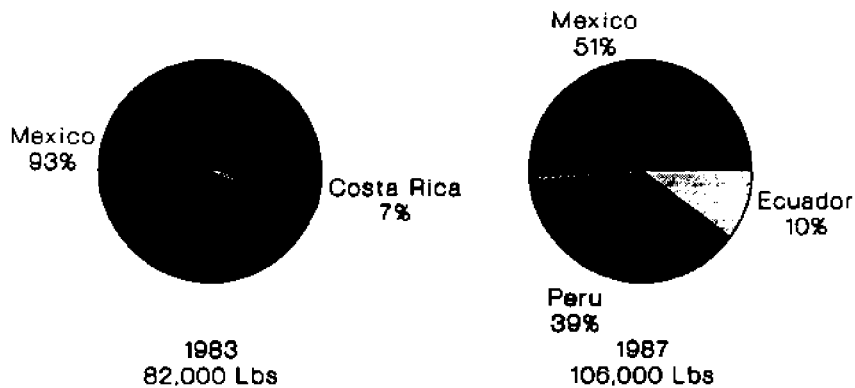
**IMPORTS OF POMPANO INTO SOUTHEASTERN
PORTS OF ENTRY: 1983-87
FRESH vs FROZEN**



DATA SOURCE: NMFS Market News Reports

Figure 52

**IMPORTS OF POMPANO BY COUNTRIES OF
ORIGIN: 1983 AND 1987**



DATA SOURCE: NMFS Market News Reports

Swordfish

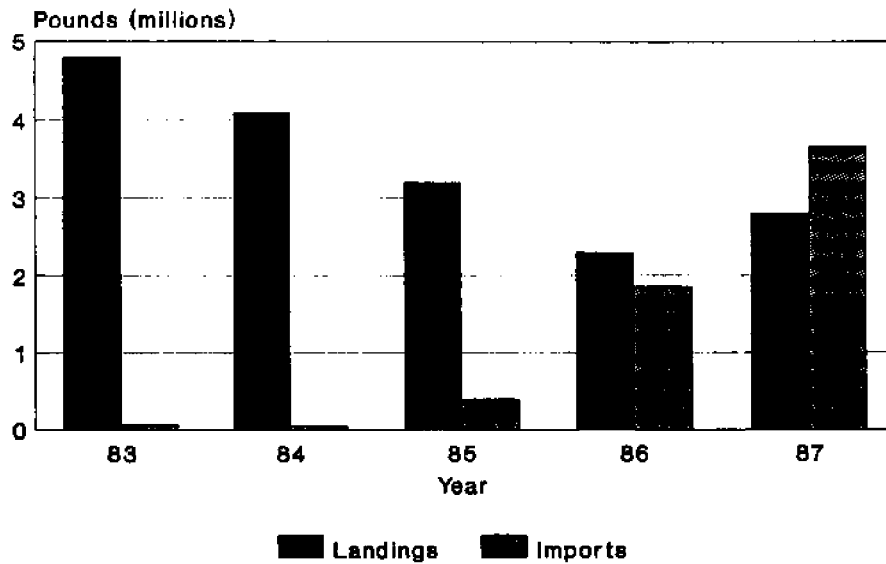
Swordfish import volumes during the 1983-87 period increased dramatically (Figure 53). In 1983, only 65,000 pounds of swordfish imports were reported for the region. The volume of swordfish imports increased steadily to approximately 3.7 million pounds in 1987. This represents an increase of over 50-fold during the 5-year period. Swordfish landings in the southeast region, in contrast, declined steadily from 1983 to 1987. Regional swordfish landings decreased from 4.8 million pounds in 1983 to 2.8 million pounds in 1987. This represents an average annual decline in landings of 22 percent. Recently enacted regional management policy, which effectively eliminated the commercial fishery for billfish, does not apply to broadbill swordfish. Swordfish imports are apparently available on a consistent year round basis, with small increases in monthly import volumes being noted for spring and fall (Figure 54).

The majority of swordfish imported during the 1983-87 period were received as fresh, whole fish (whole swordfish denotes eviscerated fish with the head, tail, and fins removed) (Figure 55). In 1987, 93 percent of the swordfish were shipped fresh. In addition, 94 percent of the imported swordfish were received in whole form. Only about 2.5 percent were received as portions and/or loins, while the remaining volume was imported in filleted form. In terms of product form, whole fish was the predominant form imported during the 1983-87 period

The major countries of origin for swordfish imports changed over the 1983-87 period (Figure 56). In 1983, Canada accounted for over 84 percent of the very small volume of swordfish imports reported in

