Biological-Statistical Census of the Species Entering Fisheries in the Cape Canaveral Area

by William W. Anderson and Jack W. Gehringer

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By

WILLIAM W. ANDERSON and JACK W. GEHRINGER

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Figure 1.--South Atlantic coast of United States, with Cape Canaveral Area outlined.

Biological-Statistical Census of the Species Entering Fisheries in the Cape Canaveral Area

Ву

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ABSTRACT

For its size, the Cape Canaveral Area is one of the most productive of any along the south Atlantic coast of the United States. A great deal of this productivity relates to the unique river-lagoon complex.

Material is presented under six sections: The commercial fisheries, recreational fishery, fish taken incidental to shrimp trawling, fish and general invertebrate groups taken during exploratory fishing, zooplankton organisms, dip net and trolling collections.

The commercial fisheries produced an average of over 6 million pounds, valued at about \$1 million over the 4-year period 1959-62. Eight species (shrimp, black mullet, spotted sea trout, red snapper, blue crab, spot, pompano, and king whiting) contributed 91 percent of the weight and 94 percent of the value--shrimp, the most valuable fishery, was 23 percent of the weight and 54 percent of the value.

We estimate that the annual sport fishery catch is about 3 million fish weighing a total of about 3.2 million pounds. Nine species (in decreasing order of importance), spotted sea trout, pinfish, puffers, sea trout (other), catfish, king whiting, sheepshead, bluefish, and croaker, account for 76 percent of the total numbers of fish taken and 73 percent of the pounds. Spotted sea trout, the most important sport fish, represented 20 percent of the total numbers of fish and 33 percent of the weight. Estimates of annual total effort of sports fishermen are about 754,000 fishermen fishing about 2,749,000 hours. Fishing effort during spring, summer, and fall is about equal, but is reduced in winter to about half the value for other seasons. Total catch is highest during winter and spring, and lowest in summer.

Summaries of life histories are given for several of the more important species.

INTRODUCTION

The U.S. Atomic Energy Commission, because of concentrated activities related to missile and rocket firings and experimentation at Cape Canaveral, Fla.,¹ desired knowledge of the various species entering both the commercial and recreational fisheries including seasonal abundance, value, effort, summaries of available knowledge on life histories, and related information. The Bureau of Commercial Fisheries was requested to do the work, and this was accomplished under Agreement AT (49-7)-2239 with the U.S. Atomic Energy Commission.

The study area, designated the Cape Canaveral Area, is on the central east coast of Florida and extends from approximately 28°00' N. (Melbourne) to 29°10' N. (just north of Ponce de Leon Inlet) (fig. 1). It embraces most of Brevard and Volusia counties and includes a small portion of Halifax River, Mosquito Lagoon, upper portion of the Indian River, Banana River, and coastal waters from the coastline to the edge of the Continental Shelf (100 fathoms). Ponce de Leon Inlet, at the northern end of the area, is the only opening between the ocean and the inside waters. Location, configuration, and extent of Halifax River, Mosquito Lagoon, Indian River, Banana River, and land masses containing them are shown in figure 2.

¹Cape Canaveral was renamed Cape Kennedy after this report was completed.



Figure 2.--Cape Canaveral Area, offshore fishing reefs (see table 6 for list of reef areas by numbers shown on chart).

In the Atlantic Ocean there are two divisions of major interest: A narrow strip of water within a few miles of the coast; and the reef areas lying approximately between 10 and 50 fathoms.

This report is organized under six sections. The Commercial Fisheries--The basic data for this section were furnished by the Bureau of Commercial Fisheries Statistical Center, Miami, Fla. Fish Taken Incidental to Shrimp Trawling--These are unpublished data resulting from operations of the U.S. Bureau of Fisheries' vessel Launch 58 during the midthirties.

Fish and General Invertebrate Groups Taken During Exploratory Fishing--These are unpublished data resulting from exploratory fishing operations by the U.S. Bureau of Fisheries vessel M/V <u>Pelican</u> in 1940 and subsequent exploratory fishing operations of the Bureau-operated Motor Vessels <u>Combat</u>, <u>Pelican</u>, and <u>Silver Bay</u>.

Zooplankton Organisms of the Cape Canaveral Area--These data were abstracted from published and unpublished material resulting from cruises of the U.S. Fish and Wildlife Service M/V <u>Theodore</u> N. Gill during 1953 and 1954. Dipnet and Troll Collections--These few records were taken from published reports of <u>Theodore N. Gill</u> cruises.

Recreational Fishery of the Cape Canaveral Area--The basic data were obtained during field surveys conducted from February to October 1963.

THE COMMERCIAL FISHERIES

Landings for the commercial fisheries in the Cape Canaveral Area during 1959-62 varied from a low of 5,319,200 pounds in 1959 to a high of 6,931,900 pounds in 1961, with a 4-year average of 6,048,300 pounds. Value was also lowest in 1959 at \$690,381 and highest in 1961 at \$1,219,948--the 4-year average value was \$1,006,977. In table 1 are the weights and values of all landings for 1959-62, by species, by year, with 4-year averages. (The poundages of finfishes are in round weight as landed; shellfish, including shrimp, are given in round weight with the exception of oysters, scallops, and clams which are reported as pounds of meat; dollar values are ex-vessel.)

Operating units (fishermen, vessels, boats, and gear) are tabulated in table 2 by years, with a 4-year average. Fishing craft of 5 net tons and over are listed as vessels, and those under 5 net tons are classified as boats with motors or as boats, other. Fishermenon boats are divided into two categories: Regular fishermen--those who receive half or more of their annual income from fishing; and casual fishermen--those who receive less than half their annual income from fishing.

In the Cape Canaveral Area about 31 wholesale producers buy or handle the production of the area fishermen: (1) 4 producers of blue crabs and crab meat, (2) 7 producers of shrimp and fish (mostly from the ocean), (3) 8 producers of oysters, and (4) 12 producers of fish from both the inside waters and the ocean (largely from gill net fishing).

Four-year averages of production by gear show the runaround gill nets to be the most productive with catches of 2,557,075 pounds; followed by otter trawls with 1,622,625; crab pots with 1,251,250; and handlines with 463,100 pounds. In value of production the otter trawls are first with \$568,240; followed by runaround gill nets, \$236,291; handlines, \$98,161; and

Table 1.--Commercial fishery landings, Cape Canaveral Area, 1959-62, in pounds and dollars, by species, by year, with 4-year averages

| Species | 1 | 959 | 1 | .960 | 196 | 1 | 19 | 962 | 4-y | ar average |
|------------------------|-----------|---------|-----------|--------------|-----------|-----------|-----------|---------|-----------|-------------|
| | Pounds | Dollars | Pounds | Dollars | Pounds | Dollars | Pounds | Dollars | Pounds | Dollars |
| Amberjack | 39,400 | 1,970 | 29,100 | 1,164 | 1,500 | 59 | 3,600 | 94 | 18,400 | 822 |
| Barracuda | 100 | 4 | 100 | . 4 | | | | | 50 | 2 |
| Bluefisb | 7,700 | 816 | 6,600 | 694 | 13,900 | 1,310 | 20,400 | 1,938 | 12,150 | 1.190 |
| Blue runner | 100 | 6 | | | 200 | 14 | | | 75 | -,-,- |
| Cabio | 1,300 | 130 | 700 | 63 | 1,400 | 122 | | | 850 | 70 |
| Crevalle (Common jack) | 2,500 | Šo | 12,600 | 390 | 800 | 24 | 1.400 | 35 | 4.325 | 1 32 |
| Dolphin | 1,100 | 143 | 400 | 52 | 500 | 58 | | | 500 | 63 |
| Drum, black | 8,100 | 706 | 12.300 | 1 069 | 9 900 | 780 | 14 700 | 986 | 11 250 | 888 |
| Drum red | 65 500 | 0 620 | 70,300 | 10,332 | 68,300 | 0 357 | 82,200 | 11 021 | 71 575 | 10 210 |
| Flounders | 26,700 | 1,000 | hh 000 | 7 184 | 30,000 | 5 770 | 30 100 | 5 080 | 35 850 | = 661 |
| Groupove | 58,600 | 6 856 | 75 800 | 8 716 | 62,200 | 5,000 | 75,000 | 8,070 | 68,005 | 7 494 |
| Create | 10,000 | 0,0,0 | 5,000 | ,110 | 03,300 | 0,900 | (),200 | 0,212 | 1,075 | 1,000 |
| Tettfich | 500 | 10 | 500 | 100 | 0,000 | 157 | 800 | l.E | 7,612 | ן בנ רקי |
| newiter | 17 100 | E 1.50 | 10 700 | 40 6 01 0 | 2,000 | 10 207 | 000 | 21. 200 | 950 | 11 |
| King meckerei | 4(,400 | 2,474 | 49,100 | 0,<13 | 275 100 | 10,001 | 90,400 | 14,300 | 07,070 | 9,210 |
| VIUR MUTCIUR | 110,200 | 10,220 | 294,700 | 27,911 | 317,400 | 30,273 | 202,300 | T1,390 | 241,100 | 20,949 |
| Mennaden | 19,100 | 439 | 53,100 | 1,434 | 50,200 | 1,200 | 4,100 | 106 | JI,625 | 009 |
| Mojarra (Sand perch) | 300 | 20 | 2,100 | 190 | 900 | 11 | 300 | 23 | 900 | =0.012 |
| Muilet, black | I,136,900 | 00,045 | I,100,600 | 51,729 | 1,741,600 | 03,597 | 1,902,100 | 93,202 | 1,620,300 | 78,843 |
| Mullet, silver | 1,300 | 110 | 0.0 | | | | | | 325 | 28 |
| Pigfish | 1,200 | 96 | 8,800 | 880 | 3,000 | 300 | 1,500 | 202 | 3,625 | 370 |
| Pompano | 16,200 | 9,105 | 64,500 | 42,570 | 55,000 | 38,500 | 32,500 | 23,302 | 42,050 | 28,369 |
| Sea bass, black | 18,900 | 2,174 | 9,400 | 1,034 | 5,400 | 550 | 16,400 | 1,772 | 12,525 | 1,383 |
| Sea catfisb | 1,000 | 70 | 700 | 35 | 100 | 6 | 100 | 7 | 475 | 30 |
| Sea trout, gray | 5,500 | 637 | 6,500 | 650 | 700 | 74 | 400 | 43 | 3,275 | 351 |
| Sea trout, spotted | 458,700 | 110,088 | 486,600 | 114,353 | 483,400 | 115,527 | 375,700 | 91,295 | 451,100 | 107,816 |
| Sheepshead | 2,800 | 2 32 | 3,600 | 303 | 9,000 | 612 | 13,600 | 993 | 7,250 | 535 |
| Snapper, red | 306,200 | 85,124 | 240,200 | 70,859 | 201,600 | 55,986 | 257,900 | 76,854 | 251,475 | 72,206 |
| Snapper, other | 1,600 | 230 | 1,400 | 251 | 1,000 | 190 | 4,200 | 622 | 2,050 | 323 |
| Spanisb mackerel | 168,500 | 15,165 | 11,700 | 1,147 | 96,500 | 9,940 | 61,400 | 5,762 | 84,525 | 8,004 |
| Spot | 302,700 | 27,545 | 360,500 | 33,166 | 229,000 | 26,564 | 198,700 | 23,856 | 272,725 | 27,783 |
| Tenpounder | 800 | 25 | | | | | | | 200 | 6 |
| Triggerfisb | 1,900 | 104 | 1,000 | 60 | 600 | 36 | 2,200 | 145 | 1,425 | 86 |
| Warsaw | 900 | 81 | 1,300 | 104 | 800 | 56 | 1,300 | 98 | 1,075 | 85 |
| Unclassified, food | | | | | 101,300 | 6,889 | 77,500 | 5,307 | 44,700 | 3,049 |
| Unclassified, bait | 3,600 | 187 | 2,300 | 115 | 16,500 | 363 | 900 | 19 | 5,825 | 171 |
| Crabs, blue, bard | 1,027,600 | 52,409 | 1,272,600 | 63,630 | 1,569,700 | 72.176 | 1.154,400 | 63.492 | 1,256,075 | 62,927 |
| Crabs, blue, soft | | | 300 | 150 | 400 | 200 | | | 175 | 68 |
| Crabs, atone | 12,900 | 4,257 | 10.300 | 3,399 | 1,100 | 380 | 4,300 | 1.780 | 7,150 | 2,454 |
| Shrimp | 833,600 | 251,378 | 2.048.900 | 688.934 | 1,661,000 | 728,443 | 967.100 | 518,112 | 1,377,650 | 546,717 |
| Ovsters | 6,600 | 2.020 | 9,200 | 2,760 | 36,100 | 10,612 | 31,500 | 9,450 | 20,850 | 6,211 |
| Souid | 3,100 | 668 | 900 | 135 | 3,700 | 555 | 2,900 | 432 | 2,650 | 448 |
| Scallops, calico | | | | | 3,600 | 1.440 | 400 | 168 | 1,000 | 402 |
| Clams, hard | | | | | | | 300 | 96 | 75 | 24 |
| Totals | 5,319,200 | 690,381 | 6,299,000 | 1,140,104 | 6,931,900 | 1,219,948 | 5,643,100 | 977,475 | 6,048,300 | 1,006,977 |

Table 2.--Commercial fishery operating units, Cape Canaveral Area, 1959-62, by years with 4-year averages

| Ite | 1959 | 1960 | 1%1 | 1962 | 4-year average |
|----------------------|------------|--------------------|---------|-----------|-------------------|
| Fisherment | | | | | |
| On vessels | 258 | 590 | 273 | 191 | 253 |
| Regular Canal | 240 428 | <u>1</u> 40 265 | 149 | 151 62 | 147 228 |
| Total | 832 | 695 | 579 | 404 | 528 |
| Vessels, motor | 105 | 130 | 125 | 85 | 11.5 |
| Gross tonnage | 1,719 | 4,789 | 4,282 | <+732 | 3,356 |
| Boats: | | | | | |
| Motor | 221 | 171 | 18c | 198 | 194 |
| Other | 66 | 4.8 | 47 | 15 | is he |
| Gear: | | | | | |
| Otter travis, shrimp | 124 | 158 | 226 | 146 | 171 |
| Tards at mouth | 2,5-0 | 3,508 | | 2,140 | |
| Crab pots and traps | 1,980 | 2,120 | | 2,265 | |
| Gill nets: | | | | | |
| Drift | 14 | 5 | | | |
| Square yards | B,400 | 4,200 | | | |
| Punsround | 95 | | 121 | 10: | 70. |
| Square yards | 109,200 | | 124,150 | 85,550 | |
| Tramel acto | | | | | |
| Square yards | | 1,370 | 1,650 | 2,400 | 2.355 |
| Lines: | | | | | |
| Rand | 500 | 295 | 194 | 114 | |
| Hooks | 536 | 305 | 224 | 151 | |
| TOLL | 144 | | 41 | 10 | ھو داد |
| HOORS | 9.9 | 12 | 41 | TO | 34 |
| Trot with baits | 1.800 | 3 1 00 | | 600 | 1 200 |
| Distant and a second | N,000 | 21400 | | 800 | 1,100 |
| Dip nets, compon | 2 | | н | 16 | |
| Designs april apr | | 2 | 1 | 12 | |
| Yanda at month | | | | 2 | 1 |
| | | | | 1 | |
| ILMINE, CISCUT | | | | | |

crab pots, \$64,887. In table 3 are shown the complete 1959-62 landings in pound and dollar value by gear, by year, by subarea, with 4-year averages.

Of the numerous species entering the fisheries, eight dominate the landings. These are shrimp, black mullet, spotted sea trout, red snapper, blue crab, spot, pompano, and king whiting--together representing a 4-year average of 91 percent of the annual poundage and 94 percent of the dollar value. In table 4 are given the landings of these eight dominant species, all other species combined, and 4-year average pound and dollar values by month, 1959-62.

The commercial fisheries can be divided into three major geographic subdivisions: (1) Those prosecuted in the inside waters-principally in the Indian and Banana Rivers but to a lesser degree in Halifax River, (2) those carried out in the Atlantic Ocean within a few miles of the coast, and (3) those which are worked from about 10 to 50 fathoms off the coast. These three geographic subdivisions and the dominant species taken therein will be discussed separately.

INSIDE WATERS

Of the inside waters, Indian and Banana Rivers are of greatest importance to the fisheries. These shallow bodies of water, or lagoons--maximum depth about 14 feet but generally less than 5 feet--have extensive shallow flats, particularly adjacent to the shorelines. Large areas of the bottom are covered with vegetation, providing ideal habitat for many fish and a wide variety of other organisms. The Intracoastal Waterway, with a controlling depth of about 12 feet, runs south through Mosquito Lagoon into the north end of Indian River and thence through Indian River to the southern end of the work area. These lagoons represent some of the most productive inside waters in Florida. Man, with his constant dredging and filling, is rapidly changing the nature of the lagoons-<u>and</u> <u>these changes are not an improvement to the</u> habitat.

Commercial fishermen feel that the tremendous building boom and related dredging and filling, together with a fantastic increase in the numbers of pleasure craft using the rivers, have affected the fish movements and disturbed the areas of fish concentrations.

A side effect of the growth of the missile base and related industries on the fisheries is that young men from fishing families are not becoming fishermen. Good earnings from fishing do not seem to be the deciding factor-many of these young men apparently prefer employment in the newly developed industry in the area.

Of the eight dominant species mentioned previously, five (black mullet, spotted sea trout, blue crab, spot, and pompano) are taken by inside fisheries--three of these (black mullet, blue crab, and pompano) are taken exclusively in inside waters, and about 95 percent of the spotted sea trout and spot are taken from inside waters. In table 5 are shown the complete commercial fishery landings, Gape Ganaveral Area, 4-year pound and dollar value averages by species for subareas and the entire area, by months, 1959-62.

Black Mullet

The mullet fishery, despite the impressive landing figures, is economically hard pressed. Mullet is a "cheap" fish, bringing the fisherman an average of only about 5 cents per pound. East coast of Florida mullet are also smaller than mullet from the Florida west coast and in less demand in the very competitive mullet market. Because of these conditions, only a portion of the mullet available are netted and sold each year--on many occasions buyers place the fishermen on catch limits or restrict entirely the landing of mullet.

This is a year-round fishery with important poundage every month. The heaviest landings occur during July-November, and peak production on the average is in October and November. Mullet ranks first in volume of the Cape Canaveral Area fisheries (4-year average of 1,620,300 pounds) and third in value (4-year average of \$78,845), being exceeded by shrimp and spotted sea trout (tables 4 and 5). Most of the production is taken in runaround gill nets.

Anderson (1958a) described early life history stages (4-116 mm.) of striped or black mullet along the U.S. south Atlantic coast. He stated that striped mullet appear to spawn along the coast from lower Florida to North Carolina over a broad area extending from about the 20-fathom line into the Gulf Stream. The data indicate that spawning occurs from October to

Table 3.--Commercial fishery landings, Cape Canaveral Area, 1959-62, pound and dollar values by gear, by year, by subarea. with 4-year averages

| | Shrimp | and fish | | | | Dri | ft | Runa | ound | | | | | | |
|---|---|---|---|---|---|--|---|---|---|--|--|---|--|---|--|
| Subareas | otter | trawls | Pound | rab pot | ts | gill Bounda D | nets | gill | Dellera | Tran | mel nets | Hand | l lines | Troll | lines |
| 1929 | rounds | Dollars | round | 15 <u>Do</u> , | LIAFS | rounds D | OLIBIS | Pounds | DOLLAIS | Founds | DOLLEFS | Pounds | Dollars | Founds | DOLLARS |
| Atlantic Ocean | 977,500 | 266,408 | 086.10 | - | : | 15,100 | 1,239 | 180,000 | 15,092 | | | 467,100 | 103,183 | 56,600 | 6,205 |
| Banana River | | | 904 , 10 | - 23 | | | | 501,100 | 44,416 | | | 50,000 | 7,218 | | |
| Halifax River | | | 46,70 | 0 2 | 2,382 | | | 359,500 | 30, 348 | | | 17,800 | 1,493 | | |
| Total | 977,500 | 266,408 | 1,030,8 | 00 56 | 6,171 : | 20,100 | 2,439 | 2,650,800 | 239,926 | | | 558,600 | 116,292 | 56,600 | 6,205 |
| 1960 | | | | | | | | | | | | | | | |
| | | 670 Q Q 2 77 | | | | | | 20.900 | 1. ook | | | 1.09 700 | 89 J.oz | 56 3.00 | 7 007 |
| Indian River | 2,352,100 | 110,011 | 1,231,2 | 200 62 | 4,855 | 2,500 | 588 | 1,546,600 | 176,846 | 20,000 | 13,200 | 65,900 | 10,164 | 50,100 | 1,001 |
| Banana River | | | 1.5.5 | | | | | 352,200 | 30,202 | | | 35,600 | 5,432 | | |
| Halliax River | | | 42,2 | 200 2 | 2,2() | | | 000, 222 | 12,902 | | | 9,300 | 1,005 | | |
| Total | 2,352,100 | 718,817 | 1,276,7 | roo 61 | 7,130 | 2,500 | 588 | 2,051,900 | 224,917 | 20,000 | 13,200 | 519,500 | 105,068 | 56,100 | 7,087 |
| <u>1961</u> | | | | | | | | | | | | | | | |
| Atlantic Ocean | 2,007,900 | 757,368 | | | | | | 97,100 | 9,954 | | | 301,900 | 66,465 | 85,600 | 11,094 |
| Indian River | | | 1,103,8 | 00 50 | 0,926 | | | 1,939,300 | 176,772 | 38,200 | 24,888 | 29,500 | 4,965 | | |
| Halifax River | | | 40 [] 4 | 21 | | | | 338,700 | 32,565 | 21,100 | 14,000 | 10,200 | 2,169 | | |
| Total | 2 007 900 | 757 368 | 1 577 0 | 00 75 | 2 756 | | | 2 805 200 | 250 51 8 | 59 900 | 38 056 | 352.000 | 74 002 | 85,600 | 11.094 |
| 10 GAL | 2,001,900 | 121,500 | ~,)) | .00 12 | L 9 1 7 0 | | | 2,009,200 | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | 5039990 | J)L,000 | (-),/02 | 0),000 | <u> </u> |
| <u>1962</u> | | | | | | | | | | | | | | | |
| Atlantic Ocean | 1,153,000 | 530,368 | 0 | | | ~~ | | 72,400 | 6,681 | | | 376,700 | 89,496 | 96,800 | 13,976 |
| Indian River Banana River | | | 268.7 | 00 48 100 1.4 | 8,173 5,317 | | | 1,981,200 | 27,244 | 23,100 | 14,587 | 28,400 | 4,298 | | |
| Halifax River | | | | ~ . | | | | 354,000 | 30,002 | | | 7,200 | 1,350 | | |
| Total | 1,153,000 | 530,368 | 1,126,3 | 300 63 | 3,490 | | | 2,720,400 | 229,808 | 38,500 | 24,019 | 422,300 | 96,381 | 96,800 | 13,976 |
| h Yoon Among and | | | | | | | | | | | | | | | |
| 4+lear Averages | | | | | | | | | | | | | | | |
| Atlantic Ocean | 1,622,625 | 568,240 | 1 000-1 | 75 51 | 1 1 36 | 3,775 | 310 hh7 | 95,075 | 8,408 | 20 325 | 13 169 | 388,600 | 86,888 | 73,775 | 9,591 |
| Banana River | | ~ - | 184,0 | 25 9 | 9,287 | | | 399,050 | 33,271 | 9,275 | 5,875 | 26,450 | 3,798 | | |
| Halifax River | | | 23,05 | i0 1 | 1,164 | | | 293,625 | 27,220 | | | 11,175 | 1,519 | | |
| On the Original Arrist | 3 (00 (05 | ar (0 al a | | (1 | | | | 0 557 075 | 226 201 | 00 600 | 10.014 | 162 100 | 08 163 | (T-) (TT-) | 0.500 |
| Cape Canaveral Area | 1,022,025 | 568,240 | 1,251,2 | 50 64 | 4,887 | 5,650 | 757 | 2,771,017 | 20,272 | 29,000 | 19,044 | 403,100 | 90,101 | 13,117 | 9,591 |
| Subareas | 1,022,025 Tr | ot with ba | 1,251,2 | Cast 1 | 4,887 nets | 5,650 Sca | 757 <u>110p dr</u> | edges Tor | igs, oyste | 29,000 | By hand, | oyster | 90,101 | 13,117 Total | 9,591 |
| Subareas | 1,022,025 Tr <u>Pou</u> | ot with bands Dol | 1,251,2 its larsPo | Cast r | 4,887 nets Dollars | 5,650 Sca Poun | 757 <u>llop dr</u> <u>ds Do</u> | edges Tor llars Pour | ngs, oyste | 29,600 | By hand, Pounds 1 | oyster Dollars | Pounds | 13,115 Total Dol | 9,591 llars |
| Subareas 1959 Atlantic Ocean | 1,622,625 Tr. Pou | ot with bands Dol | 1,251,2 its larsPo | Cast r | hos | 5,650 Sca Poun | 757 <u>11op dr</u> ds <u>Do</u> | 2,551,015 edges Tor llars Pour | ngs, oyste | 29,600 | By hand, Pounds 1 | oyster Dollars | Pounds 1,690,300 | 13,115 Total Dol 392 | 9,591 |
| Subareas 1959 Atlantic Ocean Indian River Banana River | 1,622,625 Tr Pou | 568,240 ot with ba nds Dol | 1,251,2 its lars 8 | Cast r | 4,887 <u>Dollars</u> 425 | 5,650 Sea Poun | 757 <u>11op dr</u> ds <u>Do</u> | edges Tor Llars Pour | ngs, oyste | 29,600 | By hand, Pounds I | oyster Dollars | Pounds 1,690,300 2,631,500 551,100 | 13,117 Total <u>Dol</u> 392 205 51 | 9,591 llars 2,127 9,882 1,634 |
| Subareas <u>1959</u> Atlantic Ocean Indian River Benana River Halifax River | 1,022,025 Tr Pou 9, | 568,240 ot with ba nds Dol | 1,251,2 its larsPo 8 495 | Cast r ounds 3,500 | 4,887 <u>Dollars</u> 425 | 5,650 <u>Sca</u> <u>Poun</u> | 757 <u>11op dr</u> ds <u>Do</u> | edges Tor llars Pour | ngs, oyste | 29,800 | By hand, Pounds 1 | <u>oyster</u> <u>ollars</u> 2,020 | <u>Founds</u> 1,690,300 2,631,500 551,100 440,300 | 13,115 <u>Total</u> <u>Dol</u> 392 205 51 36 | 9,591 llars 2,127 9,882 1,634 5,738 |
| Subareas <u>1959</u> Atlantic Ocean Indian River Banana River Halifax River Total | 1,022,025 Tr Pou 9, 9, | 568,240 <u>ot with bs</u> <u>nds</u> <u>Dol</u> 700 700 | 1,251,2 <u>its</u> <u>lars</u> <u>Po</u> 8 495 495 8 | Cast r Cast r bunds 3,500 | 4,887 <u>Dollars</u> 425 425 | 5,650 <u>Sca</u> <u>Poun</u> | 757 <u>11op dr</u> <u>ds Do</u> | edges Tor llars Pour | Es, oyste ds Doll | 29,800 | By hand, Pounds 1 6,600 | 2,020 | Pounds 1,690,300 2,631,500 551,100 440,300 5,319,200 | Total Dol 392 205 51 36 690 | 9,591 .lars 2,127 9,882 1,634 5,738 0,381 |
| Subareas <u>1959</u> Atlantic Ocean Indian River Banana River Halifax River Total 1960 | 1,022,025 Tr Pou 9, 9, | 568,240 ot with ba ads <u>Dol</u> 700 700 | 1,251,2 its | <u>Cast</u> <u>Cast</u> <u>ounds</u> ,500 ,500 | 4,887 <u>Dollars</u> 425 425 | 5,650 <u>Sca</u> <u>Poun</u> | 757 <u>11op dr</u> ds <u>Do</u> | edges Tor llars Pour | E30,291 | 29,800 | By hand, Pounds 1 | 2,020 | <u>Founds</u> 1,690,300 2,631,500 551,100 440,300 5,319,200 | Total Doj 205 51 36 690 | 9,591 llars 2,127 9,882 1,634 5,738 0,381 |
| Subareas 1252 Atlantic Ocean Indian River Banana River Balifax River Total 1260 Atlantic Ocean | 1,022,025 Tr Pou 9, 9, | 568,240 ot with bg nds Dol 700 700 | 1,251,2 its lars Po 8 495 495 8 | Cast r Cast r Unds 3,500 | 4,887 <u>Dollars</u> 425 425 | 5,650 <u>Poun</u> | 757 <u>11op dr</u> <u>ds</u> <u>Do</u> | edges Tor Itars Four | ngs, oyste ngs, oyste Doll | ars | By hand, Pounds 1 | 2,020 | <u>Founds</u> 1,690,300 2,631,500 55,1,000 440,300 5,319,200 | Total Dol 392 200 51 36 690 816 | 9,591 llars 2,127 1,634 5,738 0,381 |
| Cape Canaveral Area Subareas 1252 Atlantic Ocean Indian River Halifax River Total 1250 Atlantic Ocean Lablan River | 1,022,027 Tr Pou 9, 9, 0, | 568,240 <u>ot with ba</u> <u>nds</u> <u>Dol</u> 700 500 | 1,251,2 <u>its</u> <u>lars</u> <u>Pc</u> 8 495 495 8 - | Cast r unds 3,500 | 4,887 <u>Dollars</u> 425 425 425 | 5,650 <u>Poun</u> | 757 <u>11op dr</u> <u>ds</u> <u>Do</u> | 2,551,075 edges Tor llars Pour | Eso, Eyster Market States | 29,800 er | By hand, Pounds I 6,600 8,800 | 2,020 2,020 | <u>Founds</u> 1,690,300 2,631,500 5,319,200 2,847,700 2,886,400 | Total Dol 392 205 51 36 690 816 265 | 9,591 llars 2,127 ,882 1,634 5,738 0,381 5,215 0,950 |
| Cape Canaveral Area Subareas <u>1959</u> Atlantic Ocean Indian River Halifax River Total <u>1960</u> Atlantic Ocean Indian River Banana River Banana River Banana River | 1,022,027 Tr Pou 9, 9, 0, | 568,240 <u>ot with ba</u> <u>nds</u> <u>Dol</u> 700 700 | 1,251,2 its | Cast r unds 3,500 | 4,887 <u>Dollars</u> 425 425 212 | 5,650 <u>Sca</u> <u>Poun</u> | 757 <u>11op dr</u> <u>ds</u> <u>Do</u> | 2,551,075 edges Tor | Eso, eyste mes, oyste Doll | 29,000 er | By hand, Pounds I | 2,020 2,640 | <u>Founds</u> 1,696,300 2,633,500 551,100 440,300 5,319,200 2,884,100 387,800 177,100 | 13, (1) <u>Total</u> <u>392</u> 203 51 52 690 816 266 266 35 10 10 10 10 10 10 10 10 10 10 | 9,591 llars 2,127 ,882 1,634 5,215 5,215 5,950 5,634 3,305 |
| Subareas <u>1959</u> Atlantic Ocean Indian River Banana River Halifax River Total <u>1960</u> Atlantic Ocean Indian River Banana River Banana River Banana River Banana River Banana River | 1,022,027 Tr Pou 9, 9, 0, | 568,240 ot with ba nds Dol 700 700 500 | 1,251,2 its R lars Pc R 495 495 R | Cast r unds 3,500 | 4,887 <u>Dollars</u> 425 425 | 5,650 <u>Sca</u> <u>Poun</u> | 757 <u>11 op dr</u> <u>ds</u> <u>Do</u> | 2,551,075 edges Tor - | rs, cyste rs, cyste ds Doll | 29,600 PT | By hand, Pounds 1 6,600 6,600 8,800 0,000 | 2,020 2,640 | <u>Founds</u> 1,696,300 2,633,500 551,100 440,300 5,319,200 2,8847,700 2,886,400 387,800 177,100 | 13, (1) Total Dol 205 205 53 36 690 816 266 265 15 15 15 15 15 15 15 15 15 1 | 9,591 lars 2,127 ,632 1,634 5,738 0,381 5,215 5,950 5,634 9,305 |
| Subareas <u>J259</u> Atlantic Ocean Indian River Banana River Halifax River Total 1960 Atlantic Ocean Indian River Banana River Banana River Banana River Total | 1,022,029 Tr Pou 9, 9, 0, 6, | 503,240 ot with be nds <u>Dol</u> 700 700 500 500 | 1,251,2 its R <u>lars P</u> <u>1</u> 495 8 <u>325 h</u> <u>325 h</u> | <u>Cast r</u> <u>unds</u> 3,500 3,500 | 4,887 <u>Dollars</u> <u>4</u> 25 425 425 212 212 | 5,650 <u>Poun</u> | 757 <u>11op dr</u> <u></u> | 2,551,075 edges Tor - | <u>iss, oyste</u> <u>iss, oyste</u> <u>Doll</u> | 29,600 PT | By hand, Pounds 1 6,600 6,600 8,800 8,800 | 2,640 | <u>Founds</u> 1,690,300 2,631,500 551,100 140,300 5,319,200 2,8847,700 2,886,100 387,800 177,100 6,299,000 | 13,(1) Total <u>Dol</u> 392 205 51 690 690 816 265 35 15 1,140 | 9,591 lars 2,127 ,882 1,634 5,215 5,950 5,634 5,950 5,634 9,305 9,305 9,104 |
| Subareas 1959 Atlantic Ocean Ladian River Banana River Halifax River Total 1960 Atlantic Ocean Ladian River Banana River Banana River Banana River Total 1960 Atlantic Ocean Ladian River Banana River Banana River Banana River Banana River Banana River | 1,022,029 Tr Pou 9, 9, 0, 6, | 503,240 <u>ot with bs</u> <u>Dol</u> <u></u> | 1,251,2 its R <u>lars P</u> <u>1</u> 495 8 325 4 R 325 4 | <u>Cast r</u> <u>unds</u> 3,500 3,500 4,500 | 4,887 <u>Dollars</u> <u>4</u> 25 425 425 212 212 212 | 5,650 <u>Poun</u> | 757 <u>11 op dr</u> - | 2,551,075 edges Tor Ilars Pour 1 1 | <u>iss, oyste</u> <u>iss, oyste</u> <u>Doll</u> | 29,500 er 120 120 | By hand, Pounds 1 | 0011ars | Founds Founds 1,690,300 2,631,500 5,51,100 440,300 5,319,200 2,886,400 387,800 177,100 6,299,000 | Total Doil 392 200 392 393 394 690 816 265 35 36 1,140 | 9,591 lars 2,127 ,882 1,634 5,215 3,950 5,215 3,950 5,634 9,305 5,215 |
| Subareas <u>J559</u> Atlantic Ocean Indian River Banana River Halifax River Total <u>1960</u> Atlantic Ocean Indian River Banana River Ealifax River Total <u>1951</u> Atlantic Ocean | 1,022,029 Tr Pou 9, 9, 6, | 503,240 <u>ot with bs</u> <u>Dol</u> - | 1,251,2 1ts 1ars P: & 495 495 & 325 & 325 & | <u>Cast r</u> <u>unds</u> 3,500 3,500 4,500 | 4,887 <u>Dollars</u> <u>2011ars</u> <u>4</u> 25 <u>212</u> <u>212</u> <u></u> | 5,650 <u>Sea</u> <u>Poun</u> 3,6 | 757 <u>11 op dr</u> <u></u> | 2,551,075 edges Tor Ilars Pour 1,440 | <u>IIIS. ovste</u> <u>IIIS. ovste</u> <u>Doll</u> | 29,500 er 120 120 120 | By hand, <u>By hand,</u> <u></u> | 0011ars | Founds Founds 1,690,300 2,631,500 5,51,100 440,300 5,319,200 2,884,700 2,885,400 387,800 177,100 6,299,000 2,496,100 | Total Doil 392 200 392 392 393 394 1,140 846 | 9,591 lars 2,127 3,882 1,634 5,215 3,950 5,634 9,305 5,215 3,950 5,634 9,305 5,215 3,950 5,634 9,305 9,104 |
| Subareas <u>J959</u> Atlantic Ocean Indian River Banana River Helifax River Total <u>1960</u> Atlantic Ocean Indlan River Banana River Eelifax River Total <u>1951</u> Atlantic Ocean Indian River Botal <u>1951</u> | 1,022,029 Tr Pou 9, 9, 0, 6, | 503,240 <u>ot with bs</u> <u>nds</u> <u>Dol</u> - | 1,251,2 1ts 1ars P: & 495 & 495 & 325 & 5 | <u>Cast r</u> <u>unds</u> 3,500 | 4,887 <u>Dollars</u> <u>2011ars</u> <u>4</u> 25 <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u>221</u> <u></u> | 5,650 <u><u>Poun</u> 3,6</u> | 757 <u>11op dr</u> <u></u> | 2,551,075 edges Tor 1,440 23,95 | | 29,500 er | By hand, Pounds 1 | 2,640 2,640 | 50,101 Founds 1,690,300 2,631,500 2,631,500 5,51,100 440,300 2,847,700 2,847,700 2,846,400 3/77,100 6,299,000 2,496,100 3,152,500 2,90,101 | Total Dot 200 200 200 301 302 303 304 305 305 306 307 308 309 301 302 303 304 305 305 306 307 308 309 301 302 303 304 305 | 9,591 2,127 ,882 ,634 ,738 ,215 ,215 ,215 ,950 ,5634 ,305),104 ,321 ,432 ,432 ,432 ,432 ,453 ,453 ,453 ,453 ,453 ,555 ,5 |
| Subareas 1252 Atlantic Ocean Indian River Banaa River Balifax River Total 1260 Atlantic Ocean Indlan River Banana River Banana River Banana River Total 1260 Atlantic Ocean Indian River Total 1201 Atlantic Ocean Indian River Banana River Banana River Balifax River | 1,022,029 <u>Tr</u> <u>Pou</u> 9, 9, 0, | 500,240 <u>ct with ba</u> <u>nats</u> <u>Dol</u> <u></u> 700 700 500 500 | 1,251,2 1ts | Cast : Cast : | 4,887 <u>Dollars</u> <u>Pollars</u> 425 425 425 212 212 212 212 212 212 212 212 212 212 212 | 5,650 <u>Sea</u> <u>Poun</u> 3,6 | 757 110p dr ds Do | 2,551,075 edges Tor Llars Four 1,1440 23,5 | | 29,500 er - | By hand, Pounds I | 2,640 2,640 3,586 | 2,49,101 Founds 1,690,300 2,631,500 5,319,200 5,319,200 2,885,400 387,800 177,100 6,299,000 2,496,100 3,152,500 929,400 333,390 | Total Total Doj 200 200 200 200 200 200 200 20 | 9,591 1,127 ,882 ,634 ,738 ,215 ,634 ,950 ,972 ,772 ,772 |
| Subareas 1252 Atlantic Ocean Indian River Banaa River Balifax River Total 1260 Atlantic Ocean Indlan River Banaa River Balifax River Total 1260 Atlantic Ocean Indlan River Total 1251 Atlantic Ocean Indian River Banaa River Banaa River Balifax River Total | 1,022,029 <u>Tr</u> <u>Pou</u> 9, 9, 0, | 500,240 <u>ct with ba</u> <u>nats</u> <u>Dol</u> <u></u> | 1,251,2 1ts | Cast : Cast : 2,500 | 4,887 <u>Dollars</u> <u>425</u> 425 425 212 | 5,650 <u>Sea</u> <u>Poun</u> 3,6 | 757 <u>llop dr</u> | 2,551,075 edges Tor Llars Four 1,440 1,440 1,440 1,440 | | 29,500 r | By hand, Pounds I 6,600 6,600 8,800 8,800 12,200 12,200 | 2,640 2,640 3,586 | 2,64,100 2,631,500 2,631,500 2,631,500 2,631,500 5,319,200 5,319,200 2,886,400 387,900 177,100 6,299,000 2,496,100 3,152,500 929,400 353,900 6,931,900 | 13,(1) Total 139 205 51 36 690 1,140 844 265 31 1,140 844 265 37 1,140 844 265 37 1,120 | 9,591 llars ,127 ,882 ,634 ,,738 ,381 ,215 ,,738 ,,381 ,,385 ,,422 ,,422 ,,422 ,,422 ,,422 ,,428 ,,448 |
| Subareas 1252 Atlantic Ocean Indian River Benana River Balifax River Total 1260 Atlantic Ocean Indlan River Banana River Balifax River Total 1260 Atlantic Ocean Indian River Balifax River Total 1261 Atlantic Ocean Indian River Banana River Banana River Banana River Balifax River Total | 1,022,029 <u>Tr</u> <u>Pou</u> 9, 9, 0, 6, | 500,240 <u>ct with bs</u> <u>nats</u> <u>Dol</u> <u></u> | 1,251,2 1ts 1ars Pc 1495 & 495 & 325 & 325 & 325 & 5 10 | | 4,887 <u>Dollars</u> <u>425</u> 425 425 212 | 5,650 <u>Sea</u> <u>Poun</u> 3,6 | 757 <u>llop dr</u> <u></u> | 2,551,015 edges Tor Llars Four 1,440 1,440 23,5 | | 229,500 r | By hand, Founds 1 6,600 8,800 8,800 12,200 12,200 | 2,640 2,640 2,640 2,640 2,640 2,640 2,640 3,586 | 299,101 Founds 1,699,300 2,631,500 5,319,200 5,319,200 5,319,200 2,886,100 387,800 177,100 6,299,000 2,496,100 3,152,500 929,400 353,990 6,931,900 | 13, (1) Total 100 200 201 330 205 31 300 31 300 31 31 320 330 340 350 360 31 31 32 33 34 35 35 36 36 36 36 37 38 36 37 36 37 38 39 39 39 39 39 39 39 39 39 39 39 39 39 39 39 39 39 39 < | 9,591 llars ,127 ,882 ,634 ,,738 ,,381 ,,381 ,,381 ,,381 ,,381 ,,381 ,,381 ,,381 ,,381 ,,381 ,,381 ,,432 ,,432 ,,432 ,,432 ,,432 ,,432 ,,432 ,,432 ,,434 ,,305 ,,104 |
| Subareas 1252 Atlantic Ocean Indian River Benana River Halifax River Total 1260 Atlantic Ocean Indian River Banana River Balifax River Total 1261 Atlantic Ocean Indian River Banana River Balifax River Total 1261 Atlantic Ocean Indian River Banana River Balifax River Total 1262 | 1,022,029 Tr Pou 9, 9, 0, 6, | 500,240 <u>ct with bs</u> <u>ands</u> <u>Dol</u> <u></u> | 1,251,2 1ts 1ars Pc 1495 8 1495 8 | | 4,887 <u>Dollars</u> <u>125</u> 425 425 - | 5,650 <u>Sea</u> <u>Poun</u> 3,6 | 757 <u>Hop dr</u> <u></u> | 2,551,075 edges Tor Ilars Four 1,440 1,440 23,5 1,440 23,5 | | 229,500 r | By hand, Pounds 1 6,600 6,600 8,800 8,800 12,200 12,200 | 2,640 2,640 2,640 2,640 3,586 | Yo,101 Founds 1,690,300 2,631,500 551,100 ±A0,300 5,319,200 2,864,100 387,800 177,100 6,299,000 2,496,100 3,152,500 929,400 353,900 6,931,900 | 13, (1) Total 100 205 33 690 816 265 35 1,140 846 265 36 1,140 846 265 36 1,125 | 9,591 llars ,127 ,882 ,534 ,381 5,215 ,950 ,634 ,381 5,321 ,432 ,434 ,365 ,950 ,950 ,634 ,365 ,950 ,634 ,365 ,950 ,634 ,365 ,950 ,634 ,365 ,950 ,634 ,365 ,950 ,968 ,9778 ,9778 ,9778 ,9778 ,9778 ,9778 ,9778 ,9778 |
| Subareas 1252 Atlantic Ocean Indian River Banana River Balifax River Total 1250 Atlantic Ocean Indlan River Banana River Ealifax River Total 1250 Atlantic Ocean Indian River Banana River | 1,022,029 Tr Pou 9, 9, 0, 6, | 500,240 <u>ot with bs</u> <u>nas</u> <u>Dol</u> <u></u> | 1,251,2 1ts 1ars Pc 1495 8 1495 8 | Cast : , Cast : , 3,500 3,500 3,500 ,,500 ,500 ,500 | 4,887 <u>Dollars</u> <u>25</u> 425 212 212 212 212 212 212 212 212 212 212 | 5,650 <u>Sea</u> <u>Poun</u> 3,6 3,6 | 757 <u>Ilop dr</u> <u>ds</u> <u>Do</u> | 2,551,075 edges Tor Ilars Pour 1,440 1,440 23,5 168 | | 229,500 r | By hand, Pounds 1 6,600 8,800 12,200 12,200 | 2,020 2,020 2,020 2,640 3,586 3,586 | 2,496,100 2,631,500 5,51,100 440,300 5,319,200 2,886,400 387,800 177,100 6,299,000 2,496,100 3,152,500 999,400 3,152,500 999,400 3,152,500 999,400 | 13,(1) Total Dol 205 53 36 690 816 265 35 1,140 846 265 35 1,140 846 265 35 1,140 846 265 36 1,140 846 265 64 846 265 64 846 265 64 846 265 64 846 265 64 846 265 64 846 265 846 846 265 846 846 846 846 846 846 846 846 | 9,591 llars 2,127 ,682 ,634 ,738 ,738 ,5215 ,950 ,634 ,305 ,104 ,321 ,432 ,423 ,423 ,423 ,423 ,423 ,423 ,423 ,428 ,0,948 |
| Subareas <u>J059</u> Atlantic Ocean Indian River Banana River Halifax River Total <u>1960</u> Atlantic Ocean Indian River Banana River Banana River Banana River Banana River Banana River Halifax Biver Total <u>1960</u> Atlantic Ocean Indian River Banana River Halifax Biver Total <u>1960</u> Atlantic Ocean Indian River Banana River Banana River Banana River Banana River Subareas Atlantic Ocean Indian River | 1,022,029 Tr Pou 9, 9, 9, 6, 6, | 500,240 <u>ot with bs</u> <u>nis</u> <u>Dol</u> | 1,251,2 1ts 1ars Pc 495 & 495 & 325 & 325 & 325 & | | 4,887 <u>Dollars</u> <u>Pollars</u> 425 425 212 212 212 212 212 212 | 5,650 <u>Sea</u> <u>Poun</u> 3,6 3,6 | 757 <u>Ilop dr</u> <u>ds</u> <u>Do</u> | 2,551,075 edges Tor Ilars Pour 1,440 1,440 23,9 1,440 23,9 1,440 23,9 1,440 23,9 | | 29,500 er | Igy, band, By hand, Founds 12,200 12,200 12,200 | 2,640 2,640 2,640 2,640 3,586 3,586 5,735 | 2,99,101 Founds 1,699,300 2,631,500 5,319,200 2,847,700 2,886,400 387,800 177,100 6,299,000 2,496,100 3,152,500 929,400 3,152,500 929,400 3,152,500 929,400 1,699,300 2,961,000 6,65,900 | Total Doi 200 201 203 304 203 305 203 304 203 305 306 203 304 203 305 305 305 310 311,120 844 265 31 204 205 31,215 31,215 | 9,591 llars 2,127 ,682 ,634 5,215 5,950 ,634 9,305 0,104 5,321 3,432 3,432 3,433 5,772 9,948 0,689 5,585 5,230 |
| Subareas <u>J059</u> Atlantic Ocean Indian River Banana River Halifax River Total <u>1960</u> Atlantic Ocean Indian River Banana River Ealifax River Total <u>1961</u> Atlantic Ocean Indian River Banana River Halifax Biver Total <u>1962</u> Atlantic Ocean Indian River Banana River Halifax Biver Total <u>1962</u> Atlantic Ocean Indian River Banana River Ealifax River Ealifax River Ealifax River | 1,022,029 Tr Pou 9, 9, 9, 6, 6, | 500,240 <u>ot with bs</u> <u>nis</u> <u>Dol</u> | 1,251,2 1ts 1ars Pc 495 & 495 & 325 & 325 & 325 & 10 10 11 | (100 € 6000 € 600 € 600 € 6000 € 600 € 600 € 600 € 600 € 600 € 600 € 600 € 60 | 4,887 <u>Dollars</u> <u>Pollars</u> 425 425 425 212 212 212 212 212 212 212 212 212 212 212 212 212 212 212 | 5,650 <u>Sea</u> <u>Poun</u> 3,6 3,6 | 737 <u>110p dr</u> <u>ds</u> <u>Do</u> | 2,551,075 edges Tor Ilars Pour 1,440 1,440 23,9 1,440 23,9 1,440 23,9 1,440 23,9 1,440 1,440 1,440 1,440 1,2,7 1,440 1,2,7 1,440 1,2,7 1,440 1,2,7 1,440 1,2,7 1,440 1,2,7 1,2,7 1,2,7 1,2,7 1,2,7 1,2,7 1,2,7 1,2,7 1,2,7 1,2,7 1,2,7 1,2,7 1,2,7 1,2,7 1,2,7 1,2,7 1,2,7 1,2,7 | | 29,800 er 120 120 120 120 120 120 120 120 120 120 120 120 120 | 19,000 By hand, Pounds 1 6,600 6,600 6,600 8,800 8,800 12,200 12,200 12,200 12,200 12,200 | 2,640 2,640 2,640 2,640 3,586 3,586 5,736 | 2,99,101 Founds 1,699,300 2,631,500 5,319,200 4,0,300 5,319,200 2,847,700 2,866,400 387,800 177,100 6,299,000 2,496,100 6,931,900 1,699,300 2,961,000 6,05,900 375,900 | 13, (1) Total Dol 392 203 36 690 316 203 316 204 313 690 314 205 315 1,140 844 265 36 1,215 642 241 55 35 | 9,591 llars 2,127 ,682 ,634 ,738 ,950 ,634 ,950 ,634 ,950 ,634 ,950 ,634 ,930 ,948 ,948 ,585 ,772 ,948 |
| Subareas <u>J059</u> Atlantic Ocean Indian River Banana River Halifax River Total <u>1960</u> Atlantic Ocean Indian River Banana River Banana River Banana River Banana River Halifax River Total <u>1962</u> Atlantic Ocean Indian River Banana River Banana River Banana River Banana River Ealifax River Total <u>1962</u> | 1,022,029 Tr Pou 9, 9, 9, 6, 6, 32, | 500,240 <u>ot with bs</u> <u>nis</u> <u>Dol</u> 500 500 | 1,251,2 1ts 1ts 495 495 325 495 325 495 5 | | 4,887 <u>Dollars</u> <u>Pollars</u> 425 425 425 212 213 213 213 213 213 213 213 213 213 213 213 213 213 - | 5,650 <u>Sea</u> <u>Poun</u> 3,6 3,6 | 737 <u>110p dr</u> <u>ds</u> <u>Do</u> | 2,551,075 edges Tor Ilars Pour 1,440 1,440 23,9 1,440 23,9 1,440 23,9 1,440 23,9 1,68 12,7 168 12,7 | | 29,500 r lars 120 120 120 120 120 120 120 120 - | Igy, band, By hand, Founds 6,600 6,600 8,800 12,200 12,200 12,200 19,100 | oyster ollars | 2,99,101 Founds 1,699,300 2,631,500 5,511,00 440,300 5,319,200 2,847,700 2,865,400 387,800 177,100 6,299,000 2,496,100 3,152,500 929,400 3,152,500 929,400 3,152,500 929,400 3,152,500 929,400 3,152,500 929,400 3,152,500 3,500 3,152,500 3,500 1,699,300 2,961,000 1,699,300 2,961,000 1,699,300 2,961,000 1,609,300 2,900 2, | Total Doi 393 203 304 203 305 136 690 1,140 844 265 36 265 36 36 36 36 36 36 36 36 36 37 38 | 9,591 llars 2,127 ,682 ,634 5,215 5,950 ,634 9,305 0,104 5,321 3,432 3,432 3,433 5,772 9,948 0,689 5,230 3,971 7,475 |
| Subareas <u>J252</u> Atlantic Ocean Indian River Banana River Halifax River Total <u>1960</u> Atlantic Ocean Indian River Banana River Banana River Banana River Banana River Halifax River Total <u>1952</u> Atlantic Ocean Indian River Banana River Ba | 1,022,029 Tr Pou 9, 9, 9, 0, 6, 6, 32, | 500,240 <u>ot with bs</u> <u>nats</u> <u>Dol</u> <u></u> | 1,251,2 1ts 8 495 495 325 1 10 11 .,782 21 | (50 64 (ast) ; (ast) ; (a); (a); (a); (a); (a); (a); (a); (a); | 4,887 <u>Dollars</u> <u>Pollars</u> 425 425 212 213 216 216 216 216 216 216 216 216 216 216 216 - | 5,650 <u>Sea</u> <u>Poun</u> 3,6 3,6 4 | 737 <u>110p dr</u> <u></u> | 2,551,075 edges Tor Ilars Pour 1,440 1,440 23,9 1,440 12,7 12,7 12,7 - | | 229,500 r | 19,000 By hand, | 2,020 2,020 2,020 2,020 2,020 2,020 2,020 2,020 2,020 3,586 3,586 5,736 5,736 | 2,496,100 2,631,500 5,51,100 440,300 5,319,200 2,886,400 387,800 177,100 6,299,000 2,496,100 3,152,500 929,400 3,152,500 929,400 3,152,500 929,400 3,152,500 929,400 3,152,500 929,400 3,152,500 3,500 3,152,500 3,5000 3,500 3,5000 3,5000 3,5000 3,5000 3,5000 3,50000000000 | 13, (1) Total Dol 392 203 304 205 316 690 1,140 844 264 264 211 51 36 36 37 36 37 38 40 26 36 37 38 977 | 9,591 llars 2,127 ,682 ,634 5,215 ,950 ,634 9,305 0,104 5,321 3,423 3,423 5,772 0,948 0,689 1,585 5,230 3,971 7,475 |
| Subareas <u>J252</u> Atlantic Ocean Indian River Banana River Halifax River Total <u>1960</u> Atlantic Ocean Indian River Banana | 1,022,029 Tr Pou 9, 9, 9, 6, 6, 32, 32, | 500,240 <u>ot with bs</u> <u>nais</u> <u>Dol</u> <u></u> | 1,251,2 1ts P 1495 8 495 8 495 8 325 4 325 4 325 4 10 10 11 .,782 21 | | 4,887 <u>Dollars</u> <u>201ars</u> <u>25</u> <u>25</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>212</u> <u>213</u> <u>214</u> <u>214</u> <u>215</u> <u>215</u> <u>212</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> <u>215</u> | 5,650 <u>Sea</u> <u>Poun</u> 3,6 3,6 4 4 | 737 <u>110p dr</u> <u></u> | 2,551,075 edges Tor Ilars Pour 1,440 1,440 23,9 1,400 12,7 12 | | 29,500 r | 19,000 By hand, | 2,640 2,640 2,640 2,640 3,586 3,586 5,736 5,736 | 2,99,101 Founds 1,699,300 2,631,500 5,511,00 440,300 5,319,200 2,886,400 387,800 177,100 6,299,000 2,496,100 3,152,500 929,400 3,152,500 929,400 3,152,500 929,400 3,152,500 929,400 3,152,500 929,400 3,152,500 929,400 3,152,500 3,500 3,152,500 3,5000 3,500 3,500 3,5000 3,5000 3,500 | 13, (1) Total Dol 200 203 203 306 205 135 1,140 844 265 36 1,219 640 241 241 35 36 36 36 36 36 36 36 36 36 36 | 9,591 llars 2,127 ,682 ,634 5,738 5,215 5,950 5,634 9,305 0,104 5,321 3,432 3,423 5,772 9,948 0,689 5,585 5,772 0,948 0,689 5,520 3,971 7,475 |
| Subareas <u>J352</u> Atlantic Ocean Indian River Banana River Halifax River Total <u>1260</u> Atlantic Ocean Indian River Banana River Enlifax River Total <u>1201</u> Atlantic Ocean Indian River Banana River Banana River Total <u>1262</u> Atlantic Ocean Indian River Banana River Total <u>1262</u> Atlantic Ocean Indian River Total <u>1262</u> Atlantic Ocean Indian River Total <u>1262</u> Atlantic Ocean Indian River Total <u>1262</u> Atlantic Ocean Indian River Total <u>Four-Year Averages</u> Atlantic Ocean Indian River | 1,022,029 Tr Pou 9, 9, 9, 6, 6, 32, 32, 9, | 500,240 <u>ot with bs</u> <u>nais</u> <u>Dol</u> 700 700 700 | 1,251,2 1ts 1ars Pc 1495 8 1495 8 | | 4,887 <u>Dollars</u> <u>Pollars</u> 425 425 425 212 212 212 212 212 212 212 | 5,650 <u>Sea</u> <u>Poun</u> 3,6 3,6 4 4 | 737 <u>110p dr</u> <u></u> | 2,551,075 edges Tor llars Pour 1,440 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 1,440 - | | 29,500 T T T T T T T T T T T T T | Iy, our By hand, Founds | 2,020 2,020 2,020 2,640 3,586 5,736 5,736 2,991 | 2,496,100 2,632,500 5,319,200 5,319,200 5,319,200 5,319,200 2,884,100 3,87,800 177,100 6,299,000 6,299,000 3,152,500 929,100 3,353,900 6,931,900 1,699,300 2,961,000 6,090 3,35,900 5,642,100 | 13, (1) Total Dol 200 200 200 200 200 200 200 20 | 9,591 llars ,127 ,882 ,634 ,738 ,738 ,381 ,534 ,365 ,104 ,342 ,342 ,342 ,432 ,578 ,255 ,256 ,256 ,257 ,257 ,257 ,257 ,278 ,277 ,278 ,278 ,278 ,305 ,277 ,278 ,277 ,278 |
| Subareas 1952 Atlantic Ocean Indian River Banana River Balfax River Total 1960 Atlantic Ocean Indlan River Banana River Total 1952 Atlantic Ocean Indian River Banana River Balifax River Total 1952 Atlantic Ocean Indian River Banana River Balifax River Total Four-Year Averages Atlantic Ocean Indian River Balifax River Balifax River Balifax River Balifax River Balifax River | 1,022,029 Tr Pou 9, 9, 9, 0, 6, 32, 32, 32, 32, 32, 32, 32, 32, 32, 32 | 500,240 <u>ct with bs</u> <u>nats</u> <u>Dol</u> 700 700 700 700 700 700 700 70 | 1,251,2 1ts 1ars Pc 1495 6 495 6 495 6 325 4 325 4 10 ,782 6 11 ,782 21 10 10 | | 4,887 <u>Pollars</u> <u>Pollars</u> 425 425 425 212 212 212 212 212 212 212 | 5,650 <u>Sea</u> <u>Poun</u> 3,6 3,6 4 4 | 757 <u>Illop dr</u> <u>ds</u> <u>Do</u> | 2,551,075 edges Tor llars Pour 1,440 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 2,5 1,440 23,5 2,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,440 23,5 1,68 12,7 1,68 2,7 1,68 2,7 1,68 2,7 - | | 29,500 T T T T T T T T T T T T T | Isy, our By hand, Founds 6,600 6,600 8,800 8,800 12,200 12,200 12,200 19,100 19,100 10,025 1,650 | 2,020 2,020 2,020 2,640 2,640 3,586 3,586 5,736 5,736 5,736 | 2,642,100 2,632,500 55,100 2,632,500 55,319,200 2,885,100 2,885,100 337,900 177,100 6,299,000 6,299,000 6,299,000 6,931,900 6,931,900 1,699,300 6,931,900 5,642,100 | 13,(1) Total Dol 200 200 200 200 200 200 200 20 | 9,591 llars ,127 ,882 ,634 ,,738 ,,738 ,,738 ,,381 ,,381 ,,381 ,,363 ,,305 ,,104 ,,305 ,,104 ,,305 ,,104 ,,305 ,,104 ,,305 ,,104 ,,305 ,,104 ,,305 ,,104 ,,305 ,,104 ,,305 ,,104 ,,305 ,,104 ,,305 ,,104 ,,305 ,,104 ,,305 ,,104 ,,305 ,,104 ,,305 ,,104 ,,305 ,,104 ,,305 ,,104 ,,305 ,,104 ,,105 ,,104 ,,105 ,,104 ,,105 ,,107 ,,104 ,,105 ,,105 ,,104 ,,105 ,,104 ,,105 ,,104 ,,105 ,,105 ,,104 ,,105 ,,107 ,,104 ,,105 ,,107 |
| Subareas 1252 Atlantic Ocean Indian River Banaa River Balaa River Total 1260 Atlantic Ocean Indlan River Banaa River Balfax River Total 1201 Atlantic Ocean Indian River Banaa River Balfax River Total 1202 Atlantic Ocean Indian River Banaa River Balifax River Total 1262 Atlantic Ocean Indian River Banaa River Banaa River | 1,022,029 Tr Pou 9, 9, 9, 0, 6, 32, 32, 32, 32, 32, 32, 32, 32, 32, 32 | 500,240 <u>ct with bs</u> <u>nats</u> <u>Dol</u> <u>700</u> 700 700 700 700 700 700 700 | 1,251,2 1ts 1ars PC 1ars PC 1495 & 495 & 495 & 325 & 325 & 325 & 10 10 ,782 & 11 ,782 & 124 & 527 & 631 & 12 | | 4,887 <u>Dollars</u> <u>Pollars</u> 425 425 425 212 212 212 212 212 212 212 | 5,650 <u>Sea</u> <u>Poun</u> 3,6 3,6 4 1,0 | 737 <u>Illop dr</u> <u>ds</u> <u>Do</u> | 2,551,075 ed <u>Res</u> Tor Llars Four 1,440 1,547 1,440 1,440 1,547 1,440 1,57 1,68 1,2,7 1,68 1,2,7 1,68 1,2,7 1,68 1,7 1,68 1,7 1,68 1,7 1,68 1,68 - | | 29,500 r lars 120 100 120 | Isy, total By hand, Founds I 6,600 8,800 8,800 12,200 12,200 19,100 10,025 1,650 11,650 11,650 | 2,020 2,020 2,020 2,640 2,640 2,640 3,586 3,586 5,736 2,991 5,736 2,991 505 | 2,64,100 2,631,500 5,319,200 5,319,200 5,319,200 2,886,400 387,900 1777,100 6,299,000 6,299,000 3,152,500 929,400 33,152,500 929,400 33,152,500 929,400 33,3900 6,931,900 1,699,300 2,961,000 6,05,900 3,5,643,100 | 13,(15) Total Dol 205 51 396 205 51 306 205 51 1,146 264 264 264 264 336 1,215 1,215 346 347 55 347 977 | 9,591 llars ,127 ,882 ,634 ,,738 ,,738 ,,738 ,,738 ,,738 ,,738 ,,381 ,,215 ,,534 ,,305 ,,104 ,,305 ,,104 ,,305 ,,104 ,,305 ,,104 ,,305 ,,104 ,,305 ,,104 ,,305 ,,104 ,,305 ,,104 ,,305 ,,104 ,,305 ,,104 ,,305 ,,104 ,,305 ,,104 ,,305 ,,104 ,,305 ,,104 ,,305 ,,104 ,,104 ,,104 ,,105 ,,104 ,,105 ,,105 ,,104 ,,105 ,,105 ,,104 ,,105 ,,104 ,,105 ,,104 ,,105 |

February, but is confined largely to January, with the peak in December.

