## Title

Fish Bulletin No. 63. The Commercial Fish Catch of California for the Years 1943 and 1944

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STATE OF CALIFORNIA DEPARTMENT OF NATURAL RESOURCES DIVISION OF FISH AND GAME BUREAU OF MARINE FISHERIES FISH BULLETIN No. 63
The Commercial Fish Catch of California for the Years 1943 and 1944

## FOREWORD

This is the ninth fish bulletin of a series begun in 1929 for the purpose of presenting detailed records of the commercial fish catch of California as well as other statistical information compiled by the Bureau of Marine Fisheries.

The cooperation of the Bureau of Patrol and Law Enforcement in the collection of the original material is gratefully acknowledged.
November, 1945


Figure 1
(4)

FIGURE 1

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(6)

FIGURE 2

## 1. THE FISH CATCH OF CALIFORNIA

During the war years the fisheries of California underwent definite changes. The California catch is dominated by the species used for canning: Sardines, mackerel, the five tunas and yellowtail. In 1941 we were actually preparing for war, the draft was in effect, and high wages were attracting labor to the defense plants so that this year may be considered as one of the war years. In the accompanying table the catch of these cannery fish during the four years, 1941 through 1944, is contrasted with the catch in the four preceding years. The average annual catch is expressed in millions of pounds. The last column is the average total of pounds caught.

AVERAGE ANNUAL CATCH FOR THE LAST FOUR YEARS CONTRASTED WITH THE PRECEDING FOUR YEARS (Figures in Millions of Pounds)


For all species the catch in the second interval was only slightly in excess of the four prewar years. The sardine catch increased due to heavy landings in 1941 and 1944, but this increase was largely offset by a reduction in the take of yellowfin and skipjack. In normal times most of our catch of these two species comes from off the coasts of Central and South America. During the war the movements of our fishing boats in southern waters were curtailed or prohibited and the local catch of these two tunas could not maintain the prewar totals. Bluefin, yellowtail and bonito all experienced small decreases whereas albacore catches increased. This was due to exceptionally successful fishing in 1943 and better than average in 1944.

Some fishes of less importance than the cannery species showed an increased catch after we entered the war. As our shark catch sagged, vitamin production was aided by imported livers and also by heavier catches of local sablefish, especially for the two years 1943 and 1944 in which the catch quadrupled the prewar average for the species. The canning of local squid and of Pismo clams from Mexico led to spectacular increases in the take of these species for 1943 and 1944. The unforeseen use, beginning in November of 1943, of a light balloon net enabled otter trawl fishermen to capture rockfish in great quantities for the fresh fish trade. The prewar catch of rockfish was roughly $3,000,000$ pounds but this dropped to $1,500,000$ pounds in 1942 when price to the small boat fishermen was fixed by the office of Price Administration at a low level. Then the trawlers with the new balloon net turned to rockfish and the 1944 catch rose to $6,500,000$ pounds.

Our chief fishing ports of San Francisco, Monterey, San Pedro and San Diego remained in the lead during 1943 and 1944 but because of wartime restrictions many of our small boats moved their operations to lesser ports. Eureka and Fort Bragg showed substantial increases in the amounts of fish landed. At Bodega Bay four new wholesale fish houses were built to receive the catches of additional small boats fishing in that area. Normally about four-fifths of the mackerel catch of the State is landed at the harbor of San Pedro but so many boats shifted their deliveries to Santa Monica that the 1944 catch of that port almost equaled the mackerel deliveries at San Pedro. Newport Bay, the most southerly of the small ports, became congested and sheltered more small fishing craft than any other port in the State.

Marine sport fishing continued through 1943 and 1944 but at a low ebb. Fishing barges were not allowed to anchor off shore and surf fishing was limited to daylight hours. Pier fishing continued on a reduced scale.