Figure 53

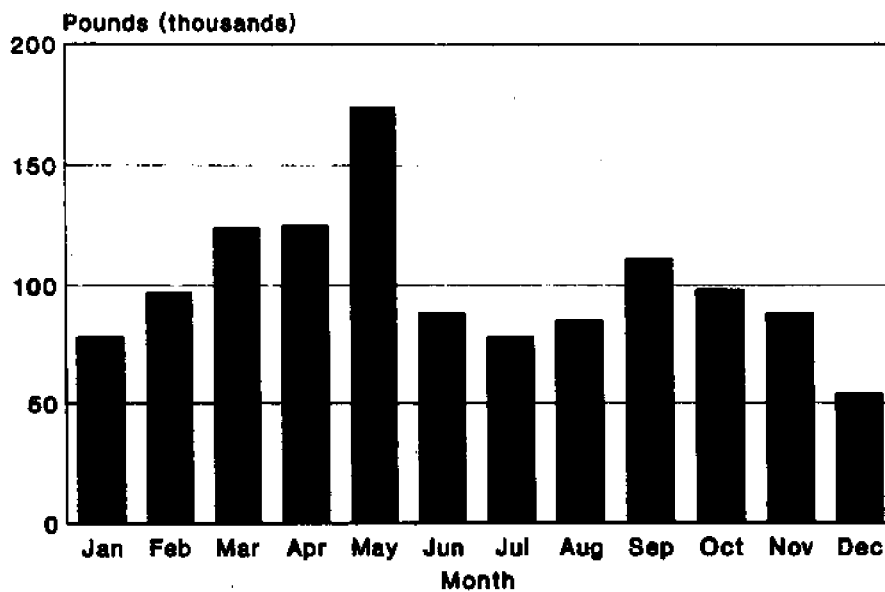
SOUTHEAST U.S. SWORDFISH LANDINGS AND IMPORTS: 1983-87



DATA SOURCE: NMFS Market News Reports

Figure 54

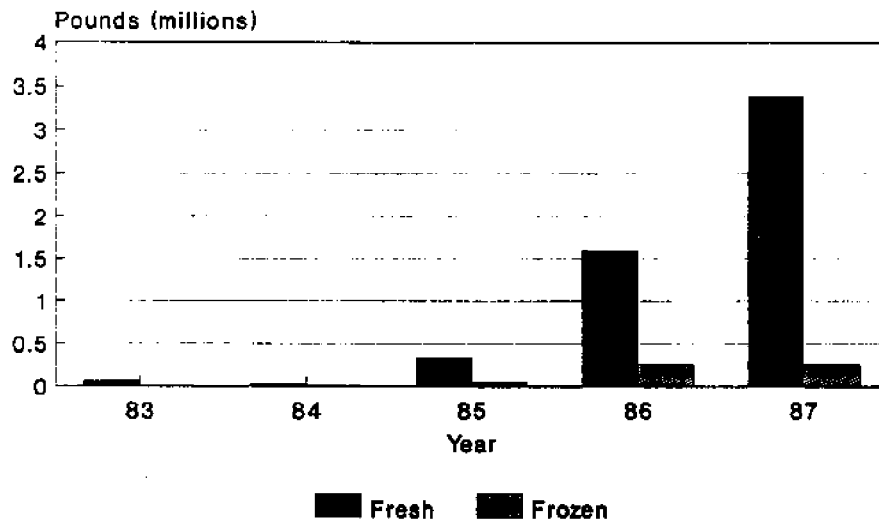
FIVE-YEAR AVERAGE MONTHLY DISTRIBUTION OF SOUTHEAST U.S. SWORDFISH IMPORTS



DATA SOURCE: NMFS Market News Reports

Figure 55

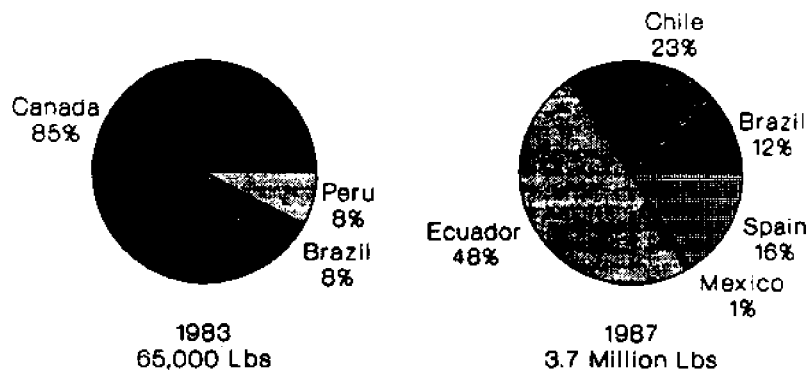
IMPORTS OF SWORDFISH INTO SOUTHEASTERN PORTS OF ENTRY: 1983-87 FRESH vs FROZEN



DATA SOURCE: NMFS Market News Reports

Figure 56

IMPORTS OF SWORDFISH BY COUNTRIES OF ORIGIN: 1983 AND 1987



DATA SOURCE: NMFS Market News Reports

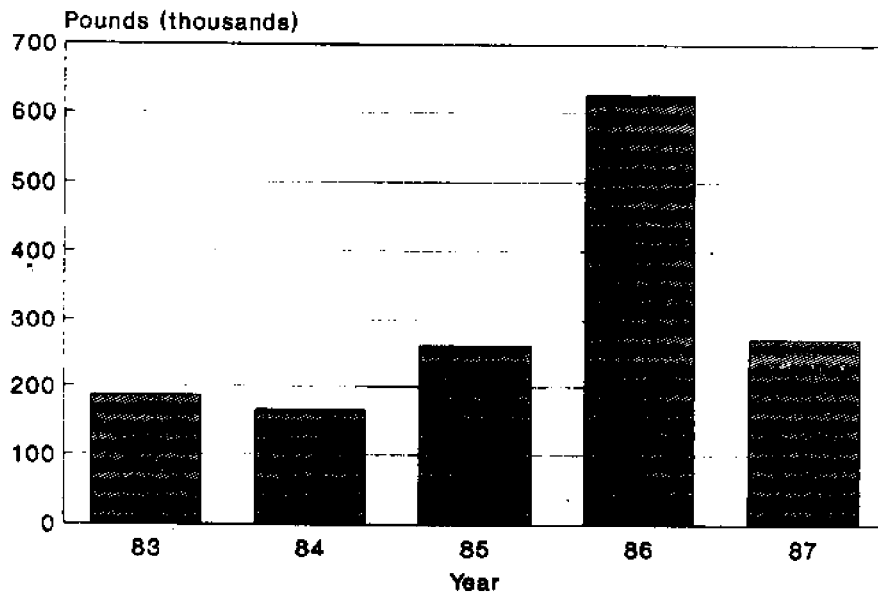
the southeast U.S. However, as the volume of swordfish imports began to increase, Canada no longer continued to supply swordfish imports to the region. At the same time, Spain, Chile, Brazil, and Ecuador began to emerge as major suppliers. By 1987, Ecuador (44 percent), Chile (21 percent), Spain (15 percent), and Brazil (11 percent) were the major suppliers of swordfish imports for the southeastern U.S. Over 99 percent of the imported swordfish passed through Customs in Miami.

Red Drum (Redfish)

The volume of red drum imports received by southeastern U.S. ports of entry was somewhat erratic during the 1983-87 period (Figure 57). Red drum imports were approximately equal in 1983 and 1984. However, import volumes increased by 60 percent in 1985 and further increased in 1986 to 626,000 pounds. Red drum imports then declined in 1987 to 272,000 pounds. Southeastern landings of red drum, on the other hand, exhibited a dramatic and continuous increase from 1983 to 1986 (Figure 58). Landings increased from 3.5 million pounds in 1983 to 15.4 million pounds in 1986. However, given the virtual shutdown of the fishery in federal waters in 1987, regional landings decreased to 5.2 million pounds that year. Given the apparent strong market demand for red drum during this period, the reported decline in imports as landings were declining is inexplicable. Notwithstanding the unexplained decline in imports, the apparent levels of red drum imports represented a small portion of the total supply in the market place. If the demand for red drum remains strong, and substitute species are not found, the more recent closure of the commercial red drum fishery in state, as well as federal, waters will likely intensify the importance