Young mullet apparently remain at sea until they are from 18 to 28 mm. long (mostly 20 to 25 mm.), at which time they move to the coast and then into the estuarine waters. Growth has been estimated for the species in south Georgia (and should equal or exceed these rates in the Cape Canaveral Area). Growth is slower during the colder winter months, but speeds up with the warming of the waters in spring. From about March to October the size

226,190

6,048,300 1,007,033

Table 4.--Commercial fishery landings, Cape Canaveral Area, for eight dominant species, all others combined; four-year average pound and dollar values by month, 1959-1962

| Lath Christian Bla | | | | | | | | Eight dor | minant spec | ies | | | | |
|--------------------|-----------|---------|-----------|---------|---------|-----------|----------|----------------|-------------|----------|---------|--------------|---------|---------|
| Montb | Shr | imp | Black | mullet | Spotted | sea trout | Red sr | apper | Blue c | rab, har | i Spo | ot | Pon | pano |
| | Pounds | Dollars | Pounds | Dollars | Pounds | Dollars | Pounds | Dollars | Pounds | Dollars | Pounds | Dollars | Pounds | Dollars |
| January | 285,050 | 95,686 | 107,850 | 5,629 | 70,050 | 15,892 | 28,100 | 8,311 | 76,525 | 4,147 | 50 | 5 | 1,000 | 750 |
| February | 34,425 | LL,923 | 100 705 | 5 007 | 43,000 | a 769 | 21,017 | 7 127 | 81 700 | 1,080 | 2 450 | 07 2hh | 1 900 | 1 207 |
| Anril | 5.825 | 2,611 | 96,425 | 4,701 | 35,000 | 8,438 | 25,325 | 7,661 | 91,075 | 4,614 | 10,375 | 1.071 | 825 | 567 |
| May | 4,125 | 2,041 | 114,000 | 5,612 | 33,050 | 8,074 | 29,100 | 8,299 | 118,575 | 5,985 | 17,025 | 1,729 | 4,125 | 2,774 |
| June | 9,950 | 3,809 | 116,575 | 5,678 | 36,100 | 8,847 | 33,500 | 8,918 | 129,225 | 6,388 | 37,400 | 3,910 | 6,925 | 4,647 |
| July | 24,375 | 9,672 | 147,475 | 6,988 | 30,325 | 7,443 | 18,050 | 5,137 | 138,525 | 6,699 | 20,925 | 2,200 | 8,325 | 5,363 |
| August | 22,250 | 0,816 | 171,175 | 8,240 | 31,600 | (, ()L | 12,350 | 3,641 2,800 | 112 105 | 5,052 | 42,725 | 4,191 | 0,525 | 2,000 |
| October | 173.525 | 66,783 | 181,100 | 8.850 | 26,850 | 6,568 | 7.125 | 2,175 | 104.800 | 5,272 | 61,300 | 5,875 | 3,150 | 2,220 |
| November | 329,300 | 144,841 | 184,525 | 8,839 | 31,250 | 7,495 | 12,600 | 3,778 | 97,250 | 4,924 | 11,675 | 1,209 | 1,425 | 1,062 |
| December | 449,750 | 184,178 | 99,150 | 4,734 | 48,675 | 11,257 | 19,575 | 5,732 | 89,975 | 4,560 | 5,175 | 595 | 350 | 260 |
| Total | 1,377,650 | 546,718 | 1,620,300 | 78,845 | 451,100 | 107,816 | 251,475 | 72,206 | 1,256,075 | 62,928 | 272,725 | 27,784 | 42,050 | 28,372 |
| | | | | Tot | tal | | | | All other | species | | | All spe | ecies |
| | | | | fc | 22 | Perce | ent of | | | Percen | tof | | | |
| Month | King | whiting | | eight | species | total | catch | Te | otal | total | catch | | Tota] | |
| | Pounds | Dollars | | Pounds | Dollars | Pounds | Dollars | Pounds | Dollars | Pounds | Dollars | Pou | inds | Dollars |
| January | 63,075 | 5,192 | | 631,700 | 135,612 | 93 | 95 | 47,100 | 6,700 | 7 | 5 | 678, | 800 - | 142,312 |
| February | 45,250 | 3,677 | | 335,225 | 43,766 | 92 | 91 | 29,850 | 4,255 | 8 | 9 | 365, | 075 | 48,021 |
| March | 9,275 | 814 | | 297,050 | 34,476 | 91 | 90 | 29,275 | 3,815 | .9 | 10 | 326, | 325 | 38,291 |
| April | 3,050 | 270 | | 267,900 | 29,933 | 80 | 80 80 | 79,705 | 4,880 | 14 | 14 | ر 212 202 | 350 | 34,013 |
| June | 1 025 | 170 | | 371.600 | 42,367 | 87 | 89 | 55.075 | 5,172 | 13 | 11 | 426. | 675 | 47.539 |
| July | 4.175 | 373 | | 392,175 | 43,875 | 90 | 91 | 44,400 | 4,344 | 10 | 9 | 436, | 575 | 48,219 |
| August | 2,075 | 249 | | 439,225 | 45,956 | 91 | 92 | 42,400 | 4,115 | 9 | 8 | 481, | 625 | 50,071 |
| September | 900 | 90 | | 407,700 | 43,798 | 95 | 95 | 22,875 | 2,287 | 5 | 5 | 430, | 575 | 46,085 |
| October | 8,500 | 735 | | 566,350 | 98,478 | 95 | 97 | 30,100 | 3,540 | 5 | 3 | 596, | 450 | 102,018 |

(ge

91

94 529,825 61,413

9

6

increase is about 17 mm. a month. Mullet from the earliest spawning (October) would reach a minimum length of about 160 mm. standard length by the end of the first year.

20,951

65,900

247,100

778,550 216,959

5,518,475 945,620

Spotted Sea Trout

December

Total

The fishery for spotted sea trout is also year-round--the heaviest average landings occur from December through March, with the lowest period of production during September and October. Spotted sea trout ranks fourth in volume of the Cape Canaveral Area fisheries (4-year average of 451,100 pounds), exceeded by black mullet, shrimp, and blue crab, and second in value (4-year average of \$107,816), exceeded only by shrimp (tables 4 and 5). Gill nets are the principal gear, but trolling is also used. Tabb (1960) said, "Spotted seatrout netters rely upon the seasonal movements of the species and produce their heaviest catches during winter when the fish are concentrated in small areas by cold weather or during the concentration of fish at spawning time."

A study of the biology of the spotted sea trout in the Indian River was conducted and reported by Tabb (1961). He summarized his findings as follows:

"This species exhibits a rapid growth rate. Average growth rates of 16, 8, 7, 6, and 6 centimeters were obtained by the scale calculation method for the first five years of life. Growth rates for the species were found to be slightly higher in the Indian River area than in other portions of its range.

"Sexual dimorphism in growth and life span is exhibited with females growing faster and living longer than males. Few males live longer than six years. The maximum age observed was 10 years and the maximum weight 13 pounds, 12 ounces. The species is carnivorous and will eat any prey available. In the brackish lagoons pink and brown shrimp, mysid shrimp, and small fishes make up the bulk of the diet. The species feeds sporadically and can ingest relatively large prey. Spotted seatrout 15 inches long produced 15,000 eggs; those 20 inches long, 150,000 eggs; 23 inches long, 400,000 eggs and 28 inches long, 1,100,000 eggs. Spawning takes place in the deeper holes and channels of the Indian and Banana River lagoons. The spawning season appears to be shorter in the Indian River system than in other parts of the range (mid-April to late July compared with mid-April to October of other authors). Adult spotted seatrout exhibit local movements and concentration during the spawning season and are subject to intensive fishing pressure at that time."

Blue Crab

Blue crabs support a year-round fishery. The months of highest average production are May through September, and the lowest, January through March. Blue crab is third in poundage of the Cape Canaveral Area fisheries (4-year average of 1,256,075 pounds), exceeded by black mullet and shrimp, and fifth in value (4-year average of \$62,928), Table 5.--Commercial fishery landings, Cape Canaveral Area, 4-year pound and dollar value averages by SEDAR25-RD31 entire area and subareas, by months for period 1959-62

| Month of January | | | | | · · · · · · · · · · · · · · · · · · · | | | | | |
|--------------------------------------|---------|--------------------|-----------|-----------|---------------------------------------|--------------|-----------|----------|----------------------|-----------|
| Species | Atla | ntic Ocean | Indi | an River | Bana | na River | Halif | ax River | 4-year Cape Canav | · average |
| | Pounds | Dollars | Pounds | Dollars | Pound | ls Dollars | Pounds | Dollars | Pounds | Dollars |
| Amberjack | | | | | | | | | | |
| Barracuda | | | | | - | | | | | ~ |
| Blue runner | 425 | 4] | . 125 | 10 | 7 | 5 6 | | | 625 | 58 |
| Cabio | | | | | _ | | | | | |
| Crevalle (Common jac | k) 175 | 6 | | | - | ~ | | | 175 | 6 |
| Drum, black | 25 | 4 | 5-70 | 1.0 | - 1.0 | | | | 25 | 4 |
| Drum, red | 1,625 | 230 | 5,700 | 40 801 | • 40 h7 | 0 30 5 67 | 225 | 19 | 1,925 | 153 |
| Flounders | 8,850 | 1,435 | | | | | 2,4(2 | 349 L | 8 875 | 1,446 |
| Groupers | 5,250 | 617 | | | - | | | | 5,250 | 617 |
| Jewfish | 2,650 | 201 | 150 | | - | | | | 2,650 | 201 |
| King mackerel | 375 | 51 | | | _ | | | | 150 | 11 |
| King whiting | 51,800 | 4,256 | 7,850 | 644 | 3,32 | 5 284 | 100 | 8 | 63.075 | 5.192 |
| Menhaden Mederme (Gred south) | 125 | 4 | 1,550 | 40 | 37 | 5 9 | 150 | 4 | 2,200 | 56 |
| Mullet, black | 1> | 0 | 275 | 22 | 10 20 | 0 12 | 20.255 | | 500 | 40 |
| Mullet, silver | | | | 5,900 | 17,14 | | | 631 | 107,850 | 5,629 |
| Pigfish | | | 1,225 | 131 | ~ - | | 525 | 56 | 1.750 | 187 |
| Pompano Son basa blash | | | 700 | 524 | 300 | 0 225 | | | 1,000 | 750 |
| Sea catfish | -,015 | 126 | | | | | | | 1,075 | 126 |
| Sea trout, gray | 25 | 3 | | | | | | | | |
| Sea trout, spotted | 775 | 178 | 50,025 | 11,351 | 10,47 | 5 2,375 | 8.775 | 1.989 | 70.050 | 15 800 |
| Sheepshead | | | 225 | 17 | 17 | 5 12 | | | 400 | 29 |
| Snapper, red | 28,100 | 8,311 | | | | | | | 28,100 | 8,311 |
| Spanish mackerel | 25 | 23 | | | | | | | 150 | 23 |
| Spot | | | 50 | 5 | | | | | 25 | 2 |
| Tenpounder | | | | | ~ • | | | | | 2 |
| Triggerfish | 125 | 8 | - ~ | ~ = | | | | | 125 | 8 |
| Unclassified, food | | | 2 806 | 182 | | | 0.c.o | | | |
| Unclassified, bait | | | 25 | 103 | 25 | 5 1 | 050 | 55 | 4,000 | 258 |
| Crabs, blue, hard | | | 63,500 | 3,435 | 11,500 | 623 | 1,525 | 89 | 76.525 | 4.147 |
| Crabs, blue, soft | | ~ * | | | | | | ~ = | | |
| Shrimp | 284.475 | 95 438 | 2,025 | 666 | | | | | 2,025 | 666 |
| Oysters | | | 4,000 | 1.189 | | | 575 | 247 | 285,050 | 95,686 |
| Squid | 75 | 11 | | | | | | 101 | 4,350 | 1,296 |
| Scallops, calico | | ~~~ | | | | | | | | |
| ciams, nard | | | 25 | 8 | | · | | | 25 | 8 |
| Total | 386,925 | 111,007 | 216,800 | 23,046 | 47,325 | 4,703 | 27,750 | 3,558 | 678.800 | 142.312 |
| Month of February | | | | | | | | | * / | , |
| | | | | | | | | | | |
| Amberjack | 75 | 3 | | | ~ - | | | | 75 | 3 |
| Bluefish | 206 | h-0 | | | | | | | | |
| Blue runner | | +- <i>∠</i> = - | 150 | 10 | 125 | 14 | | | 600 | 72 |
| Cabio | | | | | | | | | | |
| Crevalle (Common jack) |) 150 | 5 | | | | | | | 150 | 5 |
| Douphin Drum black | 125 | 16 | | | | | | | 125 | 16 |
| Drum, red | 675 | 94 | 3 100 | 41 | 100 | 8 | 250 | 23 | 1,325 | 115 |
| Flounders | 2,250 | 350 | | +20 | 200 | 44 | 1,350 | 105 | 5,425 | 754 |
| Groupers | 4,700 | 546 | | | | | | | 4.700 | 546 |
| Grunts Jewfich | 250 | 20 | | | | | | | 250 | 20 |
| King mackerel | 375 | 51 | 50 | 4 | | | | | 125 | 9 |
| King whiting | .39,150 | 3,143 | 4,300 | 378 | 1,700 | 148 | 1.00 | | 15 250 | 3 677 |
| Menhaden | 100 | 3 | 850 | 23 | 200 | 6 | 75 | 2 | 1,225 | 33 |
| Mojarra (Sand perch) Mullet black | 50 | 4 | 125 | 10 | 50 | 4 | | | 225 | 18 |
| Mullet, silver | | | 70,425 | 3,980 | 20,100 | 1,031 | 13,275 | 676 | 111,800 | 5,687 |
| Pigfish | | | 100 | 10 | | | 50 | | 150 | |
| Pompano | | | 350 | 251 | 125 | 89 | | | 475 | 340 |
| Sea catfish | 1,475 | 162 | | ~ - | | | | ~ = | 1,475 | 162 |
| Sea trout, gray | 25 | 3 | 50 | | | | | | | |
| Sea trout, spotted | 775 | 184 | 32,450 | 7,658 | 6,650 | 1.574 | 5.725 | 1.354 | 45.600 | 10 769 |
| Sheepshead Snappon and | 25 | 2 | 125 | 10 | 125 | 10 | | ~~ | 275 | 23 |
| Snapper, ied | 50 | 7,607 | | | | | | | 27,075 | 7,607 |
| Spanish mackerel | | | | | | | | | 50 | 8 |
| Spot | 75 | 8 | 700 | 71 | | | 50 | 7 | 825 | 85 |
| renpounder Priggerfich | | | | - ~ | | | | | | |
| Varsaw | 4 (5 | 28 | | | | | ~ = | | 475 | 28 |
| Jnclassified, food | | | 3,325 | 215 | 375 | 24 | 975 | 63 | 100 | 8 |
| Inclassified, bait | | | 125 | 3 | 50 | 1 | | | 4,010 | 302 L |
| rabs blue, hard | | | 57,450 | 3,028 | 10,900 | 569 | 1,425 | 81 | 69,775 | 3,678 |
| rabs, stone | | | 1,250 | 416 | 150 | | | | | |
| Shr imp | 34,200 | 11,817 | | | 150 | לכ | 225 | 106 | 1,400 | 472 |
| Dysters | | | 3,700 | 1,106 | | | 350 | 107 | 4,050 | 1,214 |
| Scallons celico | 50 | 8 | | | | | | | 50 | 8 |
| lams, hard | | | 25 | | | | | ~ ~ | | |
| De és 3 | | | | 0 | | | | | 25 | 8 |
| tota <u>1</u> | 113,150 | 24,165 | 187,100 | 17,659 | 40,950 | 3,577 | 23,875 | 2,621 | 365,075 | 48,021 |

| MONTO OI MARCO | | | | | | | | | | |
|------------------------|---------|---------|----------|---------|----------|---------|--------|---------|--------------|-----------|
| Species | Atlent1 | C Ocean | Indian | River | Benene | River | Helife | y River | 4-year | erel Area |
| opecites | Pounds | Dollars | Pounds 1 | Dollars | Pounds I | Dollars | Pounds | Dollars | Pounds | Dollars |
| | | | | | | | | | | |
| Amberjack | 200 | 8 | | | | | | | 200 | 8 |
| Barracuda | 1 075 | 165 | 200 | | 200 | | | | 1 675 | 102 |
| Blue runner | (12¢1 | | 200 | | 200 | | | | ±,01) | 193 |
| Cabio | | | -1 == | | | | | | | |
| Crevalle (Common jack) | 1,500 | 48 | 25 | 1 | | | 50 | 2 | 1,575 | 50 |
| Dolpbin | | | | | ~ ~ | | | | | |
| Drum, black | 350 | 28 | 300 | 26 | 25 | 2 | 125 | 11 | 800 | 67 |
| Drum, red | 800 | 118 | 1,850 | 266 | 75 | 11 | 825 | 119 | 3,550 | 513 |
| Flounders | 1,025 | 164 | | | | | | | 1,025 | 164 |
| Grunte | 0,470 | 157 | | | | | | | 0,470 | 151 |
| Jewfish | | | | | | | | | | |
| King mackerel | 1,750 | 234 | | | | | | | 1,750 | 234 |
| King whiting | 7,925 | 696 | 850 | 74 | 500 | 44 | | | 9,275 | 814 |
| Menhaden | 225 | 6 | 1,075 | 28 | 175 | 5 | 75 | 2 | 1,550 | 40 |
| Mojarra (Sand perch) | | | 06 505 | 1 0 0 0 | | | | | | |
| Mullet, black | | | 00,125 | 4,233 | 21,525 | 1,034 | 14,4(5 | (20 | 122, (25 | 5,993 |
| Mullet, Silver | | | 125 | 12 | | | 150 | 16 | 075 | 20 |
| Pompano | | | 1.250 | 871 | 650 | 456 | 1,0 | | 1.900 | 1.327 |
| Sea bass, black | 1,250 | 135 | | | | | | | 1,250 | 135 |
| Sea catfish | 25 | 2 | | | | | | | 25 | 2 |
| Sea trout, gray | 50 | 5 | | | | | | | 50 | 5 |
| Sea trout, spotted | 350 | 84 | 28,775 | 7,031 | 6,025 | 1,467 | 4,850 | 1,187 | 40,000 | 9,769 |
| Sheepsbead | | | 75 | 6 | 75 | 6 | | | 150 | 13 |
| Snapper, red | 25,475 | 7,127 | | | | | | | 25,415 | () 12 (|
| Snapper, other | () | 12 | | | | | | | 12 | 12 |
| Spatian mackeder | 125 | 13 | 2 900 | 290 | 300 | 29 | 125 | 14 | 3.450 | 344 |
| Tennounder | | | | | | | | | | ~- |
| Triggerfish | 150 | 9 | | | | | | | 150 | 9 |
| Warsaw | 100 | 8 | | | | | | | 100 | 8 |
| Unclassified, food | | | 1,975 | 130 | 225 | 15 | 575 | 38 | 2,775 | 183 |
| Unclassified, bait | | | | | | | 1,475 | 76 | 1,475 | 76 |
| Crabs, blue, hard | | | 67,700 | 3,403 | 14,000 | 686 | ~ ~ | | 81,700 | 4,089 |
| Crabs, blue, soit | | | | 205 | 150 | | | | 1 100 | 270 |
| Crabs, stone | 11 275 | h h55 | 950 | 560 | 190 | 24 | 1 150 | 558 | 12 525 | 5 013 |
| Ovsters | C1C(LL | | 2.800 | 821 | | | 325 | 100 | 3,125 | 920 |
| Souid | 25 | 4 | | = = | | | | | 25 | 4 |
| Scallops, calico | 100 | 42 | | | | | | | 100 | 42 |
| Clams, hard | | | 25 | 8 | | | | | 25 | 8 |
| | | -1 - 71 | | | | - 0-1 | | - 01 - | | -0 |
| Total | 60,600 | 14,064 | 197,600 | 17,551 | 43,925 | 3,834 | 24,200 | 2,849 | 320, 325 | 30,291 |
| No. 45 . 48 . 400.12 | | | | | | | | | | |
| Month of April | | | | | | | | | | |
| Amberjack | 50 | 2 | | | | | 50 | 3 | 100 | 5 |
| Barracuda | | | | | | | | | | |
| Bluefish | 1,350 | 136 | 325 | 31 | 225 | 22 | | | 1,900 | 189 |
| Cabio | | | | | | | | | | |
| Crevalle (Common tack) | 450 | 71 | 25 | 1 | | | 25 | 1 | 500 | 16 |
| Dolphin | 100 | 12 | | | | | | | 100 | 12 |
| Drum, black | 275 | 21 | 100 | 8 | 25 | 2 | 75 | 7 | 475 | 38 |
| Drum, red | 750 | 111 | 1,575 | 221 | 50 | 7 | 650 | 91 | 3,025 | 429 |
| Flounders | 950 | 157 | ~ = | | | | | | 950 | 157 |
| Groupers | 5,375 | 615 | | | | | | | 5,375 | 615 |
| Grunts | | | | | | | | | | |
| Ving meckerel | 30 775 | 1 477 | | | | | | | 10 775 | 1 617 |
| King whiting | 2,425 | 215 | 350 | 31 | 275 | 24 | | | 3,050 | 270 |
| Menhaden | 300 | | 1,275 | 32 | 325 | 8 | 125 | 3 | 2,025 | 50 |
| Mojarra (Sand perch) | | | | | | | | | | |
| Mullet, black | | | 67,675 | 3,300 | 17,675 | 847 | 11,075 | 555 | 96,425 | 4,701 |
| Mullet, silver | | | | | | | | | | |
| Pigrish | | | | 1.07 | | | | | 205 | -(|
| See bace block | 1 1 50 | 170 | 02) | 421 | 200 | 140 | | | 1 450 | 170 |
| Sea catfish | 75 | 10 | 50 | | 25 | 1 | | | 150 | 8 |
| Sea trout, gray | 125 | 13 | 25 | 3 | | | | ~ = | 150 | 16 |
| Sea trout, spotted | 225 | 55 | 24,950 | 6.016 | 5,525 | 1.330 | 4,300 | 1,038 | 35,000 | 8,438 |
| Sheepshead | | | 75 | 5 | 125 | 9 | | | 200 | 14 |
| Snapper, red | 25,325 | 7,661 | | | | | | | 25,325 | 7,661 |
| Snapper, other | 125 | 18 | | | | | | | 125 | 18 |
| Spanish mackerel | 9,475 | 864 | | | 1 075 | | | | 9,475 | 864 |
| Tennounder | 375 | 30 | (,100 | 742 | 1,975 | 193 | 925 | 99 | 10,315 | 1,071 |
| Triggerfish | 100 | 6 | | | | | | | 100 | 6 |
| Warsaw | 125 | 10 | | | | | | | 125 | 10 |
| Unclassified, food | | | 2,550 | 169 | 300 | 20 | 775 | 51 | 3,625 | 240 |
| Unclassified, bait | 1,350 | 28 | 600 | 13 | 75 | 2 | | | 2,025 | 42 |
| Crabs, blue, hard | | | 76,150 | 3,867 | 12,850 | 641 | 2,075 | 107 | 91,075 | 4,614 |
| Crabs, blue, soft | | | 25 | 13 | | | | | 25 | 13 |
| Shrimn | E 1.00 | | 600 | 199 | | | hor | | 600 E 805 | 199 |
| Ovsters |),400 | 2,390 | 1 100 | 208 | | | 425 | 221 | 1,025 | 308 |
| Squid | 25 | L | 1,100 | 320 | | | | | 25 | 520 |
| Scallops, calico | 50 | 20 | | | | | | | 50 | 20 |
| Clams, bard | | | | | | | | | | |
| (D) + 3 | (| | - 0. | | | 1.6 | | | | |
| TOCAL | 67,025 | 13,989 | 105,175 | 15,409 | 39,650 | 3,246 | 20,500 | 2,176 | 312,350 | 34,813 |

Table 5. -- Continued

| Month of May | | | | | | | | | | |
|--------------------------|----------|-------------|---------|---------|--------|---------|--------|----------|----------------------|-----------------------|
| Species | Atlant | tic Ocean | India | n River | Benans | River | Halif | ax River | 4-year Cape Canav | average Veral Area |
| | Pounds | Dollars | Pound s | Dollars | Pounds | Dollars | Pounds | Dollars | Pounds | Dollars |
| Amber isck | 675 | 21 | | | | | 150 | 8 | 825 | 3.8 |
| Berracuda | | عدر جانب | | | | | 25 | 1 | 25 | 1 |
| Bluef ish | 1,150 | 106 | 275 | 27 | 300 | 27 | | | 1,725 | 159 |
| Blue runner Cabio | 75 | 7 | 25 | 2 | 25 | 2 | | | 50 | 4 |
| Crevalle (Common jack) | 12 | | | | | | | | 12 | |
| Dolphin | 25 | 3 | | | | | | | 25 | 3 |
| Drum, black | 125 | 9 | 50 | 4 | | | | | 175 | 13 |
| Flounders | 1,315 | 195 | 2,125 | 314 | 100 | 45 | 950 | 140 | 4,550 | 125 |
| Groupers | 11,400 | 1,191 | | | | | | | 11,400 | 1,191 |
| Crunts | | | | | | | | | | |
| Jewfish King mackerel | 10.950 | 1 761 | | | | | | | 10 950 | 1 26/2 |
| King whiting | 600 | 55 | 150 | 13 | 25 | 2 | | | 775 | 70 |
| Menhaden | 275 | - ê | 1,825 | 47 | 350 | 9 | 125 | 3 | 2,575 | 66 |
| Mojarra (Sand perch) | | | 90 Los | 2 060 | | ch c | | | | |
| Mullet, black | | | 00,425 | 3,900 | 19,025 | 945 | 13,950 | 100 | 75 | 5,012 |
| Pigfish | 50 | 4 | 75 | 6 | | | 125 | 10 | 250 | 20 |
| Pompano | | | 3,350 | 2,240 | 775 | 534 | | | 4,125 | 2,774 |
| Sea bass, black | 2,050 | 209 | | | | | | | 2,050 | 209 |
| Sea trout. grav | 300 | 30 | 225 | 25 | 225 | 24 | | | 750 | 79 |
| Sea trout, spotted | 175 | 43 | 23,625 | 5,772 | 5,175 | 1,261 | 4,075 | 997 | 33,050 | 8,074 |
| Sheepshead | | | 300 | 21 | 175 | 12 | | | 475 | 33 |
| Snapper, red | 29,100 | 8,299 | | | | | | | 29,100 | 8,299 |
| Spanish mackerel | 32,500 | 3.048 | | | | | | | 32,500 | 3.048 |
| Spot | 375 | 38 | 12,775 | 1,303 | 2,750 | 270 | 1,125 | 119 | 17,025 | 1,729 |
| Tenpounder | | | | | | | | | | |
| Triggerfisb | 150 | .9 | | | | | | | 150 | 18 |
| Unclassified, food | | | 1,425 | 96 | 175 | 12 | 450 | 30 | 2,050 | 138 |
| Unclassified, bait | 300 | 7 | 200 | 5 | 75 | 2 | | | 575 | 14 |
| Crabs, blue, bard | | | 98,675 | 4,984 | 17,600 | 886 | 2,300 | 115 | 118,575 | 5,985 |
| Crabs, blue, soft | | | 100 | 30 | | | | | 100 | 33 |
| Shrimp | 3,250 | 1,577 | | | | | 875 | 464 | 4,125 | 2,041 |
| Oysters | | | 50 | 15 | | | | | 50 | 15 |
| Squid | 25 | 4 | | | | | | | 25 | 4 |
| Clams, hard | <) == | | | | | | | | <-> | ~= 10 |
| Tetal | 06 150 | 16 101 | 205 805 | 18 000 | 10 300 | 1. 001 | ah 160 | 0.637 | 202 500 | 10.000 |
| lotal | 96,150 | 10,424 | 225,025 | 10,920 | 46315 | 4,001 | 24,150 | 2,201 | 393,500 | 41,929 |
| Month of June | | | | | | | | | | |
| Amberjack | 2,575 | 108 | 175 | 5 | | | 400 | 22 | 3,150 | 135 |
| Berracuda | | | | | 1.00 | | | | 1.75 | J. 5 |
| Blue Tupper | 225 | 21 | 150 | 14 | 100 | 10 | | | +17 | 47 |
| Cabio | 275 | 26 | | | | | | | 275 | 26 |
| Crevalle (Common jack) | | | | | | * * | | | | |
| Dolpbin | 50 | 7 | | | | | | | 125 | 10 |
| Drum, DLACK | 100 | 59 | 1,100 | 162 | | | 475 | 70 | 1,975 | 292 |
| Flounders | 1,075 | 182 | | | | | | | 1,075 | 182 |
| Groupers | 11,600 | 1,274 | | | | | | | 11,600 | 1,274 |
| Grunts | | | | | | | | | | |
| King mackerel | 2,625 | 351 | | | | | | | 2,625 | 351 |
| King whiting | 1,625 | 143 | 250 | 22 | 50 | 4 | | | 1,925 | 170 |
| Menhaden | 450 | 12 | 850 | 23 | 75 | 2 | 25 | 1 | 1,400 | 37 |
| Mojarra (Sand perch) | | | 82.075 | 3.976 | 20.325 | 1.002 | 14,175 | 700 | 116,575 | 5,678 |
| Mullet, silver | | | | | | | 25 | 2 | 25 | 2 |
| Pigfisb | | ~ = | | | | | | | | L 21.7 |
| Pompano | 1 450 | 175 | 5,375 | 3,560 | 1,550 | 1,087 | | | 1,650 | 4,041 |
| Sea catfish | 1,050 | T() | | | 25 | 2 | | | 25 | 2 |
| Sea trout, gray | 375 | 38 | 725 | 81 | 725 | 81 | 50 | 6 | 1,875 | 205 |
| Sea trout, spotted | 225 | 56 | 25,900 | 6,343 | 5,325 | 1,308 | 4,650 | 1,141 | 36,100 | 8,847 |
| Sheepshead | 22 500 | 8 018 | 50 | | 100 | | | | 33,500 | 8.918 |
| Snapper, other | 175 | 25 | | | | | | | 175 | 25 |
| Spanish mackerel | 23,000 | 2,019 | vit | | | ar - 4 | | | 23,000 | 2,019 |
| Spot | 450 | 45 | 29,675 | 3,116 | 5,350 | 539 | 1,925 | 210 | 37,400 | 3,910 |
| Triggerfish | 175 | 11 | | | | | | | 175 | 11 |
| Warsaw | 175 | 14 | | | | | | | 175 | 14 |
| Unclassified, food | | | 2,725 | 185 | 325 | 22 | 750 | 52 | 3,800 | 259 |
| Unclassified, bait | 525 | 12 | 108 800 | 5.366 | 17,825 | 2 | 2,600 | 124 | 129,225 | 6.388 |
| Crabs, blue. soft | | | 75 | 38 | | | | | 75 | 38 |
| Crabs, stone | | | | | | | | | | |
| Shrimp | 9,400 | 3,593 | | | | | 550 | 216 | 9,950 | 3,809 |
| Souid | 125 | 19 | | | | | | | 125 | 19 |
| Scallops, calico | 25 | 10 | | | | | | | 25 | 10 |
| Clams, hard | | | | | | | | | | |
| Total | 90,800 | 17,126 | 258,250 | 22,904 | 52,000 | 4,968 | 25,625 | 2,544 | 426,675 | 47,539 |

Table 5. -- Continued

| Month of July | | | | | | | | | | |
|-----------------------------------|--------|----------|---------|-----------|----------|----------------|-----------------|--------|----------------------|----------------------|
| Species | Atlant | ic Ocean | India | n River | Banana | River | Halifax | River | 4-year Cape Canav | average eral Area |
| | Pounds | Dollars | Pounds | Dollars | Pounds I | <u>lollars</u> | Pounds 1 | ollars | Pounds | Dollars |
| Amberjack | 4,075 | 188 | 450 | 18 | ы « | | 1,100 | 57 | 5,625 | 263 |
| Barracuda | 25 | 1 | 275 | 2h | 105 | | | | 25 | 102 |
| Blue runner | 25 | 2 | 212 | 54 | 127 | 73 | | ~- | 1,227 | 2 |
| Cabio | 250 | 22 | | | | | | | 250 | 22 |
| Crevalle (Common jack) | | | | | | | | | | |
| Dolphin Drum black | 150 | 10 | | | 50 | h | | | 250 | 10 |
| Drum, red | 1,425 | 210 | 2,175 | 337 | -75 | 11 | 1,075 | 167 | 4,750 | 724 |
| Flounders | 875 | 143 | | | | | | | 875 | 143 |
| Groupers | 8,175 | 926 | | | | | | | 8,175 | 926 |
| Jeufish | 50 | | | | | | | | 50 | |
| King mackerel | 3,525 | 510 | | | | | | | 3,525 | 510 |
| King whiting | 3,275 | 295 | 425 | 37 | 475 | 40 | | | 4,175 | 373 |
| Menhaden Meinerra (Sand perch) | 2,075 | 44 | 1,900 | 49 | 350 | 10 | 125 | 4 | 4,450 | 3 T00 |
| Mullet, black | | | 104,025 | 4,937 | 25,700 | 1,206 | 17,750 | 845 | 147,475 | 6,988 |
| Mullet, silver | | | | | | · | 25 | 2 | 25 | 2 |
| Pigfish | | | 300 | 30 | | | 175 | 17 | 475 | 47 |
| Sea bass, black | 1.200 | 131 | 0,000 | 4,10) | 1,017 |) تحلول =- | TOO | 21 | 1,200 | 2,303 |
| Sea catfish | 225 | 16 | | | | | | | 225 | 16 |
| Sea trout, gray | | | 50 | 6 | 25 | | | | 75 | 9 |
| Sea trout, spotted | 175 | 42 | 21,675 | 5,322 | 4,650 | 1,140 | 3,625 | 939 | 30,325 | 7,443 |
| Snapper, red | 18,050 | 5.137 | | | +12 | =- T++ | | | 18,050 | 5,137 |
| Snapper, other | 150 | 21 | | | | | | | 150 | 21 |
| Spanish mackerel | 9,125 | 956 | | 3 800 | | 01.5 | | | 9,125 | 956 |
| Spot Teppounder | 50 | 2 | 17,100 | 1,002 | 2,425 | 245 | 1,350 | 149 | 20,927 | 2,200 |
| Triggerfish | 125 | 7 | | | | | | ~ ~ | 125 | 7 |
| Warsaw | 25 | 2 | | | | | | | 25 | 2 |
| Unclassified, food | 50 | 3 | 2,000 | 134 | 225 | 15 | 675 | 44 | 2,950 | 195 |
| Crahs, blue, bard | | | 116.100 | 5.634 | 19,500 | 922 | 2,925 | 143 | 138,525 | 6,699 |
| Crabs, blue, soft | | | | | | | | | | |
| Crabs, stone | | | | | | | | | | 0 (70 |
| Shrimp | 23,925 | 9,519 | | | | | 450 | 153 | 24,315 | 9,672 |
| Souid | 225 | 34 | | ~ - | | | | ~ ~ | 225 | 34 |
| Scallops, calico | 100 | 40 | | | | | | | 100 | 40 |
| Clams, hard | | ~ = | | | | | | | | |
| Total | 78,150 | 18,356 | 273,400 | 22,547 | 55,450 | 4,750 | 29,5 7 5 | 2,571 | 436,575 | 48,219 |
| Month of August | | | | | | | | | | |
| Amber lock | 5 ho5 | 236 | 625 | 25 | | | 075 | h7 | 7 025 | 306 |
| Barracuda |),42) | | | | | | 212 | | | |
| Bluefish | 800 | 64 | 200 | 16 | 200 | 15 | | | 1,200 | 95 |
| Blue runner | 150 | | | | | | | | 150 | 1) |
| Crevalle (Common jack) | 150 | 13 | 25 | 1 | | | | | 425 | 14 |
| Dolphin | 50 | | | | | | 25 | 3 | 75 | 10 |
| Drum, black | 50 | 2 | 50 | <u></u> ц | 50 | 3 | | | 150 | 5 |
| Drum, red | 1,050 | 167 | 2,025 | 305 | 25 | 4 | 850 | 120 | 3,950 | 50g 11c |
| Groupers | 4.000 | 458 | | | | | | | 4.000 | 458 |
| Grunts | | | | | | | | | | |
| Jewfisb | | | | | 100 | 8 | | | 100 | . 8 |
| King mackerel King whiting | 4,450 | 200 | 350 | 30 | 100 | | | | 4,450 | 2h0 |
| Menhaden | 1,450 | 36 | 2,175 | 56 | 475 | 12 | 175 | 4 | 4,275 | 108 |
| Mojarra (Sand perch) | 25 | 2 | | | 25 | _3 | | | 50 | |
| Mullet, black | | | 120,300 | 5,623 | 29,825 | 1,383 | 21,050 | 988 | 171,175 | 7,994 |
| Pigfish | | | 75 | 8 | | | 12 | 5 | 125 | 11 |
| Pompano | | | 6,800 | 4,465 | 1,650 | 1,148 | 75 | 43 | 8,525 | 5,656 |
| Sea bass, black | 1,025 | 110 | | | | | | | 1,025 | 110 |
| Sea catfish | 25 | 2 | | | | | | | 25 | 2 |
| Sea trout, gray | 150 | 36 | 22,675 | 5,565 | 4,800 | 1,178 | 3,975 | 973 | 31,600 | 7,751 |
| Sbeepshead | | | 75 | 6 | 25 | 2 | | | 100 | 9 |
| Snapper, red | 12,350 | 3,641 | | | | | | | 12,350 | 3,641 |
| Spanish mackerel | 8.600 | 936 | | | | | | | 8.600 | 936 |
| Spot | 900 | 83 | 34,475 | 3,664 | 6,900 | 679 | 3,450 | 371 | 45,725 | 4,797 |
| Tenpounder | | | | | | | | | | |
| Warsaw | 50 | 3 | | | | | | | 20 75 | - |
| Unclassified, food | 100 | 6 | 3,000 | 205 | 325 | 21 | 900 | 59 | 4,325 | 290 |
| Unclassified, bait | | ~- | | | | | | | | |
| Crabs, blue, hard | | | 120,175 | 5,839 | 22,700 | 1,080 | 2,650 | 1.33 | 145,525 | 7,052 |
| Crabs, stone | | | | | | | | | | |
| Shrimp | 21,900 | 8,673 | | | | | 350 | 144 | 22,250 | 8,816 |
| Oystera | | | | | | | | | 3.50 | |
| Scallopa, calico | 700 | 280 | | | | | | | 700 | 280 |
| Clams, hard | | | | | | | | | | |
| Total | 66,675 | 15,801 | 313,150 | 25,825 | 67,200 | 5,544 | 34,600 | 2,904 | 481,625 | 50,073 |

Table 5--Continued

| Month of September | | | | | | | | | | |
|----------------------------------|---------|-----------|-------------|------------|---------|---------|---------|----------|------------------|-------------|
| Species | Atlan | tic Ocean | Indi | an River | Benan | a River | Halif | av River | 4-yea | r average |
| | Pounds | Dollars | Pounds | Dollars | Pounds | Dollars | Pounds | Dollars | Pounds | Dollars |
| Amber jack | 950 | 73 | | | | | lico | 10 | 2.050 | 10 |
| Barracuda | | | | | | | 400 | | 1,350 | 60 |
| Bluefish | 200 | 19 | 100 | 10 | | | | | 300 | 29 |
| Cabio | 50 | | | | | | | | | |
| Crevalle (Common jack) | 275 | . ý | 225 | 5 | | | | | 500 | 2 14 |
| Dolphin | 25 | 3 | | | | | | | 25 | 3 |
| Drum, black | 1.250 | 187 | 2.475 | 365 | 125 | - 9 | 175 | 15 | 750 | 59 |
| Flounders | 875 | 144 | | | 200 | | | 150 | 5,000 | 738 |
| Groupers | 3,250 | 389 | | | | | | | 3,250 | 389 |
| Jewfish | | | | | | | | | | |
| King mackerel | 1,100 | 151 | | | | | | | 1 100 | 151 |
| King whiting | 425 | 42 | 250 | 25 | 225 | 24 | | | 900 | 90 |
| Mennaden Mojarra (Sand perch) | 675 | 17 | 1,125 | 28 | 75 | 2 | 25 | 1 | 1,900 | 47 |
| Mullet, black | | | 119,250 | 5.823 | 28,350 | 1,357 | 19,900 | 960 | 167 500 | 8 140 |
| Mullet, silver | | | | - | | | | | 101,,,000 | |
| Pigrish | | | 2 650 | 0.165 | | | 125 | 13 | 125 | 13 |
| Sea bass, black | 325 | . 0 | J,0JC | 2,407 | 4,317 | 941 | | | 5,025 | 3,406 |
| Sea catfish | | | | | | | | | 347 | 30 |
| Sea trout, gray | | | | | | | | | ~ - | |
| Sea trout, spotted | TOO | 25 | 16,025 | 3,913 | 3,550 | 864 | 2,925 | 713 | 22,600 | 5,513 |
| Snapper, red | 13,200 | 3,820 | | 1++ == | | | | | 13 200 | 3 820 |
| Snapper, other | 275 | | | | | | | | 275 | 5,020 44 |
| Spanish mackerel | 150 | 17 | | | | ~- | | | 150 | 17 |
| Tennounder | 1,600 | 144 | 42,475 | 4,378 | 9,600 | 912 | 5,125 | 530 | 58,800 | 5,964 |
| Triggerfish | 75 | 5 | | | | | | | 125 | 4 |
| Warsaw | 75 | 6 | | | | | | ~ - | 75 | 6 |
| Unclassified, food | 50 | 3 | 4,175 | 309 | 475 | 35 | 1,325 | 100 | 6,025 | 447 |
| Crabs. blue. hard | | | 94.300 | 4 630 | 16 525 | 771 | 2 200 | | 112 105 | |
| Crabs, blue, soft | | | | | | | 2,300 | | <عمل و∂للہ =• | 2,520 |
| Crabs, stone | | | | ~ - | | | | | | |
| Ovsters | 20,550 | 11,345 | 105 | 28 | | | | | 26,550 | 11,345 |
| Squid | 75 | 11 | (<u>عد</u> | | | | | | 125 | 38 |
| Scallops, calico | | | | | | | | | | |
| Clams, hard | | | | | | ~ - | | | | |
| Total | 51,950 | 16,496 | 284,625 | 22,014 | 60,625 | 4,954 | 33,375 | 2,624 | 430,575 | 46,085 |
| Month of October | | | | | | | | | | |
| Ambowinals | 50 | | | | | | | | | |
| Barracuda | 50 | 2 | | | | | | | 50 | 5 |
| Bluefisb | 225 | 25 | 1.75 | 19 | | | | | 400 | hh |
| Blue runner | | | | | | | | | | ~ - |
| Crevelle (Common inck) | 705 | | | | | | | | | |
| Dolphin | | | | | | | | | 750 | 23 |
| Drum, black | 475 | 35 | 150 | 11 | 250 | 18 | 100 | 8 | 975 | 72 |
| Drum, red | 1,850 | 275 | 3,150 | 458 | 250 | 36 | 1,450 | 205 | 6,700 | 974 |
| Groupers | 3,725 | 185 | 50 | 8 | 25 | 4 | 25 | 4 | 3,825 | 585 |
| Grunts | | | | | | | | | 1,500 | 105 |
| Jewfisb | 25 | 2 | | | | | | | 25 | 2 |
| King mackerel King whiting | 6 050 | 83 | 1 005 | | | | | | 625 | 83 |
| Menhaden | 1,775 | 46 | 2,350 | 66 | 415 | 41 | 50 | | 8,500 | 735 |
| Mojarra (Sand perch) | | ~ - | -,5,7 | | - | | | | ↔,⊥,)0 == | |
| Mullet, black Mullet, silver | | | 127,900 | 6,232 | 31,775 | 1,566 | 21,425 | 1,052 | 181,100 | 8,850 |
| Pigfish | | | 275 | 28 | | | 200 | ~- | | 1.0 |
| Pompano | | 50 BH | 2,725 | 1,944 | 425 | 276 | | | 3,150 | 2,220 |
| Sea bass, black | 350 | 42 | | ~ | | | | | 350 | 42 |
| Sea catiisn Sea trout, grav | 25 | 1 | | | | | | | 25 | 1 |
| Sea trout, spotted | 150 | 36 | 19,225 | 4.704 | 4,150 | 1.014 | 3.325 | 814 | 25 | 6 569 |
| Sheepshead | | | 775 | 59 | 500 | 38 | | | 1,275 | 96 |
| Snapper, red | 7,125 | 2,175 | ~ - | | | | | | 7,125 | 2,175 |
| Spanisb mackerel | 150 | 18 | | | | | | | 75 | 10 |
| Spot | 2,150 | 185 | 42,900 | 4,185 | 11,850 | 1,079 | 4,400 | 426 | 61,300 | 5.875 |
| renpounder Triggerfish | | | 75 | 3 | | | | | 75 | 3 |
| Aarsaw | 175 | 13 | | | | | | | 1/70 | |
| Unclassified, food | 25 | 2 | 3,525 | 262 | 400 | 30 | 1,050 | 79 | 5,000 | 373 |
| Unclassified, bait | 225 | 5 | 100 | 2 | 150 | 4 | | | 475 | 11 |
| Crabs, blue, soft | | | 00,850 | 4,486 | 13,450 | 659 | 2,500 | 128 | 104,800 | 5,272 |
| Crabs, stone | | | 250 | 92 | 75 | 29 | | | 325 | 101 |
| Shrimp | 173,450 | 66,738 | | | | | 75 | 45 | 173,525 | 66,783 |
| Jysters Sauid | 575 | 86 | 1,975 | 593 | | | 75 | 23 | 2,050 | 616 |
| Scallops, calico | | | | | | | 50 | 15 | 625 | 102 |
| Clams, hard | | | | | | | | | | |
| Total | 202.425 | 71,159 | 295, 500 | 23. ohli | 63 800 | 1 705 | 21, 700 | 0.901 | 506 L 5 5 | |
| | | - 3- 17 | ~ | C) 1 C 144 | 000,000 | 4.195 | 34. (25 | 6.024 | 240.450 | 102.018 |

| Month of November | | | | | | | | | | |
|----------------------------------|---------|----------|---------|-----------|------------|----------------|-----------|---------------|----------------------|-----------|
| Species | Atlant | ic Ocean | India | n River | Banana | River | Halifa) | River | 4-year Cape Canav | eral Area |
| | Pounds | Dollars | Pounds | Dollars | Pounds I | <u>Oollars</u> | Pounds 1 | <u>ollars</u> | Pounds | Dollars |
| Amberlack | | | | | | | | | | |
| Barracuda | | | | | | | | | | |
| Bluefish | 375 | 39 | 100 | 10 | 75 | 8 | 50 | 6 | 600 | 63 |
| Cabio | | | | | | | | | | |
| Crevalle (Common jack) | 125 | 3 | | | | | | | 125 | 3 |
| Dolphin | | | | | | | | | | |
| Drum, black | 1,150 | 276 | 4 800 | 40 677 | 500 425 | 3 (60 | 2 200 | 309 | 2,015 | 1 322 |
| Flounders | 7,450 | 1,169 | 50 | 8 | 25 | 4 | 25 | 4 | 7,550 | 1,185 |
| Groupers | 2,450 | 288 | | | | | | | 2,450 | 288 |
| Grunts | 200 | 16 | 50 | 4 | | | 50 | 4 | 300 | 24 |
| Jewilsb King mackerel | 4.450 | 602 | | | | | | | 4,450 | 602 |
| King whiting | 34,100 | 2,971 | 5,900 | 507 | 2,100 | 181 | 100 | 9 | 42,200 | 3,668 |
| Menhaden | 675 | 18 | 1,700 | 41 | 475 | 11 | 175 | 4 | 3,025 | 74 |
| Mojarra (Sand perch) | | | 121 075 | 6 055 | 21 000 | 1 502 | 22 150 | 1 081 | 180 505 | 8 820 |
| Mullet, black Mullet, silver | | | | | 51,000 | 1,700 | | | | |
| Pigfish | | | | | | | | | | |
| Pompano | | | 1,250 | 933 | 175 | 129 | | | 1,425 | 1,062 |
| Sea bass, black Sea catfish | 125 | 14 | | | | | | | 125 | 14 |
| Sea trout, gray | | ~ - | | | 75 | 8 | | | 75 | 8 |
| Sea trout, spotted | 200 | 48 | 22,125 | 5,302 | 4,950 | 1,188 | 3,975 | 957 | 31,250 | 7,495 |
| Sheepshead | | 2 778 | 1,525 | 116 | 1,050 | 78 | | | 2,575 | 2 778 |
| Snapper, red Snapper, others | 12,600 | 3,110 | | | | | | | 75 | 12 |
| Spanish mackerel | 1,425 | 135 | | | | | | | 1,425 | 135 |
| Spot | 375 | 34 | 8,075 | 858 | 2,075 | 196 | 1,150 | 122 | 11,675 | 1,209 |
| Tenpounder | | | | | | | ~~ | | | |
| Triggerfish Warsaw | | | | | | | | | | |
| Unclassified, food | | | 2,500 | 166 | 300 | 20 | 850 | 57 | 3,650 | 242 |
| Unclassified, bait | | | | | | | | | | |
| Crabs, blue, hard | | | 80,650 | 4,099 | 14,925 | 739 | 1,675 | 86 | 97,250 | 4,924 |
| Crabs, blue, solt Crabs stone | | | 900 | 324 | 250 | 105 | | | 1,150 | 429 |
| Shrimp | 329,200 | 144,783 | | | | | 100 | 58 | 329,300 | 144,841 |
| Oysters | | | 2,475 | 722 | | | 200 | 61 | 2,675 | 783 |
| Squid Saallana saliaa | 725 | 108 | | | | | 125 | 30 | 850 | 146 |
| Clams, bard | | | | | | | | | | |
| Total | 397,650 | 154,382 | 263,725 | 20,068 | 58,400 | 4,267 | 33,600 | 2,832 | 753,375 | 181,545 |
| Marth of Deserbor | | | | ŕ | | | , | | | |
| Month of December | | | | | | | | | | |
| Amberjack | | | | | | | | | | |
| Bluefich | 950 | 80 | 225 | 10 | 225 | 10 | | | 1.425 | 121 |
| Blue runner | | | | | | | | | | |
| Cahio | 50 | 5 | | | | | | | 50 | 5 |
| Crevalle (Common jack) | 125 | 24 | | | | | | | 125 | 4 |
| Drum, black | 575 | 46 | 475 | 40 | 300 | 24 | 275 | 22 | 1.625 | 131 |
| Drum, red | 2,100 | 315 | 7,175 | 1,018 | 575 | 76 | 3,175 | 444 | 13,025 | 1,853 |
| Flounders | 6,850 | 1,032 | 25 | <u>}</u> | ~ = | | 25 | 4 | 6,900 | 1,039 |
| Grunts | 4,075 | 410 | 75 | | | | 75 | 6 | 4,012 | 470 |
| Jewfish | 325 | 23 | 125 | 10 | 75 | 6 | | | 525 | 39 |
| King mackerel | 28,650 | 3,797 | | | | | | | 28,650 | 3,797 |
| King whiting | 55,225 | 4,754 | 7,000 | 566 | 3,525 | 310 | 150 | 13 | 65,900 | 5,643 |
| Mojarra (Sand perch) | 222 | 14 | 2,100 | | 25 | 2 | 12 | | 2,0,0 | 2 |
| Mullet, black | | | 70,125 | 3,337 | 17,575 | 852 | 11,450 | 545 | 99,150 | 4,734 |
| Mullet, silver | | | | | | | ~ ~ | | | |
| Pigfish | | | 975 | 204 | 75 | 56 | | | 350 | 260 |
| Sea bass, black | 550 | 73 | | | | | | | 550 | 73 |
| Sea catfish | | | | | | | | | | |
| Sea trout, gray | 25 | 3 | | 8 058 | 125 | 13 | 6 105 | 1 1/16 | 150 | 11 057 |
| Sheenshead | 25 | 100 | 525 | 38 | 400 | 28 | رعدرت | 10+10 | 950 | 67 |
| Snapper, red | 19,575 | 5,732 | | | | | | | 19,575 | 5,732 |
| Snapper, other | 400 | 74 | ~ - | ~ * | | | | | 400 | 74 |
| Spanish mackerel Spot | 15 | | 4.175 | 480 | 275 | 32 | 725 | 83 | 5,175 | 595 |
| Tenpounder | | | | | | | | | | |
| Triggerfish | | | | | | | | | | |
| Warsaw | | | 1 050 | 87 | 150 | 10 | has | 07 | 1 805 | 102 |
| Unclassified, hait | | | 1,250 | | 150 | | 42) | < (| 1,027 | |
| Crabs, blue, hard | | | 76,350 | 3,881 | 11,600 | 575 | 2,025 | 104 | 89,975 | 4,560 |
| Crabs, blue, soft | | | | | | | | | | 250 |
| Shrimp | 449.650 | 184 128 | 425 | 146 | 25 | 10 | 100 | 50 | 450 | 184.178 |
| Oysters | | | 2,975 | 896 | | ~ - | 350 | 107 | 3,325 | 1,003 |
| Squid | 250 | 38 | | | | | 150 | 46 | 400 | 84 |
| Scallops, calico | | | | | | | | | | |
| Amming's Horn | | | | | | | | | | |
| Total | 571,700 | 200,853 | 208,025 | 18,850 | 42,100 | 3,619 | 25,150 | 2,872 | 846,975 | 226,190 |

exceeded by shrimp, spotted sea trout, mullet, and red snapper (tables 4 and 5). The principal gear is Chesapeake Bay-type crab traps. The area is reported to produce fine blue crabs that yield an average of 14-17 percent meat.

Biology of the blue crab has not been studied in the Cape Canaveral Area. There follow some general statements regarding the biology of the blue crab in Chesapeake Bay (Van Engel, 1958) which we believe would apply, at least partly, to the Cape Canaveral Area. Mating of blue crabs begins in the spring and continues until fall. Spermatozoa will live in the female receptacles at least a year and are used as often as spawning occurs -- which may be twice or more. "Spawning is delayed at least two months after mating, and occurs from early May through September. Eggs are carried on the abdomen of the female for about two weeks before hatching." Numbers of eggs in the sponges may vary from about 700,000 to over 2 million. "Many of the eggs do not hatch, and still fewer larvae and very small crabs live to become adults. On the average only one ten-thousandth of one percent (0.000001) of the eggs survive to become mature crabs."

"There are two larval stages--four or five zoeal molts and the megalops--lasting about a month. Adult size may be reached in one year to a year and a half, shedding 18 or more times after the last larval stage.

"The diet of blue crabs includes fresh and decaying fish or meat, and vegetation. Young sets of clams and oysters may occasionally be destroyed, but on ground in open waters the blue crab is not generally considered a serious pest."

Spot

The fishery for spot is more seasonal than the fisheries for black mullet, spotted sea trout, and blue crab. The months of highest average landings are August, September, and October, and the lowest, December through March. Spot ranks fifth in poundage of the Cape Canaveral Area fisheries (4-year average of 272,725 pounds), exceeded by mullet, shrimp, blue crab, and spotted sea trout; and seventh in value (4-year average of \$27,784), exceeded by shrimp, spotted sea trout, mullet, red snapper, blue crab, and pompano (tables 4 and 5). Most of the catch is made with gill nets. Little research has been done on the biology of the species.

Pompano

The pompano fishery can be considered seasonal, with highest production in the months of May through September and lowest during the winter. Pompano ranks eighth in poundage of the Cape Canaveral Area fisheries (4-year average of 42,050 pounds) and sixth in value

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(4-year average of \$28,372) (tables 4 and 5). Fishing is by gill nets and hook and line. This is a specialty fishery, and the species brings a very high price per pound. Most of the production comes from Indian River.

Our knowledge of the biology of the species is scant. Fields (1962) described the larval and jevenile stages and presented some data in support of the belief that the common pompano (<u>Trachinotus</u> <u>carolinus</u>) spawns in the open ocean near the Gulf Stream. In southern Georgia the young pompano first appear on the beaches in late April or early May at a length of about 11-20 mm.--recruitment of young continues until October.

Shrimp

There is no commercial fishery for shrimp in the inside waters of the Cape Canaveral Area. However, a major bait shrimp fishery exists but is unrecorded in any statistical tabulations. De Sylva (1954) indicated there were probably 400 to 600 bait shrimp fishermen in the Cape Canaveral Area catching more than \$250,000 worth annually. The principal types of gear are push nets, dip nets, and cast nets. A few of the fishermen are regular fishermen, but the majority are casual.

Miscellaneous

Two species not included in the dominant group are worthy of special mention.

Although the production of oysters is not large (4-year average production of 20,850 pounds of meats worth \$6,211), the species grows well on many small, natural oyster reefs in the inland waterway section. The state has granted several private leases in the past 2 years, and these leased grounds have been planted. Few oysters have been harvested from them as yet, but the planters' interest is high.

The red drum or redfish (4-year average landings of 71,575 pounds worth \$10,310) is an important species in the sport fishery in addition to the commercial catch (which is made largely with trammel nets).

ATLANTIC OCEAN ADJACENT TO COAST

The fishing grounds in this geographic subdivision lie within a few miles of the coast and are most productive near Ponce de Leon Inlet and south of Cape Canaveral to Melbourne. Sand and shell bottoms predominate with some areas of mud or clay off Ponce de Leon Inlet and south of Cape Canaveral.

Of the eight dominant species in the Cape Canaveral Area fisheries, shrimp and kingwhiting comprise fisheries in this geographic subdivision. The commercial shrimp fishery is carried on exclusively in these waters, and over 80 percent of the king whiting are captured here (table 5).

Shrimp

The shrimp fishery, while producing some poundage the year round, can be considered seasonal. The great bulk of the landings are made during the months of October through January, and the fishery is at low ebb from April through June. Shrimp ranks second in poundage of the Cape Canaveral Area fisheries (4-year average of 1,377,650 pounds), exceeded only by black mullet, and first in value (4-year average of \$546,718)--the dollar value of shrimp is more than the value of all other species combined (tables 4 and 5). Fishing is done from shrimp trawlers employing shrimp or otter trawls.

Three species of shrimp--white, brown, and pink--are landed by shrimp vessels fishing in the Cape Canaveral Area. These shrimp are all members of genus <u>Penaeus</u> of the family Penaeidae. On the east coast of Florida the white shrimp is of greatest importance and comprises about 80 percent of the landings; brown shrimp account for about 19 plus percent; and pink shrimp for probably less than l percent. In the Cape Canaveral Area the percentage of white shrimp is at least this high, and perhaps higher.

Bureau of Commercial Fisheries research has provided a great deal of knowledge about the biology of the white shrimp. A resume based on Anderson (1958b) and Lindner and Anderson (1956) follows.

(1) Habitat.-- The white shrimp is most aboundant in areas characterized by having an inland, brackish marsh connected by passes with an adjacent shallow, offshore area of relatively high salinity and mud or clay bottoms.

(2) Spawning.--Eggs are laid directly into the water and are apparently fertilized on emission by spermatozoa contained in a capsule called a spermatophore which the male had attached to the body of the female. A female will produce 500,000 - 1 million eggs at a spawning--some females probably spawn more than once in a season. Most, if not all, spawning takes place at sea and occurs mainly from late March or early April to the end of September.

(3) Eggs and larvae.-- The eggs are about 0.3 mm. in diameter and demersal. Eggs hatch in 20 to 24 hours, and the nauplius emerges and becomes planktonic. Larval development requires from 2 to 3 weeks. After 15 to 20 days and two postlarval stages, the young shrimp is only about 5 to 6 mm. long. During this period of early development the young shrimp moves from the saline offshore spawning areas to the brackish inside marshes and estuaries--which serve as nursery grounds.

(4) Young shrimp.--As the young grow, they move from the shallow waters of the marsh into the deeper creeks, rivers, and bays, making their first appearance on the inside fishing grounds in June or July (depending upon the area) when about 50 mm. (about 2 inches) long. By July or August they begin to appear in outside waters.

(5) Growth.--Growth is rapid during spring, summer, and early fall, and slow or negligible during winter. There is evidence that shrimp reach 75 mm. (about 3 inches) in total length approximately 2 months after spawning. A shrimp spawned on May 1 would reach a length of over 150 mm. (about 6 inches) by November 1, grow little over the winter, resume growth in the spring, and be about 178 mm. (7 inches) long by May 1. It would mature and spawn during the spring season, at about 1 year of age.

(6) Migrations.--In the south Atlantic area, the bulk of the white shrimp migrate from inshore to offshore waters but do not move into very deep water far from the coast. Instead, they move parallel to the shoreline with the seasons, moving southward during the fall and early winter and northward in late winter and early spring. Hence, many of the shrimp taken in the Cape Canaveral Area during late fall and winter have migrated there from the Carolinas, Georgia, and north Florida--and any remaining after the winter move northward again to those areas.

(7) Longevity.--Mortality of shrimp is apparently high, and the number that live more than 1 year is only a small part of the total population, and probably of minor importance. Some shrimp live as long as 16 months and possibly longer, but as far as the fishery is concerned, the common or white shrimp can be considered an annual.

King whiting

The fishery for king whiting is, to a large extent, incidental to the shrimp fishery and therefore seasonal. As with shrimp, the bulk of the landings are made from late fall through the winter and lowest landings occur during spring and summer. King whiting ranks seventh in poundage of the Cape Canaveral fisheries (4-year average of 247,100 pounds) and eighth in value (4-year average of \$20,951), tables 4 and 5.

We have limited knowledge of the life history of the species--no research has been done in the Cape Canaveral Area on this fish. In this geographic subdivision the fishing grounds are principally reef areas. These reefs fall into two general categories: (1) Those lying between 10 and 20 fathoms and (2) those on the outer slope of the Continental Shelf from about 30 to 50 fathoms.

Moe (1963) made a detailed study of these reefs and their utilization in relation to fishing. Based on his work, figure 2 shows the location and extent of the principal reef areas, which we have numbered. Table 6 gives Moe's description of each (from his tables 1 through 5).

Only one of the eight dominant species in the Cape Canaveral Area fisheries, red snapper, is taken in this geographic subdivision.

Red Snapper

The red snapper fishery operates year round, but the period of highest production is January-June--the lowest production occurs August-November. Red snapper ranks sixth in poundage of the Cape Canaveral Area fisheries (4-year average of 251,475 pounds) and fourth in value (4-year average of \$72,206), exceeded by shrimp, spotted sea trout, and mullet (tables 4 and 5). Fishing is by handlines and exclusively on the reef grounds (fig. 2). Red snappers normally inhabit banks, reefs, and lumps where small fish, crabs, shrimp, etc., provide abundant food. They seem to move from one location to another, and this movement is probably related to food supply. We know little of the life history of the species.

Closely associated with the red snapper, and taken by the same fishery, are several members of the sea bass family. The most important of these are black sea bass and groupers. During the 4-year period 1959-62 the average catch of black sea bass was 12,525 pounds worth \$1,383, and of groupers, 68,225 pounds worth \$7,686.

Scallops

Bureau of Commercial Fisheries explorations off the central Florida east coast have found an extensive bed of calico scallops off the Cape Canaveral Area in about 10 to 40 fathoms (fig. 3). Bullis and Cummins (1961) reported catch rates with modified 8- and 10-foot Georges Bank sea-scallop dredges as high as 78 bushels per hour, but average production during simulated commercial production trials was about 20-40 bushels per hour. While no large commercial operation exists at the time of this report, fishing interests are working on mechanical shuckers, and a valuable fishery could soon evolve.

SEDAR25-RD31 PELAGIC

Three species of fish of interest to both commercial and sport fisheries are worthy of special note. These are, in order of importance in the commercial fishery: King mackerel, 4-year average of 69,650 pounds worth \$9,210; Spanish mackerel, 4-year average of 84,525 pounds worth \$8,004; and bluefish, 4-year average of 12,150 pounds worth \$1,190. These species are captured largely by trolling and by gill nets in the open ocean, mainly inside of 10 fathoms. Heaviest commercial landings are in the spring and winter for king mackerel, spring and early summer for Spanish mackerel, and in the spring for bluefish (table 5).

King Mackerel

Little is known of the life history of this important game fish. King mackerel are migratory, apparently concentrating on the east coast of Florida in the winter and expanding their distribution northward and westward along the Atlantic and Gulf coasts in spring and summer.

Spanish Mackerel

We know little of the biology of Spanish mackerel, which is also an important game fish. The species is schooling in habit and migratory. Spanish mackerel appear to concentrate during the winter along the east coast of Florida, and beginning in the spring and continuing through the summer expand their distribution northward and westward along the Atlantic and Gulf coasts. During the fall they begin to return to the wintering grounds along the Florida east coast. We believe that Spanish mackerel spawn in the open ocean during the summer migrations.