FIGURE 3


FIGURE 4

| TABLE 1 <br> CALIFORNIA LANDINGS-1943 |  |
| :---: | :---: |
| Species | Pounds |
| Sardine.- | 972,270,000 |
| Pacific Mackerel. | 75,264,000 |
| Yellowfin Tuna_ | 49,261,000 |
| Skipjack Tuna | 28,894,000 |
| Albacore.- | 21,385,000 |
| Horse Mackerel. | 12,699,000 |
| Bluefin Tuna--- | 10,179,000 |
| Squid. | 9,164,000 |
| Salmon_--- | 6,581,000 |
| Yellowtail | 4,935,000 |
| Sole. | 4,782,000 |
| Barracuda | 3,775,000 |
| Shark_-- | 3,729,000 |
| Sablefish. | 3,205,000 |
| Rockfish. | 2,762,000 |
| Shad_- | 2,348,000 |
| Crab | 2,315,000 |
| Bonito Tuna | 2,282,000 |
| Anchovy--- | 1,571,000 |
| Smelt.- | 1,566,000 |
| California Halibut | 1,122,000 |
| Spiny Lobster---- | 986,000 |
| Oyster---.-- | 851,000 |
| Pacific Cultus | 719,000 |
| Black Sea-bass_ | 701,000 |
| Abalone-- | 6880,000 |
| All others. | 5,781,000 |
| Yearly total pounds. | 1,229,807,000 |
| Fish landings exclusive of mollusks and crustaceans_ | 1,214,879,510 |
| *This table includes actual landings at California ports by the commercial states and foreign countries by truck, rail and ocean liner to California canneric page 41. | vell as shipments from other ish dealers. For detail see |

TABLE 1
CALIFORNIA LANDINGS-1943


TABLE 2
CALIFORNIA LANDINGS—1944

## 2. VALUE OF COMMERCIAL FISH LANDINGS

The value of California's fisheries could be calculated from the price paid for the raw product or from the price received for the processed fish. To determine the latter would involve many adjustments and consequently in this, as in previous reports, the price received by the fishermen for fish in the round has been taken as the basic value. In a few instances fishermen market their own catch and therefore can not record sale in the round. In cases of missing sale price the average price obtained for the species in the locality and for the season of the year involved has been used.

Throughout the past six years the value of California fishes has steadily increased, whereas the poundage has shown no consistent trend upward or downward. For the entire State the poundage delivered in 1944 was 98 per cent of that for 1939 . On the other hand, the value of the 1944 catch was 190 per cent when compared with 1939 . The trend of values and poundages throughout the six years is indicated by the following figures:

|  | Pounds | Change | Value | Increase |
| :--- | :--- | :--- | :--- | :--- |
| 1939 | $1,500,000,000$ |  | $\$ 19,000,000$ |  |
| 1940 | $1,300,000,000$ | $-200,000,000$ | $20,400,000$ | $\$ 1,400,000$ |
| 1941 | $1,500,000,000$ | $+200,000,000$ | $22,500,000$ | $2,100,000$ |
| 1942 | $1,200,000,000$ | $-300,000,000$ | $26,100,000$ | $3,600,000$ |
| 1943 | $1,200,000,000$ | 0 | $31,900,000$ | $5,800,000$ |
| 1944 | $1,500,000,000$ | $+300,000,000$ | $36,100,000$ | $4,200,000$ |

This continuous increase in value occurred in all regions of California, as shown in figure 5. This figure gives the value of the fishery products in millions of dollars, and indicates from year to year the relatively consistent increase in the dollar value of the fish landings. The outstanding region is Eureka where the 1944 value of the fishery products was $\$ 1,300,000$ greater than 1939, an increase of 360 per cent. This exceptional augmentation of the price paid for the Eureka fishery products resulted first from the demand for shark livers high in vitamin A content. The Eureka region is one of the major soupfin shark fishing areas, and the price paid for soupfin livers has been as much as $\$ 10$ per pound. By 1943 the catch of shark was falling off but the value of the Eureka fisheries was maintained by an increased catch of rockfish and salmon.

The smallest increase in any region occurred at San Francisco where the value of the 1944 catch was 128 per cent of that for 1939. In other regions in the State the increase varied from 170 to 220 per cent.