Figure 57

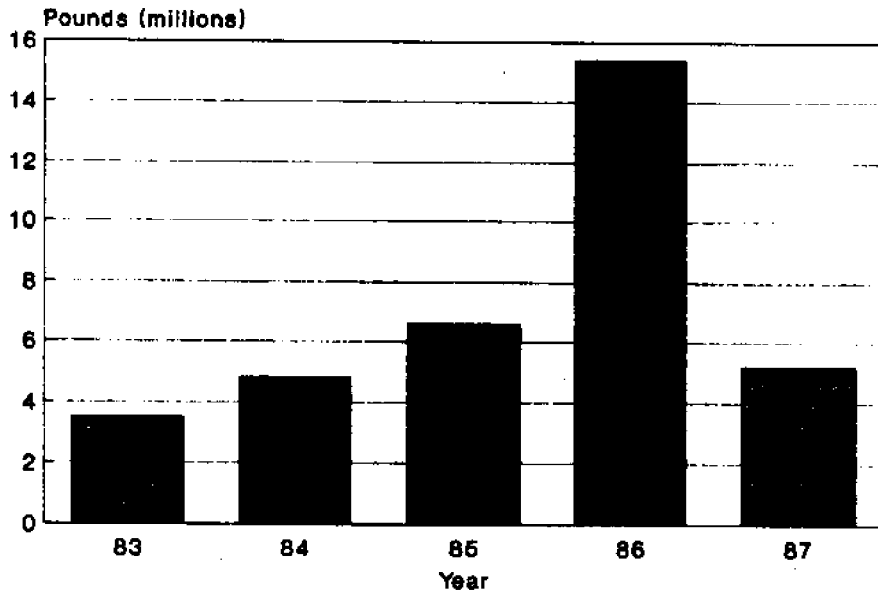
**SOUTHEAST U.S. RED DRUM IMPORTS:
1983-87**



DATA SOURCE: NMFS Market News Reports

Figure 58

**SOUTHEAST U.S. RED DRUM LANDINGS:
1983-87**



DATA SOURCE: NMFS Market News Reports

of foreign sources for red drum. The monthly distribution of red drum imports is variable, with apparent availability being lowest during the late spring and summer months (Figure 59).

Red drum imports consist almost entirely of whole, fresh product. In 1987, whole and fresh product each represented approximately 98 percent of the total import volume (Figures 60 and 61). During the 1983-87 period, frozen product and fillets have each consistently represented less than 10 percent of the total import volume.

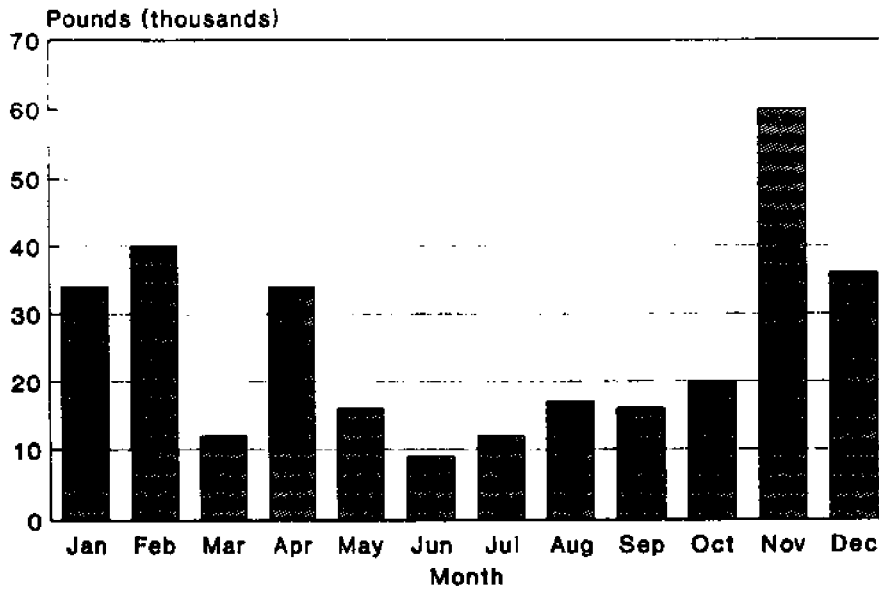
Mexico accounted for virtually 100 percent of the reported red drum imports for the southeastern region during the 1983-87 period. Other countries exporting reportedly small quantities of red drum into the Southeastern U.S. include Costa Rica and Ecuador. Brownsville is the major port of entry for red drum products.

Sea Trout

Sea trout imports decreased steadily from 1984 to 1987 (Figure 62). Imports of sea trout increased from 716,000 pounds in 1983 to 839,000 pounds in 1984. However, import volumes decreased by nearly one-half over the next four years to 429,000 pounds in 1987. Since 1984, sea trout imports have decreased by an average annual rate of approximately 20 percent. Southeastern regional landings of sea trout, although somewhat erratic, also exhibited a recent decline (Figure 63). Landings alternately increased and decreased during the 1983-87 period, with a 15 percent decline from 18.4 million pounds in 1986 to 15.6 million pounds in 1987. Seasonal availability of sea trout imports is about evenly distributed across the months, with the winter and spring exhibiting small peaks in import volumes (Figure 64).