Bluefish

The biology and habits of the bluefish are not well known. Bluefish sometimes travel in dense schools and feed voraciously on small fish. Their migrations are erratic. Ingeneral, bluefish appear to move northward in the spring and southward in autumn, being taken in the winter in southern Florida, off the Carolinas in the spring, off Massachusetts in late spring and early summer, back in the Carolinas by about November, and again on the east coast of Florida by late November or December. We believe that bluefish spawn about May or June in offshore waters, and the young come inshore shortly after.

Table 6.--Reef areas in Cape Canaveral Area utilized as fishing grounds. Area numbers refer to locatioos shown on figure 2. Except for the area numbers, these data are extracts from tables 1 through 5 of Moe (1963)

| | | | | | | Seat | sonality | |
|-----------|--------------------------------------|--|---------------------|---|---|------------------------------------|---|---|
| Area 1 | Local Name | Location 29°02° to | Depth 9 to 12 | Bottom composition, topography Large area of gently rolling bottom | Fishes taken* Red snapper | Most fished season Summer | Most productive <u>season</u> Summer | Fishing effort** Heavy |
| | | 29°08' N. 80°37' to 80°44' W. | fathoms | and scattered low flat rock and shell; heavy invertebrate growth. | Sea bass Spanish mackerel King mackerel Bonito | | | Occasionally fished by commercial vessels. |
| 2 | Party Grounds | 29°07' to 29°11' N. 80°33' to 80°37' W. | 13 to 14 fathoms | A ridge of rock with a 1 to 2 fathom drop facing the S.W. Surrounding bottom of sand and shell; coral growth on the rocks. | Red soapper Sea bass Red grouper Black grouper | Summer | Summer | Heavy |
| 3 | East Ridge | 29°07' to 29°13' N. 80°31' W. | 13 to 14 fathoms | Length of exposed rock reef lying parallel to the 100 fathom contour; steep cliff facing offshore at N. and S. end. Sand and shell surround the area and are found in breaks in the reef. | Red snapper Sea bass Red grouper Black grouper | Summer | Spring Summer | Heavy |
| 4 | Half North and East "11" Grounds | 29°02' to 29°05' N. 80°29' to 80°33' W. | ll to 13 fathoms | Several cliffs in the area. They face the S.W. and drop from 1 or 2 fathoms. The longer ridges are about 2 miles long. Reefs are sur- rounded by sand and shell bottom. | Sea bass Red snapper Red grouper Black grouper | Sumer | Summer | Heavy |
| 5 | Turtle Mound Grounds | 28°57' to 29°01' N. 80°24' to 80°33' W. | 8 to 14 fathoms | Extensive area of rolling sand bottom with many scattered low rocks. The main reef forms a semicircle facing the S.E. | Sea bass Red snapper Red grouper Black grouper Grunt | Summer | Sumer | Hea.vy |
| 6 | | 28°50' to 29°35' N. 80°11' W. | 23 to 34 fathoms | Long reef of limestone rock that lies parallel to the 100 fathoms contour in about 26 fathoms; this reef has many crevices and cliffs and is stronger with fewer interrup- tions in this area than elsewhere along the cnast. | Red snapper Red grouper Black grouper Grunt | Winter Spring | Winter Spring | Heavy |
| 7 | Kingfish Grounds | 28°32° to 28°38° N. 80°17' to 80°24' W. | 3 to ll fathoms | Shallow areas with grass bottom merging into sand and shell; few low rocks, uneven bottom. | King mackerel Bonito Spanish mackerel Dolphia | Summer | Summer | Moderate |
| 8 | Party Grounds | 28°27' N. 80°17' W. | 16 to 17 fathoms | Small cliff about 1/2 mile long, l fathom drop facing toward the N.E.; sand and shell surrounding rock; coral growth. | Red snapper Red grouper Grunt Black grouper Trigger fish | Summer | Summ er | Slight |
| 9 | Inshore Grounds Melbourne Grounds | 27°50' to 28°27' N. 80°08' to 80°21' W. | ll to 19 fathoms | Hard sand bottom with shell and gravel. Coral rock relief up to 10' with a few 15' ledges-highest relief in 14 fathoms, low scattered rock in the 12 and 16 fathom depths. | Red snapper Red grouper Vermilion snapper Black grouper | Summer | Sumer | Heavy |
| 94 | I The Wreck | 28°23' N. 80°17' W. | 7 fathoms | Shipwreck on hard sand bottom with scattered coral rock. | Red snapper Red grouper Cobia Amberjack | Winter | Summer | Heavy |
| 91 | l First Ridge, Pelican Grounds | 28°13' to 28°19' N. 80°16' W. | 12 to 13 fathoms | Generally a flat bottom of sand and low coral rock; many corals and other invertebrates present. A coral rock reef with ledges up to 5 and 7 feet is present on the western edge of the area. | Red snapper Red grouper Hlack grouper Grunt King mackerel | Summer | Summer | Moderate |
| 90 | C 72 foot ridge | 27°59' to 28°13' N. 80°12' to 80°15' W. | 12 to 14 fathoms | Reef of coral rock lying parallel to the coast in 72 feet of water; the inshore side has a steep cliff of 2 fathoms and the offshore side slopes downward more gradually; heavy coral growth, ragged relief. | Red snapper Red grouper Grunt Triggerfish Vermilion snapper | Summer | Sumer | Moderate |
| 91 |) Horseshoe Ridge | 28°09' N. 80°16' to 80°19' W. | 12 to 13 fathoms | A crescentric ridge of sand and low coral rock with the horns pointing N. Generally flat hottom of sand and shell. | Red anapper Red grouper Grunt Sea bass Triggerfish | Summer | Summer | Moderate |
| 10 |) Second Ridge | 28°09' to 28°18: N. 80°11: W. | 19 to 21 fathoms | Irregular hard bottom of sand and shell; a reef of coral rock with 6 to 10 foot ledges lies parallel to the coast in this area. High coral growth. | Red snapper Red grouper Grunt Sea hass Vermilion snapper | Summer | Summer | Moderate |
| 1 | 1 | 28°00' to 28°30' N. 80°00' W. | 35 to 50 fathoms | Ridge of highly irregular coral rock lying parallel to the 100 fathom contour. The reef has many steep cliffs and ledges. 15 to 20 feet is the usual relief. Slopes steeply toward deep water. High coral growth. | Red snapper Vermilion snapper Red grouper Trigger fish | Winter | Winter | Moderate |
| 1 | 2 | 28°05' N. 80°04' W. | 29 to 30 fathoms | Small area of flat coral rock bottom with a sharp 2 fathom drop on the offshore side; sponge and coral growths. | Red snapper Vermilion snapper Black grouper Red grouper | Winter | Winter | Slight |

Fishes retained by the boat listed in relative order of abundance in the total catch.
 Four levels: Intense; Heavy; Moderate; Slight.



Figure 3.--Cape Canaveral Area. Extent of scallop beds shown as area enclosed by hatched lines (area between about 10 and 40 fathoms).

GENERAL

Figure 4 shows, for the 4 years, the total landings and value of the Cape Canaveral Area commercial fisheries and the same information for the combined landings and values for the eight dominant species. These figures do not show any definite trends, as 1959 and 1962 are below the 4-year average and 1960 and 1961 are above it. Although 1962 was not so productive a year as either 1960 or 1961, it was above 1959--the same general condition prevailed with regard to the combined figures for the eight dominant species.

Considering the landings individually for the eight dominant species (fig. 5 and table 4), we

find that shrimp, blue crab, whiting, and pompano follow the pattern of the total fishery--1960 and 1961 above the 4-year average, 1959 and 1962 below it, but with 1962 having greater landings than 1959. For black mullet, 3 years (1959, 1961, and 1962) had landings greater than the 4-year average, and the largest landings occurred in 1962. Landings of spotted sea trout were above the 4-year average in 1959, 1960, and 1961 and below it in 1962. Spot landings were above the 4-year average in 1959 and 1960 and below it in 1961 and 1962. Landings of red snapper were above the 4-year average in 1959 and 1962 and below it in 1960 and 1961.

Of the eight dominant species only one, red snapper, had the highest landings in 1959. Greatest landings for shrimp, spotted sea trout, spot, and pompano occurred in 1960; for blue crab and king whiting in 1961; and for black mullet in 1962. Lowest landings by year were: shrimp, blue crab, whiting, and pompano in 1959; black mullet in 1960; red





Figure 4.--Commercial fishery landings, Cape Canaveral Area, pound and dollar values by years, with 4-year averages, for total fishery and for eight dominant species combined.



Figure 5.--Commercial fishery landings, Cape Canaveral Area, in pounds by years, for eight dominant species.

snapper in 1961; and spotted sea trout and spot in 1962.

Figure 6 shows, by 5-year intervals from 1940 to 1960 and for 1962, the commercial landings of five leading species on the Florida east coast.

From a high in 1945, production of shrimp and black mullet has generally declined to the 4-year period 1959-62 for which we have detailed data for the Cape Canaveral Area--and we assume that the Cape Canaveral Area fishery for these two important species reflects this lower level of availability or demand, as the Cape Canaveral Area contributes about 19 percent of the shrimp and 66 percent of the mullet taken on the Florida east coast.

The blue crab fishery has undergone steady growth on the Florida east coast from 1940 to



Figure 6.--Commercial fishery landings, Florida east coast, 5-year intervals from 1940 to 1960, and 1962, for five leading species.

the present, and we believe crab production in the Cape Canaveral Area reflects this.

Production of spotted sea trout on the Florida east coast has been remarkably steady. Other than in 1950, the commercial production was between about 700,000 and 900,000 pounds. As the Cape Canaveral Area produces almost 50 percent of the poundage taken on the Florida east coast, it appears that the fishery has remained almost stable in recent years, but there is an indication of a gradual decline in productivity during the past several years.

Landings of red snapper, while modest in poundage, have grown steadily on the Florida east coast from 1945 to the present. Since the Cape Canaveral Area produces about 40 percent of the landings, the fishery is apparently in a healthy state.

Table 7 shows the relative value and landings of the Cape Canaveral Area fisheries to these values for the entire Florida east coast, with respect to five of the most important species taken on the Florida east coast, and to the total fishery landing for 1962--the last year for which figures are available.

The scientific names for fishes, crustaceans, and mollusks appearing in the commercial fishery landings are given in table 8.

Table 7.--Commercial fishery landings, Cape Canaveral Area, comparison with Florida east coast coast supersonal for five leading

| Rank | Species | Value Florida East Coast (Dollars) | Value Cape Canaveral Area (Dollars) | Percent of Florida East Coast value |
|------|-------------------|---|--|---|
| 1 | Shrimp | 2,543,000 | 518,000 | 20.4 |
| | Blue crab | 434,000 | 63,000 | 14.5 |
| | Red snapper | 190,000 | 77,000 | 40.5 |
| 4 | Spotted sea trout | 184,000 | 91,000 | 49.4 |
| 5 | Black mullet | 139,000 | 93,000 | 66.9 |
| | All species | 5,965,000 | 977,000 | 16.4 |
| Rank | Species | Landings Florida East Coast | Landings Cape Canaveral Area | Percent of Florida East Coast landings |
| | | (Pounds) | (Pounds) | |
| 1 | Blue crab | 7,869,000 | 1,154,000 | 14.7 |
| ÷ | Shrimp | 5,186,000 | 967,000 | 18.6 |
| | Black mullet | 2,856,000 | 1,902,000 | 66.6 |
| 4 | Spotted sea trout | 756,000 | 376,000 | 49.7 |
| | | | | 1.0.1 |
| 5 | Red snapper | 639,000 | 258,000 | 40.4 |

Table 8.--Scientific names of fishes, crustaceans, and mollusks shown on commercial fishery landings, Cape Canaveral Area

| Common names | | |
|---------------------------|---------------------------|-----------------------------------|
| as used in report | Other common names | Scientific names |
| Ambaniaak | | Seriole en |
| Perma gude | | Sphursene on |
| Darracuua Dinefi -h | | Pomotomuc coltotnix |
| Diuciisa Diuc managem | Charmllo hendtail | Compose anitage |
| blue runner | Crevalle, naruball | Caraity Crysos |
| Cabio | CODIA | Rachycentron canadum |
| Crevalle | Common Jack, Jackiish | CEPanx hippos |
| Dolphin | | Coryphaena hippurus |
| Drum, black | Drum | Pogonias cromis |
| Drum, red | Channel bass, redfish | Sciaenops ocellata |
| Flounders | | Paralichthys sp. |
| Groupers | | Epinephelus sp. and |
| | | Mycteroperca sp. |
| Grunts | Margate fish | Haemulon sp. |
| Jewfish | | <u>spinephelus</u> <u>itajara</u> |
| King mackerel | Kingfisb | Scomberomorus cavalla |
| King whiting | Whiting | Menticirrhus sp. |
| Menhaden | Pogy | Brevoortia sp. |
| Mojarra | Sand perch, sand bream | GERRIDAE |
| Mullet, black | Striped or jumping mullet | Mugil cephalus |
| Mullet, silver | | Mugil curema |
| Pigrish | •• | Orthopristis chrysopterus |
| Pompano | | Trachinotus sp. |
| Sea bass, black | Blackiish | Centropristis striatus |
| Sea catfish | Garitopsail | Bagre marinus |
| Sea trout, gray | Gray trout | Cynoscion regalis |
| Sea trout, spotted | Spotted or speckled trout | Cynoscion nebulosus |
| Sheepshead | | Archosargus sp. |
| Snapper, red | | Lutjanus Blackiorall |
| Snapper, other | Mangrove, vermilion, etc. | Discharding on and |
| a | M | Anombopiites sp. |
| Spanish mackerel | MACKEPEL | Loicotemus Weathurns |
| Spot | T - 204 - 2- | Deros comus Xanchurus |
| Tenpounder | LEGYIISH | Bilister an |
| 1riggeriish | Place interaction | Dalistes sp. |
| Warsaw blue | DIACK JEWIISH | Collingoatos apaidus |
| Crabs, blue | 2.4 | Marine Terrenarda |
| Crabs, stone | | Descent a |
| SHLTD | | (langely D. setiferma) |
| Quatana | | (largely r. settlerus) |
| Cysters | | Lalizo ab |
| Squia Scallers and for | | Dorigo sp. |
| Class bowd | Ovehoa | Venue worsena rie |
| Clams, hard | quanog | venus mercenaria |
| | | |

The U.S. Bureau of Fisheries, during studies on the white shrimp in the Cape Canaveral Area during the 2-year period July 1933-June 1935, maintained a record of the fish captured. The data were obtained from operations of the Bureau's 40-foot shrimp trawler <u>Launch 58</u>, using standard commercial gear. The trawls were 75-foot spread of 1-3/4-inch stretch mesh netting and were hauled at 2 to 3 knots. Duration of individual drags varied between 1 and 1-1/2 hours. Two work areas on the shrimp fishing grounds were sampled monthly, one off Ponce de Leon Inlet and the other just south of Cape Canaveral.

These records contain valuable information regarding relative abundance of the various families and species of fish associated with the shrimp fishing grounds, seasonal abundance, and a good estimate of the average fish catch made incidental to commercial shrimp fishing operations. Many of the larger fish-in particular the Sciaenidae (including spot, whiting, croaker, and white sea trout)--are saved by shrimp fishermen and sold or otherwise utilized as food.

In table 9 these data are summarized so that for each month are given, by species: The average numbers of fish taken per hour of trawling, the percent of the total catch for the month, and the actual number of fish captured. A total, by months, for all species combined is given at the end of the table. Figure 7 shows by months the average number of fish per hour of trawling for all species combined. These data show a great seasonal variation in numbers of fish found on shrimp fishing bottoms. From a low of only 200-400 fish per hour of trawling during late spring and early summer, the numbers taken rose rapidly during the summer and early fall to peak in October and November at 4,500-5,500 fish per hour of trawling. In December the number taken began to decline, and this decline continued through the winter until the low point was reached in the spring.

Considering only those species that contributed 2 percent or more of the yearly total, we find that 11 species representing 4 families account for nearly 93 percent of the catch. Table 10 shows the data for these 11 species by family, by month, for the 2 years and two stations combined.

The croaker family (Sciaenidae), with six species, is by far the most abundant, accounting for nearly 70 percent of the total number of fish captured. On a monthly basis, the percentage ranged from 47.1 to 84.3. One species, the star drum (<u>Stellifer lanceolatus</u>), alone accounted for almost 27 percent of the yearly number, ranging over the months from 0 to over 40 percent of the number caught.

The jacks (Carangidae), with two species, represented 16.5 percent of the yearly catch and ranged over the months from 1.8 to 40.8 percent.

The sea catfish (Ariidae), with two species, contributed 4.6 percent of the yearly catch and ranged monthly from 0.4 to 8.7 percent.

The sea basses (Serranidae), with one species, was 2.4 percent of the yearly take and ranged from 0.3 to 8.9 percent over the months.

There follows by family the status of each of the 11 species with regard to commercial usage and as food for human consumption.

Table 9.--Fisb taken by trawling, Cape Canaveral Area, M/V Launch 58 1933-35, catch-per-unit-of-effort (75-foot shrimp trawl at 2-3 knots) by months for two years combined, for New Smyrna and Cape Canaveral stations combined

[Upper figure, number of fish per hour of hauling; middle figure, percent of total catch; and lower figure, total number of fish; asterisk indicates value of less than 0.05]

| Species | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Total |
|----------------------------------|---------------|---------------|---------------|------------------|-------------------|------------------|------------------|---------------|-----------------|-----------------|-----------------|-----------------|-------------------|
| Rhizoprionodon terraens | | | | | | 0.2 * 1 | | | | | | | * * 1 |
| Sphyrna tiburo | - | | | 4.0 0.1 16 | 14.0 0.3 56 | 7.5 0.2 41 | 6.0 0.2 36 | 0.3 * : | 0.5 * 2 | 0.3 0.1 2 | 1.5 0.5 3 | 0.5 0.1 I | 2.7 0.1 159 |
| Sphyrna zygaena | | | 0.3 | 0.5 * 2 | 1.8 * 7 | 0.4 * | 0.3 * 2 | aa ar | 0.2 * 1 | | | | 0.3 * 16 |
| Torpedo nobiliana | 0.2 * 1 | 0.2 # 1 | 0•3 * - | 1.5 * 6 | | = | 0.3 * 2 | | 1.2 0.1 5 | - | | 0.5 0.1 1 | 0.3 * 18 |
| <u>Raja eglanteria</u> | | | 1.2 | | | э.7 * | | 0.1 * 1 | 0.5 * 2 | | | | 0.3 * 15 |
| <u>Dasyatis</u> <u>americana</u> | | | | | 1.0 + 4 | | | 0.3 * 2 | 0.5 * 2 | | | | 0.1 * 8 |

Table 9. -- Continued

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| Species | July | Aug. | Sept. | Oct. | Nov. | Dec. J | an. Fe | eb. Mar. | Apr. | May | June | Tot | tal |
|--|----------------------------|----------------------------|-----------------------|------------------------|-----------------------|--------------------------|------------------------|-------------------|---------------------|---------------------|---------------------|---------------------|-------------------------|
| Dasyatis sabing | | | | | 1.0 * 4 | | | | | | | | 0.1 4 |
| <u>Gymnura micrura</u> | | | 1.1 * 7 | 0.5 * 2 | 1.2 * 5 | | 0.3 * 2 | ur da | 0.2 * 1 | | | | 0.3 4 17 |
| Rhinoptera bonasus | | | 0.3 * 2 | 0.2 * 1 | | | 0.2 * 1 | | | | | | 0.1 * 4 |
| Brevoortia sp. (<u>tyrannus</u> and <u>smithi</u>) | 0.3 * 2 | 2.9 0.1 16 | | 1.0 * 4 | 1.0 * 4 | 2.2 0.1 12 | | 12.7 1.5 89 | 108.5 6.7 434 | 5.2 2.5 34 | | | 10.1 0.5 595 |
| Opisthonema oglinum | | | | | | 0.4 * 2 | | 2.3 0.3 16 | | 0.8 0.4 5 | | | 0.4 * 23 |
| (All other herrings misc. genera and species) | | | 4.3 0.2 28 | 1.2 * 5 | 17.0 0.3 68 | 3.6 0.1 20 | | | 0.5 * 2 | | | | 2.1 0.1 123 |
| Anchoa sp. (largely <u>mitchilli</u> and <u>hepsetus</u>) | | | 1.8 0.1 12 | | | 7.3 0.2 40 | 10.7 0.4 64 | 6.1 0.7 43 | 22.0 1.4 88 | 14.6 7.1 95 | 3.5 1.1 7 | 22.5 6.0 45 | 6.7 0.3 394 |
| Synodus foetens | 1.2 0.1 7 | 2.9 0,1 16 | | | | 1.5 * 8 | 1.7 0.1 10 | | 0.2 * 1 | 0.9 0.4 6 | 2.0 0.6 4 | 2.0 0.5 4 | 0.9 * 56 |
| Bagre marinus | | ≎ .7 * 4 | 1.2 * 5 | 51.0 1.1 204 | 292.0 5.3 1,168 | 92.4 2.8 508 | 203.0 8.4 1,218 | 6.3 0.7 44 | 27.5 1.7 110 | 0.8 10.4 5 | 0.5 0.2 1 | 1.5 0.4 3 | 55.5 2.6 3,273 |
| Galeichthys felis | 6.0 0.6 36 | 62.5 3.5 344 | 167.1 5.9 1,086 | 106.0 2.3 424 | 76.0 1.4 304 | 5.1 0.2 28 | 7.0 0.3 42 | | 43.5 2.7 174 | 0.8 10.4 5 | 0.5 0.2 1 | 0.5 0.1 1 | 41.4 2.0 2,445 |
| <u>Ophichthus</u> sp. | | | | | | | | 0.1 * 1 | | 0.2 0.1 1 | | | * * 2 |
| <u>Urophycis</u> sp. | | | | | | | | 0.7 0.1 5 | 3.0 0.2 12 | 0.3 0.1 2 | | | 0.3 * 19 |
| <u>Centropristis</u> <u>striatus</u> | 2.5 0.2 15 | 30.5 1.6 168 | 3.1 0.1 _10 | 3.0 0.1 12 | er 20 | | | 0.3 * 2 | 1.5 0.1 6 | 0.3 0.1 2 | 1.0 0.3 2 | | 3.8 0.2 227 |
| Centropristis philadelphicus | 7 3.8 6.9 443 | 173.8 8.9 956 | 77.2 2.7 502 | 76.0 1.7 3n4 | 61.0 1.1 244 | 49.8 1.5 274 | 21.0 (.9 126 | 2.4 0.3 17 | 24.5 1.5 98 | 1.8 0.9 12 | 12.5 3.8 25 | 5.0 1.3 10 | 51.0 2.4 3,011 |
| Pomatomus seltatrix | | | 0.6 * 4 | | | | | 0.1 > 1 | 1.5 0.1 6 | -1.3 0.1 2 | | 1.0 0.3 2 | 0.3 * 15 |
| Caranx crysos | ω= | | | 1.0 * 4 | 2.0 * 5 | 2.2 0.1 12 | | | | | 0.5 0.2 1 | | 0.4 * 25 |
| <u>Daranx</u> sp. | | | 1.3. * 2 | | | | 0.8 * 5 | | | | | | 0.1 * 7 |
| <u>Chloroscombrus</u> <u>chrysurus</u> | 81.2 7.6 487 | 52 .4 2.7 288 | 172.9 6.1 1,124 | 608.0 13.5 2,432 | 358.0 6.4 1,432 | 1,182.5 36.2 6,504 | 468.3 19.3 2,810 | 4.9 0.6 34 | 23.0 1.4 92 | 38.8 18.7 252 | 80.U 24.2 160 | 65.0 17.5 130 | 266.9 12.7 15,745 |
| Selene vomer | 0.8 0.1 5 | | | | | 1.5 * 8 | 10.7 0.4 64 | | | | | 0.5 0.1 1 | 1.3 0.1 78 |
| Trachinotus sp. | | | | | 1.0 * 4 | | D.5 * 2 | | | | | | 0.1 * 6 |

Table 9. -- Continued

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| Species | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Total |
|--|------------------------|------------------------|--------------------------|--------------------------|--------------------------|------------------------|------------------------|------------------------|------------------------|---------------------|----------------------|----------------------|-------------------------|
| <u>Trachurus</u> <u>lathami</u> | 0.8 0.1 5 | | | | | | | | | | | | 0.1 * 5 |
| <u>Vomer</u> <u>setapinnis</u> | 0.5 * 3 | 1.5 0.1 8 | 17.2 0.6 112 | 507.0 11.2 2,028 | 273.5 4.9 1,094 | 149.8 4.6 824 | 65•7 2•7 394 | 10.1 1.2 71 | 35.5 2.2 142 | 2.9 1.4 19 | 1.0 0.3 2 | 5.0 1.3 10 | 79.8 3.8 4,707 |
| <u>Bucinostomus</u> sp. | 0.5 * 3 | 1.8 0.1 10 | | | 1.0 * 4 | 5.8 0.2 32 | | | | 0.3 0.1 2 | 8.5 2.6 17 | | 1.2 0.1 68 |
| Orthopristis chrysopterus | 1.0 0.1 6 | 8.0 0.4 44 | 22.8 0.8 148 | 37.0 0.8 148 | 4.0 0.1 16 | 1.5 * 8 | 3.3. 0.1 20 | 0.3 * 2 | 9.0 0.6 36 | 0.9 0.4 6 | 6.5 2.0 13 | 0.5 0.1 1 | 7.6 0.4 448 |
| Bairdiella chrysura | 2.3 0.2 14 | 0.7 * 4 | 1.2 * 8 | 15.0 0.3 60 | 12.0 0.2 48 | 2.2 0.1 12 | 6.7 0.3 40 | 0.9 0.1 6 | 1.2 0.1 5 | 3.4 1.6 22 | | 7.0 1.9 14 | 3.9 0.2 233 |
| Cynoscion nothus | 36•7 3•4 220 | 120.0 6.2 660 | 80.0 2.8 520 | 254.0 5.6 1,016 | 715.0 12.9 2,860 | 429.8 13.2 2,364 | 381.7 15.8 2,290 | 81.3 9.4 569 | 193.2 12.0 773 | 70.2 33.9 456 | 34.5 10.4 69 | 110.0 29.6 220 | 203.7 9.7 12,017 |
| Cynoscion regalis | 3.0 0.3 18 | 15.3 0.8 84 | 8.8 0.3 57 | 32.0 0.7 128 | 84.0 1.5 336 | 6.5 0.2 36 | 10.7 0.4 64 | 11.4 1.3 80 | 10.0 0.6 40 | 1.4 0.7 9 | | | 14.4 0.7 852 |
| Equetus <u>lanceolatus</u> | ar 10 | | | | | | | | | | | 0.5 0.1 1 | * * 1 |
| Larimus fasciatus | 1.3 0.1 8 | 8.0 0.4 44 | 12.9 0.5 84 | 48.0 1.1 192 | 227.0 4.1 908 | 64.0 2.0 352 | 53.3 2.2 320 | 23.4 2.7 164 | 34.5 2.1 138 | 5.1 2.5 33 | 23.0 6.9 46 | 25.5 6.9 51 | 39.7 1.9 2,340 |
| Leiostomus xanthurus | 259.7 24.3 1,558 | 226.5 11.6 1,246 | 175.4 6.1 1,140 | 335.0 7.4 1,340 | 224.0 4.0 896 | 82.5 2.5 454 | 216.0 8.9 1,296 | 277.4 32.2 1,942 | 199.2 12.4 797 | 6.8 3.3 44 | 13.0 3.9 26 | 17.5 4.7 35 | 182.6 8.7 10,774 |
| Menticirrbus sp. (largely <u>americanus</u>) | 40.0 3.7 240 | 66.9 3.4 368 | 273.8 9.6 1,780 | 680.0 15.1 2,720 | 377.0 6.8 1,508 | 43.6 1.3 240 | 188.3 7.8 1,130 | 50.3 5.8 352 | 127.0 7.9 508 | 2.0 1.0 13 | 3.0 0.9 6 | 2.0 0.5 4 | 150.3 7.2 8,869 |
| Micropogon undulatus | 305.0 28.5 1,830 | 822.5 42.3 4,524 | 552.6 19.4 3,592 | 373.0 8.3 1,492 | 422.0 7.6 1,688 | 694.5 21.2 3,820 | 162.3 6.7 974 | 31.1 3.6 218 | 24.8 1.5 99 | 7.7 3.7 50 | 125.5 37.9 251 | 62.5 16.8 125 | 316.3 15.1 18,663 |
| Pogonias cromis | | | | 0.5 * 2 | | | | 0.1 * 1 | | | | | 0.1 * 3 |
| Stellifer lanceolatus | 211.2 19.8 1,267 | 233.5 12.0 1,284 | 1,157.2 40.6 7,522 | 1,289.0 28.6 5,156 | 2,236.0 40.2 8,944 | 226.2 6.9 1,244 | 482.3 19.9 2,894 | 263.3 30.6 1,843 | 649.8 40.4 2,599 | 21.7 10.5 141 | | 20.0 5.4 40 | 558.2 26.6 32,934 |
| Lagodon rhomboides | 0.2 * 1 | 1.5 0.1 8 | 1.2 * 8 | 1.0 * 4 | 8.0 0.1 32 | 6.5 0.2 36 | 2.3 0.1 14 | | 1.0 0.1 4 | 0.6 0.3 4 | 5.0 1.5 10 | ** | 2.1 0.1 121 |
| Stenotomus sp. | ÷. | | | | | 1.1 * 6 | 0.7 * 4 | | | | | | 0.2 * 10 |
| Chaetodipterus faber | 0.3 * 2 | | | 12.0 0.3 48 | 68.0 1.2 272 | 95•3 2•9 524 | 21.3 0.9 128 | 22.0 2.6 154 | 14.0 0.9 56 | 3.5 1.7 23 | 0.5 0.2 1 | 1.0 0.3 2 | 20.5 1.0 1,210 |
| Trichiurus <u>lepturus</u> | 10.8 1.0 65 | 11.6 0.6 64 | 31.1 1.1 202 | 38.0 0.8 152 | 20.0 0.4 80 | 70.9 2.2 390 | 53.7 2.2 322 | 12.3 1.4 86 | 12.0 0.7 48 | 5.5 2.7 36 | | 1.0 0.3 2 | 24.5 1.2 1,447 |
| Scorpaena sp. | | | 0.2 1 | | | 0.2 * 1 | | | | | | | * * 2 |
| Frionotus sp. | 15.2 1.4 91 | 55•3 2•8 304 | 9.2 0.3 60 | 3.0 0.1 12 | 3.0 0.1 12 | | 0.7 * 4 | | 0.2 * 1 | 0.6 0.3 4 | 0.5 0.2 1 | 1.5 0.4 3 | 8.3 0.4 492 |
Table 9. -- Continued

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| Species | July | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | Total |
|--|------------------|--------------------|--------------------|-------------------|--------------------|------------------|--------------------|--------------------|-------------------|-------------------|------------------|-------------------|--------------------|
| <u>Hypsoblennius</u> sp. | | | | | | | | 0.1 * 1 | | | | | * * 1 |
| Rissola marginata | | | | | | C.5 * 3 | | | | | | | 0.1 * 3 |
| Peprilus alepidotus | 0.7 0.1 4 | | 0.6 | 9.0 0.2 36 | 10.0 0.2 40 | 4.4 0.1 24 | 24.7 1.0 148 | 25.1 2.9 176 | 6.0 0.4 24 | 0.5 0.2 3 | | 0.5 0.1 1 | 7.8 0.4 460 |
| Poronotus triacanthus | | 8.7 0.4 48 | 5.5 0.2 36 | 3.0 0.1 12 | 1.0 * h | 4.4 0.1 24 | 3.3 0.1 20 | 7.0 0.8 49 | 2.5 0.2 10 | 6.0 2.9 39 | 0.5 0.2 1 | 14.5 3.9 29 | 4.6 0.2 272 |
| Ancylopsetta quadrocellata | 0.7 0.1 4 | 1.5 0.1 8 | | | | | | | 0.5 * 2 | | | 1.0 0.3 2 | 0.3 * 16 |
| Citharichthys sp. (largely <u>spilopterus</u>) | 1.0 0.1 6 | 0.7 * 4 | | | 1.0 * 4 | | | 0.3 | | | 0.5 0.2 1 | 0.5 0.1 1 | 0.3 * 18 |
| <u>Etropus</u> crossotus | 7.2 0.7 43 | 24.0 1.2 132 | 40.6 1.4 264 | 16.0 0.4 64 | 35+0 0+6 140 | 5.5 0.2 30 | 12.0 J.5 72 | 4.3 0.5 30 | 23.0 1.4 92 | 1.4 D.7 9 | 5.0 1.5 10 | 2.0 0.5 4 | 15.1 0.7 890 |
| Paralichthys dentatus | 1.2 0.1 7 | 3.6 0.2 20 | 2.8 0.1 18 | 5.0 0.1 20 | 4.0 0.1 16 | | ~- | | | 0.2 0.1 1 | au ya | | 1.4 0.1 84 |
| Scophthalmus aquosus | 0.3 * 2 | | | ~~~ | | | | an 19 | | | | | * * 2 |
| Trinectes maculatus | | 2.2 0.1 12 | 16.6 0.6 108 | 2.0 * 8 | 3.0 0.1 12 | 8.7 0.3 48 | 6.7 * 4 | 0.4 * 3 | | 0.6 0.3 4 | | 1.5 1.1 1 | 3.4 0.2 200 |
| <u>Symphurus</u> sp. (largely <u>plagiusa</u>) | 3.2 0.3 19 | 3.6 0.2 20 | 8.0 0.3 52 | 1.0 * 4 | | 5.1 0.2 28 | | 5+5 0.4 43 | 7+5 0+5 30 | ບ.ດ້ ດ.: ຊິ | | | 3.1 3.1 180 |
| Echeneis naucrates | | | | | | | | | | | 1.5 D.2 1 | | * *] |
| <u>Balistes</u> sp. | | | 0.6 * 4 | | •* | | | ~ = | | | | | 6.1 * 4 |
| Stephanolepis sp. | | 1.1 0.1 6 | 0.6 * 2, | | 1.0 * 4 | | | | | | 1.0 0.3 2 | | 0.3 * 16 |
| Acanthostracion (largely <u>quadrisornis</u>) | | | | | | | | | | | 0.5).2 1 | 97 m | * * 1 |
| Chilomycterus schoepfi | | | | | | ⊙.7 4 | | 0.1 * 1 | | | | | 0.1 5 |
| Porichthys porosissimus | | | 1.8 0.1 12 | | | 0.4 * 2 | | | | | | | 0.2 * 14 |
| <u>Ogcocephalus</u> sp. (largely <u>vespertilio</u>) | | | | -~ | |).7 * 4 | | | | | | | 0.1 * 4 |
| Number of fish per hour of hauling, all species combined 1 | ,058.8 1, | 944.4 | 2,852.4 | 4,514.4 | 5,556.5 | 3,268.1 | e,420+3 | 601.4 | 1,609.7 | 207.0 | 231.0 | 372.0 2 | 25,000,0 |

| Table 10Fish taken by trawling, Cape Canaveral Area, M/V Launch <u>58</u> 1933-35, catch-per-unit-of-effort (75-foot shrimp trawl at 2-3 knots) for | | | | | | | | | | | | | |
|---|---------------|-----------------|----------------------|-----------------|-----------------|-----------------|-----------------|---------------|-----------------------|---------------|---------------|--------------------------------|-----------------|
| species representing two p | percent of | r more of | total cat | ch, by mo: | aths for | two years | combined, | for New | Smyrna an asterisk | d Cape Ca | naveral | stations | combined |
| (opper rigore, | | TTOT Det | HOUL OF 1 | AULLING, 1 | DACT ITEO | IC, puice | T | E Caberry | Maria Maria | A | Maria | | mate 2 |
| Species | July | Aug. | Sept. | Uct, | NOV. | Dec. | 18,0. | reo. | Mar. | ADr. | May | June | Total |
| SCIAENIDAE | 211.2 | 233.5 | 1.157.2 | 1.289.0 | 2.236.0 | 226.2 | 482.3 | 263.3 | 649.8 | 21.7 | | 20.0 | 558.2 |
| lanceolatus | 19.8 | 12.0 | 40.6 | 28.6 | 40.2 | 6.9 | 19.9 | 30.6 | 40.4 | 10.5 | | 5.4 | 26.6 |
| Micropogon undulatus | 305.0 28.5 | 822.5 42.3 | 552.6 19.4 | 373.0 8.3 | 422.0 7.6 | 694.5 21.2 | 162.3 6.7 | 31.1 3.6 | 24.8 1.5 | 7.7 3.7 | 125.5 37.9 | 62.5 16.8 | 316.3 15.1 |
| Cynoscion nothus | 36.7 3.4 | 120.0 6.2 | 80.0 2.8 | 254.0 5.6 | 715.0 12.9 | 429.8 13.2 | 381.7 15.8 | 81.3 9.4 | 193.2 12.0 | 70.2 33.9 | 34.5 10.4 | 110.0 29.6 | 203.7 9.7 |
| Leiostomus xanthurus | 259.7 24.3 | 226.5 11.6 | 175.4 6.1 | 335.0 7.4 | 224.0 4.0 | 82.5 2.5 | 216.0 8.9 | 277.4 32.2 | 199.2 12.4 | 6.8 3•3 | 13.0 3.9 | 17.5 4.7 | 182.6 8.7 |
| Menticirrhus spp. | 40.0 3.7 | 66.9 3.4 | 273.8 9.6 | 680.0 15.1 | 377.0 6.8 | 43.6 1.3 | 188.3 7.8 | 50.3 5.8 | 127.0 7.9 | 2.0 1.0 | 3.0 0.9 | 2.0 0.5 | 150.3 7.2 |
| Larimus fasciatus | 1.3 0.1 | 8.0 0.4 | 12.9 0.5 | 48.0 1.1 | 227.0 4.1 | 64.0 2.0 | 53.3 2.2 | 23.4 2.7 | 34.5 2.1 | 5.1 2.5 | 23.0 6.9 | 25 .5 6.9 | 39.7 1.9 |
| Total | 853.9 79.8 | 1,477.4 75.9 | 2,251.9 79.0 | 2,979.0 66.1 | 4,201.0 75.6 | 1,540.6 47.1 | 1,483.9 61.3 | 726.8 84.3 | 1,228.5 76.3 | 113.5 54.9 | 199.0 60.0 | 237 .5 63 . 9 | 1,450.8 69.2 |
| CARANGIDAE | 0.2 | | | (00.0 | | | 1.60 | 1.0 | | -0.0 | 0 | 1 | |
| <u>chrysurus</u> | 81.2 7.6 | 2.7 | 6.1 | 13.5 | 358.0 | 1,182.5 36.2 | 468.3 19.3 | 4.9 | 23.0 | 38.8 18.7 | 80.0 24.2 | 65.0 17.5 | 266.9 12.7 |
| Vomer setapinnis | 0.5 * | 1.5 0.1 | 17.2 0.6 | 507.0 11.2 | 273.5 4.9 | 149.8 4.6 | 65.7 2.7 | 10.1 1.2 | 35.5 2.2 | 2.9 1.4 | 1.0 0.3 | 5.0 1.3 | 79.8 3.8 |
| Total | 81.7 7.6 | 53.9 2.8 | 190 .1 6.7 | 1,115.0 24.7 | 631.5 11.3 | 1,332.3 40.8 | 534.0 22.0 | 15.0 1.8 | 58.5 3.6 | 41.7 20.1 | 81.0 24.5 | 70.0 18.8 | 346.7 16.5 |
| ARIIDAE <u>Bagre</u> <u>marinus</u> | | 0.7 * | 1.2 * | 51.0 1.1 | 292.0 5.3 | 92.4 2.8 | 203.0 8.4 | 6.3 0.7 | 27.5 1.7 | 0.8 0.4 | 0.5 0.2 | 1.5 0.4 | 55•5 2•6 |
| Galeichthys felis | 6.0 0.6 | 62.5 3.2 | 167.1 5.9 | 106.0 2.3 | 76.0 1.4 | 5.1 0.2 | 7.0 0.3 | | 43.5 2.7 | 0.8 0.4 | 0.5 0.2 | 0.5 | 41.4 2.0 |
| Total | 6.0 0.6 | 63.2 3.2 | 168.3 5.9 | 157.0 3.4 | 368.0 6.7 | 97.5 3.0 | 210.0 8.7 | 6.3 0.7 | 71.0 | 1.6 0.8 | 1.0 0.4 | 2.0 0.5 | 96.9 4.6 |
| SERRANIDAE Centropristis philadelphicus | 73.8 6.9 | 173.8 8.9 | 77.2 2.7 | 76.0 1.7 | 61.0 1.1 | 49.8 1.5 | 21.0 0.9 | 2.4 0.3 | 24.5 1.5 | 1.8 0.9 | 12.5 3.8 | 5.0 1.3 | 51.0 2.4 |

Grand total 5,261.5 94.7 3,020.2 2,248.9 4,327.0 95.9 1,382.5 158.6 314.5 84.5 1,945. 2,687.5 94.3 88.7 aí a 90.8 92.4 92.9 92.7



Figure 7.--Numbers of fish taken per hour of trawling incidental to shrimp fishing operations, Cape Canaveral Area, all species by month, for 2 years combined, and two stations combined. See table 9.

SCIAENIDAE - CROAKERS

1. Stellifer lanceolatus - Star Drum

This was the most abundant species taken incidental to shrimp trawling. It is a relatively small fish (maximum size about 6 inches), but the bulk of the fish in the catch are probably more nearly 3 inches. The species is not included in the commercial fishery landings and to the best of our knowledge is not utilized for human consumption. It probably is an important forage fish.

2. Micropogon undulatus - Croaker

The species is not of commercial importance in the Cape Canaveral Area, although it is of major importance in more northern sections of the Atlantic seaboard. Some of the larger specimens are saved and utilized as food. The species reaches a weight of several pounds and length of about 18 inches, but in the Cape Canaveral Area most specimens would be under 8 inches. It is also taken by sport fishermen in limited amounts.

3. <u>Cynoscion nothus</u> - White or Silver Sea Trout

This is the smallest member of the weakfish or sea trout group occurring on our Atlantic coast and seldom reaches a length of 12 inches. It is not included in the commercial landings, though larger specimens are saved and used for human consumption. Also, it is taken in quantity by sport fishermen.

4. Leiostomus xanthurus - Spot

This species ranks fifth in volume of the Cape Canaveral Area fisheries. Specimens over 10 inches in length are seldom found, and most fish caught would not exceed 6 or 7 inches. Larger specimens are saved and used for human food. The species is also important to sport fishermen.

5. Menticirrhus spp. - King Whiting

King whiting ranks seventh of the Cape Canaveral Area fisheries, and much of the production is taken incidental to shrimp fishing operations. The species reaches a maximum weight of 2 to 3 pounds and about 14 to 16 inches in length. Most of the fish taken in the trawl fishery would weigh less than a pound and probably not average over one-half pound. The species is an excellent food fish and important in the sport fishery of the area.

6. Larimus fasciatus - Banded Croaker

This small species is not included in the commercial catch, nor is it important to sport fishermen. We believe it is seldom utilized for human consumption.

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7. Chloroscombrus chrysurus - Bumper

This small fish does not enter the commercial landings, is not utilized for human consumption, and is not important to sport fishermen. It is probably an important forage fish.

8. Vomer setapinnis - Moonfish

This small fish does not enter the commercial landings, is not utilized for human consumption, and is not important to sport fishermen. It is probably an important forage fish.

ARIIDAE - SEA CATFISH

9. Bagre marinus - Gafftopsail Catfish

A few hundred pounds of this fish are landed each year, but the species is not of significant commercial importance. It is utilized for human consumption in very limited quantities. Some are taken by sport fishermen, but it is not a prized fish.

10. Galeichthys felis - Sea Catfish

This species has no commercial importance, is seldom utilized for human food, and is not sought by sport fishermen.

SERRANIDAE - SEA BASSES

11. <u>Centropristis philadelphicus</u> - Rock Sea Bass

This small member of the sea bass group reaches a maximum size of about 12 inches, but most of the catch incidental to shrimp trawling is under 8 inches. The larger specimens are used for human consumption. This species is not significant either commercially or for the sport fishery.

FISH AND GENERAL INVERTEBRATE GROUPS TAKEN DURING

EXPLORATORY FISHING

Limited explorations in the Cape Canaveral Area with trawling gear--in addition to that carried out during the 1933-35 shrimp studies-were accomplished in two general periods, 1940 and during 1957-63.

During January 1940 and again during March-April 1940 the Bureau of Fisheries M/V<u>Pelican</u> made a series of drags on the Continental Shelf utilizing a 10-foot trynet. These data are presented in table 11 for each of the periods and in two water depth categories (surface to 20 and 20 to 100 fathoms).

JANUARY

Considerably more fish were taken in surface to 20 fathoms than in 20 to 100 fathoms (62 fish per hour of trawling compared to 15), and about 67 percent of the catch consisted of members of the family Sciaenidae (croakers). Spot (<u>Leiostomus xanthurus</u>) was the most abundant single species and represented about 47 percent of total catch in surface to 20 fathoms of water and 15 percent in 20 to 100 fathoms.

MARCH-APRIL

In this period over twice the number of fish was taken in 20 to 100 fathoms as in surface to 20 fathoms (65 fish per hour of trawling as compared to 31), reversing the condition found in January.

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Table 11.--Fish taken by trawling, Cspe Canaveral Area, M/V <u>Pelican</u>, 1940, cstch-per-unit-of-effort by species, 10-foot trynet at 6 knots [Upper figure, number of fish per hour of hauling; lower figure, percent of total catch; asterisk indicates value of less than 0.05]

| | Ja | inuary 1940 |) . | Mar | ch-April 1 | 1940 | | U | anuary 194 | +U | Ma | rcn-April | 1940 |
|---------------------------------|------------|---------------------|------------|-------------|-------------|-------------|--|--------------|-------------|--------------|-------------|--------------|--------------|
| Species | | Wat | ter depth | in fathc | ms | | Speciea | | | ater depth | in fatho | ms | |
| ppetreu | 0-20 | 20 -1 00 | 0-100 | 0-20 | 20-100 | 0-100 | | 0~20 | 20-100 | 0-100 | 0~20 | 20-100 | 0-100 |
| Raja <u>eglanteria</u> | | | | * 0.1 | | * 0.1 | Leiostomus xanthurus | 28.8 47.2 | 2.3 15.2 | 23.1 45.1 | 7.9 22.7 | 21.2 32+3 | 10.1 25.3 |
| Dasyatis americana | 0.7 | | 0.6 1.1 | .1 | | * 0.1 | Menticirrbus sp. (largely americanus | 2.2 3.6 | | 1.7 3.3 | 0.1 2.5 | | 0.7 1.8 |
| Brevoortia sp. | | ~- | | * 0.1 | | * 0.1 | Micropogon undulatus | 2.1 3.4 | 0.3 2.2 | 1.7 3.3 | 0.1 2.4 | 20.5 31.2 | 4.0 10.1 |
| <u>Anchoa</u> sp. | 0.1 0.1 | | 0.1 0.1 | 7.4 21.4 | | 6.2 15.7 | Stellifer lanceolatus | 0.9 1.5 | | 0.7 1.4 | 0.1 0.4 | | 0.1 0.3 |
| Synodus foetens | 4.6 7.6 | 5.3 34.8 | 4.8 9.3 | 1.0 2.9 | 2.5 3.8 | 1.3 3.2 | Lagodon rhomboides | 1.3 2.1 | | 1.0 1.9 | 0.1 0.4 | 0.2 0.4 | 0.2 0.4 |
| Trachinocephalus myops | | | | * 0.1 | 0.2 0.4 | 0.1 0.2 | <u>Stenotomus</u> sp. | 0.2 0.3 | | 0.1 0.3 | | | |
| Galeichthys felis | 3.9 6.4 | | 3.1 6.0 | * 0.1 | | * 0.1 | Trichiurus lepturus | | | | 0.1 0.3 | | 0.1 0.2 |
| Urophycis sp. | | 1.7 10.9 | 0.4 0.7 | * | 3.0 4.6 | 0.6 1.4 | Scomber colias | | | | | 0.8 1.1 | 0.1 0.3 |
| Hippocampus sp. | | 0.3 2.2 | 0.1 0.1 | 0.1 0.3 | | 0.1 0.2 | Scorpaena sp. | 0.1 0.1 | | 0.1 0.1 | * 0.1 | 1.0 1.5 | 0.2 0.5 |
| Syngnathus sp. | | | | 0.1 0.3 | | 0.1 0.2 | <u>Prionotus</u> sp. | 0.5 0.9 | 1.3 8.7 | 0.7 1.4 | 0.9 2.7 | 0.2 0.4 | 0.8 2.0 |
| Centropristis striatus | 0.7 | 1.0 6.5 | 0.8 1.5 | * 1.0 | 0.2 0.4 | 0.3 0.8 | Peprilus alepidotus | 0.5 0.9 | | 0.4 0.8 | | • • | |
| Centropristis philadelphicus | 0.6 1.0 | 0.3 2.2 | 0.6 1.1 | 0.5 1.4 | 0.8 1.1 | 0.5 1.3 | Poronotus triacantbus | | | | | 0.2 0.4 | * 0.1 |
| Diplectrum formosum | 0.3 | | 0.2 0.4 | 0.1 2.8 | 0.2 0.4 | 0.1 0.3 | Citharichthys sp. | 0.9 1.5 | | 0.7 1.4 | 0.4 1.1 | 1.2 1.9 | 0.5 1.3 |
| Pomatomus saltatrix | | | | * 0.1 | | * 0.1 | Etropus sp. | 0.8 1.3 | | 0.6 1.3 | 0.6 1.7 | 0.2 0.4 | 0.5 1-3 |
| Chloroscombrus chrysurus | 3.2 | | 2.5 4.9 | 2.9 8.4 | | 2.4 6.1 | Paralichthys dentatus | 0.1 0.1 | | 0.1 | | | |
| Decapterus sp. | | 0.3 2.2 | 0.1 | 0.1 2.2 | 8.0 12.2 | 2.0 4.9 | <u>Syacium</u> sp. | | 0.3 2.2 | 0.1 0.1 | * 0.1 | 0.2 0.4 | 0.1 |
| Trachurus lathami | | | | 0.1 0.4 | | 0.1 0.3 | Trinectes maculatus | | | ~~ | 0.1 | | * 0.1 |
| Vomer setapinnis | 0.9 | | 0.1 0.1 | | | | Symphurue sp. | 0.7 1.2 | | 0.6 1.1 | 0.3 1.0 | | 0.3 |
| Eucinostomus sp. | | | | * | | * 0.1 | <u>Alutera</u> <u>schoepfii</u> | 0.3 0.4 | | 0.2 0.4 | * 0.1 | 0.2 0.4 | 0.1 |
| Orthopristis chrysopterus | 0.3 | |).2 0.4 | 0.5 | | 0.4 1.1 | Acanthostracion sp. | | | | * 0.1 | | * 0.1 |
| Bairdiella chrysura | 0.3 | | 0.2 0.4 | * | | * 0.1 | <u>Opsanus</u> sp. | | 0.3 2.2 | 0.1 0.1 | | | |
| Cynoscion nothus | 3-3 | | 2.6 | 5.3 15.1 | 0.2 0.4 | 4.4 11.2 | Ogcocephalus sp. | 0.2 | 1.7 10.9 | 0.5 1.0 | 0.1 | | * 0.1 |
| Cynoscion regalis | 0.3 | | 0.2 | 0.4 | | 0.4 | <u>Halieuticbthys</u> sp. | | | | | 1.2 1.9 | 0.2 |
| Larimus fasciatus | 3-1 5-1 | | 2.4 4.7 | 2.1 | 3.0 4.6 | 2.2 | Number of fisb per hour of hauling, all species combined | 61.9 | 15.1 | 51.4 | 31.2 | 65.2 | 39.2 |

GENERAL

In surface to 20 fathoms of water the family Sciaenidae (croakers) represented about 50 percent of the number of fish captured, with spot (<u>Leiostomus xanthurus</u>) accounting for about 23 percent and white sea trout (<u>Cynoscion nothus</u>) about 15 percent. In 20 to 100 fathoms the Sciaenidae represented 68 percent of the number of fish taken, with spot (<u>Leiostomus xanthurus</u>) accounting for 32 percent and croaker (<u>Micropogon undulatus</u>) 31 percent. Several exploratory fishing vessels operated by the Bureau of Commercial Fisheries during 1957-63 made limited trawling forays on the Continental Shelf in the Cape Canaveral Area. These were the M/V <u>Combat</u>, M/V <u>Pelican</u>, and M/V <u>Silver Bay</u>. In table 12 are the data on species of fish captured, by season and depth of water. These data are a valuable addition to our knowledge of the actual occurrence of species within the Cape Canaveral Area. At the end of the table are given occurrence of the more important invertebrate forms.

Table 12.--Fish and invertebrates taken in trawls by Bureau of Commercial Fisheries vessels Combat, Pelican, and Silver Bay in Cape Canaveral Area, by season and depth of water SEDAR25-RD31

[Species arranged in phylogenetic order]

| | | | | Wat | er d | epth | 10 | fath | oms | | | | | | | | Wate | er d | epth | in í | atho | ms | | | |
|---------------------------------|-----------------|------|-----|--------|------|----------|----------|------------|----------|----------------|---|---------|------------------------------|----------|-------|-----|--------|--------|--------|--------|------|--|---------------|------------|------|
| | | 0-2 | 20 | | | 20 | -100 | | | 0-1 | 100 | | | | 0-2 | 0 | | | 20- | 100 | | - | 0-10 |) | |
| | | Seas | ons | | | se | ason | 5 | | Seas | sons | | | | Seasi | ons | _ | | 568 | ISONE | 3 | | Seas | ons | - |
| | GL | 22 | 4 | | 5-4 | 8 | H | | 5-e | 192 | 24 | | Species | 5 | Bu | er | | еĩ | 94 | er | | er | 280 | er | |
| Species | nt | rfi | Ĕ | a | nte | 17 | Ě | 3 | nt | 규 | Ĭ | ਸ | | nt | nr1 | B | 됩 | nt | 무 | | 3 | nt | 뒫 | 13 | 11 |
| | ₹M | Sp | Su | С Ц | τM | Sp | Su | E. | M | S ² | Su | 84 | | M | l S | 8 | 8 | Μ | St | Su | 5 | M | SF | S | 12 L |
| | | | | | _ | | | | | | | - | | | 1 | | | | | | | | -+ | | - |
| Galeus arae | | | | | | | X | X | | | Х | х | Stellifer lanceolatus | x | | | | | | | | x | | | |
| Carcharias taurus | X | | | | | | | | Х | - | - | | Pseudupeneus maculatus | | + | | | | Х | | | | X | + | - |
| Carcharhinus falciformis | | | | | Χ | | | | X | | | | SPARIDAE | X | | | | | | | | X | | - | - |
| Carcharhinus milberti | | | | | X | | - | | X | | _ | | Lagodon rhomboides | X | | | | | | Х | | Х | | X | |
| Negaprion brevirostris | v | | | Х | | | | | ~ | | | _ X | Stenotomus chrysops | Х | | | Х | | | | Х | Х | | X | |
| Squalus sp. | <u> </u> ∧ √ | | | | | | | | A V | - | | | Kyphosus incisor | | | | | | | X | | | | X | |
| Torredo nobiliene | X | | | X | | | <u> </u> | | X | | | x | Kyphosus sectatrix | v | | | v | | | X | v | | | X | - |
| Raja sp. | X | | - | X | | | <u> </u> | X | X | | - | X | Trichiurus lenturus | X | | | X | | | | X | - <u>x</u> | | | H |
| Raja eglanteria | Х | | | | | | | | Х | | | | Scomber colias | | - | - | | X | | X | | X | - | X | - |
| Dasyatis centroura | Х | | | | | | | | Χ | | | | Scomberomorus cavalla | X | 1 | | | | | | | X | | | |
| Dasyatis sayi | X | | | Х | | L | | | Χ | | | X | Scomberomorus maculatus | Х | | | Х | | | | | X | | X | |
| Aetobatus narinari | X | | | | | <u> </u> | | | X | - | | | SCORPAENIDAE | | | | | X | | | X | X | | X | |
| Myliobatic sp. | Ă V | | | | | | - | | Å V | - | | | Pontinus sp. | X | | | | | - 16 | | | <u>X</u> | | 717 24 | |
| CLIPETDAE | X | | | | | | | X | X | | - | X | Scorpaena sp. | Å | Å | | Å | | A Y | X | Y | A | - <u>v</u> | X X | - |
| Hrevoortia smithi | | | | X | | | | | | | | X | Scorpaena driagrata | - | | | | | - ^- | X | X | | - | XX | - |
| Brevoortia tyrannus | Х | | | | | | | | Х | | | | TRICIEDAE | - | | | | | Х | | - | | x | | - |
| Etrumeus sadina | | | | X | X | | | | Х | | | Х | Rellator sp. | | | | | | | X | X | | | XX | |
| Harengula pensacolae | X | | | X | _ | | | | X | | | X | Bellator militaris | | | | | | Х | Х | Х | - | X | XX | |
| Opisthonema oglinum | X | X | | X | | | V | v | X | X | v | X | Peristedion sp. | | | | | Х | | | X | X | | X | |
| Anchos sp. | X | | | x | | | A | A | X | | X | Å V | Prionotus sp. | X | | | | X | | X | X | Χ | _ | XX | • |
| Anchos hersetus | X | | | A | | | | | X | | | A | Prionotus carolinus | | | - | | | | X | | | - | X | - |
| Synodus foetens | X | X | | X | X | X | X | X | X | X | X | X | Prioretus evolans | | - | | | | | A | Y | | | XV | - |
| Syncdus intermedius | | | | | | X | | _ | | X | | | Prionotus roseus | | - | | | | X | 45 | X | | X | X | 1 |
| Trachinocephalus myops | | | | | | X | | Х | | X | _ | X | Astroscopus y-graecum | X | 1 | | | | | | | X | | | - |
| Chlorophthalmus sp. | | L | | | Х | | | | Х | | | | Kathetostoma albigutta | | | | | | | Х | X | | | XX | |
| Bagre marinus | X | | | X | | | | | X | <u> </u> | | X | BROTULIDAE | | - | | | Х | | | | X | | _ | |
| <u>Galeichthys</u> <u>felis</u> | X | | | X | 77 | | | | X | | | X | OPHIDIIDAE | X | | | Х | | Х | X | Х | X | X | XX | |
| Ophichthus an | Y | | | | Å | | | | A Y | | - | | Lepophidium sp. | <u>X</u> | - | | | | | 77 | X | <u> X </u> | V | - X | |
| Orbichthus ocellatus | X | | | X | | | | | X | | | X | Ophidion helbrooki | | - A | | | | | A V | _A | | | A A | |
| Merluccius sp. | | | | -11 | X | | | Х | X | | | X | Penrilus sp | X | | | | | | A | | X | \rightarrow | ~ | |
| Phycis sp. | | - | | | | | | X | | | | X | Penrilus alenidotus | X | - | | | | | | - | X | | - | - |
| Urophycis sp. | | | | | X | | | | Х | | | | Peprilus paru [?] | X | | | Х | - | | | Х | X | - | X | |
| Urophycis regius | X | | | | X | | Х | Х | X | | Х | Х | Poronotus triacanthus | X | | | X | Х | | Х | X | Х | | XX | |
| Fistularia tabacaria | | v | | v | | X | X | X | | X | X | X | Sphyraena sp. | X | ļ | | X | | | | | X | | X | |
| Reluminin laugi | 1 | A | | A. | Y | | | Ÿ | Y | Ă. | | _Å Y | Ancylopsetta sp. | | | | 715 | X | | | | X | | | _ |
| Anthias sp. | - | | | | X | | | X | X | | | X | Ancylopsetta quadrocellata | | | | X V | | | | Y | | | | 1 |
| Centropristis sp. | X | | - | X | | Х | | Х | Х | X | - | X | Citherighthus sp | | | | ~ | X | | | ~ | - <u>x</u> - | | | - |
| Centropristis ocyurus | Х | | | | - | Х | Х | | Χ | Х | Х | | Citharichthys arctifrons | | 1 | | | | - | | X | | | 1 | |
| Centropristis philadelphicus | X | X | | | Х | X | | Х | X | X | | X | Citharichthys macrops | Х | - | | | | | | | X | | | |
| Centropristis striatus | | X | | X | X | | w | | <u>X</u> | X | ~ | X | Etropus sp. | X | | | | | | | | X | | | |
| Diplectrum sp. | Y | Y | | Y | | Y | A Y | - <u>A</u> | Ŷ | Y | X | X Y | Etropus crossotus | | | | X | | | | | | | X | |
| Epinephelus nivestus | | 10 | | | Х | 75 | | - 26 | X | | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | | Hippoglossina oblonga | | + | | | X | | | v | X | | | _ |
| Hemanthias sp. | | | - | | | | | Х | | | | X | Paralichtnys sp. | Y | | | . A | | | | A . | Y | | | - |
| Serranus phoebe | | | | | | | | Х | | | | X | Paralichthys dentatus | X | | | | _ | | | | X | -+ | | - |
| Lobotes surinamensis | Х | | | | | - | | | Χ | | | | Paralichthys lethostigma | X | | | Х | | | | | X | | 2 | |
| Lutjanus blackfordii | | - | | | X | | | | X | | | | Paralichthys squamilentus | | | | | X | | | Х | Х | | X | |
| Rhomboplites aurorubens | v | | | v | X | | X | X | X | | X | X | Syacium sp. | X | | | Х | | | | Х | X | | X | í., |
| Pomatomus saltatrix | Y | | - | | | | | <u>^</u> | Ŷ | | | ~ | Poecilopsetta sp. | X | | | | | | | 16 | X | | | _ |
| Caranx sp. | X | | | X | | | | | X | | | X | Gymnachirus audus | v | v | | | | | | X | Y | Y | X | 1 |
| Caranx crysos | | | | X | | | X | | | | Х | X | MONACANTHIDAE | X | - | | | | | | X | X | ~ | Y | 1 |
| Caranx hippos | | | | Х | | | Х | | | | X | Х | Monacanthus sp. | X | | | | | | X | X | X | | XX | |
| Caranx ruber | | | | | | | X | | - | | Х | 1.0 | Stephanolepis hispidus | | | | X | | | | X | | | X | |
| Chloroscombrus chrysurus | X | | | X | | _ | | | X | | | X | Acanthostracion Juadricornis | | X | | | | | | - | - | X | 1 | _ |
| Decapterus sp. | | | | | | | Y | A | | | v | A | Lactophrys trigonus | X | X | | X | | | v | X | X | X | X | - |
| Selen emmenorhibelmus | | | | | | X | X | X | | X | A Y | X | Opcanus sp. | X | - | - | | | - | A | A | X | | AX | |
| Selene vomer | X | | | X | | A. | | - A - | X | | | X | Porichthys sp. | | X | | | | - | | x | v | X | X | H |
| Seriola dumerili | | | | | | | Х | | | | X | - | Antennarius radiosus | - | | | | - | | | X | | - | X | - |
| Trachinotus carolinus | X | | | Х | | | | X | Х | | - | X | Histrio histrio | | | | | - | | Х | | | _ | X | |
| Trachurus lathami | | | | | | Χ | Х | Х | | X | X | X | Halieutichthys aculeatus | | | | | | | Х | | | - | Х | |
| Vomer setapinnis | X | | | Х | | | _ | X | Х | | | X | Ogcocephalus sp. | | | | X | X | X | X | X | X | X | XX | 1 |
| Coryphaena hippurus | v | | | | | L | | Ă. | V | | | A | | | | | | | | | | | | | |
| Haemuloo sp | X | | | X | | | | | X | | | X | Anenones or coral | v | v | - | v | X | - | Y | X | A Y | v | y v | H |
| Haemulon plumieri | X | | | | | | | Х | X | | | X | Send dollars or see unching | A Ý | X | | X | A | | ~ | X | X | X | AA | - |
| Orthopristis chrysopterus | X | | | | | | | | Х | | | | Sea cucumber | ~ | A | | A | | - | - | - | - | ~ | | |
| SCIAENIDAE | X | | | | | | | | Х | | | | Misc. gastro_ods | | | | 1.1 | 1 | T | | T. | | 1 | | 1 |
| Cynoscion sp. | Х | Х | | X | | | | | X | Х | | X | Misc. bivalve mollusks | Х | X | 1 | Х | Х | Х | Х | Х | X | X | XX | |
| Cynoscion nebulosus | X | | | | | - | | | X | | _ | | Squid or octopus | X | 1 | | X | X | | X | X | X | - | XX | |
| Cynoscion nothus | X | ~ | | ~ | | _ | | | X | 7 | | v | Stomatopod crustaceans | X | X | - | X | X | X | X | X | X | X | XX | |
| Lerimus facciatus | X | X | | A | | Y | | | X | X | | 10 | Mise deserved amustaces | X | X | - | A V | A V | A Y | A Y | X | X | A V | A X Y V | H |
| Leiostomis xanthurus | X | X | | X | | X | | X | X | X | | X | Misc. invertebrates | X | X | | A | X | ~ | ~ | X | X | X | A A Y | |
| Menticirrhus sp. | X | X | | | | | | | X | X | | | where therefore the set | v | A | | - | ~ | | | 44 | 4.5 | 44 | ^ | - |
| Menticirrhus americanus | X | | | Х | | | | Х | Х | | | Х | Number of trawl stations | 28 | 2 | | 8 | 8 | 5 | 4 | 14 | 36 | 7 | 4 22 | |
| Menticirrhus saxatilis | Х | | | Х | | | | | Χ | | | Х | | | | | | | | | | | | | |
| Micropogon undulatus | X | | | X | | Х | | Х | X | X | | X | | | | | | | | | | | | | |
| Pogonias cromis | X | | | Х | | | | | X | 1 | | X | | - | | | | | - | | | - | | - 1 | |

Oblique and horizontal plankton tows were made routinely with half-meter nets on T. N. Gill cruises off the southeastern coast of the United States during 1953-54. Information gained to date from the zooplankton data and material from samples taken in the Cape Canaveral Area is given in tables 13-19 and figures 8-10. These data are extracts from Gill cruise reports (Anderson, Gehringer, and Cohen, 1956a and 1956b; Anderson and Gehringer, 1957a, 1957b, 1958a, 1958b, 1959a, 1959b, and 1960) and from a study of chaetognaths from Gill cruise samples (Pierce and Wass, 1962). Several of the organisms identified from these plankton samples and wet volumes of plankton are discussed in detail. Thomas E. Bowman, U.S. National Museum, furnished identifications of copepods in plankton samples from the first four T. N. Gill cruises.

