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**(Estuarine and Coastal Studies)**

**Fishery Resources Atlas I**  
**New York to Florida**

**Eric J. Heald**

**Sea Grant Technical Bulletin**

**Number 3**

**December 1970**

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**Fishery Resources Atlas I = New York to Florida**

Eric J. Heald

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## PREFACE

The Sea Grant Colleges Program was created in 1966 to stimulate research, instruction, and extension of knowledge of marine resources of the United States. The responsibility for administration of the program rests with the Department of Commerce.

The Sea Grant Program of the University of Miami was established in 1969. This activity at the University should be useful in much the same way as the land-grant program, which in 100 years has brought the United States to its current superior position in agricultural production. The successful accomplishment of the three objectives in the Sea Grant concept -- to promote excellence in education and training, research, and information services -- will result in material contributions to marine oriented industries and will, in addition, protect and preserve the environment for the enjoyment of all people.

These Fishery Resources Atlases were prepared for the E. I. DuPont de Nemours Co., Inc., and permission to reproduce them is gratefully acknowledged. The Atlases are being reissued under the auspices of the Sea Grant Information Services of the University of Miami. Fishery Resources Atlas I includes the coastal fishing zone from New York to Florida, and Fishery Resources Atlas II continues the areal coverage from the west coast of Florida to Texas.



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## Introduction

This report shows in as concise a manner as possible the location and importance of the principal fishery resources on the continental shelf of the United States from New York to Florida. The information in the report was obtained from published sources and unpublished manuscripts, and by consultation with fishery biologists and statisticians in several localities on the east coast of the United States.

Summaries have been prepared for species worth more than \$6,000 annually to fishermen in a state. Landing figures are given for 1965 (unless otherwise stated) as a guide to the importance of a species to each state. More detailed statistics are given in tables in the appendix, which provides landing figures for year 1956 to 1965 by state. For additional statistical data the reader should consult the annual Statistical Digest published by the United States Bureau of Commercial Fisheries. If a state is not listed in the text under "commercial fishery", either no fishery exists for that species or it is unimportant in the state. Other species taken by the commercial fishery are listed in the appendix. These constitute less than one percent by weight of the annual catch.

The accuracy of the information presented here varies considerably from species to species, and from one locality to another. The depiction of the location of fisheries also varies in preciseness. It is relatively easy to pinpoint the location of some fisheries and to ascertain the size of the annual catch of certain species from a specific locality; in other cases it is difficult to determine even the approximate boundaries of the catches. Wherever possible the degree of reliability of information is indicated on the appropriate map or in the text.

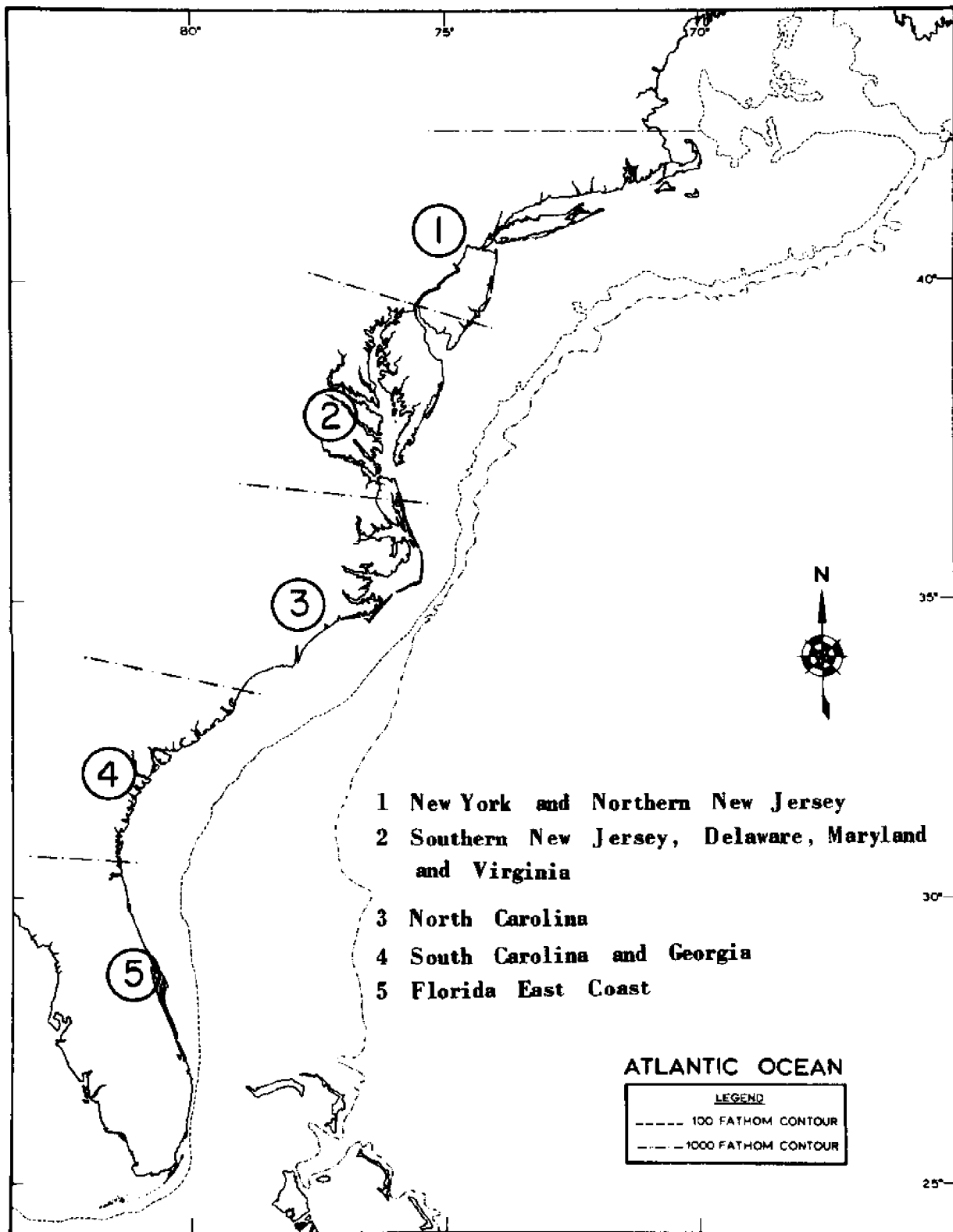
Data on fin fish are presented in approximate phylogenetic order of the species according to a currently accepted taxonomic classification. Invertebrates are grouped by class.

This report is not an exhaustive survey of the status of the fisheries within the area, and consequently little attention is given to possible causes of fluctuation or decline in a specific fishery. Emphasis has been placed upon commercial fisheries, and the largely undocumented sport fisheries have perhaps not received the attention they merit.



**F I N   F I S H**

Coastline map showing area covered by each regional map.



SPINY DOGFISH (SQUALUS ACANTHIAS)

GENERAL RANGE: Subarctic to subtropics

COMMERCIAL FISHERY (1965):

NEW YORK 97,000 lbs. Taken mainly by otter trawls inshore along the south coast of Long Island and in Gardiners and Peconic Bays. Potential catch is much larger; Market demand restricts landings.

MARYLAND AND VIRGINIA 688,000 lbs. Large numbers taken by gill nets close to shore in Atlantic waters; small quantities taken by summer trawl fishery in inshore waters. Little of the catch comes from Chesapeake Bay.

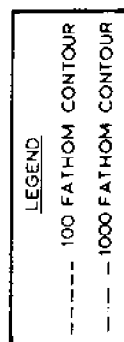
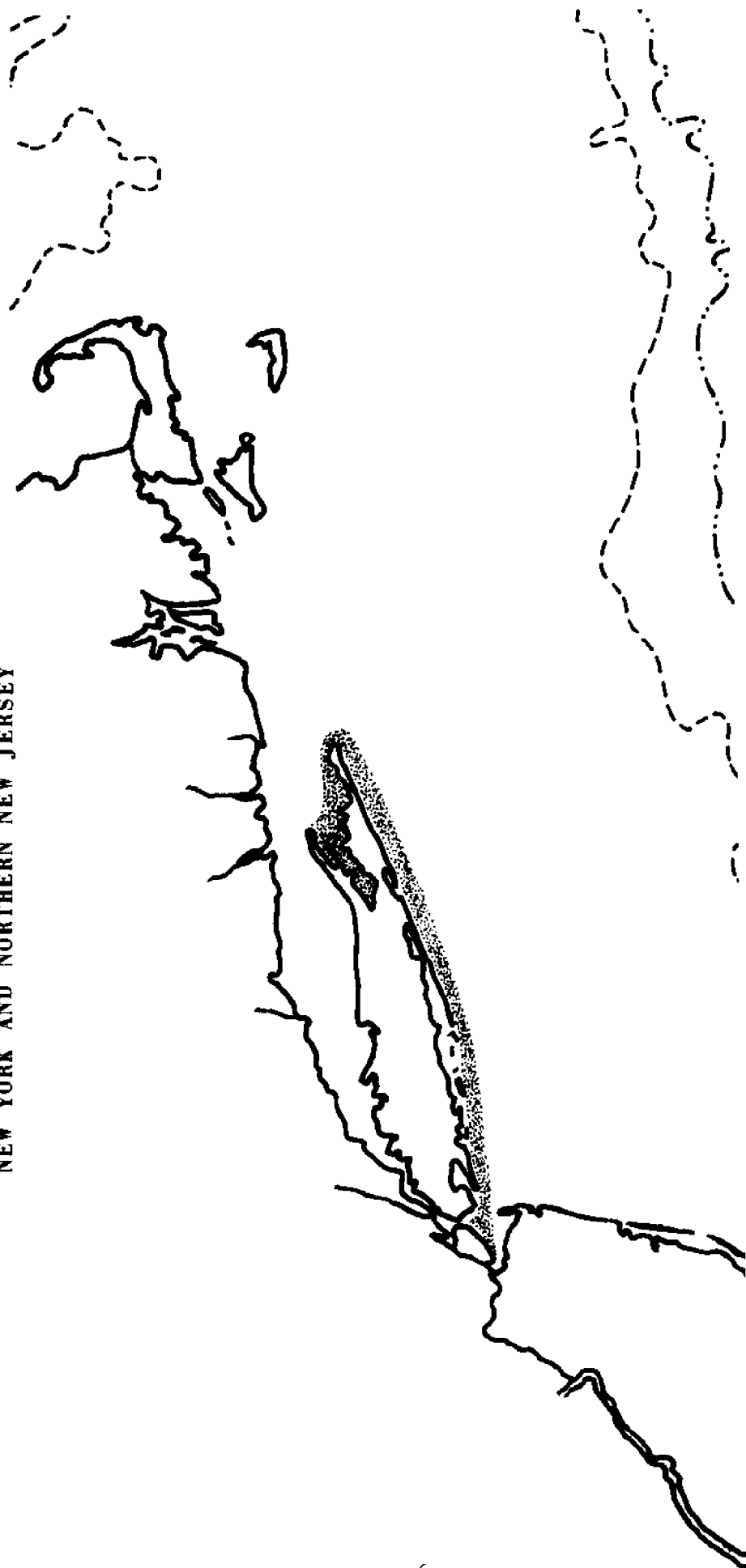
COMMENTS:

Catches are small because of the low value of this species, but it is estimated that the spiny dogfish could support a sustained annual catch of about 400,000,000 pounds annually, for "industrial" uses. The fishery would operate principally between Cape Hatteras and Delaware Bay.

The present-day incidental trawl catches of dogfish and sharks off North and South Carolina could also be expanded greatly if a market were available.

SPINY DOGFISH (SQUALUS ACANTHIAS)

NEW YORK AND NORTHERN NEW JERSEY



(Catches evenly distributed as shown.)

STURGEON (ACIPENSER SPP.)

GENERAL RANGE: Gulf of St. Lawrence to Gulf of Mexico

COMMERCIAL FISHERY (1965):

NORTH CAROLINA 77,000 lbs. Mostly by gill nets and pound nets in Albemarle Sound. Some also caught by seines in Pamlico Sound and on Atlantic Beaches. Higher catch than in any of previous 10 years.

SOUTH CAROLINA 50,000 lbs. By coastal haul seines.

STURGEON (ACIPENSER SP.)

NORTH CAROLINA



THOUSAND POUNDS



58



10



5 (Total catch from all three locations)

LEGEND

----- 100 FATHOM CONTOUR  
- . - . - 1000 FATHOM CONTOUR

ALEWIFE (ALOSA PSEUDOHARENGUS)

GENERAL RANGE: Nova Scotia to South Carolina

COMMERCIAL FISHERY (1965):

MARYLAND 2,000,000 lbs. Pound nets in Chesapeake Bay and tributaries.

VIRGINIA 36,000,000 lbs. 80 percent by pound nets. Chesapeake Bay catch was 10 million pounds; the Potomac River catch was 13 million pounds; the combined catch from the James, York, and Rappahannock Rivers was 12 1/2 million pounds.

NORTH CAROLINA 12,000,000 lbs. By pound nets in the Chowan River and the upper reaches of Albemarle Sound. Density of stippling on map indicates fishing intensity.

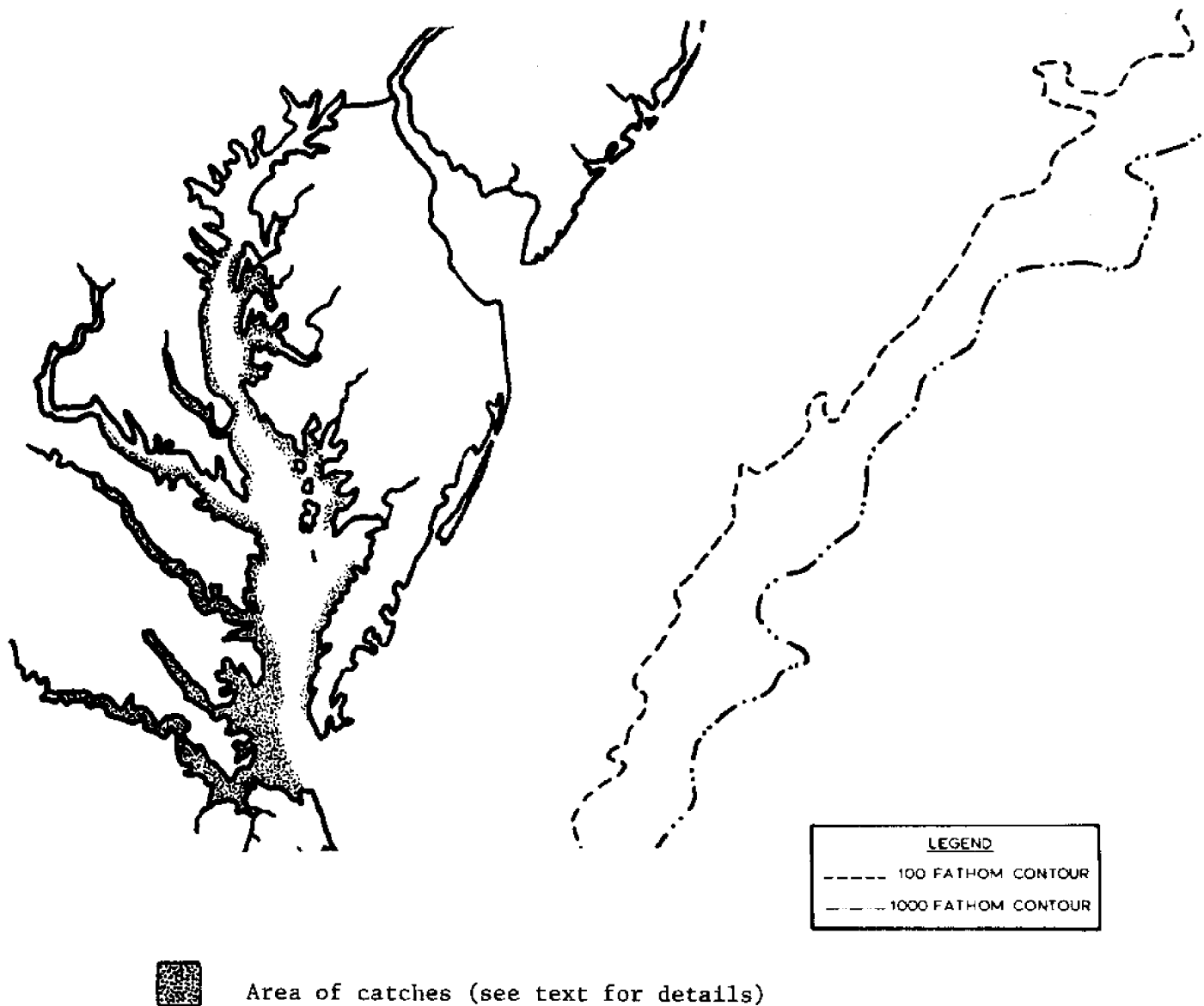
SOUTH CAROLINA 2,750,000 lbs. Dip net fishery in bays and rivers within area indicated on map.

COMMENTS:

The fishery has declined steadily since the turn of the century. The species is at present under-exploited and could yield higher catches over most of its range if a suitable market existed. Most of the catch is now processed for cat food.

**ALEWIFE (ALOSA PSEUDOHARENGUS)**

**SOUTHERN NEW JERSEY, DELAWARE, MARYLAND AND VIRGINIA**



ALEWIFE (ALOSA PSEUDOHARENGUS)

NORTH CAROLINA



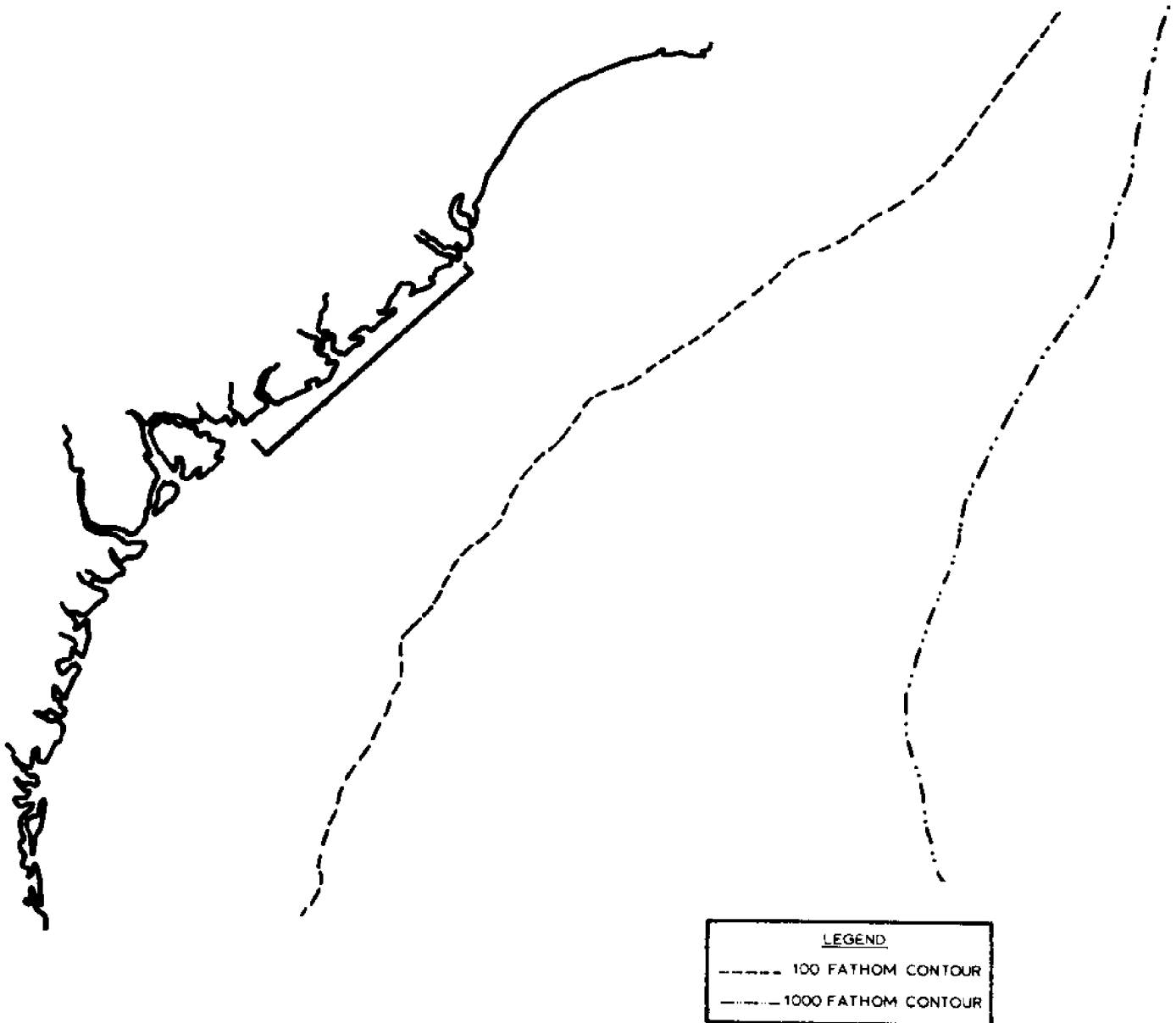
Area of catches

LEGEND

----- 100 FATHOM CONTOUR  
----- 1000 FATHOM CONTOUR

ALEWIFE (ALOSA PSEUDOHARENGUS)

SOUTH CAROLINA AND GEORGIA



Fishery in bays and rivers within area indicated

SHAD (ALOSA SAPIDISSIMA)

GENERAL RANGE: Southeast coast of Newfoundland to the St. Johns River, Florida.

COMMERCIAL FISHERY (1965):

NEW YORK 133,000 lbs. Almost entire catch is composed of Hudson River fish; caught mainly in Raritan Bay.

NEW JERSEY 392,000 lbs. Composed largely of Hudson River fish taken in Raritan Bay. A few fish are taken from Delaware Bay.

DELAWARE 110,000 lbs. Taken mostly by New Jersey fishermen.

MARYLAND AND VIRGINIA 4,266,000 lbs. From Chesapeake Bay and tributaries.

NORTH CAROLINA 1,069,000 lbs. Taken mostly in rivers flowing into Pamlico Sound and Albemarle Sound.

SOUTH CAROLINA 176,000 lbs. From Edisto River and Winyah Bay system primarily.

GEORGIA 376,000 lbs. Mostly from the Altamaha River.

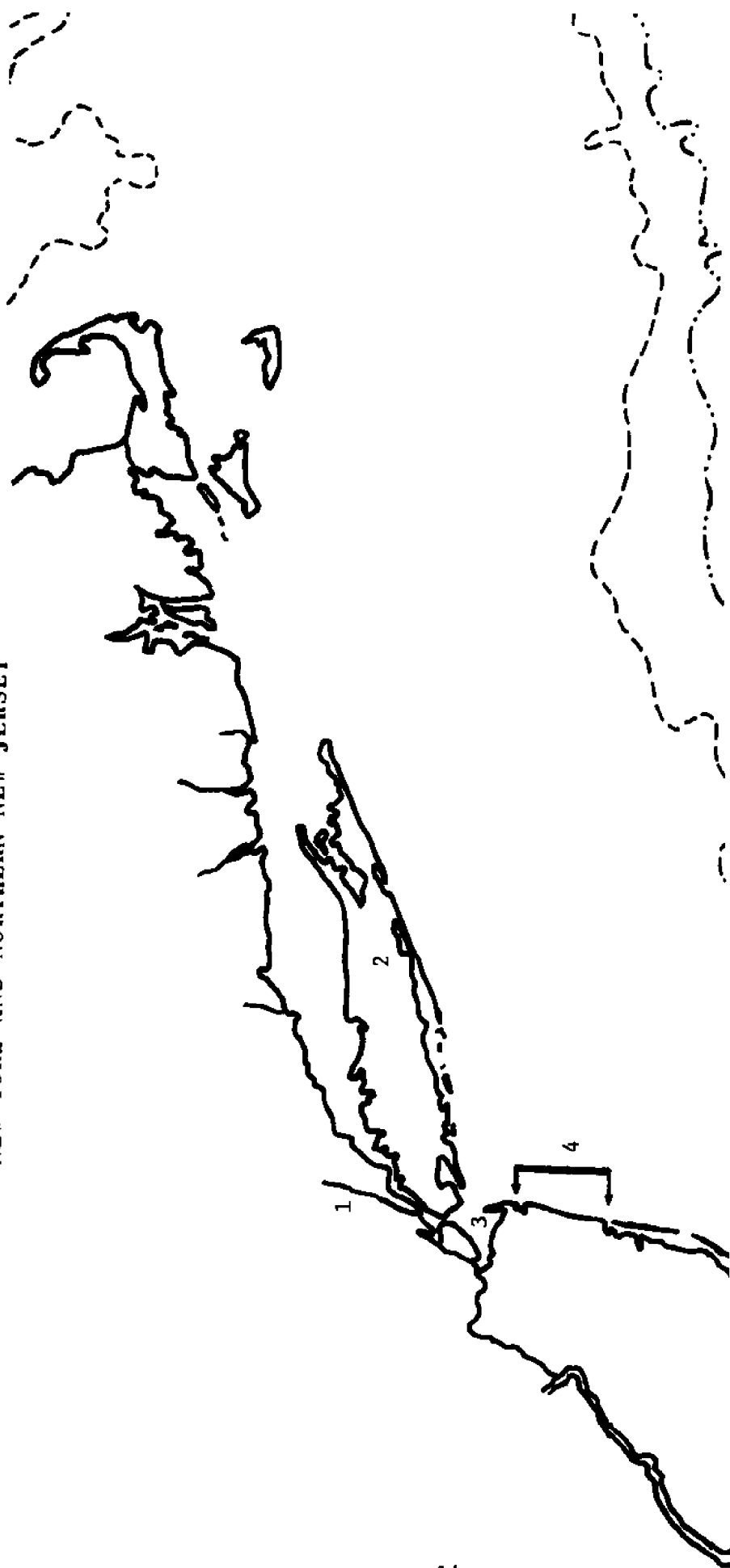
FLORIDA 758,000 lbs. From St. Johns River. One-third of the total population is estimated to be taken by the commercial fishery each year.

COMMENTS:

The Atlantic coast shad fisheries have declined steadily since the turn of the century. Abundance of fish appears to have decreased and demand for shad has also lessened; consequently fishing effort has diminished. This is an old fishery in most Atlantic coast rivers and most of the regular fishermen are not being replaced as they retire.

# SHAD (ALOSA SAPIDISSIMA)

## NEW YORK AND NORTHERN NEW JERSEY



### CATCH BY AREA IN 1960

1. Hudson River	780,000 lbs.
2. Great South Bay, Gardiners and Peconic Bays	25,000 lbs.
3. Raritan Bay region	305,000 lbs.
4. New Jersey coast	43,000 lbs.

SHAD (ALOSA SAPIDISSIMA)

SOUTHERN NEW JERSEY, DELAWARE, MARYLAND AND VIRGINIA



LEGEND	
-----	100 FATHOM CONTOUR
.....	1000 FATHOM CONTOUR

CATCH BY AREA IN 1960

1. Delaware Bay system	148,000 lbs.
2. Chesapeake Bay system	3,000,000 lbs.

SHAD (ALOSA SAPIDISSIMA)

NORTH CAROLINA

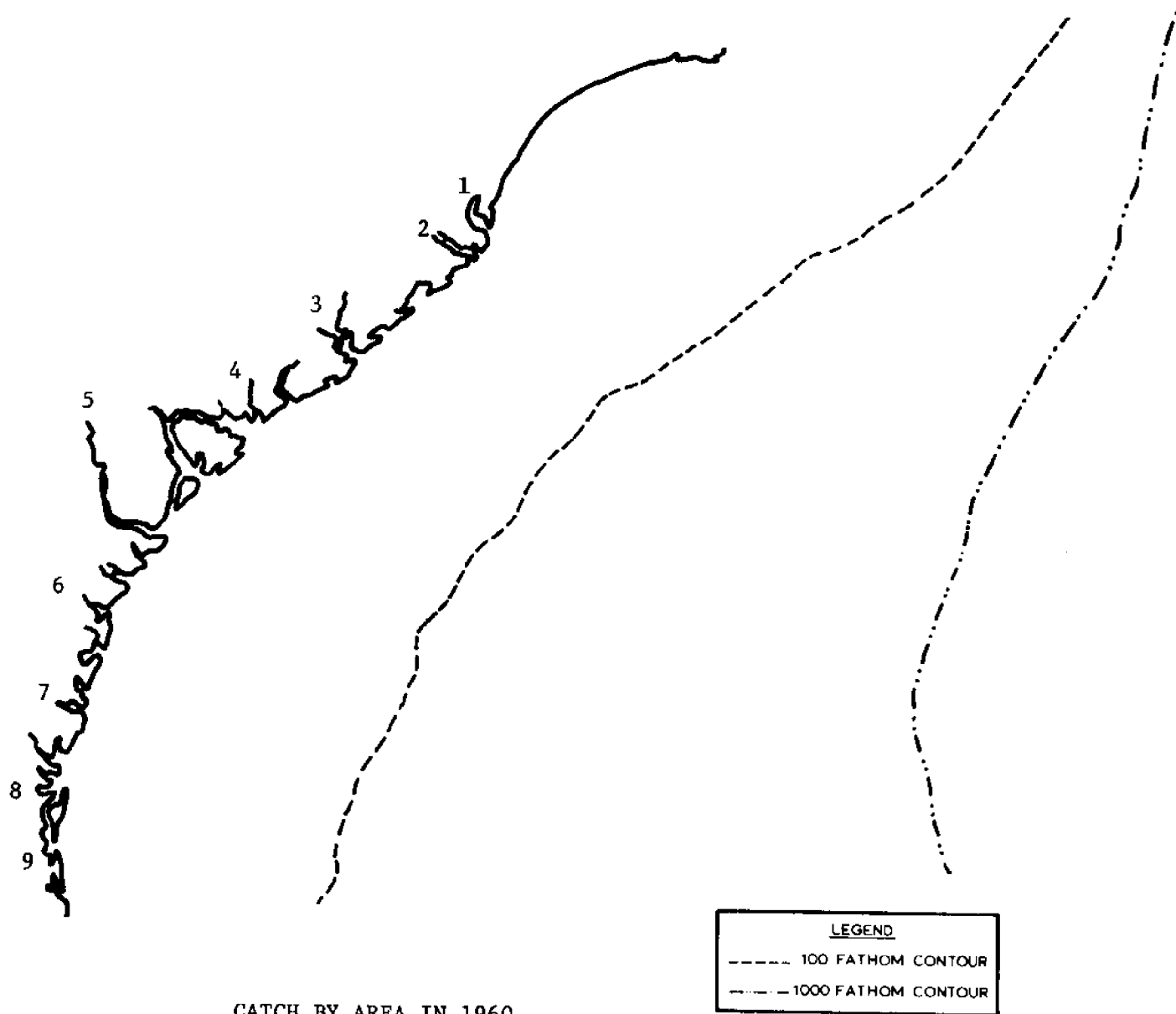


LEGEND	
-----	100 FATHOM CONTOUR
- . - . - .	1000 FATHOM CONTOUR

CATCH BY AREA IN 1960

1. Chowan River	19,000 lbs.
2. Roanoke River	1,500 lbs.
3. Albemarle Sound	95,000 lbs.
4. Roanoke Sound	55,000 lbs.
5. Pamlico River	313,000 lbs.
6. Pamlico Sound	182,000 lbs.
7. Neuse River	388,000 lbs.
8. Cape Fear River	213,000 lbs.

SHAD (ALOSA SAPIDISSIMA)  
SOUTH CAROLINA AND GEORGIA

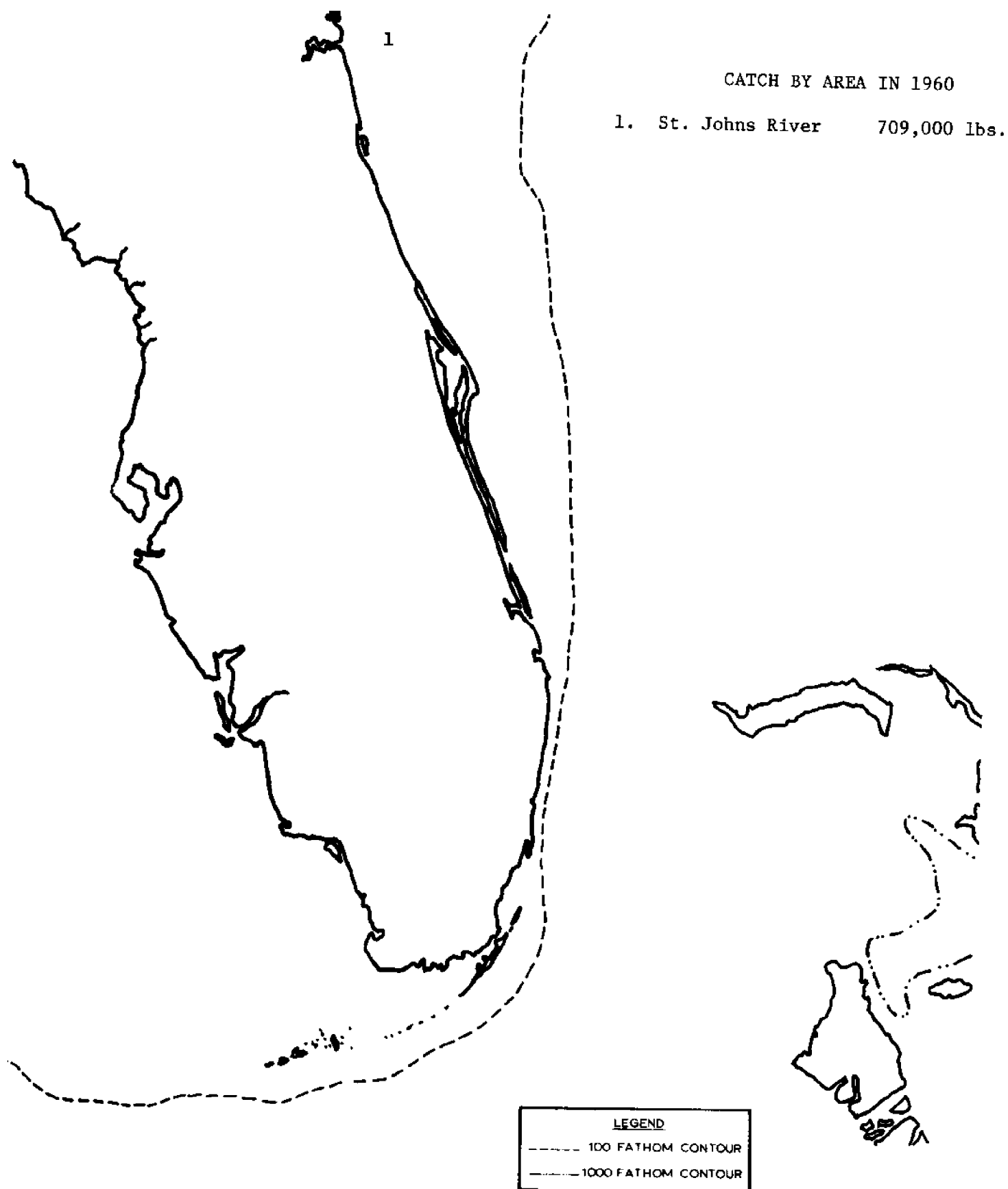


CATCH BY AREA IN 1960

1.	Winyah Bay system	186,000 lbs.
2.	Santee River	54,000 lbs.
3.	Cooper River	6,000 lbs.
4.	Edisto River	33,000 lbs.
5.	Savannah River	162,000 lbs.
6.	Ogeechee River	57,000 lbs.
7.	Altamaha River	508,000 lbs.
8.	Satilla River	22,000 lbs.
9.	St. Marys River	24,000 lbs.

SHAD (ALOSA SAPIDISSIMA)

FLORIDA EAST COAST



HICKORY SHAD (ALOSA MEDIOCRIS)

GENERAL RANGE: Maine to Florida

COMMERCIAL FISHERY (1965):

MARYLAND AND VIRGINIA 42,750 lbs. Commercial fishery exists in Chesapeake Bay during spawning runs.

COMMENTS:

Formerly a much more important commercial species. In recent years an intensive sport fishery has developed in many tidal tributaries of Chesapeake Bay.

MENHADEN (BREVOORTIA TYRANNUS; B. SMITHI)

GENERAL RANGE: Nova Scotia to Cape Canaveral, Florida

COMMERCIAL FISHERY:

A clearer picture of the Atlantic Menhaden fishery is obtained by consideration of annual catches on the basis of geographical zones established by the United States Fish and Wildlife Service, rather than by State. The accompanying figure illustrates the boundaries of each region.

REGION 1 - NORTH ATLANTIC. Discussion of this fishery is not strictly relevant to the present study. However, some fish landed in New York State are taken from the North Atlantic region. It may be noted briefly that the menhaden purse seine fishery in this area has declined sharply over the past five years. By way of illustration, the catch per unit of effort in 1966 was 5 tons per unit of gear, compared with a 10 year average of 68 tons per unit from 1956-1965.

REGION 2 - MIDDLE ATLANTIC. The fishery has virtually collapsed, although a small number of purse seines still operate occasionally in Delaware Bay and along the coast of New Jersey. Small numbers were taken in 1966 by pound nets in Gardiners Bay and Long Island Sound, but none in 1967. Most of the menhaden presently landed at ports in New York and New Jersey are caught elsewhere.

Fishing effort fell from a total of 15,000 sets during the season of 1961, to 8,700 sets in 1963, and to 752 sets in 1966. During this period the catch from the area fell from 303,000 tons to 6,500 tons. The average catch per unit of effort during the 10 year period from 1956 to 1965 was 71 tons per unit; this fell to 13 tons per unit in 1966.

REGION 3 - CHESAPEAKE REGION. Catches have remained at their normal annual levels of 110-150,000 tons, although this has been achieved by an increased fishing intensity in compensation for the failing fisheries further north. Consequently, although catches have remained steady, the catch per unit of effort fell in 1966 to 42 tons per unit from the 10 year average of 60 tons per unit.

REGION 4 - SOUTH ATLANTIC. The fishery in this region appears to have been least affected. The established pattern of moderate to heavy (50-100,000 tons annually) fishing intensity off North Carolina, and low (25 to 50,000 tons) intensity further south appears unchanged. The catch per effort within the region in 1966 was similar to the average of 62 tons per unit taken over the preceding 10 years.

NORTH CAROLINA FALL FISHERY. In contrast to other facets of the menhaden industry, the fishery pursued off Cape Hatteras and Cape Lookout (see map) during the late autumn has recorded increased catches since 1962. The catch in 1962 was 28,000 tons, and this rose to 79,000 tons in 1966. In addition, the catch per effort in 1966 was 114 tons per unit as compared to the 10 year average of 102 tons per unit.

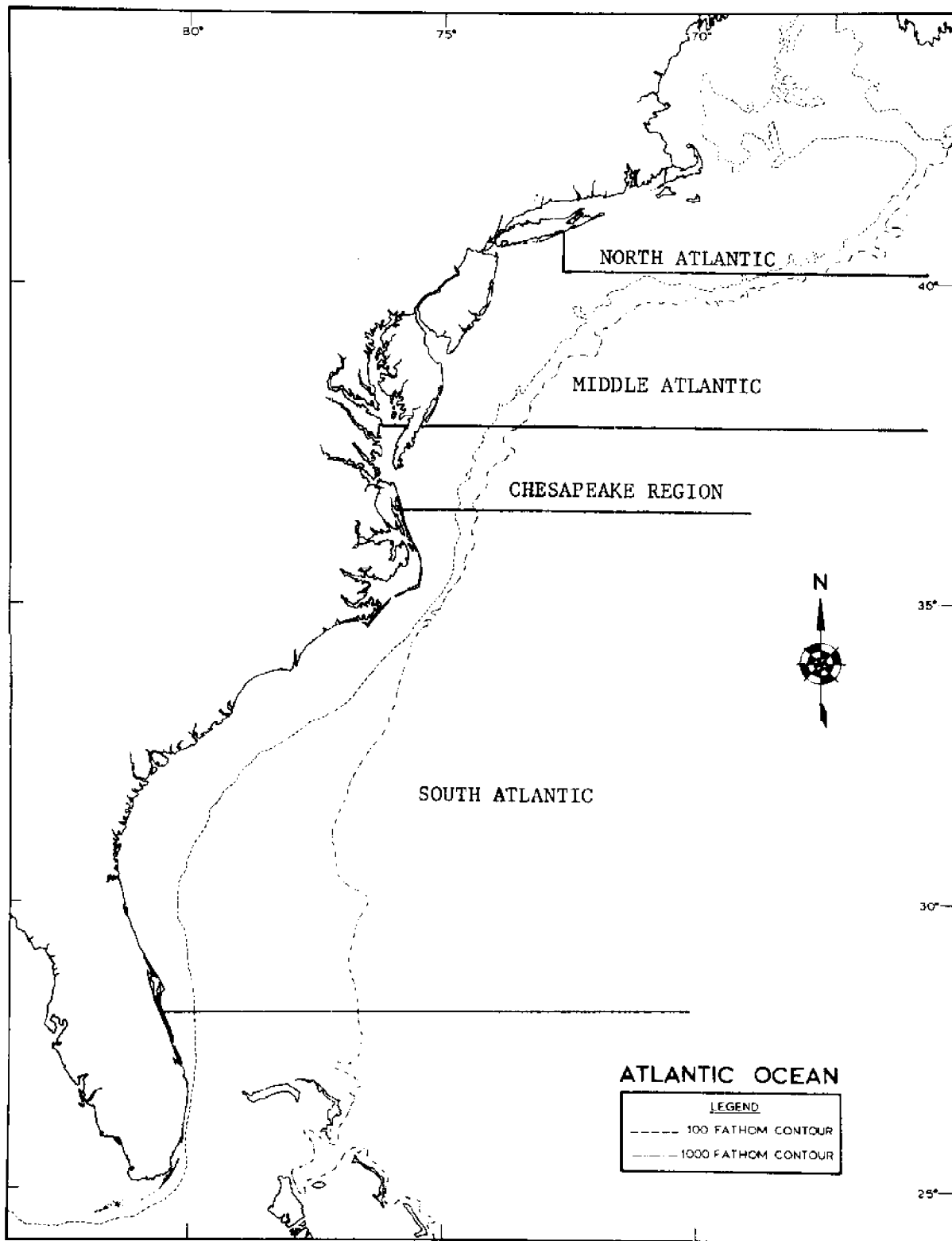
COMMENTS:

The failure of the menhaden fishery is generally attributed to a succession of poor year classes. One of the most commonly cited explanations for this is destruction or pollution of estuarine and salt-marsh nursery grounds. Juveniles entering the summer fishery from North Carolina to New Jersey in low abundance are consequently thinly spread over large areas, and the previously intensive fisheries can no longer operate profitably. By late summer the fish reach southern New England and they return south to the waters off Cape Hatteras. Here they concentrate, and in this area alone are they able to support a sizeable commercial fishery.

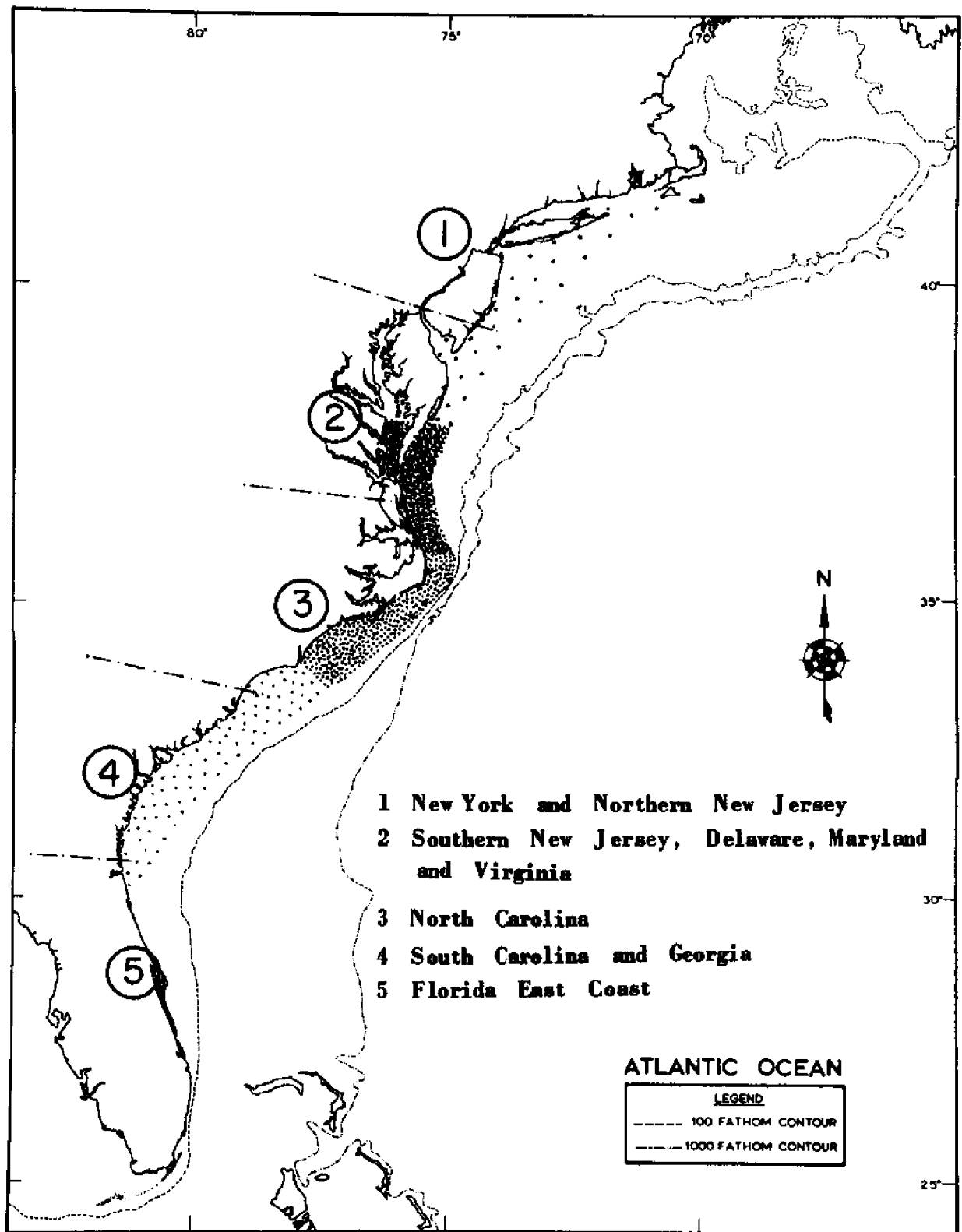
The total Atlantic coast catch of 242,000 tons in 1966 was the lowest since 1940, and represents a decline of 62 percent since 1961.

The accompanying coastline map shows approximately the distribution of catches from 1963 to 1966. Density of stippling indicates intensity of fishing and size of catches within statistical areas. The North Carolina fall fishery is treated separately.

# STATISTICAL REGIONS

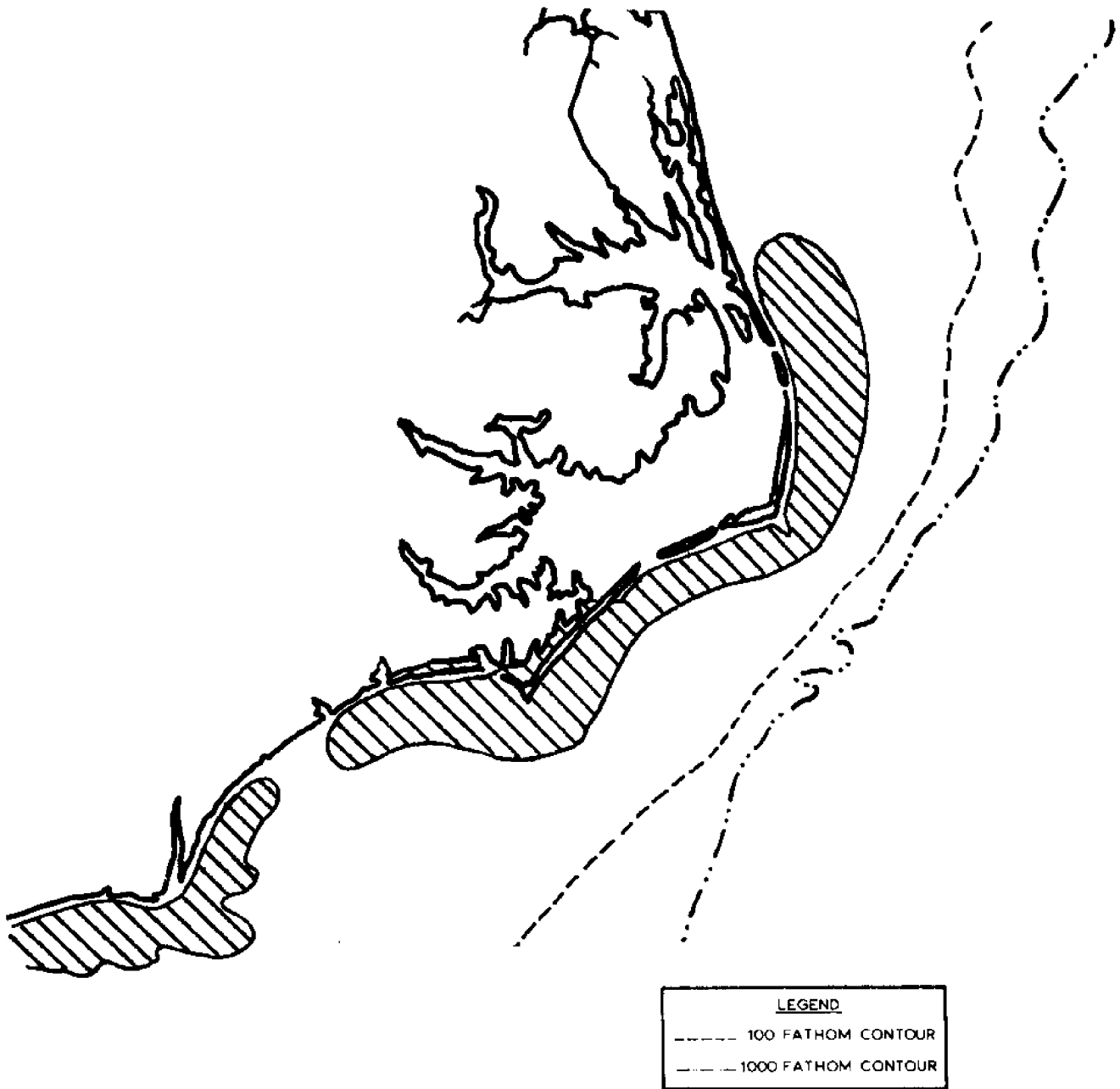


**MENHADEN (*BREVOORTIA TYRANNUS*; *B. SMITHI*)**



MENHADEN (*BREVOORTIA TYRANNUS*; *B. SMITHI*)

NORTH CAROLINA



FALL FISHERY

Fishing grounds since 1960

SEA HERRING (CLUPEA HARENGUS)

GENERAL RANGE: Northern Labrador to Cape Hatteras

COMMERCIAL FISHERY (1965):

NEW YORK 277,000 lbs. Mainly taken by two ocean pound nets off Great South Bay. About 28,000 lbs. taken in Upper Bay.

NEW JERSEY 250,000 lbs. By bay pound nets in Sandy Hook Bay.

MARYLAND 8,000 lbs. Trawled on inshore grounds in April and May.

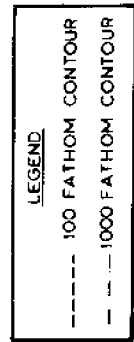
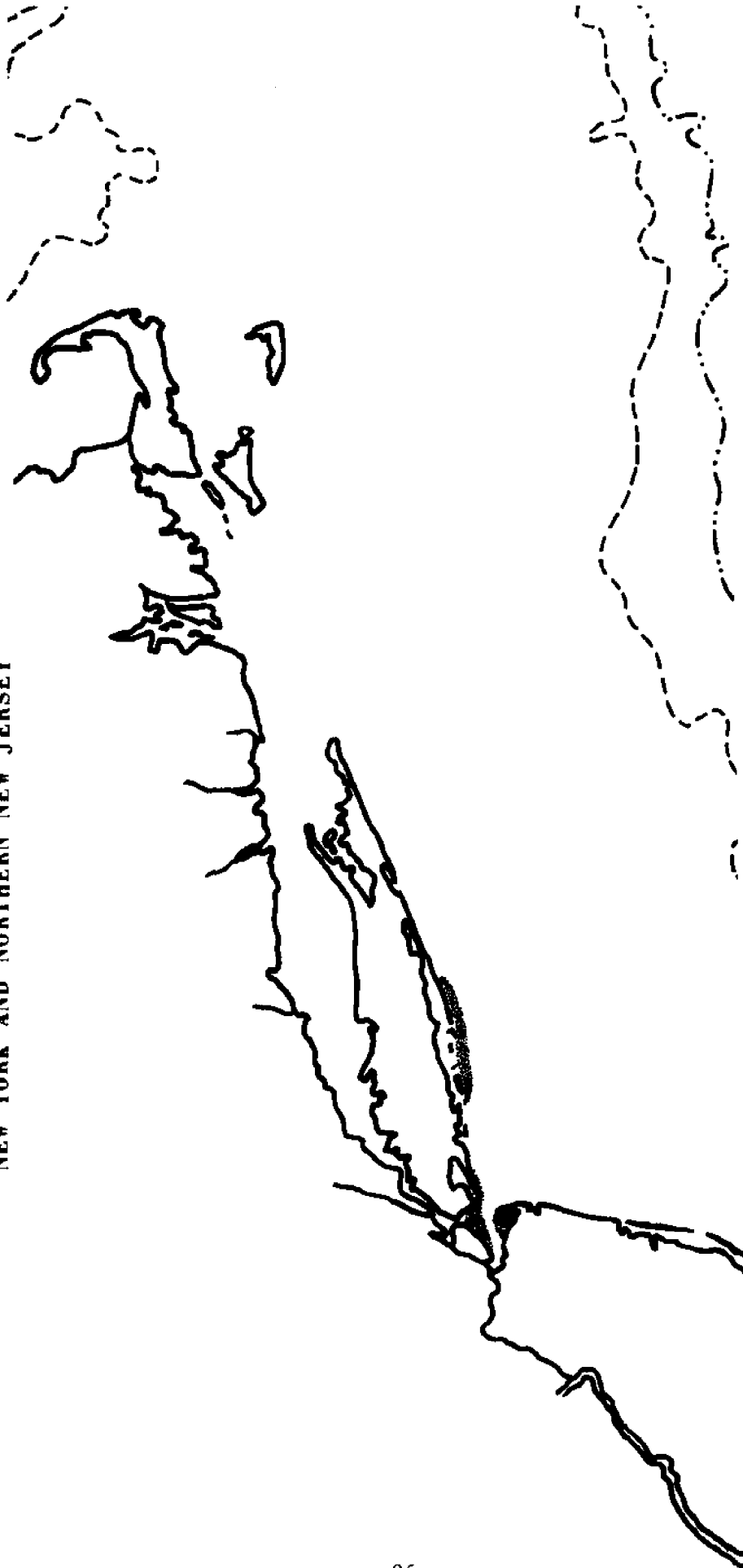
VIRGINIA 193,000 lbs. By pound nets in lower Chesapeake Bay in March and April. Map shows location of catches.