Figure 59

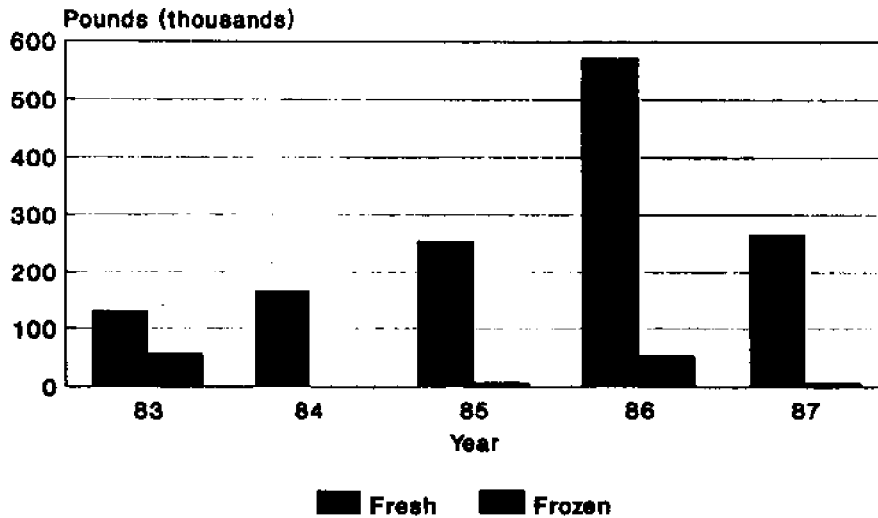
**FIVE-YEAR AVERAGE MONTHLY DISTRIBUTION
OF SOUTHEAST U.S. RED DRUM IMPORTS**



DATA SOURCE: NMFS Market News Reports

Figure 60

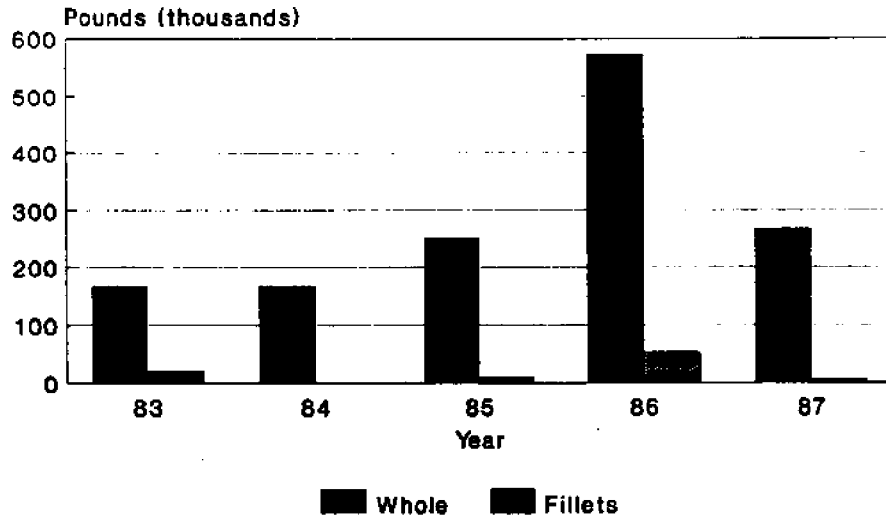
**IMPORTS OF RED DRUM INTO SOUTHEASTERN
PORTS OF ENTRY: 1983-87
FRESH vs FROZEN**



DATA SOURCE: NMFS Market News Reports

Figure 61

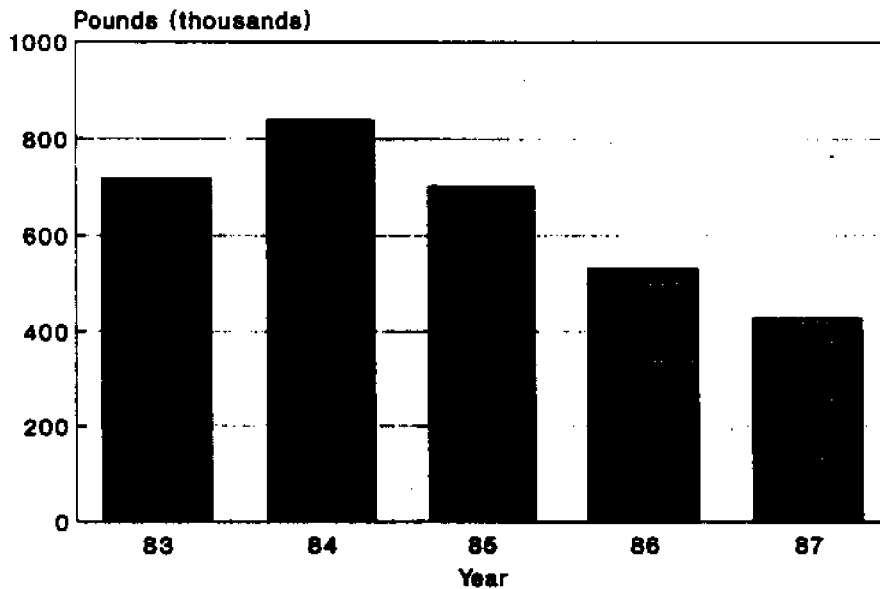
**IMPORTS OF RED DRUM INTO SOUTHEASTERN
PORTS OF ENTRY: 1983-87
PRODUCT FORMS**



DATA SOURCE: NMFS Market News Reports

Figure 62

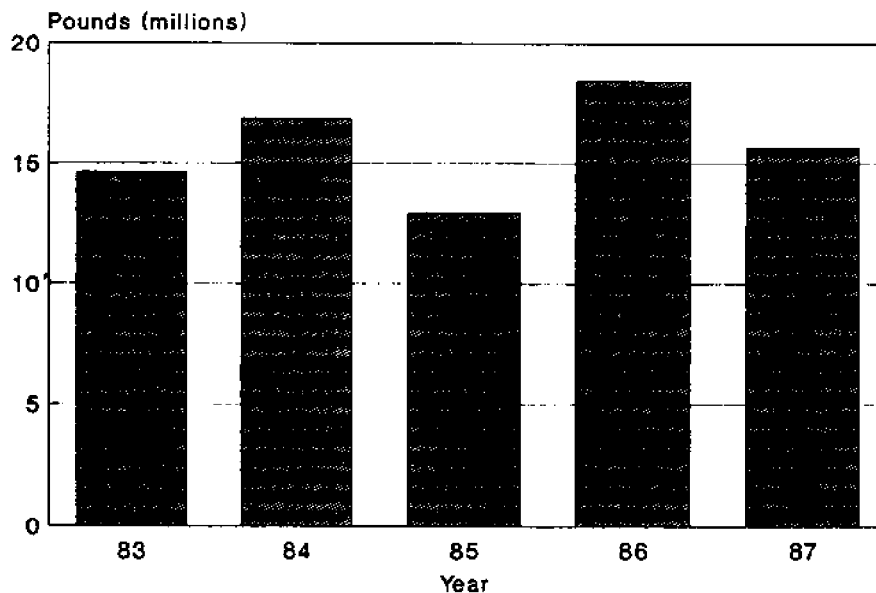
**SOUTHEAST U.S. SEA TROUT IMPORTS:
1983-87**