WET VOLUMES OF PLANKTON

Wet volumes of plankton for individual samples ranged from 16 to 672 ml. per 1,000 m.³ of water strained (table 13). Average values, in ml. per 1,000 m.³ of water strained, for surface- to 20-fathom waters (146.3-328.2) were higher than those for 20- to 100-fathom

Table 13.--Wet volumes of plankton, ml. per 1000 m³ of water, Continental Shelf off Cape Canaveral Area, from plankton samples (oblique or surface tow, half-meter net), <u>T. N. Gill</u> cruises 1953-54, by depth of water and by season

| | * | - | - |
|------|-----------|---|---|
| 0-21 | 0 fathoms | | |
| | | | |

[Individual values are volumes for separate samples]

| | winter | Spring | Summer | <u>P BJ_L</u> |
|--------------------------------|------------------|--|---|--------------------------------------|
| | 87 243 109 | 220 449 672 193 108 251 | 430 581 259 326 187 308 101 422 340 | 401 235 188 110 28 20 |
| Total Average | 439 146.3 | 1,893 315.5 | 2,954 328.2 | 982 163.7 |
| | | 20-100 f | athoms | |
| | Winter | Spring | Summer | Fall |
| | 111 222 | 168 188 270 114 | 216 335 203 483 318 252 | 16 128 114 151 |
| Total Average | 333 166.5 | 740 185.0 | 1,807 301.2 | 409 102.3 |
| | | <u>0-100 f</u> | athoms | |
| | Winter | Spring | Summer | Fall |
| 0-20 fathoms 20-100 fathoms | 439 333 | 1,893 740 | 2,954 1,807 | 982 409 |
| Total No. of samples | 772 5 | 2,633 10 263 3 | 4,761 15 317.4 | 1,391 10 139.1 |

waters (102.3-301.2), and spring and summer values (263.3-317.4) were approximately double those for the winter and fall (139.1-154.4). Summer values averaged higher than those for the other seasons (table 13 and fig. 8).

FISH EGGS

Numbers of fish eggs per 100 m.³ of water strained for individual samples ranged from 1 to 9,784 (table 14). Average values, in numbers per 100 m.3 of water strained, in surface to 20 fathoms in the spring and summer (2,441.8 and 1,192.7) exceeded by roughly 15 to 100 times those in the fall and winter (23.2 and 84.0). In 20 to 100 fathoms, average winter, spring, and summer values were nearly equal (767.5, 677.8, and 792.5, respectively) and approximately one-third to onehalf the spring and summer values inshore (2,441.8 and 1,192.7) and were four to five times the values for the fall (143.2). Average values for the area as a whole in the spring and summer (1,736.2 and 1,032.6) were approximately 3 to 20 times those for the fall and winter (83.2 and 311.8), table 14 and figure 9.

Menhaden eggs were identified from plankton samples obtained during February on a winter <u>Gill</u> cruise, from 20 to 100 fathoms (Reintjes, 1961). Reintjes (1961) stated, "...menhaden spawn along the south Atlantic coast generally from December to February. Furthermore, the principal spawning areas may be limited to certain localities, namely, Cape Lookout and Cape Canaveral to Jupiter Inlet."



Figure 8.--Wet volumes of plankton, ml. per 1,000 m.³ of water, Continental Shelf off Cape Canaveral Area, from plankton samples, <u>T. N. Gill</u> crulses 1953-54, average values by depth of water and by season.

Table 14.--Numbers of fish eggs per 100 m.³ of water, Continental Shelf off Cape Canaveral Area, from plankton samples (oblique or surface tow, half-meter net) T. M. <u>Gill</u> cruises 1953-54, by depth of water and by season

[Individual values are counts for separate samples]

| | | | | 0-20 f | athoms | |
|--------------------|-----------------------------|---------------------|-----------------------|--|---|----------------------------|
| | | | Winter | Spring | Summer | Fall |
| | | | 7 21 138 170 | 656 2,806 9,784 596 529 280 | 150 2,222 846 85 280 1,998 2 98 5,053 | 7 6 54 26 |
| Tota | al | | 336 | 14,651 | 10,734 | 93 |
| Ave: | rage | | 84.0 | 2,441.8 | 1,192.7 | 23.2 |
| | | | | 20-100 | fathoms | · |
| | | | Winter | Spring | Summer | Fall |
| | | | 205 1,330 | 1,310 138 909 354 | 1,171 249 104 296 2,889 46 | 4 360 197 12 |
| Tot: Ave: | al rage | | 1,535 767.5 | 2 ,71 1 677.8 | 4,755 792.5 | 573 143.2 |
| | | | | 0-100 | fathoms | |
| | | | Winter | Spring | Summer | Fall |
| 0-2 20- | 0 fathoms 100 fatboms | | 336 1,535 | 14,651 2,711 | 10,734 4,755 | 93 573 |
| Tota No. Ave | al of samples rage | | 1,871 6 311.8 | 17,362 10 1,736.2 | 15,489 15 1,032.6 | 666 8 83.2 |
| bers | 2,500 2,000 - 1,500 - | Fish eggs | | | – 0-100 fa 0-20 fa · 20-100 | athams thams fathams |
| Num | 1,000 - | | 1/ | | | |
| | 500 - | . / | Ý | | | |
| | ٥L | / | | I | | 1. |
| ers | 1,000 | Winter Fish larv | Spr | ing Su | mmer F | all |
| hub | 500 - | • | / | | | |
| ź | 0 | 7 | | • • • • • • • • • • • • • • • • • • • | | 11 |
| | | Winter | Spr | ing Su | mmer F | alí |

Figure 9,--Numbers of fish eggs and fish larvae per 100 m.³ of water, Continental Shelf off Cape Canaveral Area, from plankton samples, <u>T. N. Gill</u> cruises 1953-54, average values by depth of water and by season.

SEDAR25-RD31 FISH LARVAE

Numbers of fish larvae per 100 m.³ of water strained ranged from 2 to 2,728 (table 15). Average values, in numbers per 100 m.³ of water strained, in surface to 20 fathoms for the spring and summer (529.0 and 564.8) were 13 to 33 times those for the winter and fall (16.5 and 41.0). In 20 to 100 fathoms, average winter and summer values (469.0 and 372.5) were about three to four times those in the spring and fall (170.0 and 131.0). Spring and summer values in surface to 20 fathoms (529.0 and 564.8) were one and one-half to three times those in 20 to 100 fathoms. Average values for the area as a whole in the spring and summer (385.4 and 487.9) were approximately three to five times those for the fall and winter (77.0 and 167.3) (table 15 and fig. 9).

Menhaden larvae were identified from samples obtained in February on one winter <u>Gill</u> cruise in the Cape Canaveral Area from surface to 20 fathoms and 20 to 100 fathoms (Reintjes, 1961).

COPEPODS

Numbers of copepods per 100 m.³ of water strained ranged from 960 to 89,720 (table 16). Average values in waters of surface to 20 fathoms were low in the spring (22,222) and increased through the summer (39,308) and fall (43,398) to a high in the winter (48,587). In 20 to 100 fathoms the low also occurred in the spring (18,227), but the high occurred in the summer (38,822). Average values for inshore and offshore were similar in the spring (22,222 and 18,227) and summer (39,308 and 38,822). Average inshore values for the winter and fall (48,587 and 43,398) approximately doubled those for offshore (24,960 and 22,355). For the area as a whole, similar high values (40,712 and 39,113) occurred in the winter and summer, a somewhat lower value (34,981) occurred in the fall, and the low (20,624) occurred in the spring (table 16 and fig. 10).

Species composition identifications by Thomas E. Bowman for one season (with but one sample for inshore during the winter) show 23 species inshore and 22 species offshore during the spring, 17 species inshore and 32 species offshore during the summer, and 11 species inshore and 14 species offshore during the fall. Offshore samples averaged 22 species for the three seasons and inshore samples averaged 17 species. Generally the greatest numbers of species occurred in areas of least numbers of specimens (tables 16 and 17).

Ten species were found in spring samples only, 11 in summer samples only, 1 in the fall only, and 3 in all four seasons. Fourteen

Table 15.--Numbers of fish larvae per 100 m.³ of water, Continental Shelf off Cape Canaveral Area, from plankton samples (oblique or surface tow, half-meter net), <u>T. N. G111</u> cruises 1953-54, by depth of water and by season

| [Individual | values | are | counts | for | separate | samples] |
|-------------|--------|-----|--------|-----|----------|----------|
|-------------|--------|-----|--------|-----|----------|----------|

| | | 0-20 f | athoms | |
|------------------------------------|---------------------|--|---|--------------------------------|
| | Winter | Spring | Summer | Fall |
| | 2 38 17 9 | 55 128 2,728 2,728 87 27 149 | 923 409 426 454 106 1,229 184 1,140 212 | 20 14 9 209 2 2 |
| Total Average | 66 16.5 | 3,174 529.0 | 5,083 564.8 | 246 41.0 |
| | | 20-100 | fathoms | |
| | Winter | Spring | Summer | Fell |
| | 123 815 | 84 105 370 121 | 167 305 570 417 211 565 | 27 77 348 72 |
| Total Average | 938 469.0 | 680 170.0 | 2,235 372.5 | 524 131.0 |
| | | 0-100 | fathoms | |
| | Winter | Spring | Summer | Fall |
| 0-20 fathoms 20-100 fathoms | 66 938 | 3,174 680 | 5,083 2,235 | 246 524 |
| Total No. of samples Average | 1,004 6 167.3 | 3,854 10 385.4 | 7,318 15 487.9 | 770 10 77.0 |

Table 16.--Numbers of copepods per 100 m.³ of water, Continental Shelf off Cape Canaveral Area, from plankton samples (oblique or surface tow, half-meter net), <u>T. N. Cill</u> cruises 1953-54, by depth of water and by season

[Individual values are counts for separate samples]

| | | 0-20 f | athoms | |
|------------------------------------|-------------------------------------|---|---|---|
| | Winter | Spring | Summer | Fall |
| | 1,000 89,720 52,020 51,610 | 31,360 6,250 35,050 3,080 7,460 50,130 | 77,810 79,090 12,760 21,440 23,400 42,540 1,480 46,890 46,890 48,360 | 46,710 56,510 40,280 74,530 960 41,400 |
| Total Average | 194,350 48,587 | 133,330 22,222 | 353,770 39,308 | 260,390 43,398 |
| | | 20-100 | fathoms | |
| | Winter | Spring | Sumer | <u>Fall</u> |
| | 17,350 32,570 | 17,840 7,400 23,170 24,500 | 64,400 42,400 31,420 24,240 40,870 29,600 | 7,240 56,840 11,620 13,720 |
| Total Average | 49,920 24,960 | 72,910 18,227 | 232,930 38,822 | 89,420 22,355 |
| | | 0-100 : | fathoms | |
| | Winter | Spring | Summer | Fall |
| 0-20 fathoms 30-100 fathoms | 194,350 49,920 | 133,330 72,910 | 353,770 232,930 | 260,390 89,420 |
| Total No. of samples Average | 244,270 6 40,712 | 206,240 10 20,624 | 586,700 15 39,113 | 349,810 10 34,981 |



Figure 10.--Numbers of copepods and chaetognaths per 100 m.³ of water, Continental Shelf off Cape Canaveral Area, from plankton samples, <u>T. N. Gill</u> cruises 1953-54, average values by depth of water and season.

species occurred in all three seasons; spring, summer, and fall samples. Three species were found only in surface to 20 fathoms, and 16 species occurred only in 20 to 100 fathoms (table 17).

CHAETOGNATHS

Numbers of chaetognaths per 100 m.3 of water strained (table 18) ranged from 10 to 17,000. Average numbers for samples in surface to 20 fathoms increased from a low in the winter (2,237.5) through the spring (2,715.0) and summer (5,574.4) to a high in the fall (7,883.3). In 20 to 100 fathoms the low was in the spring (792.5), with the winter next (1,250.0), then the summer (1,868.3), and the high in the fall (4,150.0). Average spring and summer values in surface to 20 fathoms (2,715.0 and 5,574.4) were about three times those for 20 to 100 fathoms (792.5 and 1,868.3), and winter and fall values in surface to 20 fathoms (2,237.5 and 7,883.3) were a little less than twice those in 20 to 100 fathoms (1,250.0 and 4,150.0). For the area as a whole similar low average values (1,908.3 and 1,946.0) occurred in the winter and spring; the average value doubled in the summer (4,092.0); and by the fall the value was approximately three times (6,390.0) those of the winter and spring (table 18 and fig. 10).

Pierce and Wass (1962) presented their identifications and interpretations of occurrences of the adult forms of chaetognaths in plankton samples from T. N. Gill cruises in

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Table 17.--Species of copepods identified from plankton samples in Cape Canaveral Area, <u>T</u>, <u>N</u>. <u>Gill</u> cruises 1-4, 1953, by season and depth of water

| Species | Wint | ter | Spr | ing | Sum | mer | Fe | 11 | Spec occur wint onl | ies ring er Y | Spe occu spr: onl; | cies rring ing | Spec occu sum only | ries ring mer | Spec occur fal onl | ies ring l | Spec occur al seas | ies ring l | Spec occur spri summ and f | ies ring ng er all | Spec occus one o onl | ries ring lepth ly |
|---------------------------------|--------------|----------------|--------------|---------------|--------------|----------------|--------------|----------------|------------------------------|------------------------|-----------------------------|----------------------|-----------------------------|---------------------|-----------------------------|------------------|-----------------------------|------------------|--|--------------------------------|-------------------------------|-----------------------------|
| | 0-20 fus. | 20#100 fms. | 0-50 £#8+ | 20-100 印度: | 0-20 fms. | 20-100 fms. | 0-20 fma. | 20-100 îns. | 0-20 fms. | 20-100 fms. | 0-20 fms. | 20-100 fms. | 0-20 fms. | 20-100 fms. | 0=20 fm8. | 20-100 fms. | 0-20 fus. | 20-100 fms. | 0-20 fms. | 20-100 fus. | 0-20 Îms. | 20-100 fms. |
| | | | | | | | | | | | | | | | | | | | | | | |
| Acartia danae | 10 | | X | | X | X | | X | | | | | | | | | v | | | | | |
| Acartia tonsa | X | | X | | Ă | v | A | Ă. | | | | | Y | v | | | | | | | | |
| Acrocalanus andersoni | | - | | Y | N N | Y | | - | | | | | | ~ | | | | | | | | |
| Acrocalanus longicornis | Y | | X | A | X | X | X | x | | | | | | | | | X | | | | | |
| Colonus minor | 74 | | X | X | X | X | | 1.25 | | | | | | | | | | | | _ | | |
| Calanus robustion | | | | X | - 76 | 21 | | - | | | | Х | | | | | | | | | | Х |
| Calanus tenuicornis | | | | | | Х | | | | | | | | Х | | | | | | | | Х |
| Calocalanus gracilis | | | | | | | | X | | | | | | | | Х | | | | | | Х |
| Calocalanus pavo | | | Х | X | Х | Х | | | | | | | | | | | | | | | | |
| Calocalanus plumulosus | | | | | | Х | | | | | | | | Х | | | | | | | | X |
| Calocalanus styliremis | | | | | | Х | | | | | | | | Х | | | | | | | | X |
| Candacia sp. (juvenile) | | | Х | | | X | | X | | | | 34 | | | | | | | | _ | | ~ |
| Candacía pachydactyla | | | 16 | X | 17 | 30 | v | 17 | | | | X | | | | | | | | v | | A |
| Centropages furcatus | | | X | X | A | X | A | 1 A | _ | - | | v | | | | | | | Δ | Δ | | Y |
| Centropages Violaceous | | | | Δ | | v | | 1 | | | | | | | - | | | - | | | | X |
| Clausocalanus arcuicornis major | | | Y | | | Y | | 1 | | | | | | | | | | | | | | 22 |
| Clausocalanus furcatus | | + + | X | X | X | X | X | X | | | | | | | | | | | X | χ | | |
| Ctenocalanus vanus | | | X | | | | | 1 | - | | Х | | | | | | | | | | Х | |
| Euaetidius giesbrechti | | | | | | Х | | 1 | | | | | | Х | | | | | | | | Х |
| Eucalanus attenuatus | | | Х | Х | | Х | | | | | | | | | | | | | | | | |
| Eucalanus crassus | | | | | | Х | | 1 | | | | | | Х | | | | | | | | Х |
| Eucalanus elongatus | | | Х | Х | | | | | | | Х | Х | | | | | | | | | | |
| Bucalanus pileatus | | | Х | X | Х | Х | Х | Х | | | | | | | | | | | X | Х | | |
| Eucalanus subtenuis | | | | L | | Х | | | | | | | | Х | | | 1 | | | | | X |
| Euchaeta marina | | | | X | | Х | | X | | | | | | | | | | | | Х | | Χ |
| Labidocera sp. | | | X | | | | | - | | | X | | | | | | 14 | | | | X | |
| Labidocera aestiva | X | | X | X | X | X | <u>X</u> | | | | | | | | - | | Y | | | | | |
| Lucicutia flavicornis | | | 1 X | | · | A. | | - | | | | | | Y | | | | | | | | y I |
| Meanmonean alguesi | | | | - | | Y | | - | | | | | | X | | | | | | | | Y |
| Recynocera clausi | | + | x | X | Y | X | X | X | | | | | | <u></u> | | | | | X | х | | |
| Paracalanus crassirostris | | | 75 | 25 | X | 24 | X | X | | | | | | | | | | | | | | |
| Paracalanus parvus | | + | X | X | X | X | X | X | | | | | | | | | | | Х | Х | | |
| Pleuromamma abdominalis | | 1 | X | X | | | | | | | Х | X | | | | | | | | | | |
| Pleuromarma gracilis | | | | | | Х | | | | | | | | Х | | | | | | | | Х |
| Pontellina plumata | | | | X | [| | | 1 | | | | Х | | | | | | | | | | Х |
| Rhincalanus cornutus | | | Х | Х | | Х | | | | | | | | | | | | | | | | |
| Scolecithrix danae | | | Х | X | | X | | | | | | | | | | | | | | | | |
| Temora sp. (juvenile) | X | | | | | | | | X | | | | | | | | | | - 17 | | Χ | |
| Temora stylifer | _ | | X | Ă | X | X | X | v | | | | | - | | | | | | <u>A</u> | v | | |
| Temora turbinata | | | X | Å | X | Å | X | A | | | | | - | | | | | | Λ | Y | | |
| Unainula vulgaris | | | | A | A | Λ | | · _ | | | | | L | | | | | | | | | |

[Identifications by Thomas E. Bowman]

Table 18.--Numbers of chnetognaths per 100 m.³ of water, Continental Shelf off Cape Canaveral Area, from plankton samples (oblique or surface tow, half-meter net), T. N. <u>Gill</u> cruises 1953-54, by depth of water and by season

[Individual values are counts for separate samples]

| | | 0-20 1 | athoms | |
|------------------------------------|-----------------------------|---|---|--|
| | Winter | Spring | Summer | Fall |
| | 10 100 4,970 3,870 | 1,760 640 1,740 2,750 8,830 | 6,380 2,130 4,780 14,180 10,310 2,870 2,720 2,000 4,800 | 14,540 5,680 4,500 17,500 1,110 6,470 |
| Total | 8,950 | 16,290 | 50,170 5 57h h | 47,300 |
| | لرەالىكۈك | 2,12,00 | dathows | 1,000,0 |
| | Udator | | Summar | |
| | 1,180 1,320 | 900 960 720 590 | 650 3,720 1,180 1,51 2,780 1,370 | 5,800 3,030 4,460 5,310 |
| Total | 2,500 | 3,170 | 11,210 | 16,600 |
| WALTERC | 132,00.0 | 0=100 | fathoms | 4,1000 |
| | Winter | Spring | Summer | Fall |
| 0-20 fathoms 20-100 fathoms | 8,950 2,500 | 16,290 3,170 | 50,170 11,210 | 47,300 16,600 |
| Total No. of samples Average | 11,450 6 1,908.3 | 19,460 10 1,946.0 | 61,380 15 4,092.0 | 63,900 10 6,390.0 |

1953 and 1954. Their data which are pertinent to the Cape Canaveral Area are given in table 19 and presented in the discussions concerning individual species as follows.

Of the 12 species discussed by Pierce and Wass, 9 occurred in both surface to 20 and 20 to 100 fathoms, 1 occurred only in 20 to 100 fathoms, 6 most abundantly in 20 to 100 fathoms, and 2 most abundantly in surface to 20 fathoms.

Sagitta enflata, the most abundant and widely distributed chaetognath on the south Atlantic coast (optimum conditions appear to be close to the 20-fathom curve, near the coast and farther offshore the numbers diminish), was most abundant in the Cape Canaveral Area in waters 20 to 100 fathoms.

Sagitta tenuis, most abundant inshore, diminishes rapidly beyond the 10-fathom curve and almost disappears in the Florida Current.

Sagitta helenae, typically a Continental Shelf species along the south Atlantic coast, appeared in approximately equal numbers in Iable 19.-- Theotographs per 100 r.³ of water, from plankton samples, Cape Canaveral Area, I. <u>N. Gill</u> cruises 1953-54, by species, by individual sampling station, by depth of water

[Data are extracts from Pierce and Wass (1962)]

| | 0 | -20 fath | oes | 20-100 fathons | | | |
|------------------------|------------|------------|------------|----------------|------------|--|--|
| Species | R | eg. Sta. | Nc. | Reg. S | ta. No. | | |
| | 11 | 12 | 13 | 10 | 14 | | |
| Segitte enflate | G | B | G | | | | |
| Segitte teruis | \bigcirc | ٢ | \bigcirc | Ø | 9 | | |
| Segitte helenze | B | 0 | Ø | Ø | 0 | | |
| Secitta serratodentata | \oplus | 0 | \oplus | Ø | \bigcirc | | |
| Segitte hispide | \bigcirc | \bigcirc | \otimes | \oplus | \bigcirc | | |
| Segiste minime | \bigcirc | \bigcirc | \oplus | B | B | | |
| Seritta bipunctata | 0 | \oplus | 0 | B | B | | |
| Sacitta hexaptera | 0 | 0 | \bigcirc | \bigcirc | \oplus | | |
| Arobaitas pacifica | \oplus | \oplus | \oplus | B | 3 | | |
| Prerosagitta draco | 0 | \oplus | 0 | B | B | | |
| 🔵 = . per cubic meter | | | | | | | |
| = <0.1 | | | | | | | |
| 🕲 = v.1 to 2.9 | | | | | | | |
|) = 1.0 to 3.0 | | | | | | | |
| 🔘 = 0.3 | | | | | | | |

both surface to 20 fathoms and 20 to 100 fathoms off Cape Canaveral.

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Sagitta serratodentata, an open ocean species widely distributed over the Continental Shelf, and noticeably absent from most <u>Gill</u> stations bordering the coast, appeared in greater numbers in 20 to 100 fathoms than in surface to 20 fathoms.

Sagitta hispida, limited to <u>Gill</u> stations nearest the coast, was more abundant at the surface to 20-fathom stations off Cape Canaveral than any other stations along the south Atlantic coast.

Sagitta minima occurred in maximum abundance along the edge of the Continental Shelf, with only a trace at one station in surface to 20 fathoms.

<u>Sagitta bipunctata</u>, seldom abundant but widely distributed over the outer portion of the shelf and across the Florida Current, is taken consistently in offshore waters.

Sagitta hexaptera, taken occasionally over the outer edge of the shelf, but principally in the Florida Current, appeared in low numbers in 20 to 100 fathoms off Cape Canaveral.

Krohnitta pacifica, never abundant, but widespread from the coast across the Florida Current, appeared in all samples in the Cape Canaveral Area but most abundantly in 20 to 100 fathoms.

<u>Pterosagitta draco</u>, widely distributed, from every <u>Gill</u> station beyond the 10-fathom curve along the south Atlantic coast, appeared in one Cape Canaveral sample inside the 20fathom curve but in all samples from 20 to 100 fathoms.

Two species identified from <u>T. N. Gill</u> samples off the southeastern coast of the United States, <u>Sagitta lyra</u> and <u>Krohnitta sub-</u> <u>tilis</u>, did not occur in the samples from the Cape Canaveral Area. The numbers and species of fishes taken by dip net at the surface in the Cape Canaveral Area during the <u>T. N. Gill</u> cruises in 1953-54 are given in table 20. The specimens of dolphin

Table 20.--Wimburs and species of fishes taken by dip net at surface on Continental Shelf off Cape Canaveral Area, <u>7. N. 5111</u> cruises 1953-54

| | | | | | | Water jepth | | |
|---------------------------|----------|------------------|-------|--------------------|-----------------|-------------|--------|--|
| Species | D | ate | | Lc | cation | in f | athoms | |
| | | | | N. Let | . W. Long. | 1-20 | 20-100 | |
| NOVACAN STEDIE | | | | | | | | |
| Stephonologic biggidus | Oat | 1). | 1052 | 20* 201 | 807201 | 2 | | |
| Do Do | Oct. | 1), | 1052 | 2.9 .00 20*10* | RCP1C1 | - | 27 | |
| Do: | Sart | 12, | 1051 | 2.9 00 20° 00 I | 80°201 | 6 | 34 | |
| £0. | sept. | 40, | 197- | 29 30 | 00 32 | 0 | | |
| ATHERINIDAE | | | | | | | | |
| Membras martinica | Feb. | 18. | 1953 | 26*20* | 80° 33 * | 2 | | |
| | | - / | | | | | | |
| BELONIDAE | | | | | | | | |
| Strongvlura acus | July | 27, | 1953 | 29° 30° | 80° 32 * | 1 | | |
| Do. | Oct. | 11, | 1953 | 29°003 | 8 6°1 0' | | 5 | |
| Do. | Sept. | 13, | 1954 | 29°00* | 80°10' | | 1 | |
| Ablennes hians | Oct. | 14, | 1953 | 29°30' | 86°10' | | 3 | |
| | | | | | | | | |
| CARANGIDAE | | ~ ~ | a och | a CRook | O office of | | | |
| Caranx bartholomaei | Apr. | 27, | 1954 | 28720* | 801101 | | 1 | |
| Carana ruber | Apr. | 27, | 195- | 29-001 | 80*10* | | 2 | |
| CT HERETIN P | | | | | | | | |
| Etmmone codine | Tuno | 25 | 105 | 100*001 | Rotense | | | |
| Original and and | Some | 22, | 197- | 1891.18 | 809251 | | | |
| Oblethoners Officiate | bepu. | <u>1</u> - 2 - 3 | 1974 | SC 41. | 00 25 | <i>-</i> | | |
| CORYPHAENTDAE | | | | | | | | |
| Corvohaena hirourus | Apr. | 27. | 1954 | | 5.0°10* | | 1 | |
| | | , | - / / | | | | | |
| EXOCOFTIDAE | | | | | | | | |
| Parexocoetus brachypterus | July | 27, | 1953 | 28*20* | 80°10' | | 1 | |
| Do. | Oct. | 14, | 1953 | 29*00* | 80°10' | | 93 | |
| Do. | Feb. | 2, | 1951 | 29* 00* | 80°10' | | -3 | |
| Do. | Apr. | 27, | 1954 | 28*20* | 60°10* | | 1 | |
| Do. | June | 25, | 1954 | 29*00* | 60° 32 * | ~ | | |
| Do. | June | 25, | 1954 | 29° 301 | 80*32* | | 2 | |
| Do. | Sept. | 13, | 1954 | 29" 001 | 80*32* | - | | |
| Prognichthys gibbifrons | Oct. | 14, | 1953 | 29° 00" | 80°10° | | 1 | |
| Cypselurus heterurus | Feb. | 2, | 1954 | 29°001 | 8°°10° | | - | |
| 25. | June | 25, | 1954 | 29° 001 | 00° 32 * | | | |
| | | | | | | | | |
| HEMIRAMPHIDAE | | | | | | | | |
| Hyporhamphus unifasciatus | July | 27, | 1953 | 28"20" | 80.33 | 1 | | |
| Do. | Oct. | 14, | 1953 | €9*00* | 60" 32 | 4 | | |
| Do. | Nov. | 17, | 195- | | 81" 32" | - | | |
| Hemiramphus belao | Oct. | 14, | 1.953 | 29"00" | 80°10' | | 1 | |
| Do. | June | 25, | 1954 | 29" 20" | 80" 32" | 1 | | |
| Hemirarphus brasiliensis | Oct. | 14, | 1953 | 29"00" | 0110 | | | |
| Do. | Sept. | 12, | 1954 | 25*41* | 80*25* | 1 | | |
| MERTE TRAD | | | | | | | | |
| Muril mmana | Ann | 25 | 1051 | 10*001 | A58.51 | 1 | | |
| Carcas | 43.944 8 | - /2 | ±77. | 29 00 | 00 00 | - | | |
| MILITAE | | | | | | | | |
| Millus auratus | Apr. | 25. | 1953 | 29"00" | 50°33* | le | | |
| Do. | Apr. | 27. | 1954 | 25*201 | 80"10" | | 1 | |
| Pseudupeneus maculatus | Apr. | 27, | 1954 | 28"21" | 80°10* | | 2 | |
| | - | | | | | | | |
| XIPHILDAE | | | | | | | | |
| Xiphias gladius | Apr. | 27, | 195- | 28°20* | 80°10' | | 1 | |
| | | | | | | | | |
| Total | | | | | | 5 | 191 | |

(Coryphaena hippurus), swordfish (Xiphias gladius), and silver mullet Mugil curema) are larvae or early stage juveniles. Specimens of the other species are juvenile or adults. All species listed occur commonly in the surface waters off the south Atlantic coast of the United States.

In table 21 are given the fish taken by surface trolling over the Continental Shelf off the Cape Canaveral Area during cruises of the <u>T. N. Gill</u> in 1953 and 1954. These wahoo, dolphin, little tuna, and king mackerel are all pelagic fish common to the area.

Table 21.--Numbers and species of fishes taken by trolling at surface on Continental Shelf off Cape Canavaral Area, 7. $\underline{S}, \ \underline{Gill} \ cruises 1953-54$

| | | | Water depth |
|---|--|---|-------------|
| Species | Late | Location | in fathoms |
| | | S. Let. W. Long. | 0-20 20-100 |
| Acanthocybium solanderi | Apr. 27, 1954 | 28°34* 80°22* | 1 |
| Corvebacea hippurus Do. | Apr. 24, 1953 Apr. 27, 1954 | 28°20' 79°53' 29°01' 80°02' | 1 |
| <u>Buthynnus alletteratus</u> Do. Do. Do. Do. Do. Do. Do. Do. | Feb. 11, 1953 Peb. 11, 1953 Peb. 11, 1953 Peb. 19, 1953 Peb. 19, 1953 Peb. 19, 1953 Peb. 19, 1953 Peb. 19, 1953 Peb. 19, 1955 Peb. 19, 1955 Apr. 27, 1954 June 24, 1954 June 24, 1954 Aug. 28, 1954 Aug. 28, 1954 Aug. 28, 1954 | 26* 35* 30* 30* 30* 30* 30* 30* 30* 30* 30* 30 | |
| Southeromorus cavalla Do. Do. | July 27, 1953 Aug. 28, 1954 Nov. 17, 1954 | 28°47° 60°29' 28°36' 60°17' 28°38' 80°22' | 1 1 1 |
| Total | | | 17 7 |

With the increase in population accompanying the expansion of the activities of Cape Canaveral Missile Base during the past several years, there has been an increase in the use of the natural bodies of water for recreational purposes. The most important use is for fishing. The most recent sport fishery survey including material on the Cape Canaveral Area was conducted in 1955 and 1956 by Ellis, Rosen, and Moffett (1958). The present study was designed to evaluate the current status of this fishery.

A general survey trip was made into the Cape Canaveral Area in January 1963 to familiarize personnel with the physiographical features of the area; to obtain information on the locations of fish camps, fishing piers, fishing bridges, and other facilities and sites where the sports fishery is pursued and where catches might be sampled; and to find out where and when people fished, what baits they used, and what species they caught. Much of the information obtained came from the operators of marinas, fish camps, bait ships, and party and charter boats.

Through the information gained during the trip in January, a system of interviews with fishermen and camp operators was established, to be pursued on 4 consecutive days each month, one weekend and the following 2 weekdays. By the end of the February trip the procedures had been established for the best use of time and personnel. Additional surveys were made during the Fourth of July and Labor Day weekends to determine the effect these particular days might have on the total fishery.

The Cape Canaveral Area was divided into a Southern Section and a Northern Section because of differences in the fisheries themselves between the two sections and because there appeared to be a natural break in physiographical features. From March through June a four- to seven-man crew divided its time equally between the Northern and Southern sections. Beginning on the weekend of July 4, and continuing thereafter, the crew split into two teams, each sampling one section exclusively.

Figures 11 and 12 and table 22 show locations in the Cape Canaveral Area where the sport fishery was sampled. Numerals in squares refer to bridges and causeway locations; numerals in triangles refer to piers, both in the river and on the ocean; numerals in circles refer to fish camps where the rental boat fishery was sampled, and where some bank fishery sampling occurred; numerals in rectangles refer to surf fishery sampling locations; and numerals in hexagons refer to locations from where charter boats operate and where this fishery was sampled. Locations of other areas or facilities where bank fishing was sampled are designated in the descriptions of sampling locations for the Northern Section. See table 22 for a list of the sampling locations by numeral and symbol.

Location number 17, Sunglow Ocean Fishing Pier; 47, Timmons Fishing Camp; and 48, Inlet Harbor Fish Camp were not sampled during our field survey in 1963. Data pertinent to our studies were extracted from records maintained by these facilities. We are particularly indebted to the following who made records available to us: Gary Bennett, Cocoa; A Williams, Turtle Mound Fish Camps; V. R. Hall, publisher of the newspaper "Day by Day," Daytona Beach; publishers of the newspaper "Pelican," New Smyrna Beach; and Redwood Wharton, Inlet Harbor.

Our interview questions for fishermen included number of fishermen in party, length of time party had been fishing at that particular site that day, and what species of fish and how many of each had been caught. Length and weight estimates of fish were recorded if they were made.

Beginning in March, serially numbered cards in return-addressed envelopes were distributed to fishermen who hadn't completed fishing

| Table : | 22List | 20 | sampling | 10 | ocat: | Lons | shown | on | figures | 11 | baa | 12, | where | the |
|---------|--------|-----|----------|----|-------|------|-------|-------|---------|--------|------------|-------|-------|-----|
| | 500 | rt. | fisherv | 08 | The | Cane | Селаз | terra | Area . | LTR AL | er in we'r | fo fe | 4n 10 | 63 |

| Symbol | No. | Phcility site |
|-------------------|------|---|
| | | Bridges and causeways |
| Saurra | 1 | Deferre and anuscume between Melbourse and Tedislastic |
| The second second | - | Bridges and causeway between Merobulke and Contra Barth |
| 10. | | Bridges and causeway between hau usilie and canova Beach. |
| 10. | | Mathers Bridge. |
| pe. | 4 | Bridges and causeway between Cocoa and Cocoa Beach. |
| Dc. | 5 | Titusville Bridge and Causeway on Florida State Highway No. 402. |
| Do. | 0 | Bridge at 5th Street at New Smyrna Beach. |
| Do. | 7 | South Causeway Bridge at New Smyrna Beach. |
| Lc. | 8 | Callalisa Creek Bridge. |
| Do. | 9 | North Causeway Bridge at New Smyrna Beach. |
| Do. | | Bridge on Quay Brenta at New Smyrna Beach. |
| Do. | 11 | Bridge on North Causeway at New Smyrna City Docks. |
| | | |
| | | ner |
| Triangle | 12 | Patrick Air Force Ease. |
| Do . | 13 | Canaveral Pier. |
| Do. | 14 | Titusville Pier. |
| Do. | 15 | Edgewater City fishing and launch site. |
| Do. | - 1é | North Cauceway Pier near bace of North Cauceway Bridge |
| Do. | 7 | Singly Unsen Plehing Play |
| | | south a contract traction |
| | | <u>Pish camps</u> |
| Circle | | Mathers Bridge Fish Camp. |
| Do. | 10 | Marino of Patrick Air Force Bage. |
| Do | 20 | Coope Reach Pick Com |
| Do a | 22 | Brear Grand Fish Game |
| DO 4 | 21 | barge canal rish camp. |
| 20. | | fitusville Marine and Correct Graft Hasin. |
| DO. | | J and J rish Camp. |
| Do. | 24 | Pirtles Fish Camp. |
| Do. | | Bairs Cove Fish Camp. |
| Dc . | 26 | Allenhurst Fish Camp. |
| Dc. | 27 | Indian Bead Fish Camp. |
| Do. | 28 | Beacon 42 Fish Camp. |
| Do. | 29 | Le Fils Fish Camp. |
| Do. | | Lovez Fish Camp. |
| Do. | 31 | Bisset Bay Fish Camp. |
| Do. | 32 | Durtle Mound No. 2 Fish Camp. |
| Do- | 33 | Al Jo Fich Camp. |
| Do | 34 | El Dove Fich Com |
| Do | 26 | Iones Pich Cemp |
| Do | 22 | Turtle Mound N. 1 (Old Thurtle Mound) Rich Comp |
| DU. | 30 | Intere wonthe west forg runche wonnel arst ombr |
| 10. | | JOES FISH CAMP. |
| 20. | 30 | Godfreys Fish Camp. |
| Do. | 32 | Dicks Fish Camp. |
| Do. | 40 | South Causeway Fish Camp. |
| Do . | 41 | North Riverside Bait Fish Camp. |
| | | Surf fishing areas |
| Rectangle | uc. | Fort Careveral (South of S. Jatty to Careveral Flow) |
| nec oabgae | h a | Come beech () C willes with of Dethum Barch to |
| 10.4 | ~J | orean beach (3.7 miles morth of Bethune Beach to |
| Do. | 44 | Ponce de Leon Inlet mouth at Coast Guard Station. |
| | | Charter bert leasting |
| | | CHARGE OUST TOCATIONS |
| Rexagon | 45 | Port Canaveral. |
| Do . | 46 | New Smyrna City Dock. |
| Do. | 47 | Timmons Fishing Camp. |
| 72- | 1/B | Talet Enchor Pich Camp |

at the time of the interview and who indicated willingness to furnish end-of-day information on the hours fished and fish caught. During March-October, 4,643 cards were handed out and 1,268 or about 28 percent were returned. Data on the returned cards were added to the information obtained at the time of the interview, on the respective field interview sheets.

In an attempt to establish the ratio of rental boats fishing to all boats fishing (which we might use to project the catch of the private boat fishery from our sampling of rental boat fishery), flights were made on 1 weekend day and 1 weekday in February, April, July, and October, during which observers counted the number of boats fishing in the entire Cape Canaveral Area. Concurrently, ground observers made counts of rental boats out of fishing camps. It was impossible to sample the private boat fishery with the time and personnel available because of the hundred of docks and other private launch sites. Estimates based on aerial-ground survey ratios and our sample of the fish camp rental boats are believed to be representative of the catches by private boat fishermen.

Table 64 lists scientific and common names of all species of fish referenced in this report.

DESCRIPTION OF SOUTHERN SECTION AND ITS FISHERY

The Southern Section, located in Brevard County, extends from Cape Canaveral south to Melbourne (fig. 11). The distance from Cape Canaveral to Melbourne is approximately 26 air miles. Included in this section are: The causeways and bridges between Melbourne and Indialantic, between Eau Gallie and Canova Beach, and between Cocoa and Cocoa Beach, and Mathers Bridge; Canaveral and Patrick Air Force Base ocean piers; Port Canaveral, marina at Patrick Air Force Base; and Barge Canal, Cocoa Beach, and Mathers Bridge fish camps.

Fishing is pursued in the Indian and Banana Rivers, Sykes Creek, Newfound Harbor, Barge Canal, Port Canaveral Harbor, and the ocean (piers, surf, and boats). The causeways and Mathers Bridge are used both day and night, whereas fishing in the other areas is generally limited to the daylight hours. There are several public boat launching sites available, but those most frequently used are on the causeways, at Port Canaveral Harbor, and at Barge Canal Fish Camp. About 40 boats are available for rent from fish camps. Table 22 and figure 11 show locations of these facilities.

Three distinct types of fishing are available at Port Canaveral Harbor: Bank fishing, private boats, and party boats. The bank fishermen have three areas available: (1) Surf, the south jetty and the main ship channel, (2) boat docking areas on the south side of Port Canaveral, and (3) the turning basing AR23 appropriate for private boats is available at the southwestern end of the main ship channel. Weather permitting, this facility is used heavily. Private boat fishing from the launch site at Port Canaveral is divided into two units: (1) Inside -the turning basin, main ship channel, north side of the channel, and off the north jetty and (2) ocean waters. Four party boats operate out of Port Canaveral. Weather and number of passengers determine the amount of time these boats are out. Usually boats leave the dock at 8 a.m. and return at 5 p.m. Each boat can accommodate about 50 people. The fishing area covered by the party boats in the Atlantic Ocean extends from north of Cape Canaveral south to about Indialantic. The preferred areas, as reported by boat operators, are about 25 miles east of Port Canaveral and 20 miles east of the Eau Gallie-Melbourne area.

Ocean fishing is done from Canaveral and Patrick Air Force Base ocean piers, from party and private boats out of Port Canaveral, and in the surf. Pier fishing is primarily for bottomfish, and party and private boat fishing is for either bottom or pelagic forms. There is little surf fishing in the Southern Section. Shrimp (live and dead), cut mullet, artificial lures, and squid are the baits most commonly used.

The majority of the inside fishing is done from causeways: Melbourne-Indialantic, Eau Gallie-Canova Beach, and Cocoa-Cocoa Beach, and from Mathers Bridge. There are numerous small private piers on the easternand western shores of the Banana River in the proximity of Mathers Bridge. These private piers are used mainly in the warmer months. Some fishing is done by wading in the shallow river flats. In warm weather a great amount of fishing occurs on the causeways and Mathers Bridge at night. There is little or no night fishing at Port Canaveral Harbor, and the two ocean piers are closed by about 11 p.m. Most people fishing from boats in the rivers finish by dark, but on several warm, calm nights some boat fishing was observed.

The major species sought by the oceanfishermen are bluefish, mackerel, and red snapper. Black sea bass, dolphin, grouper, bonito, cabio, other snappers, triggerfish, black drum, sheepshead, porgies, grunt, croaker, whiting, sea catfish, and black margate are also caught.

The major species sought by the river and Port Canaveral Harbor fishermen are spotted sea trout, red and black drum, bluefish, and sheepshead. Sea catfish, puffers, yellowtail, pigfish, croaker, whiting, pinfish, mangrove snapper, spadefish, and flounder are also caught.

Skin and scuba divers have been observed spear fishing around the jetties at Port Canaveral, the channel buoys, and the old Canaveral Pier.



Figure 11.--Cape Canaveral Area, Southern Section. Symbols and enclosed numerals refer to locations where sport fishery catch was sampled in 1963 (see table 22 for list of locations by number and symbol).

Much shrimping was observed at night, generally from the bridges, from April to July, with the bulk of it completed by late July. During April and May the ratio of fishermen after shrimp to those after fish was as high as three to one. A gasoline lantern (Coleman type) is used to attract the shrimp which are dip netted as they move into the lighted area. The quantity of shrimp taken during this period is not known, but from the amount of shrimping done in April and May and from personal conversations with the shrimpers, indicatSEDAR25:RD3¢ considerable numbers are taken. A large amount of crabbing is done from July to September. Crabbers also use a Coleman-type lantern for attraction. The numbers of crabs taken in this manner are unknown, but several crabbers were seen with one-half bushel or more during some of the interview periods. The night light is also used by fishermen to attract fish, especially spotted sea trout.

| Table 23Estimated s | port fishery | catch, | Cape Canaver | al Area; | Southern | Section, | bridges and | causeways |
|---------------------|--------------|----------|--------------|----------|-----------|----------|-------------|-----------|
| combined; | March-Octob | er 1963, | numbers of | fish and | weight in | pounds, | by species, | by month |

| Species | Ma | March April | | M | ay | Ju | ine | July | | |
|---|------------------------------|---------------------|------------------------|-----------------------|----------------|------------|---------------------------|---------------------------|---------------|-----------|
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| Bluefish | 395 | 592 | 5.817 | 8 716 | | | | | | |
| Catfish | 12,400 | 12,400 | 754 | 754 | 7.862 | 7,722 | 1.653 | 1.653 | 10,924 | 10.738 |
| Croaker | | | | | 278 | 139 | 71 | 35 | 1,147 | 573 |
| Drum, black | 1,576 | 21,670 | | | 1,140 | 15,675 | 165 | 2,269 | 116 | 1,595 |
| Drum, red | | | | | | | 464 | 928 | 113 | 226 |
| Flounders | | | | | | | | | | |
| Grunts | | | | | | | 390 | 195 | 331 | 165 |
| Jack, crevalle | 525 | 1.87 | | | 278 | 417 | | | 86 | 129 |
| Mullot | 5,402 | 4,111 | 1(4 | 130 | <u>الالم</u> 2 | 1,590 | 7,043 | 5,202 | う,0 55 | 4,241 |
| Pigfich | | | 1 30/ | 231 | 7 562 | 1 801 | 262 | | 204 | 204 |
| Pinfish | 3,129 | 782 | 3,561 | 890 | 8,285 | 2,071 | 8.037 | 2.009 | 13.71 | 3.428 |
| Pompano | J9427 | | | | 1,159 | 579 | | 2,009 | 327 | 163 |
| Puffers | 29,218 | 14,609 | 18,098 | 9.049 | 35,564 | 17,782 | 9,836 | 4,918 | 12,243 | 6.121 |
| Rays | 395 | 395 | | | 104 | 104 | 143 | 143 | 227 | 227 |
| Sea trout, spotted | 22,087 | 38,652 | 30,804 | 53,907 | 32,838 | 57,466 | 4,670 | 8,172 | 10,191 | 17,834 |
| Sea trout, other | 27,798 | 27,798 | 19,170 | 19,170 | 10,961 | 10,961 | 9,680 | 9,680 | 18,272 | 18,272 |
| Sharks | | | | | | | 71 | 248 | 29 | 101 |
| Sheepshead | 3,127 | 3,909 | 3,487 | 4,359 | 1,466 | 1,832 | 3,824 | 4,780 | 3,414 | 4,267 |
| Snapper, mangrove | | | | | 655 | 327 | 645 | 322 | 304 | 152 |
| Space 15n | | | | | 10(| 93 | 0 289 | 212 | 0(5 | 431 |
| Tennounder | 251 | 251 | 081 | 281 | 580 | 90 580 | 2,300 | 1,194 | 213 | 4) 013 |
| Yellowtail | 13.042 | 3.260 | 3.957 | 989 | 3.627 | 907 | 6.977 | 1.744 | 6.893 | 1.723 |
| Unclassified fish | 15,042 | 194 | 16,660 | 4,165 | 4,596 | 1,149 | 3,696 | 924 | 2,785 | 696 |
| Total | 120,202 | 129,410 | 104,081 | 102,741 | 119,601 | 121,526 | 60,560 | 44,834 | 88,645 | 71,958 |
| Species | Au | ugust | Sept | ember | Octo | ober | To | tal | | |
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | | |
| Bluefish | 61 | 92 | | | | | 6,267 | 9,400 | | |
| Catfish | 11,611 | 11,466 | 18,490 | 17,975 | 1,814 | 1,771 | 65,508 | 64,479 | | |
| Croaker | 1,031 | 515 | 1,459 | 729 | 2,267 | 1,133 | 6,253 | 3,124 | | |
| Drum, black | 647 | 8,896 | 690 | 9,487 | 348 | 4,785 | 4,682 | 64,377 | | |
| Drum, red | 28 | 56 | 181 | 362 | | | (86 | 1,572 | | |
| Flounders | 69 | 00 201 | 1.70 | | | - 8 | 1 0/5 | 00 | | |
| Grunts Look oremallo | 829 | 1 230 | 419 | 239 652 | 110 | 70 | 2,942 | 3 224 | | |
| King whiting | 11 830 | ±,⊂39 8.872 | 10.800 | 8.100 | 4.091 | 3.068 | 47.206 | 35,402 | | |
| Mullet | 4.236 | 4,236 | 1,495 | 1,495 | 748 | 748 | 7,194 | 7,194 | | |
| Pigfish | 1,379 | 345 | 4,392 | 1,098 | 1,148 | 287 | 16,188 | 4,048 | | |
| Pinfish | 14,001 | 3,500 | 26,645 | 6,661 | 13,207 | 3,302 | 90,576 | 22,643 | | |
| Pompano | .97 | 48 | | | | | 1,583 | 790 | | |
| Puffers | 7,406 | 3,703 | 37,473 | 18,736 | 5,330 | 2,665 | 155,168 | 77,583 | | |
| Rays | 181 | 181 | 650 | 650 | 57 | 57 | 1,757 | 1,151 | | |
| Sea trout, spotted | 5,428 | 9,499 | 8,749 | 15,311 | 5,40(| 9,501 | 120,234 | 210,400 | | |
| Sea trout, other | 19,011 | 19,011 | 24,270 | 24,270 | 21,700 | 21,500 | 100,190 | 170,190 | | |
| Sheenshead | 3 436 | 4.295 | 4.651 | 5.814 | 2.324 | 2.905 | 25.729 | 32.161 | | |
| Snapper, mangrove | 367 | 183 | 545 | 272 | | | 2.516 | 1.256 | | |
| Spadefish | 1,441 | 720 | 2,822 | 1,411 | 963 | 481 | 6,832 | 3,414 | | |
| Spot | 2 - 0 | 79 | 1,915 | 957 | 244 | 122 | 4,978 | 2,488 | | |
| - | 120 | | | | | | | 0.000 | | |
| Tenpounder | 689 | 689 | 786 | 786 | | | 2,809 | 2,809 | | |
| Tenpounder Yellowtail | 150 689 9,714 | 689 2,428 | 786 13,014 | 786 3,253 | 2,626 | 656 | 2,809 59,850 | 2,809 | | |
| Tenpounder Yellowtail Unclassified fish | 150 689 9,714 2,628 | 689 2,428 657 | 786 13,014 8,673 | 786 3,253 2,168 | 2,626 3,064 | 656 766 | 2,809 59,850 42,879 | 2,809 14,960 10,719 | | |

Table 24.--Estimated sport fishery catch, Cape Canaveral Area; Southern Section, bridges SEDAR25-RD31combined; 1963 spring, summer, and fall totals in numbers of fish and weight in pounds, by species

| Species | Spi | Spring | | mmer | Fa | ונ | To | Total | | |
|--------------------|---------|---------|---------|-------------|---------|---------|---------|---------|--|--|
| · | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | | |
| Bluefish | 6,206 | 9,308 | 61 | 92 | | | 6,267 | 9,400 | | |
| Catfish | 21,016 | 20,876 | 24,188 | 23,857 | 30,456 | 29,619 | 75,660 | 74,352 | | |
| Croaker | 278 | 139 | 2,249 | 1,123 | 5,589 | 2,793 | 8,116 | 4,055 | | |
| Drum, black | 2,716 | 37,345 | 928 | 12,760 | 1,557 | 21,408 | 5,201 | 71,513 | | |
| Drum, red | ~~ | | 605 | 1,210 | 272 | 543 | 877 | 1,753 | | |
| Flounders | | | 69 | 86 | | | 69 | 86 | | |
| Grunts | | | 1,350 | 674 | 892 | 446 | 2,242 | 1,120 | | |
| Jack, crevalle | 803 | 1,204 | 912 | 1,368 | 652 | 978 | 2,367 | 3,550 | | |
| King whiting | 7,787 | 5,839 | 24,528 | 18,395 | 22,336 | 16,752 | 54,651 | 40,986 | | |
| Mullet | 131 | 131 | 4,820 | 4,820 | 3,364 | 3,364 | 8,315 | 8,315 | | |
| Pigfish | 8,887 | 2,222 | 1,761 | 44 <u>1</u> | 8,310 | 2,078 | 18,958 | 4,741 | | |
| Pinfish | 14,975 | 3,743 | 35,749 | 8,937 | 59,778 | 14,944 | 110,502 | 27,624 | | |
| Pompano | 1,159 | 579 | 424 | 211 | | | 1,583 | 790 | | |
| Puffers | 82,880 | 41,440 | 29,485 | 14,742 | 64,204 | 32,102 | 176,569 | 88,284 | | |
| Rays | 499 | 499 | 551 | 551 | 1,060 | 1,060 | 2,110 | 2,110 | | |
| Sea trout, spotted | 85,729 | 150,025 | 20,289 | 35,505 | 21,324 | 37,317 | 127,342 | 222,847 | | |
| Sea trout, other | 57,929 | 57,929 | 47,029 | 47,029 | 77,757 | 77,757 | 182,715 | 182,715 | | |
| Sharks | | | 100 | 349 | | | 100 | 349 | | |
| Sheepshead | 8,080 | 10,100 | 10,674 | 13,342 | 10,462 | 13,078 | 29,216 | 36,520 | | |
| Snapper, mangrove | 655 | 327 | 1,316 | 657 | 818 | 408 | 2,789 | 1,392 | | |
| Spadefish | 187 | 93 | 2,860 | 1,429 | 5,678 | 2,838 | 8,725 | 4,360 | | |
| Spot | 187 | 93 | 2,632 | 1,316 | 3,238 | 1,618 | 6,057 | 3,027 | | |
| Tenpounder | 1,121 | 1,121 | 902 | 902 | 1,179 | 1,179 | 3,202 | 3,202 | | |
| Yellowtail | 20,626 | 5,156 | 23,584 | 5,895 | 23,460 | 5,864 | 67,670 | 16,915 | | |
| Unclassified fish | 22,033 | 5,508 | 9,109 | 2,277 | 17,606 | 4,401 | 48,748 | 12,186 | | |
| Total | 343,884 | 353,677 | 246,175 | 197,968 | 359,992 | 270,547 | 950,051 | 822,192 | | |

| Table | 25Estimated | sport | fishery | catch, | Cape | Canaveral | Area; | Southern | Sectio | on, ocean | piers | s comisiediari25 | RD310ber | 1963, |
|-------|-------------|-------|---------|--------|--------|-----------|--------|----------|--------|-----------|-------|------------------|----------|-------|
| | | | | numb | ers of | fish and | weight | in pound | s, by | species, | by mo | onth | | |

| Species | Ma | March | | April | | May | | June | | July | |
|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--|
| | Number | Pounds | |
| Black margate | 1,931 | 1,931 | | | 593 | 593 | 1,167 | 1,167 | 79 | 79 | |
| Bluefish | 275 | 412 | 455 | 682 | | | | | 40 | 60 | |
| Catfish | 22,827 | 22,827 | 1,306 | 1,306 | 106 | 106 | 62 | 62 | 1,790 | 1,754 | |
| Croaker | | | | | | | 3,388 | 1,694 | 1,709 | 854 | |
| Cutlassfish | | | | | | | | | | | |
| Drum, black | | | | | 35 | 481 | 62 | 852 | 53 | 729 | |
| Flounders | | | | | | | | | 16 | 20 | |
| Grunts | | | | | | | | | 231 | 115 | |
| Jack, crevalle | 507 | 760 | 89 | 133 | | | ` | | 16 | 24 | |
| King whiting | 678 | 508 | 2,814 | 2,110 | 560 | 420 | 2,007 | 1,505 | 5.652 | 4.239 | |
| Little tuna | | | · | | | | | | 16 | 104 | |
| Mojarra | 42 | 21 | | | | | | | | | |
| Pigfish | | | | | | | | | | | |
| Pinfish | 381 | 95 | | | 106 | 26 | 84 | 21 | 970 | 242 | |
| Pompano | | | | | | | | | | | |
| Puffers | 149 | 74 | | | | | | | 42 | 21 | |
| Rays | | | | | | | | | 16 | 16 | |
| Sea bass, black | | | | | | | | | 26 | 26 | |
| Sea bass, rock | | | | | | | | | 152 | 38 | |
| Sea robin | | | | | | | 62 | 15 | 53 | 13 | |
| Sea trout, spotted | 191 | 334 | 89 | 156 | | ~ - | 84 | 1.47 | 119 | 208 | |
| Sea trout, other | 149 | 149 | | | | | | | 32 | 32 | |
| Sharks | | | | | | | 84 | 294 | 283 | 990 | |
| Sheepshead | 149 | 186 | | | | | 259 | 324 | | | |
| Snapper, other | | | | | | | | | | | |
| Spadefish | | | 89 | 44 | | | 192 | 96 | 545 | 272 | |
| Spanish mackerel | 42 | 73 | | | | | | | | | |
| Spot | 210 | 105 | | | 177 | 88 | 947 | 473 | 3.217 | 1.608 | |
| Tenpounder | | | | | | | | | | | |
| Yellowtail | | | - | | | | | | 275 | 69 | |
| Unclassified fish | 42 | 10 | | | | | 306 | 76 | 3,302 | 825 | |
| Total | 27,573 | 27,485 | 4,842 | 4,431 | 1,577 | 1,714 | 8,704 | 6,726 | 18,634 | 12,338 | |

| Species | Au | gust | Sept | ember | Octo | ober | Total | | |
|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--|
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | |
| Black margate | 1,017 | 1,017 | 1,041 | 1,041 | | | 5,828 | 5,828 | |
| Bluefish | 34 | 51 | 816 | 1,224 | 45 | 67 | 1,665 | 2,496 | |
| Catfish | 3,372 | 3,703 | 2,833 | 2,757 | 654 | 654 | 32,950 | 33,169 | |
| Croaker | 269 | 134 | 111 | 55 | - | | 5,477 | 2,737 | |
| Cutlassfish | | | 211 | 264 | | | 211 | 264 | |
| Drum, black | 192 | 2,640 | 179 | 2,461 | 263 | 3,616 | 784 | 10.779 | |
| Flounders | 253 | 360 | 137 | 171 | | | 406 | 551 | |
| Grunts | | | | | | | 231 | 115 | |
| Jack, crevalle | 152 | 228 | 144 | 216 | | | 908 | 1.361 | |
| King whiting | 1,767 | 1,325 | 1,562 | 1,171 | 2,061 | 1.546 | 17,101 | 12.824 | |
| Little tuna | | | | | | | 16 | 104 | |
| Mojarra | | | | | | | 42 | 21 | |
| Pigfish | 50 | 12 | | | | | 50 | 12 | |
| Pinfish | | | 94 | 23 | 436 | 19 | 2.071 | 426 | |
| Pompano | 51 | 25 | 467 | 233 | 354 | 177 | 872 | 435 | |
| Puffers | 25 | 12 | | | 45 | 22 | 261 | 129 | |
| Rays | | | | | | | 16 | 16 | |
| Sea bass, black | | | | | | | 26 | 26 | |
| Sea bass, rock | 25 | 6 | 293 | 73 | | | 470 | 117 | |
| Sea robin | 175 | 44 | 193 | 48 | | | 483 | 120 | |
| Sea trout, spotted | 25 | 44 | | | | | 508 | 889 | |
| Sea trout, other | | | | | 127 | 190 | 308 | 371 | |
| Sharks | | | | | | | 367 | 1.284 | |
| Sheepshead | 185 | 231 | 68 | 85 | 654 | 817 | 1,315 | 1.643 | |
| Snapper, other | 25 | 75 | | | 45 | 135 | 70 | 210 | |
| Spadefish | 218 | 109 | 137 | 68 | | | 1.181 | 589 | |
| Spanish mackerel | | | | | | | 42 | 73 | |
| Spot | 354 | 177 | | | 45 | 22 | 4,950 | 2.473 | |
| Tenpounder | | | 137 | 137 | | | 137 | 137 | |
| Yellowtail | 51 | 13 | 26 | 6 | | | 352 | 88 | |
| Unclassified fish | 252 | 63 | 1,370 | 342 | | | 5,272 | 1,316 | |
| Total | 8,492 | 10,269 | 9,819 | 10,375 | 4,729 | 7,265 | 84,370 | 80,603 | |