COMMENTS:

Herring are common at certain times of the year as far south as Cape Henry, Virginia. They are under-exploited throughout the position of the range considered here. A mid-water trawl fishery could take large quantities from Atlantic waters off Maryland and Virginia. Soviet trawlers probably make considerable catches on offshore grounds in the winter.

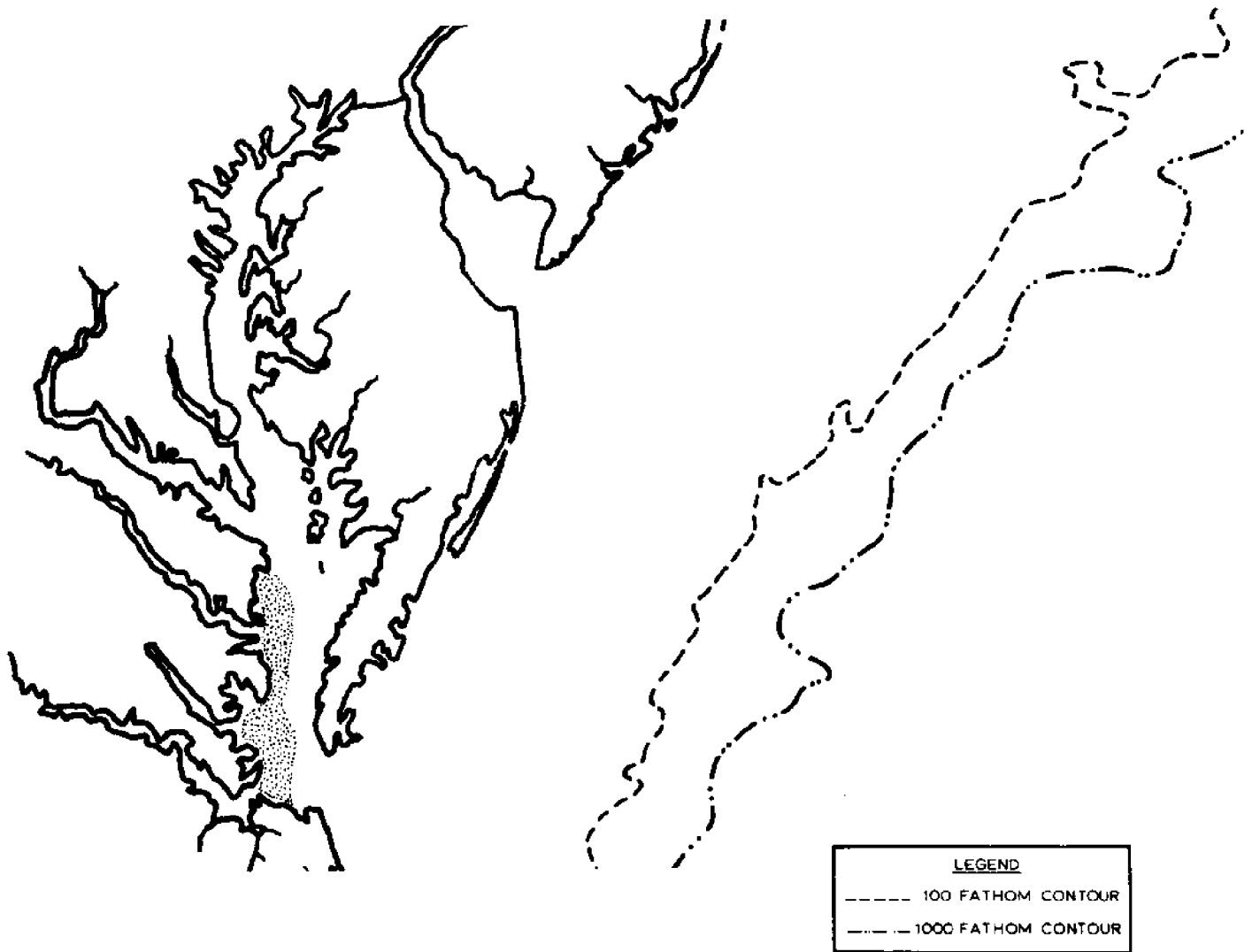
SEA HERRING (CLUPEA HARENGUS)

NEW YORK AND NORTHERN NEW JERSEY



SEA HERRING (CLUPEA HARENGUS)

SOUTHERN NEW JERSEY, DELAWARE, MARYLAND AND VIRGINIA



THREAD HERRING (OPISTHONEMA OGLINUM)

GENERAL RANGE: North Carolina to Brazil

COMMERCIAL FISHERY (1965):

NORTH CAROLINA 1,075,000 lbs. Taken in menhaden purse seines during the fall fishery. Catches from 1956 to 1960 ranged from 109,000 lbs. to 12,000,000 lbs. No catches were made during 1961 to 1964. See map of location of menhaden fall fishery.

COMMENTS:

Thread herrings are rarely sought by fishermen. Considerable quantities could be taken if a market were to be developed.

COMMON EEL (ANGUILLA ROSTRATA)

GENERAL RANGE: Greenland to the Gulf of Mexico

COMMERCIAL FISHERY (1965):

NEW YORK 265,000 lbs. Taken by various gears in Shinnecock Bay, Moriches Bay, Gardiners Bay, the Peconic Bays, and Great South Bay.

NEW JERSEY 92,000 lbs. Most are caught in 6 or 7 horseshoe crab (Limulus polyphemus) traps on east shore of Delaware Bay during November and December. Also taken in local eel pots in Sandy Hook Bay and in other coastal bays.

DELAWARE 34,000 lbs. In horseshoe crab traps in western part of Delaware Bay.

MARYLAND 195,000 lbs. Over 165,000 lbs. from Chesapeake Bay; 32,000 lbs. from Maryland shores of Potomac River.

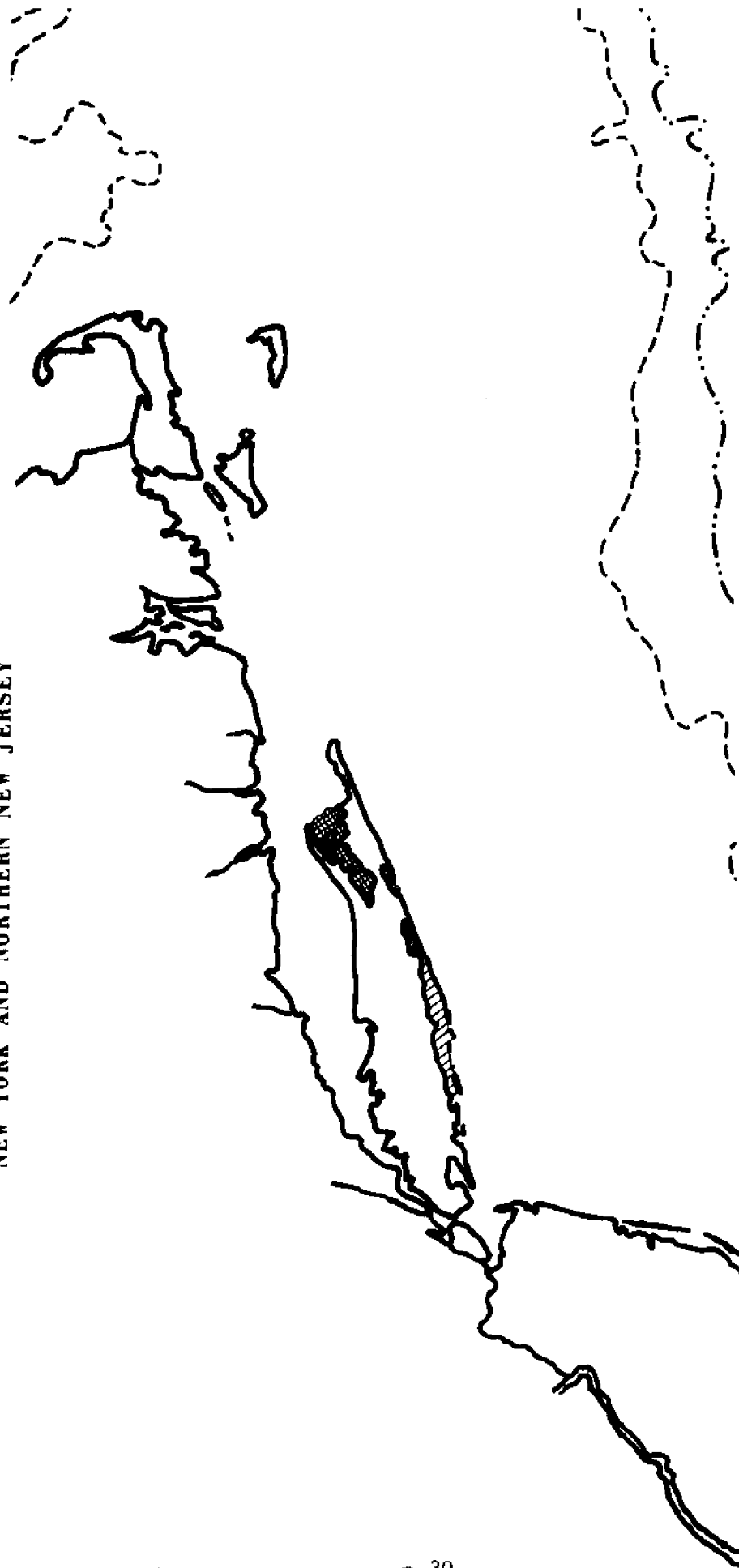
VIRGINIA 742,000 lbs. 375,000 lbs. from Virginia shores of Potomac River; 200,000 lbs. from Chesapeake Bay; 132,000 lbs. from York, James, and Rappahannock Rivers.

COMMENTS:




Important local fisheries as far south as Virginia.

# COMMON EEL (ANGUILLA ROSTRATA)

## NEW YORK AND NORTHERN NEW JERSEY

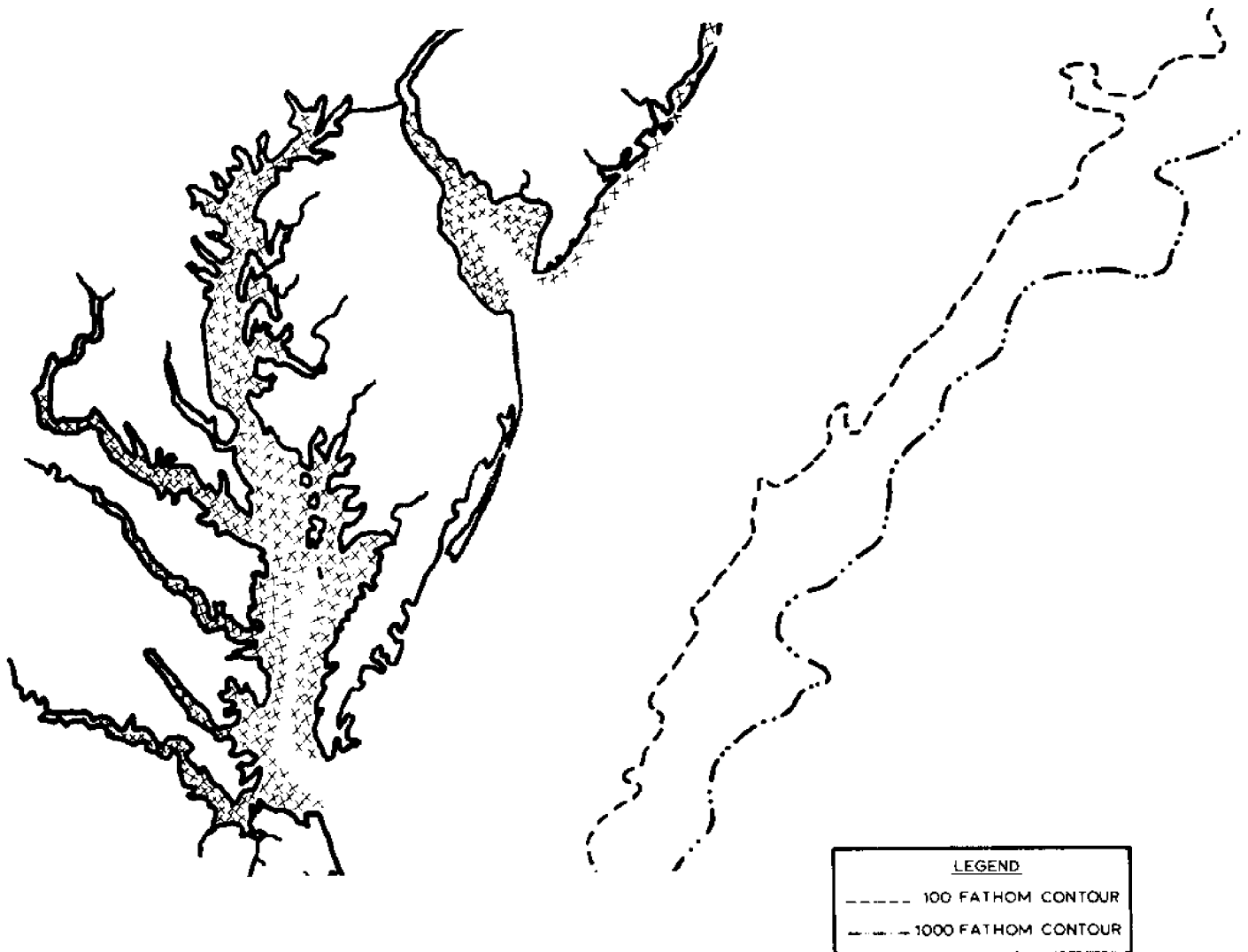


LEGEND  
 --- 100 FATHOM CONTOUR  
 --- 1000 FATHOM CONTOUR

-  Total catch 164,500 lbs.
-  Total catch 97,000 lbs.
-  Total catch 2,500 lbs.

COMMON EEL (*ANGUILLA ROSTRATA*)

SOUTHERN NEW JERSEY, DELAWARE, MARYLAND AND VIRGINIA



See text for details of catches

COD (GADUS MORHUA)

GENERAL RANGE: Davis Strait to Cape Hatteras, North Carolina

COMMERCIAL FISHERY (1965):

NEW YORK 366,000 lbs. Over 95 percent taken by inshore otter trawlers and longliners off the south shore of Long Island.

NEW JERSEY 165,000 lbs. Almost entirely by longliners operating 15-20 miles offshore from Sandy Hook to Cape May. Fishery has declined since the mid-1950's.

SPORT FISHERY:

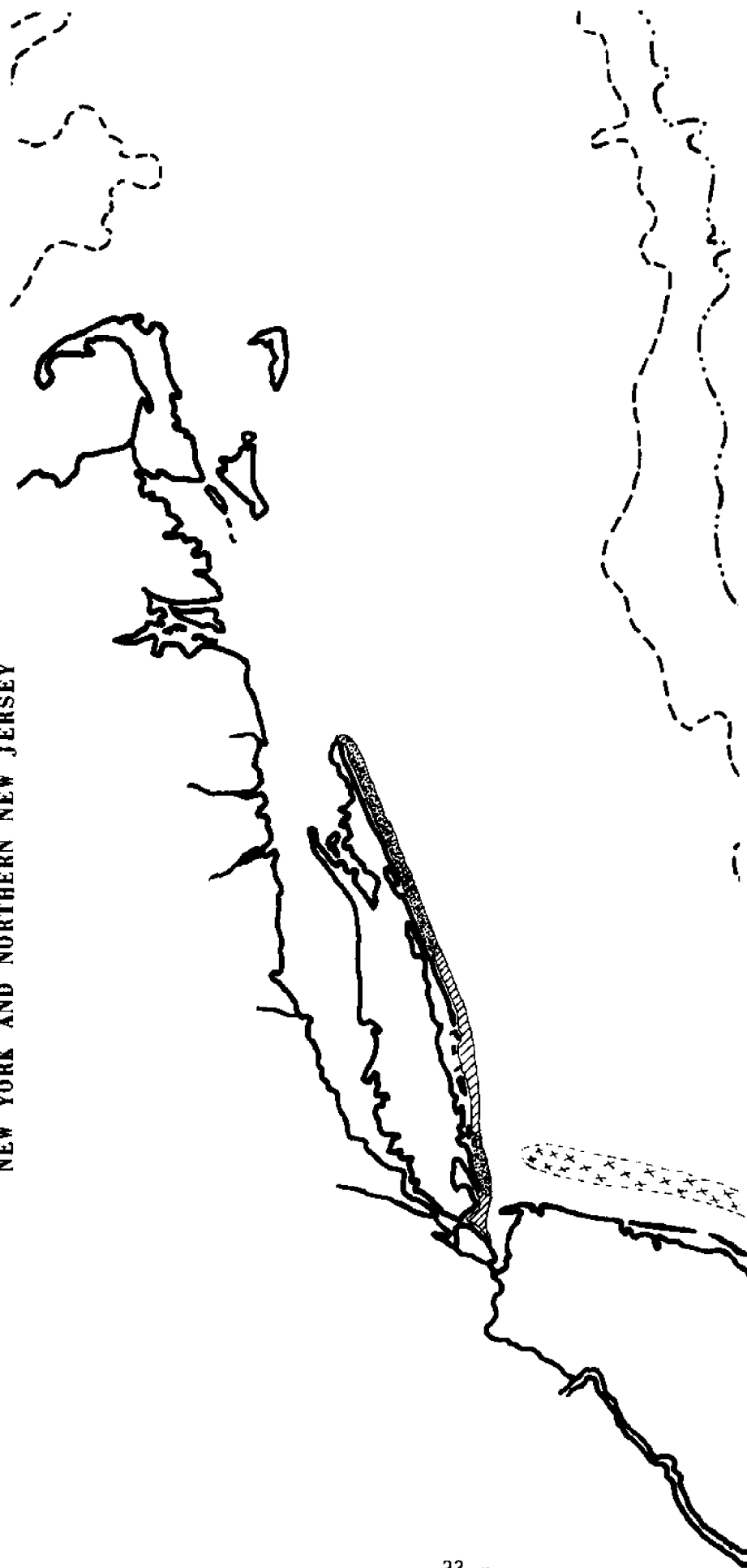
Important off south shore of Long Island and off the New Jersey coast in the winter months.




COMMENTS:

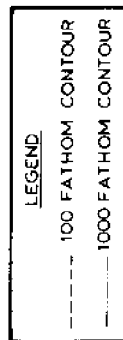
Although annual migrations extend as far south as North Carolina, the stocks do not support a commercial fishery south of New Jersey. The formerly important Atlantic Ocean longline fishery off New York and New Jersey has declined since 1960.

# COD (GADUS MORHUA)

## NEW YORK AND NORTHERN NEW JERSEY



-  90-110,000 lbs. from each area so marked
-  Less than 90,000 lbs. from each area so marked
-  Approximate location of New Jersey fishery



WHITING OR SILVER HAKE (MERLUCCIOUS BILINEARIS)

GENERAL RANGE: Newfoundland to North Carolina

COMMERCIAL FISHERY (1965):

NEW YORK 3,338,000 lbs. From offshore trawling grounds between Montauk Point and Nantucket and south of Long Island, during summer and fall. See map for location.

NEW JERSEY 3,729,000 lbs. By trawlers operating on summer fishing grounds south of Long Island and off the coast of northern New Jersey. Map gives location of fishing grounds.

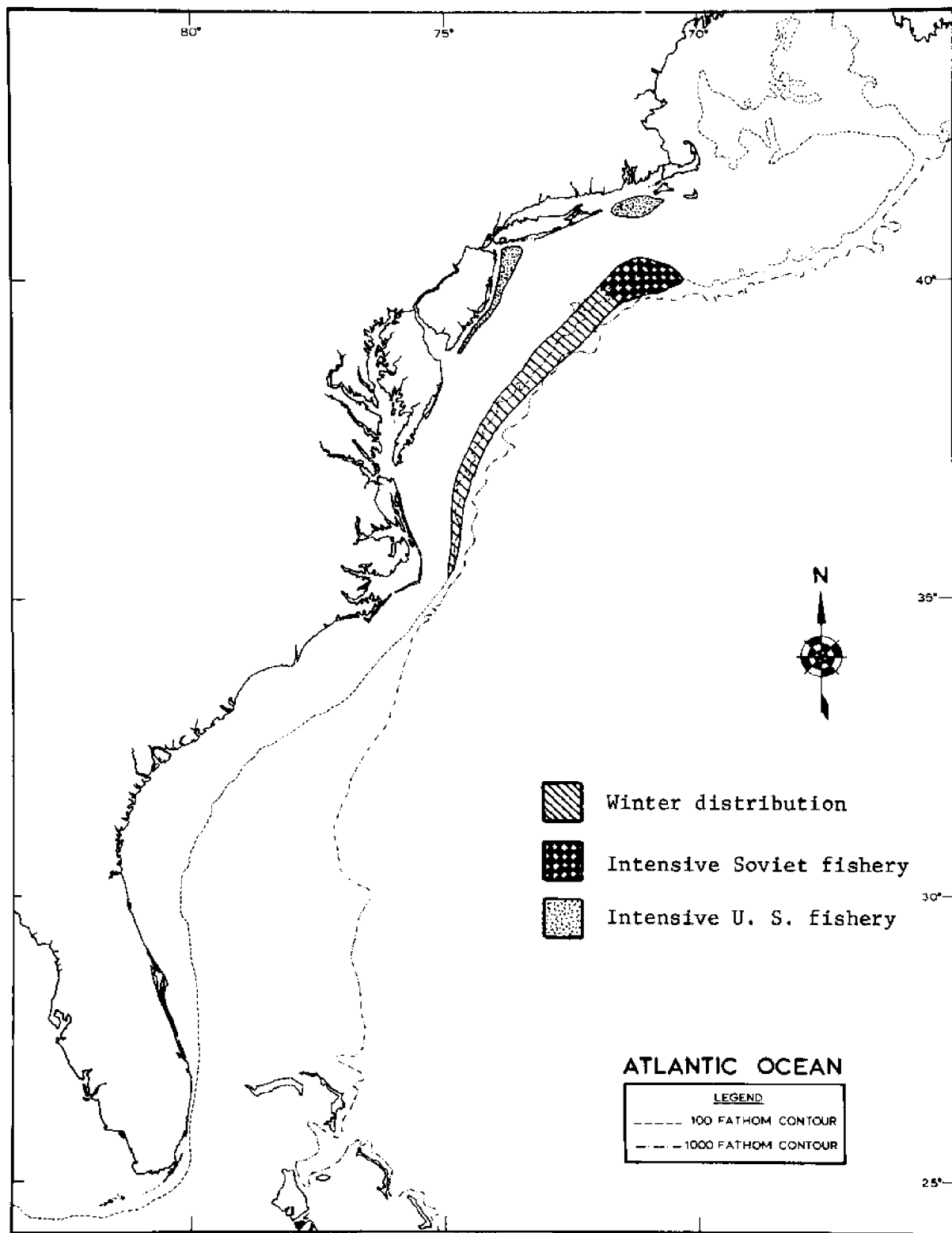
MARYLAND 130,000 lbs. Taken by winter trawl fishery along 100 fathom contour and deeper. Exact locations of catches not known.

COMMENTS:

The extent to which New England trawlers exploit the Long Island-Nantucket grounds is not known. The fish over winter in depths of 100 fathoms or more. These winter concentrations are heavily fished by Soviet trawlers. The accompanying map gives the general location of these grounds.

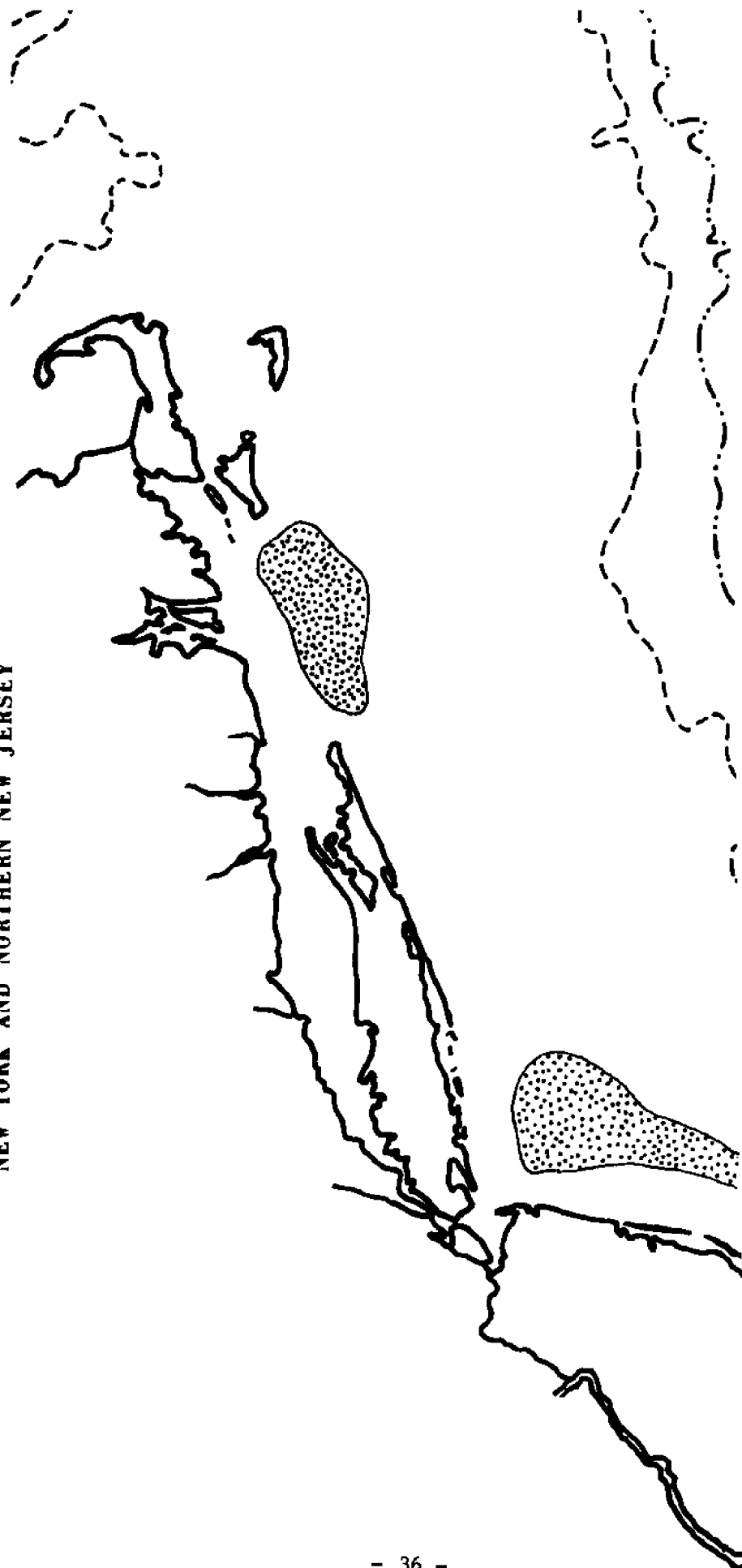
The stocks, already heavily fished on the Middle Atlantic grounds, constitute a latent resource of moderate potential off the Maryland and Virginia coasts along the 100 fathom contour.

# WHITING (MERLUCCIOUS BILINEARIS)



WHITING (MERLUCCIIUS BILINEARIS)

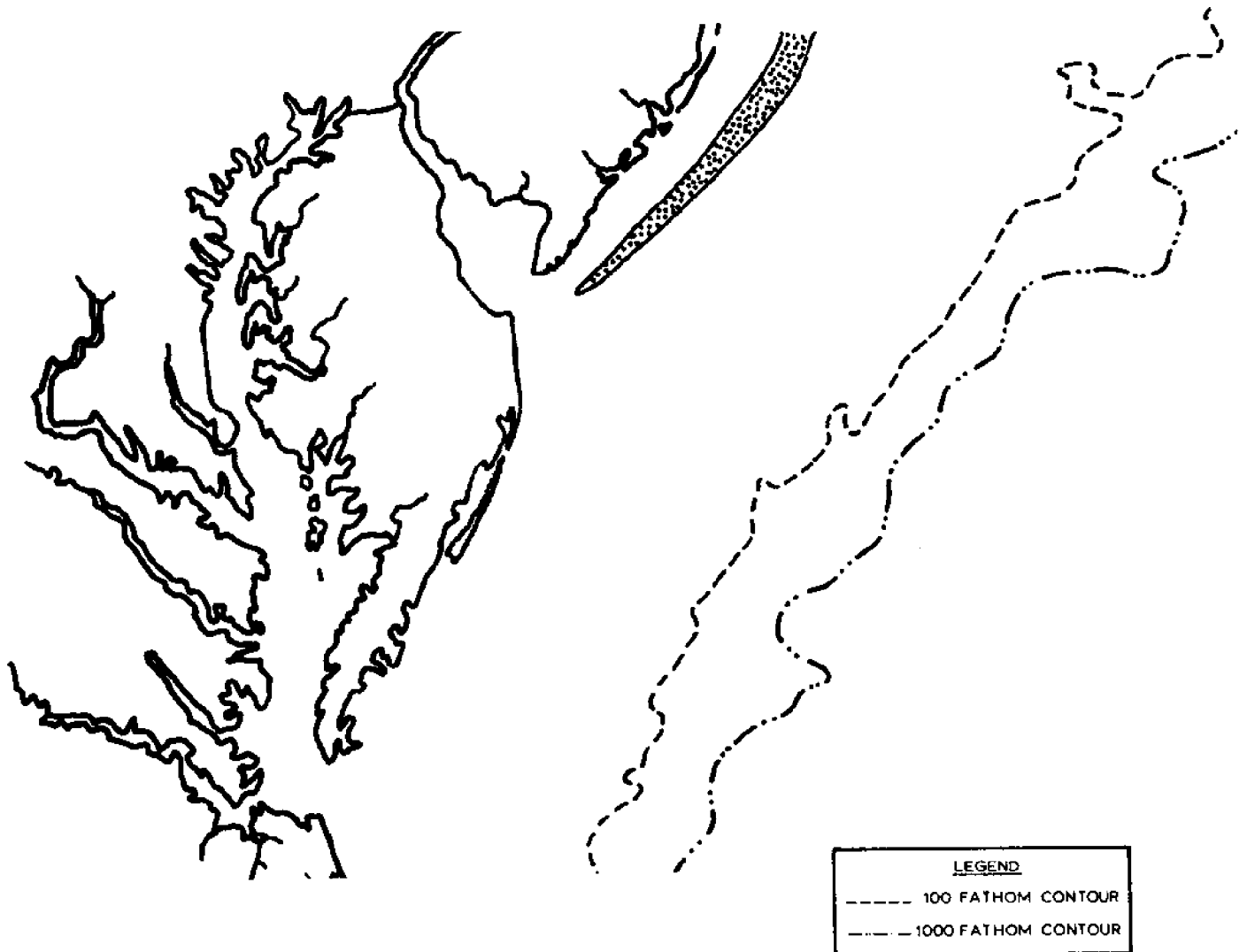
NEW YORK AND NORTHERN NEW JERSEY



LEGEND  
--- 100 FATHOM CONTOUR  
--- 1000 FATHOM CONTOUR

WHITING (MERLUCCIOUS BILINEARIS)

SOUTHERN NEW JERSEY, DELAWARE, MARYLAND AND VIRGINIA



RED HAKE (UROPHYCIS CHUSS)

GENERAL RANGE: Gulf of St. Lawrence to southern Virginia

COMMERCIAL FISHERY (1965):

NEW YORK 667,000 lbs. Data are not available on location of catches landed at New York ports. Some undoubtedly are taken on trawling grounds between Montauk and Nantucket. Probably much of the catch is taken on Nantucket shoals or on Georges Bank.

NEW JERSEY 676,000 lbs. Much of the New Jersey landings are taken incidentally by trawlers operating off the coast of northern New Jersey, and off Cape May.

MARYLAND 22,000 lbs. Taken by inshore summer trawl fishery. Map gives approximate locations of catches.

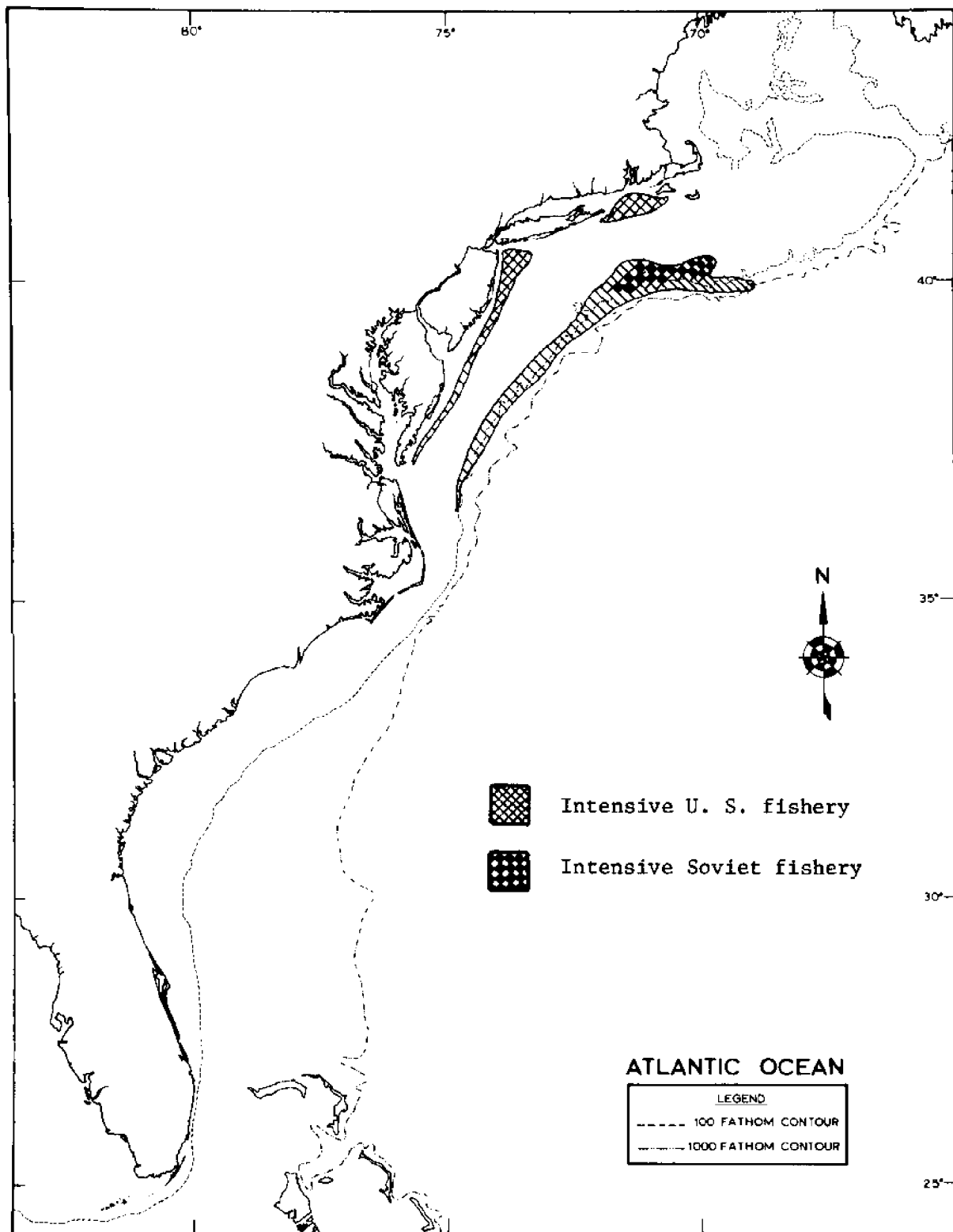
COMMENTS:

In addition to the New York and New Jersey landings reported above, red hake constitutes over 70 percent of the annual landings of trash fish (industrial fish) in these two states. The species composition of industrial fish catches is not usually reported. Thus the catches of red hake are in fact much greater than reported. This is especially true in New York State, where over 78 million pounds of industrial fish were landed in 1965. However, much of this catch was probably taken on Nantucket shoals and on Georges Bank.

Soviet trawlers take a large, unspecified, amount of red hake from fishing grounds around the 100 fathom contour in winter.

Red hake contributes insignificantly at present to the industrial fish catches made by Virginia fishermen. Stocks of red hake from Virginia northwards would appear to possess great potential.

# RED HAKE (UROPHYCIS CHUSS)



SEA BASS (CENTROPRISTES STRIATUS)

GENERAL RANGE: Cape Cod to northern Florida

COMMERCIAL FISHERY (1965):

NEW YORK 381,000 lbs. Fish pots and trawlers in inshore waters south of Long Island took 285,000 lbs. Remainder taken in winter trawl fishery in 80-100 fathoms. Since 1966 most New York catches have been made in the winter trawl fishery; fish pots are no longer important. Accompanying map gives location of fishing grounds.

NEW JERSEY 2,146,000 lbs. About 70 percent (1,500,000 lbs.) taken 15-20 miles offshore in pots set specifically for sea bass or for lobsters. Over 500,000 lbs. taken by offshore winter trawl fishery, and during inshore summer trawl fishery.

MARYLAND AND VIRGINIA 5,014,000 lbs. Approximately 4 1/2 million pounds taken by offshore winter trawl fishery. Almost 500,000 lbs. taken by fish pots, mainly off Chincoteague. Density of stippling on map indicates size of annual catch by fish pots.

NORTH CAROLINA 1,090,000 lbs. Over 600,000 lbs. taken by winter trawl fishery north of Cape Hatteras in depths to 50 fathoms. Fishing is concentrated on the southern regions of the grounds shown on the map. Approximately 400,000 lbs. taken by fish pots along the coast up to 10 fathoms from Bogue Inlet southwards.

SOUTH CAROLINA 83,000 lbs. Taken in fish pots up to 10 fathoms (see map). Large drop in catch in 1965 was due to decreased effort. Sea bass is an alternate fishery to shrimp, and shrimp were abundant in 1965.

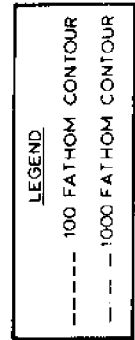
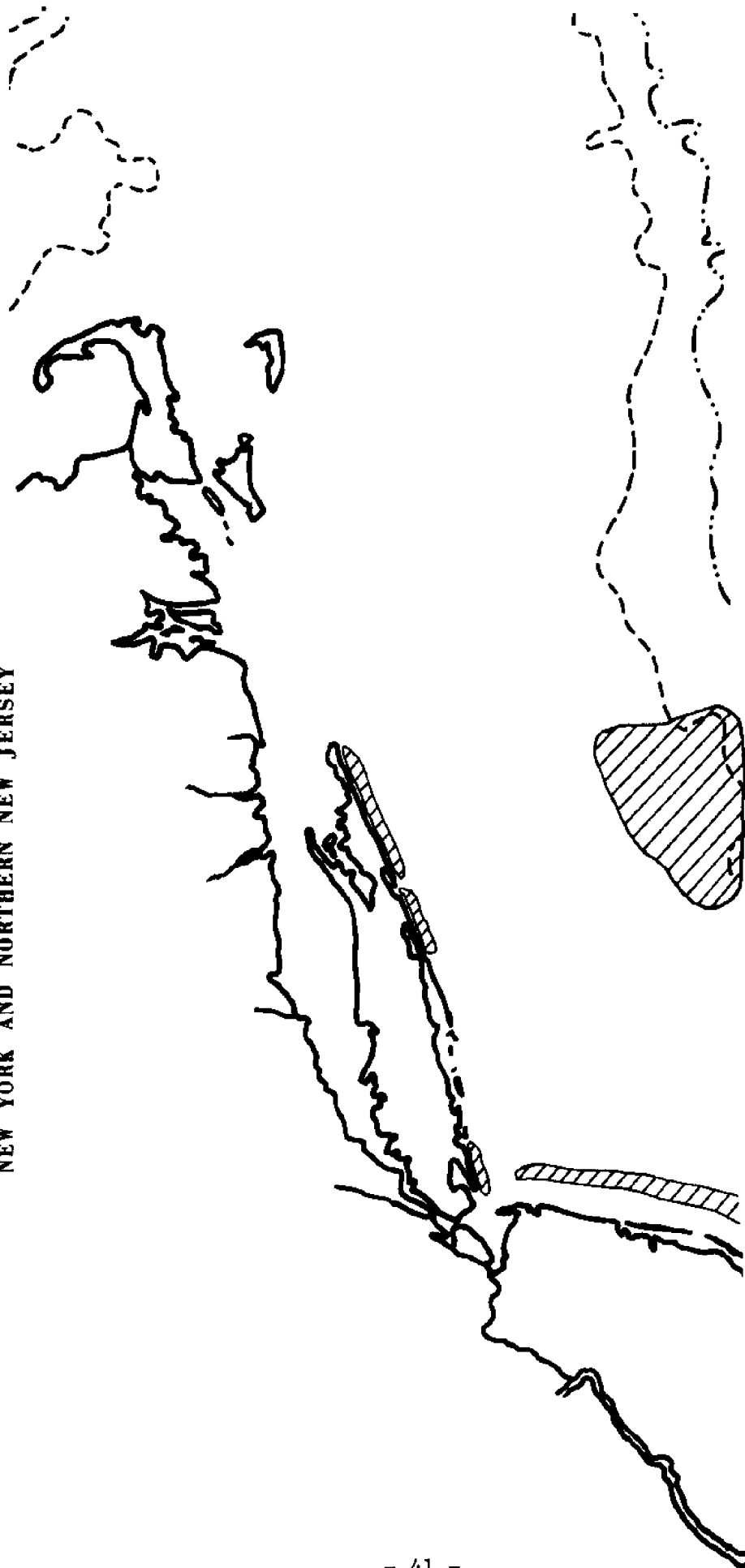
GEORGIA 3,700 lbs. Taken in shrimp trawls along the coast.

SPORT FISHERY:

Very important in New York and New Jersey. Largely uncensused.

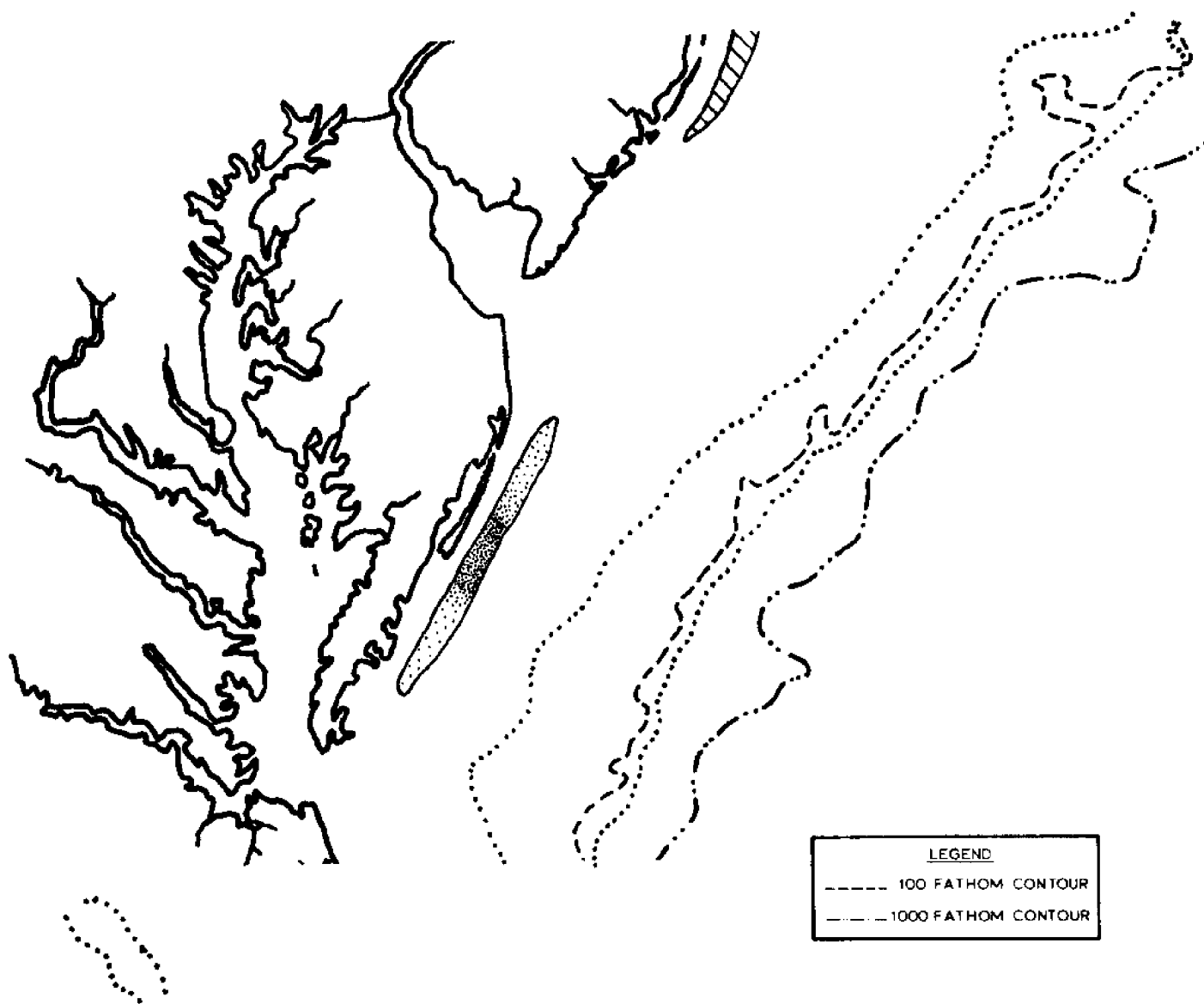
SEA BASS (*CENTROPRISTES STRIATUS*)

NEW YORK AND NORTHERN NEW JERSEY



SEA BASS (*CENTROPRISTES STRIATUS*)

SOUTHERN NEW JERSEY, DELAWARE, MARYLAND AND VIRGINIA



Approximate boundaries of winter trawl fishery

SEA BASS (*CENTROPRISTES STRIATUS*)

NORTH CAROLINA



Primary trawling area - winter fishery



Pot fishing area

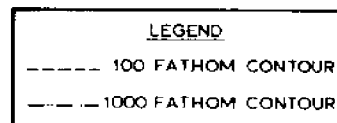
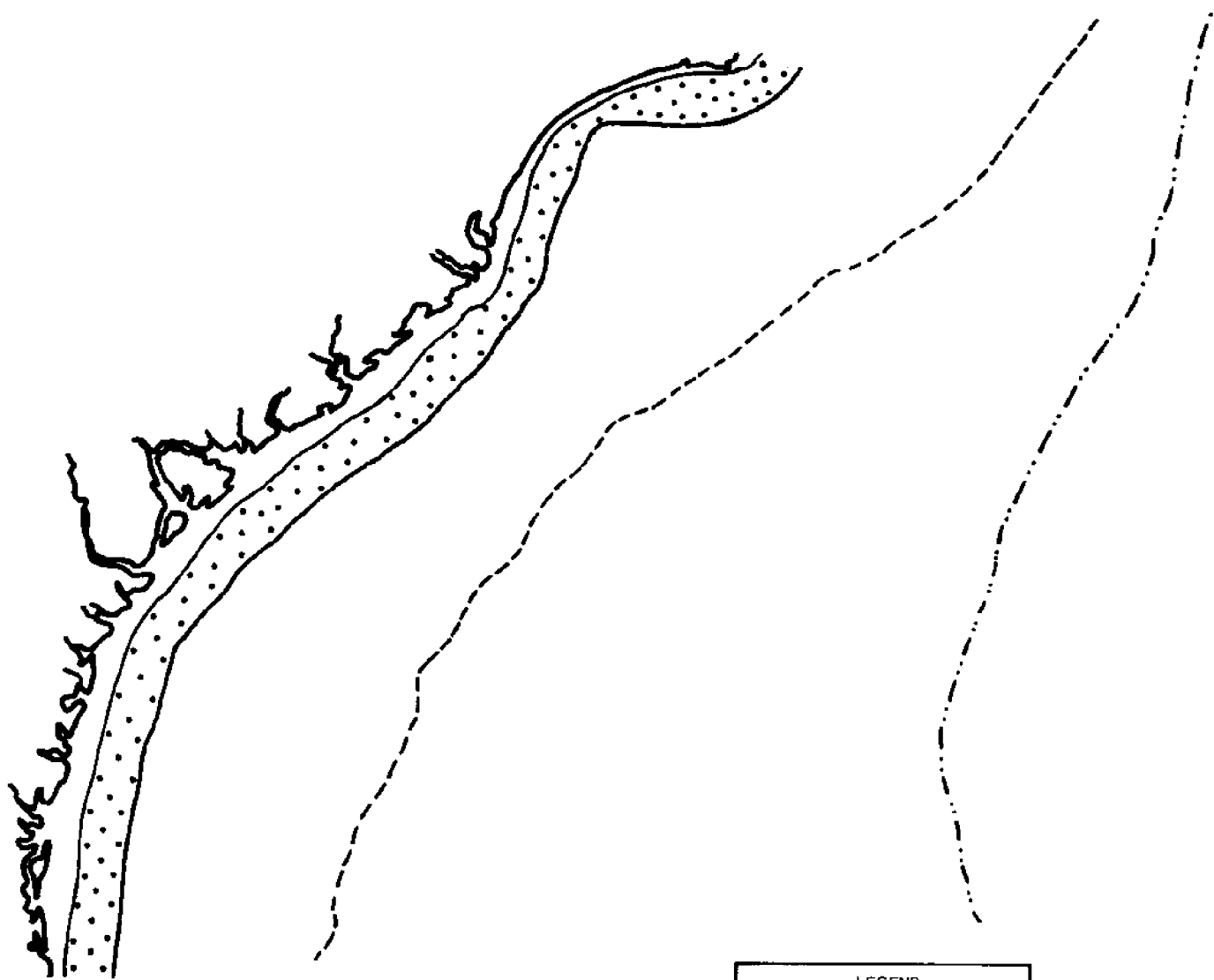
LEGEND

----- 100 FATHOM CONTOUR

- · - · - 1000 FATHOM CONTOUR

SEA BASS (CENTROPRISTES STRIATUS)

SOUTH CAROLINA AND GEORGIA



Approximate location of fishing grounds

RED SNAPPER (LUTJANUS AYA)

GENERAL RANGE: South Carolina to West Indies

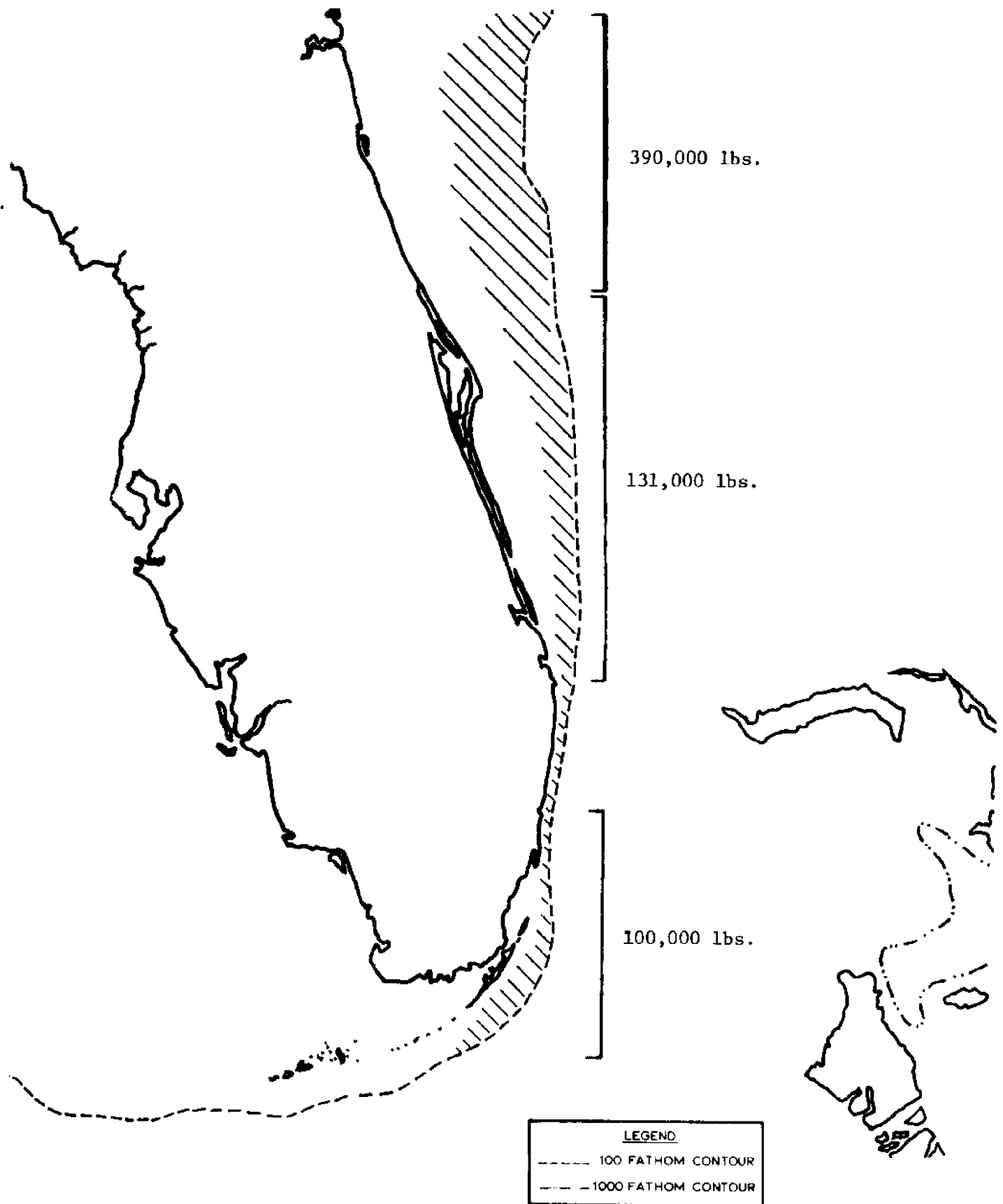
COMMERCIAL FISHERY (1965):

SOUTH CAROLINA 16,000 lbs. Caught by handlines in 30-50 fathoms.