DATA SOURCE: NMFS Market News Reports

Figure 63

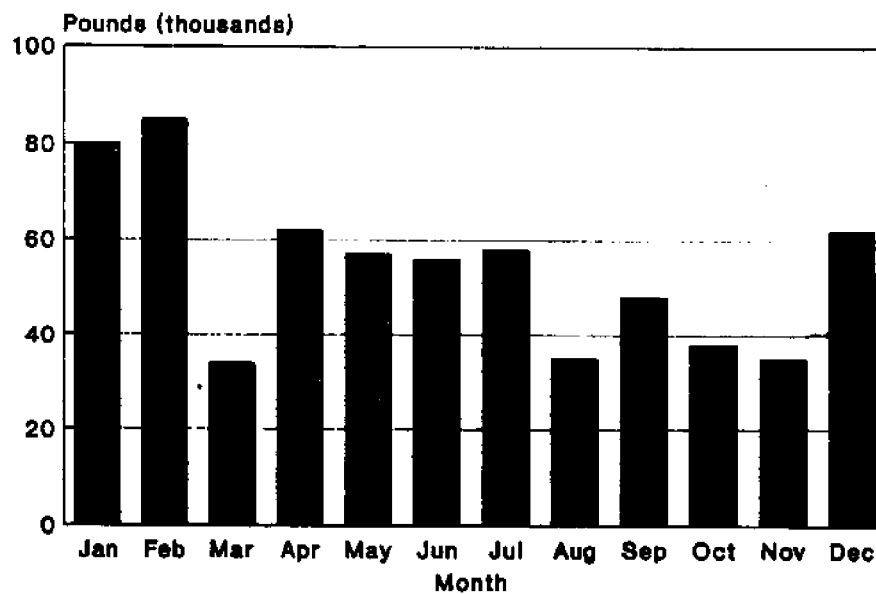
SOUTHEAST U.S. SEA TROUT LANDINGS: 1983-87



DATA SOURCE: NMFS Market News Reports

Figure 64

FIVE-YEAR AVERAGE MONTHLY DISTRIBUTION OF SOUTHEAST U.S. SEA TROUT IMPORTS



DATA SOURCE: NMFS Market News Reports

Sea trout is imported primarily as fresh product. In 1983, fresh sea trout imports represented 58 percent of the total sea trout imports. By 1987, fresh sea trout imports accounted for approximately 93 percent of the total (Figure 65). In terms of product form, sea trout is imported primarily in the whole form. Fillets have traditionally represented less than 10 percent of the total import volume (Figure 66). Market News import data specify only two species of sea trout being imported -- spotted and sand. In 1987, 36 percent of the sea trout imported were spotted and less than 1 percent were sand trout. The largest percentage of the total volume were reported generically as "sea trout".

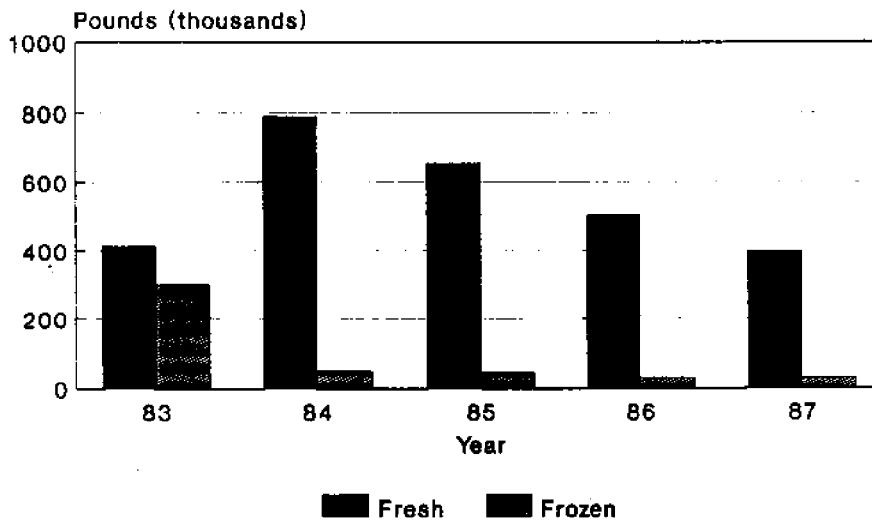
Mexico has continued to be the most important source of sea trout exports. In 1983, Mexico supplied 96 percent of the import volume. In 1987, Mexico accounted for 93 percent of the sea trout reportedly received by southeastern ports of entry (Figure 67). The remaining volume was received from Argentina (4 percent) and Panama (3 percent). Other countries exporting sea trout during the 1983-87 period include Brazil and Venezuela. The majority of the sea trout imports were reportedly received by Customs in Brownsville. Smaller volumes were received in Miami and Savannah.

King Mackerel

King mackerel imports decreased from 1.2 million pounds in 1983 to 626,000 pounds in 1984 (Figure 68). Following 1985, king mackerel import volume exhibited a steady increase to 1.8 million pounds in 1987. In contrast, regional domestic landings generally decreased during the 1983-87 period. Southeastern regional landings decreased from 6.7 million pounds in 1983 to 4.6 million pounds in 1987. The