Table 26.--Estimated sport fishery catch, Cape Canaveral Area; Southern Section, SEDAR25-ED31ombined; 1963 spring, summer, and fall totals in numbers of fish and weight in pounds, by species

| Species | Spring | | Sum | mer | Fa | 11, | Tot | al |
|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| Black margate | 2,524 | 2,524 | 2,263 | 2,263 | 1,562 | 1,562 | 6,349 | 6,349 |
| Bluefish | 730 | 1,094 | 74 | 111 | 1,292 | 1,936 | 2,096 | 3,141 |
| Catfish | 24,239 | 24,239 | 5,224 | 5,519 | 5,230 | 5,116 | 34,693 | 34,874 |
| Croaker | | | 5,366 | 2,682 | 166 | 82 | 5,532 | 2,764 |
| Cutlassfish | | | | | 316 | 396 | 316 | 396 |
| Drum, black | 35 | 481 | 307 | 4,221 | 663 | 9,116 | 1,005 | 13,818 |
| Flounders | | | 269 | 380 | 206 | 256 | 475 | 636 |
| Grunts | | | 231 | 115 | | | 231 | 115 |
| Jack, crevalle | 596 | 893 | 168 | 252 | 216 | 324 | 980 | 1,469 |
| King whiting | 4,052 | 3,038 | 9,426 | 7,069 | 5,434 | 4,076 | 18,912 | 14,183 |
| Little tuna | | | 16 | 104 | | | 16 | 104 |
| Mojarra | 42 | 21 | | | | | 42 | 21 |
| Pigfish | | | 50 | 12 | | | 50 | , 12 |
| Pinfish | 487 | 121 | 1,054 | 263 | 795 | 63 | 2,336 | 447 |
| Pompano | | | 51 | 25 | 1,232 | 615 | 1,283 | 640 |
| Puffers | 149 | 74 | 67 | 33 | 68 | 33 | 284 | 140 |
| Rays | au | | 16 | 16 | | | 16 | 16 |
| Sea bass, black | | | 26 | 26 | | | 26 | 26 |
| Sea bass, rock | | | 177 | 44 | 440 | 110 | 617 | 154 |
| Sea robin | | | 290 | 72 | 290 | 72 | 580 | 144 |
| Sea trout, spotted | 280 | 490 | 228 | 399 | | | 508 | 889 |
| Sea trout, other | 149 | 149 | 32 | 32 | 190 | 285 | 371 | 466 |
| Sharks | | | 367 | 1,284 | | | 367 | 1,284 |
| Sheepshead | 149 | 186 | 444 | 555 | 1,083 | 1,353 | 1,676 | 2,094 |
| Snapper, other | | | 25 | 75 | 68 | 202 | 93 | 277 |
| Spadefish | 89 | կկ | 955 | 477 | 206 | 102 | 1,250 | 623 |
| Spanish mackerel | 42 | 73 | | | | | 42 | 73 |
| Spot | 387 | 193 | 4,518 | 2,258 | 68 | 33 | 4,973 | 2,484 |
| Tenpounder | | | | | 206 | 206 | 206 | 206 |
| Yellowtail | | | 326 | 82 | 39 | 9 | 365 | . 91 |
| Unclassified fish | 42 | 10 | 3,860 | 964 | 2,055 | 513 | 5,957 | 1,487 |
| Total | 33,992 | 33,630 | 35,830 | 29,333 | 21,825 | 26,460 | 91,647 | 89,423 |

 Table 27.--Estimated sport fishery catch, Cape Canaveral Area; Southern Section, Port Canaveral inside; March-October 1963, numbers of fish and weight in pounds, by species, by month
 SEDAR25-RD31

| Species | Mar | ch | Ap | April | | 1.Y | June | | July | |
|--------------------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|
| | Number | Pounds | Numher | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| Barracuda | | | | | | - | | | 573 | 4,584 |
| Black margate | | | | | | | | | | |
| Bluefish | 8,286 | 12,429 | 795 | 1,192 | 58 | 87 | | | | |
| Catfish | 962 | 962 | | | 116 | 116 | 37 | 37 | 192 | 192 |
| Croaker | 389 | 194 | 598 | 299 | 2,775 | 1,387 | 1,343 | 671 | 11,491 | 5,745 |
| Cutlassfish | 407 | 509 | 994 | 1,242 | 575 | 719 | 97 | 121 | 662 | 827 |
| Drum, black | 201 | 2,764 | | | 58 | 797 | 272 | 3,740 | 1,520 | 20,900 |
| Drum, red | 72 | 144 | | | | | | | 58 | 116 |
| Eels | | | | | 25 | 50 | | | | |
| Flounders | 257 | 321 | 653 | 816 | 1,581 | 1,976 | 210 | 262 | 729 | 911 |
| Groupers | | | | | 84 | 840 | | | | |
| Grunts | 72 | 36 | | | | | 97 | 48 | 2,673 | 1,336 |
| Jack, crevalle | 1.049 | 1,573 | 95 | 142 | 461 | 691 | | | 218 | 327 |
| Jack, other | 510 | 510 | | | | | | | 26 | 26 |
| King mackerel | 260 | 2,080 | | | 51 | 408 | | ~ - | | |
| King whiting | 288 | 216 | 966 | 724 | 182 | 136 | 181 | 136 | 2,104 | 1,578 |
| Little tuna | | | | | | | | | | |
| Molarra | 187 | 93 | | | | | | | 301 | 150 |
| Mullet | 101 | 101 | | | 182 | 182 | = | | 51 | 51 |
| Pigfish | | | | | | | | | 809 | 202 |
| Pinfish | 420 | 105 | 5,522 | 1,380 | 4,785 | 1,196 | 2,283 | 571 | 14,140 | 3,535 |
| Pompano | 218 | 109 | | | | | | | | |
| Puffers | 245 | 122 | | | | | | | | |
| Rays | | | | | | | | | | |
| Ses bass, black | | | | | 25 | 25 | 97 | 97 | | |
| Sea bass, rock | | | | | | | 144 | 36 | | |
| Ses rohin | | | | ~ | 58 | 14 | | | | |
| Ses trout, spotted | 204 | 357 | er: 10. | | 116 | 203 | | ~ ~~ | 86 | 150 |
| Ses trout, other | 636 | 636 | 330 | 330 | | | | | 26 | 26 |
| Sharks | 1.284 | 4.494 | | | 58 | 203 | | | 51 | 178 |
| Sheepshead | 182 | 227 | 519 | 649 | 83 | 104 | | | 3,081 | 3,851 |
| Snapper, red | | | | | | | | | | |
| Snapper, mangrove | | | | 0- us | 84 | 42 | | | 436 | 218 |
| Snapper, other | | | 141 | 423 | | | | | | |
| Spadefish | | | | | | | 193 | 96 | 340 | 170 |
| Spanish mackerel | 17 | 30 | | | | | | | | |
| Spot | 2,194 | 1,097 | 748 | 374 | 893 | 446 | 1,715 | 857 | 4,345 | 2,172 |
| Tennounder | | | | | | | | | | |
| Yellowts11 | | | | | | | | | 51 | 13 |
| Unclassified fish | 1.01 | 25 | 607 | 152 | 109 | 27 | 503 | 126 | 1,408 | 352 |
| Total | 18,542 | 29,134 | 11,968 | 7,723 | 12,359 | 9,649 | 7,172 | 6,798 | 45,371 | 47,610 |

| Species | Aug | August | | ember | Oct | ober | Total | | |
|--------------------|--------|--------|--------|--------|--------|--------|---------|---------|--|
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | |
| Barracuda | | | | | | | 573 | 4,584 | |
| Black margate | 530 | 530 | 705 | 705 | | | 1,235 | 1,235 | |
| Bluefish | 56 | 84 | 14 | 21 | 56 | 84 | 9,265 | 13,897 | |
| Catfish | 255 | 237 | 962 | 881 | 992 | 992 | 3,516 | 3,417 | |
| Croaker | 706 | 353 | 768 | 384 | 668 | 334 | 18,738 | 9,367 | |
| Cutlassfish | 288 | 360 | 14 | 17 | | | 3,037 | 3,795 | |
| Drum, black | 104 | 1,430 | 160 | 2,200 | 940 | 12,925 | 3,255 | 44,756 | |
| Drum, red | 16 | 32 | 25 | 50 | 228 | 456 | 399 | 798 | |
| Eels | 8 | 16 | 25 | 50 | | | 58 | 116 | |
| Flounders | 255 | 319 | 101 | 126 | 98 | 122 | 3,884 | 4,853 | |
| Groupers | | | | | 45 | 450 | 129 | 1,290 | |
| Grunts | 70 | 35 | 258 | 129 | | | 3,170 | 1,584 | |
| Jack, crevalle | 171 | 256 | 102 | 153 | 243 | 364 | 2,339 | 3,506 | |
| Jack, other | 71 | 71 | | | 280 | 280 | 887 | 887 | |
| King mackerel | | | 58 | 464 | | | , 369 | 2,952 | |
| King whiting | 186 | 139 | 209 | 157 | 675 | 506 | 4,791 | 3,592 | |
| Little tuna | 342 | 2,223 | 35 | 227 | | | 377 | 2,450 | |
| Mojarra | 170 | 85 | 157 | 78 | 2,638 | 1,319 | 3,453 | 1,725 | |
| Mullet | 161 | 161 | 25 | 25 | | | 520 | 520 | |
| Pigfish | 42 | 10 | 313 | 78 | | | 1,164 | _ 290 | |
| Pinfish | 2,153 | 538 | 2,011 | 503 | 1,090 | 272 | 32,404 | 8,100 | |
| Pompano | 40 | 20 | 49 | 24 | 56 | 28 | 363 | 181 | |
| Puffers | 20 | 10 | | ~ | | | 265 | 132 | |
| Rays | 36 | 36 | 63 | 63 | | | 99 | 99 | |
| Sea bass, black | 20 | 20 | 35 | 35 | | | 177 | 177 | |
| Sea bass, rock | | | 98 | 24 | | | 242 | 60 | |
| Ses rohin | | | 25 | 6 | | | 83 | 20 | |
| Sea trout, spotted | 78 | 136 | 317 | 555 | | | 801 | 1,401 | |
| Sea trout, other | 38 | 38 | 35 | 35 | 260 | 260 | 1,325 | 1,325 | |
| Sharks | | | 98 | 343 | | | 1,491 | 5,218 | |
| Sheepshead | 472 | 590 | 708 | 885 | 802 | 1,002 | 5,847 | 7,308 | |
| Snapper, red | 38 | 304 | | | | | 38 | 304 | |
| Snapper, mangrove | 162 | 81 | 565 | 282 | 232 | 116 | 1,479 | 739 | |
| Snapper, other | | | 14 | 42 | | - ** | 155 | 465 | |
| Spadefish | 184 | 92 | 578 | 289 | 277 | 138 | 1,572 | 785 | |
| Spanish mackerel | | | | | 183 | 320 | 200 | 350 | |
| Spot | 3,913 | 1,956 | 1,389 | 694 | 56 | 28 | 15,253 | 7,624 | |
| Tenpounder | yes (1 | | 25 | 25 | | | 25 | 25 | |
| Yellowtail | | | 14 | 3 | 158 | 39 | 223 | 55 | |
| Unclassified fish | 514 | 135 | 219 | 55 | 591 | 148 | 4,079 | 1,020 | |
| Total. | 11,126 | 10,297 | 10,174 | 9,608 | 10,568 | 20,183 | 127,280 | 141,002 | |

Table 28.--Estimated sport fishery catch, Cape Canaveral Area; Southern Section, Port Canaveral inside; 1963 spring, summer, and fall totals in numbers of fish and weight in pounds, oy species

| Species | Spr | ing | Sun | mer | Fa | 11 | Tot | tal |
|--|---|--------|--|---|---|--|--|--|
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| Barracuda Black margate Bluefish Catfish Croaker Cutlassfish Drum, black Drum, red Eels Flounders Groupers Grunts Jack, crevalle Jack, crevalle Jack, crevalle Jack, crevalle Jack, crevalle Jack, other King mackerel King whiting Little tuna Mojarra Mullet Pigfish Pinfish Pompano Puffers Rays Sea bass, black Sea robin Sea trout, spotted Sea trout, other Sharks Sheepshead Snapper, red Snapper, mangrove Snapper, other Spadefish Spanish mackerel Spot Tenpounder Yellowtail | Mumber 9,139 1,078 3,762 1,976 259 72 25 2,491 84 72 25 2,491 84 72 25 2,491 84 72 283 10,727 218 245 25 58 320 966 1,342 784 84 141 17 3,835 | | 573 530 56 484 13,540 1,047 1,896 74 8 1,194 2,840 389 97 2,471 212 851 18,576 20 36 117 144 64 51 3,553 38 598 7,77 9,973 9,973 | 4,584 530 84 466 6,769 1,308 26,070 1,48 16 1,492 1,419 583 97 1,853 2,223 212 212 4,644 20 10 36 117 36 117 36 286 64 178 4,945 299 358 4,985 13 | 1,058 105 2,931 2,154 21 1,650 380 299 68 387 518 420 87 1,326 53 4,193 38 470 4,652 158 95 533 147 2,265 1,196 21 1,283 275 2,168 38 470 4,265 2,265 1,265 2,265 1,265 2,265 1,265 2,168 38 2,275 2,168 38 2,275 2,168 38 2,275 2,168 38 2,265 2,168 38 2,275 2,168 38 2,275 2,168 38 2,275 2,168 38 2,275 2,168 2,265 2,168 2,275 2,175 2,175 2,175 2,175 2,175 2, | 1,058 158 2,810 1,077 26 22,688 759 75 372 675 194 776 420 696 994 340 2,096 38 117 1,162 78 94 52 36 9 832 443 514 2,830 -597 63 640 480 1,083 38 63 640 480 1,083 38 63 640 63 63 640 63 63 63 640 63 63 63 63 63 63 63 63 63 63 | 573 1,588 9,300 4,493 19,456 3,044 3,805 526 71 3,984 152 3,299 2,512 1,027 398 5,233 395 4,851 5,333 1,321 33,955 4,851 5,333 1,321 33,955 4,851 5,233 1,321 33,955 4,851 5,233 1,520 6,602 38 1,873 1,540 6,602 38 1,873 1,540 6,602 38 1,873 1,540 6,602 38 1,873 1,540 6,602 38 1,873 1,540 6,602 38 1,873 1,540 6,602 38 1,873 1,540 6,602 38 1,873 1,540 6,602 38 1,873 1,540 6,602 38 1,873 1,540 6,602 38 1,873 1,540 6,602 38 1,873 1,540 6,602 38 1,873 1,540 6,602 38 1,873 1,540 6,602 38 1,875 1,540 6,602 38 1,875 1,540 6,602 38 1,875 1,540 6,602 38 1,875 1,540 6,602 38 1,875 1,540 6,602 38 1,875 1,540 6,602 39 1,875 1,540 6,602 39 1,875 1,540 6,602 39 1,875 1,540 6,602 39 1,875 1,540 6,602 39 1,875 1,540 6,602 39 1,875 1,540 6,602 39 1,875 1,540 6,602 39 1,875 1,540 6,602 39 1,875 1,540 6,602 39 1,875 1,540 1,5 | 4,584 1,588 1,588 1,588 1,590 4,354 9,726 3,804 52,319 1,051 1,619 3,765 1,649 3,765 1,649 3,765 1,649 3,765 2,424 5333 22,424 329 8,487 130 194 72 23 1,678 1,473 5,389 8,251 304 9985 510 7,985 38 102 |
| Total | 42,869 | 46,506 | 63,669 | 64,705 | 31,124 | 44,687 | -137,662 | 155,898 |

Table 29.--Estimated sport fishery catch, Cape Canaveral Area; Southern Section, Port Canaveral outside; January-October 1963, numbers of fish and weight in pounds, by species, by month SEDAR25-RD31

| Species | January February | | March | | Apı | April | | May | | June | | |
|--------------------|------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Founds | Number | Pounds | Number | Pounds |
| Amberjack | 46 | 690 | | | 14 | 210 | | | 184 | 2,760 | 82 | 1,230 |
| Barracuda | | | | | | | | | | | | |
| Black margate | | | | | | | | | | | | |
| Bluefish | | | | | | | 96 | 144 | 26 | 39 | | |
| Cabio | 15 | 135 | | | | | | | | | 54 | 486 |
| Catfish | | | | | | | | ~ = | | | | |
| Croaker | | | | | | ~ = | | | 82 | 41 | 133 | 66 |
| Dolphin | | | | | | | | | 26 | 208 | 20 | 160 |
| Drum, black | | | | | | | | | | | | |
| Flounders | | ~ - | | | | | | | | | 14 | 17 |
| Groupers | 124 | 1.240 | 9 | 90 | 14 | 140 | | | 261 | 2,610 | 48 | 480 |
| Grunts | | | 41 | 20 | 86 | 43 | | | | | | |
| Jack, crevalle | | | | ÷ | 51 | 76 | | | 15 | 22 | | |
| King mackerel | 1,756 | 14,048 | | | 27 | 216 | | | 610 | 4,880 | 468 | 3.744 |
| King whiting | | | | | | | ~ ~ | | 53 | 40 | | |
| Little tuna | | | | ~ - | 136 | 884 | | | | | | |
| Pigfish | | | | | | | | | 15 | 1+ | | |
| Pinfish | 15 | 7 | | | | | | | | ~ - | 366 | 91 |
| Porgies | 302 | 604 | 100 | 200 | 86 | 172 | | | | | | |
| Sea bass, black | 433 | 433 | 2,505 | 2,505 | 1,127 | 1,127 | | | 1,717 | 1,717 | 20 | 20 |
| Sea bass, rock | | | | | | | | | | | 61 | 15 |
| Sea trout, spotted | | | | | ~ ~ | | | | 53 | 93 | | |
| Sea trout, other | | | | | | | | | | | | |
| Sharks | | | | | | | | | 41 | 143 | 34 | 119 |
| Sheepsbead | | | | | 13 | 16 | - ~ | | | | | |
| Snapper, red | 1,996 | 15,968 | 56 | 448 | 86 | 688 | | | 955 | 7,640 | 870 | 6,960 |
| Snapper, other | 1,833 | 5,499 | 53 | 159 | 14 | 42 | | ÷ - | 369 | 1,107 | 340 | 1,020 |
| Spadefish | | | | | | | | | | - = | 14 | 7 |
| Spanish mackerel | | | | | | | | | | | 68 | 119 |
| Spot | | | | | | | | | | 600 M | | |
| Tenpounder | | | | | | | | | | | | |
| Triggerfish | 46 | 115 | 165 | 412 | | | | | 54 | 135 | | |
| Yellowtail | 23 | 6 | | | | | | | | | | |
| Unclassified fish | | | | | | | | | | | ~ | |
| Total | 6,589 | 38,742 | 2,929 | 3,834 | 1,654 | 3,614 | 96 | 144 | 4,461 | 21,439 | 2,592 | 14,534 |

| Species | July | | Aug | August | | September | | October | | Total | |
|--------------------|----------|--------|--------|--------|--------|-----------|--------|---------|--------|---------|--|
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | |
| Amberjack | 505 | 7,575 | 14 | 210 | | | 69 | 1,035 | 914 | 13,710 | |
| Barracuda | 15 | 120 | 54 | 432 | | | | | 69 | 552 | |
| Black margate | -' | | 102 | 102 | | | ~ - | | 102 | 102 | |
| Bluefish | 15 | 22 | 24 | 36 | | | | | 161 | 241 | |
| Cabio | 62 | 558 | 29 | 261 | 19 | 171 | 53 | 477 | 232 | 2,088 | |
| Catfisb | | | 10 | 10 | | | | | 10 | 10 | |
| Croaker | | | 2 52 | 126 | | ~ ~ | | | 467 | 233 | |
| Dolphin | 35 | 280 | 378 | 3,024 | 102 | 816 | | | 561 | 4,488 | |
| Drum, black | | | 15 | 206 | | | | | 15 | 206 | |
| Flounders | 5 | 6 | 10 | 12 | 5 | 6 | | | 34 | 41 | |
| Groupers | 63 | 630 | 115 | 1,150 | 64 | 640 | 191 | 1,910 | 889 | 8,890 | |
| Grunts | | | | | 275 | 137 | | | 402 | 200 | |
| Jack, crevalle | 22 | 33 | 15 | 22 | 53 | 79 | | | 156 | 232 | |
| King mackerel | 197 | 1,576 | 1,036 | 8,288 | 238 | 1,904 | | | 4,332 | 34,656 | |
| King whiting | 50° (101 | | 10 | 7 | | | | | 63 | 47 | |
| Little tuna | 334 | 2,171 | 355 | 2,307 | 133 | 864 | 15 | 97 | 973 | 6,323 | |
| Pigfish | | | ~ = | | | | | | 15 | 4 | |
| Pinfish | | | 10 | 2 | | | | | 391 | 97 | |
| Porgies | | | | | | | | | 488 | 976 | |
| Sea bass, black | 3,582 | 3,582 | 2,417 | 2,417 | 1,299 | 1,299 | 84 | 84 | 13,184 | 13,184 | |
| Sea bass, rock | | | | | | | | | 61 | 15 | |
| Sea trout, spotted | | | 10 | 17 | | | | | 63 | 110 | |
| Sea trout, other | | | 49 | 49 | | | = | ~ ~ | 49 | 49 | |
| Sharks | | | 24 | 84 | 8 | 28 | | | 107 | 374 | |
| Sheepsbead | | | 126 | 157 | | | | | 139 | 173 | |
| Snapper, red | 1,598 | 12,784 | 830 | 6,640 | 1,056 | 8,448 | 4,479 | 35,832 | 11,926 | 95,408 | |
| Snapper, other | 29 | 87 | 105 | 315 | 49 | 147 | 53 | 159 | 2,845 | 8,535 | |
| Spadefish | | | 10 | 5 | | | | | 24 | 12 | |
| Spanish mackerel | | | 15 | 26 | | | | | 83 | 145 | |
| Spot | | | 10 | 5 | | | | ~ = | 10 | 5 | |
| Tenpounder | | | 43 | 43 | | | | | 43 | 43 | |
| Triggerfisb | | | | | 138 | 345 | | | 403 | 1,007 | |
| Yellowtail | | | | | | | | | 23 | 6 | |
| Unclassified fish | ~= | | ~ - | | 8 | 2 | | ~~ | 8 | 2 | |
| Total | 6,462 | 29,424 | 6,068 | 25,953 | 3,447 | 14,886 | 4,944 | 39,594 | 39,242 | 192,164 | |

| Species | Spr | ing | Sur | mer | Fa | 11 | To | tal |
|--------------------|--------|--------|--------|---------|--------|--------|--------|---------|
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| Amberjack | 198 | 2,970 | 601 | 9,015 | 104 | 1,552 | 903 | 13,537 |
| Barracuda | | | 69 | 552 | | | 69 | 552 |
| Black margate | | ~ = | 102 | 102 | | | 102 | 102 |
| Bluefish | 122 | 183 | 39 | 58 | | | 161 | 241 |
| Cabio | | | 145 | 1,305 | 108 | 972 | 253 | 2,277 |
| Catfish | | | 10 | 10 | | | 10 | 10 |
| Croaker | 82 | 41 | 385 | 192 | | | 467 | 233 |
| Dolphin | 26 | 208 | 433 | 3.464 | 153 | 1,224 | 612 | 4.896 |
| Drum, black | | | 15 | 206 | | | 15 | 206 |
| Flounders | | | 29 | 35 | 8 | 9 | 37 | հր |
| Groupers | 275 | 2,750 | 226 | 2.260 | 382 | 3,825 | 883 | 8.835 |
| Grunts | - 86 | 43 | | | 412 | 206 | 498 | 249 |
| Jack, crevalle | 66 | 98 | 37 | 55 | 80 | 118 | 183 | 271 |
| King mackerel | 637 | 5.096 | 1.701 | 13.608 | 357 | 2.856 | 2.695 | 21.560 |
| King whiting | 53 | 40 | 10 | 7 | | | 63 | 47 |
| Little tuna | 136 | 884 | 689 | 4.478 | 222 | 1.442 | 1.047 | 6.804 |
| Pigfish | 15 | 4 | | | | | 15 | 4 |
| Pinfish | | | 376 | oh | | | 376 | ol |
| Porgies | 86 | 172 | | | | | 86 | 172 |
| Sea bass, black | 2.844 | 2.844 | 6.019 | 6.019 | 2.074 | 2.074 | 10.937 | 10.937 |
| Sea bass, rock | | | 61 | 15 | | | 61 | 15 |
| Sea trout, spotted | 53 | 93 | 10 | 17 | | | 63 | 110 |
| Sea trout, other | | | ho | 10 | | | 10 | 10 |
| Sharks | 41 | 143 | 58 | 203 | 12 | 42 | 111 | 388 |
| Sheepshead | 13 | 16 | 126 | 157 | | | 1 39 | 173 |
| Snapper. red | 1.041 | 8.328 | 3,298 | 26.384 | 8.302 | 66,420 | 12.641 | 101.132 |
| Snapper, other | 383 | 1,149 | 1.7h | 1,422 | 153 | 159 | 1 010 | 3 030 |
| Snadefish | | | 24 | 12 | | | 24 | 12 |
| Spanish mackerel | | | 83 | 145 | | | 83 | 145 |
| Spot | | | 10 | 5 | | | 10 | 172 |
| Tennounder | | | 43 | 43 | | | 73 | 43 |
| Triggerfish | 54 | 135 | C+ | | 207 | 518 | 261 | 653 |
| Unclassified fish | | | | rst gas | 12 | 3 | 12 | 3 |
| Total | 6.211 | 25.197 | 15.122 | 69.912 | 12,586 | 81.720 | 33,919 | 176.829 |

Table 30.--Estimated sport fishery catch, Cape Canaveral Area; Southern Section, Port Canaveral outside; 1963 spring, summer, and fall totals in numbers of fish and weight in pounds SEDAR25-RD31

Table 31.--Estimated sport fishery catch, Cape Canaveral Area, Southern Section, boat fishery (fish camp rentals combined); March-June 1963, and 1963 spring total, in numbers of fish and weight in pounds, by species, by month

| Species | M | arch | A | pril | 1 | May | Jı | ine | T | otal | Sr | pring |
|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|--------|--------|
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| Bluefish | | | | | 278 | 417 | | | 278 | 417 | 278 | 417 |
| Catfish | 54 | 54 | 3,709 | 3,709 | 2,470 | 2,470 | 13,345 | 13,345 | 19,578 | 19,578 | 6,233 | 6,233 |
| Croaker | | | | | 800 | 400 | | | 800 | 400 | 800 | 400 |
| Drum, red | | | 3,709 | 7,418 | | | | | 3,709 | 7,418 | 3,709 | 7,418 |
| Jack, crevalle | 54 | 81 | | | | | | | 54 | 81 | 54 | 81 |
| King whiting | 54 | 40 | 2,828 | 2,121 | ~~ | | 262 | 196 | 3,144 | 2,357 | 2,882 | 2,161 |
| Pigfish | | | | | | | 112 | 28 | 112 | 28 | | |
| Puffers | 5,039 | 2,520 | 1,994 | 997 | | | 10,121 | 5,060 | 17,154 | 8,577 | 7,033 | 3,517 |
| Rays | 54 | 54 | | | | | | | 54 | 54 | ,54 | 54 |
| Sea trout, spotted | 9,555 | 16,721 | 6,537 | 11,440 | 9,359 | 16,378 | 15,594 | 27,289 | 41,045 | 71,828 | 25,451 | 44,539 |
| Sheepshead | 702 | 878 | | | | | 13,495 | 16,869 | 14,197 | 17,747 | 702 | 878 |
| Snapper, mangrove | | | 278 | 139 | | | | | 278 | 139 | 278 | 139 |
| Tenpounder | | | | | | | 262 | 262 | 262 | 262 | | |
| Yellowtail | | | | | | | 262 | 66 | 262 | 66 | | - 10- |
| Unclassified fish | | | 13,955 | 3,489 | | | ~- | | 13,955 | 3,489 | 13,955 | 3,489 |
| Total | 15,512 | 20,348 | 33,010 | 29,313 | 12,907 | 19,665 | 53,453 | 63,115 | 114,882 | 132,441 | 61,429 | 69,326 |

DESCRIPTION OF NORTHERN SECTION AND ITS FISHERY

The Northern Section, located in the southern half of Volusia County and the northern half of Brevard County and extending from Titusville north to the north side of Ponce de Leon Inlet, includes: Indian River north of Titusville and west of the Haulover Canal; Indian River Lagoon (Mosquito Lagoon); Indian River North, island section which extends from Indian River Lagoon north to Ponce de Leon Inlet; and Ponce de Leon Inlet and the ocean beach south of the inlet. Figure 12 and table 22 show locations of facilities in the Northern Section.

Bank Fishery

The Indian River north of Titusville has many access points for waders and bank fishermen, which made sampling difficult. The bottom at the sites where bank fishing was sampled was primarily mud or sand and mud. We observed wading fishermen only at Turtle Mound I Fish Camp. Fish camp operators reported that fishermen wade along the shoreline of north Indian River in the summer, fishing for small school trout, but we never observed this. Bank fishermen use both dead cut mullet and shrimp while fishing on the bottom and live shrimp and fish when using floats.

The category "bank fishery" consists of two groups of fishermen: (1) Those fishing at Titusville Causeway, launch, ramp, bridge, and pier (the Titusville Bridge and pier were placed in this category rather than in "bridge fishery" because of species composition of the catch) -- the bridge and pier contributed the majority of fishermen and most of catch and (2) those fishing at J and J Fish Camp, Bairs Cove Fish Camp, Allenhurst Fish Camp and Haulover Canal, Pirtles Fish Camp, Beacon 42 Fish Camp, Correct Craft Marina Fish Camp, Titusville Basin, Indian Mound Fish Camp, Bisset Bay Fish Camp, Dicks Fish Camp, Turtle Mound I Fish Camp, Turtle Mound II Fish Camp, Joes Fish Camp, Dicks Fish Camp to South Causeway Bridge, New Smyrna Beach launch site, Preyers launch site, and New Smyrna Beach city docks.

Fishing on Titusville Bridge and pier was pursued less vigorously during the day than at night in the hot summer months. Spotted sea trout, shrimp, and crabs were generally sought by night fishermen. The catch of shrimp and crabs was much greater than that of fish some nights during the summer. No attempt was made to evaluate the catch of these crustaceans.

The bank fishery differed from most of the others in that almost all sizes and species of fish caught were saved for eating, including small pinfish and small sea bass.

Bridge Fishery

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The "bridge fishery," in the Indian River North between Edgewater and Ponce de Leon Inlet, consisted of the people fishing from all bridges and piers and from the Edgewater city fishing and launch site. In New Smyrna Beach, we sampled at the North Causeway Bridge and pier, bridge on Quay Brenta, bridge at New Smyrna Beach city docks, Callalisa Creek Bridge, and the bridge at 5th Street. The city fishing and launch site at Edgewater was placed in this category rather than in the "bank fishery" because of species composition.

Bridge fishermen were: (1) Family groups, usually tourists; (2) single fishermen or couples, usually natives who fish the entire year regardless of weather; and (3) retired persons residing in area, who fish intensively during the fall, winter, and spring.

The bridge fishermen usually fish with dead shrimp or cut mullet bait on the bottom, but sometimes use floats and live shrimp or fish. This fishery has a specialized, highly skilled group of fishermen who fish for nothing but sheepshead using fiddler crabs as bait. During the summer, fishing from 6 to 10 p.m. is as intense as during the day. However, the bridge fishery at night in this section is not so great as that in the Southern Section.

During spring and summer, a small dip net fishery for shrimp occurs at night off the Edgewater city fishing site, South Causeway Bridge, Callalisa Creek Bridge, and North Causeway pier. We were unable to estimate the catch of shrimp. Also, crabs are taken in small quantities during daylight hours in the summer by fishermen using traps or handlines at Callalisa Creek Bridge, North Causeway pier, and South Causeway Bridge. Again, we were unable to gather sufficient information to estimate the volume of this fishery.

Surf Fishery

Surf fishing is primarily in two areas: From the Coast Guard Station inside Ponce de Leon Inlet to the inlet mouth and from Bethune Beach to a point approximately 4 miles south. Dead shrimp and cut mullet are the most common baits. Many fishermen interviewed stated that the best fishing occurs in deep holes in the surf. The fishes generally sought are red drum, black drum, bluefish, and king whiting. During hot summer days fishing is confined to the early morning or late afternoon.

Boat Fishery

The boat fishery in the Northern Section is comprised of two segments: (1) Rental boats and (2) private boats.



Figure 12.--Cape Canaveral Area, Northern Section. Symbols and enclosed numerals refer to locations where sport fishery catch was sampled in 1963 (see table 22 for list of locations by number and symbol).

(1) Rental boats.--During our survey, 21 fish camps located in the Northern Section rented fishing boats (table 22 and fig. 12). The 21 camps have 281 boats for rent; the 4 major camps average 39 boats and the 17 minor camps average 8 or 9 boats. Six of these camps are located on land acquired for Project Nova, and two have already terminated business. Unfortunately for the fishery, two of the six camps being closed are considered among the best and are in good locations.

Data on the number of boats rented by month during a 2-year period were made available by a camp operator who owned one fish camp and leased another; 1962 data are for a newly opened camp.

| Month | 1961 Fish Camp I, Boats rented | 1962 Fish Camp II, Boats rented |
|-----------|--------------------------------------|---------------------------------------|
| | No. | No. |
| January | 171 | 71 |
| February | 179 | 80 |
| March | 89 | 70 |
| April | 86 | 50 |
| May | 69 | 39 |
| June | 73 | 45 |
| July | 96 | 31 |
| August | 68 | 37 |
| September | 60 | 25 |
| October | 71 | 40 |
| November | 84 | 37 |
| December | 64 | 68 |
| Total | 1,110 | 593 |

The number of boats rented by months by year, compiled by season are:

| Season | 196 Fish C Boats | amp I, rented | 1962 Fish Camp II Boats rented | | | |
|---|---|---|---|--|--|--|
| Winter Spring Summer Fall Total | <u>No.</u> 414 244 237 215 1,110 | Pct. 37.3 22.0 21.4 19.4 100.0 | <u>No.</u> 219 159 113 102 593 | Pct. 36.9 26.8 19.0 17.2 99.9 | | |

The data show a close correlation by season between the two camps in the percentages of the number of boats rented. The winter season had considerably higher numbers of boat rentals than did other seasons.

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Boat fishermen usually rent boats at a camp near the area where fish have been reported to be biting. Many fishermen are from Orlando and come to the coast when radio or television reports good fishing. Usual baits are live shrimp or pigfish or dead cut shrimp. The species most sought are spotted sea trout, red drum, black drum, and sheepshead, taken drifting, trolling, casting with live bait or lures, and bottom fishing with live or dead bait. In February, the catch on lures approached that using live shrimp. In the winter and spring the spotted sea trout and other species usually congregate in deep holes in the river, whereas at other times they move into the shallow, open flats.

(2) Private boats.--In the Northern Section the places where a private boat can be launched are so numerous that it was impossible to sample this fishery adequately. There are launching sites at most fishing camps, on the Titusville Causeway, on Riverside Drive from Dicks Fish Camp to South Causeway Bridge, at Callalisa Creek Bridge, near the Coast Guard Station, at New Smyrna Beach launch site, at Preyers on the North Causeway, and at New Smyrna Beach city docks.

Private boat fishermen fish the same general areas and seasons as those using rental boats.

METHODS FOR ESTIMATING SPORT FISHERY CATCH

Monthly totals of numbers of fishermen, hours fished, and catch are estimates calculated from the data secured in the field survey. Seasonal values are summations of monthly values.

The average weight per fish for each species (table 63) is an average estimated by the several biologists who conducted the field survey. Except for weights for the black drum and the grouper, whose average weights varied considerably between the two sections, the weights in table 63 apply to fish in both sections. Separate monthly estimates of numbers and weights were determined for sea catfish, gafftopsail catfish, gray sea trout, and silver sea trout. These data were then combined under "catfish" and "sea trout, other," respectively.

The weights in table 58, estimated catch by party and charter boats for year 1962 for entire Cape Canaveral Area, are based upon estimates for individual fish in photographs examined, rather than on average weights given in table 63.

Table 32.--Estimated sport fishery catch, Cape Canaveral Area; Northern Section, bank fishSEDAR257RD31ctober 1963, numbers of fish and weight in pounds, by species, by month

| Species | Feb | ruary | Maj | rch | Ap | ril | M | ay | June | |
|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Number | Pounds |
| Bluefish | | | 16,956 | 25,434 | 90 | 144 | | | | |
| Catfish | 1,542 | 1,542 | 843 | 843 | 1,221 | 1,221 | 1,728 | 1,485 | 1,527 | 1,527 |
| Croaker | | | | | | | 234 | 108 | | |
| Drum, black | | | 4,992 | 7,488 | 1,311 | 1,974 | 1.86 | 279 | 141 | 210 |
| Drum, red | | | ~ - | ~- | | | | | | |
| Groupers | | | | | | | | | 54 | 27 |
| Grunts | | | | | | | | | | |
| Jack, crevalle | | | 843 | 1,263 | | | 186 | 279 | | |
| King whiting | | | 360 | 270 | 612 | 459 | 1,356 | 1,017 | 285 | 204 |
| Pigfish | | | ~ - | | | | | | | |
| Pinfish | | | 1,422 | 360 | 2,016 | 498 | | | 4,071 | 1,023 |
| Pompano | | | | | | | | | | |
| Puffers | 3,084 | 1,542 | 11,007 | 5,502 | 23,940 | 11,970 | 13,860 | 6,930 | 11,892 | 5,946 |
| Rays | | | 180 | 180 | | | 1.86 | 186 | | |
| Sea bass, black | | | | | | | | | | |
| Sea trout, spotted | 4,863 | 8,505 | 6,357 | 11,130 | 11,688 | 20,454 | 4,812 | 8,421 | 2,136 | 3,741 |
| Sea trout, other | | | | | | | | | 141 | 141 |
| Sharks | | | | | | | | | | |
| Sheepshead | | | 180 | 216 | 90 | 108 | 234 | 288 | 1,089 | 1,362 |
| Snapper, mangrove | | | | | | | | | | |
| Snapper, other | | | | | | | | | | |
| Spadefish | | | | | | | | | | |
| Spot | | | | | 864 | 432 | | | 87 | 42 |
| Tenpounder | | | | | | | 186 | 186 | 87 | 87 |
| Yellowtail | 10,491 | 2,622 | | ~ ~ | 3,402 | 846 | | | 513 | 138 |
| Unclassified fish | | | | | 90 | 18 | 720 | 180 | 54 | 12 |
| Total | 19,980 | 14,211 | 43,140 | 52,686 | 45,324 | 38,124 | 23,688 | 19,359 | 22,077 | 14,460 |

| Species | Ju | ly | August | | September | | October | | Total | |
|--------------------|--------|--------|--------|--------|-----------|--------|---------|--------|---------|---------|
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| Bluefish | 18 | 27 | | | | | | | 17,064 | 25,605 |
| Catfish | 2,154 | 2,136 | 2,802 | 2,739 | 1,473 | 1,473 | 1,716 | 1,716 | 15,006 | 14,682 |
| Croaker | 1,899 | 948 | 174 | 78 | 2,196 | 1,098 | | | 4,503 | 2,232 |
| Drum, black | 186 | 279 | 63 | 93 | | | 87 | 129 | 6,966 | 10,452 |
| Drum, red | 90 | 180 | | | 384 | 768 | 816 | 1,632 | 1,290 | 2,580 |
| Groupers | 36 | 18 | 162 | 72 | | | | | 252 | 11.7 |
| Grunts | 69 | 33 | 420 | 210 | | | 237 | 117 | 726 | 360 |
| Jack, crevalle | 198 | 297 | 189 | 282 | 186 | 279 | | | 1,602 | 2,400 |
| King whiting | 1,344 | 1,002 | 741 | 561 | 1,536 | 1,155 | 171 | 129 | 6,405 | 4,797 |
| Pigfish | 1,326 | 336 | 1,407 | 348 | 258 | 69 | | | 2,991 | 753 |
| Pinfish | 3,507 | 885 | 8,544 | 2,127 | 2,301 | 570 | | | 21,861 | 5,463 |
| Pompano | | | 90 | 36 | | | | | 90 | 36 |
| Puffers | 3,960 | 1,980 | 2,715 | 1,356 | 3,216 | 1,608 | 8,202 | 4,110 | 81,876 | 40,944 |
| Rays | 69 | 69 | 63 | 63 | 351 | 351 | | | 849 | 849 |
| Sea bass, black | 198 | 198 | | | 000 ana | | | | 198 | 1.98 |
| Sea trout, spotted | 1,326 | 2,319 | 1,248 | 2,187 | 1,281 | 2,247 | 2,850 | 4,986 | 36,561 | 63,990 |
| Sea trout, other | 36 | 36 | | | | | | | 177 | 177 |
| Sharks | 33 | 114 | 21 | 72 | | | | | 54 | 186 |
| Sheepshead | 768 | 960 | 555 | 684 | 114 | 141 | 321 | 402 | 3,351 | 4,161 |
| Snapper, mangrove | 177 | 87 | | | 312 | 165 | | | 489 | 252 |
| Snapper, other | 36 | 108 | | | | | | | 36 | 108 |
| Spadefish | 264 | 132 | | | | | | | 264 | 132 |
| Spot | 429 | 213 | 2,202 | 1,092 | 3,303 | 1,659 | | | 6,885 | 3,438 |
| Tenpounder | 33 | 33 | 294 | 294 | | | | | 600 | 600 |
| Yellowtail | 1,020 | 255 | 1,284 | 321 | 957 | 240 | 2,778 | 693 | 20,445 | 5,115 |
| Unclassified fish | 990 | 243 | 342 | 81 | 423 | 111 | | | 2,619 | 645 |
| Total | 20,166 | 12,888 | 23,316 | 12,696 | 18,291 | 11,934 | 17,178 | 13,914 | 233,160 | 190,272 |

Table 33.--Estimated sport fishery catch, Cape Canaveral Area; Northern Section, bank fishery; 1963 spring, summer, and fall totals in numbers of fish and weight in SECARS; BP3; pecies

| Species | Spring | | Sum | mer | Fa | 11 | Total | |
|--------------------|---------|---------|--------|--------|--------|--------|---------|---------|
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| Bluefish | 17,046 | 25,578 | 18 | 27 | | | 17,064 | 25,605 |
| Catfish | 3,792 | 3,549 | 6,483 | 6,402 | 4,773 | 4,773 | 15,048 | 14,724 |
| Croaker | 234 | 108 | 2,073 | 1,026 | 3,294 | 1,638 | 5,601 | 2,772 |
| Drum, black | 6,489 | 9,741 | 390 | 582 | 129 | 192 | 7,008 | 10,515 |
| Drum, red | | | 90 | 180 | 1,809 | 3,618 | 1,899 | 3,798 |
| Groupers | | | 252 | 117 | | | 252 | 117 |
| Grunts | | | 489 | 243 | 357 | 177 | 846 | 420 |
| Jack, crevalle | 1,029 | 1,542 | 387 | 579 | 279 | 417 | 1,695 | 2,538 |
| King whiting | 2,328 | 1,746 | 2,370 | 1,767 | 2,553 | 1,920 | 7,251 | 5,433 |
| Pigfish | | | 2,733 | 684 | 396 | 111 | 3,129 | 795 |
| Pinfish | 3,438 | 858 | 16,122 | 4,035 | 3,441 | 846 | 23,001 | 5,739 |
| Pompano | | | 90 | 36 | | | 90 | 36 |
| Puffers | 48,807 | 24,402 | 18,567 | 9,282 | 17,136 | 8,577 | 84,510 | 42,261 |
| Rays | 366 | 366 | 132 | 132 | 537 | 537 | 1,035 | 1,035 |
| Sea bass, black | | | 198 | 198 | | | 198 | 198 |
| Sea trout, spotted | 22,857 | 40,005 | 4,710 | 8,247 | 6,189 | 10,827 | 33,756 | 59,079 |
| Sea trout, other | | | 177 | 177 | | | 177 | 177 |
| Sharks | | | 54 | 186 | | | 54 | 186 |
| Sheepshead | 504 | 612 | 2,412 | 3,006 | 654 | 807 | 3,570 | 4,425 |
| Snapper, mangrove | | | 177 | 87 | 477 | 249 | 654 | 336 |
| Snapper, other | | | 36 | 108 | | | 36 | 108 |
| Spadefish | _ = | | 264 | 132 | | | 264 | 132 |
| Spot | 864 | 432 | 2,718 | 1,347 | 4,965 | 2,490 | 8,547 | 4,269 |
| Tenpounder | 186 | 186 | 414 | 414 | | | 600 | 600 |
| Yellowtail | 3,402 | 846 | 2,817 | 714 | 5,601 | 1,401 | 11,820 | 2,961 |
| Unclassified fish | 810 | 198 | 1,386 | 336 | 645 | 177 | 2,841 | 711 |
| Total | 112,152 | 110,169 | 65,559 | 40,044 | 53,235 | 38,757 | 230,946 | 188,970 |

Table 34.--Estimated sport fishery catch, Cape Canaveral Area; Northern Section, bridges c**SEDAR25'RD31**y-October 1963, numbers of fish and weight in pounds, by species, by month

| Species | Feb | ruary | Maj | rch | Api | ril | M | ay | ມັນ | ne |
|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Number | Pounds |
| Barracuda | | | | | | | | | | |
| Bluefish | 320 | 480 | 27,016 | 40,528 | 2,496 | 3,744 | | | | |
| Catfish | 320 | 320 | 4,240 | 4,240 | | | 792 | 752 | 2,088 | 2,088 |
| Croaker | | | | | 624 | 312 | 160 | 80 | 336 | 168 |
| Cutlassfish | | | | | ~ - | | | | | |
| Drun, black | 320 | 480 | | | | | | | | |
| Drum, red | | | | | 624 | 1,248 | | | | |
| Eels | | | | | | | | | | |
| Flounders | | | | | | | | | | |
| Groupers | | | | | 624 | 312 | | | | |
| Grunts | | | 272 | 136 | | | 400 | 200 | | |
| Jack, crevalle | | | 1,032 | 1,552 | 624 | 936 | 160 | 240 | 112 | 168 |
| King mackerel | | | 272 | 2,176 | | | | | | |
| King whiting | | | 1,632 | 1,224 | 624 | 464 | 1,248 | 936 | 1,232 | 928 |
| Mullet | | | | | | | | | | |
| Pigfish | 320 | 80 | 272 | 64 | 1,248 | 312 | 1,720 | 432 | 232 | 56 |
| Pinfish | 8,432 | 2,112 | 11,144 | 2,784 | 16,216 | 4,056 | 4,392 | 1,096 | 6,808 | 1,704 |
| Pompano | | | | | | | 312 | 160 | | |
| Puffers | | | 704 | 352 | | | 160 | 80 | | |
| Rays | | | 160 | 160 | | | 72 | 72 | 56 | 56 |
| Sea bass, black | 648 | 648 | | | 1,248 | 1,248 | 472 | 472 | 56 | 56 |
| Sea bass, rock | 320 | 80 | 872 | 216 | 4,376 | 1,096 | 72 | 16 | 232 | 56 |
| Sea robin | | | | | | | 72 | 16 | 56 | 16 |
| Sea trout, spotted | 648 | 1,136 | 1,304 | 2,280 | | | 232 | 408 | | |
| Sea trout, other | | | | | | | | | | |
| Sharks | | | | | | | 72 | 256 | | |
| Sheepshead | 2,264 | 2,832 | 4,128 | 5,160 | 3,120 | 3,904 | 3,448 | 4,312 | 448 | 560 |
| Snapper, mangrove | | | 592 | 296 | | | | | 56 | 32 |
| Spadefish | | | 160 | 80 | 3,752 | 1,872 | 312 | 160 | 232 | 112 |
| Spot | | | 272 | 136 | | | 632 | 320 | | |
| Tenpounder | | | | | | | | | | |
| Yellowtail | 648 | 160 | 2,176 | 544 | | | | | | |
| Unclassified fish | 320 | 80 | | | | | 3,128 | 784 | 960 | 240 |
| Total | 14,560 | 8,408 | 56,248 | 61,928 | 35,576 | 19,504 | 17,856 | 10,792 | 12,904 | 6,240 |

| Species | ป็นไ | Ly | Aug | ıst | Septe | ember | Octo | ber | То | tal |
|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| Barracuda | | | | | | | 152 | 1,216 | 152 | 1,216 |
| Bluefish | 24 | 32 | 320 | 480 | 128 | 192 | | - | 30,304 | 45,456 |
| Catfish | 2.448 | 2.432 | 1.480 | 1.472 | 1,224 | 1,216 | | | 12,592 | 12,520 |
| Croaker | | | 576 | 288 | 328 | 160 | | | 2,024 | 1,008 |
| Cutlassfish | | | 88 | 112 | 480 | 600 | | | 568 | 712 |
| Drum, black | 176 | 264 | 88 | 128 | 40 | 64 | | | 624 | 936 |
| Drum, red | 112 | 224 | 200 | 400 | 288 | 576 | | | 1,224 | 2,448 |
| Eels | 64 | 128 | 32 | 64 | 80 | 160 | | | 176 | 352 |
| Flounders | 64 | 80 | | | 208 | 256 | | | 272 | 336 |
| Groupers | 88 | 48 | 56 | 32 | 64 | 32 | 152 | 80 | 984 | 504 |
| Grunts | 136 | 64 | 288 | 144 | 1,056 | 528 | 1,224 | 608 | 3,376 | 1,680 |
| Jack. crevalle | 152 | 224 | 640 | 960 | 272 | 408 | | | 2,992 | 4,488 |
| King mackerel | | | | | | | | | 272 | 2,176 |
| King whiting | 1,752 | 1,312 | 1,304 | 976 | 1,016 | 760 | 312 | 232 | 9,120 | 6,832 |
| Mullet | 48 | 48 | | | 1,496 | 1,496 | ~ - | | 1,544 | 1,544 |
| Pigfish | 1,352 | 336 | 2,664 | 664 | 5,408 | 1,352 | 3,776 | 944 | 16,992 | 4,240 |
| Pinfish | 5,160 | 1,288 | 4,776 | 1,192 | 1,904 | 480 | 8,016 | 2,000 | 66,848 | 16,712 |
| Pompano | | | 56 | 32 | 24 | 16 | | | 392 | 208 |
| Puffers | 112 | 56 | 232 | 112 | 536 | 272 | 152 | 80 | 1,896 | 952 |
| Rays | 88 | 88 | 112 | 112 | 288 | 288 | | | 776 | 776 |
| Sea bass, black | 352 | 352 | 32 | 32 | 24 | 24 | | | 2,832 | 2,832 |
| Sea bass, rock | 64 | 16 | 32 | 8 | 40 | 8 | 152 | 40 | 6,160 | 1,536 |
| Sea robin | 64 | 16 | 56 | 16 | | | | | 248 | 64 |
| Sea trout, spotted | 624 | 1,088 | 928 | 1,624 | 520 | 912 | | | 4,256 | 7,448 |
| Sea trout, other | | | | | 24 | 24 | | | 24 | 24 |
| Sharks | 48 | 168 | _32 | 112 | | | | | 152 | 530 |
| Sheepshead | 936 | 1,168 | 1,680 | 2,096 | 1,016 | 1,272 | 600 | 752 | 17,640 | 22,056 |
| Snapper, mangrove | 176 | 88 | 376 | 192 | 312 | 160 | | | 1,512 | 100 |
| Spadefish | 376 | 192 | 1,160 | 576 | 496 | 248 | 152 | 80 | 6,640 | 3,320 |
| Spot | 2,152 | 1,072 | 8,168 | 4,080 | 2,776 | 1,392 | 752 | 376 | 14,752 | 7,376 |
| Tenpounder | 48 | 48 | 200 | 200 | 312 | 312 | | | 560 | 560 |
| Yellowtail | 352 | 88 | 32 | 8 | 40 | 8 | | | 3,248 | 808 |
| Unclassified fish | 1,400 | 352 | 552 | 136 | 272 | 64 | 10,440 | 2,608 | 17,072 | 4,264 |
| Total | 18,368 | 11,272 | 26,160 | 16,248 | 20,672 | 13,280 | 25,880 | 9,016 | 228,224 | 156,688 |

Table 35.--Estimated sport fishery catch, Cape Canaveral Area; Northern Section, bridges combined; 1963 spring, summer, and fall totals in numbers of fish and weight in SECARS, BD3 pecies

| Species | Spring | | Summer | | Fa | 11 | Total | | |
|--------------------|---------|--------|--------|--------|--------|--------|---------|---------|--|
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | |
| Barracuda | | | | | 224 | 1,824 | 224 | 1,824 | |
| Bluefish | 29,512 | 44.272 | 344 | 512 | 192 | 288 | 30,048 | 45,072 | |
| Catfish | 5,032 | 4,992 | 6,016 | 5,992 | 1,840 | 1,824 | 12,888 | 12,808 | |
| Croaker | 784 | 392 | 912 | 456 | 496 | 240 | 2,192 | 1,088 | |
| Cutlassfish | | | 88 | 112 | 720 | 896 | 808 | 1,008 | |
| Drum, black | | | 264 | 392 | 64 | 96 | 328 | 488 | |
| Drum, red | 624 | 1,248 | 312 | 624 | 432 | 864 | 1,368 | 2,736 | |
| Eels | | | 96 | 192 | 120 | 240 | 216 | 432 | |
| Flounders | | | 64 | 80 | 312 | 384 | 376 | 464 | |
| Groupers | 624 | 312 | 144 | 80 | 320 | 168 | 1,088 | 560 | |
| Grunts | 672 | 336 | 424 | 208 | 3,424 | 1,704 | 4,520 | 2,248 | |
| Jack, crevalle | 1,816 | 2,728 | 904 | 1,352 | 408 | 608 | 3,128 | 4,688 | |
| King mackerel | 272 | 2,176 | | | | | 272 | 2,176 | |
| King whiting | 3,504 | 2,624 | 4,288 | 3,216 | 1,992 | 1,488 | 9,784 | 7,328 | |
| Mullet | | | 48 | 48 | 2,240 | 2,240 | 2,288 | 2,288 | |
| Pigfish | 3,240 | 808 | 4,248 | 1,056 | 13,776 | 3,440 | 21,264 | 5,304 | |
| Pinfish | 31,752 | 7,936 | 16,744 | 4,184 | 14,880 | 3,720 | 63,376 | 15,840 | |
| Pompano | 312 | 160 | 56 | 32 | 32 | 24 | 400 | 216 | |
| Puffers | 864 | 432 | 344 | 168 | 1,032 | 528 | 2,240 | 1,128 | |
| Rays | 2 32 | 232 | 256 | 256 | 432 | 432 | 920 | 920 | |
| Sea bass, black | 1,720 | 1,720 | 440 | 440 | 32 | 32 | 2,192 | 2,192 | |
| Sea bass, rock | 5,320 | 1,328 | 328 | 80 | 288 | 72 | 5,936 | 1,480 | |
| Sea robin | 72 | 16 | 176 | 48 | | | 248 | 64 | |
| Sea trout, spotted | 1,536 | 2,688 | 1,552 | 2,712 | 784 | 1,368 | 3,872 | 6,768 | |
| Sea trout, other | | | | | 32 | 32 | 32 | 32 | |
| Sharks | 72 | 256 | 80 | 280 | | | 152 | 536 | |
| Sheepshead | 10,696 | 13,376 | 3,064 | 3,824 | 2,424 | 3,040 | 16,184 | 20,240 | |
| Snapper, mangrove | 592 | 296 | 608 | 312 | 464 | 240 | 1,664 | 848 | |
| Spadefish | 4,224 | 2,112 | 1,768 | 880 | 976 | 496 | 6,968 | 3,488 | |
| Spot | 904 | 456 | 10,320 | 5,152 | 5,296 | 2,656 | 16,520 | 8,264 | |
| Tenpounder | | | 248 | 248 | 464 | 464 | | (12 | |
| Yellowtail | 2,176 | 544 | 384 | 96 | 64 | 16 | 2,624 | 656 | |
| Unclassified fish | 3,128 | 784 | 2,912 | 728 | 16,064 | 4,008 | 22,104 | 5,520 | |
| Total | 109,680 | 92,224 | 57,432 | 33,760 | 69,824 | 33,432 | 236,936 | 159,416 | |

Table 36.--Estimated sport fishery catch, Cape Canaveral Area; Northern Section, surf areas combined; SEDAR25-RD31 Pebruary-October 1963, numbers of fish and weight in pounds, by species, by month

| Species | February | | Ma | rch | Apt | ril | M | ay. | Ju | ie |
|--------------------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| Bluefish | | | 4,586 | 6,880 | 1,028 | 1,542 | | | | |
| Catfish | | | 6,572 | 6,572 | 568 | 450 | 3,418 | 3,418 | 846 | 846 |
| Croaker | | | | | | | | | 164 | 82 |
| Drum, black | | | 2,436 | 3,654 | 4,508 | 6,762 | 84 | 126 | | |
| Drum, red | | | | | 96 | 192 | | | | |
| Flounders | | | | | | | | | 32 | 40 |
| Gruats | | | | | | | | | | |
| Jack, crevalle | | | 40 | 60 | 96 | 144 | | | | |
| King whiting | 854 | 640 | 5,446 | 4,084 | 2,624 | 1,968 | 4,168 | 3,126 | 228 | 172 |
| Pigfish | | | | | | | | | | |
| Pinfisb | | | | | 374 | 94 | 750 | 188 | 164 | 40 |
| Pompano | | | 40 | 20 | 96 | 48 | 84 | 42 | | |
| Puffers | | | | | 96 | 48 | | | | |
| Rays | | | | | 96 | 96 | | | de- e | |
| Sea trout, spotted | | | 102 | 178 | | | | | | |
| Sharks | 1,344 | 4,704 | 102 | 356 | | | | | 32 | 112 |
| Sheepshead | | | | | 96 | 120 | 84 | 104 | 98 | 122 |
| Snapper, mangrove | | | | | | | | | | |
| Spadefish | | | | | | | | | | |
| Spanish mackerel | | | | | | | 84 | 148 | | |
| Spot | | | | | | | 166 | 84 | 98 | 48 |
| Tenpounder | | | | ~ - | | | | | | |
| Yellowtail | | | ~ ~ | | 96 | 24 | ~= | | | |
| Unclassified fish | | | | | | | 166 | 42 | | |
| Total | 2,198 | 5,344 | 19,324 | 21,804 | 9,774 | 11,488 | 9,004 | 7,278 | 1,662 | 1,462 |

| Species | Ju | ly | Aug | ust | Septe | mber | Octo | ober | To | tal |
|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------|
| | Number | Pounds |
| Bluefisb | 180 | 270 | 86 | 128 | 102 | 152 | 154 | 232 | 6,136 | 9,204 |
| Catfish | 3,668 | 3,662 | 594 | 594 | 910 | 870 | | | 16,576 | 16,412 |
| Croaker | 266 | 132 | 260 | 130 | | | | | 690 | 344 |
| Drum, black | 158 | 236 | 260 | 390 | 54 | 80 | 780 | 1,170 | 8,280 | 12,418 |
| Drum, red | | | 172 | 344 | | | | | 268 | 536 |
| Flounders | | | 86 | 108 | 54 | 68 | | | 172 | 216 |
| Grunts | 46 | 24 | | | | | | | 46 | 24 |
| Jack, crevalle | | | 86 | 128 | 156 | 234 | | - p | 378 | 566 |
| King whiting | 1.944 | 1.458 | 1,968 | 1,476 | 1,198 | 898 | 2,174 | 1,630 | 20,604 | 15,452 |
| Pigfish | | | | | 102 | 26 | 154 | 38 | 256 | 64 |
| Pinfish | 68 | 16 | | | 24 | 6 | 1.242 | 310 | 2,622 | 654 |
| Pompano | | | 172 | 86 | 78 | 40 | | | 470 | 236 |
| Puffers | | | | | | | | | 96 | 48 |
| Rays | 22 | 22 | | | | | | | 118 | 118 |
| Sea trout. spotted | | | | | | | | | 102 | 178 |
| Sharks | 22 | 76 | | | | | | | 1,500 | 5,248 |
| Sheepshead | 248 | 310 | 172 | 216 | 102 | 128 | 462 | 578 | 1,262 | 1,578 |
| Snapper, mangrove | 22 | 12 | | | 24 | 12 | | | 46 | 24 |
| Spadefish | | | 260 | 130 | 78 | 40 | | | 338 | 170 |
| Spanish mackerel | | | 64 MP | | | | | | 84 | 148 |
| Spot | | | | | | | 308 | 154 | 572 | 286 |
| Tenpounder | | | 86 | 86 | | | | | 86 | 86 |
| Yellowtail | 46 | 12 | | | 102 | 26 | | | 244 | 62 |
| Unclassified fish | | | 86 | 22 | | | 1,396 | 348 | 1,648 | 4 <u>12</u> |
| Total | 6,690 | 6,230 | 4,288 | 3,838 | 2,984 | 2,580 | 6,670 | 4,460 | 62,594 | 64,484 |

Table 37.--Estimated sport fishery catcb, Cape Canaveral Area; Northern Section, surf areas combined; 1963 spring, summer, and fall totals in oumbers of fish and veight in pounds, by species

| Species | Spr | ing | Sug | mer | Fa | 11 | Tot | al |
|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| Bluefish | 5,614 | 8,422 | 266 | 398 | 384 | 576 | 6,264 | 9,396 |
| Catfish | 10,558 | 10,440 | 5,108 | 5,102 | 1,364 | 1,304 | 17,030 | 16,846 |
| Croaker | | | 690 | 344 | | | 690 | 344 |
| Drum, black | 7,028 | 10,542 | 418 | 626 | 1,252 | 1,876 | 8,698 | 13,044 |
| Drum, red | 96 | 192 | 172 | 344 | | | 268 | 536 |
| Flounders | | | 118 | 148 | 80 | 102 | 198 | 250 |
| Grunts | | | 46 | 24 | | | 46 | 24 |
| Jack, crevalle | 136 | 204 | 86 | 128 | 234 | 352 | 456 | 684 |
| King whiting | 12,238 | 9,178 | 4,140 | 3,106 | 5,058 | 3,792 | 21,436 | 16,076 |
| Pigfish | | | í | | 384 | 96 | 384 | 96 |
| Pinfisb | 1,124 | 282 | 232 | 56 | 1,900 | 474 | 3,256 | 812 |
| Pompano | 220 | 110 | 172 | 86 | 116 | 60 | 508 | 256 |
| Puffers | 96 | 48 | | | | | 96 | 48 |
| Rays | 96 | 96 | 22 | 22 | | | 118 | 118 |
| Ses trout, spotted | 102 | 178 | | | | | 102 | 178 |
| Sharks | 102 | 356 | 54 | 188 | | | 156 | 544 |
| Sheepshead | 180 | 224 | 51.8 | 648 | 846 | 1,060 | 1,544 | 1,932 |
| Snapper, mangrove | | | 22 | 12 | 36 | 18 | 58 | 30 |
| Spadefish | | | 260 | 130 | 116 | 60 | 376 | 190 |
| Spacish mackerel | 84 | 148 | | | | | 84 | 148 |
| Spot | 166 | 84 | 98 | 48 | 462 | 232 | 726 | 364 |
| Teapounder | | | 86 | 86 | | | 86 | 86 |
| Yellowtail | 96 | 24 | 46 | 12 | 152 | 40 | 294 | 76 |
| Unclassified fish | 166 | 42 | 86 | 22 | 2,094 | 522 | 2,346 | 586 |
| Total | 38,102 | 40,570 | 12,640 | 11,530 | 14,478 | 10,564 | 65,220 | 62,664 |

Table 38.--Estimated sport fishery catch, Cape Canaveral Area; Northern Section, boat fishery (privat SEDAR25-RD31 combined); February-October 1963, numbers of fish and weight in pounds, by species, by month

| Species | Feb | ruary | Ma | rch | Ap | ril | М | ay | Ju | ne |
|--------------------|--------|--------|----------------|--------|----------|--------|--------|--------|--------|--------|
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| Bluefish | | | 943 | 1,414 | 383 | 574 | | | | |
| Catfish | | | 574 | 554 | | | 4,222 | 4,170 | 54 | 54 |
| Croaker | | | | | | ~ ~ | | | | |
| Drum, black | 488 | 732 | 943 | 1,414 | 851 | 1,276 | 412 | 618 | 54 | 81 |
| Drum, red | 1,251 | 2,502 | 492 | 984 | 255 | 510 | | | 461 | 922 |
| Flounders | | | | | 128 | 160 | | | | |
| Groupers | | | | | | | | | | |
| Grunts | | | | | ~ ~ | | | | | |
| Jack, crevalle | | | 32.8 | 492 | | | 309 | 464 | | |
| King whiting | 547 | 410 | 861 | 646 | 978 | 734 | 790 | 592 | 54 | 40 |
| Mullet | | | | | | | | | - ~ | |
| Pigfish | 137 | 34 | | | | | 790 | 198 | | |
| Pinfish | 137 | 54 | 697 | 174 | 510 | 128 | 3,021 | 755 | 271 | 68 |
| Pompano | | | | | | ~ - | | | | |
| Puffers | 31.3 | 156 | 246 | 123 | | | _ = | | | |
| Rays | | | 82 | 82 | | | 206 | 206 | | ~ - |
| Sea bass, black | | | | | | | | | | = |
| Sea bass, rock | | | | | | | | | | |
| Sea trout, spotted | 12.681 | 22,192 | 20,785 | 36,374 | 30,747 | 53,807 | 26,674 | 46,680 | 16,037 | 28,065 |
| Sharks | | | | | | | | | | |
| Sheepshead | 3.615 | 4.519 | 3,608 | 4.510 | 4,423 | 5,529 | 2.403 | 3,004 | 461 | 576 |
| Snapper. mangrove | 20 | 10 | | | | | | | | |
| Spot | | | 410 | 205 | | | | | | |
| Tenpounder | | | | | | | 893 | 893 | | |
| Yellowtail | 215 | 54 | | | | | | | | |
| Unclassified fish | | | | | <u> </u> | | 1,202 | 300 | | |
| Total | 19,404 | 30,643 | 29 , €9 | 46,972 | 38,275 | 62,718 | 40,922 | 57,880 | 17,392 | 29,806 |
| | | | | | | | 0-4 | - h em | | *= 1 |

| Species | งน | TÀ | Aug | ust | Sept | emper | Uet | oper | 10 | Cart |
|--------------------|--------|---------|---------|--------|--------|---------|--------|---------|---------|---------|
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pound s | Number | Pounds |
| Eluefish | 58 | 37 | | | | | | | 1,384 | 2,075 |
| Catfish | 1,670 | 1,670 | 659 | 650 | 877 | 877 | | | 8,056 | 7,975 |
| Croaker | 518 | 259 | 146 | 73 | 155 | 78 | 211 | 106 | 1,030 | 516 |
| Drum, black | 518 | TIT | 403 | 604 | 1,032 | 1,548 | 6,074 | 9,111 | 10,775 | 16,161 |
| Drum, red | 288 | 576 | 329 | 658 | 722 | 1,444 | 8,927 | 17,854 | 12,725 | 25,450 |
| Flounders | 173 | 216 | | | | | | | 301 | 376 |
| Groupers | 115 | 58 | | | 52 | 26 | | | 167 | 81 |
| Grunts | | ~ = | | | 2,271 | 1,136 | | | 2,271 | 1,136 |
| Jack, crevalle | 633 | 950 | 183 | 274 | 206 | 309 | 211 | 316 | 1,870 | 2,809 |
| King whiting | 1.094 | 820 | 476 | 357 | 1,445 | 1,084 | 1,162 | 872 | 7,407 | 5,555 |
| Mullet | | | 73 | 73 | | | | | 73 | 73 |
| Pigfish | 403 | 101 | 293 | 73 | 361 | 90 | 3,275 | 819 | 5,259 | 1,319 |
| Pinfish | 2,764 | 691 | 293 | 73 | 4,128 | 1,032 | 33,753 | 8,438 | 45,574 | 11,393 |
| Pompano | | | 37 | 18 | | | | | 37 | 18 |
| Puffers | 115 | 58 | 329 | 164 | 52 | 26 | 2,800 | 1,400 | 3,855 | 1,927 |
| Ravs | | | | | 52 | 52 | | | 340 | 340 |
| Sea bass, black | 58 | 58 | 37 | 37 | | | | | 95 | 95 |
| Sea bass, rock | | | 37 | 9 | | | | | 37 | |
| Sea trout. spotted | 32,357 | 56,625 | 26,725 | 46,769 | 33,336 | 58,338 | 27,414 | 47,974 | 226,756 | 396,824 |
| Sharks | 173 | 606 | | | | | | | 173 | 606 |
| Sheenshead | 2,188 | 2,735 | 476 | 595 | 2,425 | 3,031 | 6,814 | 8,518 | 26,413 | 33,017 |
| Snapper, mangrove | 58 | 29 | 73 | 36 | 52 | 26 | 211 | 106 | 414 | 207 |
| Spot | | | 183 | 92 | | | | | 593 | 297 |
| Tenpounder | E 30 | 230 | 183 | 183 | | | 1,637 | 1,637 | 2,943 | 2,943 |
| Yellowtail | 173 | 43 | | | | | 5,863 | 1,455 | 6,251 | 1,563 |
| Unclassified fish | 1,036 | 259 | 476 | 119 | 2,890 | 722 | | | 5,604 | 1,400 |
| | Lb Koc | 44 81-8 | sa Jina | 50 557 | 50.056 | 60, 810 | 08 350 | 08 617 | 370 403 | 514 160 |

Table 39.--Estimated sport fishery catch, Cape Canaveral Area; Northern Section, boat fishery (private and rental combined); 1963 spring, summer, and fall totals in numbers of fish and weight in pounds, by species

| Species | Spr | Spring | | mer | Fall | | Total | |
|--------------------|---------|---------|----------|---------|---------|---------|---------|---------|
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| Eluefish | 1,326 | 1,988 | 58 | 87 | | | 1,384 | 2,075 |
| Catfish | 4,796 | 4,724 | 2,383 | 2,374 | 1,316 | 1,316 | 8,495 | 8,414 |
| Croaker | | | 664 | 332 | 549 | 276 | 1,213 | 608 |
| Drum, black | 2,206 | 3,308 | 975 | 1,462 | 10,659 | 15,988 | 13,840 | 20,758 |
| Drum, red | 747 | 1,494 | 1,078 | 2,156 | 14,474 | 28,947 | 16,299 | 32,597 |
| Flounders | 128 | 160 | 173 | 216 | | | 301 | 376 |
| Groupers | | | 115 | 58 | 78 | 39 | 193 | 97 |
| Grunts | | | | | 3,406 | 1,704 | 3,406 | 1,704 |
| Jack, crevalle | 637 | 956 | 816 | 1,224 | 626 | 938 | 2,079 | 3,118 |
| King whiting | 2,629 | 1,972 | 1,624 | 1,217 | 3,910 | 2,934 | 8,163 | 6,123 |
| Mullet | | | 73 | 73 | | | 73 | 73 |
| Pigfish | 790 | 198 | 696 | 174 | 5,454 | 1,364 | 6,940 | 1,736 |
| Pinfish | 4,228 | 1,057 | 3,328 | 832 | 56,822 | 14,205 | 64,378 | 16,094 |
| Pompano | | | 37 | 18 | | | 37 | 18 |
| Puffers | 246 | 123 | <u> </u> | 222 | 4,278 | 2,139 | 4,968 | 2,484 |
| Ravs | 288 | 288 | | | 78 | 78 | 366 | 366 |
| Sea bass, black | | | 95 | 95 | | | 95 | 95 |
| Sea bass, rock | | | 37 | 9 | | | 37 | 9 |
| Sea trout, spotted | 78,206 | 136,861 | 75,119 | 131,459 | 91,125 | 159,468 | 244,450 | 427,788 |
| Sharks | | | 173 | 606 | | | 173 | 606 |
| Sheepshead | 10,434 | 13,043 | 3,125 | 3,906 | 13,858 | 17,324 | 27,417 | 34,273 |
| Snapper, mangrove | | | 131 | 65 | 394 | 198 | 525 | 263 |
| Spot | 410 | 205 | 183 | 92 | | | 593 | 297 |
| Tenpounder | 893 | 893 | 413 | 413 | 2,456 | 2,456 | 3,762 | 3,762 |
| Yellowtail | | | 173 | 43 | 8,794 | 2,199 | 8,967 | 2,242 |
| Unclassified fish | 1,202 | 300 | 1,512 | 378 | 4,335 | 1,083 | 7,049 | 1,761 |
| Total | 109,166 | 167,570 | 93,425 | 147,511 | 222,612 | 252,656 | 425,203 | 567,737 |

SEDAR25-RD31

ESTIMATE OF SPORT FISHERY CATCH

Estimates of catch (numbers and weight) have been assembled by section, by facility, by month, by season, by species, and by various combinations thereof to present them in the most usable form.