FLORIDA 625,000 lbs. By handlines 30 to 50 miles offshore in depths to 100 fathoms along rock and reef banks. Fishing localities change as fish become temporarily scarce on well-fished banks. Chart shows approximate location of fishing areas. Figures on map are landings only and may not indicate specific location of catches.

RED SNAPPER (LUTJANUS AYA)

FLORIDA EAST COAST



YELLOWTAIL SNAPPER (OCYURUS CHRYSURUS)

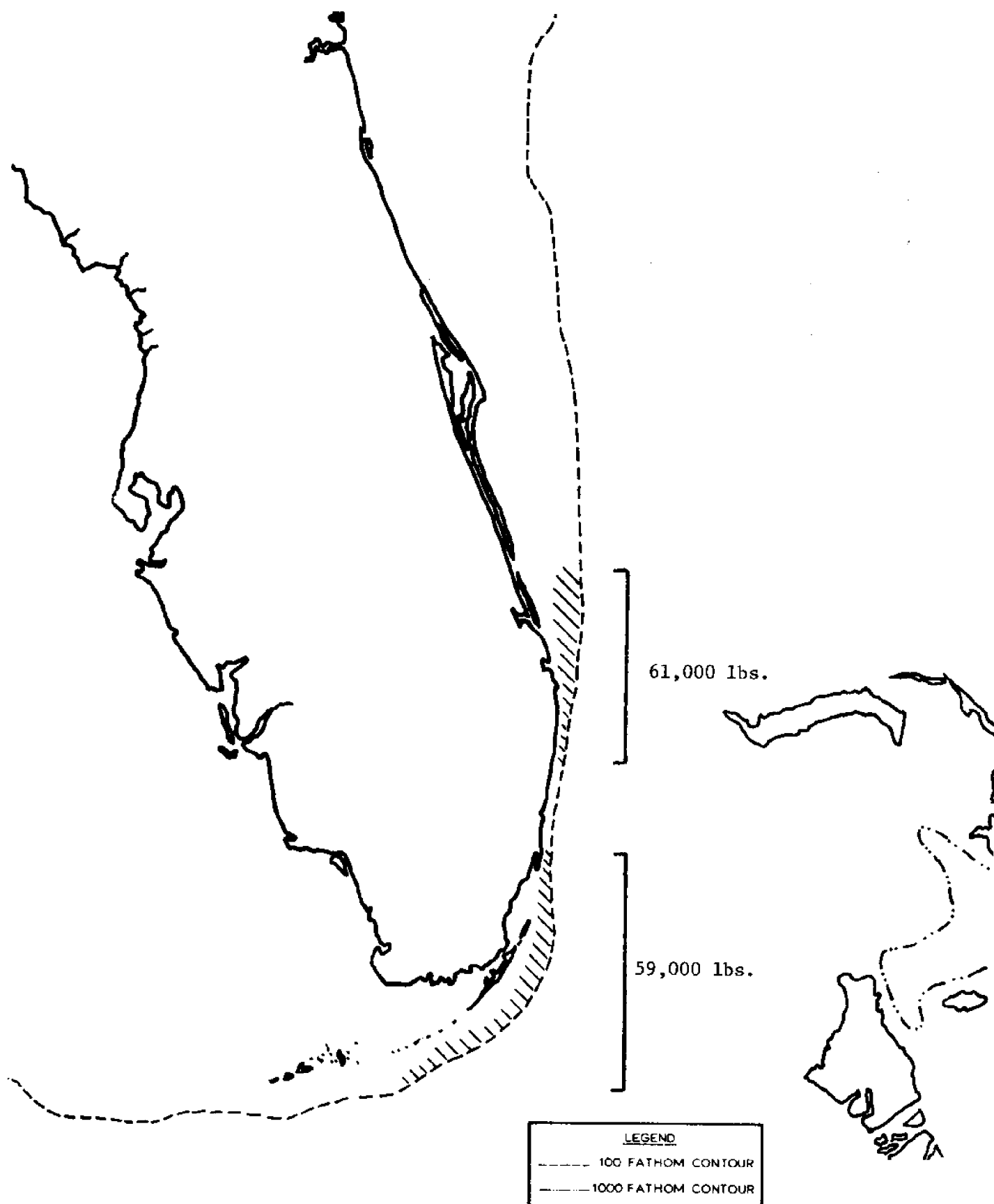
GENERAL RANGE: Florida to Brazil

COMMERCIAL FISHERY (1965):

FLORIDA 123,000 lbs. Taken on reef banks to 100 fathoms from Fort Pierce southward through the Florida Keys. Figures on map are landings only, but probably represent general location of capture fairly accurately.

YELLOWTAIL SNAPPER (OCYURUS CHRYSURUS)

FLORIDA EAST COAST



GROUPERS (EPINEPHELUS SPP. AND MYCTEROPERCA SPP.)

GENERAL RANGE: North Carolina to West Indies

COMMERCIAL FISHERY (1965):

FLORIDA 230,000 lbs. Taken in the same localities as red snapper. Catches seem to reflect effort in red snapper fishery. Florida boats also fish reef banks off the Georgia coast, landing their catches in Florida.

SPORT FISHERY:

Forms the basis of large recreational fisheries from party boats over much of its range.

WHITE PERCH (ROCCUS AMERICANUS)

GENERAL RANGE: Gulf of St. Lawrence to South Carolina

COMMERCIAL FISHERY (1965):

NEW YORK 37,000 lbs. By haul seines in Gardiners and Peconic Bays (see map).

NEW JERSEY 59,000 lbs. By haul seines and Fyke nets in coastal bays.

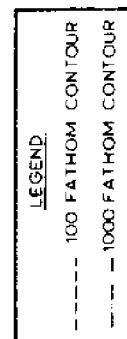
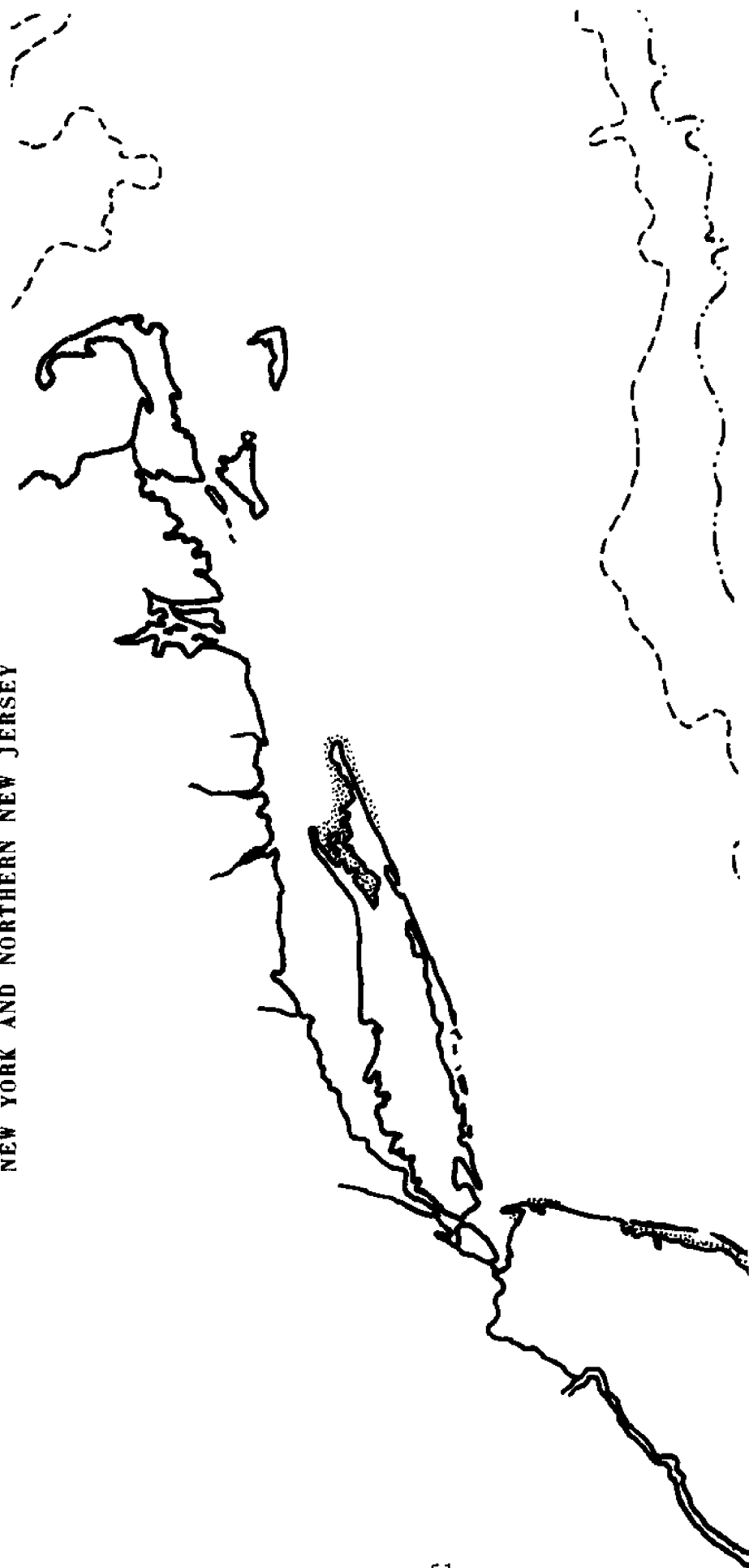
MARYLAND 1,450,000 lbs. Mostly by gill nets in upper Chesapeake Bay; 162,000 lbs. taken on Maryland side of Potomac River.

VIRGINIA 306,000 lbs. Pound nets, gill nets, seines and Fyke nets took 116,000 lbs. in the Potomac River; 163,000 lbs. in the James, York and Rappahannock Rivers; and 25,000 lbs. in lower Chesapeake Bay.

NORTH CAROLINA: 261,000 lbs. Entire catch from Albemarle Sound in about equal quantities by pound nets and gill nets.

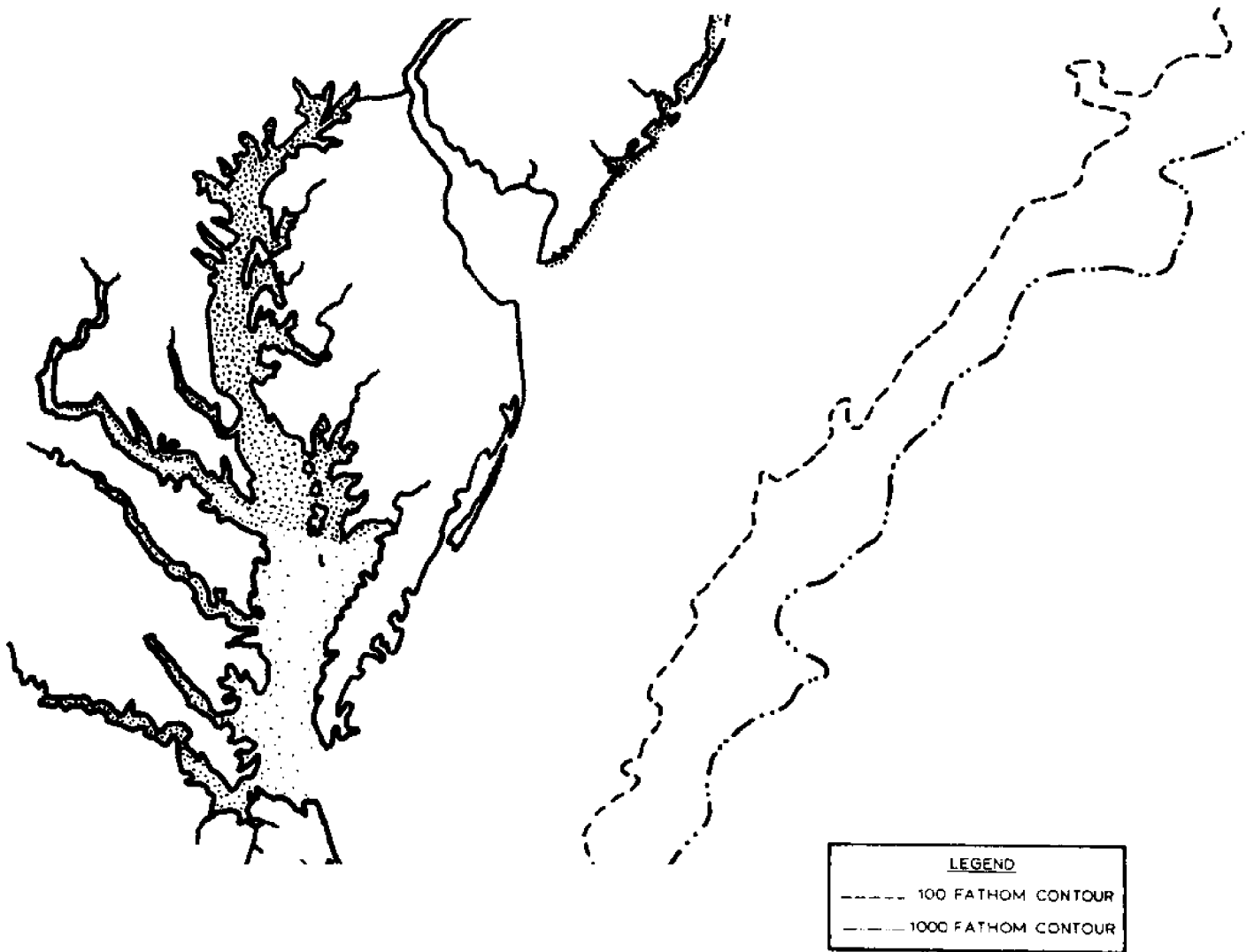
WHITE PERCH (MOCCUS AMERICANUS)

NEW YORK AND NORTHERN NEW JERSEY



WHITE PERCH (*MOCCUS AMERICANUS*)

SOUTHERN NEW JERSEY, DELAWARE, MARYLAND AND VIRGINIA



See text for details

WHITE PERCH (*MOCCUS AMERICANUS*)

NORTH CAROLINA



STRIPED BASS (ROCCUS SAXATILIS)

GENERAL RANGE: Southern side of Gulf of St. Lawrence to northern Florida.

COMMERCIAL FISHERY (1965):

NEW YORK 740,000 lbs. 75 percent of catch taken by haul seines between Shinnecock Inlet and Montauk Point. Remainder taken by seines, gill nets and inshore trawling in Gardiners and Peconic Bays, Long Island Sound, and the south shore of Long Island west of Shinnecock Inlet. These are mostly Chesapeake run fish and are taken from May to November.

NEW JERSEY 761,000 lbs. Over 70 percent of catch taken by trawlers operating more than 3 miles offshore between Point Pleasant and Atlantic City. Pound nets in Sandy Hook Bay take about 20,000 lbs. annually, and seines and gill nets along the coast account for approximately 100,000 lbs. each year. Three mile limit restrictions on trawlers at present limit the New Jersey catch and probably prevent the fishery from realizing its full potential.

MARYLAND 2,949,000 lbs. Almost 2 million pounds taken by gill nets in upper Chesapeake Bay. Over 500,000 lbs. taken on Maryland side of the Potomac River, and 10,000 lbs. by Maryland trawlers in the Atlantic.

VIRGINIA 2,210,000 lbs. 80 percent taken by gill nets and pound nets from the Potomac River. Of the remainder, 741,000 lbs. came from the York, James and Rappahannock Rivers and 223,000 lbs. from lower Chesapeake Bay.

NORTH CAROLINA 484,000 lbs. Over 75 percent taken by gill nets and pound nets in Albemarle Sound. Remainder by haul seines from Atlantic coast beaches.

SPORT FISHERY:

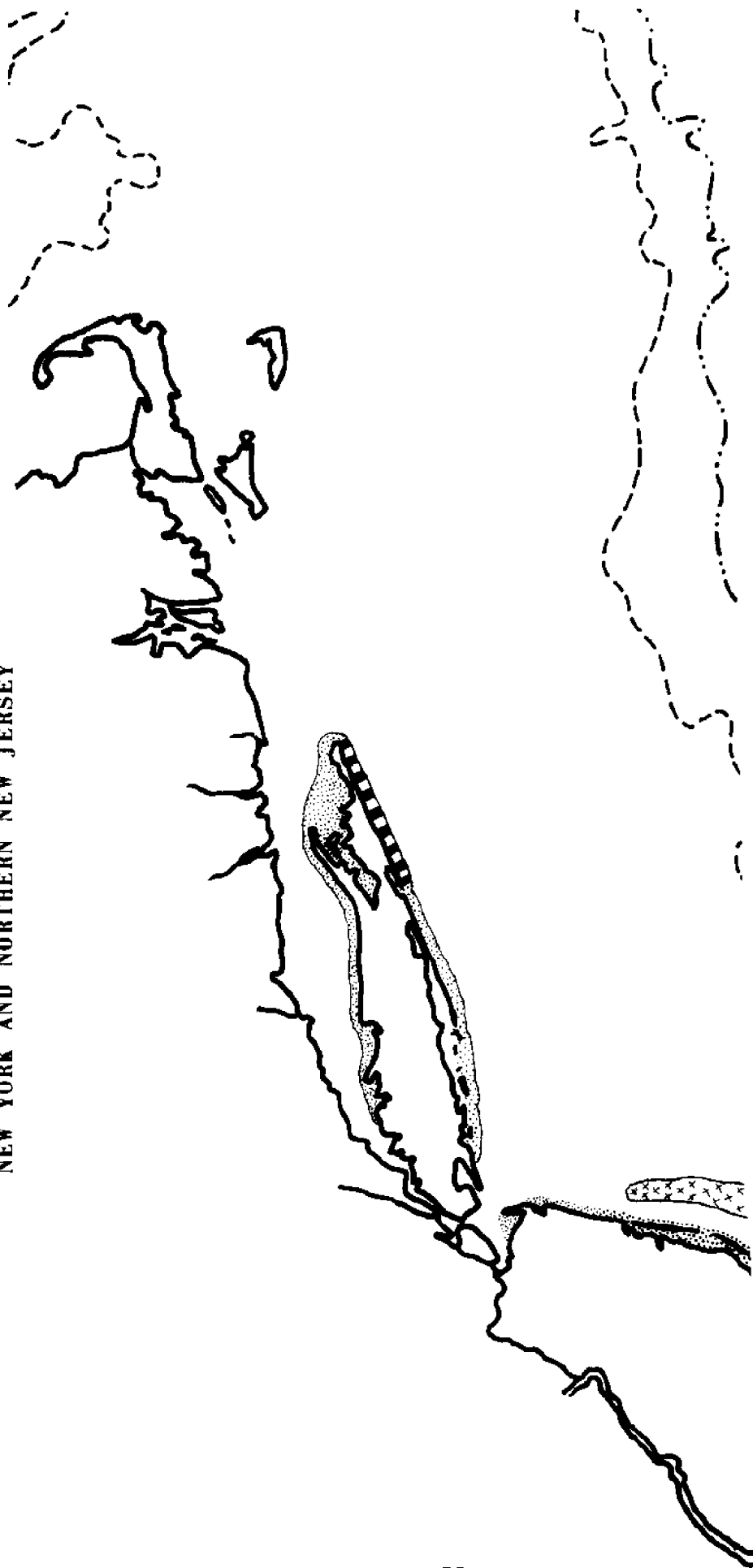
Very important over much of the range of the species.

COMMENTS:

The fishery for striped bass reaches its peak of intensity and importance in Chesapeake Bay where it is practiced with gill nets, seines, pound nets, fyke nets, trawls, and hook and lines. Striped bass is the most valuable fin fish species landed in Maryland and Virginia.

# STRIPED BASS (*MOCCUS SAXATILIS*)

## NEW YORK AND NORTHERN NEW JERSEY



Over 500,000 lbs.

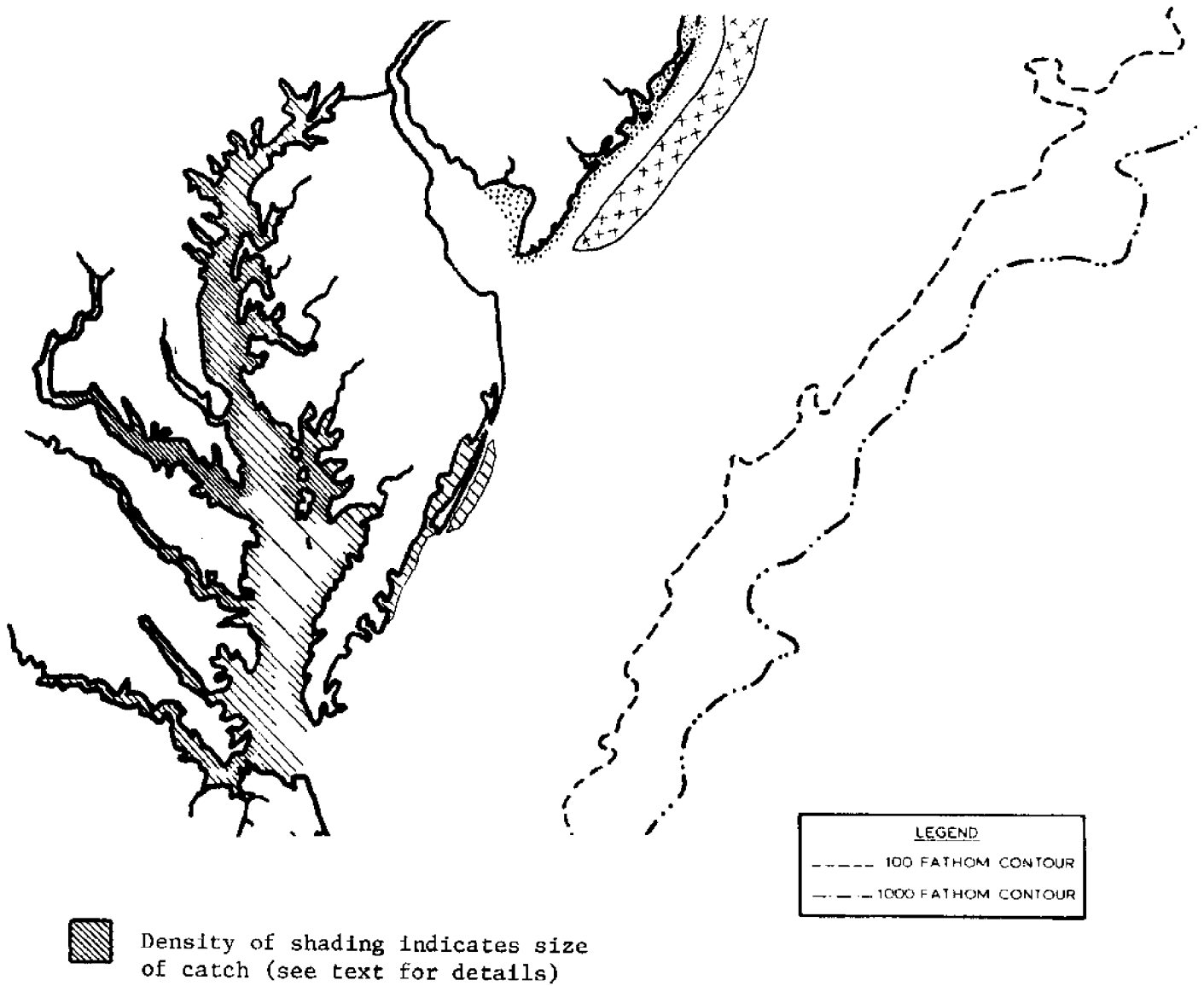
200,000 lbs. total catch from all areas (see also next map)

New Jersey trawl fishery - over 800,000 lbs. - (see also next map)

LEGEND  
 --- 100 FATHOM CONTOUR  
 --- 1000 FATHOM CONTOUR

STRIPED BASS (*MOCCUS SAXATILIS*)

SOUTHERN NEW JERSEY, DELAWARE, MARYLAND AND VIRGINIA



Refer to preceding map for details of New Jersey catch

STRIPED BASS (*MOCCUS SAXATILIS*)

NORTH CAROLINA



386,000 lbs.



96,000 lbs. (total from all three areas)

LEGEND	
-----	100 FATHOM CONTOUR
- - - - -	1000 FATHOM CONTOUR

TILEFISH (LOPHOLATILUS CHAMAELEONTICEPS)

GENERAL RANGE: Nova Scotia to Gulf of Mexico

COMMERCIAL FISHERY (1965):

NEW YORK Nonexistent at present. Fishery dwindled from 175,000 lbs. in 1956 to an insignificant quantity in 1964 and thereafter.

COMMENTS:

Formerly an important fishery, tilefish were also taken by New Jersey fishermen at times. Subject to severe fluctuations, the causes of which are not well understood.

BLUEFISH (POMATOMUS SALTATRIX)

GENERAL RANGE: Cape Cod to Argentina

COMMERCIAL FISHERY (1965):

NEW YORK 1,036,000 lbs. More than 85 percent taken by haul seines, gill nets and trawl lines along the south shore of Long Island and in Gardiners and Peconic Bays.

NEW JERSEY 870,000 lbs. Gill nets and pound nets in Sandy Hook Bay and along most of the New Jersey shore south to Cape May. Locations of catches are extremely variable from year to year. Stippling on map shows general area of fishery.

NORTH CAROLINA 704,000 lbs. Principally by gill nets in Albemarle Sound, and by haul seines from Atlantic beaches. Potential catch is high but the fishery is presently limited by market requirements.

SOUTH CAROLINA 84,000 lbs. Beach seines in Horry County account for over 99 percent of the landings. Accompanying map shows location.

FLORIDA EAST COAST 855,000 lbs. Primarily by runaround gill nets and haul seines from Indian River County to Palm Beach County. Figures given on map are landings only.

SPORT FISHERY:

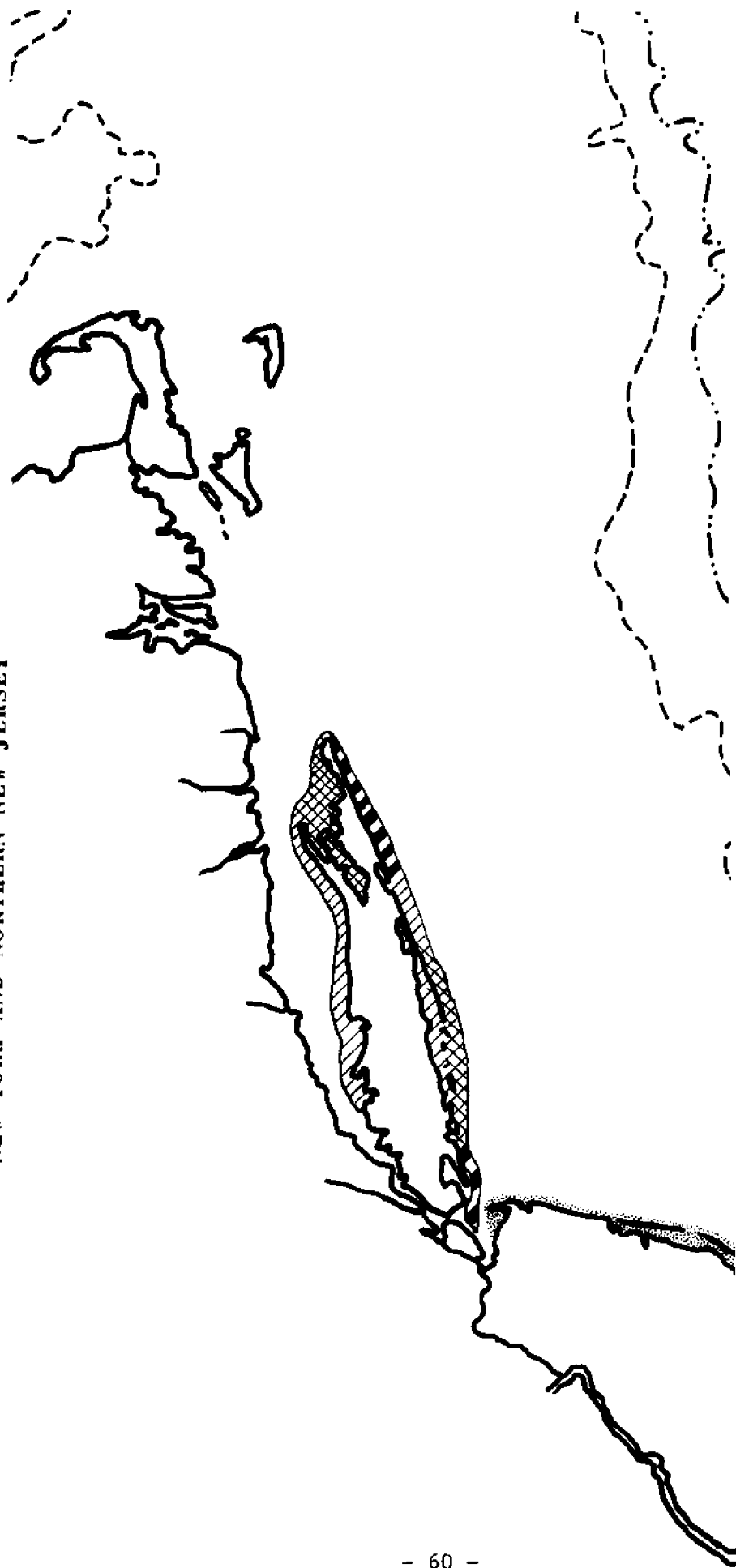
Important during the summer months in New York and New Jersey. Active fishery in spring and fall in Virginia and Maryland. Relatively unimportant south of Chesapeake Bay.




COMMENTS:

The commercial fishery operates from scattered localities on migratory stocks as they approach the coast and enter bays and estuaries. The resource has high potential, being limited by market demands.

# BLUEFISH (POMATOMUS SALTATRIX)

## NEW YORK AND NORTHERN NEW JERSEY



-  Over 200,000 lbs. from each area marked
-  100,000-200,000 lbs. from each area marked
-  Less than 100,000 lbs. from each area marked

LEGEND  
 --- 100 FATHOM CONTOUR  
 --- 1000 FATHOM CONTOUR

BLUEFISH (POMATOMUS SALTATRIX)

NORTH CAROLINA



THOUSAND POUNDS



264 (total catch from all three areas)



240



181

LEGEND

----- 100 FATHOM CONTOUR

- . - . - . 1000 FATHOM CONTOUR

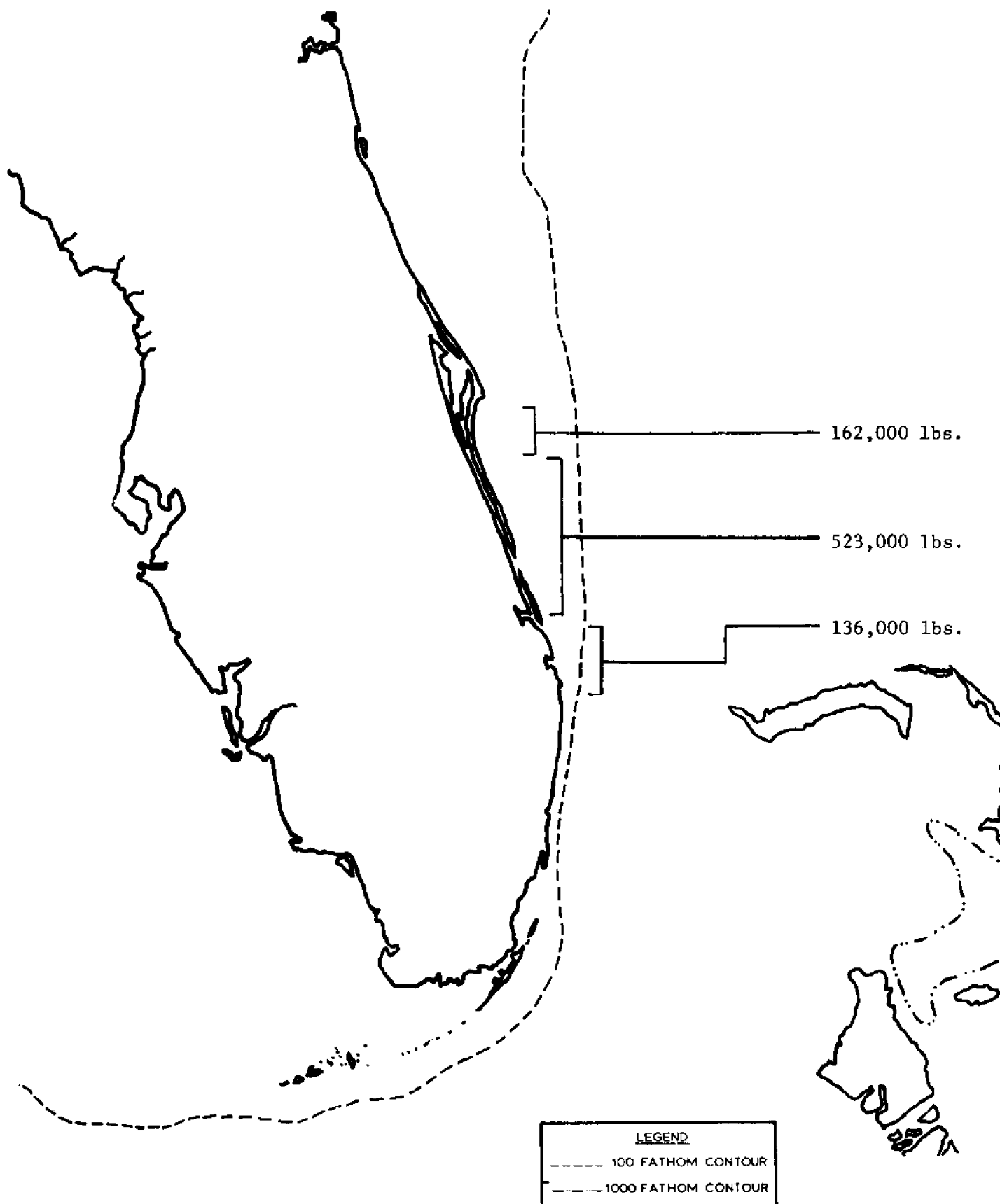
BLUEFISH (POMATOMUS SALTATRIX)

SOUTH CAROLINA AND GEORGIA



**BLUEFISH (POMATOMUS SALTATRIX)**

**FLORIDA EAST COAST**



POMPANO (TRACHINOTUS SPP.)

GENERAL RANGE: Massachusetts to Brazil

COMMERCIAL FISHERY (1965):

NORTH CAROLINA 12,000 lbs. Caught by seines in approximately equal quantities within Pamlico Sound and from Atlantic coast beaches.

SOUTH CAROLINA 24,000 lbs. 15,000 lbs. taken by Horry County beach seine fishery; remainder in shrimp trawls in coastal waters. Annual catch fluctuates considerably.

FLORIDA 251,000 lbs. Taken primarily by gill nets and haul seines in Indian River region. Over 85 percent of the catch is taken in "inside" waters. A flourishing hand-line fishery exists in St. Lucie and Jupiter Inlets. Figures on accompanying map are landings by county, but probably reflect closely the catch location.

COMMENTS:

A highly priced, much sought species.

POMPANO (TRACHINOTUS SPP.)

NORTH CAROLINA



7,000 lbs. (Total catch from all three areas)



5,000 lbs.

LEGEND


----- 100 FATHOM CONTOUR


-.-.-.- 1000 FATHOM CONTOUR

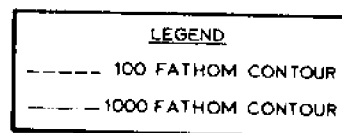
POMPANO (TRACHINOTUS SPP.)

SOUTH CAROLINA AND GEORGIA



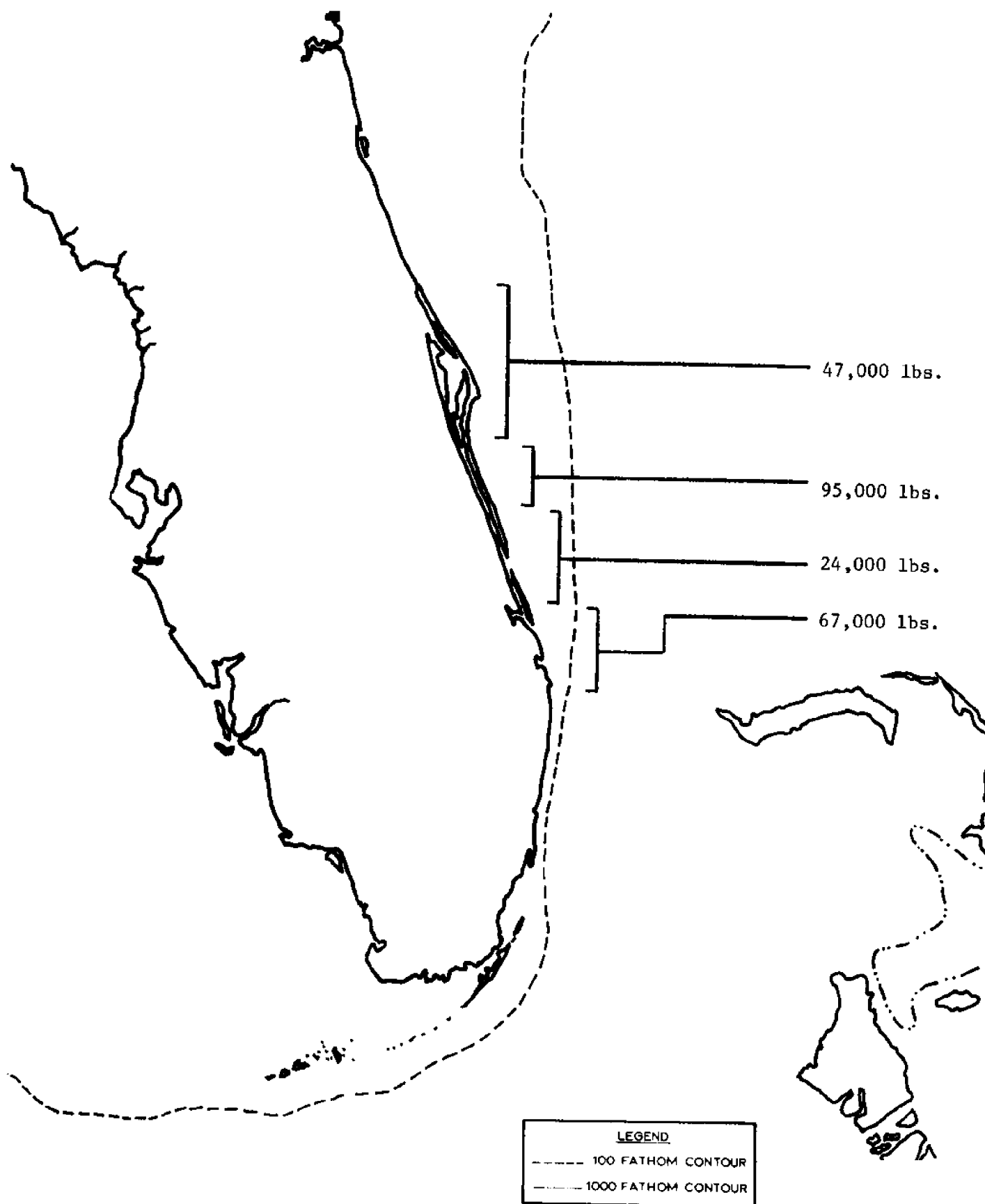
 15,000 lbs.

 9,000 lbs.



POMPANO (TRACHINOTUS SPP.)

FLORIDA EAST COAST



SPOTTED SEATROUT (CYNOSCION NEBULOSUS)

GENERAL RANGE: New York to Texas

COMMERCIAL FISHERY (1965):

VIRGINIA 40,000 lbs. Taken in pound nets in lower Chesapeake Bay only.

NORTH CAROLINA 175,000 lbs. By gill nets in Albemarle Sound; haul seines in Pamlico Sound; and haul seines on Atlantic beaches.

SOUTH CAROLINA 35,000 lbs. Horry County beach seine fishery took over 95 percent of the catch. See map for location.

GEORGIA 9,000 lbs. Primarily by shrimp trawlers on inshore grounds. Map gives location of trawling grounds.

FLORIDA 682,000 lbs. Gill nets and seines in the Indian River area take most of the catch. Map shows landings by county only.

SPORT FISHERY:

Supports a large recreational fishery, particularly in Florida.

COMMENTS:

A gradual decline in catches in all states since 1956 is apparent, although there has been no disastrous collapse of the fishery in any locality.

SPOTTED SEATROUT (CYNOSCION NEBULOSUS)

NORTH CAROLINA



THOUSAND POUNDS



47 (total from all three areas)



80



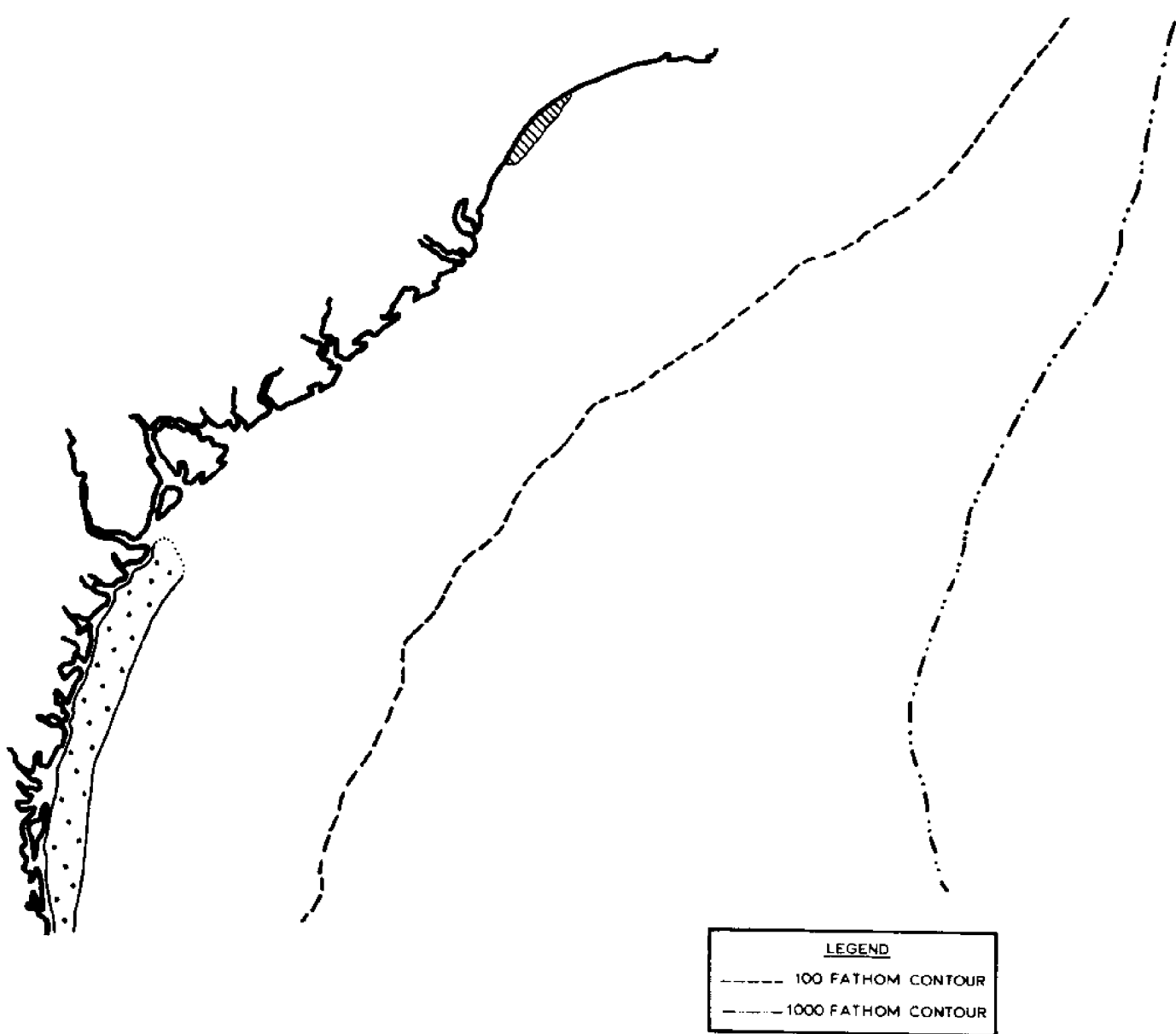
26

LEGEND

----- 100 FATHOM CONTOUR  
-.-.-.-.- 1000 FATHOM CONTOUR

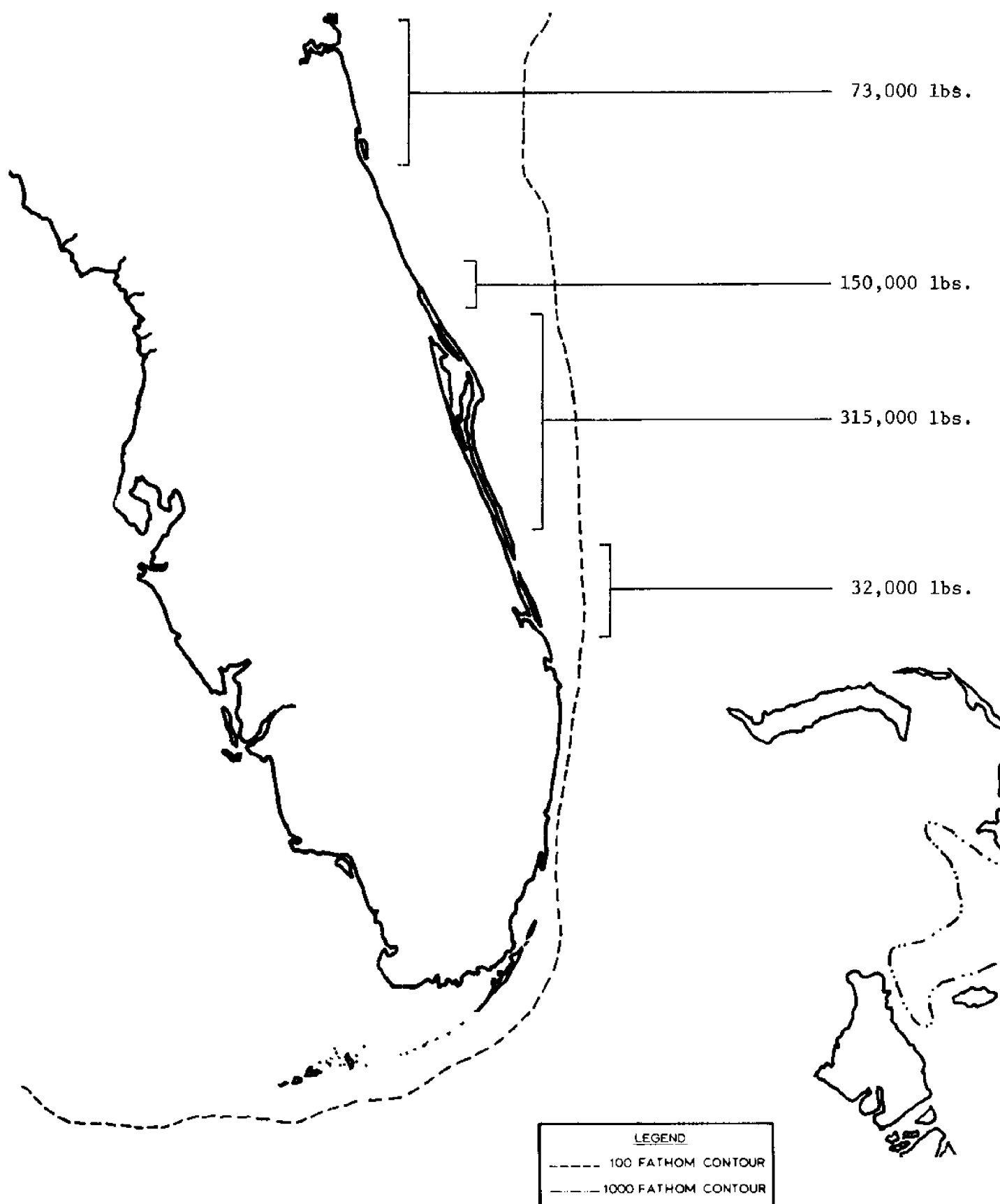
**SPOTTED SEATROUT (CYNOSCION NEBULOSUS)**

**SOUTH CAROLINA AND GEORGIA**



SPOTTED SEATROUT (CYNOSCION NEBULOSUS)

FLORIDA EAST COAST



GRAY WEAKFISH (CYNOSCION REGALIS)

GENERAL RANGE: Massachusetts Bay to southern Florida

COMMERCIAL FISHERY (1965):

NEW YORK 73,000 lbs. Mostly by otter trawls and pound nets in Gardiners and Peconic Bays. Fishery is apparently declining in Long Island waters.

NEW JERSEY 596,000 lbs. Taken in inshore bays. Fishery has declined sharply since 1965; small fish only are taken in the bays at present. Accompanying maps show location of fishery.

DELAWARE 221,000 lbs. Principally by otter trawlers on inshore grounds in Delaware Bay. A few taken in Delaware Bay by gill nets and haul seines. Since 1966 the commercial trawl fishery has ceased to operate.

MARYLAND 215,000 lbs. Taken primarily by trawlers, probably on inshore grounds, during October and November. A few taken by pound nets in upper Chesapeake Bay.

VIRGINIA 2,037,000 lbs. Distributed as follows: 1,598,000 lbs. from pound nets in lower Chesapeake Bay; 390,000 lbs. from gill nets and seines in lower Chesapeake Bay; 147,000 lbs. from the York, James, and Rappahannock Rivers; 35,000 lbs. from the Potomac River; approximately 40,000 lbs. by trawlers on Atlantic grounds. The total catch from Chesapeake Bay was almost 2 million pounds in 1965. Accompanying map gives location of catches.

NORTH CAROLINA 1,959,000 lbs. Over 1 1/2 million pounds by trawlers on inshore grounds mainly from Cape Hatteras to Bogue Inlet during winter. Remainder taken by pound nets and gill nets in Albemarle Sound; and by haul seines in Pamlico Sound and from Atlantic beaches.

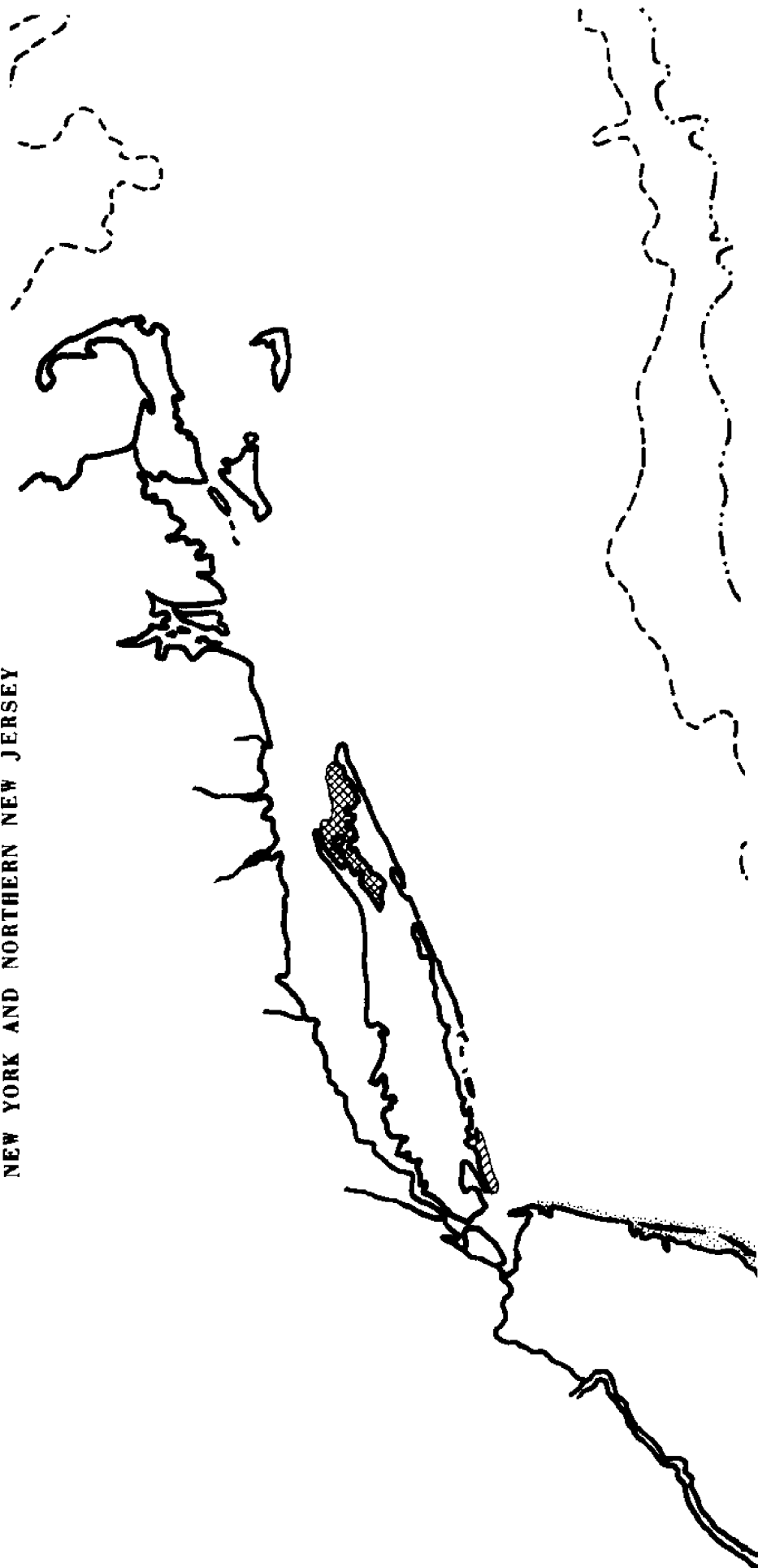
FLORIDA 298,000 lbs. Two-thirds of catch taken in St. Johns River. Remainder caught in "inside" waters in Indian River area. Catch has risen steadily from 7,000 lbs. in 1956.