Figure 65

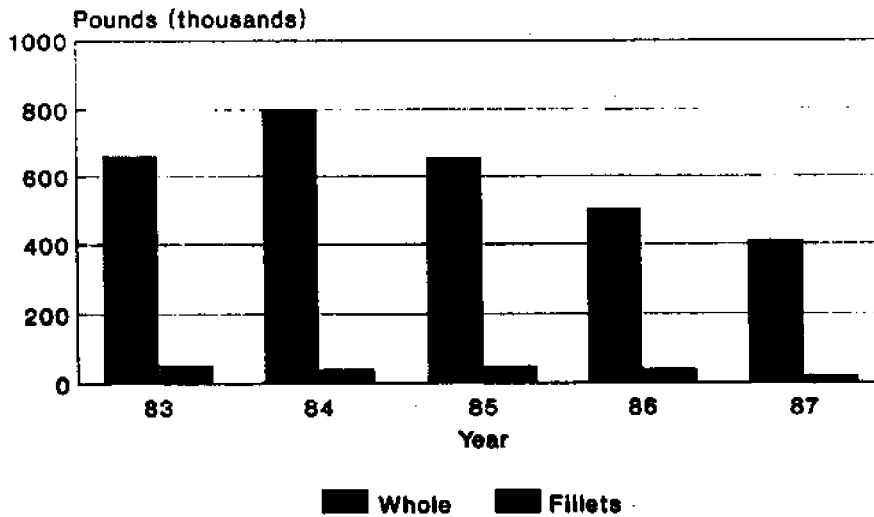
IMPORTS OF SEA TROUT INTO SOUTHEASTERN PORTS OF ENTRY: 1983-87 FRESH vs FROZEN



DATA SOURCE: NMFS Market News Reports

Figure 66

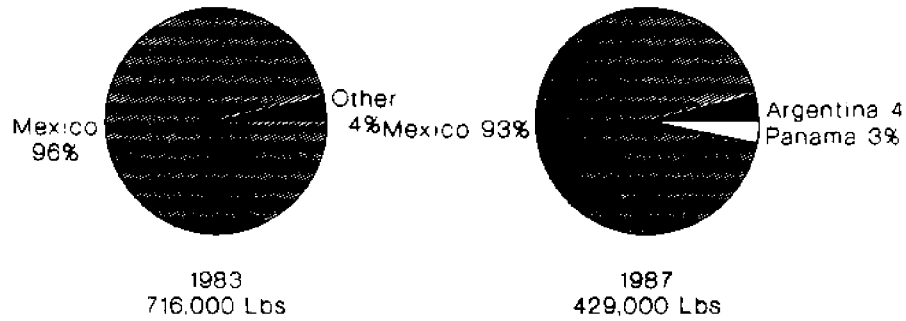
IMPORTS OF SEA TROUT INTO SOUTHEASTERN PORTS OF ENTRY: 1983-87 PRODUCT FORMS



DATA SOURCE: NMFS Market News Reports

Figure 67

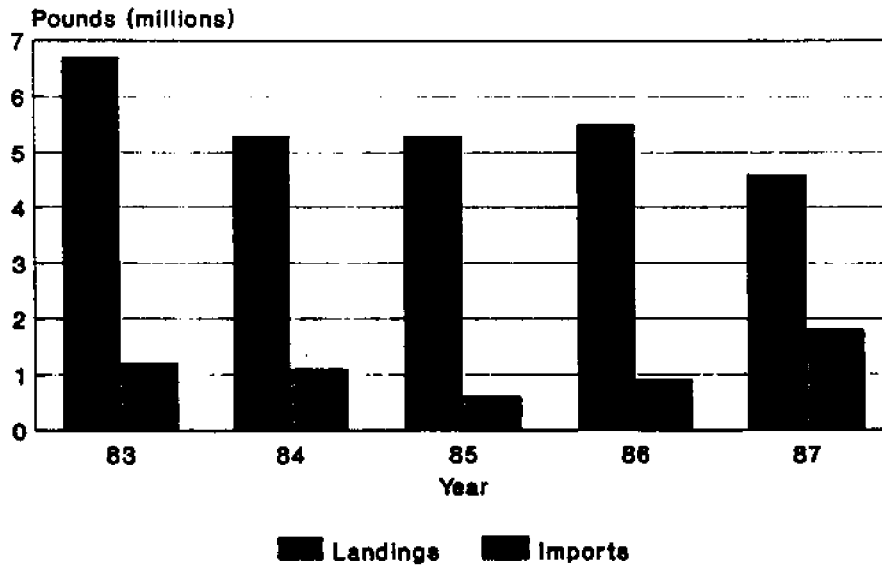
IMPORTS OF SEA TROUT BY COUNTRIES OF ORIGIN: 1983 AND 1987



DATA SOURCE: NMFS Market News Reports

Figure 68

SOUTHEAST U.S. KING MACKEREL LANDINGS AND IMPORTS: 1983-87



DATA SOURCE: NMFS Market News Reports

recent establishment of quotas in federal and some state waters likely played a role in the declining regional landings during the five-year period. Imported king mackerel are more readily available in the late winter and spring, with peak 5-year monthly averages occurring in February, March, April, and May (Figure 69).

In 1987, the majority of imported king mackerel arrived as frozen product. This was also the case in 1983 and 1984. However, fresh product dominated import volumes in 1985 and 1986 (Figure 70). Although the preference for fresh versus frozen product by domestic buyers is somewhat unclear, the specific product form demanded by initial buyers is revealed by the data. During the 1983-87 period, the predominant product form imported was whole fish (Figure 71). With the exception of 1984, fillets and other (i.e. loins, portions, etc.) product forms were less than 10 percent of the total import volume.

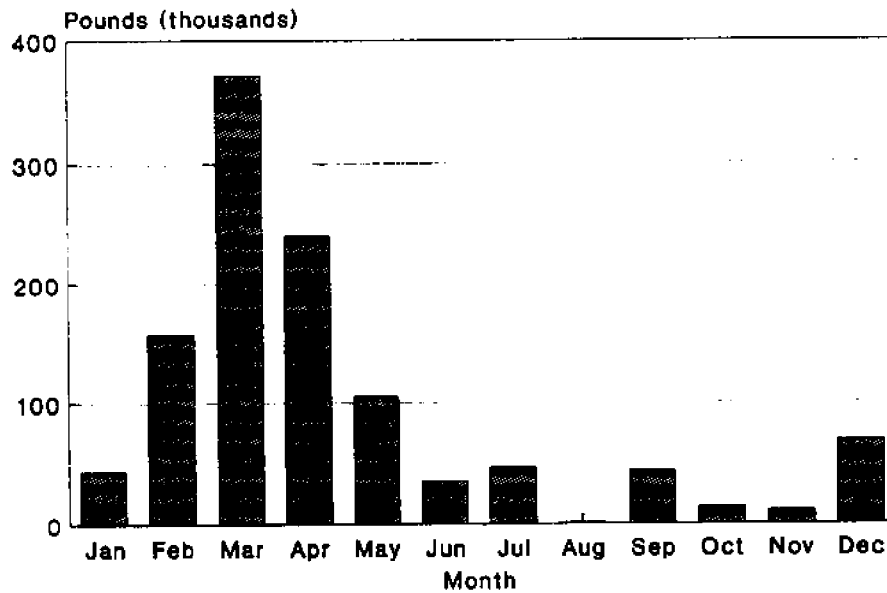
The distribution of king mackerel import volumes across major countries of origin remained relatively constant during the 1983-87 period. In 1983, Mexico was responsible for 100 percent of the king mackerel imports. In 1987, Mexico supplied 96 percent of the king mackerel imports, while Peru (3 percent) and Panama (1 percent) supplied the remaining volume. Venezuela also supplied king mackerel imports to the southeastern U.S. during the five-year period. In 1987, roughly two thirds of the king mackerel imports were received in Miami, with the remaining volume arriving in Brownsville.

Spanish Mackerel

Imports of Spanish mackerel were also not reported in the Market News reports on a regular basis until 1987. Prior to that, small inconsistent volumes of Spanish mackerel imports were reported. Imports