These detailed presentations will not be discussed individually, but rather our discussions will concern the Cape Canaveral Area as a whole.

Detailed data for the Southern Section appear in tables 23-31, and those for the Northern Section appear in tables 32-39.

In tables 40-48 are presented monthly summaries of catch by species (in numbers and weight), organized by facility, by section, and by sections combined. From these monthly summaries, it is evident that nine species represent the bulk of the catch, in numbers of fish. These are, in order of importance, spotted sea trout, pinfish, puffers, sea trout (other), catfish, king whiting, sheepshead, bluefish, and croaker.

Seasonal summaries of catch (numbers and weight) by species, organized by facility, by section, and by sections combined, are presented in tables 49-51. Spotted sea trout was taken in the greatest numbers, representing 20 percent of the catch for the three seasons for which we have data (spring, 25 percent; summer, 17 percent; and fall, 15 percent). Next is pinfish, with 13 percent of the total catch (spring, 8 percent; summer, 16 percent; and fall, 18 percent). Puffers follow, with 12 percent of the total catch (spring, 16 percent; summer, 8 percent; and fall, 11 percent). Sea trout other than spotted total 8 percent of the catch (spring, 7 percent; summer, 8 percent; and fall, 10 percent). Catfish also represent 8 percent of the total (spring, 9 percent; summer, 8 percent; and fall, 6 percent). King whiting total 6 percent (spring, 4 percent; summer, 8 percent; and fall, 5 percent). Sheepshead total 4 percent (4 percent for each season). Bluefish represent 3 percent (spring, 8 percent; and summer and fall, less than 1 percent). Croaker is last, with 2 percent of the total catch (spring, 1 percent; summer, 4 percent; and fall, 2 percent).

The catch in numbers for these nine species combined represents 82 percent of the 857,485 fish estimated for the spring, 74 percent of the 589,852 fish estimated for the summer, and 72 percent of the 785,676 fish estimated for the fall. Total numbers of fish for these nine species, all seasons combined, represent 76 percent of the total of 2,233,013 fish estimated for all species.

With reference to weights, ranking of the nine dominant species for the three seasons combined is as follows: Spotted sea trout, 33 percent of the total; sea trout other than spotted and catfish, 8 percent each; puffers, 6 percent; bluefish and sheepshead, 5 percent each; king whiting, 4 percent; pinfish, 3 percent; and croaker, 1 percent. The total weight for these nine species, all seasons combined, represents 73 percent of the total of 2,292,455 pounds estimated for all species.

Table 40.--Estimated sport fishery catch, Cape Canaveral Area; Northern Section only, February 1963, in numbers of fish and weight in pounds, by facility, by species

| Species | Bank f | ishery | Brid | ges | Surf | areas | Boat f | ishery | To | tal |
|--|-----------|---|---|--|----------------------|--------------------------|---------------------------------------|---|--|--|
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Peunds | Number | Pounds |
| Bluefish Catfish Drum, black Drum, red King whiting Pigfish Pinfish Puffers Sea bass, black Sea bass, rock Sea trout, spotted Sharks Sheepshead Snapper, mangrove Vallowtail | 1,542 | 1,542 1,542 8,505 | 320 320 320 8,432 648 320 648 320 648 | 480 320 480 2,112 648 80 1,136 2,832 2,832 | 854 1,344 | 640 4,704 | 488 1,251 547 137 313 | 732 2,502 410 34 156 22,192 22,192 4,519 10 54 | 320 1,862 808 1,251 1,401 457 8,569 3,397 648 320 18,192 1,344 5,879 20 11,354 | 480 1,862 1,212 2,502 1,050 114 2,146 1,698 648 80 31,833 4,704 7,351 10 2,836 |
| Unclassified fish | | | 320 | 80 | | | | | 320 | 80 |
| Total | 19,980 | 14,211 | 14,560 | 8,408 | 2,198 | 5,344 | 19,404 | 30,643 | 56,142 | 58,606 |

Table 41.--Estimated sport fishery tatcb, Cape Canaveral Area; March 1963, in numbers of fish and weight in pour SEDAR25-RD31 by facility, by species

| | Southern Section | | | | | | | | | | | |
|---------------------|------------------|-----------------|--------|--------|----------|----------------|------------------|-----------------|--------|--------|---------|---------|
| Species | Bridg | es and eways | Ocean | piers | Port Cau | naveral ide | Port Car outs | naveral side | Boat f | ishery | Sub | total |
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Founds | Number | Pounds |
| Amberjack | | | | | | | 14 | 210 | | | 14 | 210 |
| Black margate | | | 1,931 | 1,931 | | | | | | | 1,931 | 1,931 |
| Bluefish | 395 | 592 | 275 | 412 | 8,286 | 12,429 | | | | | 8,956 | 13,433 |
| Catfieb | 12,400 | 12,400 | 22,827 | 22,827 | 962 | 962 | | | 54 | 54 | 36,243 | 36,243 |
| Croaker | | | | | 389 | 194 | | ~ ~ | | | 389 | 194 |
| Cutlassfish | | ~ - | | | 407 | 509 | | | | | 407 | 509 |
| Drum, black | 1,576 | 21,670 | | | 201 | 2,764 | | | | | 1,777 | 24,434 |
| Drum, red | | | | | 72 | 144 | | - 7 | | | 72 | 144 |
| Flounders | | ~ - | | | 257 | 321 | | | | ~ - | 257 | 321 |
| Groupers | | | | | | | 14 | 140 | | | 14 | 140 |
| Grunts | | | | | 72 | 36 | 86 | 43 | | _ = | 158 | 79 |
| Jack. crevalle | 525 | 787 | 507 | 760 | 1.049 | 1,573 | 51 | 76 | 54 | 81 | 2,186 | 3,277 |
| Jack, other | | | | | 510 | 510 | | | | | 510 | 510 |
| King mackerel | | | | | 260 | 2.080 | 27 | 216 | | | 287 | 2,296 |
| King whiting | 5.482 | 4.111 | 678 | 508 | 288 | 216 | | | 54 | 40 | 6.502 | 4.875 |
| Little tuna | | | | | | | 136 | 884 | | | 136 | 884 |
| Mojarra. | | | 42 | 21 | 187 | 93 | | | | | 229 | 114 |
| Mullet | | | | | 101 | 101 | | | | | 101 | 101 |
| Pigfish | | | | | | | | | | | | |
| Pinfish | 129 | 782 | -81 | 95 | 420 | 105 | | | | | ÷.930 | 982 |
| Pompano | | | | = - | 218 | 109 | | | | | 218 | 109 |
| Porgies | | - ~ | | | | | 86 | 172 | | | 86 | 172 |
| Puffers | 29.218 | 14.609 | 149 | 74 | 245 | 122 | | | 5.039 | 2,520 | 34.651 | 17.325 |
| Ravs | 395 | - 95 | | | | | | | 54 | 54 | 449 | 449 |
| Sea bass, black | | | | | | | 1,127 | 1.127 | | | 1.127 | 1,127 |
| Sea bass, rock | | | | | | | | | | | | |
| Sea trout, spotted | 22.087 | 38.652 | 191 | 334 | 204 | 357 | | | 9.555 | 16,721 | 12.037 | 56.064 |
| Sea trout, other | 27.798 | 27,798 | 149 | 149 | 636 | 636 | | | | | 28.585 | 28.589 |
| Sharks | ~1)12- | | | | 1.284 | 4,494 | ~ ~ | | | | 1.284 | 4,494 |
| Sheepshead | 3.127 | 3,909 | 149 | 1.86 | 182 | 227 | 15 | 16 | 702 | 878 | 4,173 | 5,216 |
| Snanner, red | | | | | | | 86 | 688 | | | 86 | 688 |
| Snanner manoreve | | | | | | | | | | | | |
| Snanner, other | | | | | | | 14 | 42 | ~ - | | 14 | 42 |
| Spadefich | | | | | | | | | | | | |
| Spenich mackaral | | | 42 | 73 | 17 | 30 | | | | | 59 | 103 |
| Operation meeter of | | | 210 | 105 | 2 104 | 1.007 | | | | | : 404 | 1.202 |
| Tennounder | 251 | 251 | | | | | | | | | 251 | 251 |
| Volloutoil | 13 012 | 1 260 | | | | | | | | | 13.042 | 3.260 |
| Incleastied fich | 777 | 104 | 40 | 1.0 | 101 | 25 | | | | | 920 | 229 |
| ouchassinged 1180 | 111 | 1.74 | ~TC | 10 | 101 | ~) | | | | | 920 | 227 |
| Total | 120,202 | 129,410 | 27,573 | -7,485 | 18,542 | 29,134 | 1,654 | 3,614 | 15,512 | 20,348 | 183,483 | 209,991 |

| | | Northern Section | | | | | | | | | | | |
|---------------------|--------|------------------|-------------|---------|--------|--------|--------|--------|---------|---------|---------|---------|--|
| Species | Bank f | ishery | Bri | dges | Surf s | ireas | Boat f | ishery | Subt | otal | Combine | d total | |
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | |
| Amberjack | | | | | | | | | | | 14 | 210 | |
| Black margate | | | ~ - | | | | | | | | 1,931 | 1,931 | |
| Bluefish | 16,956 | 25,434 | 27,016 | 40,528 | 4,586 | 6,380 | 943 | 1,414 | 49,511 | 74,256 | 58,457 | 87,689 | |
| Catfish | 843 | 843 | 4,240 | 4,240 | 5,572 | 6,572 | 574 | 554 | 12,229 | 12,209 | 48,472 | 48,452 | |
| Croaker | | | | | | | | | | | 389 | 194 | |
| Cutlassfish | | | - | | | | | | | | 407 | 509 | |
| Drum, black | 4,992 | 7,488 | | | 2,436 | 3,654 | 943 | 1,414 | 8,371 | 12,556 | 10,148 | 36,990 | |
| Drum, red | | | | ** #* | | | 492 | 984 | 492 | 984 | 564 | 1,128 | |
| Flounders | | | | | | | | | | | 257 | 321 | |
| Groupers | | | | | | | | | | | 14 | 140 | |
| Grants | | | ÷72 | 136 | | | | | 2.72 | 136 | 43C | 215 | |
| Jack crevalle | 84.3 | 1.263 | 1.032 | 1,552 | 40 | 60 | 328 | 492 | 2.243 | 3.367 | 4.429 | 6.644 | |
| Jack other | | 1,200 | 2,000 | | | | | | | | 510 | 510 | |
| King mackarel | | | : 70 | | | | | | 272 | 5.176 | 559 | 4.472 | |
| King whiting | 360 | 270 | 1.632 | 1.224 | 5.446 | 4.084 | 861 | 646 | 8.299 | 6.224 | 14.801 | 11,099 | |
| Tittle ture | 300 | 210 | | | | ., | | | -3-22 | | 136 | 881 | |
| Mafamma | | | | | | | | | | | 220 | 114 | |
| MOJELTE | | | | | | | | | | | 101 | 101 | |
| Di sei sh | | | 170 | 6h | | | | | 070 | 6h | 272 | 64 | |
| Pigiisn Die Grah | 1 400 | | 212 | 0 784 | | | 607 | 1.74 | 17.063 | 2 218 | 17 103 | 1. 200 | |
| Piniisn | ⊥,*22 | 200 | ومهاد والسل | ≥ j [∪4 | 200 | 20 | 091 | 114 | 10200 | 1,010 | | 100 | |
| Pompano | | | | | 40 | 20 | | | 40 | 20 | 200 | 170 | |
| Forgles | | | Tob | 350 | | | 014 | 102 | 11 057 | 5.077 | 46 608 | 21 200 | |
| Purfers | 11,007 | 5,502 | 104 | 374 | | | 240 | 26.2 | 100 | 1711 | 90,000 | 20,002 | |
| Rays | TOC | Too | 100 | TOO | | | 02 | 02 | 422 | 422 | 1 107 | 1 107 | |
| Sea bass, black | | | 0.70 | 0.5 | | | | | 0.726 | 014 | 1,12(|) 54 (L | |
| Sea bass, rock | | | 0/2 | 210 | 2.00 | 100 | 00 795 | ac and | 210 | 210 | 012 | 106 006 | |
| Sea trout, spotted | 0,357 | 051,130 | 1, 304 | 2,200 | 105 | T10 | 50,102 | 30,314 | 20,740 | 49,902 | 0'-,202 | 100,020 | |
| Sea trout, other | | | | | | | | | | | 20,503 | 20,003 | |
| Sharks | | / | 1 | | 105 | 350 | | | 105 | 350 | 1,100 | 4,050 | |
| Sheepshead | 180 | 216 | 4,128 | 5,160 | | | 3,608 | 4,510 | 7,916 | 9,500 | ±2,009 | 15,102 | |
| Snapper, red | | | | | | | | | | | 00 | 630 | |
| Snapper, mangrove | | | 592 | 295 | | | | | 592 | 296 | 592 | 2,46 | |
| Snapper, other | | | | | | | | | | | 14 | 42 | |
| Spadefish | | - ~ | 160 | 80 | | | | | 160 | | 160 | | |
| Spanish mackerel | | | | | | | | | | | 59 | 105 | |
| Spot | | | 272 | 136 | | | 410 | 205 | 685 | 341 | 3,086 | 1,543 | |
| Tenpounder | | | | | | | | | | | 251 | 251 | |
| Yellowtail | | | 2,176 | 544 | | | | | 2,176 | 544 | 15,218 | 3,804 | |
| Unclassified fish | | | | | | | | | | | 920 | -29 | |
| Total | 43.140 | 52,686 | 56,348 | 61,928 | 19,324 | 21,804 | 29,969 | 46,972 | 148,681 | 185,390 | 332,164 | 393,381 | |

Table 42.--Estimated sport fishery catch, Cape Canaveral Area; April 1963, in numbers of fish and weight in pounds, by section, by facility, by species

| | Southern Section | | | | | | | | | | | | |
|--------------------|------------------|---------|----------------|--------|--------|---------|----------------|--------|--------|--------|----------|---------|--|
| Species | Bridg | es and | Port Canaveral | | | | Port Canaveral | | | | | | |
| | causeways | | Ocean piers | | inside | | outside | | Boat f | ishery | Subtotal | | |
| | Number | Pounds | Number | Pounds | Number | Pound s | Number | Pounds | Number | Pounds | Number | Founds | |
| Bluefish | 5,811 | 8,716 | 455 | 682 | 795 | 1,192 | 96 | 144 | | | 7,157 | 10,734 | |
| Catfish | 754 | 754 | 1,306 | 1,306 | | | | ~ - | 3,709 | 3,709 | 5,769 | 5,769 | |
| Croaker | | | | | 598 | 299 | | | | | 598 | 299 | |
| Cutlassfish | | | | | 994 | 1,242 | | | | | 994 | 1,242 | |
| Drum, black | | | | | | | | | | | | | |
| Drum, red | | | | | | | | | 3,709 | 7,418 | 3,709 | 7,418 | |
| Flounders | | | | | 653 | 816 | | | | | 653 | 816 | |
| Groupers | | | | | | | | | | | | | |
| Jack, crevalle | | | 89 | 133 | 95 | 142 | | | | | 184 | 275 | |
| King whiting | 174 | 130 | 2,814 | 2,110 | 966 | 724 | | | 2,828 | 2,121 | 6,782 | 5,085 | |
| Pigfish | 1,324 | 331 | | | | | | | | | 1,324 | 331 | |
| Pinfish | 3,561 | 890 | | | 5,522 | 1,380 | | | | | 9,083 | 2,270 | |
| Pompano | | | | | | | | | | | | | |
| Puffers | 18,098 | 9,049 | | | | | ~ - | | 1,994 | 997 | 20,092 | 10,046 | |
| Ravs | | | | | | | | | | | | | |
| Sea bass, black | | | | | | | ~ = | | | | | | |
| Sea bass, rock | | | | | | | | | | | | | |
| Sea trout, spotted | 30,804 | 53,907 | 89 | 156 | | | | | 6,537 | 11,440 | 37,430 | 65,503 | |
| Sea trout. other | 19,170 | 19,170 | | | 330 | 330 | | | | | 19,500 | 19,500 | |
| Sheepshead | 3,487 | 4,359 | | | 519 | 649 | | | | | 4,006 | 5,008 | |
| Snapper, mangrove | ~ | | | | | | | | 278 | 139 | 278 | 139 | |
| Snapper, other | | | | | 141 | 423 | | | | | 141 | 423 | |
| Spadefish | | | 89 | 44 | | | | | | | 89 | 44 | |
| Spot | ~ = | | | | 748 | 374 | | | | | 748 | 374 | |
| Tenpounder | 281 | 281 | | | | | | | | | 281 | 281 | |
| Yellowtail | 3,957 | 989 | | | | | | | ~ = | | 3,957 | 989 | |
| Unclassified fish | 16,660 | 4,165 | | | 607 | 152 | | | 13,955 | 3,489 | 31,222 | 7,806 | |
| Total | 104,081 | 102,741 | 4,842 | 4,431 | 11,968 | 7,723 | 96 | 144 | 33,010 | 29,313 | 153,997 | 144,352 | |

| | Northern Section | | | | | | | | | | | |
|--------------------|------------------|-------------|---------|--------|------------|--------|--------------|--------|----------|------------------|----------------|---------|
| Species | Bank fishery | | Bridges | | Surf areas | | Boat fishery | | Subtotal | | Combined total | |
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| Bluefisb | 90 | 1 44 | 2,496 | 3,744 | 1,028 | 1,542 | 383 | 574 | 3,997 | 6,004 | 11,154 | 16,738 |
| Catfish | 1,221 | 1,221 | | | 568 | 450 | | | 1,789 | 1,671 | 7,558 | 7,440 |
| Croaker | | | 624 | 312 | | | | | 624 | 312 | 1,222 | 611 |
| Cutlassf ish | | | | | | | | | | | 994 | 1,242 |
| Drum, black | 1,311 | 1,974 | | | 4,508 | 6,762 | 851 | 1,276 | 6,670 | 10,012 | 6,670 | 10,012 |
| Drum, red | | | 624 | 1,248 | 96 | 192 | 255 | 510 | 975 | 1,950 | 4,684 | 9,368 |
| Flounders | | | | | | | 128 | 160 | 128 | 160 | 781 | 976 |
| Groupers | | | 624 | 312 | | | | | 624 | 312 | 624 | 312 |
| Jack, crevalle | | | 624 | 936 | 96 | 144 | | | 720 | 1,080 | 904 | 1,355 |
| King whiting | 612 | 459 | 624 | 464 | 2,624 | 1,968 | 978 | 734 | 4,838 | 3,625 | 11,620 | 8,710 |
| Pigfish | | | 1,248 | 312 | | | | | 1,248 | 312 | 2,572 | 643 |
| Pinfish | 2,016 | 498 | 16,216 | 4,056 | 374 | 94 | 510 | 128 | 19,116 | 4,776 | 28,199 | 7,046 |
| Pompano | | | | | 96 | 48 | | | 96 | 48 | 96 | 48 |
| Puffers | 23,940 | 11,970 | | | 96 | 48 | | | 24,036 | 12,018 | 44,128 | 22,064 |
| Ravs | | | | | 96 | 96 | | | 96 | 96 | 96 | 96 |
| Sea bass, black | | | 1,248 | 1,248 | | | | | 1,248 | 1,248 | 1,248 | 1,248 |
| Sea bass, rock | | | 4,376 | 1,096 | | | | | 4,376 | 1,096 | 4,376 | 1,096 |
| Sea trout. spotted | 11.688 | 20,454 | | | | | 30,747 | 53,807 | 42,435 | 74,261 | 79,865 | 139,764 |
| Sea trout, other | | | | | | ~ - | | | | | 19,500 | 19,500 |
| Sheepshead | 90 | 108 | 3,120 | 3,904 | 96 | 120 | 4,423 | 5,529 | 7,729 | 9,661 | 11,735 | 14,669 |
| Snapper, mangrove | | | | | | | | | | | 278 | 139 |
| Snapper, other | | | | | | | | | | | 141 | 423 |
| Spadefish | | | 3,752 | 1,872 | | ~ - | | | 3,752 | 1,872 | 3,841 | 1,916 |
| Spot | 864 | 432 | | | | | | | 864 | 432 | 1,612 | 806 |
| Tenpounder | | | | | | | | | | | 281 | 281 |
| Yellowtail | 3,402 | 846 | | | 96 | 24 | | | 3,498 | 870 | 7,455 | 1,859 |
| Unclassified fish | 90 | 18 | | | | | | | 90 | 18 | 31,312 | 7,824 |
| Total | 45,324 | 38,124 | 35,576 | 19,504 | 9,774 | 11,488 | 38,275 | 62,718 | 128,949 | 13 1 ,834 | 282,946 | 276,186 |

Table 43.--Estimated sport fishery catch, Cape Canaveral Area; May 1963, in numbers of fish and weight in SEDAR25-RD34, by facility, by species

| | Southern Section | | | | | | | | | | | | |
|--------------------|------------------|---------|---------------|--------|---------|---------|----------------|------------|---------------|--------|--------------|---------|--|
| Species | Bridges and | | <u> </u> | | Port Ca | naveral | Fort Canaveral | | | | 0.00000 | | |
| | Number Dourde | | Number Pourd- | | Murchan | Dounda | Number Bounda | | Number Pounda | | Number Pound | | |
| | Number | Pounds | number | Pounds | Number | Founds | NUMBEL | rounds | Number | rounds | number | rounds | |
| Amberiack | | | | | | | 184 | 2,760 | | | 184 | 2,760 | |
| Black margate | | | 593 | 593 | | | | | | | 593 | 593 | |
| Bluefish | | | | | 58 | 87 | 26 | 39 | 278 | 417 | 362 | 543 | |
| Catfish | 7,862 | 7,722 | 105 | 106 | 116 | 116 | | | 2,470 | 2,470 | 10,554 | 10,414 | |
| Croaker | 278 | 139 | ~ | | 2,775 | 1,387 | 82 | 41 | 800 | 400 | 3,935 | 1,967 | |
| Cutlassfish | | | | | 575 | 719 | | | | | 575 | 719 | |
| Dolphin | | | | | | | 26 | 208 | | | 26 | 208 | |
| Drum, black | 1.140 | 15,675 | 35 | 481 | 58 | 797 | | | | | 1,233 | 16,953 | |
| Eels | | | | | 25 | 50 | | | | | 25 | 50 | |
| Flounders | | | | | 1,581 | 1,976 | | | | | 1,581 | 1,976 | |
| Groupers | | | | | 84 | 840 | 261 | 2,610 | | | 345 | 3,450 | |
| Grunts | | | | | | | | | | | | | |
| Jack, crevalle | 278 | 417 | | | 461 | 691 | 15 | 22 | | | 754 | 1,130 | |
| King mackerel | | | | | 51 | 408 | 610 | 4,880 | | | 661 | 5,288 | |
| King whiting | 2,131 | 1.598 | 560 | 420 | 182 | 136 | 53 | 40 | | | 2,926 | 2,194 | |
| Mullet | 131 | 131 | | | 182 | 182 | | ~ - | | | 313 | 313 | |
| Pigfish | 7.563 | 1.891 | | | | | 15 | <u>1</u> 4 | | | 7,578 | 1,895 | |
| Pinfish | 8,285 | 2,071 | 106 | 26 | 4.785 | 1,196 | | | | | 13,176 | 3,293 | |
| Pompano | 1,159 | 579 | | | | | | | | | 1,159 | 579 | |
| Puffers | 35,564 | 17.782 | | | | | | | | | 35,564 | 17,782 | |
| Revs | 104 | 104 | | | | | | | | | 104 | 104 | |
| Sea bass, black | | | | | 25 | 25 | 1.717 | 1,717 | | | 1,742 | 1,742 | |
| Sea bass, rock | | | | | | | | | | | | | |
| Sea rohin | | | | | 58 | 14 | | | | | 58 | 14 | |
| Sea trout, spotted | 32.838 | 57.466 | | | 116 | 203 | 53 | 93 | 9.359 | 16.378 | 42.366 | 74,140 | |
| Sea trout, other | 10,961 | 10,961 | | | | | | | | | 10,961 | 10,961 | |
| Sharks | | | | | 58 | 203 | 41 | 143 | | | 1 99 | 346 | |
| Sheensheed | 1.466 | 1.832 | | | 83 | 104 | | | | | 1.549 | 1,936 | |
| Snapper, red | | | | | | | 955 | 7.640 | | | 955 | 7,640 | |
| Snapper, mangrove | 655 | 327 | | | 84 | 42 | | | | | 739 | 369 | |
| Snanner, other | | | | | | | 369 | 1,107 | | | 369 | 1,107 | |
| Spadefich | 187 | 93 | | | | | | | | | 187 | 93 | |
| Spanish mackerel | TO 1 | | | | | | | | | | | | |
| Shot | 187 | 93 | 177 | 88 | 893 | 446 | | | | | 1,257 | 627 | |
| Tennounder | 589 | 589 | | | | | | | | | 589 | 589 | |
| Priggerfish | ,0, | | | | | | 54 | 135 | | | 54 | 135 | |
| Vellouteil | 3.627 | 907 | | | | | | | | | 3.627 | 907 | |
| Uncloseified fish | 1 506 | 1.149 | | | 1.09 | 27 | | | | | 4,705 | 1,176 | |
| VIGINDOTITOL TIDU | +,) > 0 | -97 | | | | | | | | | ,, | -/- 1- | |
| Total | 119,601 | 121,526 | 1,577 | 1,714 | 12,359 | 9,649 | 4,461 | 21,439 | 12,907 | 19,665 | 150,905 | 173,993 | |

| | Northern Section | | | | | | | | | | | |
|--------------------|------------------|---------|---------|----------------|--------|---------|--------|---------|----------|--------|----------------|---------|
| Species | Bank fisherv | | Bridges | | Sur | f areas | Boat | fisherv | Subtotal | | Combined total | |
| | Number | Pound s | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| Amberjack | | | | | | | | | | | 184 | 2,760 |
| Black margate | | | | | | | | | | | 593 | 593 |
| Bluefish | | | | | | | | | | | 362 | 543 |
| Catfish | 1,728 | 1,485 | 792 | 752 | 3,418 | 3,418 | 4,222 | 4,170 | 10,160 | 9,825 | 20,714 | 20,239 |
| Croaker | 234 | 108 | 160 | 80 | | | | | 394 | 188 | 4,329 | 2,155 |
| Cutlassfish | | | | | | | | | | | 575 | 719 |
| Dolphin | | | | | | | | | | | 26 | 208 |
| Drum, hlack | 186 | 279 | | ~ - | 84 | 126 | 412 | 618 | 682 | 1,023 | 1,915 | 17,976 |
| Eels | | | | | | | | | | | 25 | 50 |
| Flounders | | | | | | | | | | | 1,581 | 1,976 |
| Groupers | | | | | | | | | | | 345 | 3,450 |
| Grunts | | | 400 | 200 | | | | | 400 | 200 | 400 | 200 |
| Jack, crevalle | 186 | 279 | 160 | 240 | | | 309 | 464 | 655 | 983 | 1,409 | 2,113 |
| King mackerel | | | | | | | | | | | 661 | 5,288 |
| King whiting | 1,356 | 1,017 | 1,248 | 936 | 4,168 | 3,126 | 790 | 592 | 7,562 | 5,671 | 10,488 | 7,865 |
| Mullet | | | | | | | | | | | 313 | 313 |
| Pigfish | | | 1,720 | 432 | | | 790 | 198 | 2,510 | 630 | 10,088 | 2,525 |
| Pinfish | | | 4,392 | 1,096 | 750 | 188 | 3,021 | 755 | 8,163 | 2,039 | 21,339 | 5,332 |
| Pompano | | | 312 | 160 | 84 | 42 | | | . 396 | 202 | 1,555 | 781 |
| Puffers | 13,860 | 6,930 | 160 | 80 | | | | | 14,020 | 7,010 | 49,584 | 24,792 |
| Rays | 186 | 186 | 72 | 72 | ~ ~ | | 206 | 205 | 464 | 464 | 568 | 568 |
| Sea bass, black | | | 472 | 472 | | | | | 472 | 472 | 2,214 | 2,214 |
| Sea bass, rock | * | | 72 | 16 | | | | | 72 | 16 | 72 | 16 |
| Sea robin | | | 72 | 16 | | | | | 72 | 16 | 130 | 30 |
| Sea trout, spotted | 4,812 | 8,421 | 232 | 408 | | | 26,674 | 46,680 | 31,718 | 55,509 | 74,084 | 129,649 |
| Sea trout, other | | | | | | | | | | | 10,961 | 10,961 |
| Sharks | | | | 256 | | | | | 72 | 256 | _ 171 | 602 |
| Sheepshead | 234 | 288 | 3,448 | 4, <u>31</u> 2 | 84 | 104 | 2,403 | 3,004 | 6,169 | 7,708 | 7,718 | 9,644 |
| Snapper, red | | | | | | | | | | | 955 | 7,640 |
| Snapper, mangrove | | | | | | | | | | | 739 | 369 |
| Snapper, other | | | | | | | | | | | 369 | 1,107 |
| Spadefish | | | 312 | 160 | | -10 | | | 312 | 160 | 499 | 253 |
| Spanish mackerel | | | | | 84 | 148 | = | | 84 | 148 | 84 | 148 |
| Spot | | | 632 | 320 | 166 | 84 | | | 798 | 404 | 2,055 | 1,031 |
| Tenpounder | 186 | 186 | | | | | 893 | 893 | 1,019 | 1,079 | L,668 | 1,668 |
| Triggerfish | | | | | | | | | | | 54 | 135 |
| Yellowtail | | | | | | | | | (| | 3,627 | 907 |
| Unclassified fish | 720 | 180 | J,128 | 784 | 166 | 42 | 1,202 | 300 | 5,216 | £,306 | 9,921 | 2,482 |
| Total | 23,688 | 19,359 | 17,856 | 10,792 | 9,004 | 7,278 | 40,922 | 57,880 | 91,470 | 95,309 | 242,375 | 269,302 |

Table 44.--Estimated sport fishery catch, Cape Canaveral Area; June 1963, in numbers of fisb and weight SEDAR25-RD36tion, by facility, by species

| | | Southern Section | | | | | | | | | | | |
|--------------------|-------------|------------------|---------|---------|----------------|--------|----------------|----------------|---------|---------|---------|-------------|--|
| Species | Bridges and | | | | Port Canaveral | | Port Canaveral | | | | | | |
| | cause | wayş | Ocear | ı piers | inst | lde | outsi | ide | Boat f: | isbery | Sub | total | |
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pound s | Number | Pounds | |
| Amberjack | | | | | | | 82 | 1,230 | | | 82 | 1,230 | |
| Black margate | | | 1,167 | 1,167 | | | | | | | 1,167 | 1,167 | |
| Cabio | | | | | | | 54 | 486 | | | 54 | 486 | |
| Catfish | 1,653 | 1,653 | 62 | 62 | 37 | .37 | | | 13,345 | 13,345 | 15,097 | 15,097 | |
| Croaker | 71 | 35 | 3,388 | 1,694 | 1,343 | 671 | 133 | 66 | | | 4,935 | 2,466 | |
| Cutlassfisb | | | | ~ - | 97 | 121 | | | | | 97 | 121 | |
| Dolphin | | | | | | | 20 | 1 60 | | | 20 | 160 | |
| Drum, black | 165 | 2,269 | 62 | 852 | 272 | 3,740 | | | | | 499 | 6,861 | |
| Drum, red | 464 | 928 | | | | | | | | | 464 | 928 | |
| Flounders | | | | | 210 | 262 | 14 | 17 | | | 224 | 279 | |
| Groupers | | | | | | | 48 | 480 | | | 48 | 480 | |
| Grunts | 390 | 195 | | | 97 | 48 | | | | | 487 | 243 | |
| Jack, crevalle | | | | | | | | | | | | | |
| King mackerel | | | | | | | 468 | 3,744 | | | 468 | 3,744 | |
| King whiting | 7,043 | 5,282 | 2,007 | 1,505 | 181 | 136 | | | 262 | 196 | 9,493 | 7,119 | |
| Pigfish | 263 | 66 | | | | | | | 112 | 28 | 375 | 94 | |
| Pinfisb | 8,037 | 2,009 | 84 | 21 | 2,283 | 571 | 366 | 91 | | | 10,770 | 2,692 | |
| Puffers | 9,836 | 4,918 | are 110 | | | | | | 10,121 | 5,060 | 19,957 | 9,978 | |
| Rays | 143 | 143 | | | | | | | | | 143 | 1 43 | |
| Sea bass, black | | | | | 97 | 97 | 20 | 20 | | | 117 | 117 | |
| Sea bass, rock | | | | | <u>1</u> 44 | 36 | 61 | 15 | | | 205 | 51 | |
| Sea robin | | | 62 | 15 | | | | | | | 62 | 15 | |
| Sea trout, spotted | 4,670 | 8,172 | 84 | 147 | ww sh | | | | 15,594 | 27,289 | 20,348 | 35,608 | |
| Sea trout, other | 9,680 | 9,680 | | | | | | | | | 9,680 | 9,680 | |
| Sharks | 71 | 248 | 84 | 294 | | | 34 | 119 | | | 189 | 661 | |
| Sheepshead | 3,824 | 4,780 | 259 | 324 | | | | | 13,495 | 16,869 | 17,578 | 21,973 | |
| Snapper, red | | | | | | | 870 | 6,960 | | | 870 | 6,960 | |
| Snapper, mangrove | 645 | 322 | | | | | | | | | 645 | 322 | |
| Snapper, other | | | | | | | 340 | 1,020 | ~ - | | 340 | 1,020 | |
| Spadefish | 544 | 272 | 192 | 96 | 193 | 96 | 14 | 7 | | | 943 | 471 | |
| Spanish mackerel | | | | | | | 68 | 119 | | | 68 | 119 | |
| Spot | 2,388 | 1,194 | 947 | 473 | 1,715 | 857 | | | | | 5,050 | 2,524 | |
| Tenpounder | | | | | | | | | 262 | 262 | 262 | 262 | |
| Yellowtail | 6,977 | 1,744 | | | | | | ~ - | 262 | 66 | 7,239 | 1,810 | |
| Unclassified fish | 3,696 | 924 | 306 | 76 | 503 | 126 | | | | | 4,505 | 1,126 | |
| Total | 60,560 | 44,834 | 8,704 | 6,726 | 7,172 | 6,798 | 2,592 | 1 4,534 | 53,453 | 63,115 | 132,481 | 136,007 | |

| Species | Northern Section | | | | | | | | | | | | |
|--------------------|------------------|---------|---------|---------------------|-------------|--------|--------|--------------|----------------|----------|---------|----------------|--|
| | Bank : | fishery | Bridges | | Surf s | areas | Boat : | Boat fishery | | Subtotal | | Combined total | |
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | |
| Amberjack | | | | | | | | | | | 82 | 1,230 | |
| Black margate | | | | | | | | | | | 1,167 | 1,167 | |
| Cabio | | | | | | | | | | | _54 | 486 | |
| Catfish | 1,527 | 1,527 | 2,088 | 2,088 | 846 | 846 | 54 | 54 | 4 , 515 | 4,515 | 19,612 | 19,612 | |
| Croaker | | | 336 | 168 | 1 64 | 82 | | | 500 | 250 | 5,435 | 2,716 | |
| Cutlassfish | | | | | | | | | | | 97 | 121 | |
| Dolphin | | | | ~ = | | | | | | | 20 | 160 | |
| Drum, black | 141 | 210 | | | | | 54 | 81 | 195 | 291 | 694 | 7,152 | |
| Drum, red | | | | | | | 461 | 922 | 461 | 922 | 925 | 1,850 | |
| Flounders | | | | | 32 | 40 | | | 32 | 40 | 256 | 319 | |
| Groupers | 54 | 27 | | | | | | | 54 | 27 | 102 | 507 | |
| Grunts | | | | | | | | | | | 487 | 243 | |
| Jack, crevalle | | | 112 | 168 | | | | | 112 | 168 | 112 | 168 | |
| King mackerel | | | | | | | | | | | 468 | 3,744 | |
| King whiting | 285 | 204 | 1,232 | 928 | 228 | 172 | 54 | 40 | 1,799 | 1,344 | 11,292 | 8,463 | |
| Pigfisb | | | 232 | 56 | | | | | 232 | 56 | 607 | 150 | |
| Pinfisb | 4,071 | 1,023 | 6,808 | 1,704 | 164 | 40 | 271 | 68 | 11,314 | 2,835 | 22,084 | 5,527 | |
| Puffers | 11,892 | 5,946 | | | | | | | 11,892 | 5,946 | 31,849 | 15,924 | |
| Ravs | | | 56 | 56 | | | | | 56 | 56 | 199 | 199 | |
| Sea hass, black | | | 56 | 56 | | | | | 56 | 56 | 173 | 173 | |
| Sea hass. rock | | | 232 | 56 | _ = | | | | 232 | 56 | 437 | 107 | |
| Sea robin | | ÷- =- | 56 | 16 | | | | | 56 | 16 | 118 | 31 | |
| Sea trout. spotted | 2.136 | 3,741 | - | | | | 16,037 | 28,065 | 18,173 | 31,806 | 38,521 | 67,414 | |
| Sea trout, other | 141 | 141 | | | | | | | 141 | 141 | 9,821 | 9,821 | |
| Sharks | | | | | 32 | 112 | | | 32 | 112 | 221 | 773 | |
| Sheenshead | 1.089 | 1.362 | 448 | 560 | 98 | 122 | 461 | 576 | 2,096 | 2,620 | 19,674 | 24,593 | |
| Snapper, red | -,, | | | | | | | | | | 870 | 6,960 | |
| Suspper mangrove | | | 56 | 32 | | | | | 56 | 32 | 701 | 354 | |
| Sumper other | ~- | | | | | | | | | | 340 | 1.020 | |
| Spadeflah | | | 232 | 112 | | | | | 232 | 112 | 1.175 | 583 | |
| Spanish mackerel | | | | مراسلیونلی سر قب | | | | | | | 68 | <u>119</u> | |
| Spot. | 87 | 42 | | | 98 | 48 | | | 185 | 90 | 5,235 | 2.614 | |
| Tennounder | 87 | 87 | | | | | | | 87 | 87 | 349 | 349 | |
| Yellowtail | 513 | 138 | | | | | | | 513 | 138 | 7.752 | 1.948 | |
| Unclassified fich | 51 | 12 | 960 | 240 | | | | | 1.014 | 252 | 5,519 | 1.378 | |
| ANATOR TICK TICK | 74 | 14 | 900 | 240 | | | | | -, | - /4 | | | |
| Total | 22,077 | 14,460 | 12,904 | 6,240 | 1,662 | 1,462 | 17,392 | 29,806 | 54,035 | 51,968 | 186,516 | 187,975 | |
| Table | 45Estimated | sport | fisbery | catch, | Cape | Canaveral | Are | ea; Jul; | 7 196 | 3, i | in numbers | of | fish | and | weight | in | PouSEDAR25-RD31 |
|-------|-------------|-------|---------|--------|------|-----------|------|----------|-------|------|------------|----|------|-----|--------|----|-----------------|
| | | | | | ЪУ | section, | by 1 | facilit | /, by | spe | ecies | | | | | | |

| | | | | Souther | n Section | | | | | |
|--------------------|--------|---------|--------|---------|-----------|---------|---------|---------|---------|---------|
| Species | Bridg | es and | | | Port Ca | naveral | Port Ca | naveral | | |
| | caus | eways | Ocean | piers | ins | ide | out | side | Subt | otal |
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| Amberjack | | | | | | | 505 | 7,575 | 505 | 7,575 |
| Barracuda | | | | | 573 | 4,584 | 15 | 120 | 588 | 4,704 |
| Black margate | | | 79 | 79 | | | | | 79 | 79 |
| Bluefisb | | | 40 | 60 | | | 15 | 22 | 55 | 82 |
| Cabio | | | | | | | 62 | 558 | 62 | 558 |
| Catfisb | 10,924 | 10,738 | 1,790 | 1,754 | 192 | 192 | | | 12,905 | 12,684 |
| Croaker | 1,147 | 573 | 1,709 | 854 | 11,491 | 5.745 | | | 14.347 | 7,172 |
| Cutlassfisb | | | | | 662 | 327 | | | 662 | 827 |
| Dolphin | | | | | | | 35 | 280 | 35 | 280 |
| Drum, black | 116 | 1,595 | 53 | 729 | 1.520 | 20,900 | | | 1.689 | 23.224 |
| Drum, red | 113 | 226 | | | 58 | 116 | | | 171 | 342 |
| Eels | | | | | | | | | | |
| Flounders | | | 16 | 20 | 729 | 911 | 5 | 6 | 750 | 937 |
| Groupers | | | | | | | 63 | 630 | 63 | 630 |
| Grunts | 331 | 165 | 231 | 115 | 2,673 | 1,336 | | | 3,235 | 1,616 |
| Jack, crevalle | 86 | 129 | 16 | 24 | 218 | 327 | 22 | 33 | 342 | 513 |
| Jack, other | | ** ** | | | 26 | 26 | | | 26 | 26 |
| King mackerel | | | | | | | 197 | 1,576 | 197 | 1,576 |
| King whiting | 5,655 | 4,241 | 5,652 | 4,239 | 2,104 | 1,578 | | | 13,421 | 10,058 |
| Little tuna | | | 16 | 104 | | | 324 | 2,171 | 350 | 2,275 |
| Mojarra | | | | | 301 | 150 | | | 301 | 150 |
| Mullet | 584 | 584 | | | 51 | 51 | | | 635 | 635 |
| Pigfish | 119 | 30 | | | 809 | 202 | | | 928 | 232 |
| Pinfisb | 13,711 | 3,428 | 970 | 242 | 14,140 | 3,535 | | | 28,821 | 7,205 |
| Pozpano | 327 | 163 | | | | | | | 327 | 163 |
| Puffers | 12,243 | 6,121 | 42 | 21 | | | | | 12,285 | 6,142 |
| Rays | 227 | 227 | 16 | 16 | | | | | 243 | 243 |
| Sea bass, black | | 400 Bar | 26 | 26 | | | 3,582 | 3,582 | 3,608 | 3,608 |
| Sea bass, rock | | | 152 | 38 | | | | ~ - | 152 | - 38 |
| Sea robin | | | 53 | 13 | | | | | 53 | 13 |
| Sea trout, spotted | 10,191 | 17,934 | 119 | 208 | 86 | 150 | | | 10,396 | 18,192 |
| Sea trout, other | 18,272 | 18,272 | 32 | 32 | 26 | 26 | | | 18,330 | 18,330 |
| Sharks | 29 | 101 | 283 | 990 | 51 | 178 | | | 363 | 1,269 |
| Sheepshead | 3,414 | 4,267 | | | 3,081 | 3,851 | | | 6,495 | 8,118 |
| Snapper, red | | | | | | | 1,598 | 12,784 | 1,598 | 12,784 |
| Snapper, mangrove | 304 | 152 | | | 436 | 218 | | | 740 | 370 |
| Snapper, other | | | | | | | 29 | 87 | 29 | 87 |
| Spadefish | 875 | 437 | 545 | 272 | 340 | 170 | | | 1,760 | 879 |
| Spot | 86 | 43 | :,217 | 1,608 | 4,345 | 2,172 | | ~ | 7,648 | 3,823 |
| Tenpounder | 213 | 213 | | | | | | | 213 | 213 |
| Yellowtail | 6,893 | 1,723 | 275 | 69 | 51 | 13 | | | 7,219 | 1,805 |
| Unclassified fish | 2,785 | 696 | 3,302 | 825 | 1,408 | 352 | | | 7,495 | 1,873 |
| Total | 88,645 | 71,958 | 18,634 | 12,338 | 45,371 | 47,610 | 6,462 | 29,424 | 159,112 | 161,330 |

| Species | | | | Nortber | n Section | | | | | | | |
|---------------------------------------|--------|--------|--------|---------|-----------|--------|--------|--------|--------|--------|---------------|------------------|
| Dheeres | Renk f | icherr | Bri | daes | Surf | areas | Bost f | isherv | Subt | otal | Combine | d total |
| · · · · · · · · · · · · · · · · · · · | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| Amberjack | | | | | | | | | | | 505 | 7,575 |
| Barracuda | | | | | | | | | | | 588 | 4,704 |
| Black margate | | | | | | | | | | | 79 | 79 |
| Bluefisb | 18 | 27 | 24 | | 180 | 270 | 58 | 27 | 280 | 416 | 335 | 498 |
| Cabio | | | | | | ~ - | | | | | 62 | 558 |
| Catfish | 2,154 | 2,136 | 2,448 | 2,432 | 3,668 | 3,662 | 1,670 | 1,670 | 9,940 | 9,900 | 22,846 | 22,584 |
| Croaker | 1,899 | 948 | | | 266 | 132 | 518 | 259 | 2,683 | 1,339 | 17,030 | 8,511 |
| Cutlassfisb | | | | | | | | | | | 662 | 827 |
| Dolphin | | | | | | | | | | | 35 | 280 |
| Drum, black | 186 | 279 | 176 | 264 | 158 | 236 | 518 | 777 | 1,038 | 1,556 | 2,727 | 24,780 |
| Drum, red | 90 | 180 | 112 | 224 | | | 288 | 576 | 490 | 980 | 661 | 1,322 |
| Eels | | | 64 | 128 | | | | | 64 | 128 | 64 | 128 |
| Flounders | | - | 64 | 80 | | | 173 | 216 | 237 | 296 | 987 | 1,233 |
| Groupers | 36 | 18 | 88 | 48 | | ~ ~ | 115 | 58 | 239 | 124 | 302 | 754 |
| Grunts | 69 | 33 | 136 | 64 | 46 | 24 | | | 251 | 121 | 3,486 | 1,737 |
| Jack, crevalle | 198 | 297 | 152 | 224 | | | 633 | 95 C | 983 | 1,471 | 1,325 | 1,984 |
| Jack, other | | | | | | | | | | | 26 | 26 |
| King mackerel | | | | | | | | | | | 197 | 1,576 |
| King whiting | 1,344 | 1,002 | 1,752 | 1,312 | 1,944 | 1,458 | 1,094 | 820 | 6,134 | 4,592 | 19,545 | 14,650 |
| Little tuna | | | | | | | | | | | 350 | 2,275 |
| Mojarra | | | | | | | | | | | 301 | 150 |
| Millet | | | 48 | 48 | | | | | 48 | 48 | 683 | 683 |
| Pigfish | 1,326 | 336 | 1,352 | 336 | | | 403 | 101 | 3,081 | 773 | 4,009 | 1,005 |
| Pinfish | 3,507 | 885 | 5,160 | 1,288 | 68 | 16 | 2,764 | 691 | 11,499 | 2,880 | 40,320 | 10,085 |
| Pompano | | | | | | | | | | | 327 | 163 |
| Puffers | 3,960 | 1,980 | 112 | 56 | | | 115 | 58 | 4,187 | 2,094 | 16,472 | 8,236 |
| Rays | 69 | 69 | 88 | 88 | 22 | 22 | | | 179 | 179 | 422 | 422 |
| Sea bass, black | 198 | 198 | 352 | 352 | | | 58 | 58 | 608 | 608 | 4,216 | 4,216 |
| Sea bass, rock | | | 64 | 16 | | | | ~ - | 64 | 16 | 216 | 54 |
| Sea robin | | | 64 | 16 | | | | | 64 | 16 | 117 | 29 |
| Sea trout, spotted | 1,326 | 2,319 | 624 | 1,088 | | | 32,357 | 56,625 | 34,307 | 60,032 | 44,703 | 78,224 |
| Sea trout, other | 36 | 36 | | | | | | | 36 | 36 | 18,366 | 18,366 |
| Sharks | 33 | 114 | 48 | 168 | 23 | 76 | 173 | 696 | 276 | 964 | 639 | 2,233 |
| Sheepshead | 768 | 960 | 936 | 1,168 | 248 | 310 | 2,188 | 2,735 | 4,140 | 5,173 | 10,635 | 13,291 |
| Snapper, red | | | | | | | | | | | 1,598 | 12,784 |
| Snapper, mangrove | 177 | 87 | 176 | 88 | 22 | 12 | 58 | 29 | 433 | 216 | 1,173 | 586 |
| Snapper, other | 36 | 108 | | | | | | | 36 | 108 | 65 | 195 |
| Spadefish | 264 | 132 | 376 | 192 | | | | | 640 | 324 | <i>=</i> ,400 | 1,203 |
| Spot | 429 | 21.3 | 2,152 | 1,072 | | | | | 2,581 | 1,285 | 10,229 | 5,108 |
| Tenpounder | 33 | 33 | 48 | 48 | | | 230 | 230 | 311 | 311 | 524 | 524 |
| Yellowtail | 1,020 | 255 | 352 | 88 | 46 | 12 | 173 | 43 | 1,591 | 398 | 8,810 | 2,203 |
| Unclassified fish | 990 | 243 | 1,400 | 352 | | | 1,036 | 259 | 3,426 | 854 | 10,921 | 2,727 |
| Total | 20,166 | 12,888 | 18,368 | 11,272 | 6,690 | 6,230 | 44,622 | 66,848 | 89,846 | 97,238 | 248,958 | 258 ,5 68 |