COMMENTS:

The fishery appears to be declining north of Chesapeake Bay. However, fluctuations in catches of gray weakfish are a normal occurrence, and the fishery may improve in the future.

# GRAY WEAKFISH (CYNOSCION REGALIS)

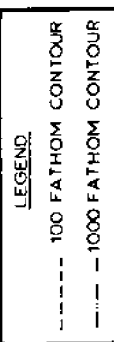
NEW YORK AND NORTHERN NEW JERSEY



40,000 lbs.

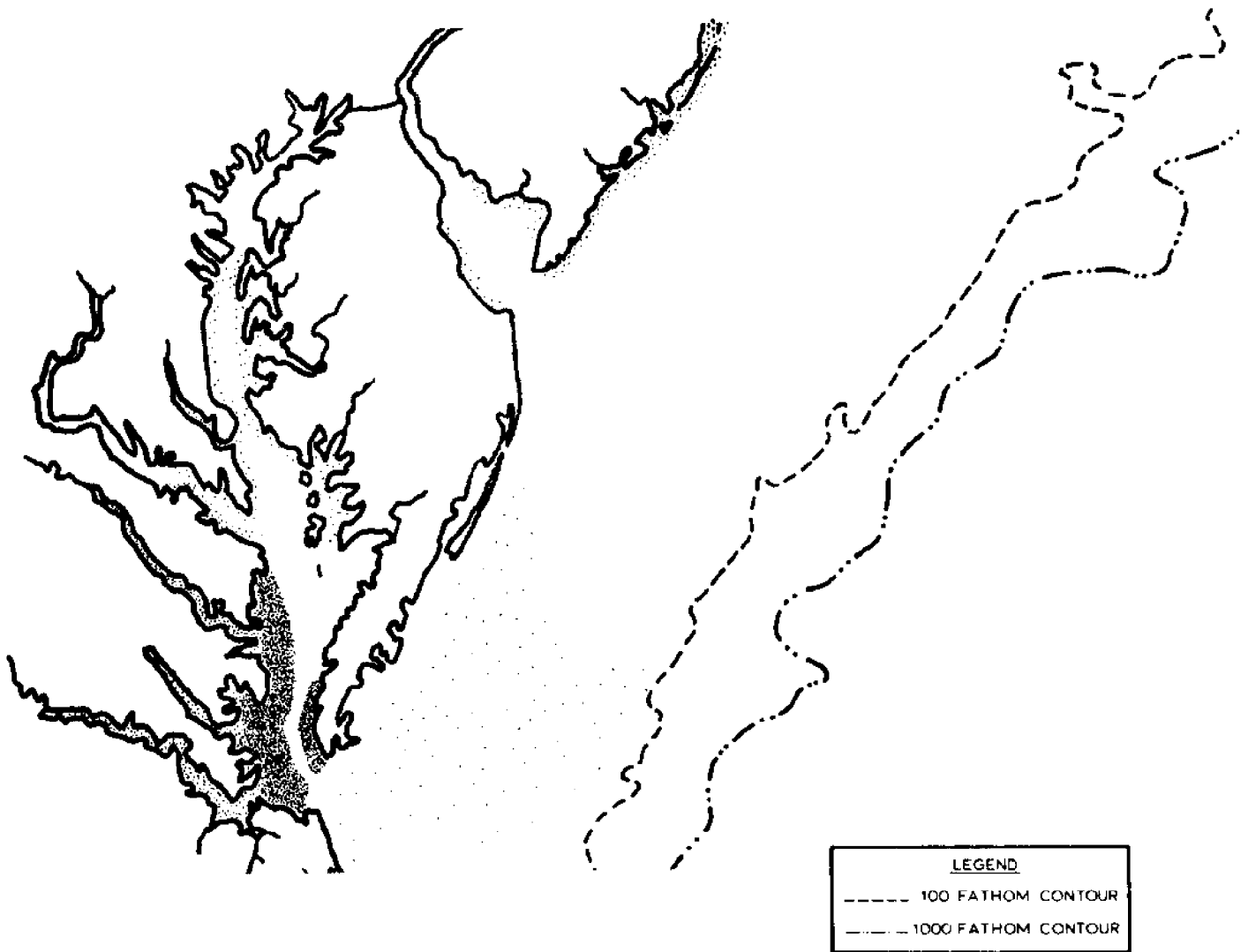


10,000 lbs.



GRAY WEAKEFISH (CYNOSCION REGALIS)

SOUTHERN NEW JERSEY, DELAWARE, MARYLAND AND VIRGINIA



Density of stippling indicates size of catches  
(see text for details)

GRAY WEAKFISH (CYNOSCION REGALIS)

NORTH CAROLINA



225,000 lbs.



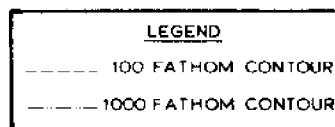
105,000 lbs.



40,000 lbs. (total from all three areas)

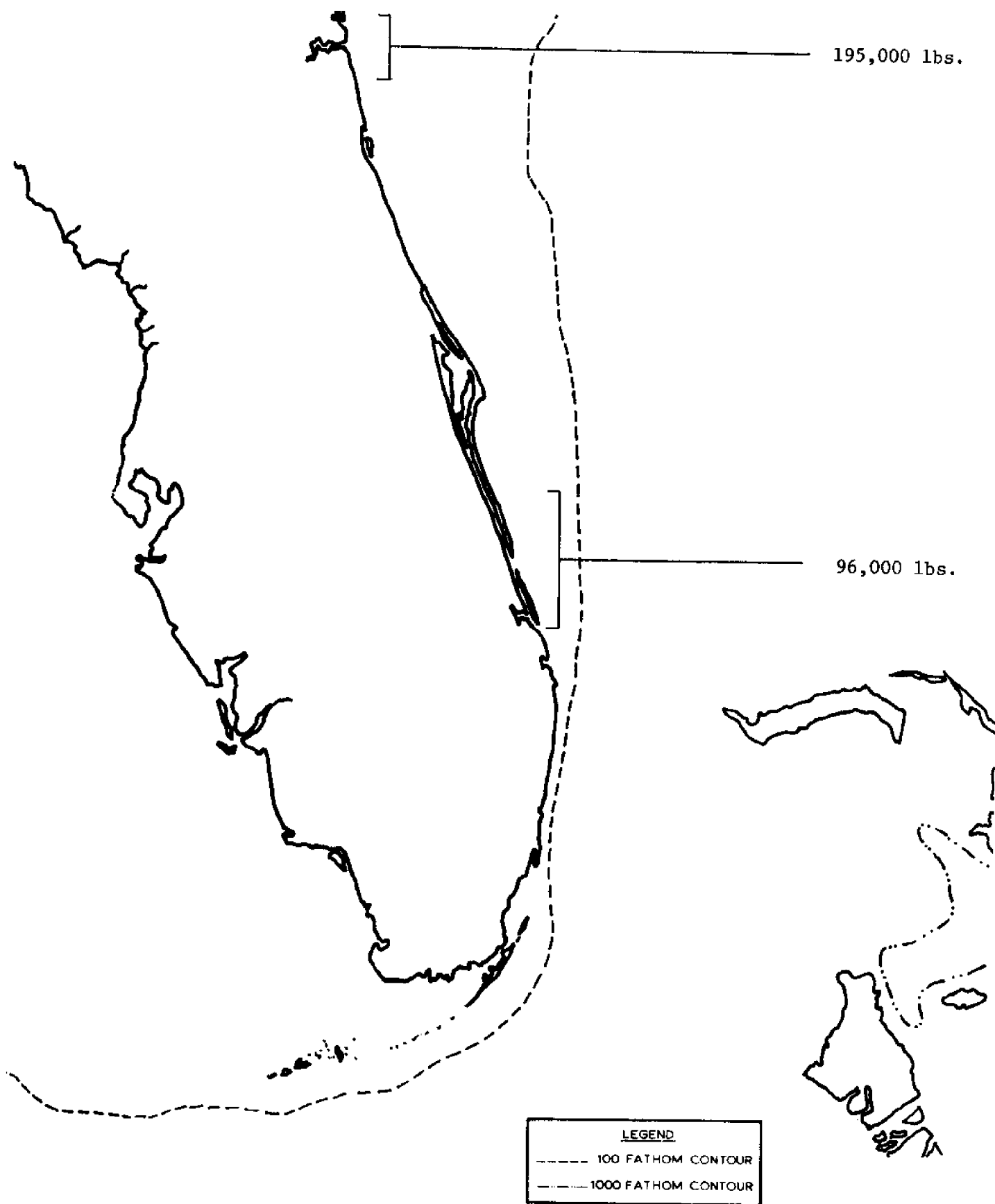


Main trawling area (see text)



GRAY WEAKFISH (CYNOSCION REGALIS)

FLORIDA EAST COAST



SPOT (LEIOSTOMUS XANTHURUS)

GENERAL RANGE: Cape Cod to Texas

COMMERCIAL FISHERY (1965):

VIRGINIA 1,751,000 lbs. Taken by haul seines, pound nets and gill nets. Over 1 1/2 million pounds were taken from lower Chesapeake Bay; 98,500 lbs. from the York, James and Rappahannock Rivers; 83,000 lbs. from the south bank of the Potomac River close to its estuary; 51,000 lbs. from haul seines on Atlantic beaches south of Cape Henry.

NORTH CAROLINA 913,000 lbs. Taken principally by haul seines in Pamlico Sound and from Atlantic coast beaches. About 100,000 lbs. taken by gill nets in Albemarle Sound, and 80,000 lbs. by the inshore summer trawl fishery.

SOUTH CAROLINA 1,174,000 lbs. Almost entire catch taken by beach seine fishery in Horry County. About 30,000 lbs. taken incidentally by shrimp trawlers, and a similar quantity taken by haul seines elsewhere along the coast.

FLORIDA 938,000 lbs. By gill nets and haul seines, principally in the inland waterways in the Indian River region. Figures on map are landings only but probably indicate catch location with reasonable precision.

SPORT FISHERY:

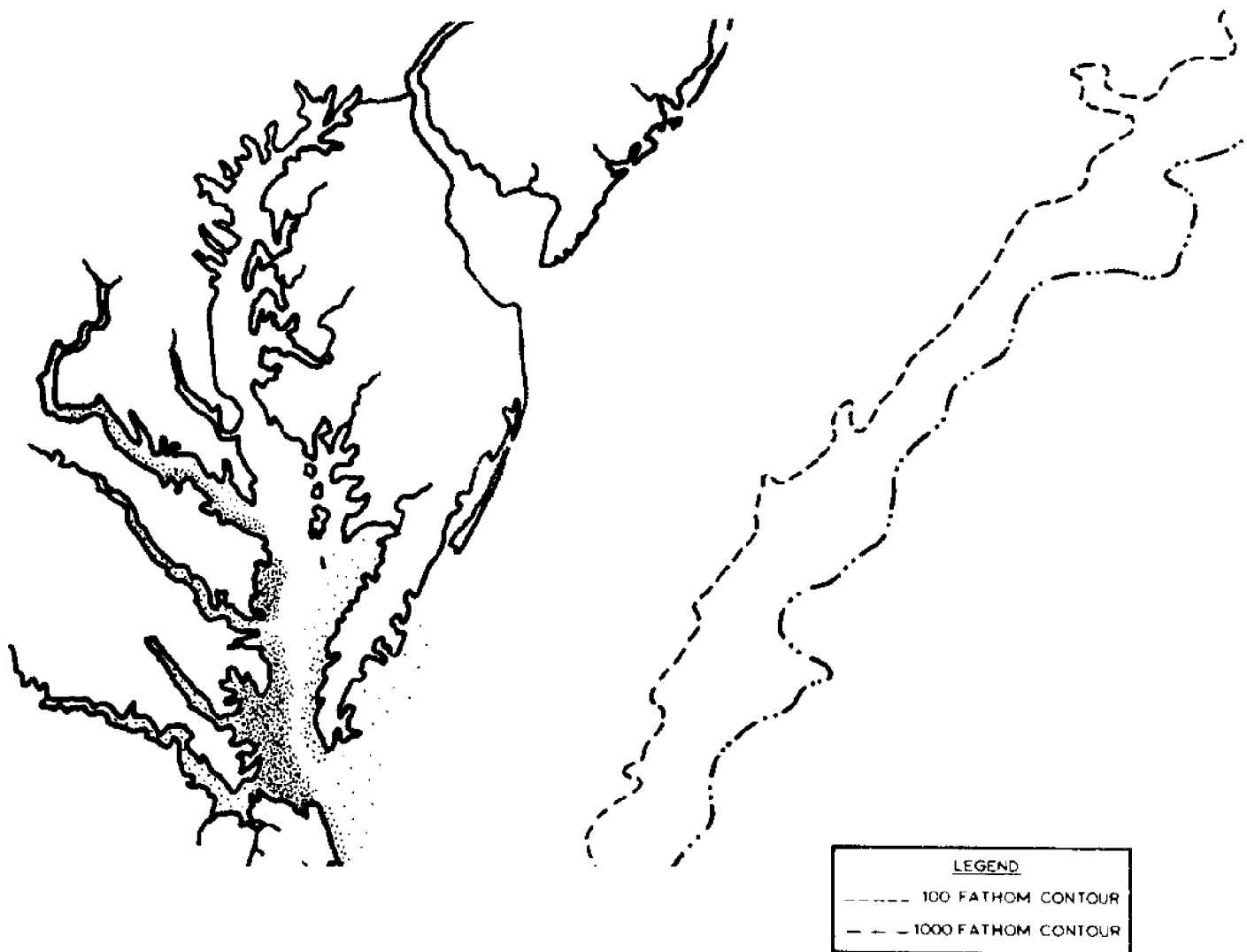
Supports an important fishery over much of its range. Sport fishery in Chesapeake Bay takes almost one-quarter as many fish as the commercial fishery.

COMMENTS:

Except in Florida and South Carolina, catches of spot have been declining steadily over the past 10 years. Landings in North Carolina and Virginia have fallen to one-third to one-half of their levels in 1956. The formerly productive haul seine fishery pursued by Maryland fishermen in upper Chesapeake Bay has disappeared since 1964. Spot no longer supports an important commercial fishery north of Virginia.

SPOT (LEIOSTOMUS XANTHURUS)

SOUTHERN NEW JERSEY, DELAWARE, MARYLAND AND VIRGINIA



Density of stippling indicates size of catch  
(see text for details)

SPOT (LEIOSTOMUS XANTHURUS)

NORTH CAROLINA



THOUSAND POUNDS



366 (total from all three areas)



100



358



80

LEGEND

----- 100 FATHOM CONTOUR  
----- 1000 FATHOM CONTOUR

SPOT (LEIOSTOMUS XANTHURUS)

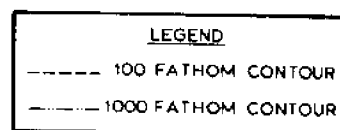
SOUTH CAROLINA AND GEORGIA



Over 1 million pounds

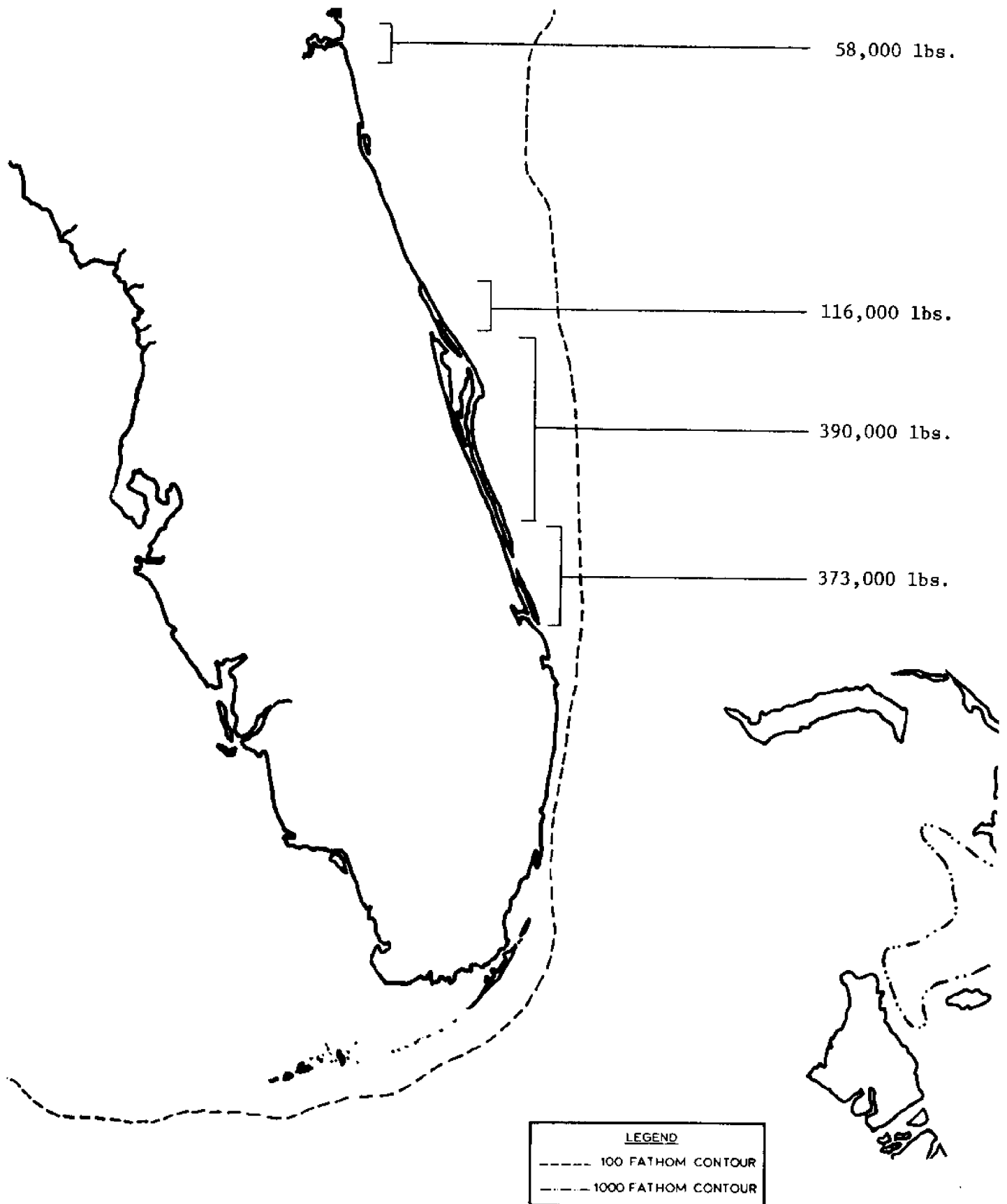


Approximately 75,000 pounds



SPOT (LEIOSTOMUS XANTHURUS)

FLORIDA EAST COAST



SOUTHERN KINGFISH (MENTICIRRHUS AMERICANUS)

GENERAL RANGE: New York to Texas. Most common from North Carolina southward.

COMMERCIAL FISHERY (1965):

NORTH CAROLINA 1,337,000 lbs. Mostly by otter trawls on Atlantic grounds mainly south of Cape Hatteras. Also taken by shrimp trawls and haul seines within Pamlico Sound, by gill nets in Albemarle Sound, and by haul seines from Atlantic coast beaches.

SOUTH CAROLINA 315,000 lbs. Taken by shrimp trawlers as an incidental species. Catches reflect effort expended in shrimp fishery. Accompanying map shows approximate location of catches.

GEORGIA 253,000 lbs. As South Carolina.

FLORIDA 1,790,000 lbs. Approximately 70 percent taken by shrimp trawlers on inshore grounds from St. Johns River to Indian River. Remainder taken by haul seines, gill nets, and hand lines. Map shows location of shrimp trawling grounds.

SPORT FISHERY:

Important through most of its range. Estimates in South Carolina indicate that the sport fishery catch almost certainly exceeds that of the commercial fishery.

COMMENTS:

Commercial catches include small numbers of northern kingfish, but the southern kingfish is by far the dominant species in catches from North Carolina southward.

SOUTHERN KINGFISH (MENTICIRRHUS AMERICANUS)

NORTH CAROLINA



THOUSAND POUNDS



912 (otter trawls)



160 (gill nets)



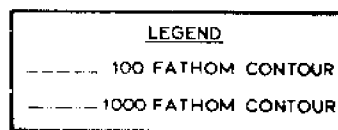
125 (shrimp trawls)



85 (haul seines)

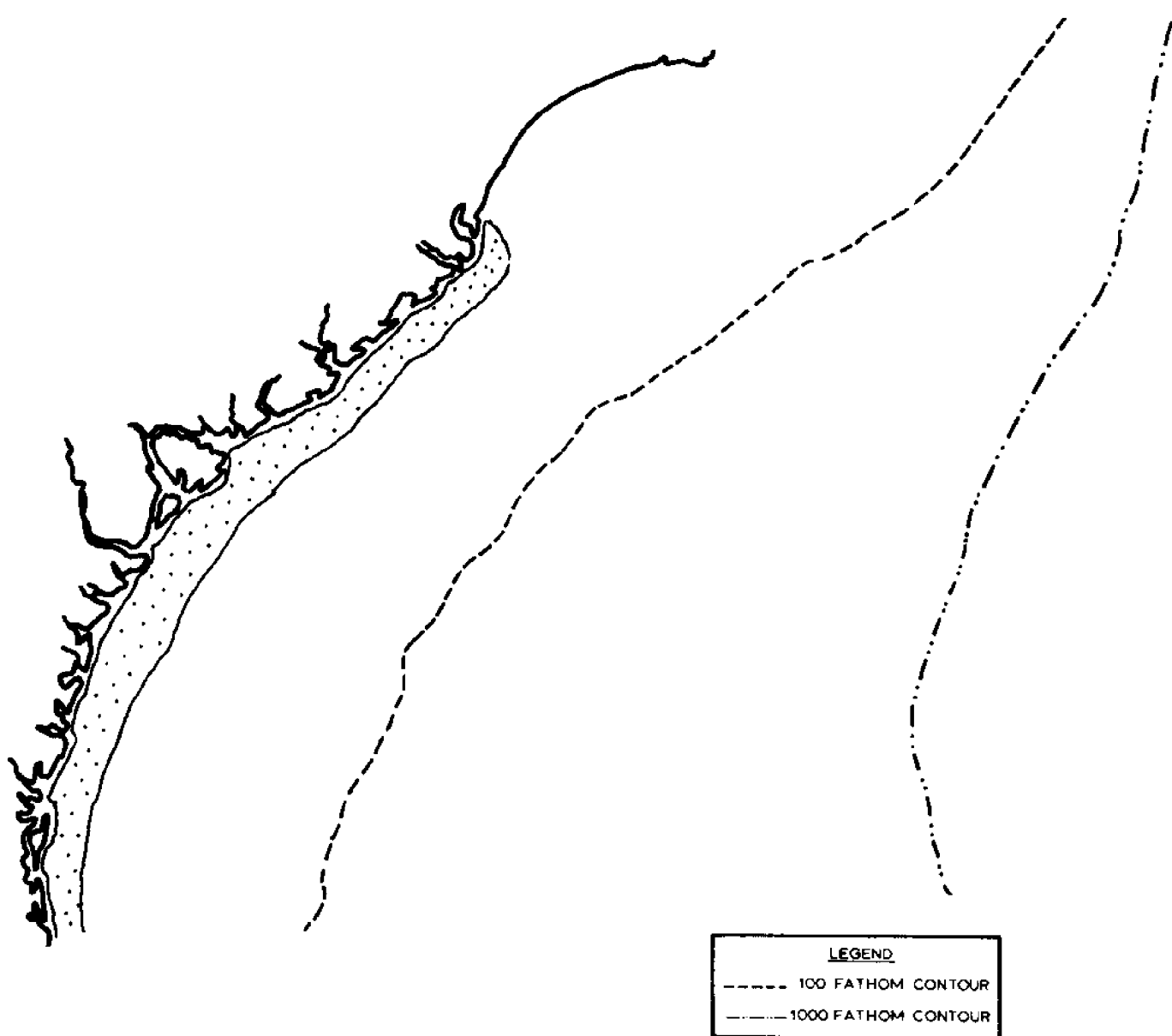


51 (beach seines)



**SOUTHERN KINGFISH (MENTICIRRHUS AMERICANUS)**

**SOUTH CAROLINA AND GEORGIA**



SOUTHERN KINGFISH (MENTICIRRHUS AMERICANUS)

FLORIDA EAST COAST



NORTHERN KINGFISH (MENTICIRRHUS SAXATILIS)

GENERAL RANGE: Maine to Florida. Most plentiful from Virginia northward.

COMMERCIAL FISHERY (1965):

NEW YORK 4,800 lbs. By pound nets in Gardiners and Peconic Bays. Small quantities occasionally taken off Fire Island and in Great South Bay.

SPORT FISHERY:

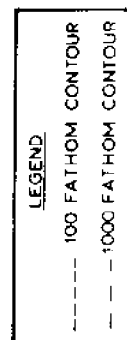
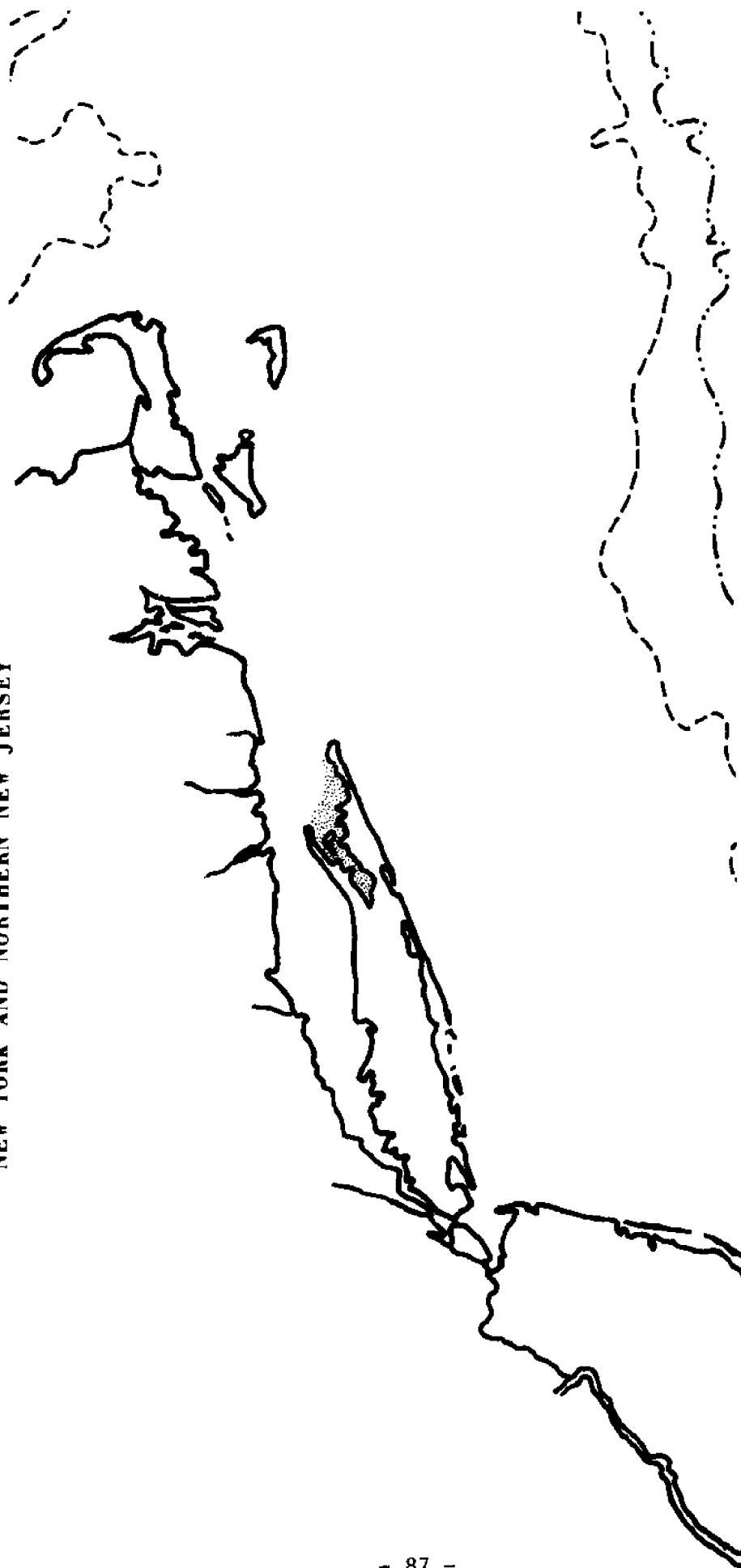
At least equal in magnitude to the commercial fishery. Actively sought by New York anglers on the south shores of Long Island during summer months.

COMMENTS:

Occasionally taken incidentally by New Jersey trawlers on inshore grounds. Not an important commercial species although highly regarded as a sport fish in New York and New Jersey.

NORTHERN KINGFISH (MENTICIRRHUS SAXATILIS)

NEW YORK AND NORTHERN NEW JERSEY



CROAKER (MICROPOGON UNDULATUS)

GENERAL RANGE: Massachusetts to Texas

COMMERCIAL FISHERY (1965):

MARYLAND Fishery largely inoperative in Chesapeake Bay and Atlantic waters since 1960.

VIRGINIA 1,530,000 lbs. Almost 1 1/2 million pounds from Chesapeake Bay, largely by pound nets. Remainder by gill nets and pound nets in York, James and Rappahannock Rivers (134,000 lbs); by seines on the Atlantic coast (60,000 lbs.); by trawlers on offshore grounds (70,000 lbs.).

NORTH CAROLINA 1,754,000 lbs. Mainly by otter trawls inshore. Small quantities taken by haul seines and shrimp trawlers in Pamlico Sound, and by pound and gill nets in Albemarle Sound.

SOUTH CAROLINA 3,000 lbs. Taken incidentally in shrimp trawls.

FLORIDA 107,000 lbs. Mostly from Vero Beach to Fort Pierce.

SPORT FISHERY:

Probably larger than commercial fishery in Chesapeake Bay during spring and summer. Important sport fish in inshore waters of Pamlico Sound, and in South Carolina waters.

COMMENTS:

Commercial and sport fisheries are characterized by large fluctuations in abundance. Since 1945, Virginia commercial landings fell from 55 million pounds to 4 million pounds, then rose again to 10 million pounds. The fishery appears to be declining steadily, especially in the Chesapeake area and the average size of fish caught is decreasing. Croakers are still very numerous from Chesapeake Bay to Florida, and support an important recreational fishery in spite of the small size of individuals available.

**CROAKER (MICROPOGON UNDULATUS)**

**SOUTHERN NEW JERSEY, DELAWARE, MARYLAND AND VIRGINIA**



Density of stippling indicates size of catch  
(see text for details)

CROAKER (MICROPOGON UNDULATUS)

NORTH CAROLINA



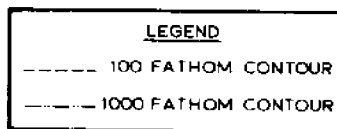
Over 1,000,000 lbs.



234,000 lbs.

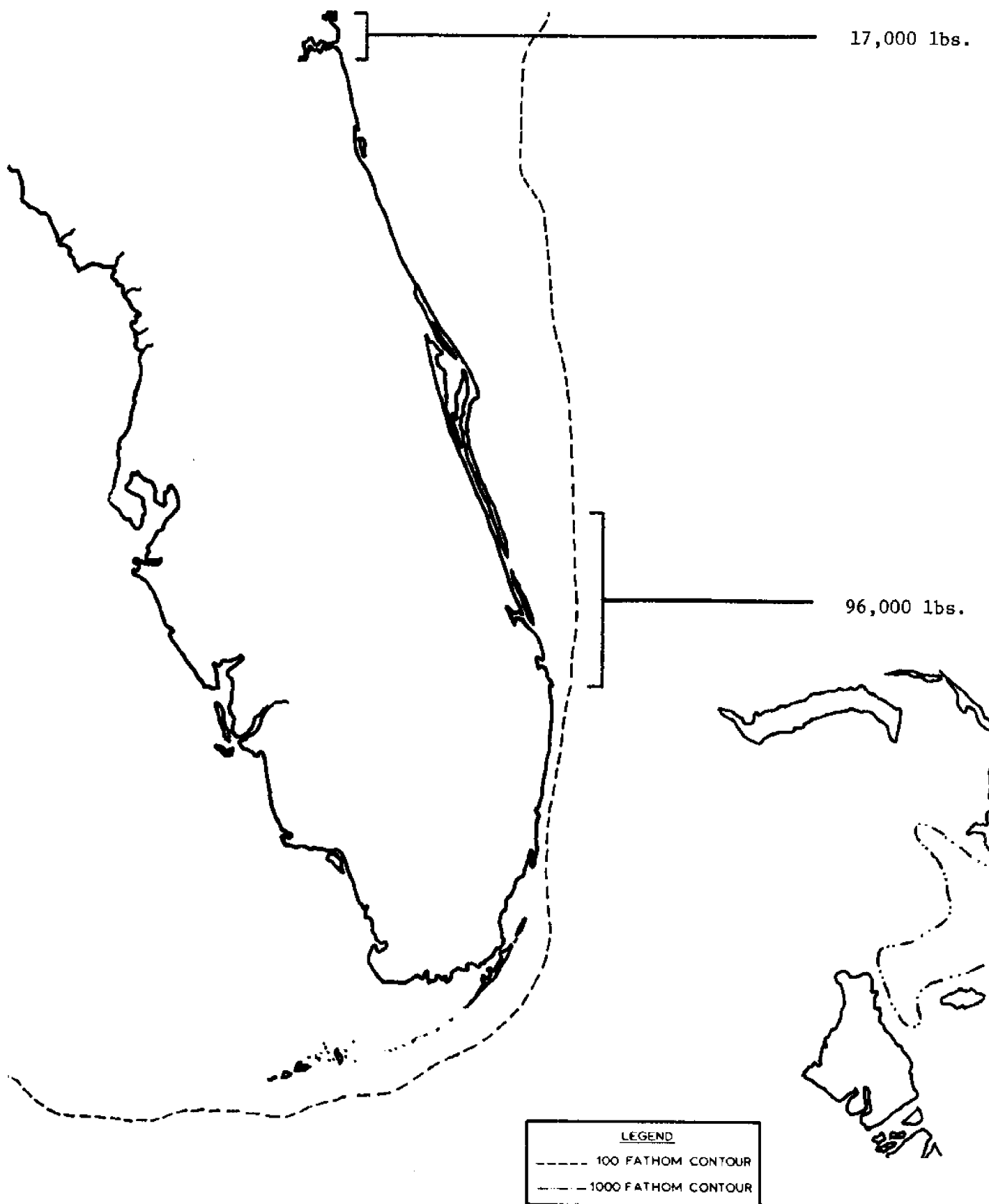


100,000 lbs.



CROAKER (MICROPOGON UNDULATUS)

FLORIDA EAST COAST



BLACK DRUM (POGONIAS CROMIS)

GENERAL RANGE: Southern New England to Argentina. Common from New York southward.

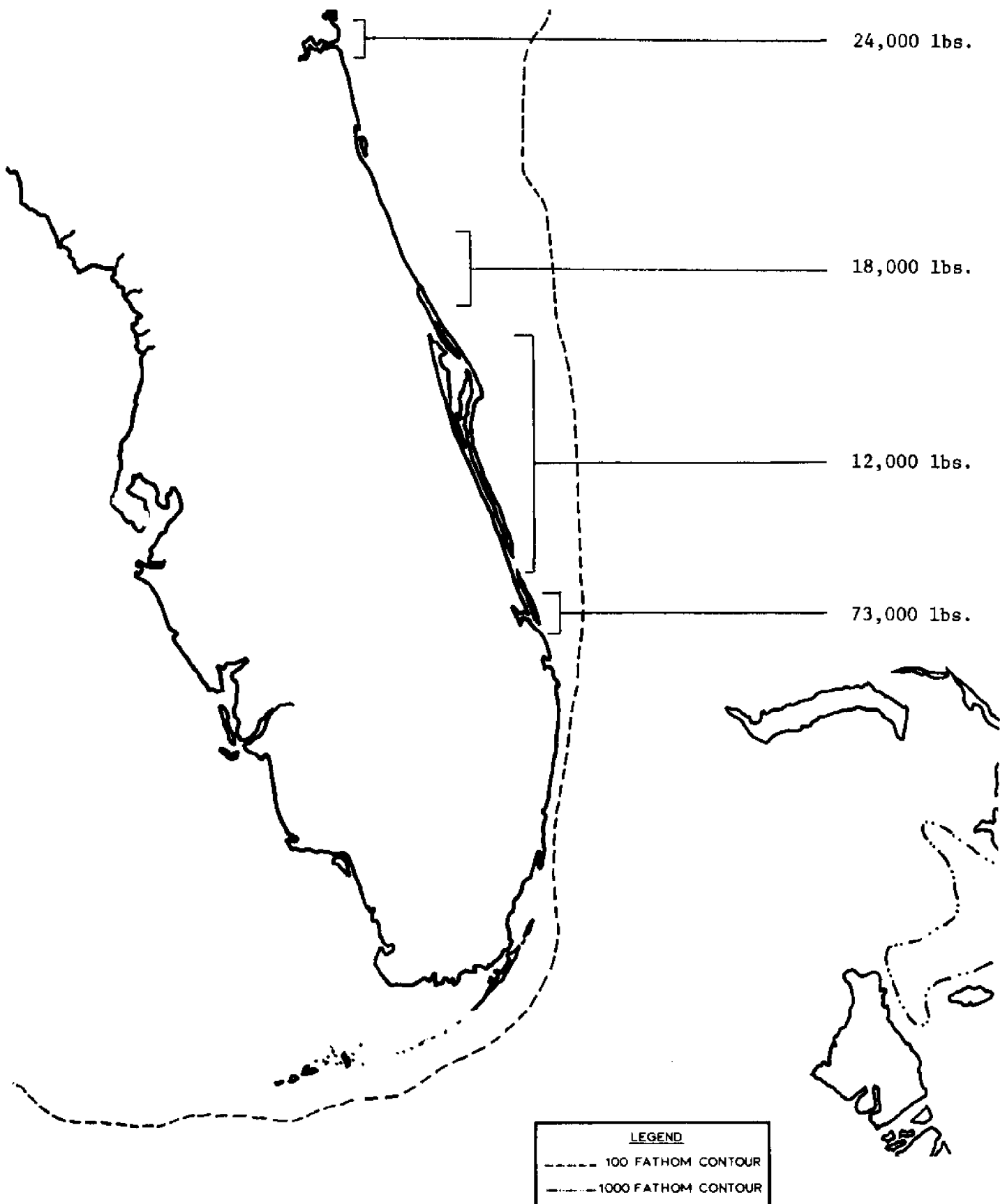
COMMERCIAL FISHERY (1965):

NORTH CAROLINA 152,000 lbs. By otter trawlers inshore south of Cape Hatteras, incidental to other species (see "croaker" for location of fishing grounds).

FLORIDA 131,000 lbs. Mainly by gill nets and seines in St. Johns River and Indian River areas. Map gives landings by county only.

**BLACK DRUM (POGONIAS CROMIS)**

**FLORIDA EAST COAST**



RED DRUM (SCIAENOPS OCELLATA)

GENERAL RANGE: Cape Cod to Texas

COMMERCIAL FISHERY (1965):

NORTH CAROLINA 71,000 lbs. By haul seines along the Atlantic Coast and in Pamlico Sound. Taken incidentally with other species.

FLORIDA 146,000 lbs. By gill nets and seines in St. Johns River and Indian River inland waters.

SPORT FISHERY:

Important in Florida inland waters; relatively unimportant elsewhere.

COMMENTS:

Supports no large fishery north of Cape Hatteras, and is nowhere an important commercial species.

RED DRUM (*SCIAENOPS OCELLATA*)

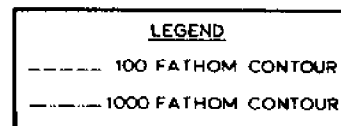
NORTH CAROLINA



58,000 lbs.

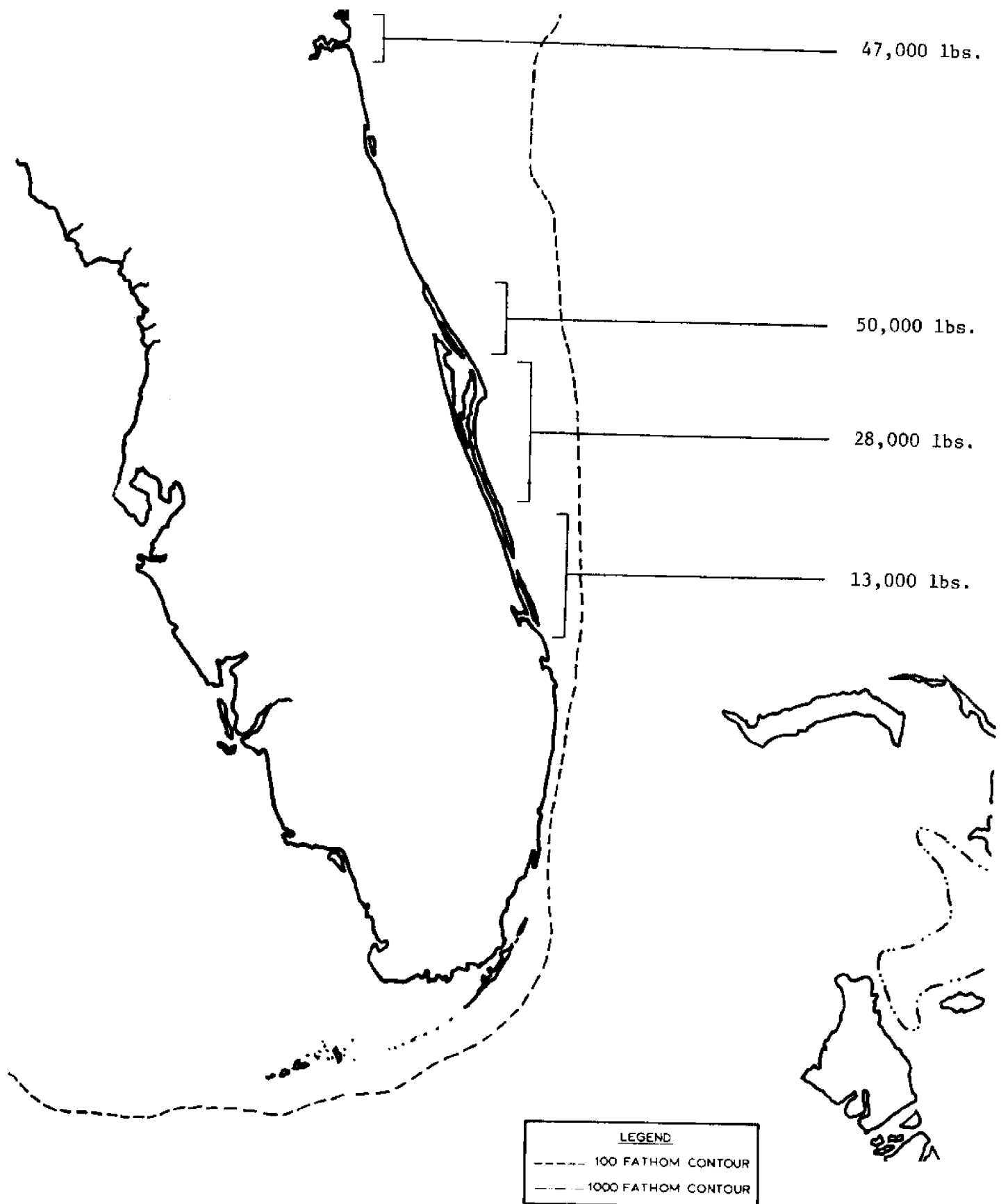


13,000 lbs.



RED DRUM (*SCIAENOPS OCELLATA*)

FLORIDA EAST COAST



SCUP OR PORGY (STENOTOMUS CHRYSOPS)

GENERAL RANGE: Cape Cod to South Carolina

COMMERCIAL FISHERY (1965):

NEW YORK 7,537,000 lbs. Taken by otter trawlers on inshore grounds off the south shore of Long Island, and offshore in 100 fathoms. The offshore winter trawling grounds have become much more important than inshore areas in recent years. Pound nets on the southshore of Long Island and in Gardiners Bay took only 800,000 lbs.

NEW JERSEY 9,098,000 lbs. Over 80 percent taken by the winter trawl fishery around the 100 fathom contour. Remainder taken by inshore trawlers along Five Fathom Bank, Barnegat Light, and other scattered "fishing holes". A few are taken by purse seiners.

MARYLAND AND VIRGINIA 6,693,000 lbs. Almost exclusively a winter trawl fishery. Trawling areas vary considerably from month to month and season to season, and detailed catch records are not available; boundaries marked on map are tentative. Trawlers from Maryland and Virginia operate from Cape Hatteras to Cape May. Porgy is the principal species in this mixed trawl fishery, offshore trawling grounds yielding 6,397,000 lbs. to Virginia and Maryland trawlers in 1965.

During the summer months the fish move inshore and the summer inshore trawl fishery begins. In 1965, trawlers from the two states took 224,000 lbs. from inshore grounds. In addition, Virginia trawlers took 15,000 lbs. in lower Chesapeake Bay, and 8,000 lbs. were caught by pound nets in Chesapeake Bay.

A few trawlers from New Jersey, and a very few from North Carolina fish the offshore waters off Maryland and Virginia, and land catches in their home ports. The exact extent of this activity is unknown but is unlikely to be large.

NORTH CAROLINA 982,000 lbs. Almost entirely by otter trawls working primarily north of Cape Hatteras in depths to 80 fathoms. Largely a spring fishery. Catches in 1964 and 1965 represent a five to six-fold increase over previous years.

COMMENTS:

A very important commercial fin fish, ranking highly in value in all states mentioned. The porgy is the principal species in several mixed trawl fisheries which take many other food fish incidentally.

PORGY (STENOTOMUS CHRYSOPS)  
NEW YORK AND NORTHERN NEW JERSEY



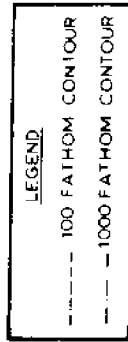
Major inshore trawling areas



Major offshore trawling areas

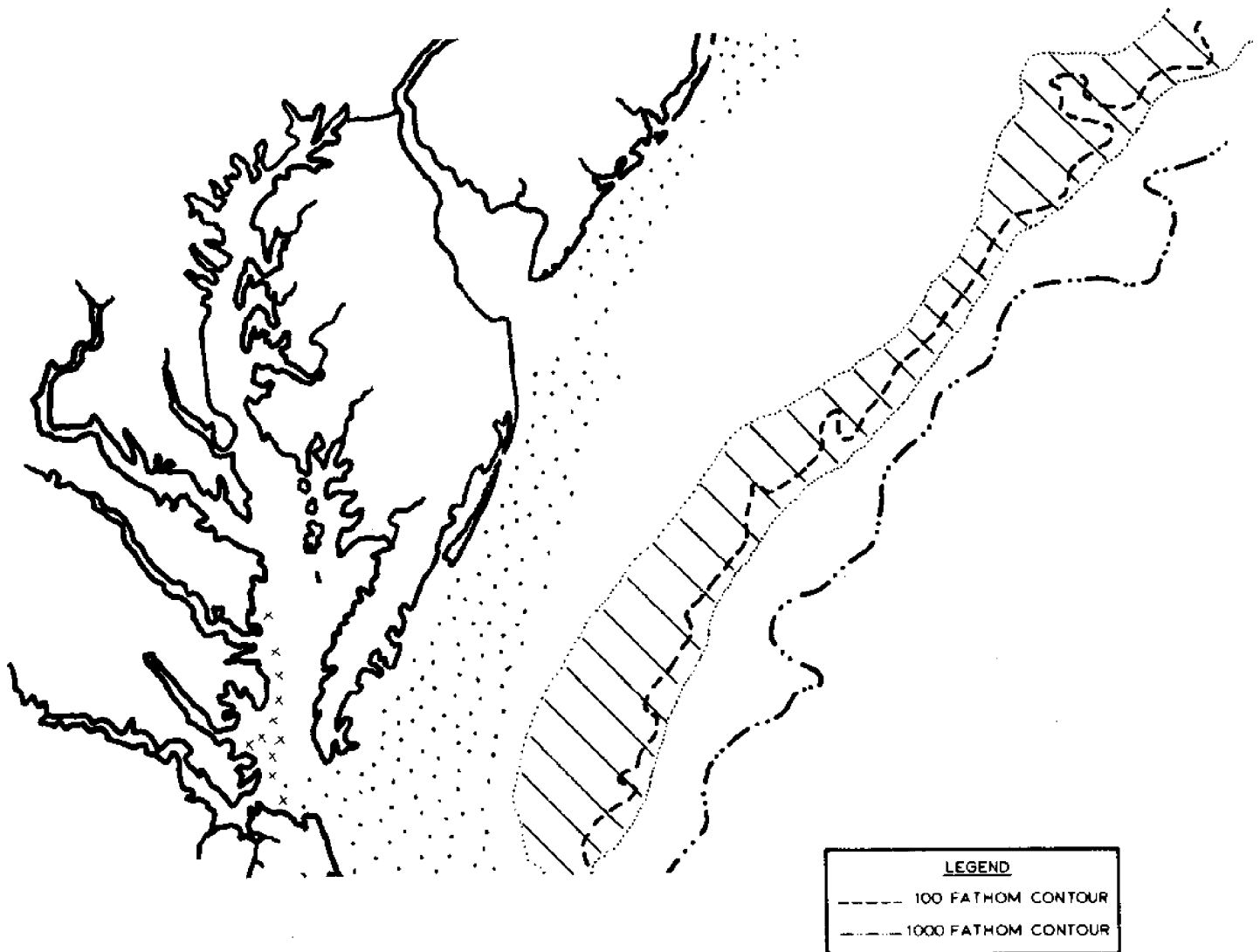


Pound net fishery



PORGY (STENOTOMUS CHRYSOPS)

SOUTHERN NEW JERSEY, DELAWARE, MARYLAND AND VIRGINIA



See preceding map for details of legend

PORGY (STENOTOMUS CHRYSOPS)

NORTH CAROLINA



LEGEND

- 100 FATHOM CONTOUR  
- . - . - 1000 FATHOM CONTOUR

ATLANTIC MACKEREL (SCOMBER SCOMBRUS)

GENERAL RANGE: North side of the Gulf of St. Lawrence to Cape Lookout,  
North Carolina.

COMMERCIAL FISHERY (1965):

NEW YORK 91,000 lbs. About 80 percent taken by otter trawlers along south shore of Long Island to the west of Fire Island Inlet, and in Lower Bay. Small quantities taken by a declining ocean pound net fishery off Fire Island.

NEW JERSEY 648,000 lbs. Catch much higher than in previous ten years; taken in drift gill nets one to two miles offshore, and in Delaware Bay.

VIRGINIA 377,000 lbs. Taken primarily by gill nets, usually 12 to 15 miles offshore, from Chincoteague to Cape Charles. Approximately 10 percent taken by otter trawls; a few caught in pound nets in lower Chesapeake Bay. Map shows location of catches.

SPORT FISHERY:

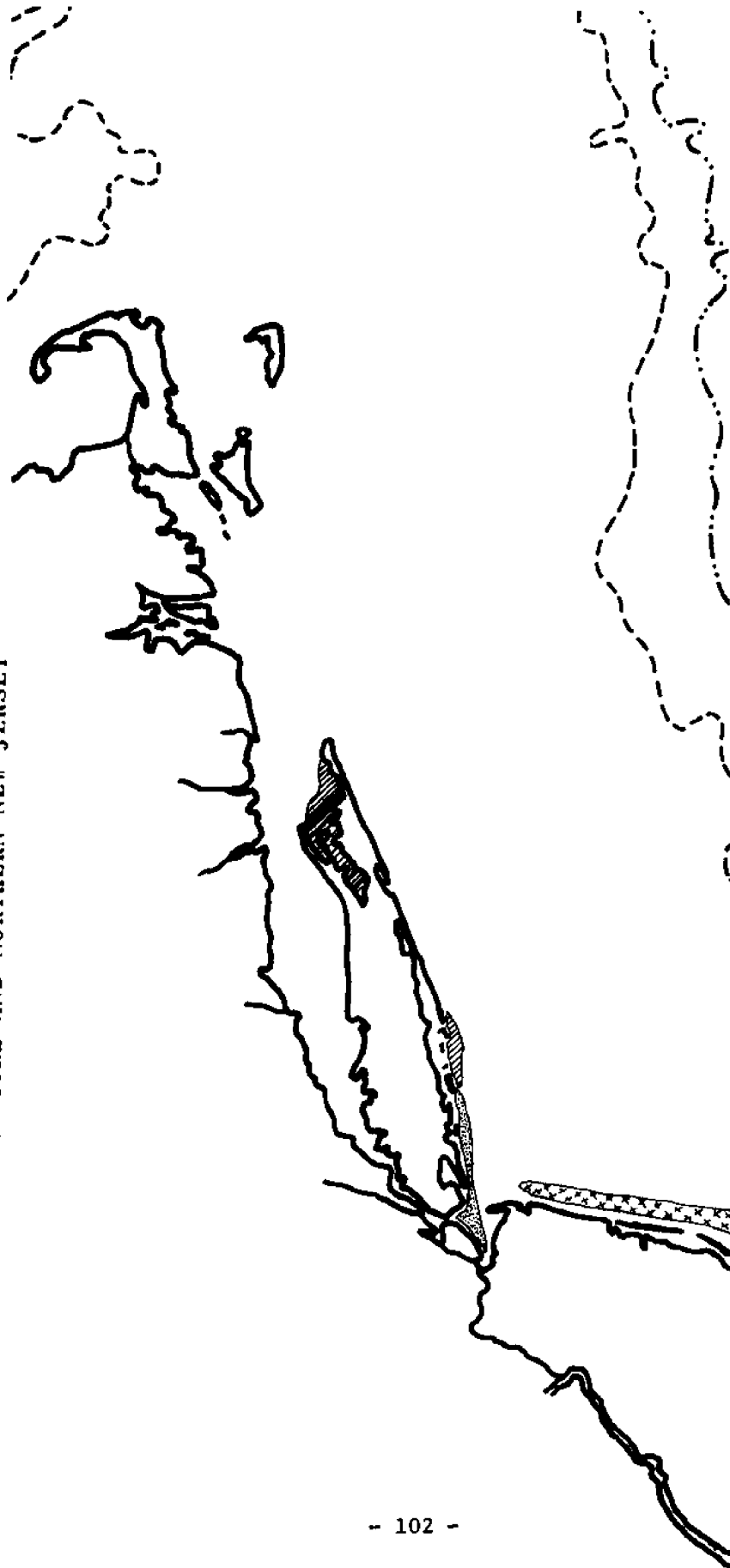
Very large in New Jersey, and probably in New York and Virginia also. Fishery is completely uncensused.