Figure 69

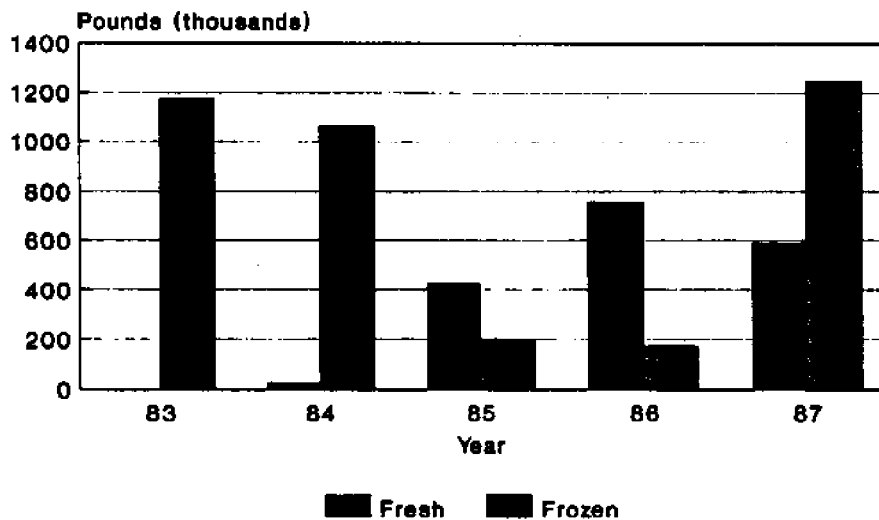
**FIVE-YEAR AVERAGE MONTHLY DISTRIBUTION
OF SOUTHEAST U.S. KING MACKEREL IMPORTS**



DATA SOURCE: NMFS Market News Reports

Figure 70

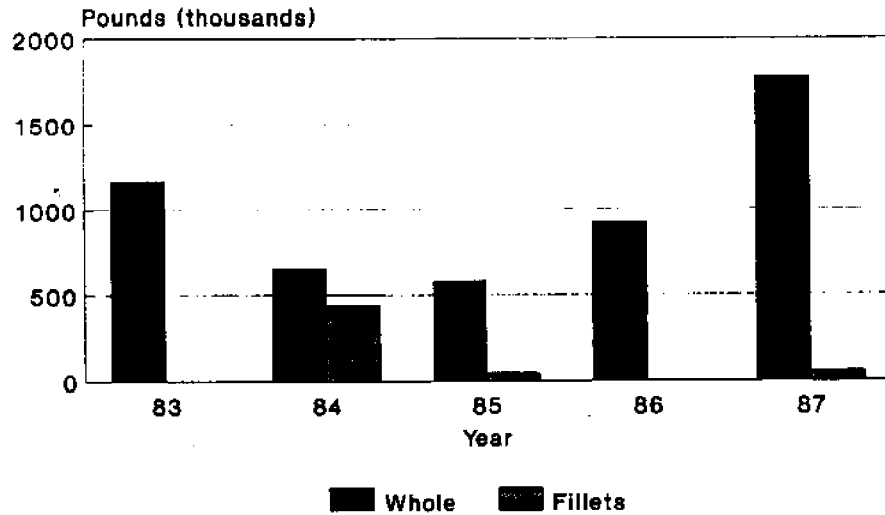
**IMPORTS OF KING MACKEREL INTO
SOUTHEASTERN PORTS OF ENTRY: 1983-87
FRESH vs FROZEN**



DATA SOURCE: NMFS Market News Reports

Figure 71

**IMPORTS OF KING MACKEREL INTO
SOUTHEASTERN PORTS OF ENTRY: 1983-87
PRODUCT FORMS**



DATA SOURCE: NMFS Market News Reports

reported for Spanish mackerel in 1985 and 1986 totaled 11,000 and 28,000 pounds, respectively. However, a dramatic increase in imports were reported for 1987 with the total volume increasing to 118,000 pounds. Given that consistent data exists for only one year, no discernible trends in monthly distribution of imports is recognized. Landings of Spanish mackerel have exhibited a steady increase in the Southeast region since 1984. Landings declined from 6 million pounds in 1983 to 4.1 million pounds in 1984. However, landings increased steadily during the 1984-87 period with landings in 1987 reported to 6.6 million pounds. Therefore, imported Spanish mackerel represents a small percentage of total supplies.

Spanish mackerel is imported primarily as frozen product. In 1987, 97 percent of the Spanish mackerel imports arrived as frozen product. In addition, 96,000 pounds (81 percent) of the total Spanish mackerel imports were received in whole form. The remaining 19 percent were reported as fillets.

Peru was the sole source of Spanish mackerel imports reported for 1985 and 1986. Peru continued to be the major source in 1987 with 96 percent of the total import volume attributed to that single country source. However, Panama (1 percent) and Mexico (3 percent) also served a role in supplying relatively small quantities to the U.S. market. Miami served as the major port of entry for Spanish mackerel imports, with small quantities being received in Brownsville.

Marlin

Marlin imports were very inconsistent and arrived in small quantities prior to 1987. It is questionable whether the available data fully describe the market for marlin imports during the 1983-86

period. Reported marlin imports, however, increased to 471,000 pounds in 1987. This may reflect more accurate data collection procedures and/or a stronger domestic market for marlin products. Market News data do not specify the species of the imported marlin (i.e. blue, white, other). The monthly distribution of marlin imports is difficult to assess with only one year of data available for all seasons. Reported southeastern U.S. regional landings of marlin increased steadily from 1983 to 1987. Over the five-year period, marlin landings increased from 38,000 pounds to 238,000 pounds. Recently enacted management measures for the Gulf of Mexico and South Atlantic region of the U.S. have effectively eliminated the commercial fisheries for marlin in the region.

Marlin imports typically arrive as fresh product. In 1987, 439,000 pounds of product arrived fresh, while the remaining 32,000 pounds were imported as frozen product. Marlin arriving as "whole" product is the predominant product form, with only a small portion of the imported volume arriving as fillets.

Although only small quantities of marlin were reportedly being imported prior to 1987, the major sources of this product were Thailand, Chile, and Peru. In 1987, Ecuador accounted for 91 percent of the marlin imports, while Mexico (6 percent), Grenada (2 percent), and Antigua (1 percent) accounted for the remaining volume. Miami is the primary port of entry for marlin imports, with Brownsville receiving only 6 percent of the total volume.

Tilefish

Tilefish imports, as was the case for marlin, shark, and Spanish mackerel, reportedly arrived only in very small quantities prior to

1987. In 1987, 39,000 pounds of tilefish were imported into southeastern ports of entry. Similarly with marlin, this may indicate an increase in accuracy in data collection and/or an strengthening in the domestic market for imported tilefish. Landings for tilefish in the southeastern region have been declining steadily since 1983. Tilefish landings have declined from 2.3 million pounds in 1983 to approximately 500,000 pounds in 1987. This represents a average annual decline of 15 percent.

Tilefish imports arrive primarily as fresh product in "whole" form. In 1987, only 10 percent of the imported tilefish arrived as fillets. Mexico is the leading source of tilefish. In 1987, Mexico supplied 60 percent of the tilefish that was reported to have been imported into southeastern ports of entry. Other sources of tilefish during the 1986-87 period were Brazil and Argentina. The major port of entry for tilefish imports was Brownsville, with smaller volumes arriving in Miami.