Table 46.--Estimated sport fishery catch, Cape Canaveral Area; August 1963, in numbers of fish and weight in pounds, SEDAR25-RD31 by section, by facility, by species

| | | | | | Southers | Section | | | | |
|--------------------|--------|-----------------|--------|--------|------------------|----------|------------------|---------|---------|---------|
| Species | Bridg | es and eways | Ocean | piers | Port Car insi | iaveral. | Port Car outs | naveral | Subt | otal |
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| Ambor is ok | | | | | | | 74 | 210 | ٦4 | 210 |
| Power and a | | | | | | | 54 | 430 | 54 | 130 |
| Pleak mangato | | | 1 017 | 1 017 | 520 | 530 | 102 | 102 | 1 640 | 1 649 |
| Bluefich | 61 | 00 | 34 | 51 | 56 | 84 | 24 | 36 | 175 | 263 |
| Cobio | 01 | 22 | _÷_ | | | | 20 | 261 | 20 | 261 |
| Cattich | 11 611 | 11 466 | 2 272 | 3 703 | 255 | 237 | 10 | 10 | 15.248 | 15.416 |
| Crocker | 1,031 | 515 | 269 | 134 | 706 | 353 | 252 | 126 | 2,258 | 1,128 |
| Cutlacefich | | | | | 288 | 360 | - /- | | 288 | 360 |
| Dolphin | | | | | | | 378 | 3.024 | 378 | 3.024 |
| Dram black | 647 | 8 896 | 102 | 2.640 | 104 | 1.430 | 15 | 206 | 958 | 13,172 |
| Drum, red | 28 | 56 | | | 16 | 32 | | | 44 | 88 |
| Eels | | | | | - 8 | 16 | | | 8 | 16 |
| Flounders | 69 | 86 | 253 | 360 | 255 | 319 | 10 | 12 | 587 | 777 |
| Groupers | | | | | | | 115 | 1.150 | 115 | 1.150 |
| Grunts | 629 | 314 | | | 70 | 35 | | | 699 | 349 |
| Jack, crevalle | 826 | 1.239 | 152 | 228 | 171 | 256 | 15 | 22 | 1.164 | 1.745 |
| Jack, other | | | | | 71 | 71 | | | 171 | 71 |
| King mackerel | | | | | | | 1.036 | 8,288 | 1.036 | 8,288 |
| King whiting | 11.830 | 8.872 | 1.767 | 1,325 | 186 | 139 | 10 | 7 | 13,793 | 10,343 |
| Little tuna | | | | | 342 | 2,223 | 355 | 2,307 | 697 | 4,530 |
| Mojarra | | | | | 170 | 85 | | | 170 | 85 |
| Mullet | 4,236 | 4,236 | | | 161 | 161 | | | 4,397 | 4,397 |
| Pigfish | 1,379 | 345 | 50 | 12 | 42 | 10 | | | 1,471 | 367 |
| Pinfish | 14,001 | 3,500 | | | 2,153 | 538 | 10 | 2 | 16,164 | 4,040 |
| Pompano | 97 | 48 | 51 | 25 | 40 | 20 | | ~ - | 188 | 93 |
| Puffers | 7,406 | 3,703 | 25 | 12 | 20 | 10 | | | 7,451 | 3,725 |
| Rays | 181 | 181 | | | 36 | 36 | | | 217 | 217 |
| Sea bass, black | | | | | 20 | 20 | 2,417 | 2,417 | 2,437 | 2,437 |
| Sea bass, rock | | | 25 | 6 | | | | | 25 | 6 |
| Sea robin | | | 175 | 44 | | | | | 175 | հե |
| Sea trout, spotted | 5,428 | 9,499 | 25 | 44 | 78 | 136 | 10 | 17 | 5,541 | 9,696 |
| Sea trout, other | 19,077 | 19,077 | | ~ = | 38 | 38 | 49 | 49 | 19,164 | 19,164 |
| Sharks | | | | | | | 24 | 84 | 24 | 84 |
| Sheepshead | 3,436 | 4,295 | 185 | 231 | 472 | 590 | 126 | 157 | 4,219 | 5,273 |
| Snapper, red | | | | | 38 | 304 | 830 | 6,640 | 868 | 6,944 |
| Snapper, mangrove | 367 | 183 | | | 162 | 81 | | | 529 | 264 |
| Snapper, other | | | 25 | 75 | | | 105 | 315 | 130 | 390 |
| Spadefish | 1,441 | 720 | 218 | 109 | 184 | 92 | 10 | 5 | 1,853 | 926 |
| Spanish mackerel | | | | | | | 15 | 26 | , 15 | 26 |
| Spot | 158 | 79 | 354 | 177 | 3,913 | 1,956 | 10 | . 5 | 4,435 | 2,217 |
| Tenpounder | 689 | 689 | | | | | 43 | 43 | 732 | 732 |
| Yellowtail | 9,714 | 2,428 | 51 | 13 | | | | | 9,765 | 2,441 |
| Unclassified fish | 2,628 | 657 | 252 | 63 | 541 | 135 | | | 3,421 | 855 |
| Total | 96,970 | 81,176 | 8,492 | 10,269 | 11,126 | 10,297 | 6,068 | 25,953 | 122,656 | 127,695 |
| | | | | | | | | | | |

| | | | | | Norther | n Section | | | | | | |
|--------------------|--------|---------|--------|------------|---------|-----------|--------|---------|--------|--------|---------|-----------|
| Species | Bank f | isherv | Bri | lges | Surf | areas | Boat | fisherv | Subt | otal | Combir | ned total |
| | Number | Pound s | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| Amber is ck | | | | | | ~ = | | | | | 14 | 210 |
| Remercude | | | | | | | | | | | 54 | 432 |
| Black margate | | | | | | | ~ = | | | | 1.649 | 1.649 |
| Bluefish | | | 320 | 480 | 86 | 128 | | | 405 | 608 | 581 | 871 |
| Cabio | | | | | | | | | | | 29 | 261 |
| Catfish | 2,802 | 2,739 | 1.480 | 1.472 | 594 | 594 | 659 | 650 | 5,535 | 5.455 | 20.783 | 20.871 |
| Crosker | 174 | 78 | 576 | 288 | 260 | 130 | 146 | 73 | 1.156 | 569 | 3.414 | 1.697 |
| Cutlassfish | | | 88 | 112 | | | | | 88 | 112 | 376 | 472 |
| Dolphin | | | | | | | | | | | 378 | 3.024 |
| Drum, black | 63 | 93 | 88 | 1.28 | 260 | 390 | 403 | 604 | 814 | 1,215 | 1,772 | 14,387 |
| Drum, red | | | 200 | 400 | 172 | 344 | 329 | 658 | 701 | 1,402 | 745 | 1,490 |
| Eels | | | 32 | 64 | | | | | 32 | 64 | 40 | 80 |
| Flounders | | | | | 86 | 108 | | | 86 | 108 | 673 | 885 |
| Groupers | 162 | 72 | 56 | 32 | ~ 7 | | | | 218 | 204 | 333 | 1,254 |
| Grunts | 420 | 210 | 288 | 144 | | | | | 708 | 354 | 1,407 | 703 |
| Jack, crevalle | 189 | 282 | 640 | 960 | 86 | 128 | 183 | 274 | 1,098 | 1,644 | 2,262 | 3,389 |
| Jack. other | | | | | | | | | ~ ~ | | 71 | 71 |
| King mackerel | | | | | | | | | | | 1,036 | 8,288 |
| King whiting | 741 | 561 | 1.304 | 976 | 1,968 | 1,476 | 476 | 357 | 4,489 | 3,370 | 18,282 | 13,713 |
| Little tuna | | | | | | | | | | | 697 | 4,530 |
| Mojarra | | | | | | | | | | | 170 | 85 |
| Mullet | | | | | | | 73 | 73 | 73 | 73 | 4,470 | 4,470 |
| Pigfish | 1.407 | 348 | 2,664 | 664 | | | 293 | 73 | 4,364 | 1,085 | 5,835 | 1,452 |
| Pinfish | 8,544 | 2,127 | 4,776 | 1,192 | | | 293 | 73 | 13,613 | 3,392 | 29,777 | 7,432 |
| Pompano | 90 | 36 | 56 | 32 | 172 | 86 | 37 | 18 | 355 | 172 | 543 | 265 |
| Puffers | 2,715 | 1,356 | 232 | 112 | | | 329 | 164 | 3,276 | 1,632 | 10,727 | 5,357 |
| Reys | 63 | 63 | 112 | 112 | | | | | 175 | 175 | 392 | 392 |
| Sea bass, black | | | 32 | 32 | ~ - | | 37 | 37 | 69 | 69 | 2,506 | 2,506 |
| Sea bass, rock | | | 32 | 8 | | | 37 | 9 | 69 | 17 | 94 | 23 |
| Sea robin | | | 56 | <u>1</u> 6 | | | ~ = | | 56 | 16 | 231 | 60 |
| Sea trout, spotted | 1,248 | 2,187 | 928 | 1,624 | | | 26,725 | 46,769 | 28,901 | 50,580 | 34,442 | 60,276 |
| Sea trout, other | | | | | | ~~ | | | | | 19,164 | 19,164 |
| Sharks | 21 | 72 | 32 | 112 | | | | | 53 | 184 | | 268 |
| Sheepshead | 555 | 684 | 1,680 | 2,096 | 172 | 216 | 476 | 595 | 2,883 | 3,591 | 7,102 | 8,864 |
| Snapper, red | | | | | | | | | | | 868 | 6,944 |
| Snapper, mangrove | | | 376 | 192 | | | 73 | 36 | 449 | 228 | 978 | 492 |
| Snapper, other | | | | | | ~ ** | | | | | 130 | 390 |
| Spadefish | | | 1,160 | 576 | 260 | 130 | | | 1,420 | 100 | 3,213 | 1,032 |
| Spanish mackerel | | | | | | | | | 30 550 | | 15 | 26 |
| Spot | 2,202 | 1,092 | 8,168 | 4,080 | 0.0 | | 183 | 92 | 10,553 | 2,204 | 14,900 | 1,401 |
| Tenpounder | 294 | 294 | 200 | 200 | 86 | 86 | 183 | 183 | 763 | 203 | 13,087 | 1,492 |
| Yellowtail | 1,284 | 321 | 32 | 8 | | ~ - | 1.00 | | 1,310 | 329 | 1. 0777 | 2,110 |
| Unclassified fish | 342 | 81 | 552 | 136 | 86 | 22 | 476 | 119 | 1,456 | 358 | 4)011 | 213 |
| Total | 23,316 | 12,696 | 26,160 | 16,248 | 4,288 | 3,838 | 31,411 | 50,857 | 85,175 | 83,639 | 207,831 | 211,334 |

| Table 4 | 7Estimated | aport | fishery | catch, | Cape | Canaveral | Area; | Septembe | er 1 | l963, | in | oumbers | of | fish | and | weight drove por | 1 |
|---------|------------|-------|---------|--------|--------|-------------|--------|----------|------|-------|----|---------|----|------|-----|------------------|----|
| | | | | pour | ids, b | by section, | , by f | acility, | ЪУ | speci | es | | | | | SEDAR25-RD3 | 21 |

| | | | | | Souther | Section | | | | |
|--------------------|---------|---------|--------|---------|----------|---------|---------|---------|---------|---------|
| Species | Bridg | ges and | | | Port Car | naveral | Fort Ca | naveral | | |
| | - caus | seways | Ocean | piers | insi | ide | out | side | Subt | otal |
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| Black margate | | | 1,041 | 1,041 | 705 | 705 | | | 1,746 | 1,746 |
| Bluefish | | | 816 | 1,224 | 14 | 21 | ~ ~ | | 830 | 1,245 |
| Cabio | | | | | | | 19 | 171 | 19 | 171 |
| Catfish | 18,490 | 17,975 | 2,833 | 2,757 | 962 | 881 | | | 22,285 | 21,613 |
| Croaker | 1,459 | 729 | 111 | 55 | 768 | 384 | | | 2,338 | 1,168 |
| Cutlassfish | | | 211 | 264 | 14 | 17 | | | 225 | 281 |
| Dolphin | | | | | | | 102 | 816 | 102 | 816 |
| Drum, black | 690 | 9,487 | 179 | 2,461 | 160 | 2,200 | | | 1,029 | 14,148 |
| Drum, red | 181 | 362 | | | 25 | 50 | | | 206 | 412 |
| Eels | | ~ - | | | 25 | 50 | | | 25 | 50 |
| Flounders | | | 137 | 171 | 101 | 126 | 5 | 6 | 243 | 303 |
| Groupers | | | | | | | 64 | 640 | 64 | 640 |
| Grunts | 479 | 239 | | | 258 | 129 | 275 | 137 | 1,012 | 505 |
| Jack, crevalle | 435 | 652 | 144 | 216 | 102 | 153 | 53 | 79 | 734 | 1,100 |
| King mackerel | | | | - ~ | 58 | 464 | 238 | 1,904 | 296 | 2,368 |
| King whiting | 10,800 | 8,100 | 1,562 | 1,171 | 209 | 157 | | | 12,571 | 9,428 |
| Little tuna | - | | | | 35 | 227 | 133 | 864 | 168 | 1,091 |
| Mojarra | ~ ~ | | | | 157 | 78 | | | 157 | 78 |
| Millet | 1,495 | 1,495 | | | 25 | 25 | | | 1,520 | 1,520 |
| Pigfish | 4,392 | 1,098 | | | 313 | 78 | | | 4,705 | 1,176 |
| Pinfish | 26,645 | 6,661 | 94 | 23 | 2,011 | 503 | | | 28,750 | 7,187 |
| Pompano | | | 467 | 233 | 49 | 24 | | | 516 | 257 |
| Puffers | 37,473 | 18,736 | | | | | | | 37,473 | 18,736 |
| Rays | 650 | 650 | | | 63 | 63 | | | 713 | 713 |
| Sea bass, black | | | | 100 arr | 35 | 35 | 1,299 | 1,299 | 1,334 | 1,334 |
| Sea bass, rock | | | 293 | 73 | 98 | 24 | | | 391 | 97 |
| Sea robio | | | 193 | 48 | 25 | 6 | | | 218 | 54 |
| Sea trout, spotted | 8,749 | 15,311 | | | 31.7 | 555 | | | 9.066 | 15,866 |
| Sea trout, other | 24,250 | 24,250 | | | 35 | 35 | | | 24,285 | 24,285 |
| Sharks | | | | | 98 | 343 | 8 | 28 | 106 | 371 |
| Sheepshead | 4,651 | 5,814 | 68 | 85 | 708 | 885 | | | 5,427 | 6.784 |
| Snapper, red | | | | | | | 1,056 | 8,448 | 1.056 | 8,448 |
| Snapper, mangrove | 545 | 272 | | | 565 | 282 | | | 1,110 | 554 |
| Snapper, other | | | | | 14 | 42 | 49 | 147 | 63 | 189 |
| Spadefish | 2,822 | 1,411 | 137 | 68 | 578 | 289 | | | 3.537 | 1.768 |
| Spot | 1,915 | 957 | | | 1,389 | 694 | | | 3,304 | 1,651 |
| Tenpounder | 786 | 786 | 137 | 137 | 25 | 25 | | | 948 | 948 |
| Triggerfish | | | | | | | 138 | 345 | 138 | 345 |
| Yellowtail | 13.014 | 3.253 | 26 | 6 | 14 | 3 | | | 13.054 | 3,262 |
| Unclassified fish | 8,673 | 2,168 | 1,370 | 342 | 219 | 55 | 8 | 2 | 10,270 | 2,567 |
| Total | 168,594 | 120,406 | 9,819 | 10,375 | 10,174 | 9,608 | 3,447 | 14,886 | 192,034 | 155,275 |

Northern Section

| Spector | | | | | Norther | a Section | | | | | | |
|--------------------------|--------|--------|--------|-----------|------------|-----------|--------|---|---------|----------|---------|-----------------|
| Diec 169 | Bank f | ishery | Bri | dges | Surf a | areas | Boat f | ishery | Sub | total | Combine | d tota <u>l</u> |
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| Black margate | | | | | | | | | | | 1,746 | 1,746 |
| Bluefish | | | 128 | 192 | 102 | 152 | | | 230 | 344 | 1,060 | 1,589 |
| Cabio | | | | | | ~ ~ | | | | | 19 | 171 |
| Catfish | 1,473 | 1,473 | 1,224 | 1,216 | 910 | 870 | 877 | 877 | 4,484 | 4,436 | 26,769 | 26,049 |
| Croaker | 2,196 | 1,098 | 328 | 160 | ~ ~ | | 155 | 78 | 2,679 | 1,336 | 5,017 | 2,504 |
| Cutlassfish | | | 480 | 600 | | | | | 480 | 600 | 705 | 881 |
| Dolphin | | | | | | | | ~ - | | | 102 | 816 |
| Drum, black | | ~ | 40 | 64 | 54 | 80 | 1,032 | 1,548 | 1,126 | 1,692 | 2,155 | 15,840 |
| Drum, red | 384 | 768 | 288 | 576 | | | 722 | 1,444 | 1,394 | 2,788 | 1,600 | 3,200 |
| Eels | | | 80 | 160 | | | | | 80 | 160 | 105 | 210 |
| Flounders | | | 208 | 256 | 54 | 68 | | | 262 | 324 | 505 | 627 |
| Groupers | | | 64 | 32 | | | 52 | 26 | 116 | 58 | 180 | 698 |
| Grunts | | | 1.056 | 528 | | | 2.271 | 1.136 | 3,327 | 1.664 | 4.339 | 2.169 |
| Jack, crevalle | 186 | 279 | 272 | 408 | 156 | 234 | 206 | 309 | 820 | 1,230 | 1,554 | 2,330 |
| King mackerel | | | | | | | | | | | 296 | 2,368 |
| King whiting | 1.536 | 1.155 | 1.016 | 760 | 1,198 | 898 | 1.445 | 1.084 | 5,195 | 3.897 | 17.766 | 13,325 |
| Little tune | | | | 100 | | | | | | 5,001 | 168 | 1 001 |
| Moinzyo | | | | | | | | | | | 157 | 78 |
| Millet | | | 1 406 | 1 106 | | | | | 1 106 | 1 LOG | 3 016 | 2 016 |
| Picfich | 258 | 60 | 5 408 | 1 352 | 102 | 26 | 361 | 00 | 6 120 | 1 537 | 10,834 | 3,010 |
| Pinfich | 2 201 | 570 | 1 004 | 1,500 | 202 | 6 | 1 128 | 1 032 | 8 357 | 2 088 | 37 107 | 0.275 |
| Pompono | براروے | 210 | 2, ju | 16 | 78 | 40 | +,120 | <i></i> | 102 | 2,000 | 618 | 212 |
| Puffore | 2 216 | 1 608 | 536 | 270 | 1~ | | 52 | 26 | 3 804 | 1 006 | h1 277 | 20 612 |
| Rove | 351 | 351 | 288 | 288 | | | 52 | 50 | 601 | 601 | 1 1.04 | 1 101 |
| See here block | | | 200 | 200 | | | 2 | 72 | 21 | 21 | 1 258 | 1 268 |
| See bass, Didda | | | 10 | -7 g | | | | | 24 | 24 | 1,500 | 1.05 |
| Con wohin | | | 40 | | | | | | 40 | | 218 | 105 |
| Sea traut crottad | 1 981 | 0 047 | 520 | 012 | | | 33 336 | 58 338 | 35 137 | 61 407 | hh 203 | 77 262 |
| See trout other | | | Sh | oh | | | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | 2), tot | oh oh | 21, 300 | 21,300 |
| Sharke | | | | | | | | | 2-1 | 24 | 106 | 27,309 |
| Shoensheed | 116 | 1 / 1 | 1 016 | 1 270 | 1.02 | 108 | 0 105 | 2 023 | 2 657 | 1 570 | 0.086 | 11 256 |
| Spappar yed | 114 | 1-1 | 1,010 | | 102 | 120 | ⊂,-,⊂) | للرانو ر | 5,001 | | 1,056 | 8 1.1.8 |
| Shapper, red | 21.0 | 165 | 21.0 | 160 | 24 | 10 | 50 | | 700 | 26.2 | 1,810 | 0,440 |
| Snapper, naigrove | علان | 10) | JLC | TOO | <u>~</u> 4 | 12 | 22 | 20 | 100 | 202 | 1,010 | 911 |
| Spadafish | | | 106 | 218 | 78 | 40 | | | 671 | 288 | 1, 111 | 2 056 |
| Space ISB | 2 202 | 1 650 | 3 776 | 1 200 | 10 | 40 | | | 6 070 | 200 | 4,1,1,1 | 2,070 |
| Torrandar | 5,505 | 1,009 | 2,110 | 1,372 | | | | | 0,019 | 3,051 | 9,303 | 4,102 |
| Tenpounder Tenpounder | | | 312 | يحدن | | | | | 312 | 312 | 1,200 | 1,200 |
| Vollowtodl | 057 | 040 | 1.0 | | 1.00 | | | | 1 000 | 0.71 | 11, 150 | 345 |
| Healessigiat Si-1 | 921 | 240. | 40 | <0 <1. | 105 | 20 | 0 900 | | 1,099 | 2 (4 | 14,153 | 3,536 |
| OCTRASTILED 1120 | 423 | لللبلج | 515 | 64 | | | 2,090 | 122 | 3,505 | 091 | 13,055 | 3,464 |
| Total | 18,291 | 11,934 | 20,672 | 13,280 | 2,984 | 2,580 | 50,056 | 69,819 | 92,003 | 97,613 | 284,037 | 252,888 |

Table 48.--Estimated sport fishery catch, Cape Canaveral Area; October 1963, in numbers of fish and we**SEDAR25-RD31** in pounds, by section, by facility, by species

| | | | | | Souther | n Section | | | | |
|-------------------|-------------|--------|--------|--------|---------|-----------|---------|---------|--------|---------|
| Species | Bridg | es and | | | Port Ca | naveral | Port Ca | naveral | | |
| | caus | eways | Ocean | piers | ins | ide | out | side | Subt | otal |
| | Number | Pounds | Number | Pounds | Number | Founds | Number | Pounds | Number | Founds |
| Amberjack | | | | - ~~ | | | 69 | 1,035 | 69 | 1,035 |
| Barracuda | | | | | | | | | | |
| Bluefish | | | 45 | 67 | 56 | 84 | | | 101 | 151 |
| Cabio | | | | | | | 53 | 477 | 53 | 477 |
| Catfish | 1,814 | 1,771 | 654 | 654 | 992 | 992 | | | 3,460 | 3,417 |
| Croaker | 2,267 | 1,133 | | | 668 | 334 | | | 2,935 | 1,467 |
| Drum, black | 348 | 4,785 | 263 | 3,616 | 940 | 12,925 | | | 1,551 | 21,326 |
| Drum, red | | | | | 228 | 456 | | | 228 | 456 |
| Flounders | | | | | 98 | 122 | | | 98 | 122 |
| Groupers | | | | | 45 | 450 | 191 | 1,910 | 236 | 2,360 |
| Grunts | <u>11</u> 6 | 58 | | | | | | | 116 | 58 |
| Jack, crevalle | | | | | 243 | 364 | | | 243 | 364 |
| Jack, other | | | | | 280 | 280 | | | 280 | 280 |
| King whiting | 4,091 | 3,068 | 2,061 | 1,546 | 675 | 506 | | | 6,827 | 5,120 |
| Little tuna | | | | | | | 15 | 97 | 15 | 97 |
| Mojarra | | | | | 2,638 | 1,319 | | | 2,638 | 1,319 |
| Mullet | 748 | 748 | | | | | | | 748 | 748 |
| Pigfish | 1,148 | 287 | | | | | | | 1,148 | 287 |
| Pinfish | 13,207 | 3,302 | 436 | 19 | 1,090 | 272 | | | 14,733 | 3,593 |
| Pompano | | | 354 | 177 | 56 | 28 | | | 410 | 205 |
| Puffers | 5,330 | 2,665 | 45 | 22 | | | | | 5,375 | 2,687 |
| Rays | 57 | 57 | | | | | | | 57 | 57 |
| Sea bass, black | | | | | | | 84 | 84 | 84 | 84 |
| Sea bass, rock | | | | | | | | | | |
| Sea trout, spotte | a 5,467 | 9,567 | | | | | | | 5,467 | 9,567 |
| Sea trout, other | 27,588 | 27,588 | 127 | 190 | 260 | 260 | | | 27,975 | 28,038 |
| Sheepshead | 2,324 | 2,905 | 654 | 817 | 802 | 1,002 | | | 3,780 | 4,724 |
| Snapper, red | | | | | | 00 mit | 4,479 | 35,832 | 4,479 | 35,832 |
| Snapper, mangrove | | | | | 232 | 116 | | | 232 | 116 |
| Snapper, other | | | 45 | 135 | | | 53 | 159 | 98 | 294 |
| Spadefish | 963 | 481 | | | 277 | 138 | | | 1,240 | 619 |
| Spanish mackerel | | | | | 183 | 320 | | | 183 | 320 |
| Spot | 244 | 122 | 45 | 22 | 56 | 28 | | | 345 | 172 |
| Tenpounder | | | | | | ~ ~ | | | | |
| Yellowtail | 2,626 | 656 | | | 158 | 39 | | | 2,784 | 695 |
| Unclassified fish | 3,064 | 766 | | | 591 | 148 | | ** | 3,655 | 914 |
| Total | 71,402 | 59,959 | 4,729 | 7,265 | 10,568 | 20,183 | 4,944 | 39,594 | 91,643 | 127,001 |

| Choose | | | | | Norther | n Section | | | | | | |
|-------------------|----------|--------|--------|--------|---------|-----------|---------|--------|---------|---------|----------|---------|
| opecies | Bank f | ishery | Brid | lges | Surf a | areas | Boat f: | ishery | Subt | otal | Combined | i total |
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| Amberjack | | | | | | | | | | | 69 | 1,035 |
| Barracuda | | | 152 | 1,216 | | | | | 152 | 1,216 | 152 | 1,216 |
| Bluefish | | | | | 154 | 232 | | | 154 | 232 | 255 | 383 |
| Cabio | | | | | | | | | | ~ - | 53 | 477 |
| Catfish | 1,716 | 1,716 | | | | | | | 1,716 | 1,716 | 5,176 | 5,133 |
| Croaker | | | | | | | 211 | 106 | 211 | 106 | 3,146 | 1,573 |
| Drum, black | 87 | 129 | | | 780 | 1,170 | 6,074 | 9,111 | 6,941 | 10,410 | 8,492 | 31,736 |
| Drum, red | 816 | 1,632 | | | | | 8,927 | 17,854 | 9,743 | 19,486 | 9,971 | 19,942 |
| Flounders | | | | | | | | | | | 98 | 122 |
| Groupers | | | 152 | 80 | | | | | 152 | 80 | 388 | 2,440 |
| Grunts | 237 | 117 | 1,224 | 608 | | | | | 1,461 | 725 | 1,577 | 783 |
| Jack, crevalle | | | | | | | 211 | 316 | 211 | 316 | 454 | 680 |
| Jack, other | | | | | | | | | | | 280 | 280 |
| King whiting | 171 | 129 | 312 | 232 | 2,174 | 1,630 | 1,162 | 872 | 3,819 | 2,863 | 10,646 | 7,983 |
| Little tuna | | | | | | | | | | | 15 | 97 |
| Mojarra | | | | | | | | | | | 2,638 | 1,319 |
| Mullet | | | | | | | | | | | 748 | 748 |
| Pigfish | | | 3,776 | 944 | 154 | 38 | 3,275 | 819 | 7,205 | 1,801 | 8,353 | 2,088 |
| Pinfish | | | 8,016 | 2,000 | 1,242 | 310 | 33,753 | 8,438 | 43,011 | 10,748 | 57,744 | 14,341 |
| Pompano | | | | | | | | | | | 410 | 205 |
| Puffers | 8,202 | 4,110 | 152 | 80 | | = | 2,800 | 1,400 | 11,154 | 5,590 | 16,529 | 8,277 |
| Rays | | | | | | | | | | | 57 | 57 |
| Sea bass, black | | | | | | ~ ~ | | | | | 84 | 84 |
| Sea bass, rock | | | 152 | 40 | | | | | 152 | 40 | 152 | 40 |
| Sea trout, spotte | 1 2,850 | 4,986 | | | | | 27,414 | 47,974 | 30,264 | 52,960 | 35,731 | 62,527 |
| Sea trout, other | | 1 | | | 1 | | | | | | 27,975 | 28,038 |
| Sheepshead | 321 | 402 | 600 | 752 | 462 | 578 | 6,814 | 8,518 | 8,197 | 10,250 | 11,977 | 14,974 |
| Snapper, red | | | | | | | | | | | 4,479 | 35,832 |
| Snapper, mangrove | tier and | | | | | | 211 | 106 | 211 | 106 | 443 | 222 |
| Snapper, other | | | | | | | | | | | 98 | 294 |
| Spadefish | | | 152 | 80 | | | | | 152 | 80 | 1,392 | 699 |
| Spanish mackerel | | | | | | 1 | | | | | 183 | 320 |
| Spot | | | 752 | 3.10 | 308 | 154 | | | 1,060 | 530 | 1,405 | 102 |
| Tenpounder | | | | | | | 1,637 | 1,637 | 1,637 | 1,637 | 1,637 | 1,637 |
| Yellowtail | 2,778 | 693 | | | | -1.0 | 5,863 | 1,466 | 8,641 | 2,159 | 11,425 | 2,854 |
| Unclassified fish | | | 10,440 | 2,608 | 1,396 | 348 | | ~ 4 | 11,836 | 2,956 | 15,491 | 3,870 |
| Total | 17,178 | 13,914 | 25,880 | 9,016 | 6,670 | 4,460 | 98,352 | 98,617 | 148,080 | 126,007 | 239,723 | 253,008 |

| Table | 49Estimated | sport | fishery | catch, | Cape | Canaveral | Area; by fac | spring ility, | ; 1963, by spe | in cie: | numbers s | of | fish | and | weight | in | SED | AR25- | RD3 | 31 |
|-------|-------------|-------|---------|--------|------|-----------|-----------------|------------------|-------------------|------------|--------------|----|------|-----|--------|----|-----|-------|-----|----|
| | | | | | | | | | | | | | | | | | | | | |

| | | | | | | Southers | n Section | | | | | |
|--------------------|---------|---------------------|--------|--------|---------|-----------|---------------------|-----------|--------|-----------|-----------|---------|
| Species | Bridg | es and | | | Port Ca | naveral | Port Ca | naveral | | | | |
| | CAUS | eways | Ocean | piers | ins | ide | out | side | Boat | fishery | Subt | otal |
| | Number | Founds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| Amberjack | | | | | ~ - | | 198 | 2,970 | | | 198 | 2,970 |
| Black margate | | | 2,524 | 2,524 | | | | | | | 2,524 | 2,524 |
| Bluefish | 6,206 | 9,308 | 730 | 1,094 | 9,139 | 13,708 | 122 | 183 | 278 | 417 | 16,475 | 24,710 |
| Catfish | 21,016 | 20,876 | 24,239 | 24,239 | 1,078 | 1,078 | | | 6,233 | 6,233 | 52,566 | 52,426 |
| Croaker | 278 | 139 | | | 3,762 | 1,880 | 82 | 41 | 800 | 400 | 4,922 | 2,460 |
| Cutlassfish | | | | | 1,976 | 2,470 | | ~ ~ | | | 1,976 | 2,470 |
| Dolphin | | | | | | | 26 | 208 | | | 26 | 208 |
| Drum, black | 2,716 | 37,345 | 35 | 481 | 259 | 3,561 | | | | | 3,01.0 | 41,387 |
| Drum, red | | | | | 72 | 144 | | | 3,709 | 7,418 | 3,781 | 7,562 |
| Eels | | | | | 25 | 50 | | | | | 25 | 50 |
| Flounders | | | | | 2.491 | 3,113 | | | | | 2,491 | 3,113 |
| Groupers | | | | | 84 | 840 | 275 | 2,750 | | | 359 | 3,590 |
| Grunts | | | | | 72 | 36 | - 86 | 43 | | | 158 | 79 |
| Jack. crevalle | 803 | 1.204 | 59h | 893 | 1.605 | P. Lin | 66 | 98 | 54 | 81 | 3.124 | 4.682 |
| Jack, other | | | | | 510 | 510 | | | | | 510 | 51.0 |
| King mackerel | | | | | 311 | 2 488 | 637 | 5.096 | | | 948 | 7.584 |
| King ubiting | 7.787 | 5.839 | 4.052 | 3.038 | 1.436 | 1,076 | 53 | 40 | 2,882 | 2,161 | 16.210 | 12,154 |
| Little tunn | 13101 | 2,000 | | 5,050 | | 2.9010 | 136 | 884 | | | 136 | 881 |
| Mojorra | | | Lo | 21 | 187 | 03 | | | | | 200 | 114 |
| Mullat | 1 21 | 1.21 | | | 282 | 282 | | <u> </u> | | | h14 | 414 |
| Picfich | 8 887 | 0 000 | | | 205 | 203 | 15 | h | | | 8 902 | 2 226 |
| riginal | 11,075 | 2 742 | 187 | 1.01 | 10 707 | 0.681 | | | | | 26,180 | 6 545 |
| Dempered | 1 1 50 | 39143 | 401 | 121 | 018 | 2,001 | | | | | 1 277 | 688 |
| Pompéno | エッエンフ | 215 | | | 210 | 109 | 86 | 170 | | | 28 | 170 |
| Puffere | 80,880 | 20.200 | 140 | 71 | ohe | 100 | 00 | 110 | 7 022 | 2 517 | 00 207 | hs 152 |
| Puliers | 02,000 | +T,440 | 149 | 1 -+ | 242 | 122 | | | 1,000 | المرود | 90,001 | */•/J3 |
| Rays | *77 | 409 | | | 25 | 05 | 0.21.1 | 0 81.1 | 24 |)+ | 0.840 | 0.840 |
| Sea bass, black | | | | | 22 | 27 | 2,044 | C J Otter | | | 2,009 | 2,009 |
| Sea Dass, rock | | | | | - 2 | 1.1. | | | | | - 9 | 2.6 |
| Sea robin | 85 700 | 150.005 | 280 | 200 | | 14 560 | == | | or her | 1.1. 5.20 | 111 800 | 105 707 |
| Sea trout, spotter | 03,129 | 120,022 | 200 | 490 | 320 | 560 | 23 | 20 | ±<+€ | 44,207 | الالان مع | E0 01 |
| Sea trout, other | 21,949 | 21,9229 | 7#9 | 그야거 | 1 2/0 | 1 607 | 1.1 | 16.2 | | | 1 282 | 1, 81.0 |
| Snarks | 0 000 | 20.200 | 240 | 100 | 1,344 | 4,091 | ~+_L | 14) | 700 | 0.70 | 1,303 | 10,160 |
| Sheepshead | 0,000 | TO ² T00 | 149 | Too | 104 | .300 | 1.011 | 5 208 | 102 | 010 | 9,120 | 8,308 |
| Snapper, red | | | | | 01. | | T ² O++T | 0,320 | 079 | 7.00 | 1,041 | 0,320 |
| Snapper, mangrove | 622 | 321 | | | 04 | 42 | -0- | 1 110 | 510 | 139 | L) UL (| 3 570 |
| Snapper, other | | | | 1.1. | 141 | 423 | 303 | 1,149 | | | 24 | 1,210 |
| Spaderish | 70.0 | 93 | 09 | 44 | | | | | | | 210 | 131 |
| Spanish mackerel | | | 42 | - 13 | - 0.07 | 30 | | | - 6 | | 1, 1,00 | 103 |
| Spot | 187 | . 93 | 1.95 | 193 | 2,012 | 1,917 | | = - | ~ = | | 4,409 | 2,203 |
| Tenpounder | 1,121 | 1,121 | | | | | | | | | 1,121 | 1,121 |
| Triggerfisb | | | | | | | 54 | 135 | | | 54 | 135 |
| Iellowtail | 20,626 | 5,156 | | | | | | | | | 20,626 | 051, 5 |
| Unclassified fish | 22,033 | 5,508 | 42 | 10 | SIT | 204 | | | 13,955 | 1,409 | 36,047 | 9,211 |
| Total | 343,884 | 353,677 | 33,992 | 33,630 | 42,869 | 46,500 | 6, <u>211</u> | 25,197 | 61,429 | 69,326 | 488,385 | 528,336 |
| | | | | | | | | | | | | |

| | Northern Section | | | | | | | | | | | | | |
|--------------------|------------------|---------|---------|------------|--------|--------|---------|-----------|-----------|---------|-------------|-----------|--|--|
| Species | Bank f | ishery | Br | idges | Surf | areas | Boat | fishery | Subt | otal | Combine | d total | | |
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | | |
| Amberjack | | | | | | | | | | | 1 98 | 2,970 | | |
| Black margate | | | | | | | | | | | 2,524 | 2,524 | | |
| Eluefish | 17.046 | 25,578 | 29,512 | 44.272 | 5.614 | 8.422 | 1.326 | 1,988 | 53.498 | 80.260 | 69,973 | 104,970 | | |
| Catfish | 3.792 | 3,549 | 5,032 | 4,992 | 10,558 | 10,440 | 4,796 | 4.704 | 24,178 | 23,705 | 76,744 | 76,131 | | |
| Crosker | 237 | 108 | 784 | 392 | | | | | 1.018 | 500 | 5,940 | 2,960 | | |
| Cutlacefich | | | | | | | | | | | 1 976 | 2 470 | | |
| Dolphip | | | | | | | | | | | 26 | 208 | | |
| Durm block | 6 1.80 | 0.70 | | | 7 028 | 10 540 | 5.006 | 2.305 | 15 723 | 23 501 | 18 732 | 64 078 | | |
| Drum, mad | 0,409 | 9,14I | Este | 1.018 | 1,020 | 100 | 717 | 1 hoh | 1 167 | 2 03/ | 5 218 | 10 106 | | |
| Fela | | | 064 | 0+5 e T | 90 | 172 | 1-1-1 | 1,777 | 1,401 | 4,73% | 2,240 | 10,790 | | |
| Lets | | | | | | | 2.09 | 160 | 208 | 160 | 0.620 | 2 27 | | |
| rLounders | | | (0) | | | | 120 | 100 | 120 | 100 | 2,019 | 3,212 | | |
| Groupers | | | 624 | 312 | | | | | 024 | 312 | 903 | 3,902 | | |
| Gruats | | | 672 | 330 | | | | | 012 | 330 | 030 | 415 | | |
| Jack, crevalle | 1,029 | 1,542 | 1,316 | 2,728 | 136 | 204 | 637 | 950 | 3,610 | 5,430 | 6,742 | 10,112 | | |
| Jack, other | | | | | | | | | | | 510 | 510 | | |
| King mackerel | | | 272 | 2,176 | | | | | 272 | 2,176 | 1,220 | 9,760 | | |
| King whiting | 2,328 | 1,746 | 3,504 | 2,624 | 12,238 | 9,178 | 2,629 | 1,972 | 20,699 | 15,520 | 36,909 | 27,674 | | |
| Little tuna | | | | | | | | | | | 136 | 884 | | |
| Mojarra | | | | | | | | | | | 229 | 134 | | |
| Mullet | | ~ = | | | | | | | | | 414 | 414 | | |
| Pigfish | | | 3,240 | 808 | | | 790 | 198 | 4,030 | 1,006 | 12,932 | 3,232 | | |
| Pinfish | 5,438 | 858 | 31,752 | 7,936 | 1,124 | 282 | 4,228 | 1,057 | 40,542 | 10,133 | 66,731 | 16,678 | | |
| Pompano | | | 31.2 | 160 | 220 | 110 | | | 532 | 270 | 1,909 | 958 | | |
| Porgies | | | | | | | | | | | 86 | 172 | | |
| Puffers | 48.807 | 24.402 | 864 | 432 | 96 | 48 | 246 | 123 | 50.013 | 25,005 | 140.320 | 70.158 | | |
| Ravs | 366 | 366 | 232 | 232 | 96 | 96 | 288 | | 982 | 982 | 1,535 | 1,535 | | |
| See hove block | | | 1.720 | 1.720 | | | | | 1.720 | 1.720 | 4,589 | 4.589 | | |
| See bass, stack | | | 5 320 | 1 3.98 | | | | | 5,320 | 1 328 | 5 320 | 1,308 | | |
| Son mobin | | | 7, 520 | 16 | | | | | 79,520 | 16 | 130 | 1,520 | | |
| Son turnit exetted | 1 467 | 10.005 | 1 516 | 5 488 | 1.22 | 178 | 75.006 | 1.26 861 | 102 701 | 170 720 | 211 524 | 275 120 | | |
| Sea trout, spotted | 20,001 | 40,000 | 0000 | =,000 | 1 26 | 110 | 10,200 | T 00 00 T | 101 (201 | | = | - 3123733 | | |
| Sea trout, other | | | | 056 | 3.000 | 266 | | | 172 | 63.0 | 27,044 | | | |
| Sharks | col | (50 | 30.000 | 200 | 102 | 320 | 20 1 21 | | -1 91k | 012 | 1,721 | 2,422 | | |
| Sheepshead | 204 | 210 | TO,090 | 0) C (C L | TOO | 224 | LU,434 | 5 40 eCT | 014 014 | 21,222 | 31,542 | 39,410 | | |
| Snapper, red | | | | | | | | | | | 1,041 | 0,320 | | |
| Snapper, mangrove | | | 592 | 296 | | | | | 592 | 296 | 1,609 | 804 | | |
| Snapper, other | | _ = | | | | | | | | | 524 | 1,572 | | |
| Spadefish | | | 4,224 | 2,112 | | | | | 4,224 | 2,112 | 4,500 | 2,249 | | |
| Spanish mackerel | | | | | 84 | 148 | | | 84 | 148 | 143 | 251 | | |
| Spot | 864 | 432 | 904 | 456 | 166 | 84 | 410 | 205 | c,344 | 1,177 | 6,753 | 380 | | |
| Tenpounder | 186 | 186 | | | | | 893 | 893 | 1,079 | 1,079 | 2,200 | 2,200 | | |
| Triggerfisb | | | | | | | | | | | 54 | 135 | | |
| Yellowtail | 3,402 | 846 | 2,176 | 544 | 96 | 24 | | | 5,674 | 1,414 | 26,300 | 6,570 | | |
| Unclassified fish | 810 | 198 | 3,128 | 784 | 166 | 42 | 1,202 | 300 | 5,306 | 1,324 | 42,153 | 10,535 | | |
| Total | 112,152 | 110,169 | 109,680 | 92,224 | 38,102 | 40,570 | 109,166 | 167,570 | 369,100 | 410,533 | 857,485 | 938,869 | | |

Table 50.--Estimated sport fisbery catch, Cape Canaveral Area; summer 1963, in numbers of fish and weight in SEDAR25-RD31 pounds, by section, by facility, by species

| | | | | | Soutber. | n Section | | | | |
|-----------------------|---------|------------------|--------|----------|----------|---|-----------------|-----------------|---------|-----------|
| Species | Bridg | es and eways | Ocean | piers | Port Can | naveral ide | Port Car out | naveral side | Subt | otal |
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| Amberiack | | | | | | | 601 | 9.015 | 601 | 9.015 |
| Barracuda | | | | | 573 | 4.584 | 69 | 552 | 642 | 5,136 |
| Black margate | | | 2.263 | 2.263 | 530 | 530 | 102 | 102 | 2.895 | 2,895 |
| Bluefish | 61 | 92 | 74 | 111 | 56 | 84 | 39 | 58 | 230 | 345 |
| Cabio | | | | | | | 145 | 1.305 | 145 | 1.305 |
| Catfish | 24.188 | 23,857 | 5.224 | 5.519 | 1.81 | 466 | 10 | 10 | 29.906 | 29.852 |
| Crosker | 2 249 | 1 123 | 5 366 | 2 682 | 13 540 | 6 769 | 385 | 102 | 21 540 | 10,766 |
| Cutlecefich | 2,247 | ر <i>عبد</i> وند | J, 500 | 2,002 | 1 047 | 1 308 | 507 | 170 | 1 047 | 1 208 |
| Dolphin | | | | | 1,041 | 1,500 | 1.22 | 2 161 | 1.22 | 2,500 |
| Douplin block | 008 | 10 760 | 207 | Ju con | 1 806 | 26 070 | *33 | 3,404 | 2 16 | 12 057 |
| Drum and | 920 | 1,010 | 201 | 4,221 | | 20,010 | 1) | 200 | 5,140 | **>, </td |
| Drum, reu | 005 | 015و1 | | | 14 | 140 | | | 013 | |
| Eels To an address | 60 | 0.0 | 060 | 280 | 1 10 | 10 | | | 2 562 | 1 000 |
| riounders | 69 | 00 | 599 | 300 | 1,194 | 1,492 | 29 | 32 | 1,701 | 1,993 |
| Groupers | 1 250 | (7) | | | 0 810 | | 550 | 2,260 | 226 | 2,260 |
| Grunts | 1,350 | 014 | 231 | 11.7 | 2,040 | 1,419 | | | 4,421 | 2,200 |
| Jack, crevalle | 915 | 000 و1 | 700 | 252 | 369 | 203 | 31 | 55 | 1,506 | 2,250 |
| Jack, other | | | | | 97 | 97 | | | 97 | |
| King mackerel | 0 | | - 1-6 | /- | | | 1,701 | 13,608 | 1,701 | 13,608 |
| King whiting | 24,528 | 18,395 | 9,426 | 7,069 | 2,471 | 1,853 | 10 | | 36,435 | 27,324 |
| Little tuna | | ~ - | 16 | 104 | 342 | 2,223 | 689 | 4,478 | 1,047 | 6,805 |
| Mojarra | | | | | 471 | 235 | | | 471 | 235 |
| Mullet | 4,820 | 4,820 | | | 212 | 212 | | | 5,032 | 5,032 |
| Pigfish | 1,761 | 441 | 50 | 12 | 851 | 212 | | | 2,662 | 665 |
| Pinfish | 35,749 | 8,937 | 1,054 | 263 | 18,576 | 4,644 | 376 | 94 | 55,755 | 13,938 |
| Pompano | 424 | 211 | 51 | 25 | 40 | 20 | | | 515 | 256 |
| Puffers | 29,485 | 14,742 | 67 | 33 | 20 | 10 | | | 29,572 | 14,785 |
| Rays | 551 | 551 | 16 | 16 | 36 | 36 | | | 603 | 603 |
| Sea bass, black | | | 26 | 26 | 117 | 117 | 6,019 | 6,019 | 6,162 | 6,162 |
| Sea bass, rock | | | 177 | 44 | 144 | 36 | 61 | 15 | 382 | 95 |
| Sea robin | | | 290 | 72 | | | | | 290 | 72 |
| Sea trout, spotted | 20,289 | 35,505 | 228 | 399 | 164 | 286 | 10 | 17 | 20,691 | 36,207 |
| Sea trout, other | 47,029 | 47,029 | 32 | 32 | 64 | 64 | 49 | 49 | 47,174 | 47,174 |
| Sharks | 100 | 349 | 367 | 1,284 | 51 | 178 | 58 | 203 | 576 | 2,014 |
| Sheepsbead | 10,674 | 13,342 | 444 | 555 | 3,553 | 4,441 | 126 | 157 | 14,797 | 18,495 |
| Snapper, red | | | | | 38 | 304 | 3,298 | 26,384 | 3,336 | 26,688 |
| Snapper, mangrove | 1,316 | 657 | | | 598 | 299 | | | 1,914 | 956 |
| Snapper, other | | | 25 | 75 | | | 474 | 1,422 | 499 | 1,497 |
| Spadefish | 2,860 | 1,429 | 955 | 477 | 717 | 358 | 24 | 12 | 4.556 | 2,276 |
| Spanish mackerel | | | | | | | 83 | 145 | 83 | 145 |
| Spot | 2.632 | 1.316 | 4,518 | 2,258 | 9,973 | 4.985 | 10 | 5 | 17,133 | 8,564 |
| Tennounder | 902 | 902 | | | 77715 | .,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | 43 | 43 | 945 | 945 |
| Yellowtail | 23.584 | 5.895 | 326 | 82 | 57 | 13 | | | 23,961 | 5,990 |
| Unalessified fich | 0,100 | 2 277 | 3 860 | 96h | 2.452 | 613 | | | 15,421 | 3.854 |
| ANGTORDANT CALIFOR | 23203 | - 1- 1 | 5,000 | <u> </u> | ~,+)L | UL) | | | 279702 | 5,0,4 |
| Total | 246,175 | 197,968 | 35,830 | 29,333 | 63,669 | 64,705 | 15,122 | 69,912 | 360,796 | 361,918 |

| Speeder | | | | | Norther | n Section | | | | | | |
|--------------------|--------|---------|--------|--------|---------|-----------|--------|---------|---------|---------|-----------|---------|
| opecies | Bank | fisbery | Bri | lges | Surf | areas | Boat | fisbery | Subt | otal | Combine | d total |
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| Amber jack | | | | | | | | | | | 601 | 9,015 |
| Barracuda | | | | | | | | | | | 642 | 5,136 |
| Black margate | | | | | | | | | | | 2,895 | 2,895 |
| Bluefish | 18 | 27 | 344 | 512 | 266 | 398 | 58 | 87 | 686 | 1,024 | 916 | 1,369 |
| Cabio | | | | | | | | | | | 145 | 1,305 |
| Catfish | 6,483 | 6,402 | 6,016 | 5,992 | 5,108 | 5,102 | 2,383 | 2,374 | 19,990 | 19,870 | 49,896 | 49,722 |
| Croaker | 2,073 | 1,026 | 912 | 456 | 690 | 344 | 664 | 332 | 4,339 | 2,158 | 25,879 | 12,924 |
| Cutlassfish | | | 88 | 112 | | | | | 88 | 112 | 1,135 | 1,420 |
| Dolphin | | | | | | | | | | | 433 | 3,464 |
| Drum, black | 390 | 582 | 264 | 392 | 418 | 626 | 975 | 1,462 | 2,047 | 3,062 | 5,193 | 46,319 |
| Drum, red | 90 | 180 | 312 | 624 | 172 | 344 | 1,078 | 2,156 | 1,652 | 3,304 | 2,331 | 4,662 |
| Eels | | | 96 | 192 | ~~ | ~~ | | | 96 | 192 | 104 | 208 |
| Flounders | ~~ | | 64 | 80 | 118 | 148 | 173 | 216 | 355 | հեր | 1,916 | 2,437 |
| Groupers | 252 | 117 | 144 | 80 | | | 115 | 58 | 511 | 255 | 737 | 2,515 |
| Grunts | 489 | 243 | 424 | 208 | 46 | 24 | | | 959 | 475 | 5,380 | 2,683 |
| Jack, crevalle | 387 | 579 | 904 | 1,352 | 86 | 128 | 816 | 1,224 | 2,193 | 3,283 | 3,699 | 5,541 |
| Jack, other | | | | | | | | | | | 97 | 97 |
| King mackerel | | -0.40 | | | | | | | | | 1,701 | 13,608 |
| King whiting | 2,370 | 1,767 | 4,288 | 3,216 | 4,140 | 3,106 | 1,624 | 1,217 | 12,422 | 9,306 | 48,857 | 36,630 |
| Little tuna | | | | | | | | | | | 1,047 | 6,805 |
| Mojarra | | | | | | | | | | | 471 | 235 |
| Mullet | | | 48 | 48 | | | 73 | 73 | 121 | 121 | 5,153 | 5,153 |
| Pigfish | 2,733 | 684 | 4,248 | 1,056 | | | 696 | 174 | 7,677 | 1,914 | 10,339 | 2,579 |
| Pinfish | 16,122 | 4,035 | 16,744 | 4,184 | 232 | 56 | 3,328 | 832 | 36,426 | 9,107 | 92,181 | 23,045 |
| Pompano | 90 | 36 | 56 | 32 | 172 | 86 | 37 | 18 | 355 | 172 | 870 | 428 |
| Puffers | 18,567 | 9,282 | 344 | 168 | | | երք | 222 | 19,355 | 9,672 | 48,927 | 24,457 |
| Rays | 132 | 132 | 256 | 256 | 22 | 22 | | | 410 | 410 | 1,013 | 1,013 |
| Sea bass, black | 198 | 198 | 440 | 440 | | | 95 | 95 | 733 | 733 | 6,895 | 6,895 |
| Sea bass, rock | | | 328 | 80 | | | 37 | 9 | 365 | 89 | 747 | 184 |
| Sea robin | | | 176 | 48 | | | | | 176 | 48 | 466 | 120 |
| Sea trout, spotted | 4,710 | 8,247 | 1,552 | 2,712 | | | 75,119 | 131,459 | 81,381 | 142,418 | 102,072 | 178,625 |
| Sea trout, other | 177 | 177 | | | | | | | 177 | 177 | 47,351 | 47,351 |
| Sharks | . 54 | 186 | 80 | 280 | 54 | 188 | 173 | 606 | 361 | 1,260 | 937 | 3,214 |
| Sheepsbead | 2,412 | 3,006 | 3,064 | 3,824 | 518 | 648 | 3,125 | 3,906 | 9,119 | 11,384 | 23,910 | 29,879 |
| Soapper, red | | | | | | | | | | | 3,336 | 26,688 |
| Snapper, mangrove | 177 | 87 | 608 | 31.2 | 22 | 12 | 131 | 65 | 938 | 476 | 2,852 | 1,432 |
| Snapper, other | 36 | 108 | | | | | | | 36 | 108 | 232 | 1,005 |
| Spadefish | 264 | 132 | 1,768 | 880 | 260 | 130 | | | 2,292 | 142 ر 1 | 0,040 | 3,410 |
| Spanish mackerel | 0 | | | | | | | | | ((| 03 | 147 |
| Spot | 2,718 | 1,347 | 10,320 | 5,152 | 98 | 48 | 103 | 92 | 912,001 | 0,039 | 30,452 | 15,203 |
| renpounder | 414 | 414 | 248 | 248 | 06 | 06 | 413 | 413 | 101,101 | 10101 | 2,100 | 2,100 |
| IELLOWGALL | 2,011 | 114 | 304 | 96 | 46 | 15 | 1/3 | 43 | 3,420 | 2 444 | 21,301 | 6,000 |
| Unclassified fish | 005 و1 | 530 | 5,915 | 128 | 66 | 22 | 1,512 | 310 | 7,090 | т,404 | اللل راحد | ەللۇ رو |
| Total | 65,559 | 40,044 | 57,432 | 33,760 | 12,640 | 11,530 | 93,425 | 147,511 | 229,056 | 232,845 | 589,852 | 594,763 |

Table 51.--Estimated sport fisher; atcn, Cape Canaveral Area; fall 196., in number. of fish and weight in sums, by section, by facility, by species

SEDAR25-RD31

| | | | | | Souther | n Section | | | | |
|--|---|---------|--------|--------|---------|-----------|---|--------------------------|----------|--|
| Species | Bridg | es and | | | Port Ca | naveral | Port Ca | naveral | | |
| | caus | eways | Ocean | piers | ins | ide | out | side | Subt | otal |
| | Number | Founds | Number | Pounds | Number | Pound s | Number | Pounds | Number | Pounds |
| Amberjack | | | | | | | 104 | 1,552 | 104 | 1,552 |
| Barracuda | | | | | | | | | | |
| Black margate | | | 1,562 | 1.56L | 1,050 | 1,.55 | | | -,620 | .020 |
| Bluefish | | | 1,292 | 1,936 | 1.5 | 155 | | | 1,397 | .094 |
| Cabio | | | | | | | 108 | 972 | 108 | 972 |
| Catfisb | FU,456 | 19,519 | 5,23% | 5,116 | 2,951 | 2,910 | | | 30,617 | 37.545 |
| Croaker | 5,589 | 2,793 | 166 | 85 | 2,154 | 1, 77 | | | 7,909 | 3, 252 |
| Cutlassfish | | | 31.6 | :96 | .1 | -6 | | | 337 | 433 |
| Dolphin | | | | | | | 153 | 1.224 | 155 | 1.324 |
| Drum, black | 1,557 | 21,408 | 663 | 9,116 | 1.050 | 22.688 | | | 3,870 | 53,212 |
| Drum, red | 272 | 543 | | | | 759 | | | | 1,302 |
| Eels | | | | | | 75 | | | | |
| Flounders | | | 206 | 155 | 299 | 372 | 5 | 9 | 51 - | 637 |
| Groupers | | | | | | 675 | | 3,825 | 453 | 4.500 |
| Grunts | 895 | 440 | | | -87 | 104 | 4 <u>1</u> 2 | - i í 206 - | 1.691 | 546 |
| Jack, crevalle | 652 | 976 | 216 | 404 | 518 | 776 | 80 | 118 | 1.466 | 2.196 |
| Jack, other | | | | | 42 | 400 | | | 420 | 420 |
| King mackerel | | | | | 87 | 69b | 357 | 2.856 | 444 | 1.552 |
| King whiting | 12,336 | 16.759 | 5.434 | 4.076 | 1.326 | 294 | | | 9, 796 | 51,822 |
| Little tuna | | | | | 53 | i.L. | | 1.442 | 275 | 1.782 |
| No iarra | | | | | 4.19 | . 296 | | | 4.193 | 2. 296 |
| Mullet | 3.364 | 1. 164 | | | 38 | 38 | | | 3,402 | 1.402 |
| Pigfish | 5.310 | 5.078 | | | 470 | 117 | | | 8. 780 | - 105 |
| Pinfish | e J. 778 | 16.914 | 740 | ÷ - | 4.492 | 1.15 | | | 85 05 | 16 160 |
| Роппало | | | 1.282 | 615 | 155 | 78 | | | 1,390 | 693 |
| Puffers | 04.204 | 32,100 | 60 | | | | | | 64.272 | 12.135 |
| Rays | 1.050 | 1.10 | | | | ah | | | 1,155 | 1,154 |
| Sea hass, black | | | | | 54 | 52 | . 74 | .074 | 2,307 | 1.126 |
| Sea bass, rock | | | 440 | 110 | 147 | | - 2 . 3 | | 587 | 146 |
| Sea robin | | | | 75 | | 1 | | | 328 | 81 |
| Sea trout, spotted | 1-324 | 37.317 | | | 47 | | | | 1.800 | 35.149 |
| Sea trout, other | 77.757 | 77.757 | 190 | | 44 - | Lho | | | 78,390 | 78,485 |
| Sharks | | | | | 147 | 514 | 1.2 | 40 | 159 | 556 |
| Sheenshead | 10.462 | 13.078 | 1.083 | 1,253 | 2 | | | | 13.810 | 17.261 |
| Snanner, red | | | | -9.22 | | | 1-302 | 66.420 | 8,302 | 66.420 |
| Snanner, mangrove | 81.8 | 408 | | | 1.1.0 | | , | | 2.014 | 1.005 |
| Snapper, other | | | 63 | X | | | 153 | 459 | 240 | 724 |
| Snadefich | 5.678 | | - 75 | 102 | 1.123 | shi | | | 7.167 | 3.580 |
| Spanich modkerel | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | | | -75 | hdo | | | 275 | 180 |
| Spot | | 1.618 | éc. | | 2.100 | 1. 53 | | | 5.474 | 2.734 |
| Tennounder | 1,179 | 1.170 | 10 | - | -,100 | | | | 1,423 | 1,423 |
| Triggerfich | | | | | | | -07 | 518 | 207 | 518 |
| Yellouteil | 23 460 | 5 86h | 2 | | | | | ,10 | : 2. 757 | 5 936 |
| Unclassified fish | 17,60- | 4,401 | 2.055 | 512 | 1.115 | 3.04 | 12 | - | -0.888 | 5,291 |
| ************************************** | - 13 occ | | -9997. | 220 | | | | ~ | | de |
| Total | 359,992 | 270,547 | 21,825 | 26,460 | 31,124 | 44,687 | 12,586 | 81,720 | 425,527 | 423,434 |
| | | | | | | | | | | |

Bank fishery Boat fishery total Number Founds 1,552 1,824 2,620 2,958 972 46,762 6,106 1,318 Amberjack 104 Barracuda Black margate Bluefish 224 2,620 1,973 108 47,910 12,248 1,057 576 4,773
3,294 4,773 1,638 1,904 --1,876 1,318 1,224 71,364 34,731 315 1,123 4,707 4,431 4,511 4200 15,988 2,947 Dolphin Drum, black Drum, red 10,659 14,474 18,152 33,429 240 486 39 1,704 938 riounders Groupers Grunts Jack, crevalle Jack, other King mackerel 78 3,406 207 3,585 2,315 320 3,424 400 234 8,878 3,013 420 444 177 417 10,134 3,792 13,513 42,609 31,956 1,762 2,096 5,642 7,206 35,414 7777 43,379 2,201 2,158 King whiting Little tuna 13,513 2,240 20,010 77,043 148 20,446 1,047 32 42,009 275 4,193 5,642 28,790 142,268 1,538 86,718 2,202 2,159 875 Moj**arr**a Mullet --384 96 474 60 1,364 14,205 Pigfisb Pinfish 4,278 Pompano 11,244 1,047 Sea bass, black Sea bass, rock Sea robin 218 81 328 119,898 78,422 159 1,368 98,098 171,663 32 Sea trout, spotted Sea trout, other 91,125 556 39,492 66,420 1,710 Sharks Sheepshead 654 240 240 846 36 116 1,060 18 --807 2,424 17,324 Snapper, red Snapper, mangrove Snapper, other Spadefish 464 976 5,296 198 705 394 724 242 8,259 275 16,197 4,343 207 1,092 4,136 -,456 2,656 464 232 Spanisb mackerel 462 5,378 2,920 4,965 2,456 8,112 4,343 518 9,592 10,723 Spot Tenpounder 2,199 1,083 152 2,094 8,794 38,368 5,601 645 1,401 Unclassified fish 16,054 4,008 11,011 69,824 222,612 360,149 785,676 53,235 14,478 38,757 33,432

In table 52 and figure 13 is shown estimated sport fishery catch, all species combined in numbers of fish and weight in pounds, by section, by facility, by month. Table 53 and figure 14 present these data as summaries by seasons. Generally, the catch in the Southern Section is consistently higher than that for the Northern Section, both by months and seasons. As seen in figure 14, **SEDAR25**: **RD3** hbers and weights of fish occurred in the spring, lowest values appeared in the summer, and those for the fall fell midway between. From information gathered during interviews with fishermen, bait dealers, and camp operators and our few observations in January and February, we are convinced that the winter catch at least equals that for the spring.

Table 52.--Estimated sport fishery catch, Cape Canaveral Area; February-October 1963, all species combined in numbers of fish and weight in pounds, by section, by facility, by month

| Pooility | February | | Ma | ırch | A | pril | P | lay | June | |
|--|---|---|--|--|--|--|--|---|-------------------------------------|------------------------------------|
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| Southern Section Bridges and | | | | | | | | | | |
| causeways Ocean piers | | | 120,202 27,573 | 129,410 27,485 | 104,081 4,842 | 102,741 4,431 | 119,601 1,577 | 121,526 1,714 | 60,560 8,704 | 44,834 6,726 |
| inside Port Canaveral | | | 18,542 | 29,134 | 11,968 | 7,723 | 12,359 | 9,649 | 7,172 | 6,798 |
| outside Boat fishery Subtotal | | | 1,654 15,512 183,483 | 3,614 20,348 209,991 | 96 <u>33,010</u> 153,997 | 144 29, <u>313</u> 144,352 | 4,461 .12,907 150,905 | 21,439 19,665 173,993 | 2,592 <u>53,453</u> 132,481 | 14,534 63,115 136,007 |
| Northern Section Bank fishery Bridges Surf areas Boat fishery | 19,980 14,560 2,198 19,404 | 14,211 8,408 5,344 30,643 | 43,140 56,248 19,324 29,969 | 52,686 61,928 21,804 46,972 | 45,324 35,576 9,774 38,275 | 38,124 19,504 11,488 62,718 | 23,688 17,856 9,004 40,922 | 19,359 10,792 7,278 57,880 | 22,077 12,904 1,662 17,392 | 14,460 6,240 1,462 29,806 |
| Subtotal | 56,142 | 58,606 | 148,681 | 183,390 | 128,949 | 131,834 | 91,470 | 95,309 | 54,035 | 51,968 |
| Combined total | | | 332,164 | 393,381 | 282,946 | 276,186 | 242,375 | 269,302 | 186,516 | 187,975 |
| | | | | | | | | | | - |
| Facility | Ju | ly | Aug | ust | Sept | ember | Oct | ober | | |
| Facility | Ju <u>Number</u> | ly <u>Pounds</u> | Aug <u>Number</u> | ust <u>Pounds</u> | Sept <u>Number</u> | ember <u>Pounds</u> | Oct <u>Number</u> | ober <u>Pounds</u> | | |
| Facility Southern Section Bridges and causeways Ocean piers | Ju <u>Number</u> 88,645 18,634 | Ly <u>Pounds</u> 71,958 12,338 | Aug <u>Number</u> 96,970 8,492 | Pounds Pounds 81,176 10,269 | Sept <u>Number</u> 168,594 9,819 | Pounds Pounds 120,406 10,375 | Oct <u>Number</u> 71,402 4,729 | ober <u>Pounds</u> 59,959 7,265 | | |
| Facility Southern Section Bridges and causeways Ocean piers Port Canaveral inside | Ju <u>Number</u> 88,645 18,634 45,371 | Pounds Pounds 71,958 12,338 47,610 | Aug <u>Number</u> 96,970 8,492 11,126 | Pounds Pounds 81,176 10,269 10,297 | Sept <u>Number</u> 168,594 9,819 10,174 | Pounds Pounds 120,406 10,375 9,608 | Oct <u>Number</u> 71,402 4,729 10,568 | ober <u>Pounds</u> 59,959 7,265 20,183 | | |
| Facility Southern Section Bridges and causeways Ocean piers Port Canaveral inside Port Canaveral outside Boat fishery | Ju <u>Number</u> 88,645 18,634 45,371 6,462 | Pounds 71,958 12,338 47,610 29,424 | Aug <u>Number</u> 96,970 8,492 11,126 6,068 | Pounds Pounds 81,176 10,269 10,297 25,953 | Sept <u>Number</u> 168,594 9,819 10,174 3,447 | Pounds Pounds 120,406 10,375 9,608 14,886 | Oct <u>Number</u> 71,402 4,729 10,568 4,944 | ober <u>Pounds</u> 59,959 7,265 20,183 39,594 | | |
| Facility Southern Section Bridges and causeways Ocean piers Port Canaveral inside Port Canaveral outside Boat fishery Subtotal | Ju <u>Number</u> 88,645 18,634 45,371 6,462 159,112 | Pounds 71,958 12,338 47,610 29,424 161,330 | Aug <u>Number</u> 96,970 8,492 11,126 6,068 122,656 | Pounds Pounds 81,176 10,269 10,297 25,953 127,695 | Sept <u>Number</u> 168,594 9,819 10,174 3,447 192,034 | Pounds Pounds 120,406 10,375 9,608 14,886 | Oct <u>Number</u> 71,402 4,729 10,568 4,944 | ober <u>Pounds</u> 59,959 7,265 20,183 39,594 127,001 | | |
| Facility Southern Section Bridges and causeways Occan piers Port Canaveral inside Port Canaveral outside Boat fishery Subtotal Northern Section Bank fishery Bridges Surf areas Boat fishery Octanaveral | Ju <u>Number</u> 88,645 18,634 45,371 6,462 1 <u>59,112</u> 20,166 18,368 6,690 <u>44,622</u> | Pounds 71,958 12,338 47,610 29,424 | Aug <u>Number</u> 96,970 8,492 11,126 6,068 122,656 23,316 26,160 4,288 31,411 4,277 | Pounds 81,176 10,269 10,297 25,953 127,695 12,696 16,248 3,838 50,857 | Sept <u>Number</u> 168,594 9,819 10,174 3,447 192,034 18,291 20,672 2,984 50,056 | Pounds Pounds 120,406 10,375 9,608 14,886 155,275 11,934 13,280 2,580 69,819 9,72 | Oct <u>Number</u> 71,402 4,729 10,568 4,944 91,643 17,178 25,880 6,670 98,352 | ober <u>Pounds</u> 59,959 7,265 20,183 39,594 127,001 13,914 9,016 4,460 98,617 | | |
| Facility Southern Section Bridges and causeways Ocean piers Port Canaveral inside Port Canaveral outside Boat fishery Subtotal Northern Section Bank fishery Bridges Surf areas Boat fishery Subtotal | Ju <u>Number</u> 88,645 18,634 45,371 6,462 159,112 20,166 18,368 6,690 <u>44,622</u> 89,846 | Ly Pounds 71,958 12,338 47,610 29,424 | Aug <u>Number</u> 96,970 8,492 11,126 6,068 122,656 23,316 26,160 4,288 31,411 85,175 | Pounds Pounds 81,176 10,269 10,297 25,953 127,695 12,696 16,248 3,838 50,857 83,639 | Sept <u>Number</u> 168,594 9,819 10,174 3,447 | Pounds Pounds 120,406 10,375 9,608 14,886 155,275 11,934 13,280 2,580 69,819 97,613 | Oct <u>Number</u> 71,402 4,729 10,568 4,944 91,643 17,178 25,880 6,670 98,352 148,080 | ober Pounds 59,959 7,265 20,183 39,594 127,001 13,914 9,016 4,460 98,617 126,007 | | |



Figure 13.--EstImated sport fishery catch, Cape Canaveral Area; February-October 1963, all species combined, in numbers of fish and weight in pounds, by section and totals for the area, by month.

| Table | 53 Estimated sp | ort fishery (| catch, Cape | Canaveral | Area; 1963 spring, | , summer, an | d fall totals, | all |
|-------|-----------------|---------------|-------------|------------|--------------------|--------------|----------------|-----|
| | species | combined, is | n numbers o | f fish and | weight in pounds, | by section | and facility | |

| The set 2 distance | Spring | | Su | mer | Fa | 11 | Total | |
|---|--|---|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|--|---|
| raciilly | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| Southern Section | | | | | | | | |
| Bridges and causeways Ocean piers Port Canaveral inside Port Canaveral outside Boat fishery | 343,884 33,992 42,869 6,211 61,429 | 353,677 33,630 46,505 25,197 69,326 | 246,175 35,830 63,669 15,122 | 197,968 29,333 64,705 69,912 | 359,992 21,825 31,124 12,586 | 270,547 26,460 44,687 81,720 | 950,051 91,647 137,662 33,919 61,429 | 822,192 89,423 155,898 176,829 69,326 |
| Subtotal | 488,385 | 528,336 | 360,796 | 361,918 | 425,527 | 423,414 | 1,274,708 | 1,313,668 |
| Northern Section | | | | | | | | |
| Bank fishery Bridges Surf areas Boat fishery | 112,152 109,680 38,102 109,166 | 110,169 92,224 40,570 167,570 | 65,559 57,432 12,640 93,425 | 40,044 33,760 11,530 147,511 | 53,235 69,824 14,478 222,612 | 38,757 33,432 10,564 252,656 | 230,946 236,936 65,220 425,203 | 188,970 159,416 62,664 567,737 |
| Subtotal | 369,100 | 410,533 | 229,056 | 232,845 | 360,149 | 335,409 | 958,305 | 978,787 |
| mbined total | 857,485 | 938,869 | 589,852 | 594 ,7 63 | 785,676 | 758,823 | 2,233,013 | 2,292,455 |



Figure 14.--Estimated sport fishery catch, Cape Canaveral Area; 1963 spring, summer, and fall totals, all species combined, all facilities combined, in numbers of fish and weight in pounds.