COMMENTS:

The fishery concentrates on migratory stocks as they move inshore and in a northward direction during spring and summer. Catches in all states fluctuate much from year to year and are largely geared to market demands. Large catches could be sustained if required.

# ATLANTIC MACKEREL (SCOMBER SCOMBRUS)

## NEW YORK AND NORTHERN NEW JERSEY



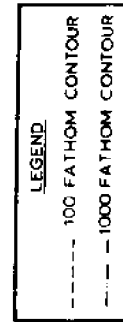
74,000 lbs.



6,000-7,000 lbs. from each area indicated

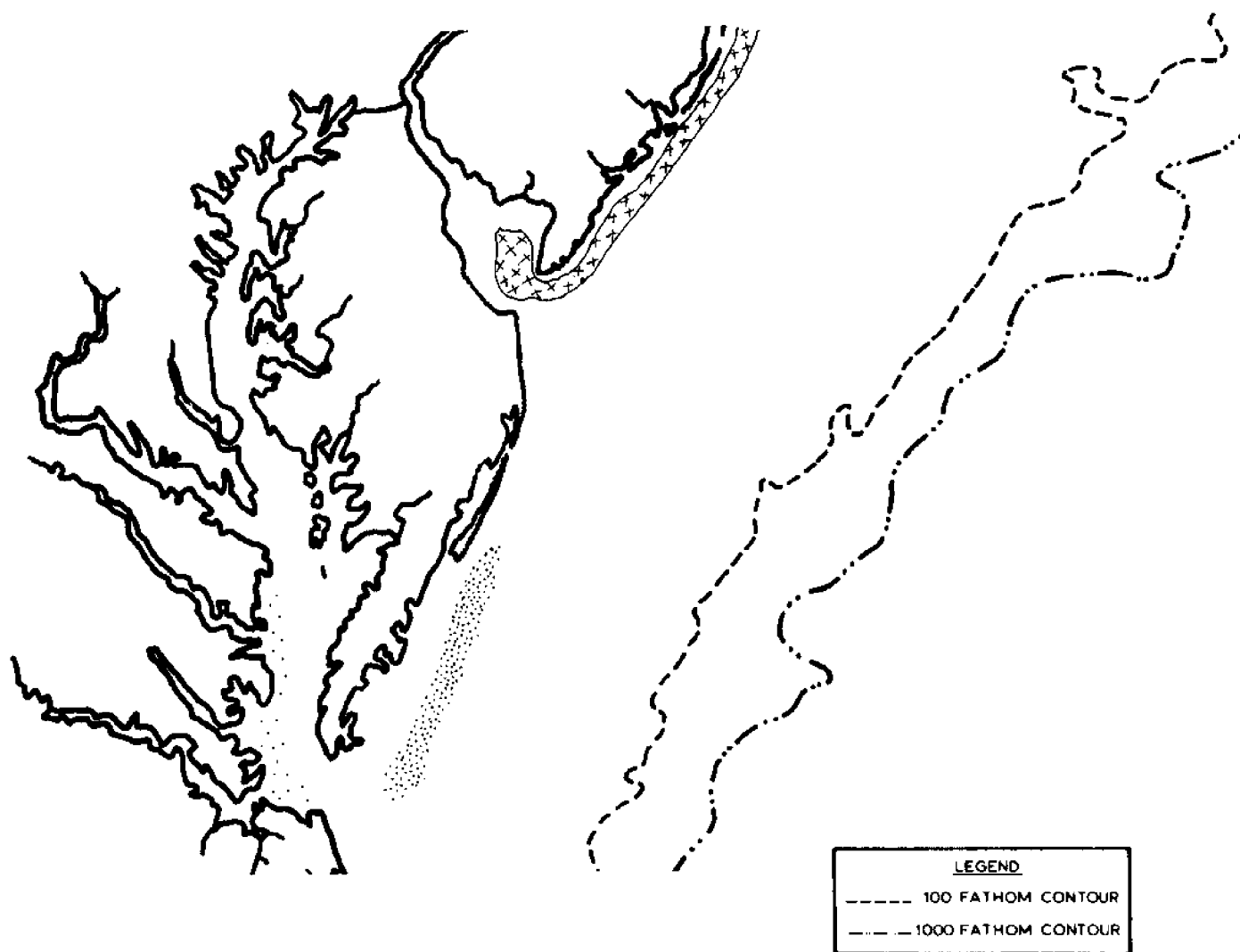


New Jersey gill net fishery (see also following map)



ATLANTIC MACKEREL (SCOMBER SCOMBRUS)

SOUTHERN NEW JERSEY, DELAWARE, MARYLAND AND VIRGINIA



KING MACKEREL (SCOMBEROMORUS CAVALLA)

GENERAL RANGE: Chesapeake Bay to Brazil

COMMERCIAL FISHERY (1965):

NORTH CAROLINA 139,000 lbs. Caught principally by hand lines (112,000 lbs.) and gill nets on and around the 10 fathom contour off Cape Lookout. Accompanying chart shows location of catches.

FLORIDA 2,549,000 lbs. Taken by run-around seines and troll lines offshore in depths to 12 fathoms. Most of the commercial fishery is centered off Martin and Palm Beach Counties. Landings figures on accompanying chart reflect area of catches fairly accurately.

SPORT FISHERY:

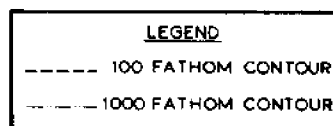
Important in North Carolina and Florida.

COMMENTS:

Also caught occasionally in pound nets in lower Chesapeake Bay. Potentially exploitable concentrations enter the Bay during the summer. Recorded rarely from upper Chesapeake Bay above the Potomac River.

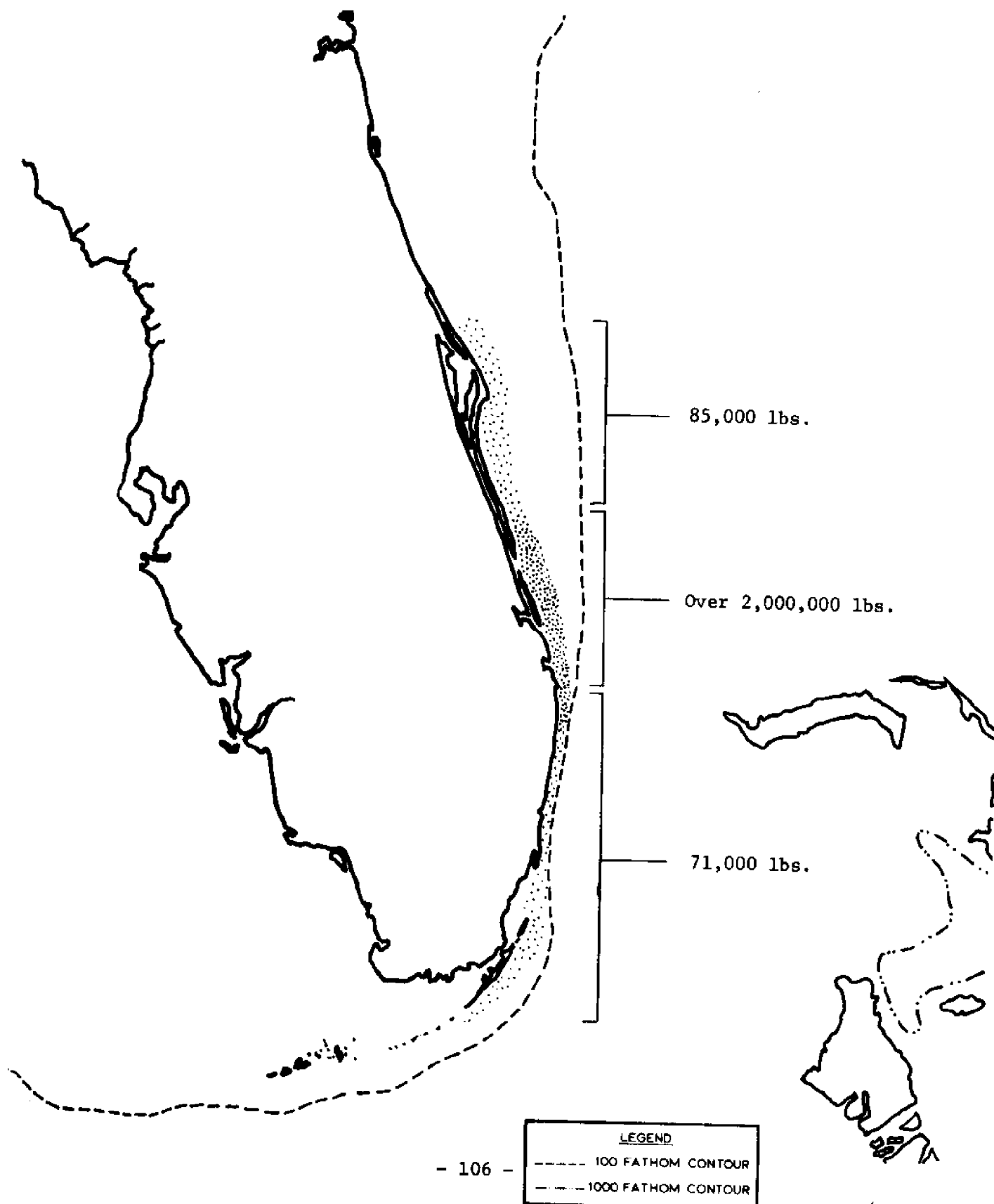
KING MACKEREL (SCOMBEROMORUS CAVALLA)

NORTH CAROLINA



KING MACKEREL (*SCOMBEROMORUS CAVALLA*)

FLORIDA EAST COAST



SPANISH MACKEREL (SCOMBEROMORUS MACULATUS)

GENERAL RANGE: Maine to Brazil. Common north to New York.

COMMERCIAL FISHERY (1965):

NORTH CAROLINA 117,000 lbs. Approximately 50 percent taken by haul seines from Atlantic beaches (30,000 lbs.) and in Pamlico Sound (37,000 lbs.). Remainder taken by pound nets and gill nets in Albemarle Sound, and by hook and line. Chart shows location of catches.

SOUTH CAROLINA 13,000 lbs. Taken incidentally by shrimp trawlers in coastal waters, and in haul seines from beaches.

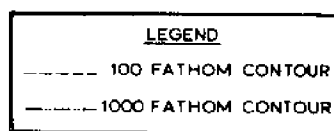
FLORIDA 2,901,000 lbs. Important fishery; run around seines offshore in depths to 12 fathoms; primarily off Martin and Palm Beach counties. Density of stippling on accompanying map indicates size of catches.

SPORT FISHERY:

Important from Cape Hatteras southward, especially to North Carolina and Florida fishermen.

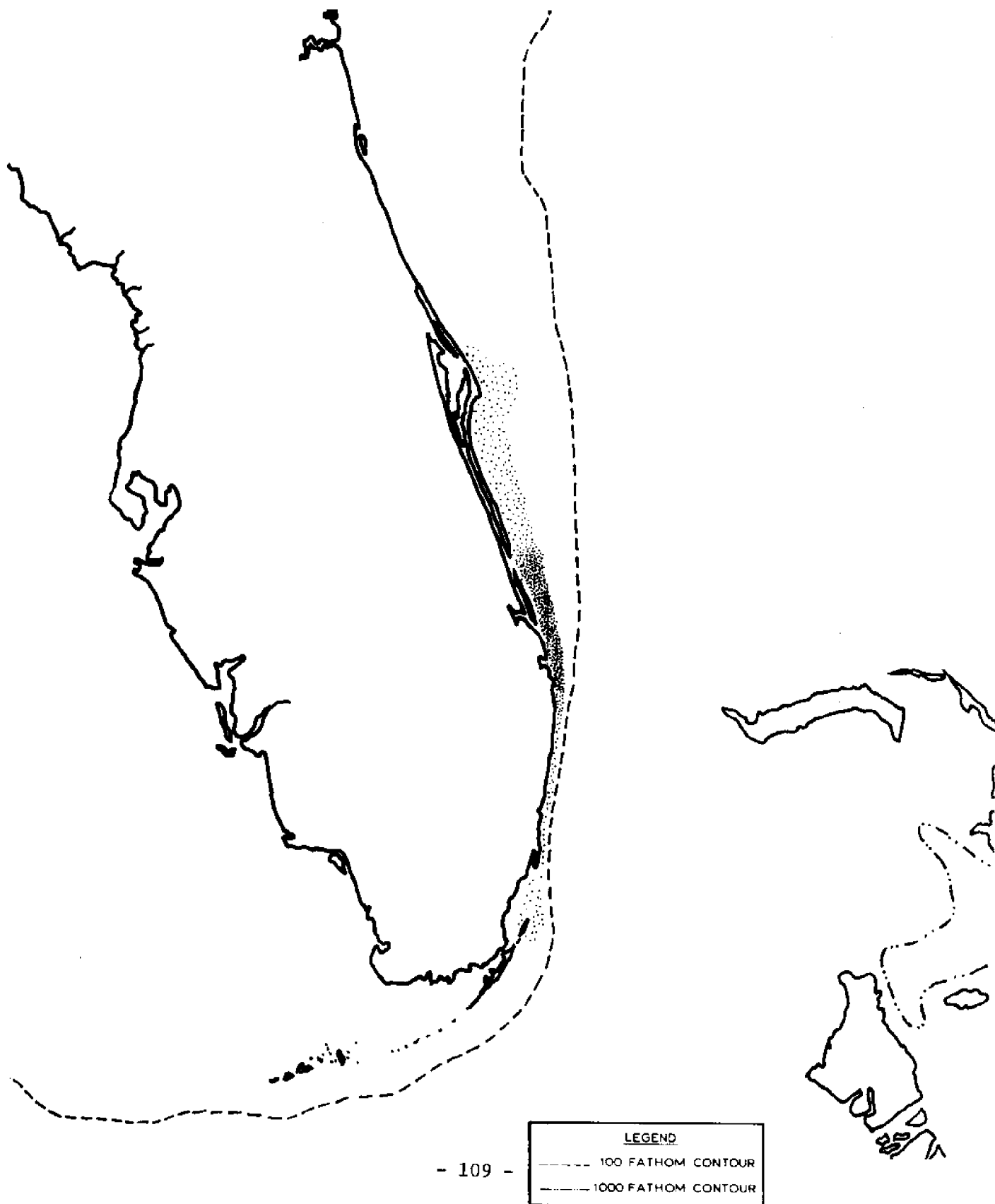
SPANISH MACKEREL (*SCOMBEROMORUS MACULATUS*)

NORTH CAROLINA



SPANISH MACKEREL (*SCOMBEROMORUS MACULATUS*)

FLORIDA EAST COAST



## TUNA - VARIOUS SPECIES

GENERAL RANGE: South coast of Newfoundland into tropical waters

### COMMERCIAL FISHERY (1965):

NEW YORK 19,000 lbs. (Little tuna, Euthynnus alletteratus).  
Landed from ocean pound nets off the south shore of Long Island.

NEW JERSEY 1,261,000 lbs. (Mostly bluefin tuna, Thunnus thynnus).  
Landings have varied between 1 and 2 million pounds since longlining commenced in 1963.

MARYLAND 277,000 lbs. in 1964 (Yellowfin tuna, Thunnus albacares).  
No catches recorded in 1965. A small longline fishery operates out of Cambridge.

NORTH CAROLINA 60,000 lbs. (Bluefin tuna, Thunnus thynnus).  
By longliners.

### SPORT FISHERY:

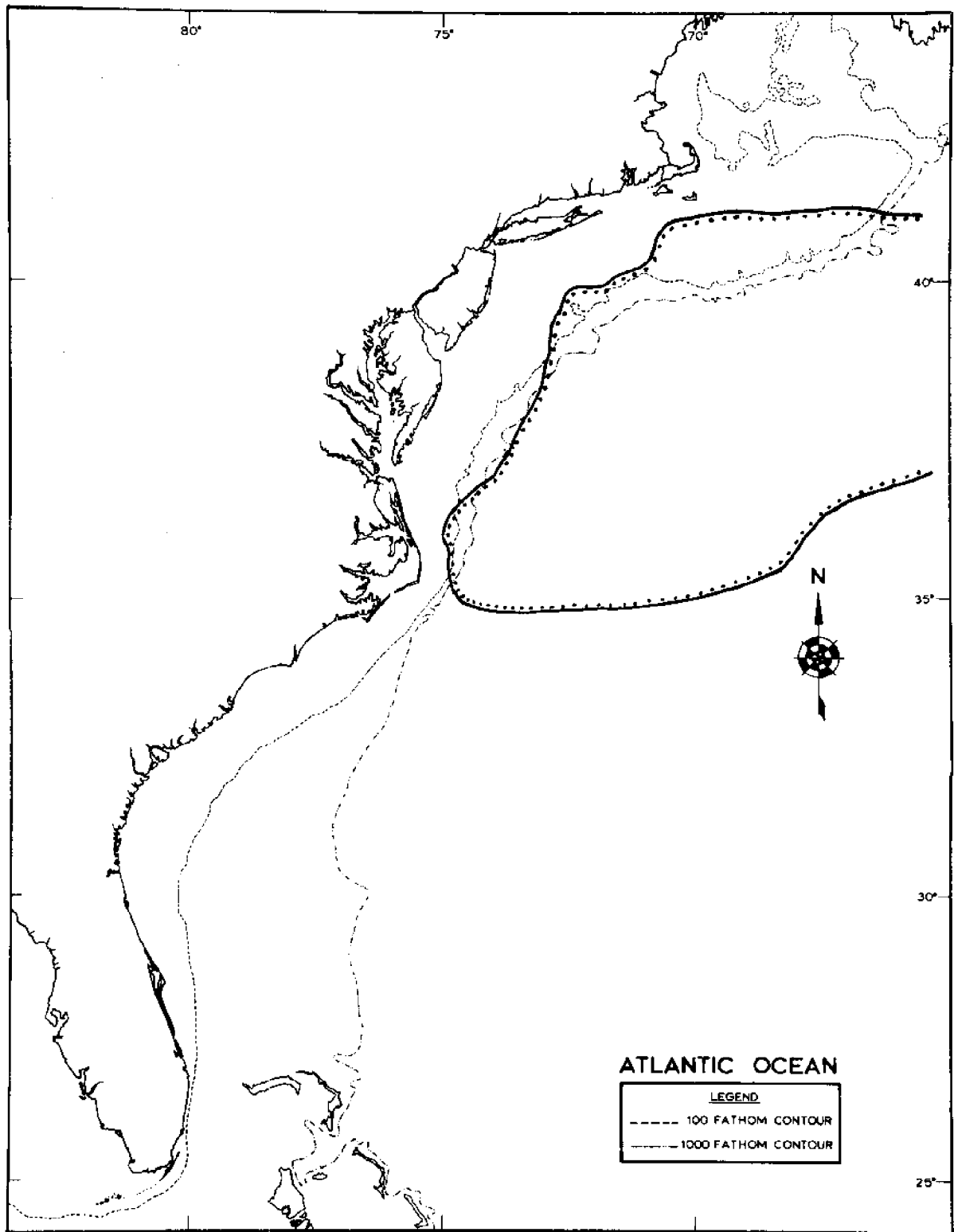
Important over much of the range.

### COMMENTS:

The United States Atlantic tuna fishery is presently in a state of rapid development. Japanese longliners have been fishing heavily on western Atlantic tuna stocks for several years.

The approximate boundaries of the area fished by United States longliners are shown on the accompanying chart.

# TUNA - VARIOUS SPECIES



SWORDFISH (XIPHIAS GLADIUS)

GENERAL RANGE: Southern and western parts of the Gulf of St. Lawrence to approximately 35° south. Open ocean primarily.

COMMERCIAL FISHERY (1965):

NEW JERSEY 1,000,000 lbs. Very active commercial longline fishery. Longlining commenced in 1963, and catches have increased each year.

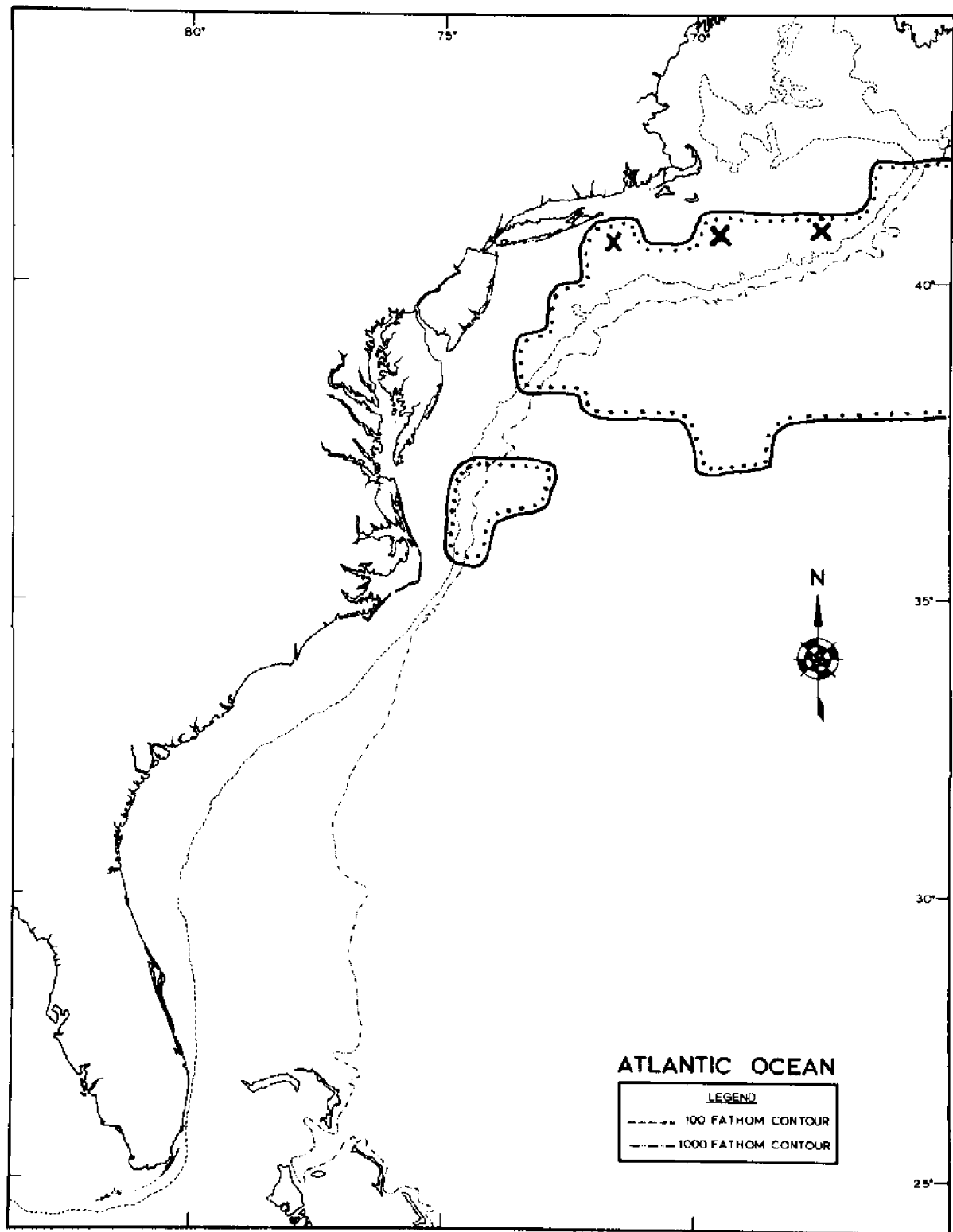
VIRGINIA 302,000 lbs. Longline fishery commenced in 1963.

NORTH CAROLINA 524,000 lbs. A rapidly developing longline fishery.

COMMENTS:

The accompanying chart shows the approximate boundaries of the area from which swordfish have been taken in commercial quantities by exploratory fishing vessels of the U. S. Fish and Wildlife Service.

# SWORDFISH (XIPHIAS GLADIUS)



X Areas of relatively high concentration

HARVESTFISH (PEPRILUS PARU)

GENERAL RANGE: New Jersey to Florida

COMMERCIAL FISHERY (1965):

VIRGINIA 277,000 lbs. Principally by pound nets in lower Chesapeake Bay (see map).

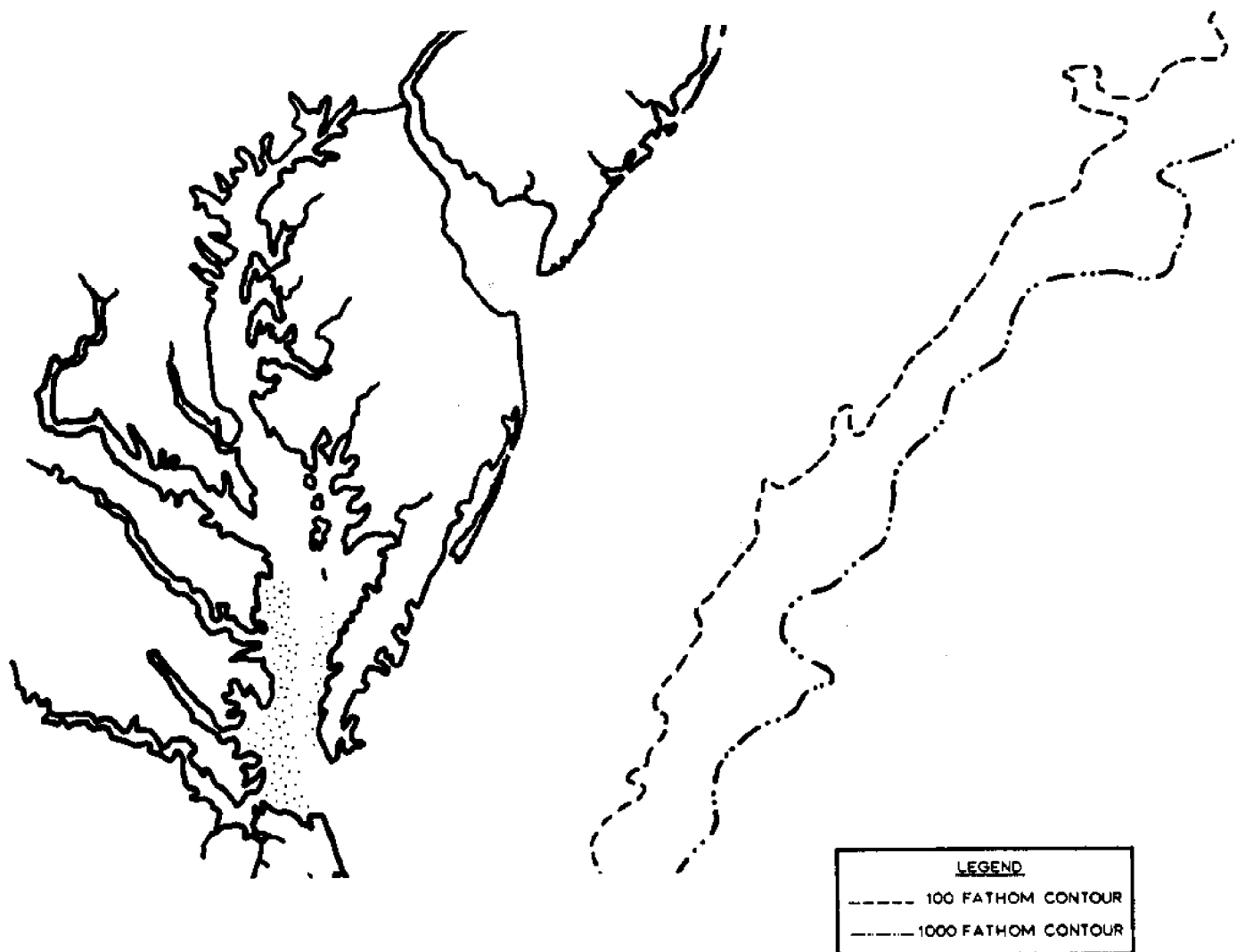
NORTH CAROLINA 125,000 lbs. Taken in approximately equal quantities by otter trawls south of Cape Hatteras, haul seines in Pamlico Sound, and pound nets in Albemarle Sound. Map shows location of catches.

COMMENTS:

A relatively unimportant commercial species which is usually caught incidentally with more valuable species.

HARVESTFISH (PEPRILUS PARU)

SOUTHERN NEW JERSEY, DELAWARE, MARYLAND AND VIRGINIA



# HARVESTFISH (PEPRILUS PARU)

## NORTH CAROLINA



THOUSAND POUNDS



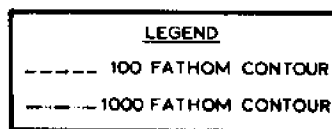
42



42



41



BUTTERFISH (PORONOTUS TRIACANTHUS)

GENERAL RANGE: Nova Scotia to South Carolina

COMMERCIAL FISHERY (1965):

NEW YORK 766,000 lbs. Otter trawls in Peconic and Gardiners Bays, south shore of Long Island from Shinnecock to Montauk and offshore grounds in mixed trawl fishery.

NEW JERSEY 1,181,000 lbs. Winter trawl fishery along 100 fathom line (60-70 percent of catch); summer trawl fishery in various localities (see charts) from Sandy Hook to Delaware Bay (30-40 percent).

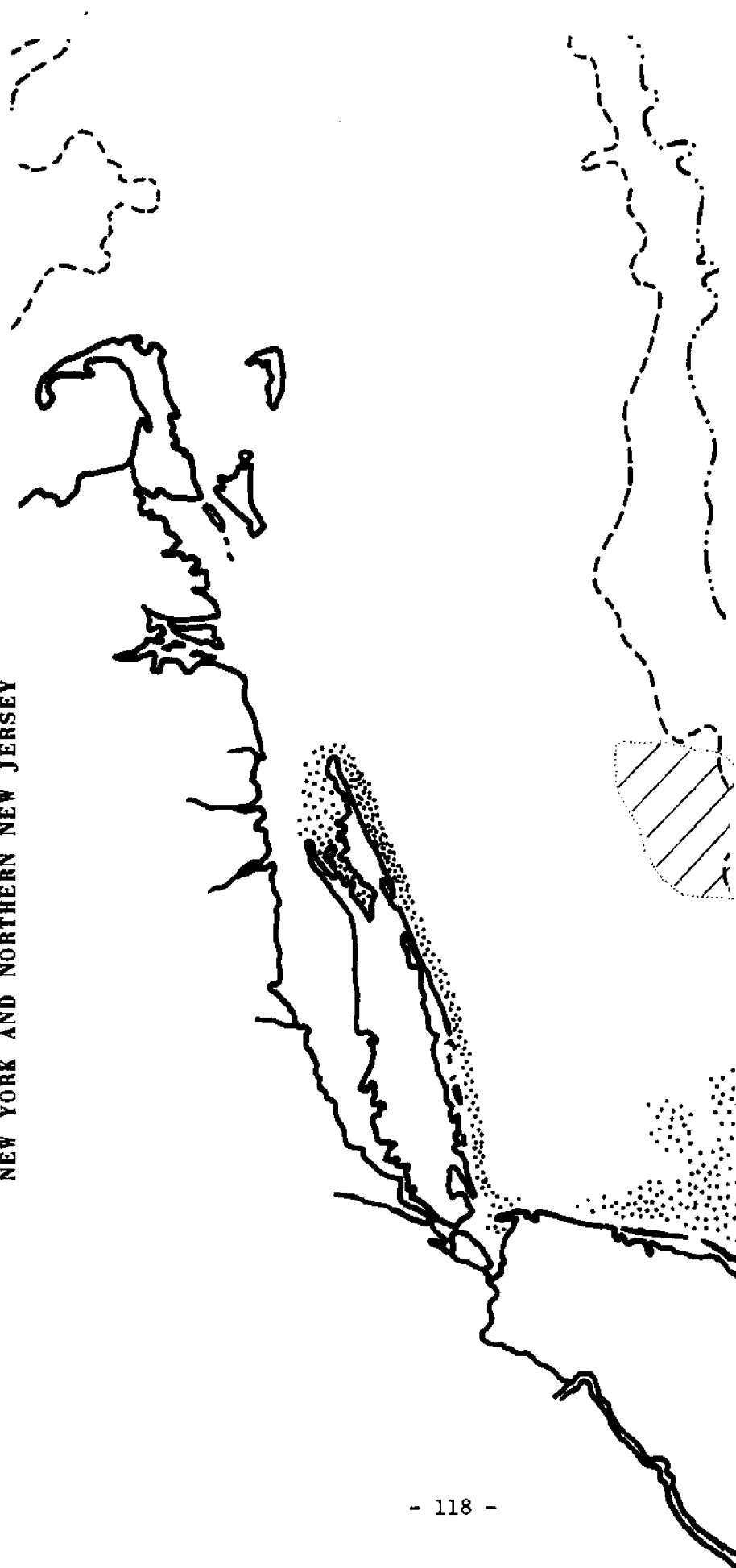
MARYLAND 164,000 lbs. Primarily by winter trawlers offshore.

VIRGINIA 2,900,000 lbs. Pound nets in Chesapeake Bay, 1,821,000 lbs.; trawlers on Atlantic Ocean grounds, 811,000 lbs.; combined catch from York, James and Rappahannock Rivers, 246,000 lbs.; Potomac River catch, 27,000 lbs. See map for location of catches.

NORTH CAROLINA 367,000 lbs. 60 percent by mixed trawl fishery in Atlantic. Remainder by seines and pound nets in Pamlico Sound and Albemarle Sound and by beach seines on Atlantic shores.

# BUTTERFISH (PORONOTUS TRIACANTHUS)

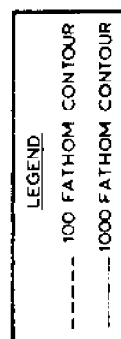
NEW YORK AND NORTHERN NEW JERSEY



Major inshore trawling areas

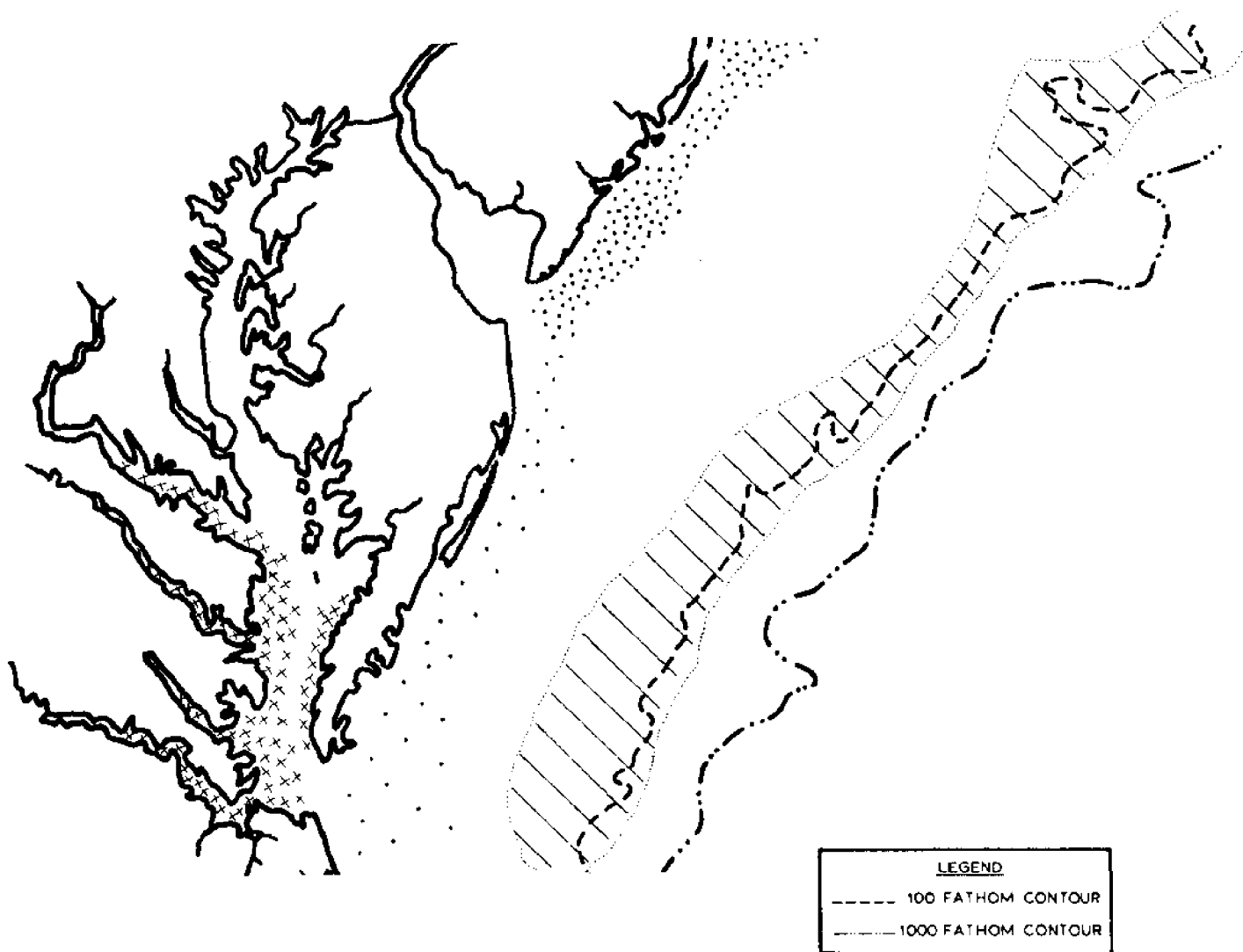


Major offshore trawling areas



**BUTTERFISH (PORONOTUS TRIACANTHUS)**

**SOUTHERN NEW JERSEY, DELAWARE, MARYLAND AND VIRGINIA**



See preceding map for legend

Boundaries of trawling grounds tentative

# BUTTERFISH (PORONOTUS TRIACANTHUS)

## NORTH CAROLINA



THOUSAND POUNDS



204



82



67



14

### LEGEND

----- 100 FATHOM CONTOUR

-.-.-.-.- 1000 FATHOM CONTOUR

BLACK MULLET (MUGIL CEPHALUS)

GENERAL RANGE: Cape Cod to Brazil

COMMERCIAL FISHERY (1965):

NORTH CAROLINA 1,260,000 lbs. Over 850,000 lbs. taken by seines, mainly from Atlantic Beaches. Gill nets in Cape Sound, Pamlico Sound and Albemarle Sound took 380,000 lbs. The resource could fulfill a much higher potential if a stronger market existed. Main fishing areas are shown on accompanying map.

SOUTH CAROLINA 3,191,000 lbs. By beach seines in Horry County (see map).

GEORGIA Largely unreported. A large casual fishery in most bays and creeks.

FLORIDA 2,850,000 lbs. Taken by gill nets and seines along the coastal bays, rivers and channels from the Banana River to Fort Pierce and in the St. Johns River. Mullet landed within any county (as shown on map) were probably caught within the waters of that county since the fishermen do not travel long distances in search of fish.

COMMENTS:

Large quantities of mullet are taken by casual fishermen in all states south of Chesapeake Bay. The total catch of mullet is probably double the reported figure. Underexploited.

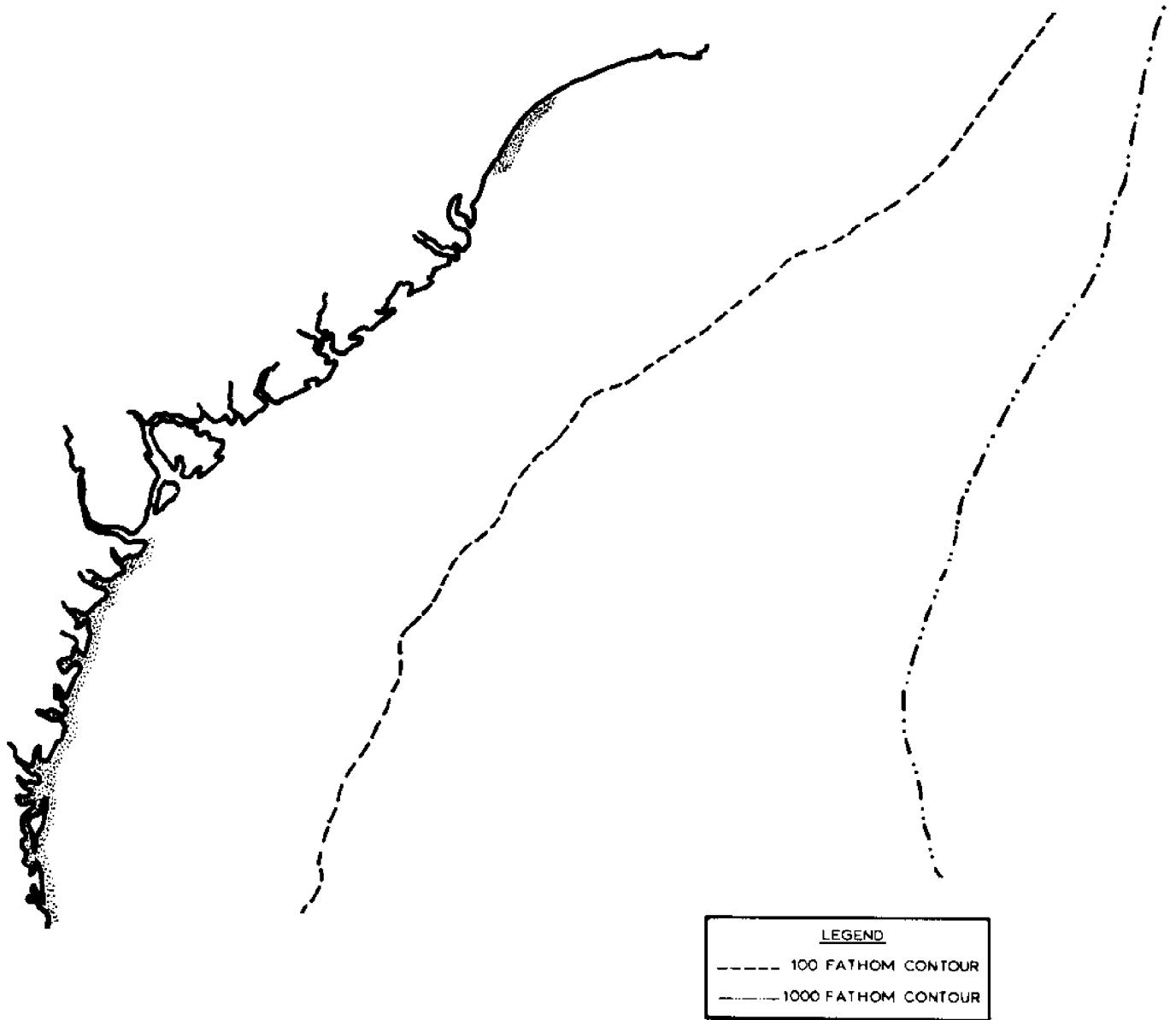
BLACK MULLET (MUGIL CEPHALUS)

NORTH CAROLINA



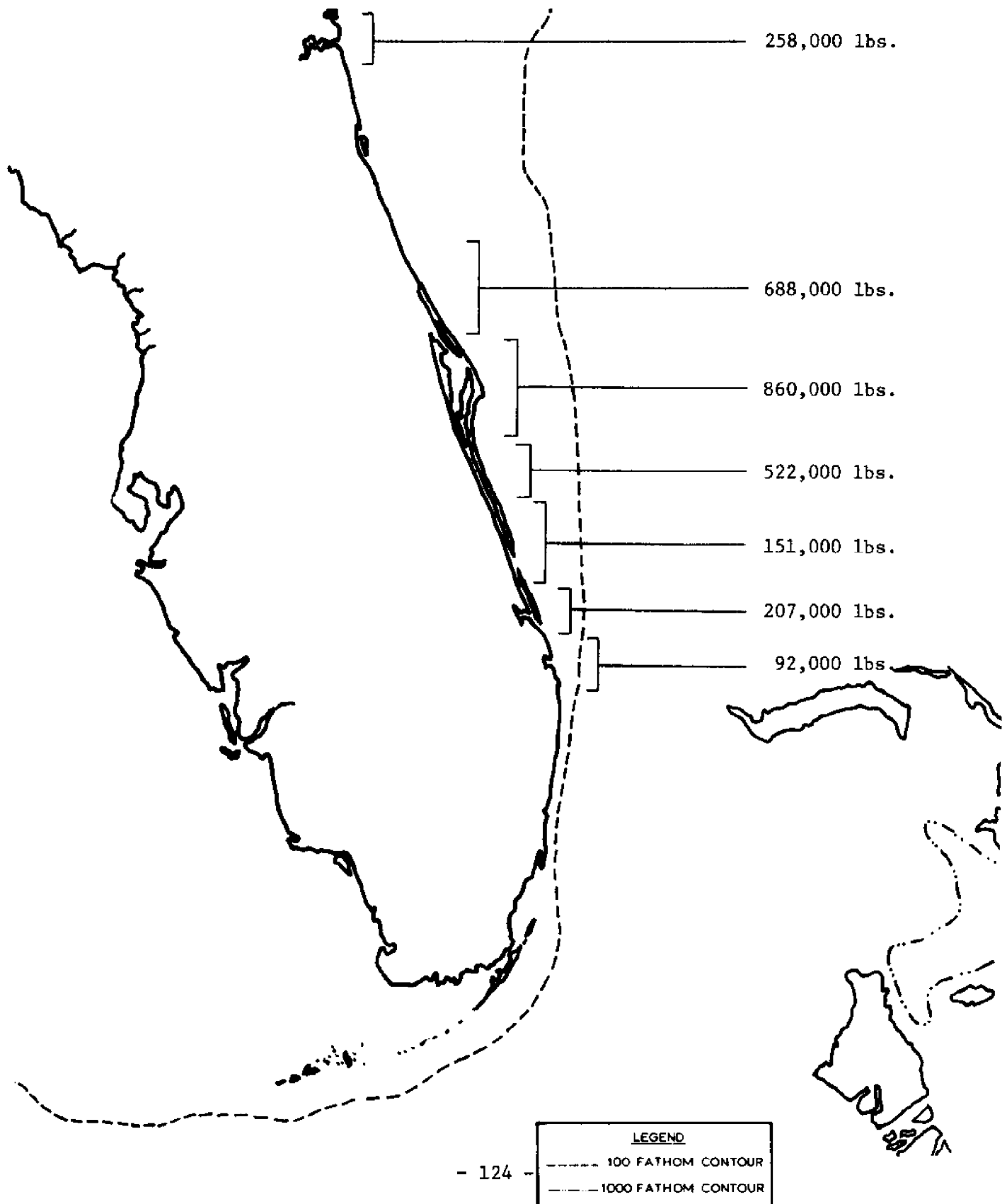
BLACK MULLET (MUGIL CEPHALUS)

SOUTH CAROLINA AND GEORGIA



BLACK MULLET (MUGIL CEPHALUS)

FLORIDA EAST COAST



YELLOWTAIL FLOUNDER (LIMANDA FERRUGINEA)

GENERAL RANGE: Gulf of St. Lawrence to lower Chesapeake Bay

COMMERCIAL FISHERY (1965):

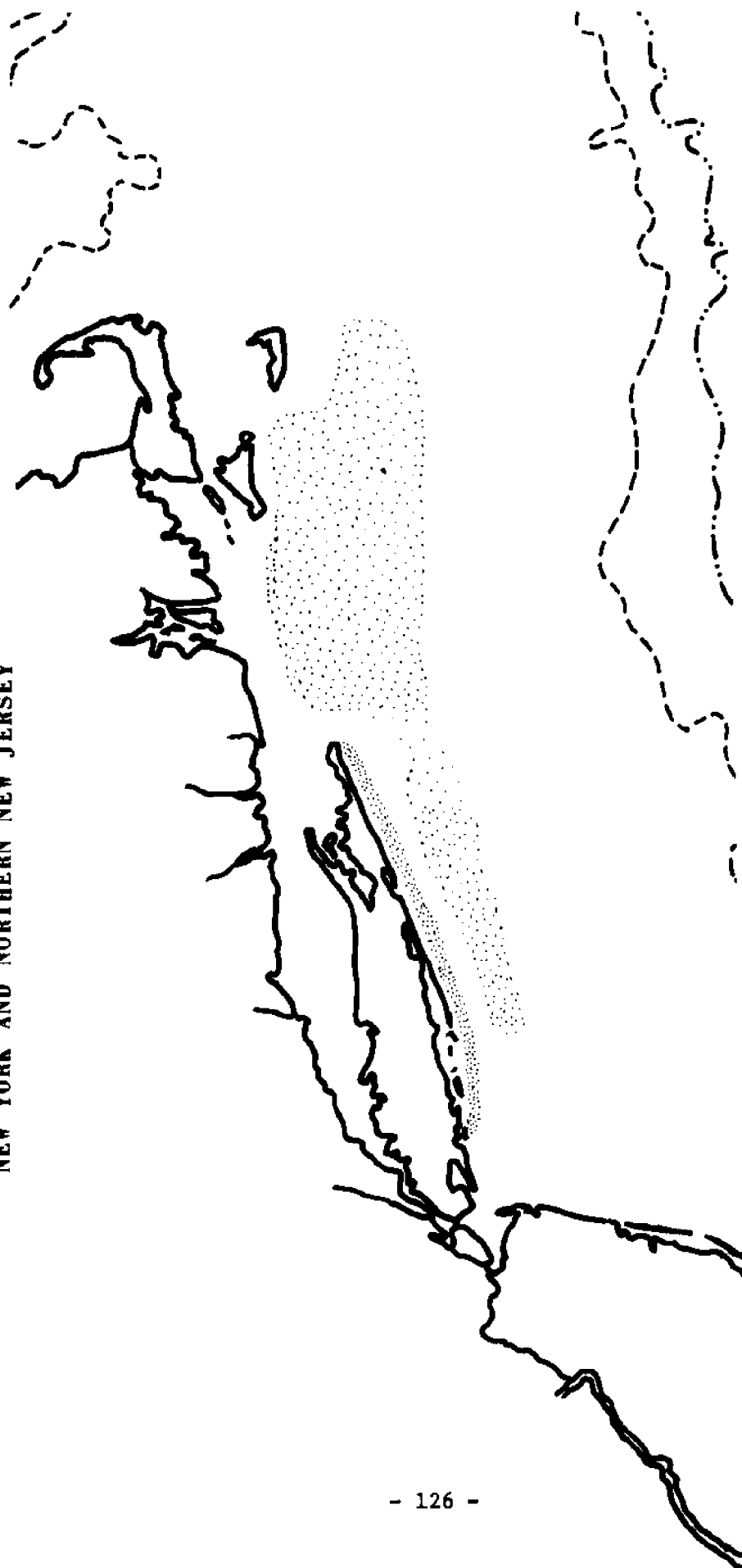
NEW YORK 3,671,000 lbs. Over 2 1/2 million pounds taken by otter trawlers on trawling grounds between Montauk Point and Nantucket Island in 18-20 fathoms. Approximately one million pounds trawled from inshore grounds along south coast of Long Island. Landings in New York from these areas increased from 224,000 lbs. in 1956 to 4,669,000 lbs. in 1963. Accompanying chart shows location of trawling grounds.

COMMENTS:

A valuable fishery in New York and for vessels from the New England states which trawl regularly on the Nantucket grounds and land their catches at their home ports. Participation by New Jersey fishermen is negligible.

YELLOWTAIL FLOUNDER (LIMANDA FERRUGINEA)

NEW YORK AND NORTHERN NEW JERSEY



FLUKE OR SUMMER FLOUNDER (PARALICHTHYS DENTATUS)

GENERAL RANGE: Maine to South Carolina. Probably represented by P. lethostigma in commercial catches from North Carolina to Florida.

COMMERCIAL FISHERY (1965):

NEW YORK 2,451,000 lbs. 99 percent taken by inshore trawl fishery off south shore of Long Island during summer months. Small quantities taken in Gardiners and Peconic Bays.

NEW JERSEY 3,620,000 lbs. Majority taken during winter trawling season in 80-100 fathoms. Some also caught by lobster trawls in isolated areas around 90 fathoms. Summer trawl fishery has declined since 1964 when it was of equal importance to the winter fishery. Small quantities still taken by pound nets in Raritan Bay and Sandy Hook Bay.

MARYLAND 734,000 lbs. Primarily an inshore summer trawl fishery operating between Delaware Bay and Cape Charles, Virginia. Annual catch fluctuates considerably. Exact location of catches not known. Pound nets in upper Chesapeake Bay take about 15,000 lbs. annually, but this varies from year to year.

VIRGINIA 1,976,000 lbs. Approximately 1 1/2 million pounds taken by otter trawls operating throughout the year. Inshore summer trawl fishery usually lands slightly more than winter fishery. About 410,000 lbs. taken by pound nets in lower Chesapeake Bay. Information on locations of otter trawl catches is not readily available, hence boundaries marked on map are tentative.

NORTH CAROLINA 4,721,000 lbs. Mixed trawl fishery on Atlantic grounds during winter months takes 90 percent of the catch (see map). Pound nets in Albemarle Sound, haul seines in Pamlico Sound, and miscellaneous minor gears account for the remainder. Catch is reported as "flounders" but is composed primarily of P. lethostigma. Landings have increased four-fold since 1956.

SOUTH CAROLINA 91,000 lbs. Reported as "flounder". Taken by shrimp trawlers close inshore. Catches are incidental to shrimp fishing and reflect fishing effort on shrimp. Chart shows approximate location of trawling grounds.

GEORGIA 51,000 lbs. As South Carolina.

FLORIDA 234,000 lbs. Mainly by shrimp trawlers on coastal grounds from St. Johns River to Indian River (see map). Other gears took 30,000 lbs. from the same areas.

#### SPORT FISHERY:

Very important summer fishery in New York and New Jersey. An estimated 20 percent of the population in Great South Bay, Long Island is taken by anglers during the summer months. Supports important recreational fisheries elsewhere from Chesapeake Bay to Florida.