CONCLUSIONS

Imported seafoods represent an increasingly important share of the total U.S. seafood supplies. Since the mid 1960's, imported seafood has continuously represented over 50 percent of the total domestic edible seafood supplies. More recently, imports of edible seafood products have increased at an average annual rate of over 6 percent since 1980. This increase is in stark contrast to a decline of approximately 2 percent for domestic landings.

The general trend toward an increased dependence on imported seafoods has also been found to exist in the market for many species of importance in the southeastern U.S. The volume and diversity of seafood imports arriving at southeastern U.S. ports of entry has

increased steadily since 1983. Regional markets for these seafood products have become more dependent on foreign sources to provide the volumes demanded for many traditional and non-traditional species. Specific trade patterns that emerged in 1987 for seafood imported into southeastern ports of entry (Table 2) provide interesting insight into how the market is changing. Change is not only occurring in terms of sheer volume, but also in terms of fresh versus frozen, product form, seasonality, country of origin, and species diversity.

Volume

Imports of 68 tropical and subtropical marine species (excluding shrimp) arriving at southeastern U.S. ports of entry increased from 17.4 million pounds in 1983 to 70.4 million pounds in 1987. This sharp overall increase was even more dramatic for some selected species, such as snapper, grouper, mahi-mahi, corvina, and swordfish. For some species, annual imports now exceed annual regional landings.

Fresh versus Frozen

Prior to 1986, the volume of imported frozen seafood products exceeded that for fresh products. However, fresh imports exceeded frozen by approximately 25 percent in both 1986 and 1987. The import markets for many important species, such as snapper, grouper, shark, sea trout, tilefish, and mahi-mahi was dominated in 1987 by fresh imports.

Product Form

The predominant product form imported during the 1983-87 period was whole product. The overall importance of this product form, however, declined somewhat over this period. Whole product represented 93 percent of the seafood imports in 1983, but declined to 58 percent in 1987. Imports of many traditionally important species continue to arrive primarily as whole product (i.e. snapper, mahi-mahi, shark, pompano, swordfish, sea trout, king mackerel, and tilefish).

Seasonality

As the U.S. domestic demand for seafood has strengthened, the availability of imports, for many species, has become less seasonally erratic. Although most species continue to exhibit greater import volumes during certain seasons, product on a species-by-species basis is generally available on a year-round basis.

TABLE 2: Summary of 1987 Landings and Import Data by Species

Species	Southeast Landings		Southeast Imports					Major Countries of Origin	
	lbs. 1	%	Fresh (F) vs Frozen (Z) 2		Product Forms 2				Seasonal Availability 3
			F	Z	M	I	O		
Snapper	7.9		87	13	90	10	0	SP, SM	MI, VZ, CR, PA
Grouper	9.5		63	37	65	33	2	SP, F	MI, CR, CH, EC
Mahi-mahi	.6		83	17	87	13	0	SP	EC, CR
Catch	<.1		1	99	0	0	100	SP, SM, F	SMI, MO, CO, HA, DR
Corvina	NA 4		75	25	72	28	0	W, SP	CR, EC, ES, MI
Black Drum	10.8		100	0	100	0	0	V	MI
Kinglip	NA		13	87	33	64	3	V, SP, F	CR, PU
Lobster	4.8		3	97	0	0	100	F, W	BO, MI, BA, BR, PA
Scallops	10.0		72	28	0	0	100	SP, SM	PA, CR
Shark	4.3		68	32	72	27	1	SM, F	EC, PU, CH, CU
Pompano	.6		36	64	98	2	0	SP, SM, F	MI, PU, EC
Boorfish	2.8		93	7	94	3	3	SP, F	EC, CH, SP, BR
Red Drum	5.2		98	2	98	2	0	F, W	MI
Sea Trout	15.6		93	7	96	4	0	W, SP	MI, AR, PA
King Mackerel	4.6		32	68	97	2	1	SP	MI, PU, PA
Spanish Mackerel	6.6		3	97	81	19	0	*	PU, MI, PA
Merlin	.2		93	7	98	2	0	*	EC, MI
Tilefish	.5		97	3	90	10	0	*	MI
ALL SPECIES	NA 4		55	45	58	22	20	NA 4	MI, EC, CR, PA, PU, CH

1Units of one million

2Reported as percent

3Season where import volume are greatest (SM-summer, F-fall, W-winter, SP-spring)

4Not available

Country of Origin

The major sources of imported product has changed over the 1983-87 period. Although this study focused primarily on imports originating from Latin America, considerable change in the specific countries and market share among exporting countries was documented. In 1983, Mexico was the most important single country source of imported product for southeastern U.S. ports of entry. Mexico contributed 31 percent of the recorded import volume, followed by lesser amounts from five other Latin American countries. These six countries represented approximately 70 percent of the total import volume. By 1987, Mexico remained the leading single source of imported seafood, but three of the top six countries has been replaced. Although these six countries still accounted for approximately 70 percent of the total import volume, the market share among these countries was more evenly distributed. For some species, Latin American sources have replaced countries which have historically been important sources of product. For example, Japan and Taiwan were the most important sources of mahi-mahi in 1983. By 1987, the market for imported mahi-mahi was dominated by Ecuador and Costa Rica.

Species Diversity

Along with the increase in import volume, the number of individual species imported has also increased (i.e. 32 in 1983; 60 in 1987). Several "non-traditional" species, which are not produced by commercial fishermen in the southeastern U.S. region, have been represented by continuously increasing levels of imports.

As the demand for seafood in the U.S. continues to strengthen, increased pressure will be exerted on domestic seafood suppliers to find alternative sources of seafood. The import market will likely continue to grow in importance in the near future. Specifically, an increased dependence on Latin American countries for supplies of tropical/subtropical finfish and shellfish species will continue to develop. Upward trends in import volumes for traditional and non-traditional species will probably continue over the next few years. The long-term rate of increase may be of question, however, given the unknown yield potential from foreign wild stocks of certain species.

An astute player in the import seafood market will keep abreast of changes in the market related to fresh versus frozen, product form, species diversity, seasonality, and countries of origin. A knowledge

of these and other aspects of the imported seafood market may be useful to domestic seafood suppliers wishing to enter the import market or expand existing seafood importing activities.

DATA SOURCES

Fish List, Food and Drug Administration, Division of Regulatory Guidance, Washington, D.C. 1988.

Market News Reports, National Marine Fisheries Service, Market News Office, New Orleans, LA. Various issues, 1983-1987.

National Marine Fisheries Service, Statistical Services Office, Southeast Center, Miami, FL. Unpublished regional landings data. 1983-1987.