FISHING EFFORT

Table 54 presents estimated sport fishery effort in numbers of ASPAR 23 and hours fished by sections, by facility, by month. It is obvious that about half of the fishermen in the Southern Section are in the category "bridges and causeways" and about one quarter of them are in the "boat fishery." Over a third of the fishermen in the Northern Section are in the category "bank fishery," and a little less than a third are in the "boat fishery." In total, approximately 56 percent of the fishermen in the Cape Canaveral Area fished in the Southern Section and 44 percent in the Northern Section (monthly totals, by section, show higher numbers in the Northern Section than in the Southern Section for the months of February, March, April, and October, see figure 15 and table 54). The monthly estimates of numbers of fishermen during March to October varied between about 55,000 and 86,000 (February figures are incomplete).

Concerning total hours fished in the Southern Section, "bridges and causeways" fishery accounted for a little less than half, and the "boat fishery" for a little more than onequarter (table 54). In the Northern Section, the "boat fishery" accounted for a little over

Table 54.--Estimated sport fishery effort in numbers of fishermen and hours fished, Cape Canaveral Area, February-October 1963; by section, by facility, by month

| | Feb Number of | ruary Hours | Ma Number of | rch Hours | Ar Number of | Hours | M Number of | ay Hours | J Number of | une Hours |
|--|--|---|--|--|--|---|---|---|---|--|
| Facility | fishermen | fished | fishermen | fished | fishermen | fished | fishermen | fished | fishermen | fished |
| Southern Section Bridges and causeways Ocean piers Port Canaveral inside Port Canaveral outside Boat fishery Subtotal | 7,703 625 <u>2,049</u> 10,377 | 10,593 3,120 8,913 22,626 | 20,592 3,194 6,263 1,555 <u>3,990</u> 35,594 | 67,257 10,562 25,192 7,307 17,995 128,313 | 20,684 3,161 4,154 144 8,264 36,407 | 58,736 7,345 27,002 152 46,361 139,596 | 21,167 1,265 5,156 2,488 <u>7,387</u> 37,463 | 73,597 5,855 11,989 10,967 <u>34,793</u> 137,201 | 16,042 2,635 1,883 2,595 <u>9,813</u> 32,968 | 55,210 11,615 8,096 9,900 <u>37,486</u> 122,307 |
| <u>Northern Section</u> Bank fishery Bridges Surf areas Boat fishery Subtotal | 8,246 3,769 1,357 4,304 17,676 | 28,560 14,699 4,750 19,540 67,549 | 13,972 13,941 5,850 <u>9,446</u> 43,209 | 62,694 54,370 20,475 40,996 178,535 | 23,369 7,891 3,455 <u>8,626</u> 43,341 | 33,312 28,408 12,093 42,527 116,340 | 7,439 4,736 3,607 7,304 23,086 | 23,660 14,682 11,903 <u>34,329</u> 84,574 | 8,338 4,430 916 <u>7,944</u> 21,628 | 24,865 11,518 2,015 27,089 65,487 |
| Combined total | 28,053 | 90,175 | 78,803 | 306,848 | 79,748 | 255,936 | 60,549 | 221,775 | 54,596 | 187,794 |
| | | | | | | | | | | |
| Facility | Ju Number of fishermen | ly Hours fished | Aug Number of fishermen | ust Hours fished | Sept Number of fishermen | ember Hours fished | Oct Number of fishermen | ober Hours fisbed | T Number of fishermen | otal Hours fished |
| Facility Southern Section Bridges and causeways Ocean piers Port Canaveral inside Port Canaveral outside Boat fishery Subtotal | Ju Number of fishermen 22,807 3,913 8,033 4,600 16,541 55,894 | Ly Hours fished 67,821 14,630 25,542 20,548 71,953 200,494 | Aug Number of fishermen 24,748 3,219 7,430 4,139 17,074 56,610 | ust Hours fished 89,435 14,699 20,361 17,395 74,272 216,162 | Sept Number of fishewmen 26,453 3,505 5,536 1,842 6,635 43,971 | Hours fished 84,101 15,700 21,679 11,165 28,862 161,507 | Oct Number of fishermen 14,593 2,328 5,488 1,526 3,734 27,669 | ober Hours fished 45,832 9,079 19,805 7,630 16,243 98,589 | T Number of fishermen 167,086 23,220 51,646 19,514 75,487 336,953 | otal Hours fished 541,988 89,485 170,259 88,184 <u>336,678</u> 1,226,795 |
| Facility Southern Section Bridges and causeways Ocean piers Port Canaveral inside Port Canaveral outside Boat fishery Subtotal Northern Section Bank fishery Bridges Surf areas Boat fishery Subtotal | Ju Number of fishermen 22,807 3,913 8,033 4,600 16,541 55,894 7,033 7,934 1,824 10,925 27,716 | ly Hours fished 67,821 14,630 25,542 20,548 T1 .953 200,494 29,733 22,733 22,733 22,733 22,733 22,733 22,735 20,574 115,176 | Aug Number of fishermen 24,748 3,219 7,430 4,139 17,074 56,610 9,052 9,052 3,604 7,564 29,440 | ust Hours fished 89,435 14,699 20,361 17,395 74,272 216,162 29,238 28,966 10,812 36,610 105,626 | Sept Number of fishermen 26,453 3,505 5,536 1,842 6,635 43,971 7,924 6,100 1,994 2,075 28,093 | 84,101 15,700 21,679 11,165 28,862 161,507 30,118 20,740 7,777 51,603 110,238 | Oct Number of fishermen 14,593 2,328 5,488 1,526 3.734 27,669 14,740 5,049 2,830 11,686 34,305 | ober Hours fished 45,832 9,079 19,805 7,630 16,243 98,589 43,004 22,216 9,622 52,821 127,663 | T Number of fishermen 167,086 23,220 51,646 19,514 75,487 336,953 100,281 62,902 25,437 79,874 268,494 | otal Hours fished 541,988 89,485 170,259 88,184 336,878 1,226,795 305,184 85,101 363,089 971,188 |



Figure 15.--Estimated sport fishery effort ln numbers of fishermen and hours fished, Cape Canaveral Area, February-October 1963; by section (all facilities combined), by month.

one-third of the hours fished, and the "bank fishery" a little less than one-third. Total hours fished in the Southern Section represent about 56 percent of the total for the area, and the Northern Section accounted for about 44 percent (monthly totals by section, figure 15 and table 54, show more hours fished in the Northern Section for the months of February, March, and October). Numbers of hours fished by month during March to October varied between about 188,000 and 322,000 (February figures are incomplete).

CATCH PER UNIT OF EFFORT

Catch-per-unit-of-effort data (numbers of fish per hour of fishing) for all species combined are presented by section, by facility, by month in table 55.

Values for the Southern Section for the period as a whole varied from a low of 0.37 for "Port Canaveral outside" to a high of 1.53 for "bridges and causeways." Over the months, for all facilities combined, the value ranged from 0.86 to 1.45. Values for the Northern Section for the period as a whole varied from lows of 0.74 for "surf areas" and 0.76 for "bank fishery" to highs of 1.02 for "boat fishery" and 1.05 for "bridges." Over the months, for all facilities combined, the value ranged from 0.78 to 1.16.

Combining all hours and all fish, the catch per unit of effort was 1.17 for the Southern Section and 0.92 for the Northern Section. For all hours and all fish for the entire area the catch per unit of effort was 1.05.

BAIT FISHERY

Northern Section

Fish camp operators in the Cape Canaveral Area provided information on the kinds, amounts, and source of bait which they sell. Live shrimp are dipped by most operators from the Indian River in the spring, summer, and fall, when shrimp are available. During the winter, operators are dependent upon shrimp shipped from the west and south coast of Florida to two wholesalers of live shrimp at Oak Hill. Bait shrimp vary from large

Table 55.--Estimated sport fishery catch-per-unit-of-effort, Cape Canaveral Area, February-October 1963; all species combined, in numbers of fish per hour of fishing, by section, by facility, by month

| Facility | Feb. | Mar. | Number Apr. | s of f May | ish per June | hour o: July | f fishin Aug. | ng Sept. | Oct. | Average /1_ |
|--|---------------------------------|---|--|---|---|----------------------------------|----------------------------------|-----------------------------------|------------------------------------|--|
| Southern Section | | | | | | | - | | | |
| Bridges and causeways Ocean piers Port Canaveral insidè Port Canaveral outside Boat fishery Average <u>/1</u> | .94 | 1.79 2.61 .74 .23 .86 1.43 | 1.77 .66 .44 .63 .71 1.10 | 1.62 .27 1.03 .41 .37 1.10 | 1.10 .75 .89 .26 1.43 1.08 | 1.31 1.27 1.78 .31 | 1.08 .58 .55 .35 .86 | 2.00 .63 .47 .31 1.45 | 1.56 .52 .53 .65 1.11 | 1.53 .94 .80 .37 .84 1.17 |
| Northern Section | | | | | | | | | | |
| Bank fishery Bridges Surf areas Boat fishery Average <u>/1</u> | .70 .99 .46 .99 .83 | .69 1.03 .94 .73 .83 | 1.36 1.25 .81 .90 1.11 | 1.00 1.22 .76 1.19 1.08 | .89 1.12 .82 .64 .83 | .68 .83 1.18 .78 .78 | .80 .90 .40 .86 .81 | .61 1.00 .38 .97 .83 | .40 1.16 .69 1.86 1.16 | .76 1.05 .74 1.02 .92 |
| Cape Canaveral Area | | | | | | | | | | |
| average <u>/1</u> | | 1.08 | 1.11 | 1.09 | •99 | 1.02 | .84 | 1.17 | 1.14 | 1.05 |

1 Total number of fish divided by total number of hours fished

eating size to extremely small shrimp, only slightly larger than grass shrimp. For the period we sampled, heads-on shrimp used for bait were estimated to average 90 to the pound. The estimated numbers, poundages, and values of the live shrimp sold for bait by 22 camp operators and bait dealers in the Northern Section by seasons are:

| | Spring | Summer | Fall | Winter | Total |
|-------------------|------------|-----------|-----------|-----------|-----------|
| Numbers sold | (= 000 | 00 550 | 0(050 | =0.000 | |
| per week | 67,800 | 98,750 | 86,250 | 79,800 | 332,600 |
| per season | 881.400 | 1.283.750 | 1.121.250 | 1.037.400 | 4.323.800 |
| Dozens sold | | 1,200,100 | | | |
| per season | 73,450 | 106,979 | 93,438 | 86,450 | 360,317 |
| Pounds per season | 9,793 | 14,263 | 12,458 | 11,526 | 48,042 |
| Value at 30 cents | *** | | | | |
| per dozen | \$22,035 | \$32,094 | \$28,031 | \$25,935 | \$108,095 |

During the winter when fish camp operators and bait retailers are forced to ship in live shrimp, little or no profit is made because of heavy mortality, and dealers handle live shrimp merely for the convenience of fishermen. The retail value of shrimp is estimated to vary, by season, between \$22,000 and \$32,000, with an annual value of \$108,095. The estimated total number of live shrimp sold annually is 4,323,800 or 48,042 pounds. This amounts to \$2.25 per pound to the consumer for whole weight, or about \$4.50 per pound if purchased for tails alone.

Shrimp are taken primarily by dipping when they are abundant and moving, but some operators take considerable numbers using small beam trawls. Shrimp are also taken by persons using push nets.

Juvenile pigfish are preferred bait for trout during June to October. After October the operators believe pigfish have grown too large for trout to be interested in them. Pigfish are captured by fish camp personnel using hook and line, small beam trawls, push nets, and traps. Traps and hook and line are the preferred methods. Pigfish used for bait vary from 2.5 to 4.0 inches total length and average 10 to the pound. Twelve camp operators sell an estimated 224,840 pigfish or 22,484 pounds annually, worth \$28,105. Individual live pigfish are sold by the dealers at 10 to 15 cents each, or approximately \$1.25 per pound.

One bait dealer in Titusville reported he sold squid shipped from Jacksonville, when available, and also sand fleas.

Dead shrimp also are sold for bait by the operators; however, it was not possible to make an estimate of the poundage sold. One major camp operator and a major bait dealer reported selling 10,660 pounds annually worth \$8,162. The retail price to the sport fishermen averages 70 cents per pound.

One bait dealer at Titusville reported selling 500 pounds of dead mullet per week during October and November and 125 pounds per week the remainder of the year; an annual total of 9,762 pounds at 25 cents per pound is worth about \$2,440. The increase in sales in the fall is attributed to the bluefish fishery. The amount of dead mullet sold in SEDARTS ROAD orthern Section is estimated to be at least double that for Titusville.

Southern Section

Estimated bait sales in the Southern Section are:

| Bait | Sold per week | Sold per year | Estimated Cost to fishermen per year | | |
|--------------------------------------|-------------------------------|--|--|--|--|
| | Pounds | Pounds | Dollars | | |
| Live shrimp Dead shrimp Mullet | 800 650-800 1,500-1,600 | 41,600 33,800-41,600 78,000-83,200 | 93,600 23,660-29,120 19,500-20,800 | | |

The average buyer purchases 2 to 3 dozen live shrimp, three-fourths of a pound of dead shrimp (heads-on weight), and about one and one-half pounds of mullet. Other bait sold includes: pigfish, squid, sand fleas, yellowtails, fiddler crabs, and needlefish.

Live shrimp for fishing in the Cape Canaveral Area are obtained mostly from Smith and Sutton at Oak Hill, some from Rice at Vero Beach, and occasionally from other places in Florida; and dead shrimp from Oak Hill, Port Canaveral, Jacksonville, Vero Beach, Venezuela, Nicaragua, Costa Rica, and India. The other bait used is locally obtained.

MISCELLANEOUS RECORDS

Gary Bennett

Gary Bennett, owner and operator of a large bait and tackle shop in Cocoa, kept partial records of the fish catch in the Cocoa area for several years, which he permitted us to use. A comparison of Bennett's data for 1956, 1957, and 1959 with ours shows that the sea trout (mostly spotted) was the only species reported with enough consistency to reflect trends. Spotted sea trout is the most sought after game fish in the inside waters, and special buttons are given to individuals catching trout weighing 6 pounds or more. Other species of fish were reported to Bennett if they were large specimens, caught in considerable numbers, or incidental to a spotted sea trout catch which was reported.

The catches of sea trout (most or all spotted) from Bennett's records for Indian River, Banana River, Sykes Creek, and Barge Canal were combined (table 56). Sea trout fishing (average monthly catches) was poorest in February and March, generally improved steadily through the spring, and was best in late spring and summer. The catch decreased in late summer (September) and increased through the fall and early winter. Table 56.--Sea trout (mostly spotted) catcb, Indian River, Sykes Creek, Barge Canal, and Banana River for 1956, 1957, and 1959, in numbers of fish, by month, by year, with averages

[Extracts of records maintained by Gary Bennett, Cocoa, Florida, on fisb catches reported to him]

| | and the second se | | | | |
|--|---|--|---|---|---|
| Month | 1956 | 1957 | 1959 | Total | Average |
| January February March April May June July August September October November Desember | 877 384 471 1,216 1,952 2,343 1,633 1,633 1,633 1,884 1,864 1,872 | 1,668 561 697 2,228 2,140 1,940 1,661 1,661 1,110 1,559 | 1,204 436 523 396 1,566 2,140 1,046 2,449 1,695 1,328 429 | 3,749 1,381 1,691 3,840 5,658 6,423 4,340 5,713 3,215 3,686 3,852 | 1,250 460 564 1,280 1,886 2,141 1,447 1,904 1,072 1,284 1,284 |
| Total | 16,101 | 17,363 | 14,717 | 48,181 | 16,060 |

Charter and Party Boat Ocean Fishery

The charter and party boats fishing in the ocean in the Cape Canaveral Area are based at ports from Melbourne to Port Orange. As the vessels from Port Orange and Melbourne fish only a small amount of their time in the study area, they were omitted from the statistics. Also, the erratic and questionable catch records of the vessel <u>Intrepid</u> of Patrick Air Force Base were omitted. The fleet fishing the area the major portion of the time consists of 24 boats:

| Port | Number of boats |
|-------------------|-----------------|
| Port Canaveral | 4 |
| New Smyrna Beach | 2 |
| Inlet Harbor | 15 |
| Safety Harbor | 2 |
| Timmons Fish Camp | 1 |
| Total | 24 |

The following methods were used to estimate the total party and charter boat catch in the study area in 1962. We interviewed the major vessel operators from New Smyrna Beach to Safety Harbor (over 80 percent of the vessels operating in the study area). The charter and party boats fished primarily on offshore reefs and trolled between these reefs and the port. When large numbers of mackerel appear in the area and are easily taken by troll gear some vessels fish for them exclusively. Three of the vessels fished solely for reef fish in 1962. The offshore reefs are shown in figure 2.

Vessel operators indicated that boats were out nearly every day in the summer of 1962 and averaged 2 days per week during the winter. We estimate the fleet to average about 11 trips per month per vessel, or a total of 3,168 trips annually.

The boats fishing from Inlet Harbor are considered typical of the fleet and represent 50 percent of the entire fleet in 1962. When the vessels return to port, the catch is hung on racks, and the fishermen and catch are photographed along with the date and the name of the vessel. The number of fishermen and estimates of the number of fish and weight by species were obtained from the photographs. Estimates of numbers and weights are minimums, as the catch beyond the capacity of the fish rack is placed in a large wheelbarrow which sometimes did not show in the photograph, or fish may be hidden behind the backs of the fishermen in the foreground. The large wheelbarrow was said to hold 150 pounds and, when observed in a photo, was recorded as one-fourth, one-half, threefourths, or full for estimates of poundage. No attempt was made to determine the species of fish in the wheelbarrow.

Photographs of catches from 447 trips by 12 boats from Inlet Harbor during February to September 1962 were examined. The catches photographed, by vessel, by month, and numbers of fishermen by month are given in table 57. There were 4,410 fishermen, or an average of about 10 per trip. We estimate the 447 trips photographed to represent about oneseventh of the trips made by the fleet in the Cape Canaveral Area in 1962, and that about 30,870 fishermen participated in the entire fishery.

The actual counts of fish in the photographs and their estimated weights in pounds and the estimated total numbers and weights for the entire fishery for 1962 are given in table 58. The estimated total catch by species in 1962 was arrived at by multiplying the values for the sample by seven.

There are several reasons why the estimated total numbers and weights of fish are believed to be minimum. Fish caught trolling, such as jack crevalle, or certain bottom reef fishes may be discarded because of their inferior food quality. Fishes such as black sea bass may be kept when bottom fishing

| | | Nur | nber of | catcb | es phot | ographed | ì. | | |
|------------------------|------|------|---------|-------|-------------------|----------|------|-------|-------|
| Vessel Name | Feb. | Mar. | Ar. | May | June | July | Aug. | Sept. | Total |
| | | | | ~ | | | | | |
| Black Duck | 11 | | 5 | 8 | 15 | 18 | 3 | | 60 |
| Gaywind | 8 | | 2 | 12 | 15 | 14 | 2 | 2 | - 55 |
| Laura K. | 5 | | 5 | 4 | 16 | 11 | 5 | 1 | 47 |
| Mako | | 5 | 8 | 12 | 20 | 20 | 5 | 6 | 73 |
| Misbehavin II | | | | | 5 | 8 | 1 | 1 | 15 |
| Miss Juanita | 2 | 1 | 8 | 11 | 19 | 16 | 3 | 2 | 62 |
| Moby Dick | 8 | | | 2 | 8 | 2 | 1 | 1 | 22 |
| Papoose II | | | | | 9 | 18 | 5 | | 32 |
| Shapper | | | | | | 11 | 1 | | 12 |
| Snow White | 7 | | 3 | 4 | 17 | 14 | 4 | | 49 |
| My Sweetheart | | | | | 17 | | | | 17 |
| Vessel /1 | | | | | | 1 | l | 1 | 3 |
| Total | 41 | 3 | 31. | 53 | 141 | 133 | 31 | 14 | 447 |
| Number of fishermen | 383 | 33 | 294 | 433 | 1, ⁴⁴⁴ | 1,409 | 293 | 121 | 4,410 |

1 Vessel name unknown.

Table 58.--Estimated sport fishery catch, Cape Canaveral Area; charter and party hoat catch for 1962

| Estimation | based up | on a pr | ojection | of data | obtained | from |
|-------------|-----------|---------|----------|-----------|-----------|------|
| examination | of phot | ographs | of 447 | catches 1 | from 12 h | oats |
| operatin | ng out of | Inlet | Harbor | February- | -Septembe | er] |
| | - | | - | | - | |
| | | | | | | |

| | Compositio | n of 447 | | | | | |
|---------------------------|------------|------------|-----------------------|--------------|--|--|--|
| | catches as | determined | Estimated total catch | | | | |
| Species | from photo | graphs | for Cape Ca | naveral Area | | | |
| | | Estimated | | Estimated | | | |
| | Numher | weight | Number | weight | | | |
| | of fish | in pounds | of fish | in pounds | | | |
| Amboninak | 80h | 21.068 | 5 768 | 147.476 | | | |
| Barro ouda | 21 | 152 | 147 | 1.064 | | | |
| Bluefich | 1 | | 7 | 21 | | | |
| Bonito Atlentic | 71 | 58 | 98 | 406 | | | |
| Cobio | 166 | 3.280 | 1.162 | 22,960 | | | |
| Dolphin | 263 | 1,549 | 1.841 | 10,843 | | | |
| Filefich | 9 | 29 | 63 | 203 | | | |
| Flounders | ź | 6 | 14 | 42 | | | |
| Groupers | 586 | 8.282 | 4,102 | 57,974 | | | |
| Grunts | 5 | 10 | 35 | 70 | | | |
| Jack, crevalle | 2 | 50 | 14 | 350 | | | |
| Jack, other | 1 | 2 | 7 | 14 | | | |
| King mackerel | 3,718 | 26,796 | 26,026 | 187,572 | | | |
| Little tuna | 1,154 | 11,283 | 8,078 | 78,981 | | | |
| Porgies | 214 | 531 | 1,498 | 3,717 | | | |
| Puffers | 4 | 6 | 28 | 42 | | | |
| Rays | 1 | 20 | 7 | 140 | | | |
| Remoras | 96 | 400 | 672 | 2,800 | | | |
| Sailfish, Atlantic | 2 | 80 | 14 | 560 | | | |
| Sea bass, black | 1,201 | 2,879 | 8,407 | 20,153 | | | |
| Sharks | 15 | 904 | 105 | 6,328 | | | |
| Sheepshead | 13 | 74 | 91 | 510 | | | |
| Snapper, mangrove | 3 | 18 | 21 | 120 | | | |
| Snapper, red | 1)1,11 | 50,141 | 10,239 | J92,901 | | | |
| Snapper, vermilion | 3,290 | 4,012 | 23,030 | 32,204 | | | |
| Snapper, other | 2 | 10 | 00 | 277 | | | |
| Spaderish | 10 | 11 | 81 | 208 | | | |
| Spanish mackerer | 1 | 16 | 28 | 110 | | | |
| TORULISH Weigeografich | 110 | 1 684 | 2 884 | 11.788 | | | |
| Triggeriisn Then other | -4.LE | 57 | 63 | 300 | | | |
| Wahaa | 2 | 70 | 14 | 490 | | | |
| Unclassified fish | 19 | 96 | 34 3 | 672 | | | |
| Misc. fish in | -72 |)0 | 5.5 | 01- | | | |
| wheelharrows /1 | 1,472 | 8,875 | 10,304 | 62,125 | | | |
| Total | 24,754 | 149,143 | 173,278 | 1,044,001 | | | |

 $\underline{/1}$ Wheelbarrows of fish--Fish which were excess to what the display rack would hold. Full wheelbarrow estimated to contain 150 pounds of fish. Numbers of fish are conversions of weights at 6.03 pounds per fish.

is average to poor but discarded when bottom fishing for amberjack and snappers is good. Other fishes, such as filefish, puffers, remoras, sharks, rays, and toadfish may be landed to be photographed for their bizarre appearance.

Sunglow Ocean Fishing Pier

There are no ocean fishing piers in the Northern Section. The Sunflow Ocean Fishing Pier, however, is located only a few miles north of the study area. The catches of fish at the pier are compiled weekly and published in "Day by Day." This catch information is valuable as an indicator of the occurrence and abundance of the sport fishes along the beach.

The catch in numbers and estimated weights by species, by month and season are presented in tables 59 and 60. On an annual basis, bluefish represent 44 percent of the total numbers and 54 percent of the total weight, and king whiting represent 35 percent of the numbers and 22 percent of the weight. Peak catches of bluefish occurred during March and April, and for king whiting the highest catches occurred January to March.

For all species combined, peak catches were recorded in March and April.

Timmons Fishing Camp

A substantial number of fish caught in Ponce de Leon Inlet are landed at Timmons Fishing Camp, Inlet Harbor Fish Camp, Safety Harbor Fish Camp, and several small fish camps where boats may be rented or private boats launched. Several party boats from Inlet Harbor and Safety Harbor fish the inlet only. There are also many places where the inlet may be fished from the bank on the north side.

"Day by Day," published in Daytona Beach, reports weekly catches in numbers and species

Table 59.--Sport fishery catch, Sunglow Ocean Fishing Pier, Daytona Beach, Florida; September 1962-August 1963, numbers of fish and estimated weights in pounds, by species, by month

[Species and numbers of fish are extracts of records appearing in <u>Day by Day</u>, published by V. R. Hall, Daytona Beach, Florida; weights of "<1 pound" were considered as "1 pound" in determination of totals]

| Species | Sept 1 | ember 962 | Octo 19 | ober 962 | Nov | ember 962 | Dec | ember 962 | Jan | 1 ary 963 | Feb | ruary 963 | Ma: 1 | reh 963 |
|--------------------|-----------|--------------|------------|-------------|--------|--------------|--------|--------------|--------|---------------------|--------|--------------|----------|------------|
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| Bluefish | 189 | 284 | 585 | 878 | 660 | 990 | 389 | 584 | 23 | 34 | 7 | 10 | 3,255 | 4,882 |
| Cabio | | | | | | | | | | | | | | |
| Catfish | 3 | 2 | 3 | 2 | 2 | 2 | | | | | | | | |
| Croaker | | | 3 | 2 | | | | | | | 1 | <1 | | |
| Drum, black | 519 | 779 | 73 | 110 | 67 | 100 | 71 | 106 | 25 | 38 | 19 | 28 | 3 | 4 |
| Drum, red | 134 | 268 | 92 | 184 | 47 | 94 | 25 | 50 | | | | | ĩ | 6 |
| Flounders | 68 | 85 | 63 | 79 | 25 | vi | 5 | 6 | 2 | 2 | l | 1 | | |
| Jack, crevalle | 4 | 6 | 2 | 3 | 6 | - - | | | 15 | 22 | | | 1 | 2 |
| King mackerel | 5 | 40 | | | | | | | | | | | | |
| King whiting | 1,332 | 999 | 473 | 355 | 346 | 260 | 713 | 535 | 1,626 | 1,220 | 889 | 667 | 2,295 | 1,721 |
| Little tuna | -,00 | | | | | | | | | | | | | |
| Pinfish | | | | | | | | | | | | | | |
| Pompano | 79 | 40 | 68 | 34 | 5 | 2 | | | | | | | 1 | <1 |
| Rays | | | | | | | 1 | l | | | | | 1 | 1 |
| Sea trout. spotted | 21 | 37 | 132 | 231 | 91 | 159 | 1 | 2 | 7 | 12 | 1 | 2 | 1 | 2 |
| Sheepshead | 77 | 96 | 112 | 140 | 25 | 31 | 1 | 1 | 2 | 2 | 4 | 5 | 2 | 2 |
| Snapper, mangrove | 3 | 2 | | | | | | | | ~ ~ | | | | |
| Spadefish | 61 | 30 | 17 | 8 | 11 | 6 | | | | ~ - | | | ~ - | |
| Spanish mackerel | 136 | 238 | 320 | 560 | 192 | 336 | 50 | 88 | | | | | 22 | 38 |
| Spot | 5 | 2 | 3 | 2 | 13 | 6 | 13 | 6 | 4 | 2 | | | | |
| Tenpounder | 96 | 96 | 22 | 22 | | | | ~ ~ | | | | | | |
| Yellowtail | | | 3 | <1 | | | | | | | | | | |
| Unclassified fish | | | ĩ | <1 | | | | | | | | | | |
| Total | 2.732 | 3.004 | 1,972 | 2.612 | 1,490 | 2.026 | 1,269 | 1.379 | 1.704 | 1,332 | 922 | 714 | 5.584 | 6.659 |

| Species | April 1963 | | May 1963 | | J1 10 | June 1963 | | July 1963 | | August 1963 | | Total | |
|--------------------|---------------|--------|-------------|--------|------------------|--------------|--------|--------------|--------|----------------|--------|-------|--|
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pound | |
| Bluefish | 7,155 | 10,732 | 416 | 624 | 214 | 321 | 29 | 1,1, | 202 | 303 | 13,124 | 19,68 | |
| Cabio | | | | | | | 2 | 18 | | | 2 | 1 | |
| Catfish | 1 | <1 | | | | | | | | | 9 | | |
| Croaker | | | 13 | 6 | 2 | 1 | 132 | 66 | | | 151 | 7 | |
| Drum, black | 18 | 27 | 68 | 102 | 225 | 338 | 135 | 202 | 245 | 368 | 1,468 | 2,20 | |
| Drum, red | 5 | 10 | 8 | 16 | 18 | 36 | 7 | 14 | 15 | 30 | 354 | 70 | |
| Flounders | 2 | 2 | 10 | 12 | 52 | 65 | 17 | 21 | 45 | 56 | 290 | 36 | |
| Jack, crevalle | 7 | 10 | 25 | 38 | ie | 18 | 17 | 26 | | | 89 | 13 | |
| King mackerel | | | 13 | 104 | 7 | 56 | 26 | 208 | 10 | 80 | 61 | 48 | |
| King whiting | 556 | 417 | 222 | 166 | 447 | 335 | 782 | 586 | 684 | 513 | 10,365 | 7,77 | |
| Little tuna | | | | | i | 6 | 1 | 6 | 8 | 52 | 10 | 6 | |
| Pinfish | | | 6 | 2 | | | | | | | 6 | | |
| Pompano | 1 | <1 | 11 | 6 | 7 | 4 | 13 | 6 | 13 | 6 | 198 | 10 | |
| Rays | | | | | | | | | | v* 4a | 2 | | |
| Sea trout, spotted | . 8 | 14 | 44 | 77 | 46 | 80 | 7 | 12 | 18 | 32 | 377 | 66 | |
| Sheepshead | 19 | 24 | 39 | 49 | 24 | 30 | 35 | 44 | 325 | 406 | 665 | 83 | |
| Snapper, mangrove | | | | | | | | | | | 3 | | |
| Spadefish | 5 | 2 | 112 | 56 | 33 | 16 | 5 | 2 | | | 244 | 12 | |
| Spanish mackerel | 181 | 317 | 334 | 584 | - Ĩ ₄ | 7 | 6 | 10 | | ~ - | 1,245 | 2,17 | |
| Spot | | | 51 | 26 | 333 | 166 | 302 | 151 | 50 | 25 | 774 | 38 | |
| Tenpounder | | | 8 | 8 | 8 | 8 | - 1 | 1 | 2 | 2 | 137 | 13 | |
| Yellowtail | | | | | | | | | | ~ | 3 | < | |
| Unclassified fish | | | | | 90 | 22 | 1 | <1 | | | 92 | 2 | |
| Total | 7,958 | 11,557 | 1,380 | 1,876 | 1,523 | 1,509 | 1,518 | 1,418 | 1,617 | 1,873 | 29,669 | 35,95 | |

for Timmons Fishing Camp. From the size of the operations at Safety Harbor, Inlet Harbor Fish Camp, and the small camps, we estimate the landings reported at Timmons for a year to represent about 20 percent of the total numbers of fish landed on the north side of the inlet.

The catch in numbers and estimated weights by species, by month and season for Timmons Fishing Camp are presented in tables 61 and 62. On an annual basis, shSEDAR25 RD3 present 41 percent of the total numbers and 44 percent of the total weight, spotted sea trout represent 7 percent of the numbers and 10 percent of the weight, and red drum represent 7 percent of the numbers and 12 percent of the weight.

For all species combined, peak catches were recorded during October-December and April-May.

Table 60.--Sport fishery catch, Sunglow Ocean Fishing Fier, Daytona Beach, Florida; 1962 fall, 1962-1963 winter, and 1963 spring and summer totals, in numbers of fish and estimated weights in pounds, by species

[Species and numbers of fish are extracts of records appearing in <u>Day by Day</u>, published by V. R. Hall, Daytona Beach, Florida; weights of "<1 pound" were considered as "1 pound" in determination of totals]

| Species | Fa. 190 | 11 62 | Wi 1962 | Winter 1962-1963 | | Spring 1963 | | Summer 1963 | | Total | |
|--------------------|------------|----------|------------|---------------------|--------|----------------|--------|----------------|--------|--------|--|
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | |
| Bluefish | 1,434 | 2,152 | 419 | 628 | 10,826 | 16,238 | 445 | 668 | 13,124 | 19,686 | |
| Cabio | | | | | ~ ~ | | 2 | 18 | 2 | 18 | |
| Catfish | 8 | 6 | | | 1 | 1 | | | 9 | 7 | |
| Croaker | 3 | 2 | 1 | <1 | 13 | 6 | 134 | 67 | 151 | 76 | |
| Drum, black | 659 | 989 | 115 | 172 | 89 | 133 | 605 | 908 | 1,468 | 2,202 | |
| Drum, red | 273 | 546 | 25 | 50 | 16 | 32 | 40 | 80 | 354 | 708 | |
| Flounders | 156 | 195 | 8 | 9 | 12 | ĩ4 | 114 | 142 | 290 | 360 | |
| Jack, crevalle | 12 | 18 | 15 | 22 | 33 | 50 | 29 | 44 | 89 | 134 | |
| King mackerel | 5 | 40 | | | 13 | 104 | 43 | 344 | 61 | 488 | |
| King whiting | 2,151 | 1,614 | 3,228 | 2.422 | 3,073 | 2,304 | 1,913 | 1.434 | 10,365 | 7.774 | |
| Little tuna | | | | | | | 10 | 64 | 10 | 64 | |
| Pinfish | | | | | 6 | 2 | | | 6 | 2 | |
| Pompano | 152 | 76 | | | 13 | 8 | 33 | 16 | 198 | 100 | |
| Rays | | | 1 | 1 | 1 | 1 | | | 2 | 2 | |
| Sea trout, spotted | 244 | 427 | 9 | 16 | 53 | 93 | 71 | 124 | 377 | 660 | |
| Sheepshead | 214 | 267 | 7 | 8 | 60 | 75 | 384 | 480 | 665 | 830 | |
| Snapper, mangrove | 3 | 2 | | | | | -+ | | 3 | 2 | |
| Spadefish | 89 | 44 | | | 117 | 58 | 38 | 18 | 244 | 120 | |
| Spanish mackerel | 648 | 1.134 | 50 | 88 | 537 | 939 | 10 | 17 | 1.245 | 2,178 | |
| Spot | 21 | 10 | 17 | 8 | 51 | 26 | 685 | 342 | 774 | 386 | |
| Tenpounder | 118 | 118 | | | 8 | -8 | ĩí | 21 | 137 | 137 | |
| Yellowtail | 3 | <1 | | | | | | | | <1 | |
| Unclassified fish | ĭ | <1 | | | | | 91 | 23 | 92 | 24 | |
| Total | 6,194 | 7,642 | 3,895 | 3,425 | 14,922 | 20,092 | 4,658 | 4,800 | 29,669 | 35,959 | |

Table 61.--Sport fishery catch, Timmons Fishing Camp, at Ponce de Leon Inlet, Florida; September 1962-August 1963, numbers of fish and estimated weights in pounds, by species, by month

[Species and numbers are extracts of records appearing in Day by Day, published by V. R. Hall, Daytona Beach, Florida; weights of "<1 pound" were considered as "1 pound" in determination of totals]

| Species | Sept | ember | Octo | ber | Nove | mber 60 | Dece | mber | Janu | ery 62 | Febr | uary | Mar | ch 62 |
|------------------|--------|--------|--------|--------|--------------|------------|------------|------------|--------|-----------|----------|--------|--------|----------|
| | Number | Founds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| Plustich | 1 | 0 | - 20 | 20 | 17 | 26 | 27 | ho | 1 | 0 | h | 6 | 96 | երե |
| Cobio | 1 | 6 | 20 | 20 | | 20 | - I | +0 | | | | | 30 | 144 |
| Catfich | | | 2 | ~ ~ | | | | | 1 | 3 | | | | |
| Capiton | | | C . | | 21 | 17 | 8 | h | 1 | -1 | | | 6 | 2 |
| Croaker. | -0 | 27 | 110 | 220 | 101 | 180 | 1 24 | 201 | 71 | 106 | 2 | 10 | 26 |) Eli |
| Drum, black | 50 | 100 | 140 | 210 | 161 | 102 | 104 061 | 201 508 | 106 | 100 | | 10 | 20 | 27 |
| Drum, red | 90 | TOO | 00 | 100 | 102 | 320 | 204 | 520 | 120 | 272 | <u> </u> | 42 | TO | 20 |
| Lets | | | 1 | 2 | | 22 | | | | | | | | |
| Flounders | 15 | 19 | 12 | 15 | 21 | 26 | [| 9 | 4 | 2 | | | 3 | 4 |
| Groupers | 6 | 3 | 4 | 2 | 14 | - T | 1 | <1 | T | $<\perp$ | | | | |
| Grunts | | | | | | | ~~~ | | | | | | | |
| Jack, crevalle | 21 | 32 | 20 | 30 | 11 | 16 | 1 | 2 | | | | | 34 | 51 |
| King whiting | 30 | 22 | 57 | 43 | 34 | 26 | 25 | 19 | 46 | 34 | 15 | 11 | 16 | 12 |
| Pigfish | 3 | <1 | 8 | 2 | 3 | <1 | 7 | 2 | 4 | 1 | | | | |
| Pinfish | 3 | <1 | 38 | 10 | 5 | 1 | 8 | 2 | | | 1 | <1 | | |
| Pompano | 5 | 2 | 3 | 2 | | | | | | | | | | |
| Rays | | | | | | | | | | | | | 1 | 1 |
| Sea robin | | | 1 | <1 | | | | | 1 | <1 | 1 | <1 | | |
| Sea trout, spott | ed 49 | 86 | 94 | 164 | 84 | 147 | 36 | 63 | 29 | 51 | 12 | 21 | 41 | 72 |
| Sea trout, other | | | 1 | 1 | 17 | 17 | 12 | 12 | 1 | l | 47 | 47 | 14 | 14 |
| Sharks | 2 | 7 | | | | | | | | | | | | |
| Sheepshead | 599 | 749 | 580 | 725 | 609 | 761 | 976 | 1,220 | 419 | 524 | 136 | 170 | 159 | 199 |
| Snapper, mangrov | e 229 | 114 | 324 | 162 | 140 | 70 | 39 | 20 | 12 | 6 | 1 | <1 | | |
| Snapper, other | | | 2 | 6 | 60 | 180 | 5 | 15 | | | | ~ = | | |
| Spadefish | 2 | <1 | | | | | | | | | | | | |
| Spanish mackerel | | ~~~ | | | 1 | 2 | | | | | | | | |
| Snot | | | 3 | 2 | 8 | 4 | 6 | 3 | | | | | | _ = |
| Tennounder | 1 | 1 | 10 | 10 | 29 | 29 | ĩ | ĩ | | | | | | |
| Yellowtail | | | | | | | | | | | | | | |
| Unclassified fie | h 117 | 20 | 307 | 77 | 201 | 73 | 236 | 59 | 55 | 14 | 96 | 24 | | |
| onorwoorlicg 110 | | 47 | 201 | (1 | ~ J - | 1.5 | 200 | 17 | // | 74 | ,0 | 2.1 | | |
| Total | 1,233 | 1,337 | 1,719 | 1,670 | 1,663 | 1,913 | 1,793 | 2,201 | 775 | 1,002 | 342 | 336 | 416 | 574 |

Table 61. -- Continued

| | | | | | | | | | | SEDA | R25-RD3 | 31 |
|-----------------|-----------|------------|---------|-------------------|------------|----------|---------------|-----------------|-----------|-----------|---------|--------------|
| Species | Apı 19 | ril 963 | M 19 | lay 163 | Ju 19 | ne 63 | Ju 19 | <u>цу</u> 63 | Aug 19 | ust 63 | To | tal |
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds |
| Bluefish | 492 | 738 | 97 | 146 | 7 | 10 | 7 | 10 | 14 | 21 | 783 | 1,175 |
| Cabio | | | | | | | | | | | 1 | 9 |
| Catfish | 40 | 31 | 10 | 8 | l | <1 | 1 | <1 | | | 59 | 46 |
| Croaker | 6 | _3 | 2 | 1 | <u>}</u> _ | 2 | 20 | 10 | 26 | 13 | 119 | 60 |
| Drum, black | 42 | 63 | 79 | 118 | 48 | 72 | 66 | 99 | 79 | 118 | 882 | 1,322 |
| Drum, red | 40 | 80 | 87 | 174 | 54 | 108 | 40 | 80 | 51 | 102 | 1,026 | 2,052 |
| Eels | | | | | | | | | | | 2 | 4 |
| Flounders | 21 | 26 | 62 | 78 | 57 | 71 | 38 | 48 | 13 | 16 | 253 | 317 |
| Groupers | 2 | 1 | l | <1 | | | 1 | <1 | | | 30 | 17 |
| Grunts | | ~ - | 1 | <1 | 2 | l | 1 | <1 | | | 2+ | 3 |
| Jack, crevalle | 204 | 306 | 103 | 154 | 37 | 56 | 38 | 57 | 73 | 110 | 542 | 8 1 4 |
| King whiting | 68 | 51 | 42 | 32 | 36 | 27 | 51 | 38 | 26 | 20 | 446 | 335 |
| Pigfish | | | 7 | 2 | 5 | 1 | 44 | 11 | 56 | 14 | 137 | 35 |
| Pinfish | 1 | <1 | 2 | <1 | 5 | l | 11 | 3 | 3 | <1 | 77 | 22 |
| Pompano | | | l | <1 | l | <1 | | | | | 10 | 6 |
| Rays | | | 3 | 3 | | | | | 2 | 2 | 8 | 8 |
| Sea robin | | | | | | | | | | | 3 | 3 |
| Sea trout, spot | ted 153 | 268 | 249 | 436 | 113 | 198 | 93 | 163 | 94 | 164 | 1,047 | 1,833 |
| Sea trout, othe | r 87 | 87 | 12 | 12 | 1 | l | 1 | 1 | 8 | 8 | 201 | 201 |
| Sharks | 2 | 7 | 1 | 4 | | | | | | | 5 | 18 |
| Sheepshead | 693 | 866 | 624 | 780 | 323 | 404 | 549 | 686 | 519 | 649 | 6,186 | 7,733 |
| Snapper, mangro | ve 8 | 14 | 22 | 11 | 19 | 10 | 50 | 25 | 44 | 22 | 888 | 445 |
| Snapper, other | | | | | | | | | | | 67 | 201 |
| Spadefish | | | 24 | 2 | 2 | 1 | 2 | 1 | 1 | <1 | 11 | 6 |
| Spanish mackere | 1 2 | 24 | | | | | | | | | 3 | 6 |
| Spot | 1 | <1 | 4 | 2 | 1 | <1 | 4 | 2 | | | 27 | 15 |
| Tenpounder | 28 | 28 | 161 | 1 61 | 53 | 53 | 22 | | 43 | 43 | 348 | 348 |
| Yellowtail | | | a. 19 | | | | 6 | 2 | | | 6 | 2 |
| Unclassified fi | sh 117 | 29 | 305 | 76 | 206 | 52 | 92 | 23 | 123 | 31 | 1,945 | 487 |
| Total | 2,009 | 2,596 | 1,879 | 2,204 | 975 | 1,071 | 1,1 37 | 1,284 | 1,175 | 1,335 | 15,116 | 17,523 |

Table 62.--Sport fishery catch, Timmons Fishing Camp, at Ponce de Leon Inlet, Florida; 1962 fall, 1962-1963 winter, and 1963 spring and summer totals, in numbers of fish and estimated weights in pounds, by species

[Species and numbers of fish are extracts of records appearing in <u>Day by Day</u>, published by V. R. Hall, Daytona Beach, Florida; weights of "<1 pound" were considered as "1 pound" in determination of totals]

| Species | Fa: 196 | Fall 1962 | | Winter 1962-1963 | | Spring 1963 | | Summer 1963 | | Total | |
|--------------------|------------|--------------|--------|---------------------|--------|----------------|--------|----------------|--------|--------|--|
| | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | Number | Pounds | |
| Bluefish | 38 | 58 | 32 | 48 | 685 | 1,028 | 28 | 41 | 783 | 1,175 | |
| Cabio | 1 | 9 | | | | | | | 1 | 9 | |
| Catfish | 3 | 2 | 4 | 3 | 50 | 39 | 2 | 2 | 59 | 46 | |
| Croaker | 46 | 23 | 9 | 5 | 14 | 7 | 50 | 25 | 119 | 60 | |
| Drum, black | 319 | 479 | 213 | 319 | 157 | 235 | 193 | 289 | 882 | 1,322 | |
| Drum, red | 333 | 666 | 411 | 822 | 137 | 274 | 145 | 290 | 1,026 | 2,052 | |
| Eels | 2 | 1 | | | | | | | 2 | 4 | |
| Flounders | 48 | 60 | 73 | 14 | 86 | 108 | 108 | 135 | 253 | 317 | |
| Groupers | 24 | 12 | 2 | 2 | 3 | 2 | 1 | <1 | 30 | 17 | |
| Grunts | | | | | ĩ | <1 | 3 | 2 | 4 | 3 | |
| Jack, crevalle | 52 | 78 | 1 | 2 | 341 | 511 | 148 | 223 | 542 | 814 | |
| King whiting | 121 | 91 | 86 | 64 | 126 | 95 | 113 | 85 | 446 | 335 | |
| Pigfish | 14 | 4 | 11 | 3 | 7 | 2 | 105 | 26 | 137 | 35 | |
| Pinfish | 46 | 12 | 9 | 3 | 3 | 2 | 19 | 5 | 77 | 22 | |
| Pompano | 8 | 4 | | | ĩ | <1 | ĺ | <1 | 10 | 6 | |
| Rays | | | | | 6 | 6 | 2 | 2 | 8 | 8 | |
| Sea robin | 1 | 1 | 2 | 2 | | | | | 3 | 3 | |
| Sea trout, spotted | 227 | 397 | 77 | 135 | 443 | 776 | 300 | 525 | 1.047 | 1,833 | |
| Sea trout, other | 18 | ĩ. | 60 | 60 | 113 | 113 | 10 | 10 | 201 | 201 | |
| Sharks | 2 | 7 | | | 3 | 11 | | | 5 | 18 | |
| Sheepshead | 1.788 | 2.235 | 1.531 | 1,914 | 1.476 | 1,845 | 1,391 | 1,739 | 6,186 | 7,733 | |
| Snapper, mangrove | 693 | 346 | 52 | 27 | 30 | 15 | 113 | 57 | 888 | 445 | |
| Snapper, other | 62 | 186 | 5 | 15 | | | | | 67 | 201 | |
| Spadefish | 2 | 1 | | | 4 | 2 | 5 | 3 | 11 | 6 | |
| Spanish mackerel | 1 | 2 | | | 2 | 4 | | | 3 | 6 | |
| Spot | 11 | б | 6 | 3 | 5 | 3 | 5 | 3 | 27 | 15 | |
| Tenpounder | 40 | 40 | 1 | 1 | 189 | 189 | 118 | 1 1 8 | 348 | 348 | |
| Yellowtail | | | | | | | 6 | 2 | 6 | 2 | |
| Unclassified fish | 715 | 179 | 387 | 97 | 422 | 105 | 421 | 106 | 1,945 | 487 | |
| Total | 4,615 | 4,920 | 2,910 | 3,539 | 4,304 | 5,374 | 3,287 | 3,690 | 15,116 | 17,523 | |

Considering the size of the area involved and our estimations of fishing use and catch, both commercial and recreational, we believe that the Cape Canaveral Area is one of the most productive of areas along the south Atlantic coast of the United States. A great deal of this productivity relates to the unique riverlagoon complex.

COMMERCIAL FISHERY

Average annual production for the commercial fishery in the Cape Canaveral Area for the 4-year period 1959-62 was a little over 6 million pounds worth about \$1 million. Of this, eight dominant species (shrimp, black mullet, spotted sea trout, red snapper, blue crab, spot, pompano, and king whiting) contributed 91 percent of the weight, 5-1/2 million pounds, and 94 percent of the value, \$945,000. Shrimp, the most valuable of all the Cape Canaveral fisheries, contributed 23 percent of the weight and 54 percent of the value of the entire fishery. Black mullet contributed the greatest poundage, 27 percent of the total, but only 8 percent of the value. Spotted sea trout (the most important sport fish taken in the Cape Canaveral Area) is also an important commercial species, contributing 7 percent of the pounds and 11 percent of the value.

Of the total landings of the five most important commercial species on the Florida east coast, the Cape Canaveral Area contributes, in decreasing order of value, 20 percent of the shrimp, 15 percent of the blue crabs, 41 percent of the red snapper, 49 percent of the spotted sea trout, and 67 percent of the black mullet.

In pursuit of the commercial fishery in the Cape Canaveral Area, an annual average of 628 fishermen, 112 motor vessels, 194 motor boats, and 44 other boats are employed, utilizing a variety of gear, such as shrimp trawls, crab pots, gill nets, trammel nets, and handlines.

RECREATIONAL FISHERY

Catch

For the three seasons, spring, summer, and fall, we estimate the sport fishery catch in the Cape Canaveral Area to total about 2,233,000 fish (spring, 857,000; summer, 590,000; and fall, 786,000) or 2,292,000 pounds (spring, 939,000; summer, 595,000; and fall, 758,000). We estimate the winter season values at least equal those for the spring. Therefore, on an annual basis, we estimate the sport Table 63.--Estimates of average weight per fish for species entering the sport fishery catch of Cape Canaveral Area. These weights were used to convert numbers and estimates of numbers of fish to estimates of weight in pounds in the several tables in this report

| | Average | | Average weight |
|----------------------|---------|--------------------|-------------------|
| Species | in | Species | in |
| 000100 | Tounds | | pounds |
| | | | |
| Amberjack | . 15.00 | Pigfish | 0.25 |
| Barracuda | 8.00 | Pinfish | 0.25 |
| Black margate | 1.00 | Pompano | 0.50 |
| Bluefish | . 1.50 | Porgies | 2.00 |
| Cabio | . 9.00 | Puffers | 0.50 |
| Catfisb, gafftopsail | . 0.75 | Rays | 1.00 |
| Catfish, sea | 1.00 | Sea bass, black | 1.00 |
| Croaker | 0.50 | Sea bass, rock | 0.25 |
| Cutlassfish | 1.25 | Sea robin | 0.25 |
| Dolphin | 8.00 | Sea trout, gray | 1.50 |
| Drum, black./1N. | 1.50 | Sea trout, silver. | 1.00 |
| S. | . 13.75 | Sea trout, spotted | 1.75 |
| Drum. red | 2.00 | Sharks | 3.50 |
| Eels | 2.00 | Sheepshead | 1.25 |
| Flounders | 1.25 | Snapper, red | 8.00 |
| Groupers. /1N. | 0.50 | Snapper, mangrove. | 0.50 |
| S. | 10.00 | Snapper, other | 3.00 |
| Grunts | 0.50 | Spadefish | 0.50 |
| Jack, crevalle | 1.50 | Spanish mackerel. | 1.75 |
| Jack, other | 1.00 | Spot | 0.50 |
| King mackerel | 8.00 | Tenpounder | 1.00 |
| King whiting | 0.75 | Triggerfish | 2.50 |
| Little tuna | 6.50 | Yellowtail | 0.25 |
| Mojarra | 0.50 | Unclassified fish. | 0.25 |
| Mullet | 1.00 | | |

<u>A</u> Different average weights were used in northern (N.) and southern (S.) sections because of difference in sizes of fish generally observed for species between the two sections.

fishery catch to be 3,090,000 fish weighing 3,231,000 pounds.

We estimate the Southern Section contributes 58 percent of the total numbers and 57 percent of the poundage (based on the total for three seasons). The catch from bridges and causeways in the entire area is estimated to be 53 percent of total numbers of fish and 43 percent of total weight.

The nine dominant species in the sport fishery catch in numbers of fish, in decreasing order of importance, are: spotted sea trout, pinfish, puffers, sea trout (other), catfish, king whiting, sheepshead, bluefish, and croaker. These nine species account for 76 percent of the total numbers taken and 73 percent of the pounds. By seasons, the numbers of these species represent 82 percent of the total for the spring, 74 percent for the summer, and 72 percent for the fall. Spotted sea trout, the most important sport fish, represented 20 percent of the total numbers of fish and 33 percent of the weight.

We estimate the spotted sea trout catch in the commercial and sport fisheries combined exceeds 1-1/2 million pounds annually, over two-thirds of which comes from the sport fishery.

Fishing Effort

Estimates of annual total effort of sports fishermen in the entire area (based upon our data for three seasons and an estimation of half of the spring values for the winter season) are about 754,000 fishermen fishing about 2,749,000 hours. Fishing effort during the spring, summer, and fall is about equal, but is reduced in the winter to about half the value for the other seasons. Greatest fishing effort was expended during July and August. However, peak catches occurred in March, April, and September.

Flat needlefish

Spotted eagle ray Orange filefish

Anchovy Bay anchovy Striped anchovy

Ocellated flounder Black margate Singlespot frogfish

Sheepshead; porgy Southern stargazer

Sea robin Horned sea robin

Atlantic menhaden

Blue runner; hardtail Crevalle jack; crevalle;

Black sea bass; blackfish Spadefish; angelfish

Menhaden; pogy Yellowfin shad

Gafftopsail; sea catfish Yellowtail; silver perch

Wahoo

Cowfish Cowfish

Filefish

Barbier

Triggerfish

Flounder

Brotula Porgy

jackfish Bar jack

Sand shark

Rock sea bass

Striped burrfish

Spotted whiff Bay whiff

Herring Conger eel

Sea trout

Scad Round scad

Sand perch

Sand perch

Sharksucker Tenpounder; ladyfish

Flounder Fringed flounder

Remon

Grouper

Jewfish

Flounder Gulf Stream flounder

Spotted or speckled sea trout Silver sea trout

Warsaw grouper; black jewfish

Snowy grouper Jackknife-fish; ribbonfish

Gray sea trout; gray trout Flyingfish

Atlantic flyingfish

Southern stingray

Roughtail stingray Atlantic stingray

Bluntnose stingray

Sea bass Bank sea bass

Burrfish

Bumper

Shark Sickle shark

Jack Yeilow jack

Eel

Ray

Scientific name

Ablennes Mians (Valenciennes) Acanthocybium solanderi (Cuvier) Acanthostracion sp. Acanthostracion guadricornis (Linnaeus) Actobatus marinari (Euphrasen) Alutera scheenfii (Walbaum) Alutera scheenfii (Walbaum) Anchoa sp. Anchoa functilli (Valenciennes) Anchoa functilli (Calenciennes) Anchoa functilli (Calenciennes) Anchoa functi (Valenciennes) Anchoa functi (Calendes) Balistes sp. Brevoortia spith Hildebrand Brevoortia spith Hildebrand Brevoortia furannus (Latrobe) BROTULIDAE Caranx fartholomagi (Uvier Caranx furgos (Mitchill) Caranx hartholomagi (Uvier Caranx furgos (Mitchill) Caranx hartholomagi (Uvier

Sarany ruber (Bloch) Carcharhinus sp. Carcharhinus falciormis (Miller and Henle) Carcharhinus falciormis (Miller and Henle) Carcharias faurus Rafinesque Centropristis sp. Centropristis orjurus (Jordan and Evermann) Centropristis priladelphicus (Linnaeus) Contropristis sprintus (Linnaeus) Chateditherus faber (Broussonet) Chilomycterus sp. Citharichthys arctifrons Goode Citharichthys marchips Gouter Citharichthys marchips Gouter Citharichthys marchips Could Convenses hippurus Linnaeus Dynoscion sp. Cynoscion nothus (Bolkrook) Cynoscion nothus (Bolkrook) Cynoscion nothus (Bolkrook) Cynoscion conthus (Bolkrook) Cynoscion sp. Cynoscion sp. Cynselurus picturus (Rafinesque) Dasyatis gabrian (LeSueur) Desaytis gabria (LeSueur) Desaytis gaing (LeSueur) Desaytis sp. Dinlectrum sp. Chilemychus formosum (Linnaeus) ECHERIDAE Echeneis macrates Linnaeus Edisphedus sp. Epinephelus sp. Epinephelus migritus (Nalenstein) Epinephelus migritus (Valenciennes) Epinephelus migritus (Valenciennes) Epinephelus migritus (Valenciennes) Epinephelus migritus (Valenciennes) Epinephelus migritus (Linnaeus)

Etropus sp. Etropus crossotus Jordan and Gilbert Bait Fishery

SEDAR25-RD31

Shrimp is one of the principal baits used by sport fishermen, and we estimate that about 8 million live shrimp, weighing about 90,000 pounds and selling for about \$200,000, are sold annually by bait dealers alone. Many fishermen secure their own live shrimp with pushnets, dip nets, and cast nets.

Table 64.--List of scientific and common names of species of fish
<u>Common name</u>
<u>Scientific name</u>

Etrumeus sadina (Mitchill) Aucinostomus sp. Buthynnus alletteratus (Rafinesque) Fistularia tabacaria Linnaeus Caleichthys falis (Linnaeus) Galeus arae (Nichols) GERRIDAE

<u>Cymnachirus nudus</u> Kaup <u>Gymnura micrura</u> (Bloch and Schneider) Symmithe Source Reprint Reprin Lactophrys trigonus (Linnaeus) Lagodon rhomboides (Linnaeus) Larimus fasciatus Holbrook leiostomus xanthurus Lacépède Lepophidium sp. Lobotes surinamensis (Bloch) Lutjanus sp. Lutjanus blackfordii Goode and Bean Lutjanus griseus (Linnaeus) Membras martinica (Valencieanes) Menticirrhus sp. Menticirrhus americanus (Linnaeus) Manticirrhus saxatilis (Bloch and Schoeider) Merluccius sp. Micropogon undulatus (Linnaeus) MONACANTHIDAE Monacanthus sp. Mugil sp. Mugil cephalus Linnaeus Mugil curema Valenciennes Mullus auratus Jordan and Gilbert Mycteroperca sp. Myliobatis sp. Negaprion brevirostris (Poey) Ocyurus chrysurus (Bloch) Ogcocephalus sp. Ogcocephalus vespertilio (Linnaeus) Ophichthus ocellatus (LeSueur) Ophidion holbrooki (Putnam) Opisthonema oglinum (LeSueur) <u>Opsenus</u> sp. <u>Othopristis</u> <u>chrysopterus</u> (Linnaeus) <u>Otophidium grayi</u> Fowler Pagrus sp. fmgrue sp. Paralichthys abligutta Jordan and Gilbert Paralichthys dentstum (Linnaeus) Paralichthys lethostigma Jordan and Gilbert Paralichthys Spianlichtus Jordan and Gilbert Paralichthys Spianlichtus Jordan and Gilbert Paratexposetus brachypterus (Pichardson) eprilus sp. Peprilus alepidotus (Linnaeus) Peprilus paru (Linnaeus) Peristedion sp.

Common name

Atlantic round herring Mojarra Little tuna Cornetfish Sea catfish Crested shark Mojarra; silver perch; sand perch: sand bream Naked sole Smooth butterfly ray Grunt; margate White grunt; common grunt Batfish Spiny batfish Scaled sardine Halfbeak Balao Ballyhoo Fourspot flounder Sargassumfish Halfbeak Blenny A*lantic sailfish Lancer stargazer Yellow chub Bermuda chub Trunkfish Pinfish; sailors choice Banded drum Tripletail Red snapper Mangrove snapper; gray snapper Rough silverside Whiting Southern kingfish; king whiting Northern kingfish; king whiting Atlantic croaker Millet Black mullet; striped mullet; jumping mullet Silver mullet Red goatfish Grouper Eagle ray Lemon shark Yellowtail snapper Batfish Longnose batfish Palespotted cel Bank cusk-eel Atlantic thread herring Pigfish Red porgy Gulf flounder Summer flounder Southern flounder Broad flounder Sailfin flyingfish Butterfish Southern harvestfish Northern harvestfish Armored sea robin Hake Flounder Black drum; drum Beardfish

Phycis sp. Poecilopsetta sp. Pogonias cromis (Linnaeus) Folymixia lowei (Günther)

Scientific name

Pomatomus saltatrix (Linnaeus) Pontinus sp. Porichthys sp. Porichthys porosissimus (Valenciennes) Poronotus triacanthus (Peck) <u>Prionotus triacantaus</u> (Peck) <u>Prionotus carolinus</u> (Linnaeus) <u>Prionotus evolans</u> (Linnaeus) <u>Prionotus pectoralis</u> Michols and Breder <u>Prionotus roseus</u> Jordan and Evermann <u>Prognichthys gibhifrons</u> (Valenciennes) <u>Pseudupeneus maculatus</u> (Bloch) <u>Rachycentron canadum</u> (Linnaeus) Bata sp. Raja sp. Raja <u>cglanteria</u> Bosc Rhinoptera bonasus (Mitchill) Rhizoprionodon terraenovae (Richardson) Rhomboplites sp. Rhomboplites aurorubens (Cuvier) Rissola marginata (DeKay Sarda sarda (Bloch) Sardinella sp. SCIAENIDAE Science of the second s Scomberomorus maculatus (Mitchill) Scophthalmus aquosus (Mitchill) Scorpaena brasillensis Cuvier Scorpaena calcarata Goode and Bean SCORPAENIDAE SELACHET Selar crumenophthalmus (Bloch) Selene vomer (Linnaeus) Seriola sp.

Table 64.--Continued

Bluefish Scorpionfish Midshipman Atlantic midshipman Butterfish Sea robin Northern sea rohin Striped sea rohin Blackwing sea robin Bluespotted sea robin Bluntnose flyingfish Spotted goatfish Cabio; cobia Skate Clearnose skate Cownose ray Atlantic sharpnose shark Vermilion snapper Vermilion snapper Striped cusk-eel Atlantic bonito Drum Red drum; channel bass; redfish Chub mackerel King mackerel; kingfish Spanish mackerel; mackerel Windowpane flounder Scorpionfish Barbfish Smoothhead scorpionfish Scorpionfish: rockfish Bigeye scad Lookdown Amberjack

Common name

Scientific name Seriola dumerili (Risso) Serranus phoebe Poey Sphyraena sp. <u>Sphaeroides</u> sp. <u>Sphyrna</u> tiburo (Linnaeus) <u>Sphyrna</u> zygaena (Linnaeus) Squalus sp. Stellifer lanceolatus (Holbrook) Stenotomus sp. Stenotomus chrysops (Linnaeus) <u>Stephanolepis</u> sp. <u>Stephanolepis hispidus</u> (Linnaeus) <u>Strongylura acus</u> (Lacépède) Syacium sp. Symphurus sp. Symphurus plagiusa (Linnaeus) Syngnathus sp. Synodus sp. Synodus foetens (Linnaeus) Synodus intermedius (Spix) Thunnus sp. TORPEDINIDAE Torpedo nobiliana Bonaparte Trachinocephalus myops (Forster) Trachinotus sp. Trachinotus carolinus (Linnaeus) Trachurus <u>lathami</u> Nichols Trichiurus <u>lepturus</u> Linnaeus TRUCTIONE Trinctes maculatus (Bloch and Schneider) Urophycis sp. Urophycis regius (Walbaum) Yomer setaminis (Mitchill) Xiphias gladius Linnaeus

Common name

Greater amberjack Tattler Porgy Barracuda Puffer; blowfish Bounethead Smooth hammerhead Dogfish shark Star drum Porgy; scup Scup Filefish Planehead filefish Needlefish; agujon Flounder Tonguefish Black cheek tonguefish Pipefish Lizardfish Inshore lizardfish Sand diver Tuna Electric ray Atlantic torpedo Snakefish Pompano Pompano Rough sead Atlantic cutlassfish; Sea robin Hogehoker Hake Spotted hake Atlantic moonfish Swordfish

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