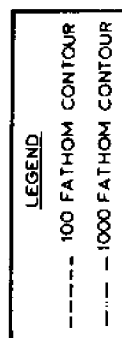
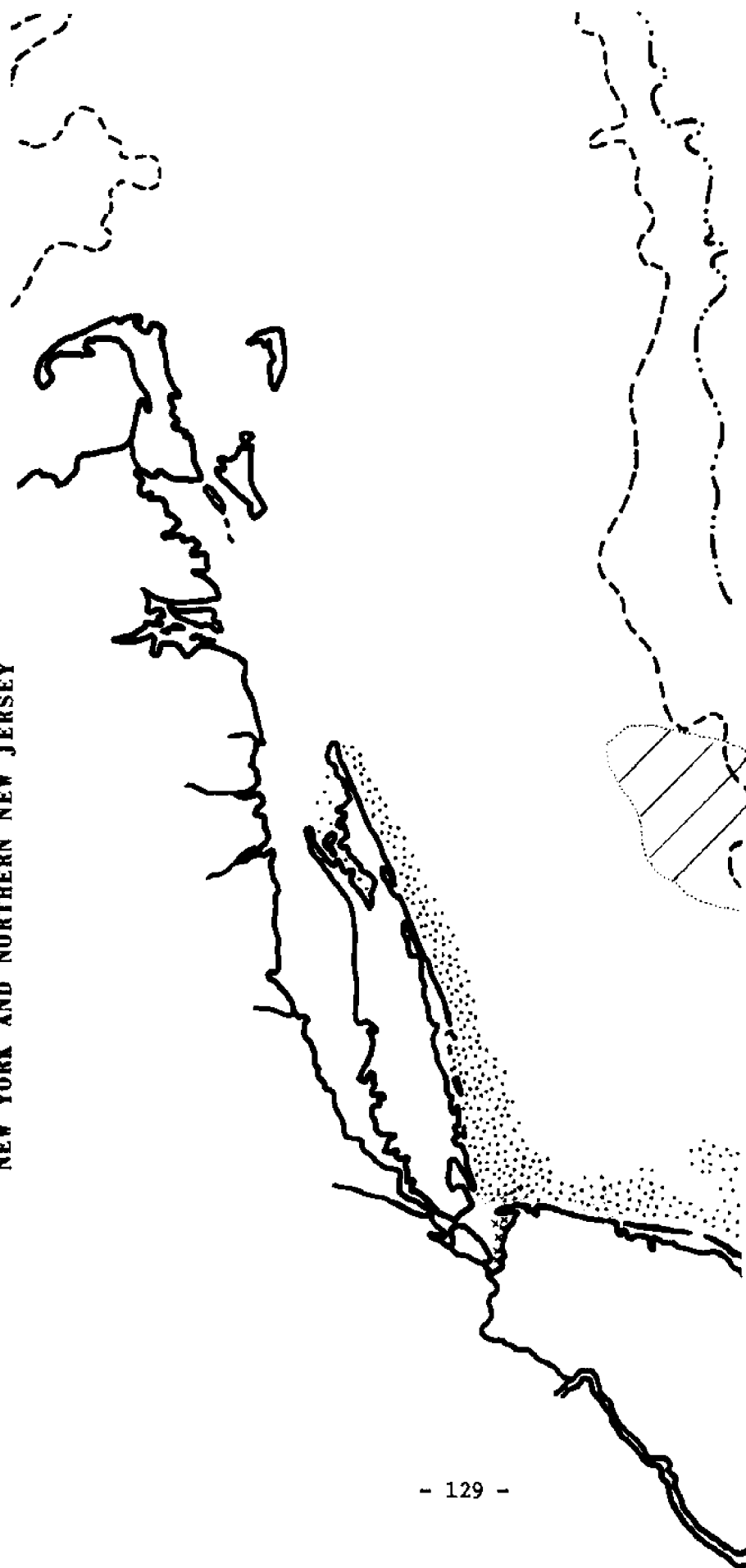
#### COMMENTS:

One of the most important fin fishes landed in most states. Adult fish leave coastal bays and inshore waters in the fall and spend the winter months in depths of 20-85 fathoms from Cape Cod to North Carolina and are thus available to the winter trawl fishery off the Virginia Capes. The summer sports fishery in nursery areas such as Great South Bay, Chesapeake Bay, and the Sounds of North Carolina, combined with a year-round commercial trawl fishery on the adult fish, appears to have resulted in over-exploitation of available stocks. This is indicated by a general decline in landings in most areas since 1956. Increased catches such as those of North Carolina are probably a result of greater fishing effort rather than higher abundance.

Information is not available to determine whether any catches made by trawlers off Georgia were landed in South Carolina and Florida, and vice versa.

# FLUKE OR SUMMER FLOUNDER (PARALICHTHYS DENTATUS)

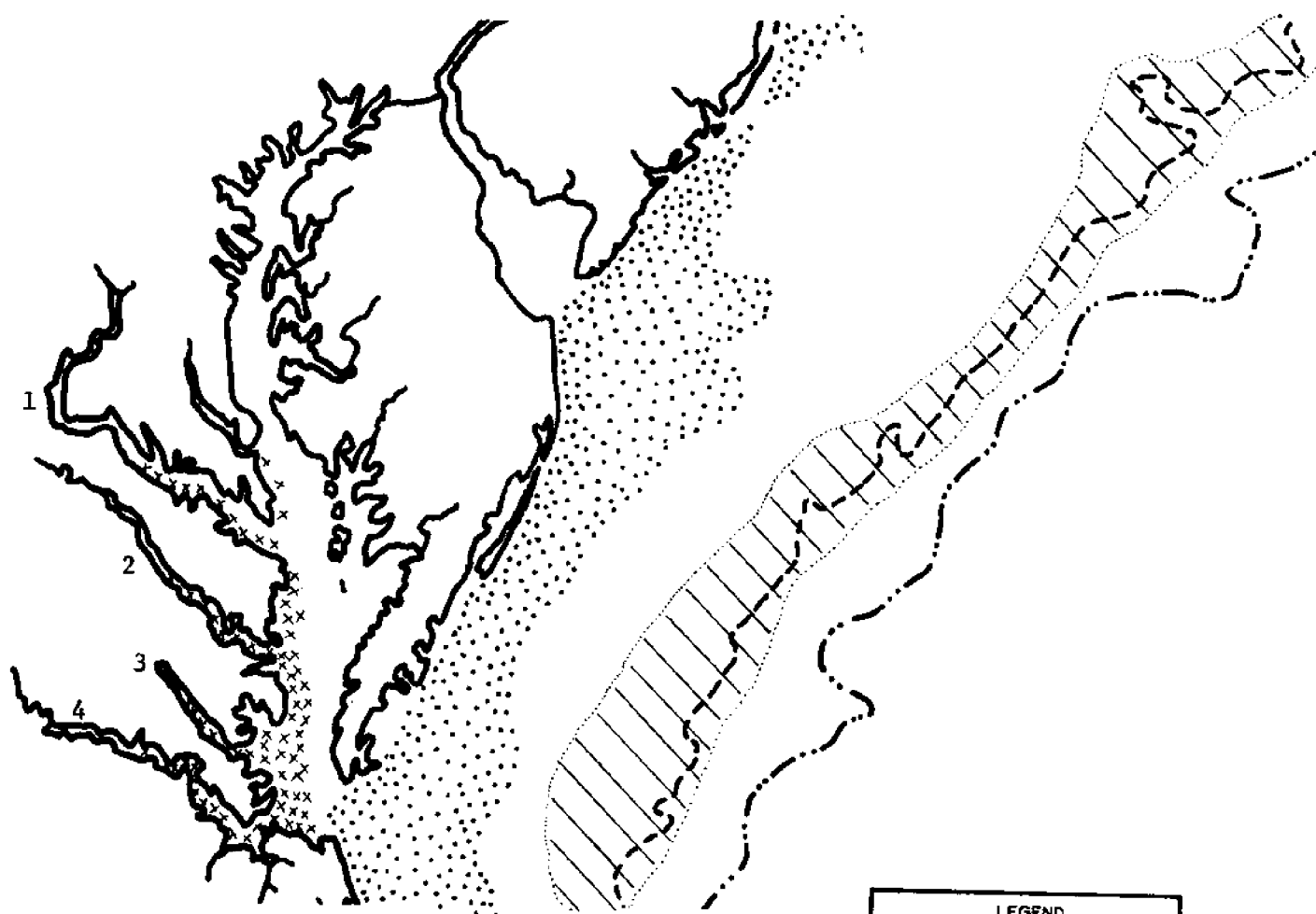
NEW YORK AND NORTHERN NEW JERSEY



See text for details

Refer also to following map.

**FLUKE OR SUMMER FLOUNDER (PARALICHTHYS DENTATUS)**  
**SOUTHERN NEW JERSEY, DELAWARE, MARYLAND AND VIRGINIA**



Inshore trawling grounds



Offshore trawling grounds



Pound nets:

1. Potomac River - 38,000 lbs.

2, 3, & 4. York, James and Rappahannock Rivers - 39,000 lbs.

Lower Chesapeake Bay - 412,000 lbs.

FLUKE OR SUMMER FLOUNDER (PARALICHTHYS DENTATUS)

NORTH CAROLINA



286,000 lbs.

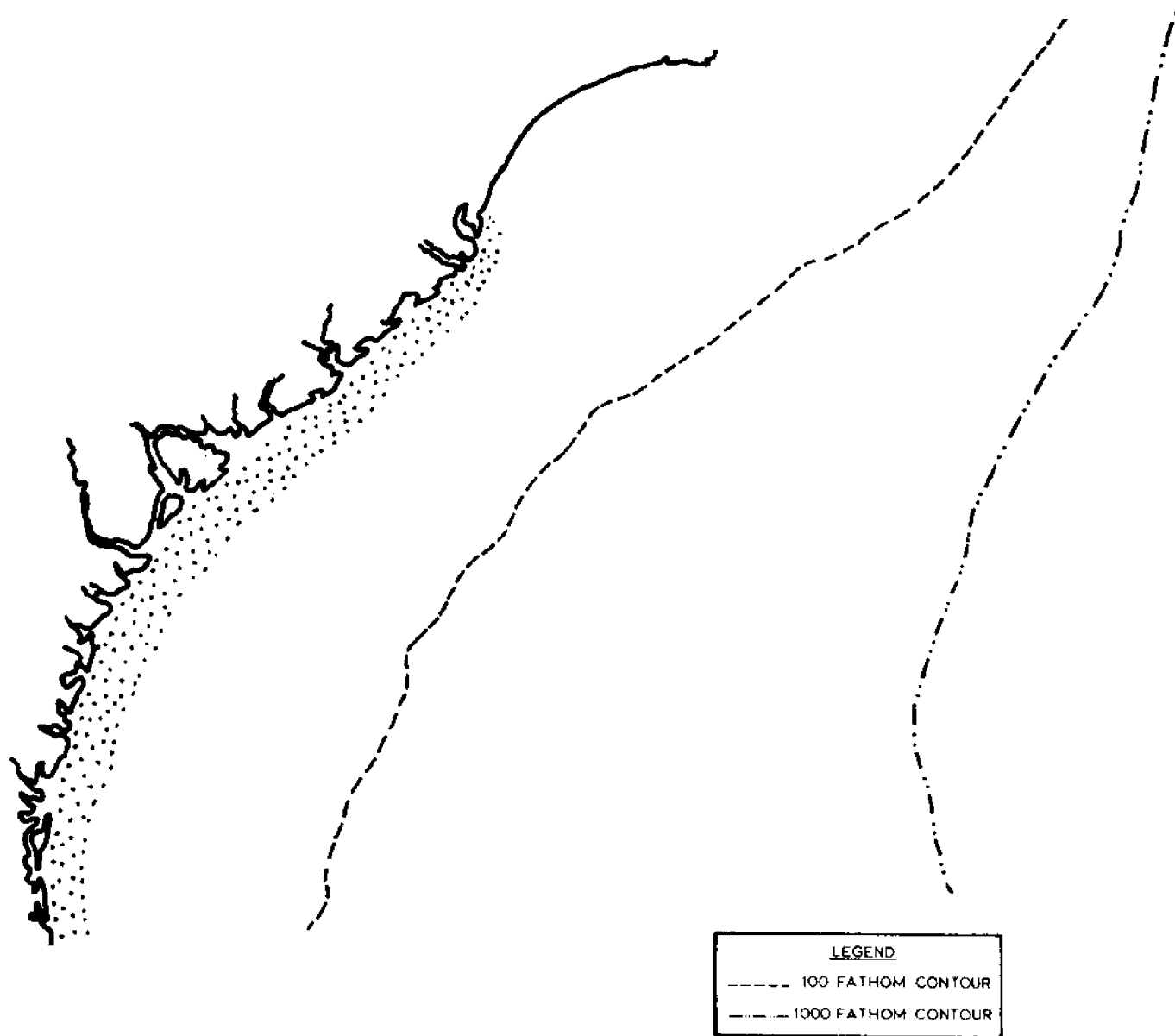


137,000 lbs.

LEGEND	
-----	100 FATHOM CONTOUR
- . - . - .	1000 FATHOM CONTOUR

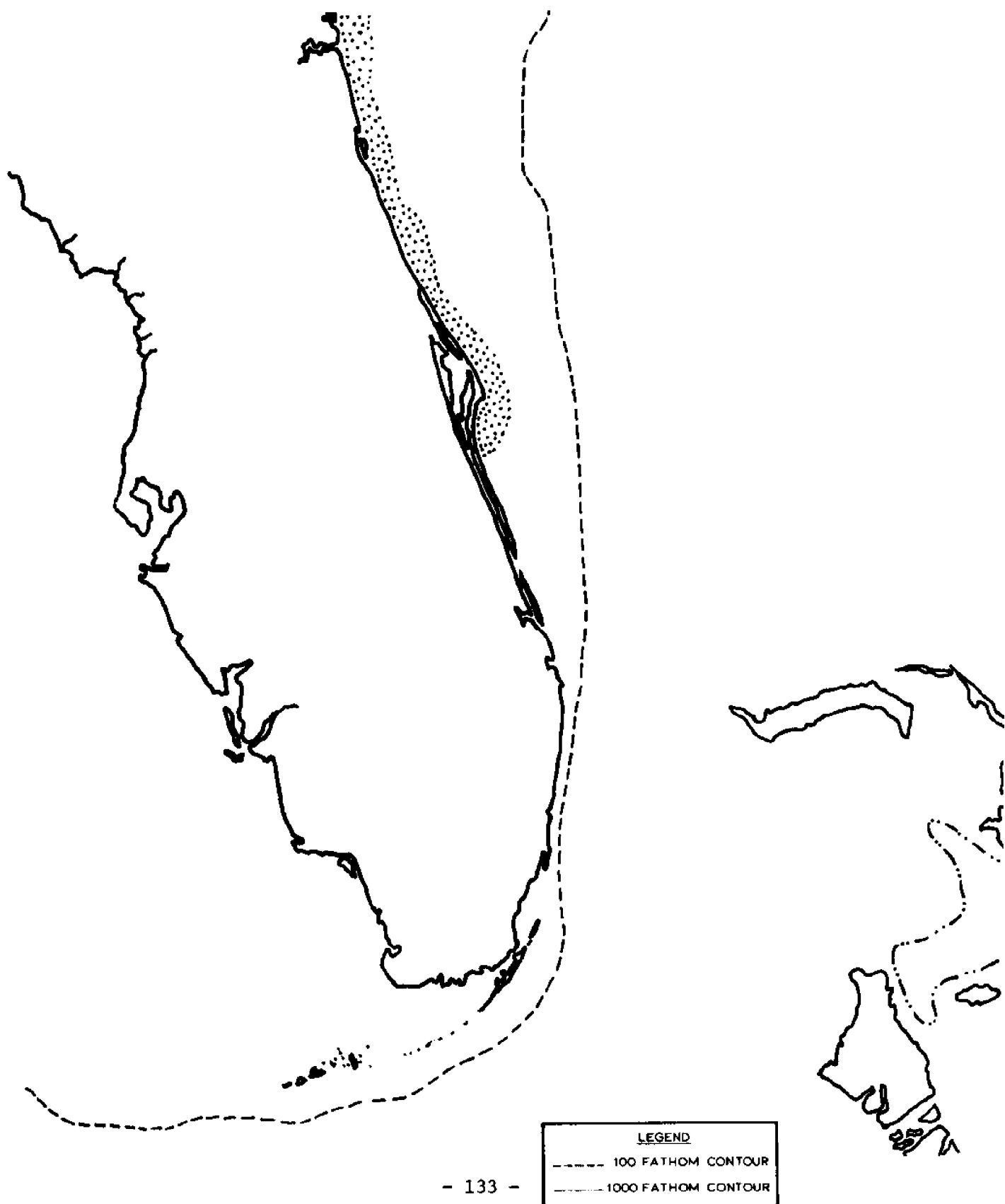
FLUKE OR SUMMER FLOUNDER (PARALICHTHYS DENTATUS)

SOUTH CAROLINA AND GEORGIA



FLUKE OR SUMMER FLOUNDER (PARALICHTHYS DENTATUS)

FLORIDA EAST COAST



BLACKBACK FLOUNDER (PSEUDOPLEURONECTES AMERICANUS)

GENERAL RANGE: North shore of the Gulf of St. Lawrence to Georgia

COMMERCIAL FISHERY (1965):

NEW YORK 2,245,000 lbs. Two-thirds of catch taken by inshore trawlers off south shore of Long Island, and in Gardiners and Peconic Bays. Remaining quantity taken by winter trawl fishery around 100 fathom line (see map). Trawlers from Connecticut and Rhode Island also fish these areas; their catch is not known.

NEW JERSEY 279,000 lbs. Mainly a spring trawl fishery one or two miles off the coast. Fyke nets in inshore bays contribute 10 to 15 percent of the total catch.

SPORT FISHERY:

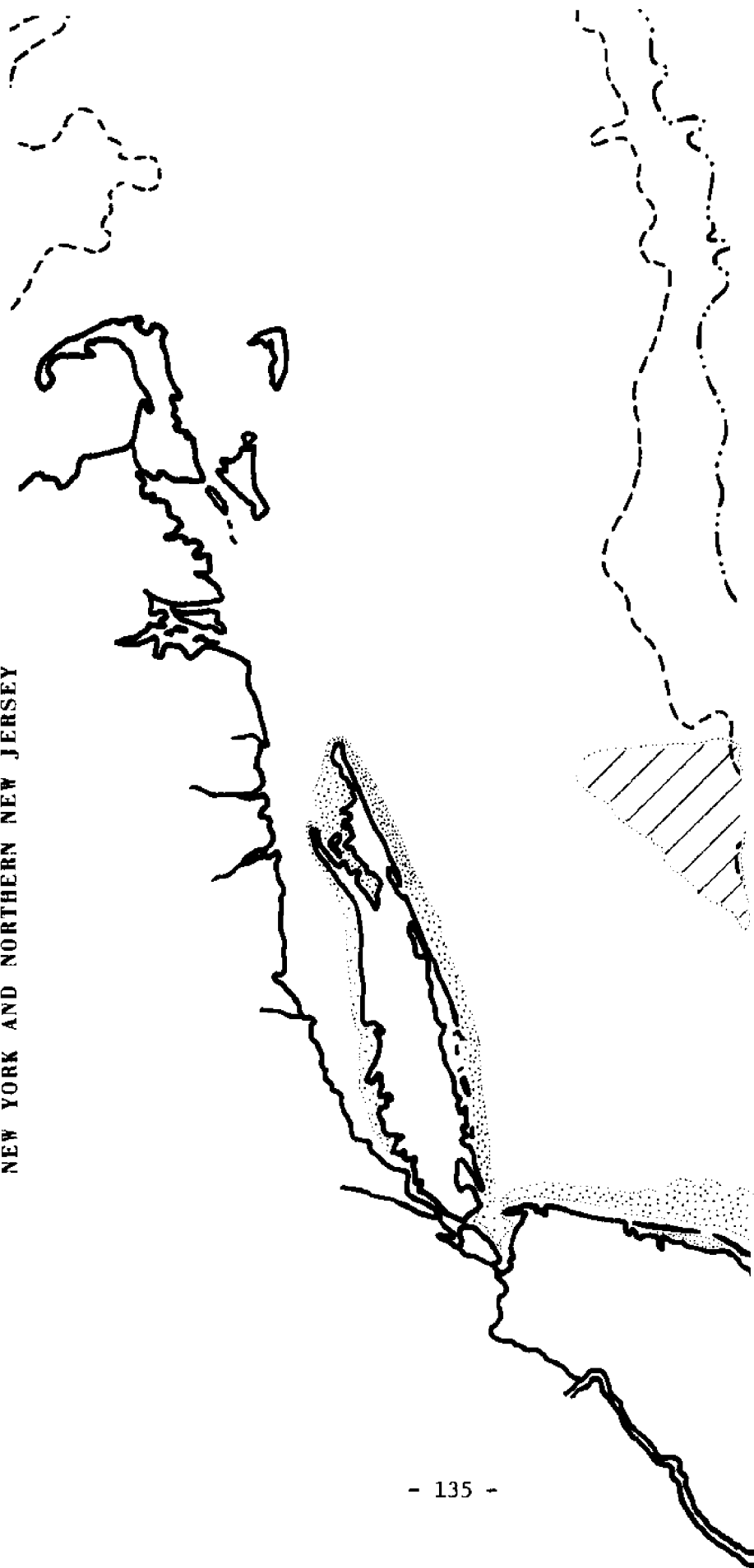
An important fishery in the bays of Long Island. An estimated 2 1/2 million pounds are taken each year by anglers on Long Island.

COMMENTS:

Although an important commercial species in the northern part of its range, the blackback flounder does not contribute significantly to trawl catches south of Cape May, New Jersey.

BLACKBACK FLOUNDER (PSEUDOPLEURONECTES AMERICANUS)

NEW YORK AND NORTHERN NEW JERSEY



Density of stippling indicates size of catch

SWELLFISH (SPHAEROIDES MACULATUS)

GENERAL RANGE: Nova Scotia to Florida. Rare north of Cape Cod.

COMMERCIAL FISHERY (1965):

NEW YORK 402,000 lbs. 95 percent of catch taken in pound nets in Gardiners and Peconic Bays. Remainder along south shore of Long Island. A low value species of considerable potential.

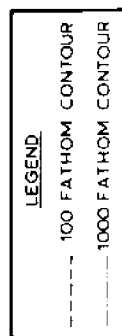
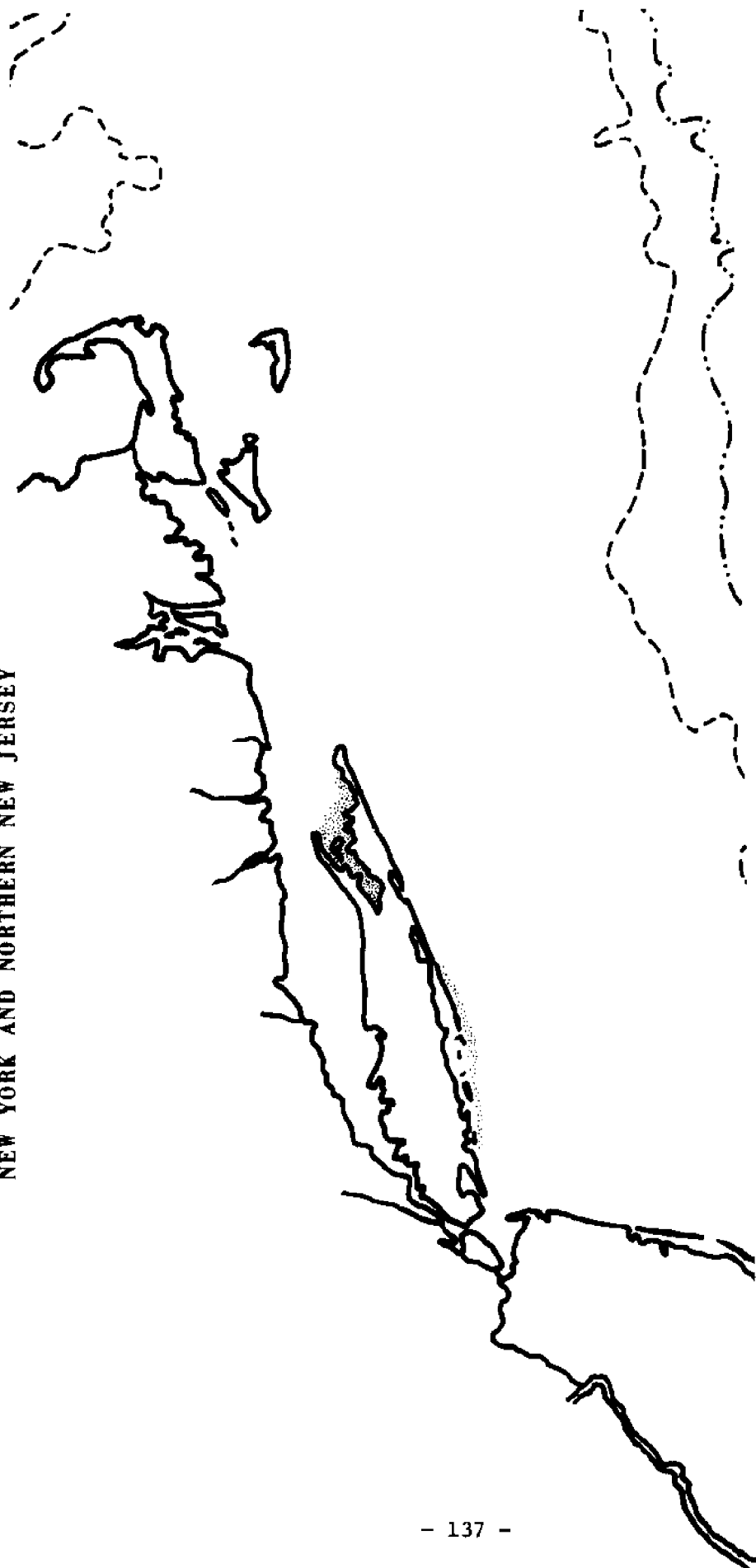
MARYLAND 1,851,000 lbs. All from upper Chesapeake Bay, mostly from crab pots.

VIRGINIA 10,668,000 lbs. Over 5 million pounds taken in pound nets and haul seines in lower Chesapeake Bay; approximately 4 million pounds from the York, James and Rappahannock Rivers; about 400,000 lbs. by seines in the Potomac River; 300,000 lbs. by seines on Atlantic coast beaches. Density of stippling on accompanying map indicates size of catch.

NORTH CAROLINA 411,000 lbs. Mostly from otter trawling grounds from Cape Hatteras to Bogue Inlet in 5 to 20 fathoms. Small quantities landed from shrimp trawlers in Pamlico Sound and Atlantic coastal areas.

SWELLFISH (SPHAEROIDES MACULATUS)

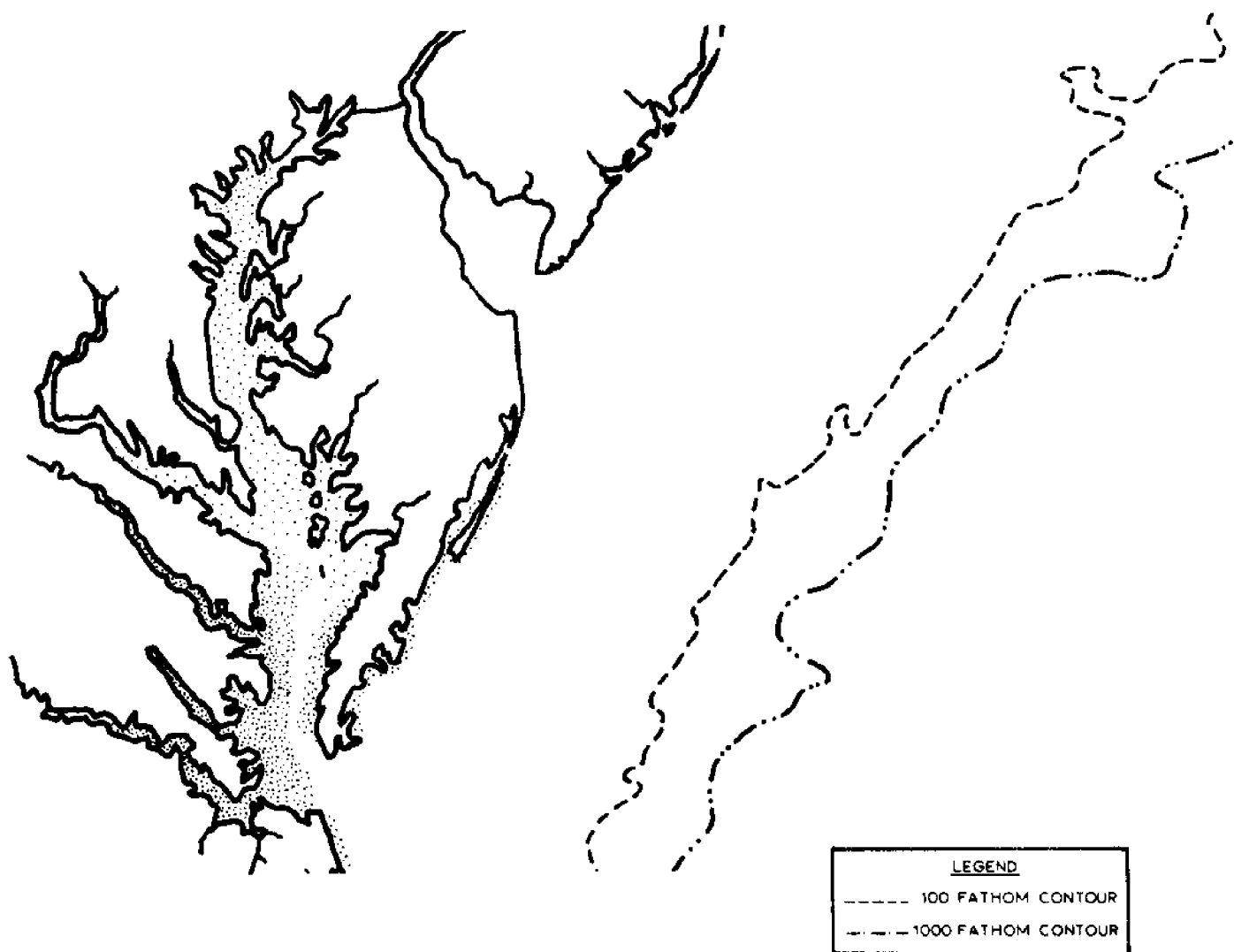
NEW YORK AND NORTHERN NEW JERSEY



See text for details

SWELLFISH (*SPHAEROIDES MACULATUS*)

SOUTHERN NEW JERSEY, DELAWARE, MARYLAND AND VIRGINIA



## INDUSTRIAL FISH (SEVERAL SPECIES)

### COMMERCIAL FISHERY (1965):

NEW YORK 78,000,000 lbs. Data not available on location of capture. Probably a considerable quantity is taken on Nantucket Shoals or George's Bank. Over 70 percent of the catch is red hake (Urophycis chuss) although not reported as such.

NEW JERSEY 9,000,000 lbs. Mainly from trawling grounds off the north coast of the state, off Cape May, and from winter trawling grounds in 100 fathoms.

MARYLAND 12,500,000 lbs. Taken by trawlers on Atlantic inshore trawling grounds, mainly during summer.

VIRGINIA 4,500,000 lbs. About 2 million pounds taken by pound nets in Chesapeake Bay and tributaries. Almost 2 1/2 million pounds taken by Atlantic Ocean trawl fisheries.

NORTH CAROLINA 8,000,000 lbs. About half of the catch is made by shrimp trawlers in Pamlico Sound and coastal waters. Otter trawlers take the remaining 4 million pounds from many localities.

SOUTH CAROLINA 310,000 lbs. Taken by beach seines in Horry County.

GEORGIA 115,000 lbs. Taken by shrimp trawlers in coastal waters.

FLORIDA 455,000 lbs. Taken by shrimp trawlers in coastal waters as far south as Indian River.

### COMMENTS:

The industrial fishery could be greatly expanded without damage to more valuable fin fish stocks. For example, the continental shelf area between Delaware Bay and Cape Hatteras is estimated to be capable of sustaining an annual catch of 800,000,000 pounds, of which half would be spiny dogfish and sharks. A bottom trawl fishery operating around the 100 fathom contour in this same area could yield about 150,000,000 pounds during the summer. Major contributory species would be whiting, spotted hake, sea robin, red hake, and four-spot flounder.

The species composition of industrial fish catches is not reported by the U. S. Fish and Wildlife Service.

I N V E R T E B R A T E S

BLUE CRAB (CALLINECTES SAPIDUS)

GENERAL RANGE: Cape Cod to the Gulf of Mexico

COMMERCIAL FISHERY (1965):

NEW JERSEY 938,000 lbs. From northern shores of Delaware Bay as far upriver as Augustine Beach. Also found in quantity in all bays and estuaries on the Atlantic coast of New Jersey, but not fished commercially.

DELAWARE 558,000 lbs. From inshore areas on south side of Delaware Bay. The pot fishery has declined drastically since 1957; the dredge fishery became almost inoperative after 1964 and ceased in 1967.

MARYLAND 35,000,000 lbs. Upper Chesapeake Bay catch over 31 million pounds; Potomac River catch almost 2 1/2 million pounds; catch from bays and creeks draining directly into the Atlantic Ocean was 840,000 lbs. Blue crabs are taken in all parts of Chesapeake Bay and its tributary rivers where salinity remains higher than 5 parts per thousand.

VIRGINIA 52,000,000 lbs. From lower Chesapeake Bay more than 29,000,000 lbs.; from the York, James and Rappahannock Rivers 13,500,000 pounds; from the Potomac River over 3,000,000 pounds; from bays and creeks on the Atlantic coast 5,500,000 lbs. Catches have been increasing in Maryland and Virginia in the last 10 years.

NORTH CAROLINA 22,500,000 lbs. Found in most localities within Pamlico Sound, Albemarle Sound and Bogue Sound. Dare County landed 8 million pounds; Hyde County 1 million pounds; Beaufort County 4 1/2 million pounds, Pamlico County 3 3/4 million pounds; and Carteret County 4 million pounds.

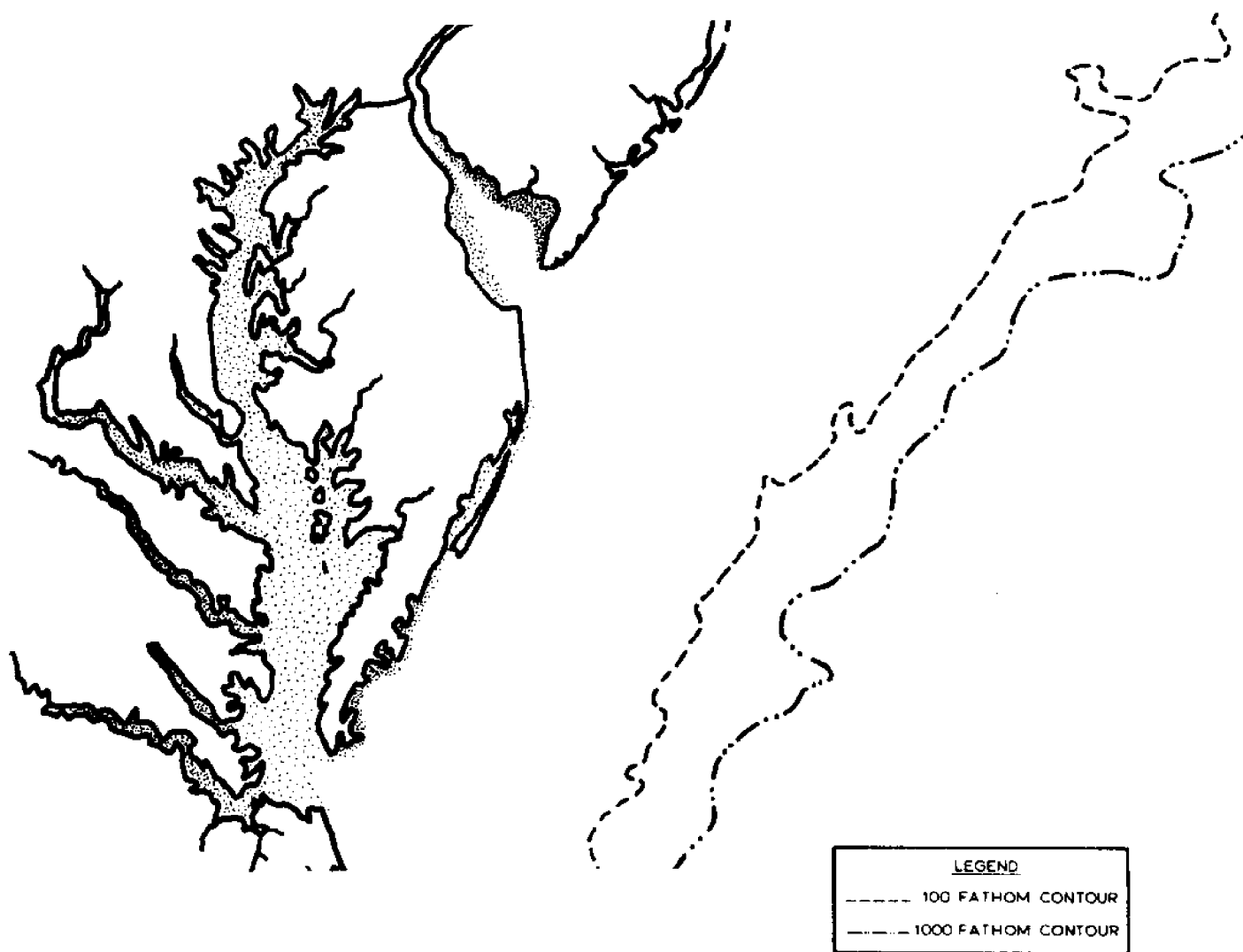
Catches have increased steadily since 1956 when the catch was 8 million pounds.

SOUTH CAROLINA 7,500,000 lbs. Most of catch taken in bays and creeks from the Edisto River to Savannah, Georgia. Catches have increased three-fold since 1956.

GEORGIA 10,250,000 lbs. Catches are made in approximately equal quantities by pots in bays and creeks, and by the crab trawl fishery in coastal waters.

FLORIDA 6,000,000 lbs. St. Johns River produced about 3 1/2 million pounds; Indian River region produced about 2 1/2 million pounds.

**BLUE CRAB (*CALLINECTES SAPIDUS*)**  
**SOUTHERN NEW JERSEY, DELAWARE, MARYLAND AND VIRGINIA**



See text for details

**BLUE CRAB (CALLINECTES SAPIDUS)**

**NORTH CAROLINA**



See text for details

**BLUE CRAB (CALLINECTES SAPIDUS)**

**SOUTH CAROLINA AND GEORGIA**



1. 1,399,000 lbs.

2. 6,021,000 lbs.

3. 1,779,000 lbs.

4. 4,716,000 lbs.

5. 3,763,000 lbs.

STONE CRAB (MENIPPE MERCENARIA)

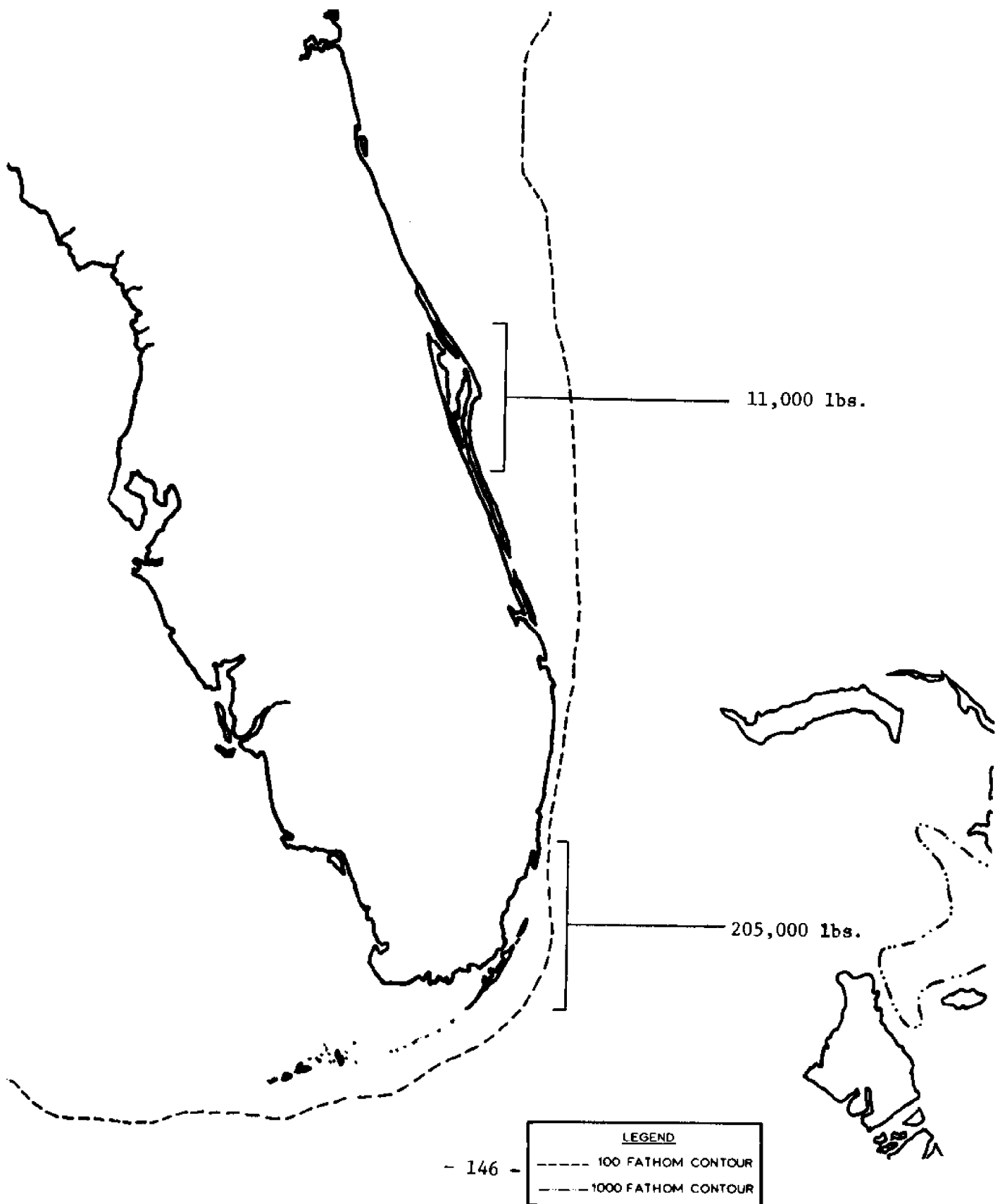
GENERAL RANGE: North Carolina to the northern Caribbean

COMMERCIAL FISHERY (1965):

FLORIDA 218,000 lbs. Dade County (south Florida) produced over 205,000 lbs. The Indian River region produced 11,000 lbs. Catches have risen rapidly from 2,000 lbs. in 1956 to present levels. The stone crab does not support a commercial fishery north of Florida.

STONE CRAB (MENIPPE MERCENARIA)

FLORIDA EAST COAST



NORTHERN LOBSTER (HOMARUS AMERICANUS)

GENERAL RANGE: Nova Scotia to Virginia

COMMERCIAL FISHERY (1965; 1967):

NEW YORK 649,000 lbs. (1965). Over 250,000 lbs. by trawlers around 90 fathom line (see map); 150,000 lbs. from pots between Shinnecock Bay and Moriches Bay; approximately 70,000 lbs. each from the northern shore, the southwestern shore, and the southeastern shore of Long Island. Landings in New York State include an unspecified amount taken on the Grand Banks by vessels from New York State and the New England states. New York trawlers also land catches in Massachusetts, Rhode Island and New Jersey.

NEW JERSEY 1,000,000 lbs. (1965). Principally from the same trawling grounds as New York vessels; 680,000 lbs. landed in New Jersey from these grounds in 1967. Remainder of catch taken by pots 15-20 miles offshore, mainly between Barnegat and Point Pleasant; 210,000 lbs. taken by pots in 1967.

VIRGINIA 44,000 lbs. (1965). By otter trawls in the vicinity of the Norfolk and Washington Canyons. Catches have risen from an insignificant amount to over 40,000 lbs. in the last six years.

COMMENTS:

Although the trawling grounds fished by New York and New Jersey vessels are almost at the southern end of the lobster's range they are extremely productive. Landings in New York and New Jersey from this area totalled almost 1 million pounds each year since 1964. Trawlers from Massachusetts and Rhode Island took unspecified amounts from the same area.

NORTHERN LOBSTER (HOMARUS AMERICANUS)

NEW YORK AND NORTHERN NEW JERSEY



LEGEND  
—— 100 FATHOM CONTOUR  
- · - · 1000 FATHOM CONTOUR

See text for details

SPINY LOBSTER (PANULIRUS ARGUS)

GENERAL RANGE: North Carolina to Brazil

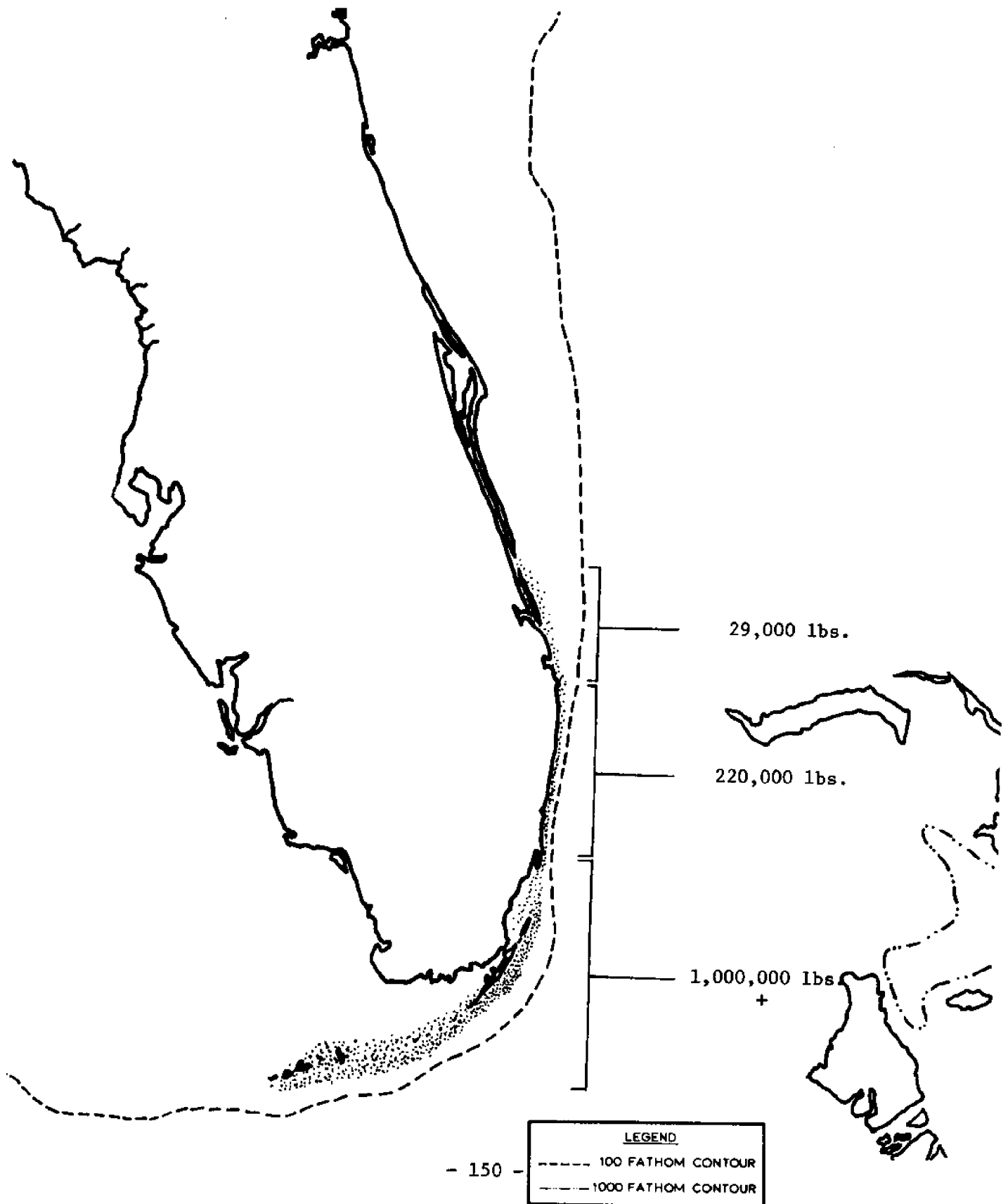
COMMERCIAL FISHERY (1965):

GEORGIA 35,000 lbs. In pots. All landed in southern district of Georgia from Brunswick to the Florida border. Location of catch not known.

FLORIDA 1,329,000 lbs. Taken in 1 to 6 fathoms along the Atlantic seaboard, and in depths to 30 fathoms in the Florida Keys. Over 75 percent of catch is taken from Fort Lauderdale south through the Keys. An important industry in South Florida.

SPINY LOBSTER (PANULIRUS ARGUS)

FLORIDA EAST COAST



SHRIMP (PENAEUS SETIFERUS; P. AZTECUS)

GENERAL RANGE: North Carolina to Gulf of Mexico

COMMERCIAL FISHERY (1965):

NORTH CAROLINA 5,500,000 lbs. Trawled within Pamlico Sound and on coastal grounds from Cape Hatteras south to the South Carolina border.

SOUTH CAROLINA 6,750,000 lbs. By trawlers on inshore (1-10 miles) grounds from Winyah Bay south to the Georgia border, and off the coast of Georgia itself. Catch fluctuates considerably from year to year.

GEORGIA 8,500,000 lbs. Trawled from inshore grounds along the coast. Some may be taken from South Carolina or Florida waters.

FLORIDA 5,500,000 lbs. By trawlers operating 1/4 to 3 miles offshore, occasionally to 12 miles offshore. Intensive fishery conducted as far south as Cape Canaveral. The formerly important fishery south of Cape Canaveral is now largely inoperative.

COMMENTS:

Exact locations of catches are not easily obtainable, since statistical services report landings by state. It is difficult to ascertain the extent to which trawlers from various states fish in waters of other states.

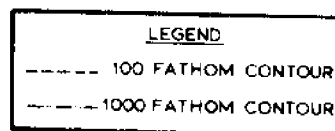
Reported landings are composed of two species, the white shrimp, Penaeus setiferus, and the brown shrimp, P. aztecus. Other species, such as P. duorarum and P. brasiliensis, important elsewhere, do not contribute significantly to catches from the east coast of the United States.

A flourishing fishery for small bait shrimp exists over much of the range of the species concerned. The pink shrimp, Penaeus duorarum, supports a particularly important fishery in Florida where a large recreational fishery utilizes large quantities for live bait.

The shrimp fishery is important in all the states reported above. In 1965 shrimp ranked first in South Carolina, Georgia and Florida, and second in North Carolina.

SHRIMP (PENAEUS SETIFERUS; P. AZTECUS)

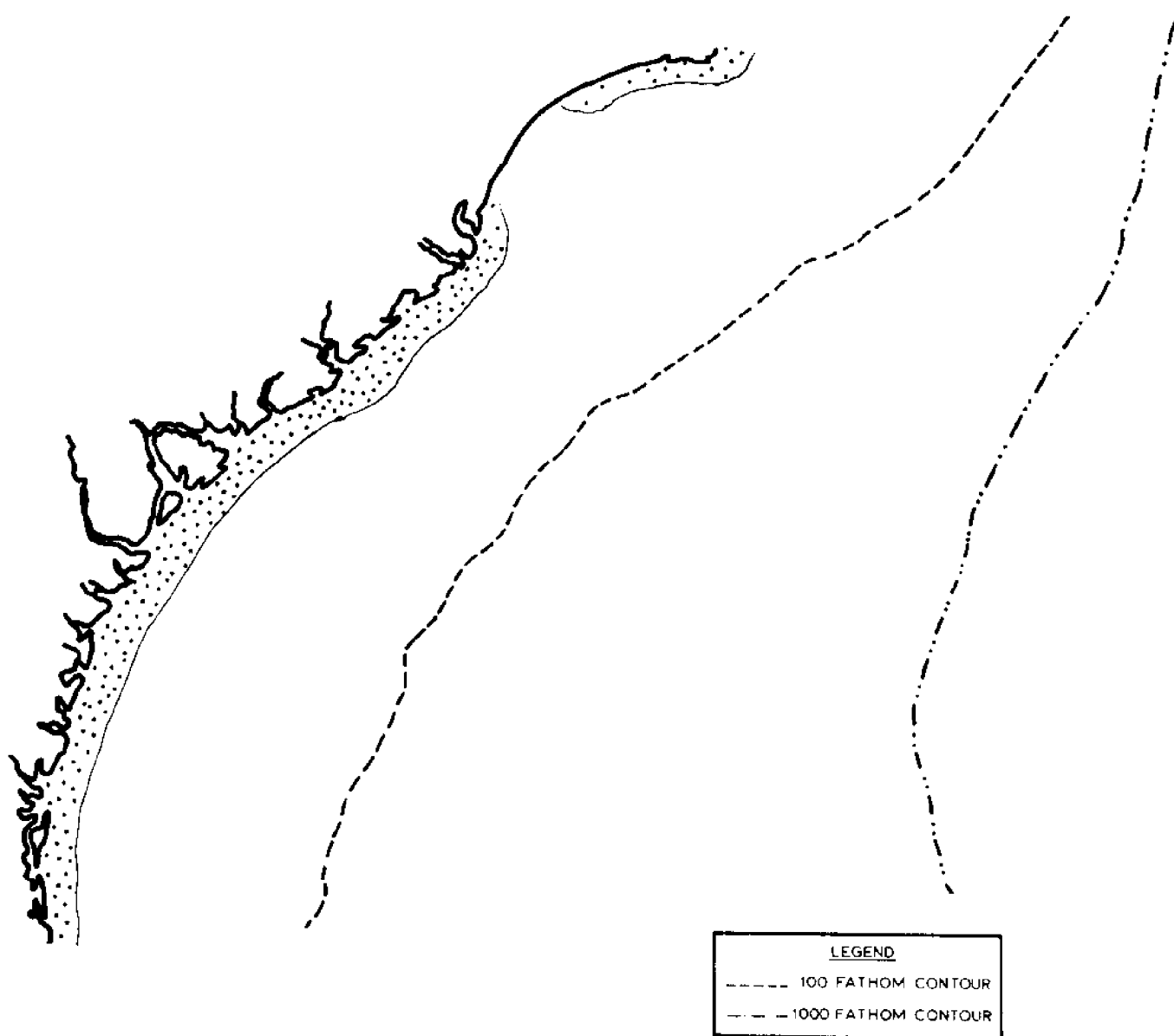
NORTH CAROLINA



Trawling grounds

SHRIMP (PENAEUS SETIFERUS; P. AZTECUS)

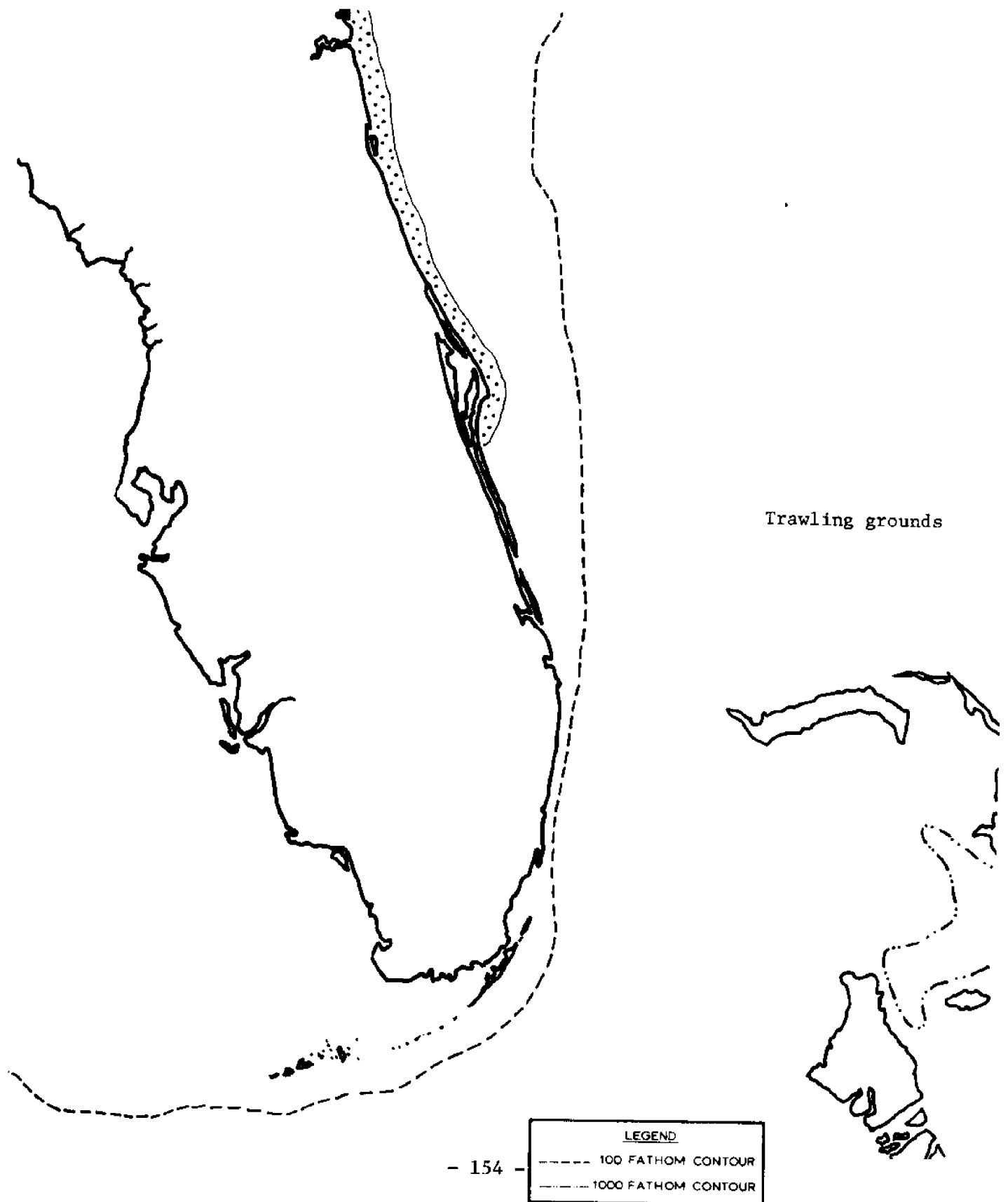
SOUTH CAROLINA AND GEORGIA



Trawling grounds

SHRIMP (PENAEUS SETIFERUS; P. AZTECUS)

FLORIDA EAST COAST



ROYAL RED SHRIMP (HYMENOPENAEUS ROBUSTUS)

GENERAL RANGE: South Carolina to the Gulf of Mexico

COMMERCIAL FISHERY (1967):

FLORIDA 75,184 lbs. Catch in 1967 was valued at over \$50,000. Taken mostly in 180-220 fathoms on trawling grounds directly east of St. Augustine. Trawling areas are very limited due to nature of sea bottom. Possibility of expansion of the fishery is good; an area of high potential in deep water off the coast of southern Georgia is as yet unexploited. Costs of production in the fishery are high and this limits the fishery at present. Accompanying map shows location of commercial trawling area.

ROYAL RED SHRIMP (*HYMENOPENAEUS ROBUSTUS*)

FLORIDA EAST COAST



## OYSTER (CRASSOSTREA VIRGINICA)

GENERAL RANGE: Maine to mid-Florida. Not common north of Cape Cod.

### COMMERCIAL FISHERY (1965):

NEW YORK 200,000 lbs. The formerly important oyster industry has declined since 1960 to one-third of its former value. Remaining productive beds are: Oyster Bay - 67,727 lbs.; Great Peconic Bay - 55,000 lbs.; Moriches and Shinnecock Bays - 46,000 lbs.; Great South Bay - 31,000 lbs. Pollution of Bays on Long Island is an important cause of the decline.

NEW JERSEY 523,000 lbs. All taken from the eastern shore of Delaware Bay. Industry declined from 1956 as in New York. Production in 1967 indicates some measure of recovery.

DELAWARE 34,000 lbs. Taken from western shores of Delaware Bay. Production fell from around 4 million pounds in 1957 to 33,000 lbs. in 1961 and has since remained below 100,000 lbs. each year. Formerly productive beds in Rehoboth Bay, Indian Bay and Delaware Bay itself have largely disappeared.

MARYLAND 8,500,000 lbs. Over 7 1/2 million pounds from upper Chesapeake Bay and its tributaries; 668,000 lbs. from the Potomac River; 282,000 lbs. from bays and creeks on the Atlantic Coast. Present production is slightly greater than one-half of that of 1956. Many oyster beds in the upper reaches of Chesapeake Bay and the Potomac River have been killed by disease (MSX).

VIRGINIA 12,500,000 lbs. Over 6 1/2 million pounds from James, York, and Rappahannock Rivers; 2 million pounds from Potomac River; 2 million pounds from Atlantic coast creeks; almost 2 million pounds from creeks and bays in lower Chesapeake Bay.

Production in 1965 was about 60 percent of the 1956 level. The deprivations of MSX have severely affected production.

Seed beds in the James River between Jamestown and Newport News supply spat for most commercial beds elsewhere in Chesapeake Bay.

NORTH CAROLINA 864,000 lbs. Taken in all bays and creeks from the northern end of Pamlico Sound to Cape Fear. Production has fallen by 40 percent since 1956. Production by county is given on the accompanying map.

SOUTH CAROLINA 2,805,000 lbs. Taken from bays and creeks along the coastline; mainly between Charleston, South Carolina and Savannah, Georgia. Production has remained fairly steady over the past decade. Landings by area given on the map correspond closely with actual production by area.

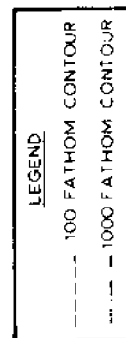
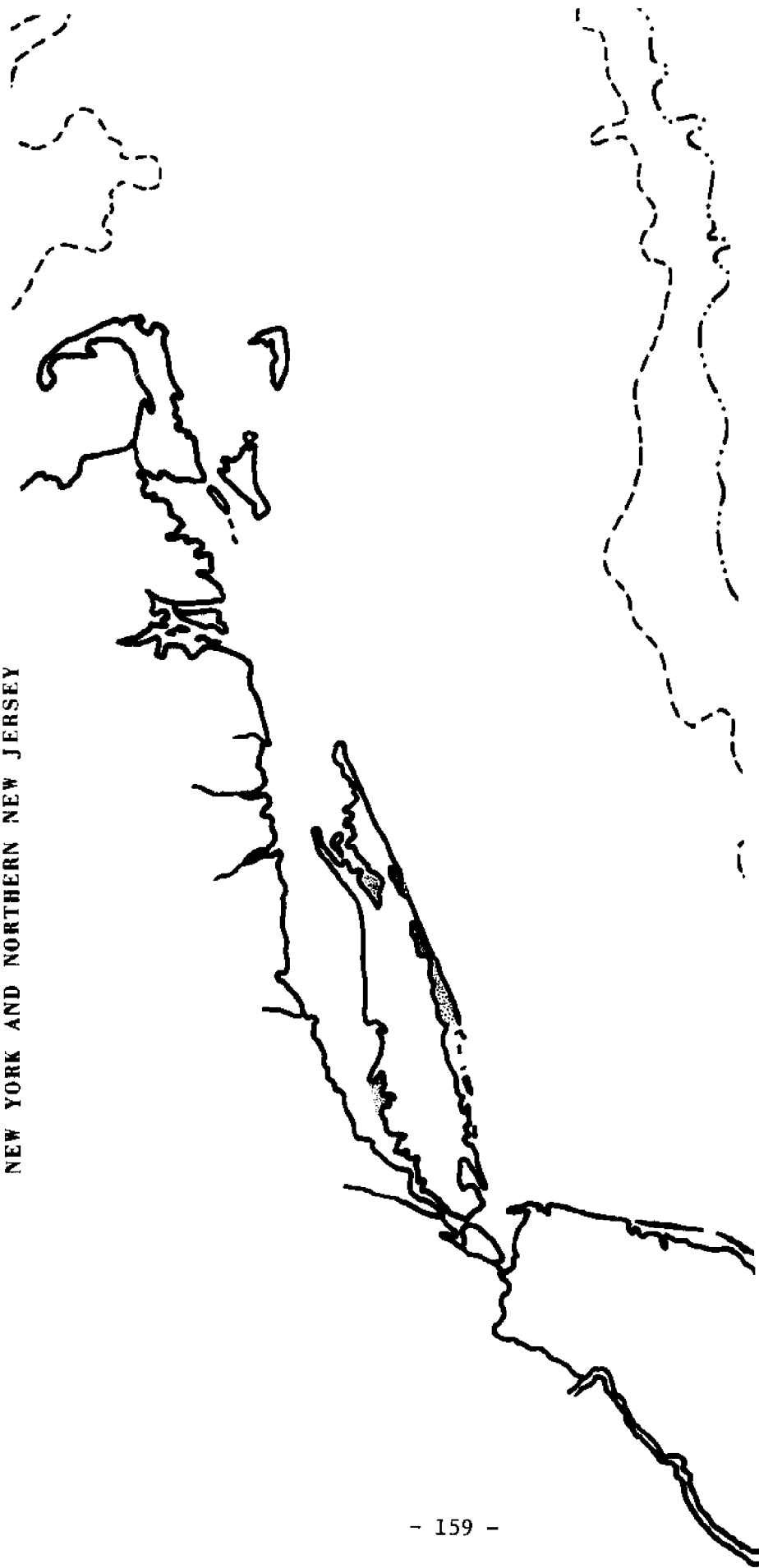
GEORGIA 247,000 lbs. From most bays and creeks. Production has remained low but steady.

FLORIDA 166,000 lbs. Mostly from inland waters in Indian River region. Production has risen steadily from about 30,000 lbs. in 1956.

COMMENTS:

MSX seems to be declining and this raises the hope of recovery for some oyster producing areas.

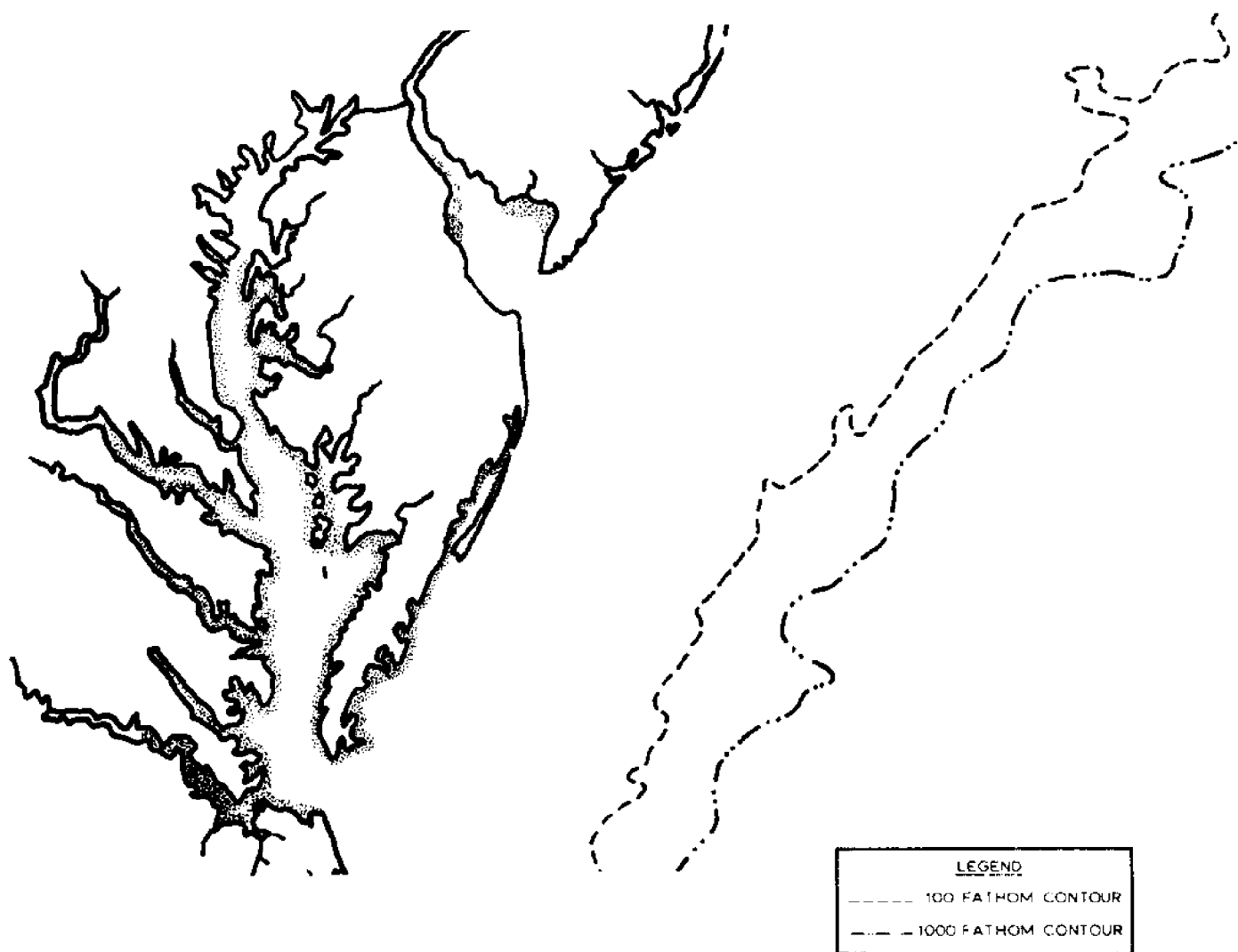
OYSTER (CRASSOSTREA VIRGINICA)  
NEW YORK AND NORTHERN NEW JERSEY



See text for details

OYSTER (*CRASSOSTREA VIRGINICA*)

SOUTHERN NEW JERSEY, DELAWARE, MARYLAND AND VIRGINIA



OYSTER (CRASSOSTREA VIRGINICA)

NORTH CAROLINA

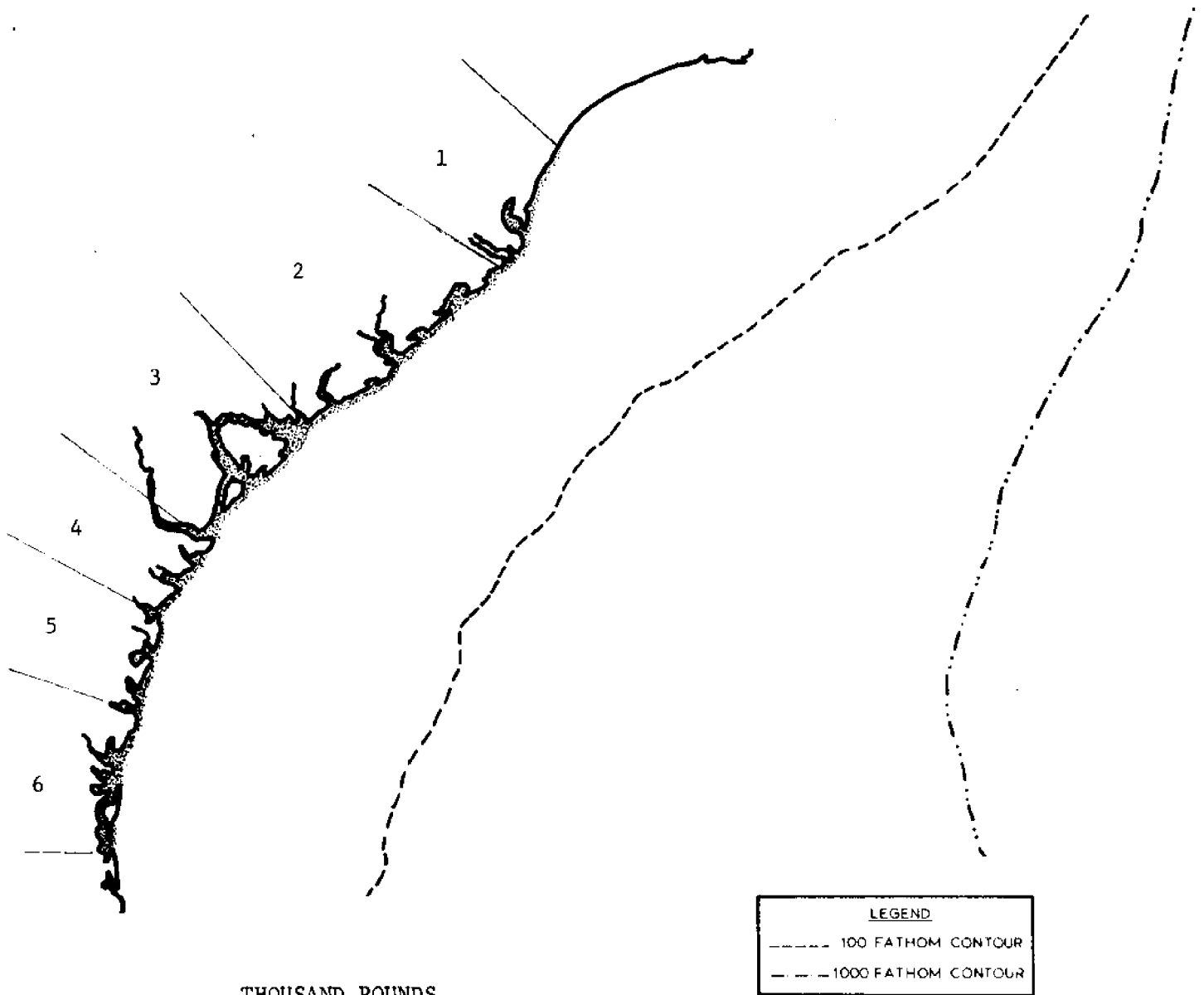


THOUSAND POUNDS

1. 94
2. 175
3. 133
4. 128
5. 24
6. 47
7. 262

LEGEND	
-----	100 FATHOM CONTOUR
- . - . - .	1000 FATHOM CONTOUR

OYSTER (CRASSOSTREA VIRGINICA)  
SOUTH CAROLINA AND GEORGIA

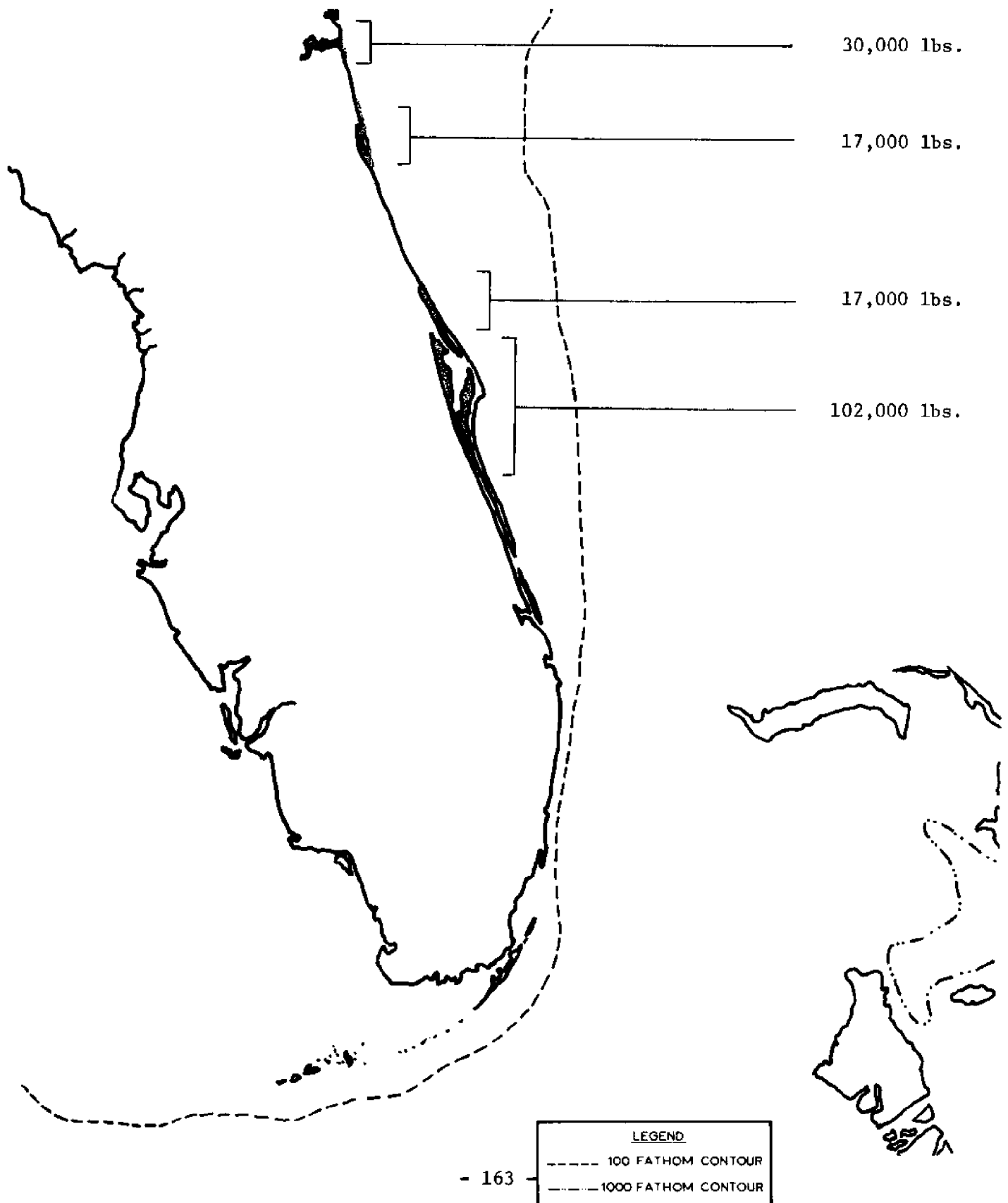


THOUSAND POUNDS

1. 172
2. 962
3. 1,670
4. 52
5. 161
6. 35

OYSTER (CRASSOSTREA VIRGINICA)

FLORIDA EAST COAST



MUSSEL (MYTILUS EDULIS)

GENERAL RANGE: Labrador to North Carolina

COMMERCIAL FISHERY (1965):

NEW YORK 295,000 lbs. Over 200,000 lbs. taken from bays at the western end of Long Island Sound; 82,000 lbs. taken from Great South Bay, Moriches and Shinnecock Bays. Primarily a bait fishery. Landings have risen from about 30,000 lbs. in 1956.

COMMENTS:

A potentially valuable industry, at present limited by low consumer demand.

MUSSEL (MYTILUS EDULIS)

NEW YORK AND NORTHERN NEW JERSEY



LEGEND  
----- 100 FATHOM CONTOUR  
----- 1000 FATHOM CONTOUR

HARD CLAM (VENUS MERCENARIA)

GENERAL RANGE: Maine to south Florida - occurring in most sheltered bays along the entire coast.

COMMERCIAL FISHERY (1965):

NEW YORK 6,000,000 lbs. Over 4 million pounds from Great South Bay; 846,000 lbs. from Pt. Jefferson to Cold Spring Harbor on the north shore of Long Island; 652,000 lbs. from Gardiners and Peconic Bays; 248,000 lbs. from Shinnecock and Moriches Bays.

Clam beds in Raritan Bay are now closed to commercial production because of pollution. Clams are being transplanted from here to areas on Long Island. The hard clam industry is the most valuable commercial fishery in New York State.

NEW JERSEY 1,873,000 lbs. Taken from the eastern shore of Delaware Bay and along the entire coast from Sandy Hook Bay to Cape May, particularly behind the barrier line. Bays between Barnegat Bay and Cape May are the most productive.

DELAWARE 363,000 lbs. Mostly from western parts of Delaware Bay; Rehoboth Bay and Indian Bay produce small quantities. Production has declined considerably since 1956.

MARYLAND 243,000 lbs. Until 1962 all landings were from bays on the Atlantic coast; in 1965 over 60,000 lbs. were taken from Chesapeake Bay.

VIRGINIA 2,500,000 lbs. Almost 1 1/2 million pounds from bays between Chincoteague and Cape Charles; 555,000 lbs. from lower Chesapeake Bay on both eastern and western shores; 427,000 lbs. from York, James, and Rappahannock Rivers. Production has increased greatly over the past 10 years.

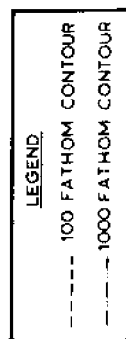
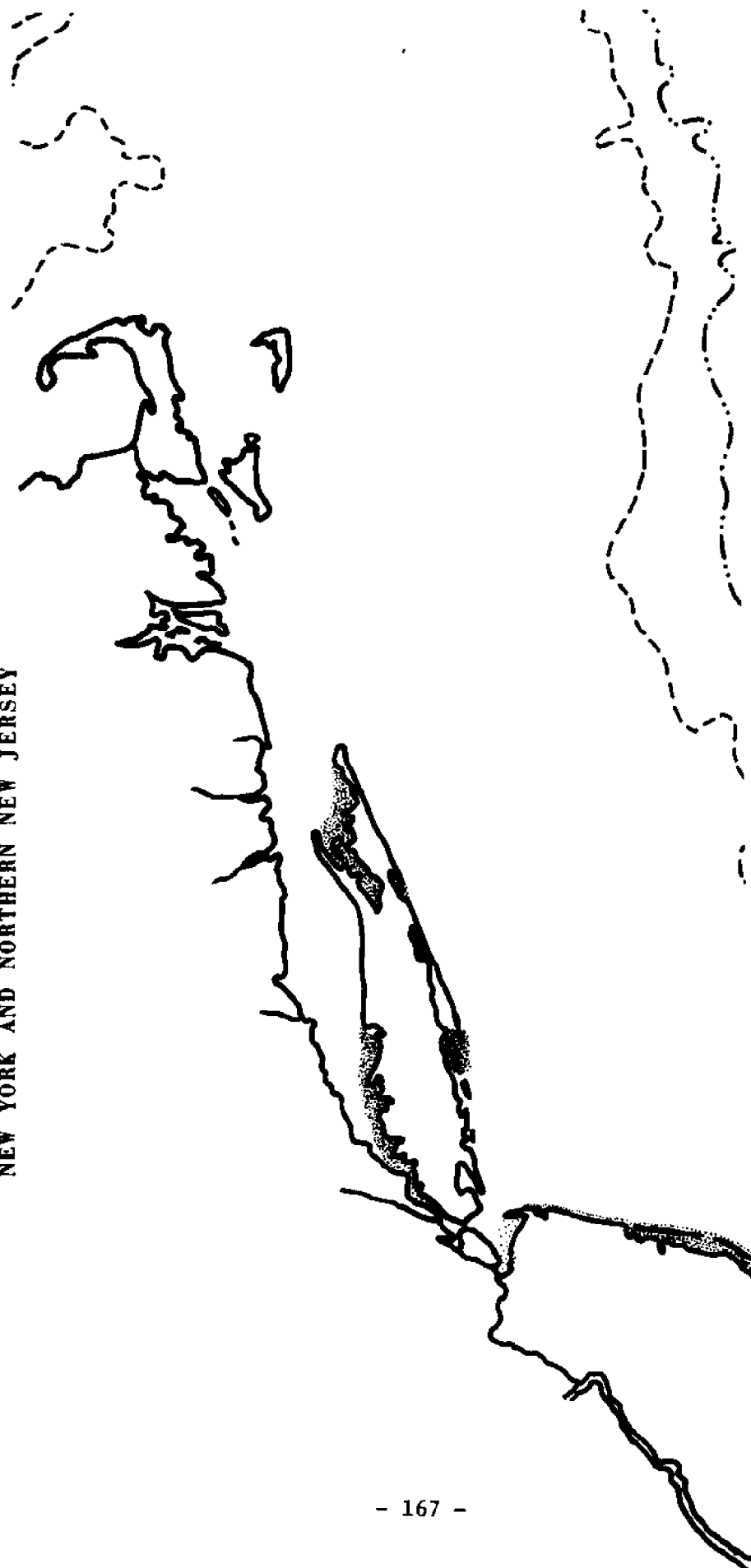
NORTH CAROLINA 313,000 lbs. From Bogue Sound to the South Carolina border. The commercial fishery is centered in Carteret and New Hanover Counties (see map).

SOUTH CAROLINA 67,000 lbs. Bays and creeks along entire coast. Landings statistics indicate concentration of the industry in Horry and Georgetown Counties. Extensive unexploited clam beds are reported in the shore-waters of Beauford and Charleston Counties.

FLORIDA 24,000 lbs. From the intracoastal waterway in the Indian River region. Landings in the preceding 10 years never exceeded 4,000 lbs.

**HARD CLAM (VENUS MERCENARIA)**

**NEW YORK AND NORTHERN NEW JERSEY**



**HARD CLAM (VENUS MERCENARIA)**

**SOUTHERN NEW JERSEY, DELAWARE, MARYLAND AND VIRGINIA**



**HARD CLAM (VENUS MERCENARIA)**

**NORTH CAROLINA**



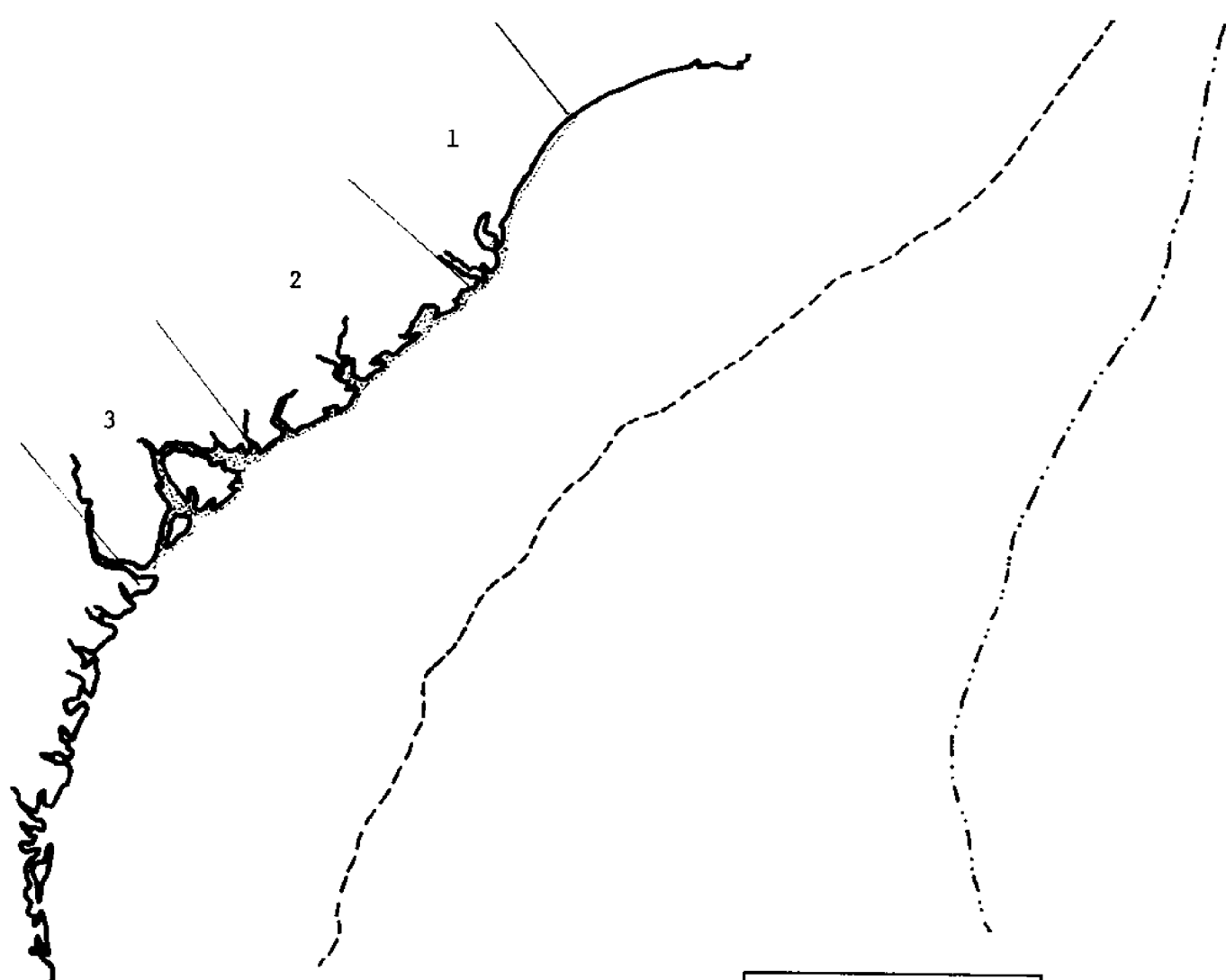
**THOUSAND POUNDS**

- 1. 63
- 2. 103
- 3. 3
- 4. 22
- 5. 115

LEGEND	
-----	100 FATHOM CONTOUR
-----	1000 FATHOM CONTOUR

# HARD CLAM (VENUS MERCENARIA)

## SOUTH CAROLINA AND GEORGIA

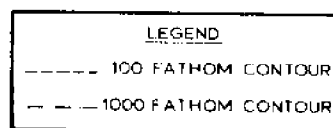


THOUSAND POUNDS

1. 23

2. 43

3. 1



SOFT CLAM (MYA ARENARIA)

GENERAL RANGE: Labrador to North Carolina

COMMERCIAL FISHERY (1965):

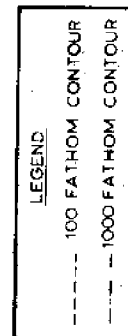
NEW YORK 205,000 lbs. 90 percent of annual harvest comes from Moriches and Shinnecock Bays. All bays on Long Island contain soft clams, most of which are worked commercially to some degree.

NEW JERSEY 34,000 lbs. Taken in Sandy Hook Bay, Raritan Bay and the Navesink River. Potential production is high.

MARYLAND 7,500,000 lbs. From Potomac River and upper Chesapeake Bay. Steady rise in production since 1957.

VIRGINIA 220,000 lbs. Principally from the Potomac River. Production was insignificant prior to 1965.

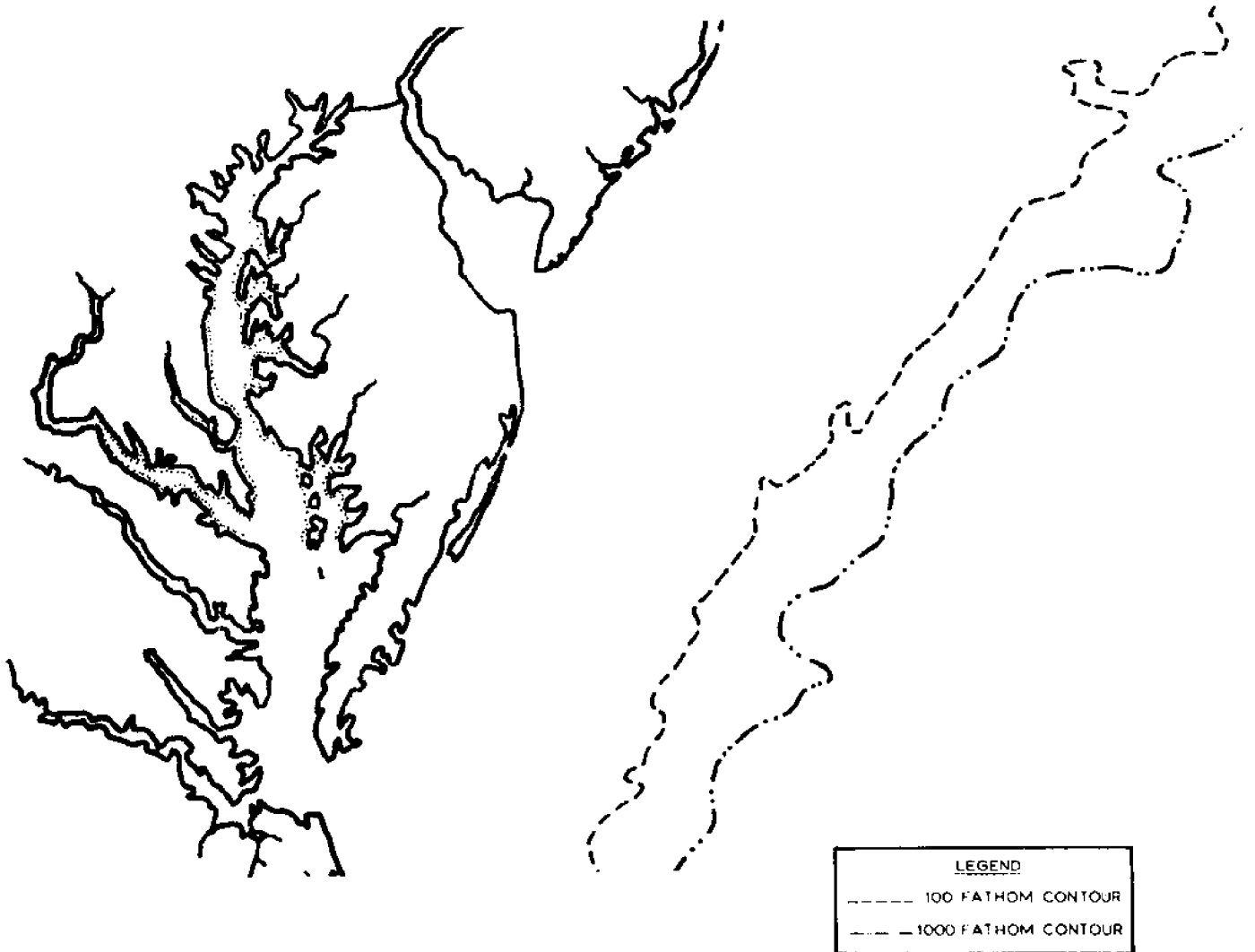
SOFT CLAM (MYA ARENARIA)  
NEW YORK AND NORTHERN NEW JERSEY



See text for details

**SOFT CLAM (MYA ARENARIA)**

**SOUTHERN NEW JERSEY, DELAWARE, MARYLAND AND VIRGINIA**



Location of productive areas (tentative)

SURF CLAM (SPISULA SOLIDISSIMA)

GENERAL RANGE: Maine to Pamlico Sound, North Carolina

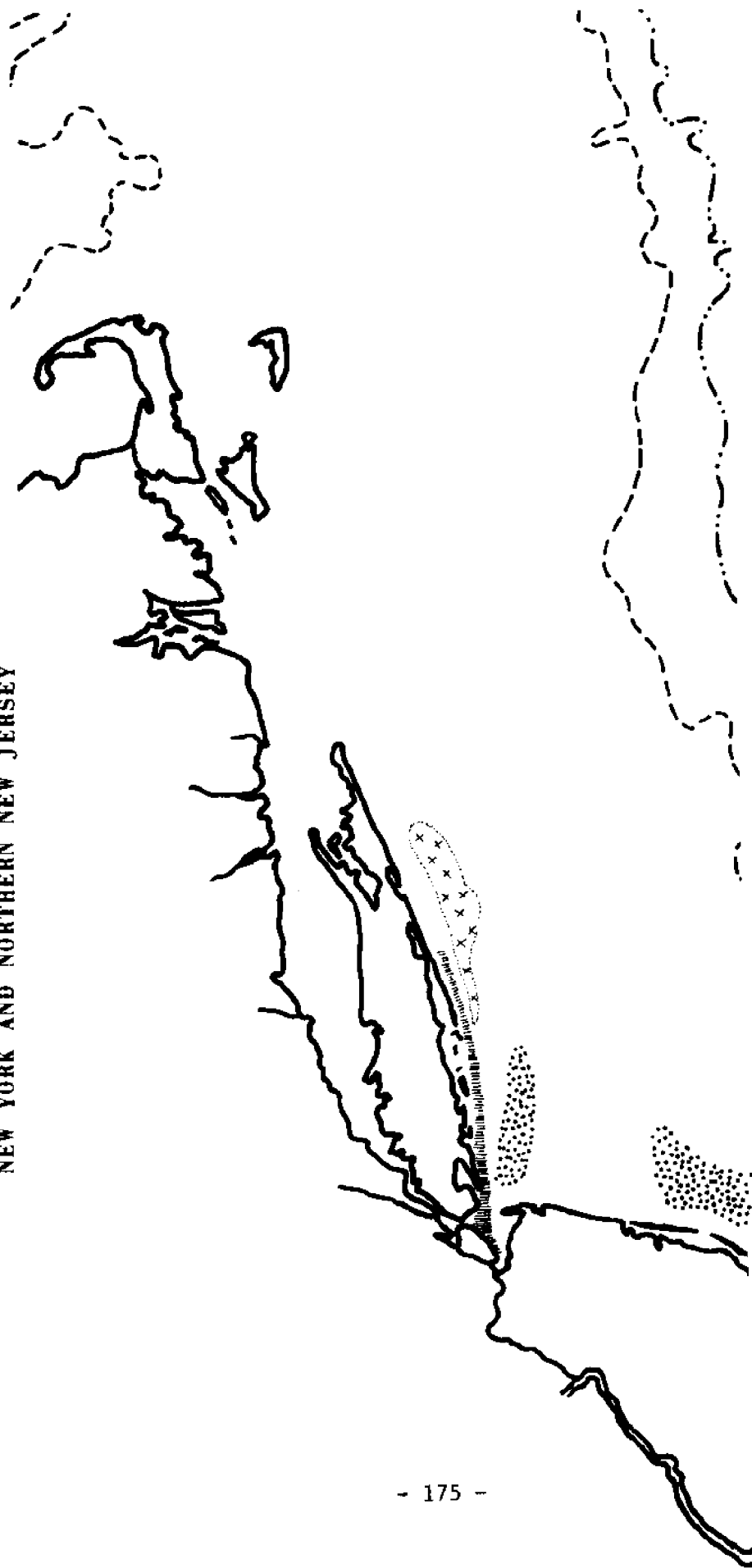
COMMERCIAL FISHERY (1965):

NEW YORK 1,500,000 lbs. Taken principally from beds 2-10 miles offshore to the south of Long Island and beds off Point Pleasant, New Jersey. Also taken in moderate quantities along the south shore of Long Island from Lower Bay to Moriches Bay in depths to 15 fathoms. Large unexploited beds occur from Rockways to Shinnecock Inlet and offshore from Shinnecock Bay.

NEW JERSEY 42,000,000 lbs. Major beds are located 2-12 miles offshore between Barnegat Lightship and Point Pleasant in 8 to 20 fathoms, and off Wildwood in 6 to 20 fathoms. Industry has expanded from 11 1/2 million pounds in 1956, and could grow larger still if a market existed. The fishery for surf clams is by far the most valuable New Jersey fishery. Density of stippling on accompanying maps indicates relative productivity.

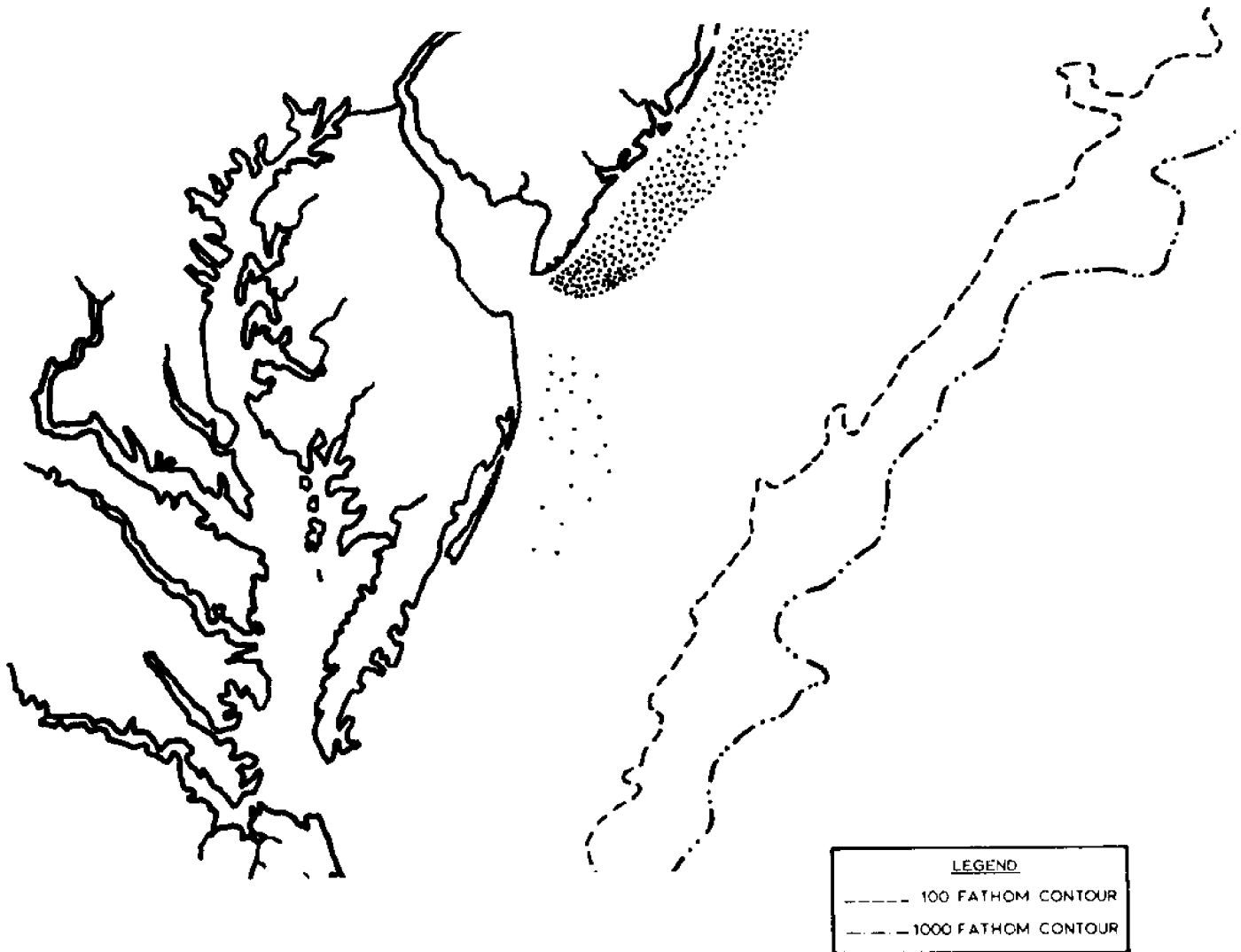
MARYLAND 275,000 lbs. Present commercial beds are 3-70 miles off the coast in 3-18 fathoms (see map). Production has declined since 1956, and the fishery is no longer important. Exploratory fishing has revealed the presence of commercial concentrations of surf clams in several locations off the coast of Maryland and Virginia, especially off Chincoteague.

SURF CLAM (SPISULA SOLIDISSIMA)  
NEW YORK AND NORTHERN NEW JERSEY



**SURF CLAM (SPISULA SOLIDISSIMA)**

**SOUTHERN NEW JERSEY, DELAWARE, MARYLAND AND VIRGINIA**



See text for details

CALICO SCALLOP (PECTEN GIBBUS)

GENERAL RANGE: North Carolina to the Gulf of Mexico and West Indies

COMMERCIAL FISHERY (1965):

NORTH CAROLINA 871,000 lbs. Taken offshore south of Cape Lookout. This is a new fishery, apparently of considerable potential.

COMMENTS:

Experimental trawling has revealed the presence of large beds of calico scallops in commercial concentrations off Cape Canaveral, Florida in depths between 20 and 60 fathoms (see map). A large commercial fishery may develop.

CALICO SCALLOP (PECTEN GIBBUS)

NORTH CAROLINA



CALICO SCALLOP (PECTEN GIBBUS)

FLORIDA EAST COAST



SEA SCALLOP (PLACOPECTEN MAGELLANICUS)

GENERAL RANGE: Labrador to Cape Hatteras, North Carolina

COMMERCIAL FISHERY (1965):

NEW JERSEY 1,896,000 lbs. More than 90 percent of the catch is taken on scattered grounds off Cape Henry, Virginia and from varying locations north to Cape May. Catches over the preceding 10 years have varied between 140,000 lbs. and 900,000 lbs.

VIRGINIA 2,830,000 lbs. Taken on offshore grounds between Cape May, New Jersey and Cape Hatteras, North Carolina.

NORTH CAROLINA 92,000 lbs. Taken on grounds between Cape Henry, Virginia and Cape Hatteras. Commercial fishery commenced in 1965.

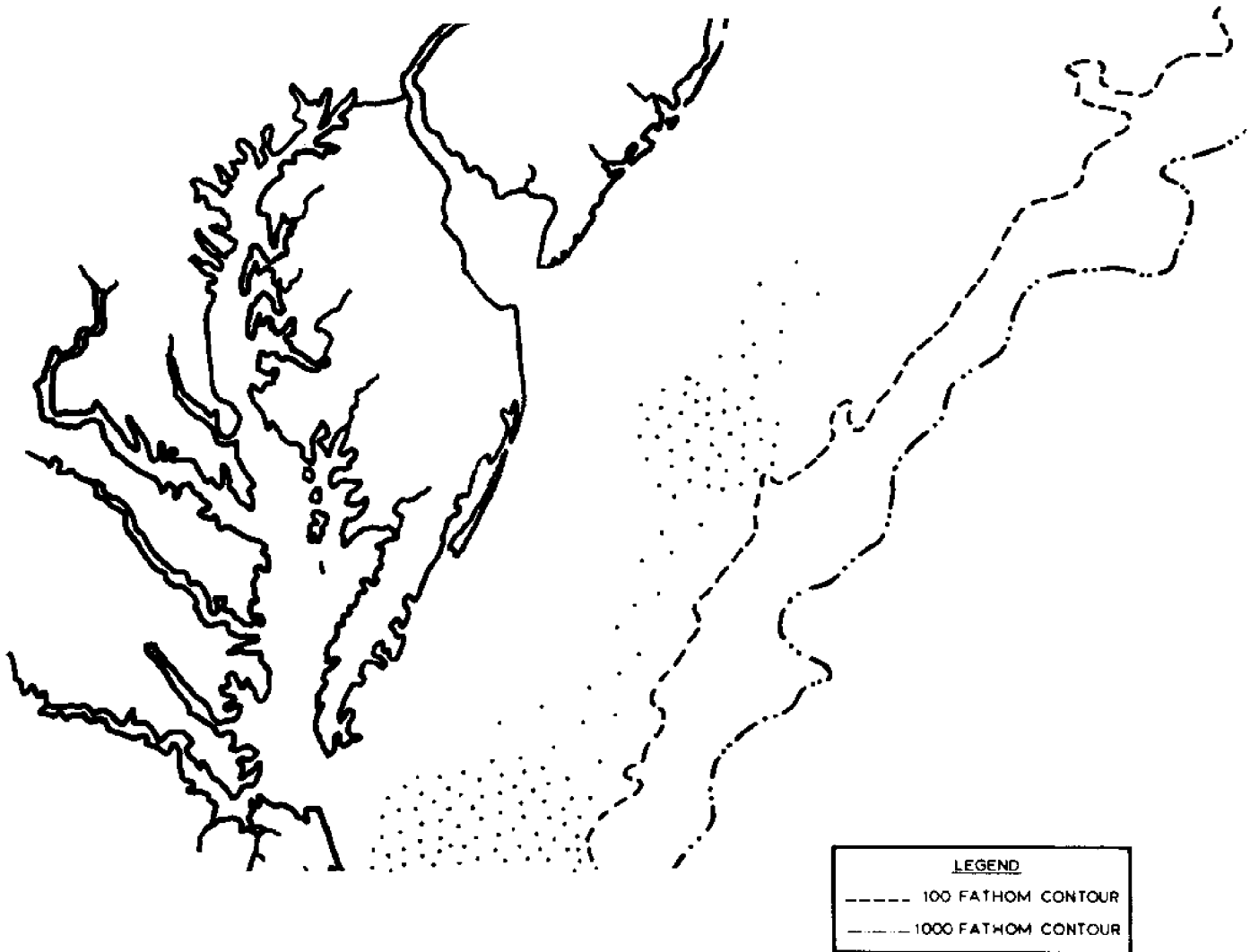
COMMENTS:

The open circulation in Atlantic coastal waters results in few concentrations of scallops, and these do not populate the same location each year. Consequently, productive beds are quickly depleted and the fishery moves to new locations at frequent intervals.

Although large quantities of sea scallops are landed at New York ports, the majority of these are taken on Georges Bank. No commercial fishery for sea scallops exists in New York waters although commercial quantities have been discovered occasionally.

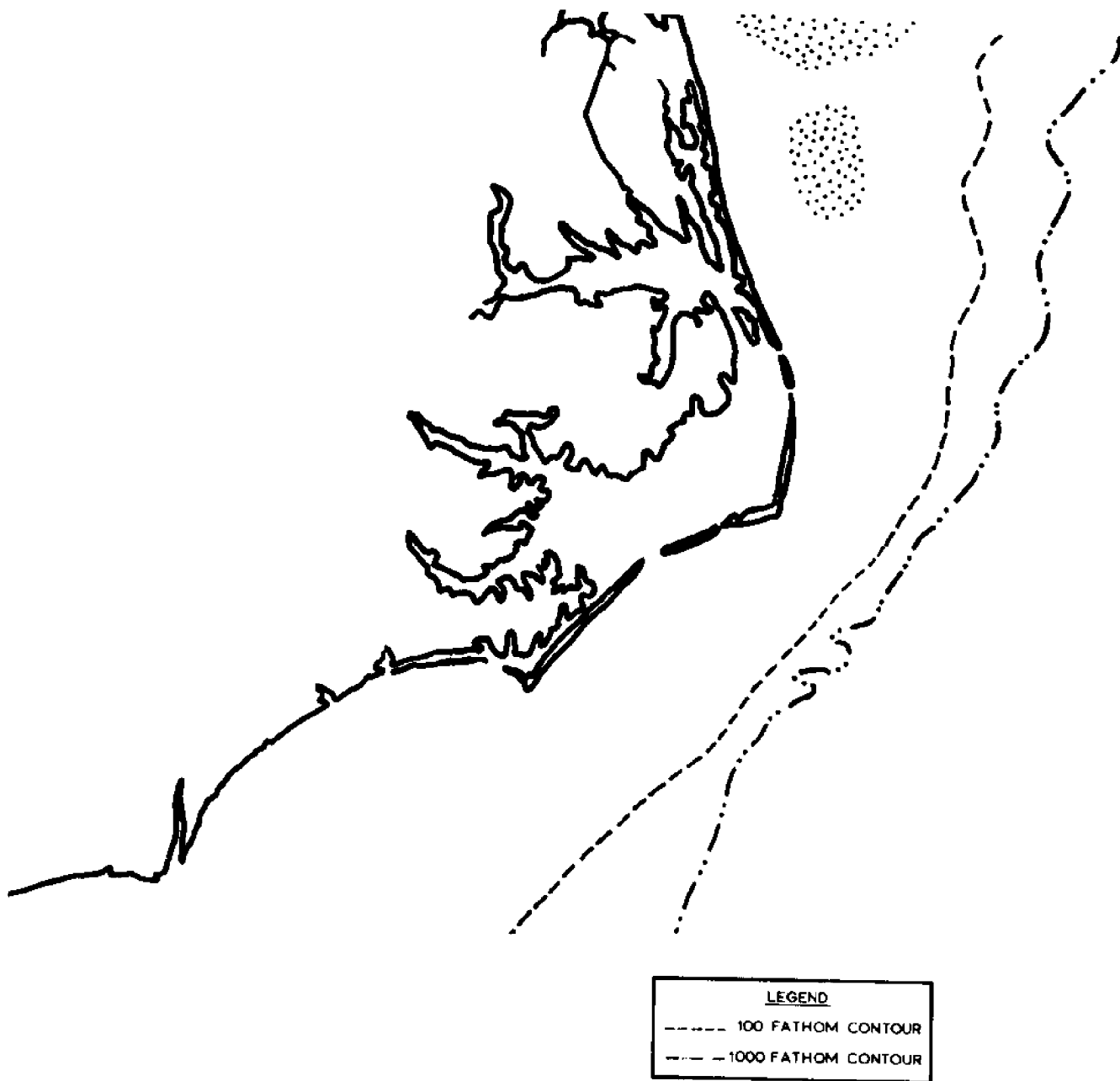
SEA SCALLOP (*PLACOPECTEN MAGELLANICUS*)

SOUTHERN NEW JERSEY, DELAWARE, MARYLAND AND VIRGINIA



SEA SCALLOP (*PLACOPECTEN MAGELLANICUS*)

NORTH CAROLINA



BAY SCALLOP (PECTEN SP.)

GENERAL RANGE: Labrador to northern Florida

COMMERCIAL FISHERY (1965):

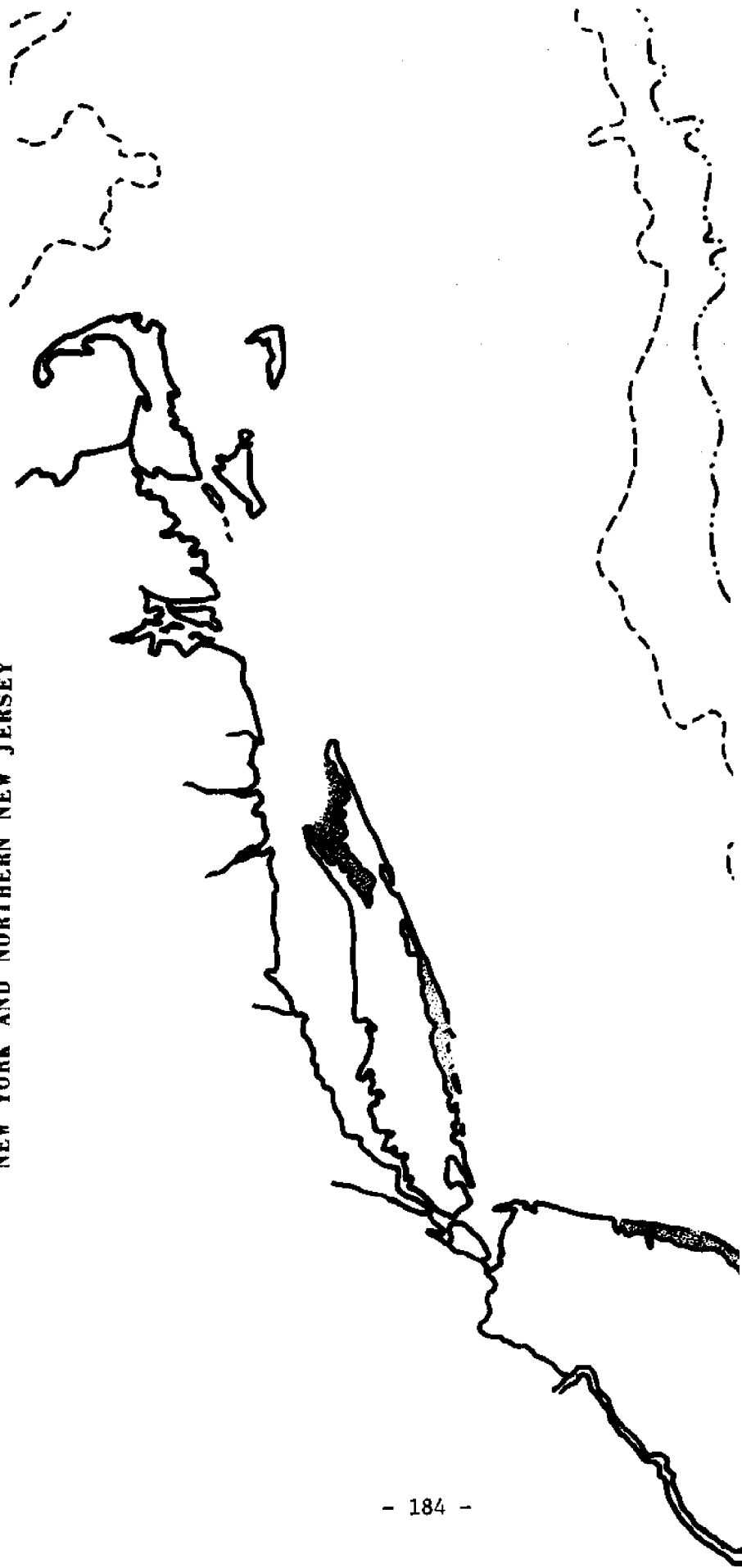
NEW YORK 886,000 lbs. Almost 800,000 lbs. taken from Gardiners and Peconic Bays; 86,000 lbs. from Great South Bay.

NEW JERSEY 96,000 lbs. All taken from Barnegat Bay. Production has fluctuated between zero and 376,000 lbs. during the period 1956-1965.

NORTH CAROLINA 379,000 lbs. From Bogue Sound and Core Sound. Fishery has increased steadily from 125,000 lbs. in 1956.

BAY SCALLOP (PECTEN SP.)

NEW YORK AND NORTHERN NEW JERSEY



LEGEND  
- - - 100 FATHOM CONTOUR  
— 1000 FATHOM CONTOUR

BAY SCALLOP (PECTEN SP.)

NORTH CAROLINA



SQUID (LOLIGO PEALII)

GENERAL RANGE: Nova Scotia to the Gulf of Mexico

COMMERCIAL FISHERY (1965)

NEW YORK 974,000 lbs. Almost entirely by otter trawls within 3 miles of the shore; Gardiners Bay and the south shore of Long Island (see map). Considerable potential.

NEW JERSEY 66,000 lbs. Lowest catch in 10 years. Taken by otter trawlers on inshore grounds. High potential if market could be developed, either for human consumption or bait.

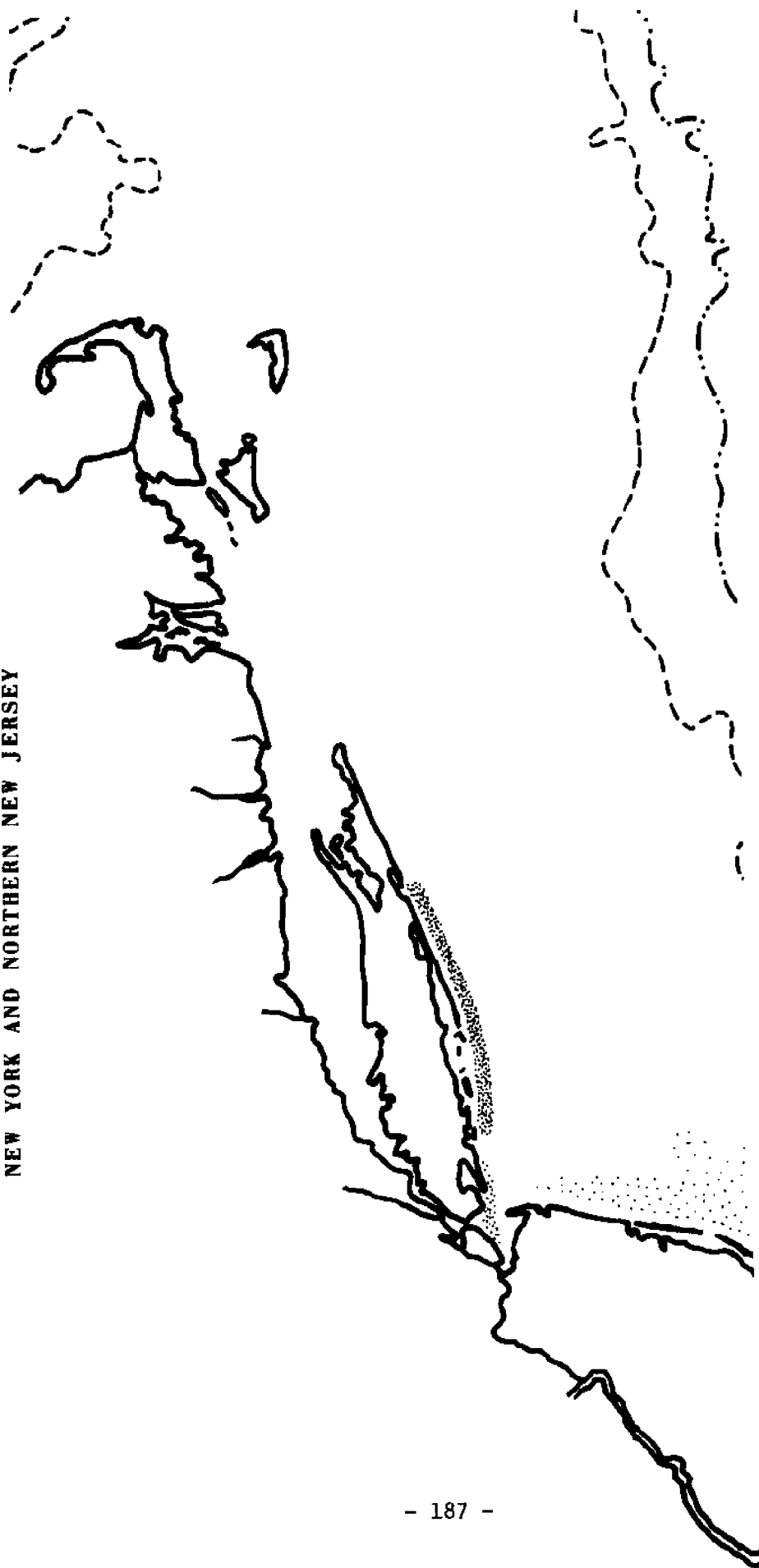
VIRGINIA 223,000 lbs. Taken mainly by otter trawlers on offshore grounds during winter fishery for porgy (see map).

COMMENTS:

The resource is under-exploited; high yields could be sustained if market conditions permitted an intensive fishery.

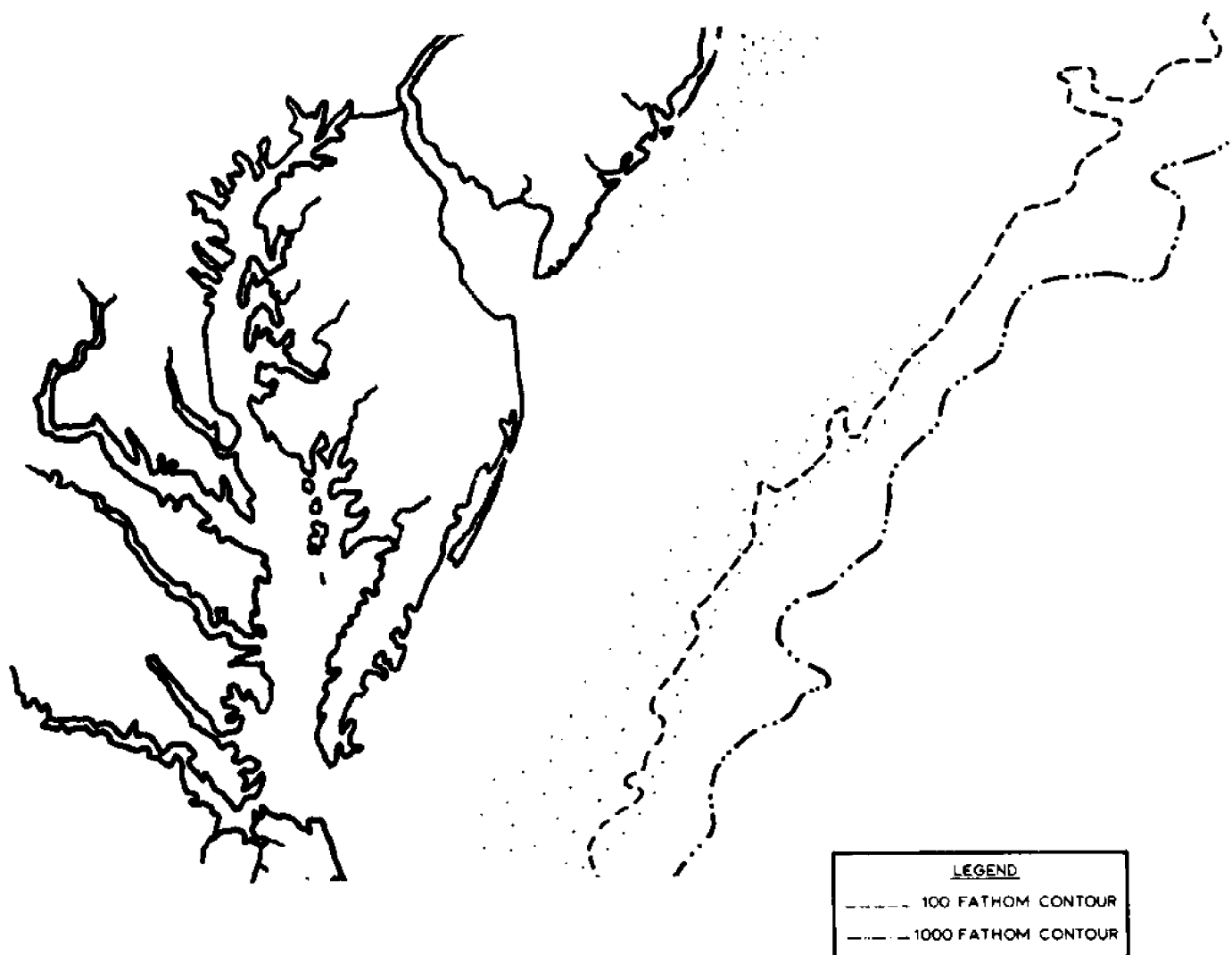
**SQUID (LOLIGO PEALII)**

**NEW YORK AND NORTHERN NEW JERSEY**



**SQUID (LOLIGO PEALII)**

**SOUTHERN NEW JERSEY, DELAWARE, MARYLAND AND VIRGINIA**



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## APPENDIX I.

Tables of landings of important species, ranked by value,  
by state, 1956 to 1965.

Compiled from: Fishery Statistics of the United States,  
U. S. Fish & Wildlife Service, Statistical Digest Nos. 43-59.

(With a few exceptions, species worth less than \$6,000 in  
1965 are omitted.)

NEW YORK

(Value in Thousands of Dollars)

Species	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956
Hard Clams	5,149	4,136	3,581	2,926	2,493	2,392	2,099	1,869	1,948	1,975
Sea Scallops	1,898	1,115	895	1,097	1,117	976	1,419	967	886	1,445
Porgy	747	784	784	743	874	767	835	908	788	726
Bay Scallops	721	731	292	722	555	674	383	362	407	138
Fluke	557	445	366	363	459	514	501	459	524	729
Lobster	446	306	210	163	228	181	230	123	133	156
Menhaden	417	516	1,014	1,263	949	848	959	778	1,660	1,688
Oysters	322	316	572	1,079	1,069	905	908	987	1,019	1,001
Yellowtail Flounder	262	233	288	306	153	122	78	62	17	27
Whiting	161	159	111	122	113	130	104	102	151	53
Bluefish	157	109	102	102	105	99	60	29	68	71
Striped Bass	140	141	97	96	148	148	122	114	148	111
Surf Clams	127	109	91	76	65	85	61	69	220	306
Blackback Flounder	119	74	99	95	109	117	105	188	108	60
Seabass	84	96	109	102	77	99	115	130	107	66
Butterfish	70	126	148	151	180	175	273	291	204	181
Squid	66	74	68	84	89	68	56	69	73	56
Soft Clams	67	56	28	27	38	44	86	67	72	67
Cod	53	72	138	113	104	110	182	217	190	159
Mussels	44	17	11	3	2	2	5	6	2	6
Eels (common)	39	26	27	18	29	31	39	49	39	47
Swordfish	30	58	17	22	22	28	41	41	5	7
Shad	22	23	39	33	46	67	79	75	62	64
Swellfish	21	23	43	21	17	16	8	11	22	20
Red Hake	21	17	18	12	13	13	8	20	19	20
Silversides	21	16	18	15	20	23	7	12	13	17
Gray Weakfish	14	12	19	9	10	15	9	14	25	30
Mackerel	12	21	19	18	15	23	14	11	8	22
Conchs	10	8	5	3	2	5	3	2	2	3
Herring	6	3	2	1	2	2	2	3	3	4
White Perch	6	16	4	2	2	3	3	4	8	2
Sharks	5	3	4	3	3	2	2	1	2	1
Haddock	--	--	--	--	6	7	1	--	12	4
Tilefish	--	--	4	15	13	9	10	12	14	23

NEW YORK

(Weight in Thousands of Pounds)

Species	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956
Hard Clams	5,948	5,402	5,311	4,836	4,291	3,888	3,407	3,737	3,582	3,575
Sea Scallops	2,917	2,044	1,925	2,718	3,020	2,790	2,986	2,011	2,019	2,672
Porgy	7,537	8,344	9,308	10,695	12,055	12,969	13,490	14,319	11,761	10,892
Bay Scallops	886	687	303	988	791	843	381	594	602	150
Fluke	2,451	1,854	1,306	1,590	2,324	2,512	2,809	2,341	3,488	4,260
Lobster	649	547	380	315	502	506	568	357	378	452
Menhaden	30,140	42,425	91,650	138,256	84,068	84,161	75,783	55,299	116,770	114,397
Oysters	200	213	394	728	788	810	890	1,057	1,067	1,070
Yellowtail Flounder	3,671	3,562	4,669	3,893	2,047	1,159	612	520	169	224
Whiting	3,338	3,123	2,368	2,723	2,628	3,593	2,069	2,020	3,653	1,540
Bluefish	1,036	675	697	758	505	414	262	116	438	371
Striped Bass	740	995	673	657	910	731	538	398	553	395
Surf Clams	1,505	1,218	974	840	722	722	514	429	1,599	2,368
Blackback Flounder	2,245	1,441	1,843	1,626	1,695	1,640	1,310	2,011	1,455	862
Seabass	381	501	576	524	313	524	612	842	809	510
Butterfish	766	1,067	1,151	1,611	1,686	1,839	2,563	3,040	2,481	1,501
Squid	974	1,007	872	1,456	1,186	1,035	740	1,232	996	705
Soft Clams	205	181	99	93	143	153	262	206	160	155
Cod	366	516	882	1,028	1,166	998	1,953	2,200	1,722	1,325
Mussels	295	125	74	27	18	14	29	36	10	29
Eels (common)	265	174	202	129	213	228	238	270	204	236
Swordfish	88	171	47	41	49	49	100	84	13	14
Shad	133	141	202	243	303	418	672	644	627	704
Swellfish	402	550	948	538	492	299	138	230	500	284
Red Hake	667	666	647	456	457	418	288	601	571	501
Silversides	145	156	165	161	189	205	96	140	122	157
Gray Weakfish	73	56	86	48	53	89	45	88	199	211
Mackerel	91	164	79	84	79	141	71	158	36	95
Conchs	43	41	22	18	14	26	17	9	10	22
Herring	277	155	87	63	164	197	135	296	210	418
White Perch	37	137	26	13	15	18	22	34	75	20
Sharks	97	75	80	58	67	51	59	45	60	12
Raddock	--	--	--	--	60	81	5	2	161	43
Tilefish	--	--	28	125	102	78	66	89	123	175

NEW JERSEY

(Value in Thousands of Dollars)

Species	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956
Surf Clams	3,048	2,504	2,580	1,917	1,693	1,546	1,622	1,317	1,867	1,277
Menhaden	1,271	970	2,197	3,902	3,625	2,957	3,460	2,543	5,118	6,335
Sea Scallops	1,153	79	83	37	121	177	395	130	154	255
Porgy	888	847	1,067	994	916	796	795	510	379	328
Hard Clams	860	820	635	536	732	900	692	896	824	980
Fluke	856	865	1,047	973	953	967	900	1,022	842	933
Oysters	714	1,024	558	1,423	934	161	190	675	1,782	3,023
Lobster	562	516	337	369	570	475	354	332	232	296
Swordfish	438	103	90	16	12	9	10	4	5	-
Sea Bass	344	335	334	342	273	362	493	464	383	394
Striped Bass	164	174	106	91	49	25	49	18	35	12
Whiting	156	154	143	157	122	127	107	129	113	84
Bluefish	116	87	97	119	89	84	70	19	131	151
Bluecrabs	105	84	112	171	78	178	112	91	133	69
Butterfish	95	133	125	162	157	144	141	109	117	129
Bluefin Tuna	85	139	156	1	-	-	-	-	-	-
Mackerel	72	49	20	5	39	29	10	27	24	23
Gray Weakfish	50	47	37	59	47	43	50	71	147	186
Conchs	48	39	112	23	28	53	26	39	29	25
Bay Scallops	45	155	112	129	66	--	3	51	40	288
Shad	40	54	90	73	110	124	123	131	148	139
Squid	33	22	42	32	38	12	24	21	20	23
Cod	28	45	143	175	233	299	270	99	47	97
Red Hake	19	19	20	19	22	24	20	26	20	20
Eels	18	11	5	4	6	10	13	12	18	14
Blackback Flounder	14	21	11	7	10	7	4	8	6	4
Soft Clams	14	9	6	7	9	19	40	27	39	36
White Perch	9	11	8	14	10	7	10	7	8	10
Shrimp	6	2	7	7	6	5	4	8	26	19
Mullet	6	9	9	2	4	4	5	1	1	1
Herring	6	6	3	4	4	6	9	4	7	20
Bonito	6	1	4	3	5	6	9	3	6	-

NEW JERSEY

(Weight in Thousands of Pounds)

Species	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956
Surf Clams	42,307	36,875	37,548	29,830	26,697	23,448	20,164	12,462	15,224	11,583
Menhaden	74,373	64,279	178,377	375,527	328,208	305,927	296,100	200,550	418,512	486,224
Sea Scallops	1,896	140	174	97	348	566	963	305	341	492
Porgy	9,098	8,551	12,729	14,879	13,687	13,669	12,653	8,941	7,872	6,066
Hard Clams	1,873	1,894	1,584	1,340	1,687	2,552	2,011	2,580	2,355	2,885
Fluke	3,620	3,670	4,444	4,749	6,031	6,355	6,294	8,109	5,059	6,357
Oysters	523	1,098	516	1,554	1,100	167	207	829	2,720	5,503
Lobster	1,019	1,061	750	871	1,549	1,370	1,097	990	668	888
Swordfish	1,001	307	193	26	23	20	25	13	13	--
Sea Bass	2,146	2,195	2,812	2,621	1,497	2,206	3,739	4,227	3,636	4,207
Striped Bass	761	996	753	494	276	114	196	59	132	50
Whiting	3,729	3,271	3,409	3,912	3,680	3,821	2,484	2,583	3,007	2,212
Bluefish	870	541	823	1,092	462	443	376	91	916	1,019
Bluecrabs	938	579	525	1,661	703	1,550	983	873	1,219	701
Butterfish	1,181	1,187	1,386	2,113	2,358	2,343	1,798	1,828	1,777	1,751
Bluefin Tuna	1,261	2,758	2,828	5	3	5	18	2	2	5
Mackerel	648	314	101	21	251	175	72	161	138	120
Gray Weakfish	596	545	333	650	418	526	372	546	2,025	2,002
Conchs	184	191	524	166	210	312	258	318	240	196
Bay Scallops	96	376	274	365	71	--	4	94	72	314
Shad	392	430	442	480	633	781	1,026	964	1,384	1,316
Squid	66	377	796	544	580	176	352	374	413	299
Cod	165	283	1,106	1,484	2,405	3,554	3,283	1,261	432	1,040
Red Hake	676	628	769	769	1,062	1,021	655	977	970	735
Eels	92	79	24	22	30	41	62	62	77	59
Blackback Flounder	279	357	185	126	152	106	74	114	100	68
Soft Clams	34	22	15	17	21	45	94	87	125	96
White Perch	59	79	63	96	74	58	72	65	73	81
Shrimp	6	2	7	7	6	5	4	8	26	18
Mullet	29	42	44	11	18	20	23	4	4	7
Herring	250	302	151	206	212	324	506	274	377	947
Bonito	51	6	55	23	41	45	96	23	51	--

DELAWARE

(Value in Thousands of Dollars)

Species	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956
Menhaden	579	378	1,059	2,783	3,356	2,751	3,149	3,776	3,666	4,625
Hard Clams	185	185	106	146	232	192	126	104	156	255
Blue Crab	47	33	35	128	67	231	126	186	417	424
Oysters	28	27	25	60	18	119	158	1,717	2,227	783
Gray Weakfish	21	14	17	16	24	1	21	33	71	57
Shad	16	19	13	15	13	6	4	6	1	4
Cod	7	6	11	4	3	1	-	-	-	-
Fluke	6	4	3	4	11	5	13	28	7	9
Bals	5	2	1	1	1	1	3	3	3	2
Striped Bass	4	6	9	11	12	5	3	5	4	7
Croaker	-	-	-	-	-	-	1	-	19	2
Spot	-	-	-	-	-	-	2	2	9	12
Surf Clams	-	-	-	9	-	48	170	93	18	-

DELAWARE

(Weight in Thousands of Pounds)

Species	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956
Menhaden	46,498	32,554	102,824	268,704	302,773	280,711	281,141	269,667	286,272	352,947
Hard Clams	363	418	262	378	582	484	343	322	505	804
Blue Crab	558	315	525	1,910	813	2,149	1,650	2,455	4,923	3,580
Oysters	34	45	41	80	33	177	295	2,410	4,194	1,893
Gray Weakfish	221	127	148	143	134	8	182	325	1,282	958
Shad	110	150	100	118	90	38	28	59	4	12
Cod	48	53	88	38	32	19	4	-	-	-
Fluke	28	16	17	24	76	44	95	209	48	60
Eels	34	12	12	10	6	7	27	26	38	15
Striped Bass	32	31	48	108	66	25	12	22	16	28
Croaker	-	-	-	-	-	-	9	3	167	27
Spot	-	-	-	-	-	-	20	17	132	197
Surf Clams	-	-	-	99	-	478	1,750	780	192	2

MARYLAND - CHESAPEAKE BAY

(Value in Thousands of Dollars)

Species	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956
Oysters	5,372	5,096	5,293	5,872	7,396	8,008	6,637	6,306	6,757	8,792
Blue Crabs	3,345	2,851	1,889	2,534	2,069	2,124	2,063	1,937	2,086	1,850
Soft Clams	1,548	1,667	1,499	1,513	1,231	1,594	1,425	1,306	915	927
Striped Bass	539	537	533	642	609	675	744	716	458	542
White Perch	194	79	102	169	95	85	126	77	48	81
Menhaden	153	91	54	77	59	49	33	23	36	28
Shad	150	116	132	203	289	206	183	301	299	260
Swellfish	39	24	25	17	10	11	13	2	-	2
Hard Clams	35	29	12	4	-	-	-	-	-	38
Alewives	31	26	22	29	34	53	90	88	55	100
Eels	20	18	13	8	13	13	27	42	42	55
Spot	-	5	1	3	1	36	6	70	34	26
Croaker	-	1	1	3	14	156	172	69	125	211

MARYLAND - CHESAPEAKE BAY

(Weight in Thousands of Pounds)

Species	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956
Oysters	8,338	7,690	7,550	7,906	9,977	11,399	11,379	11,537	13,485	15,844
Blue Crab	33,849	25,790	18,836	31,333	29,255	29,343	22,701	28,688	30,810	23,037
Soft Clams	7,654	8,164	6,858	6,767	4,692	5,569	4,481	3,917	2,744	2,780
Striped Bass	2,939	3,298	3,743	3,978	5,387	4,408	4,349	3,105	1,858	2,150
White Perch	1,450	638	1,371	1,997	1,316	876	1,102	698	570	815
Menhaden	8,333	5,701	3,293	4,316	3,575	2,904	2,203	2,274	2,399	1,375
Shad	1,342	889	826	1,575	1,815	1,333	1,481	1,900	2,356	2,092
Swellfish	1,851	784	968	710	456	373	420	51	1	50
Hard Clams	63	57	24	10	-	-	-	-	-	124
Alewives	2,097	1,314	1,466	2,378	2,444	3,524	4,483	4,391	3,410	5,026
Bels	195	186	132	113	159	194	279	401	424	466
Spot	4	26	11	26	10	464	66	586	372	257
Croaker	-	2	1	11	49	586	837	631	1,279	1,505

VIRGINIA - CHESAPEAKE BAY

(Value in Thousands of Dollars)

Species	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956
Oysters	8,781	8,811	6,703	7,797	12,331	9,629	11,128	11,639	8,670	8,968
Menhaden	4,674	4,142	2,922	3,184	2,181	1,858	3,642	2,917	871	642
Blue Crab	3,741	3,316	2,591	2,664	2,118	2,130	1,603	1,150	1,908	1,882
Hard Clams	546	587	480	381	317	259	140	152	202	190
Alewives	520	490	459	492	288	234	244	237	284	302
Striped Bass	432	301	356	278	289	313	325	209	149	160
Shad	305	325	347	311	221	234	305	404	486	450
Spot	243	511	223	214	110	345	321	273	217	173
Gray Weakfish	177	154	112	150	149	71	62	74	132	272
Butterfish	176	57	57	98	57	31	40	26	18	33
Eels	156	20	55	33	30	22	57	61	49	64
Croaker	149	50	7	278	537	595	1,069	887	1,263	579
Swellfish	131	65	19	9	16	22	11	4	17	15
Fluke	78	67	41	46	42	51	74	51	62	92
Soft Clams	46	-	-	1	1	-	9	3	8	16
Harvestfish	27	11	8	6	19	20	30	21	25	32
White Perch	26	19	28	39	35	36	41	51	37	37
Bluefish	18	52	73	59	38	11	14	10	15	13
Conchs	18	12	21	23	6	3	1	-	1	3
Spanish Mackerel	11	5	10	2	20	3	3	-	4	3
Spotted Seatrout	10	6	7	6	15	11	29	14	22	36

VIRGINIA - CHESAPEAKE BAY

(Weight in Thousands of Pounds)

Species	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956
Oysters	10,891	12,105	8,685	9,390	14,941	13,512	17,844	20,343	17,817	19,430
Menhaden	313,271	284,812	226,602	262,765	200,160	202,991	341,302	217,831	78,005	51,949
Blue Crab	45,619	46,726	42,948	49,517	40,418	36,768	18,927	17,177	23,746	24,715
Hard Clams	1,024	1,185	1,005	793	691	598	307	256	339	342
Alewives	36,200	26,640	26,085	25,293	15,518	15,444	17,437	18,341	18,710	22,091
Striped Bass	2,210	1,885	2,743	1,926	1,848	2,264	2,073	1,307	929	995
Shad	2,933	2,637	2,309	2,216	1,324	1,344	1,766	2,248	2,915	3,186
Spot	1,702	3,095	1,394	2,251	1,131	3,752	3,547	4,342	2,989	2,840
Gray Weakfish	1,968	1,511	1,007	1,384	1,039	578	539	1,025	1,498	2,865
Butterfish	2,078	648	693	1,076	649	359	480	515	261	551
Eels	742	313	440	207	217	184	507	399	339	448
Croaker	1,448	335	26	1,228	2,930	3,582	6,766	9,745	11,455	7,202
Swellfish	10,267	3,956	983	399	533	819	332	124	458	532
Fluke	478	339	184	218	234	312	462	433	392	613
Soft Clams	220	-	-	3	3	-	29	7	23	38
Harvestfish	277	103	85	60	203	214	324	302	282	359
White Perch	306	266	342	449	432	551	767	744	737	738
Bluefish	195	382	586	479	254	84	105	127	136	149
Conchs	183	210	256	317	77	26	20	16	28	46
Spanish Mackerel	73	33	79	14	123	20	18	7	23	16
Spotted Seatrout	40	23	25	27	74	55	139	57	110	193

MARYLAND - OCEAN WATERS

(Value in Thousands of Dollars)

Species	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956
Oysters	433	365	326	310	406	419	597	361	588	-
Fluke	144	108	120	156	93	164	179	192	160	149
Hard Clams	100	142	253	174	217	74	106	100	174	-
Bluefin Tuna	97	186	50	-	-	-	-	-	-	-
Blue Crabs	89	20	15	15	11	29	33	81	68	-
Porgy	38	12	3	5	4	5	14	5	11	8
Sea Bass	29	29	26	29	19	17	19	25	19	23
Surf Clams	22	3	5	6	6	34	70	93	134	173
Gray Weakfish	19	14	7	8	17	13	7	9	21	26
Butterfish	12	2	4	6	5	1	2	1	3	5
Sturgeon	5	2	1	1.5	3	2.5	-	2	2	2
Sharks	3	4	3	4	2	3	1	2	1	1
Whiting	3	3	5	4	2	2.5	2	2	1	1
Conchs	3	3	4	3	6	5	4	5	6	4
Skipjack	1	11	198	-	-	-	-	-	-	-
Yellowfin	-	36	54	-	-	-	-	-	-	-
Croaker	-	-	-	-	-	-	1	3	10	28

MARYLAND - OCEAN WATERS

(Weight in Thousands of Pounds)

Species	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956
Oysters	282	285	206	231	359	371	587	488	659	-
Fluke	718	537	536	706	536	1,028	1,334	1,452	1,142	991
Hard Clams	180	275	466	373	457	172	243	274	373	-
Bluefin Tuna	824	1,449	571	-	-	-	2	-	-	-
Blue Crabs	843	248	205	219	195	513	459	1,673	1,028	-
Porgy	422	218	68	102	99	104	278	107	179	127
Sea Bass	243	293	304	339	138	128	156	252	205	229
Surf Clams	275	31	64	75	71	419	850	791	934	1,850
Gray Weakfish	215	154	84	189	274	266	98	171	246	289
Butterfish	141	30	42	150	79	39	38	23	53	67
Sturgeon	35	15	7	8	13	11	3	6	7	9
Sharks	103	113	131	113	68	103	42	45	17	18
Whiting	109	131	190	168	66	111	96	76	49	33
Conchs	23	31	29	27	66	49	77	60	123	102
Skipjack	8	1,113	2,073	-	-	-	-	-	-	-
Yellowfin	-	277	439	-	-	-	-	-	-	-
Croaker	-	-	-	-	-	-	1	28	121	243

VIRGINIA - OCEAN WATERS

(Value in Thousands of Dollars)

Species	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956
Sea Scallops	1,725	95	22	33	131	290	166	102	21	13
Oysters	1,510	1,534	1,390	1,976	1,601	1,654	2,246	2,487	1,117	933
Hard Clams	791	633	430	431	548	497	692	273	232	251
Menhaden	575	656	373	700	966	363	732	1,387	2,249	1,782
Porgy	479	608	598	743	655	760	816	345	397	553
Blue Crab	427	530	283	288	248	312	284	143	168	201
Sea Bass	368	361	555	667	534	521	445	627	530	592
Fluke	286	209	304	337	327	369	444	228	212	233
Swordfish	112	218	79	-	-	-	-	-	-	-
Butterfish	54	37	6	41	82	62	76	41	15	31
Mackerel	44	35	16	27	61	76	27	46	22	9
Sharks	21	21	10	13	13	18	68	51	3	5
Lobsters	17	12	9	10	6	12	6	2	1	3
Swellfish	11	9	2	5	4	3	2	2	1	.5
Squid	11	11	13	17	16	22	5	1	8	6
Spot	5	19	13	10	5	17	19	85	34	22
Croaker	5	13	24	16	28	48	146	204	278	222

VIRGINIA - OCEAN WATERS

(Weight in Thousands of Pounds)

Species	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956
Sea Scallops	2,830	194	46	95	318	781	436	243	46	21
Oysters	1,678	2,045	1,832	1,410	1,223	1,829	3,511	4,960	2,273	1,790
Hard Clams	1,463	1,268	1,090	897	1,170	1,064	1,383	455	386	454
Menhaden	38,342	45,896	29,120	60,829	98,516	43,010	71,000	102,681	187,448	137,098
Porgy	6,271	10,928	9,550	11,157	11,256	13,400	11,518	6,809	6,323	11,043
Blue Crab	6,023	5,844	4,139	5,501	5,126	4,092	3,462	1,924	2,767	2,846
Sea Bass	4,771	3,751	4,312	4,125	3,210	3,656	3,256	5,716	4,194	5,891
Fluke	1,498	1,153	1,535	1,696	1,959	2,418	2,793	1,605	1,300	1,554
Swordfish	302	635	183	-	-	-	-	-	-	-
Butterfish	827	563	168	452	942	728	959	529	207	521
Mackerel	378	341	75	111	386	476	228	265	113	52
Sharks	526	1,263	412	357	420	765	1,438	1,088	108	150
Lobsters	44	28	22	23	14	31	18	6	2	8
Swellfish	401	392	138	233	161	117	57	70	29	14
Squid	223	206	253	224	314	284	98	16	128	104
Spot	49	103	81	98	52	154	207	914	482	367
Croaker	84	59	96	66	152	351	890	2,111	2,742	2,466

NORTH CAROLINA

(Value in Thousands of Dollars)

Species	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956
Menhaden	2,072	2,249	2,326	1,364	2,415	1,981	3,247	3,483	2,381	3,379
Shrimp	1,719	1,503	1,065	2,239	830	1,607	1,413	719	2,263	1,594
Blue Crab	1,348	1,308	983	528	644	748	888	738	673	426
Flounders	951	481	443	227	230	136	187	105	149	112
Oysters	473	415	357	485	616	560	587	434	479	564
Swordfish	283	233	1	-	-	-	-	-	-	-
Calico Scallops	245	-	-	-	9	45	3	-	-	-
Shad	214	127	168	191	168	127	105	123	209	193
Bay Scallops	196	173	122	67	42	27	51	58	37	63
Sea Bass	147	122	77	147	70	13	4	3	4	8
Hard Clams	137	98	130	99	196	173	136	111	98	52
Alewives	133	77	151	143	120	128	142	149	118	135
Gray Weakfish	130	134	134	150	127	124	167	216	157	147
Porgy	126	26	11	23	19	11	3	3	2	6
Southern Kingfish	119	96	111	161	136	84	72	98	144	115
Croaker	108	139	152	146	144	158	228	531	220	290
Mullet	83	90	122	161	175	259	159	158	145	176
Striped Bass	77	117	115	120	88	125	158	197	90	119
Spot	69	111	84	79	115	179	147	173	156	180
Sea Scallop	56	-	-	-	-	-	-	-	-	-
Spotted Seatrout	53	72	74	61	52	43	97	44	145	117
Bluefish	49	64	97	118	94	78	88	58	107	63
Butterfish	29	9	14	16	35	17	34	19	16	9
King Mackerel	28	18	10	10	9	10	6	12	8	1
White Perch	27	36	26	32	35	30	44	38	47	33
Sturgeon	15	7	9	7	6	4	3	3	2	2
Thread Herring	14	-	-	-	45	125	51	2	166	68
Swellfish	13	8	10	9	9	10	8	5	15	2
Bluefin Tuna	12	3	-	-	-	-	-	-	-	-
Spanish Mackerel	12	12	20	12	20	18	23	32	37	55
Black Drum	9	3	3	9	5	3	1	1	1	1
Red Drum	8	9	5	5	7	7	1	2	11	3
Harvestfish	8	1	2	1	3	3	7	7	16	29
Pigfish	8	7	5	10	13	5	5	4	11	8

NORTH CAROLINA

(Weight in Thousands of Pounds)

Species	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956
Menhaden	160,595	172,992	190,214	122,898	221,555	190,431	279,888	235,385	172,522	246,648
Shrimp	5,416	4,279	3,374	5,805	3,016	5,988	6,378	2,519	7,933	6,243
Blue Crab	22,571	24,162	18,918	12,319	15,981	15,028	14,863	12,599	11,636	8,316
Flounders	4,721	2,450	2,674	1,876	1,897	1,236	1,529	842	1,236	1,002
Oysters	864	728	694	962	1,209	1,216	1,311	1,041	1,086	1,318
Swordfish	524	483	1	-	-	-	-	-	-	-
Calico Scallops	871	-	-	-	22	112	6	-	-	-
Shad	1,069	640	693	765	673	507	419	493	837	773
Bay Scallops	379	340	321	168	106	69	128	169	109	125
Sea Bass	1,090	906	739	1,287	635	126	41	27	36	80
Hard Clams	313	255	332	247	490	432	340	278	243	148
Alewives	12,826	7,561	15,100	14,302	11,951	12,815	14,154	14,914	11,773	12,554
Gray Weakfish	1,959	1,966	1,761	2,160	2,308	2,240	2,913	3,810	2,210	1,842
Porgy	982	492	192	293	241	139	34	35	24	98
Southern Kingfish	1,337	1,141	1,071	1,262	1,476	927	780	1,054	1,600	1,434
Croaker	1,754	1,867	2,276	1,663	1,754	2,093	3,057	6,921	2,916	4,829
Mullet	1,260	1,220	1,911	2,285	2,194	3,236	2,326	2,229	2,127	2,194
Striped Bass	484	714	736	747	550	782	872	1,096	596	764
Spot	913	1,251	916	1,218	2,056	2,610	2,265	2,321	2,158	2,575
Sea Scallop	92	-	-	-	-	-	-	-	-	-
Spotted Seatrout	175	205	232	205	209	171	389	177	578	389
Bluefish	704	515	813	955	752	615	740	437	816	633
Butterfish	367	130	202	159	349	209	431	237	204	109
King Mackerel	139	88	53	49	43	48	31	59	46	7
White Perch	261	340	259	320	346	304	442	381	472	417
Sturgeon	77	34	43	49	40	23	19	22	16	12
Thread Herring	1,075	-	-	-	4	12,051	4,371	109	12,057	5,000
Swellfish	411	282	466	303	294	348	253	159	490	69
Bluefin Tuna	60	33	-	-	-	-	-	-	-	-
Spanish Mackerel	117	78	135	83	134	118	156	211	248	346
Black Drum	152	53	50	143	75	53	23	11	24	14
Red Drum	71	102	71	61	90	79	5	18	140	30
Harvestfish	125	17	20	17	41	52	104	102	224	416
Pigfish	83	87	82	168	228	88	88	68	186	221

SOUTH CAROLINA

(Value in Thousands of Dollars)

Species	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956
Shrimp	2,635	861	643	2,613	1,301	2,167	1,917	2,091	1,751	1,393
Oysters	903	997	1,556	1,168	1,095	920	379	288	370	442
Mullet	445	48	166	223	256	150	153	173	232	191
Blue Crab	369	375	423	293	186	534	263	242	179	95
Spot	148	213	146	188	207	109	73	50	106	131
Shad	61	28	33	32	35	34	26	23	25	41
Alewives	55	-	-	-	-	-	-	-	-	-
Southern Kingfish	32	69	32	36	47	19	3	3	7	13
Hard Clams	24	54	25	20	38	32	37	40	4	1
Flounders	23	12	30	27	20	11	6	7	11	14
Bluefish	11	38	18	1	-	-	-	-	8	7
Sea Bass	11	31	40	43	64	5	6	3	1	5
Spotted Seatrout	10	20	11	6	13	13	8	5	17	67
Pompano	9	13	55	20	20	3	4	13	17	-
Sturgeon	8	10	8	6	9	7	5	7	9	16

SOUTH CAROLINA

(Weight in Thousands of Pounds)

Species	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956
Shrimp	6,795	2,632	2,201	6,474	3,907	8,030	7,515	5,815	6,690	5,589
Oysters	2,805	2,511	3,827	2,674	2,544	2,627	1,918	1,437	1,845	2,186
Mullet	3,191	680	2,211	2,480	2,840	2,496	2,548	1,924	2,575	3,191
Blue Crab	7,420	9,436	8,839	6,338	4,672	7,121	4,772	4,839	3,584	1,902
Spot	1,174	3,166	2,719	3,135	3,468	2,721	1,841	842	2,098	4,182
Shad	176	120	120	115	110	106	80	71	80	116
Alewives	2,760	-	-	-	-	-	-	-	-	-
Southern Kingfish	315	246	246	296	360	219	66	53	97	157
Hard Clams	67	146	73	59	109	97	111	120	13	2
Flounders	91	46	125	133	95	54	30	33	62	86
Bluefish	84	316	114	5	1	1	1	3	71	53
Sea Bass	83	234	265	268	324	29	38	18	5	33
Spotted Seatrout	35	60	48	27	56	53	37	21	56	223
Pompano	24	30	130	52	50	10	14	45	30	-
Sturgeon	50	64	53	40	51	42	33	35	45	80

GEORGIA

(Value in Thousands of Dollars)

Species	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956
Shrimp	3,418	2,298	1,802	3,880	2,371	2,575	1,837	2,939	2,987	2,662
Blue Crabs	426	472	596	437	450	517	593	487	353	321
Shad	127	100	88	132	93	176	121	96	74	50
Oysters	87	69	82	51	47	59	61	35	28	36
Southern Kingfish	28	9	11	13	20	23	17	17	37	27

GEORGIA

(Weight in Thousands of Pounds)

Species	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956
Shrimp	8,585	5,939	5,448	8,610	6,810	10,403	7,602	8,746	8,788	7,991
Blue Crabs	10,259	11,532	14,500	12,303	12,312	15,766	12,682	10,185	8,968	8,542
Shad	376	314	331	527	404	533	391	319	247	168
Oysters	247	196	236	147	159	232	248	143	112	120
Southern Kingfish	253	91	125	166	247	282	214	214	462	337

FLORIDA

(Value in Thousands of Dollars)

Species	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956
Shrimp	2,388	1,971	1,736	2,543	2,437	2,163	1,360	2,209	2,149	2,157
Spiny Lobster	752	351	328	260	249	281	176	184	200	228
Menhaden	430	187	263	321	273	204	362	84	191	539
Blue Crab	410	449	490	433	344	348	337	373	331	369
King Mackerel	374	274	248	303	270	226	253	207	294	307
Spanish Mackerel	290	169	193	242	325	224	212	511	301	341
Red Snapper	215	194	151	191	187	197	175	189	197	105
Spotted Seatrout	175	206	192	184	179	209	184	175	225	259
Pompano	161	94	120	151	116	102	65	108	275	233
Southern Kingfish	153	120	95	105	88	155	101	144	135	141
Black Mullet	140	137	156	145	139	111	143	198	123	172
Spot	135	126	141	85	108	95	94	59	34	39
Stone Crab	100	84	63	41	9	16	23	12	3	1
Bluefish	92	111	114	132	93	115	136	93	122	84
Shad	82	60	63	81	70	61	65	65	47	45
Oysters	50	28	25	20	21	13	12	8	7	7
Flounders	40	31	30	33	25	25	18	26	24	46
Sponges	36	1	-	-	-	4	-	-	-	-
Yellowtail Snapper	33	38	24	22	23	27	23	22	39	28
Grouper	28	27	21	26	28	29	23	25	82	45
Red Drum	26	22	20	22	16	19	19	16	18	17
Gray Weakfish	24	15	8	3	6	5	4	3	3	1
Croaker	18	15	17	21	18	18	9	16	16	15
Mutton Snapper	17	16	17	14	10	11	7	17	-	-
Mangrove Snapper	14	17	15	12	10	10	8	18	27	26
Hard Clams	10	-	-	1	2	1	-	-	-	-
Black Drum	9	9	9	5	5	4	5	5	9	6
Sheepshead	7	8	5	5	4	8	4	5	5	3

FLORIDA

(Weight in Thousands of Pounds)

Species	1965	1964	1963	1962	1961	1960	1959	1958	1957	1956
Shrimp	5,395	4,491	4,506	5,189	6,016	6,793	4,511	5,504	5,179	5,695
Spiny Lobster	1,329	786	815	672	702	719	543	623	651	799
Menhaden	31,670	17,154	25,672	34,271	32,950	24,592	46,637	7,871	16,852	67,998
Blue Crab	5,963	6,953	8,595	7,869	7,436	6,962	6,613	7,997	6,533	8,049
King Mackerel	2,549	2,020	2,173	2,076	2,076	1,807	2,196	1,800	2,457	2,427
Spanish Mackerel	2,901	2,002	2,123	2,578	3,158	2,282	2,352	7,308	4,221	4,578
Red Snapper	625	542	485	640	678	667	629	589	643	342
Spotted Seatrout	682	764	801	756	750	890	768	763	886	1,069
Pompano	251	140	183	211	166	155	116	213	336	266
Southern Kingfish	1,790	1,364	1,146	1,222	1,061	1,759	1,145	1,799	1,591	1,758
Black Mullet	2,850	2,849	3,379	2,931	2,829	2,217	2,759	3,516	2,023	3,100
Spot	938	952	1,127	704	929	1,033	1,032	593	340	487
Stone Crab	218	191	157	98	25	50	70	31	8	2
Bluefish	855	1,202	1,362	1,393	979	1,090	1,284	845	1,107	771
Shad	758	613	590	760	425	468	540	589	361	376
Oysters	166	92	80	67	72	44	39	30	26	32
Flounders	234	189	190	201	169	153	109	162	140	272
Sponges	12	1	-	-	-	1	-	-	-	-
Yellowtail Snapper	123	144	103	88	95	98	86	86	147	100
Grouper	230	214	200	236	257	253	192	222	676	390
Red Drum	146	119	134	149	115	129	131	102	108	107
Gray Weakfish	298	107	72	26	57	54	34	29	19	7
Croaker	107	101	114	161	143	141	85	158	131	138
Mutton Snapper	64	65	83	62	46	53	36	77	-	-
Mangrove Snapper	72	85	84	66	52	56	45	104	140	134
Hard Clams	24	1	1	3	4	2	2	1	-	1
Black Drum	131	112	116	68	64	49	62	63	103	71
Sheepshead	88	96	71	66	54	90	46	59	66	37

## APPENDIX II.

List of commercial species not included in report or in Appendix I but appearing in United States Fish and Wildlife Service Statistical Digest.

Skates	( <u>Raja spp.</u> )
Gizzard shad	( <u>Dorosoma cepedianum</u> )
Conger eel	( <u>Conger oceanicus</u> )
Ballyhoo	( <u>Hemiramphus brasiliensis</u> )
Tomcod	( <u>Microgadus tomcod</u> )
Pollock	( <u>Pollachius virens</u> )
White hake	( <u>Urophycis tenuis</u> )
Snook	( <u>Centropomus undecimalis</u> )
Warsaw	( <u>Epinephelus nigrita</u> )
Jewfish	( <u>Epinephelus itajara</u> )
Vermilion snapper	( <u>Rhomboplites sp.</u> )
Cobia	( <u>Rachycentron canadus</u> )
Blue runner	( <u>Caranx crysos</u> )
Crevaille	( <u>Caranx hippos</u> )
Dolphin	( <u>Coryphaena hippurus</u> )
Permit	( <u>Trachinotus goodei</u> )
Mojarra	( <u>several species</u> )
Grunts	( <u>Haemulon spp.</u> )
Spadefish	( <u>Chaetodipterus faber</u> )
Hogfish	( <u>Lachnolaimus maximus</u> )
Sea robin	( <u>Prionotus spp.</u> )*
Tautog	( <u>Tautoga onitis</u> )
Ocean perch	( <u>Sebastes marinus</u> )
Barracuda	( <u>Sphyræna spp.</u> )
Gray sole	( <u>Glyptocephalus cynoglossus</u> )
Hogchoker	( <u>Trinectes maculatus</u> )
Anglerfish	( <u>Lophius americanus</u> )
Loggerhead turtle	( <u>Caretta sp.</u> )
Razor clams	( <u>Ensis spp.</u> )
Octopus	( <u>Paroctopus appollyon</u> )
Horseshoe crab	( <u>Limulus polyphemus</u> )
Sponges	( <u>Spongia spp.</u> ; <u>Hippospongia spp.</u> )

\*Sea robins probably constitute about 10 percent by weight of industrial fish landings although they are not reported specifically.