The relative importance of the various fishing areas is also indicated for the years 1939 to 1944 in figure 5. The seven regions fall into three groupings. In the Eureka, Sacramento and Santa Barbara regions, the annual value of the fisheries approximated $\$ 1,000,000$. In these areas, with the exception of the Sacramento area where some sardines are canned, most of the fishery products are sold fresh and the volume of business is correspondingly less than in a canning area. In the San Francisco and Monterey regions the annual value varied from two to
six million. Here a large volume of fresh fish is sold and in addition sardines are canned and reduced into meal and oil. The tonnage handled in these areas is large but the price per pound for sardines is low, varying from one-half to one cent during the six years. This brings the total value of the San Francisco and Monterey regions into an intermediate position in relation to other areas in the State.

The two outstanding regions are Los Angeles and San Diego. Here the annual value varied from five to thirteen million dollars. The poundage handled in the Los Angeles area corresponds closely with that of Monterey but in the Los Angeles region, in addition to sardines, tuna and mackerel are canned. The price for mackerel has been one to two cents per pound and for tunas, with the exception of albacore, from four to ten cents. Albacore has brought as much as $191 / 2$ cents per pound. Thus the mackerel and especially the tuna bring the Los Angeles region into first place in value for the State's fishery products.

The high value of the tuna fisheries is also shown by the San Diego data. In this region canning is confined to the tunas, the poundages handled are less than those for San Francisco, Monterey or Los Angeles, but the value is second only to Los Angeles.


FIGURE 5


Figure 6

FIGURE 6
table 3
VALUE OF COMMERCIAL FISH LANDINGS-1943


TABLE 3
VALUE OF COMMERCIAL FISH LANDINGS-1943

TABLE 4
VALUE OF COMMERCIAL FISH LANDINGS-1944

| Species | Value |
| :---: | :---: |
| Sardine. | \$12,716,000 |
| Yellowfin Tuna | 6,269,000 |
| Albacore-.-- | 3,484,000 |
| Skipjack Tuna_ | 2,694,000 |
| Bluefin Tuna | 1,939,000 |
| Pacific Mackerel | 1,707,000 |
| Salmon-------- | 1,665,000 |
| Shark | 757,000 |
| Barracuda | 470,000 |
| Crab---- | 428,000 |
| Sablefish_ | 375,000 |
| Pismo Clam. | 317,000 |
| Sole-..-- | 303,000 |
| Squid. | 299,000 |
| Rockfish. | 287,000 |
| California Halibut. | 286,000 |
| Spiny Lobster...- | 252,000 |
| Yellowtail | 234,000 |
| Horse Mackerel | 229,000 |
| Broadbill Swordfish | 226,000 |
| Abalone.--.-.-. | 145,000 |
| Shad.--- | 121,000 |
| Smelt.- | 108,000 |
| Catfish. | $80,000$ |
| All others | 738,000 |
| Total value, 1944 | \$36,129,000 |

TABLE 4
VALUE OF COMMERCIAL FISH LANDINGS—1944

| TABLE 5 <br> CALIFORNIA COMMERCIAL FISH LANDINGS-1943 <br> Values for Eureka Region, Indicating Leading Ports and Species |  |  |  |
| :---: | :---: | :---: | :---: |
| EUREKA REGION.-------- | \$1,829,970 | 12,465,008 pounds |  |
|  | \$1,146,100 | Shark. | \$560,600 |
|  |  | Sole. | 184,500 |
|  |  | Salmon. | 159,500 |
|  |  | Rockfish. | 56,900 |
|  |  | Northern Halibut | 50,800 |
|  |  | Sablefish | 41,400 |
|  |  | Pacific Cultus | 25,600 |
|  |  | Sand Dab_ | 17,900 |
|  |  | Crab.-- | 14,300 |
|  |  | Starry Flounder | 13,700 |
|  |  | Whitebait.-... | 7,900 |
|  |  | All other- | 13.000 |
| Fort Bragg---------------- | \$532,100 |  |  |
|  |  | Sablefish_ | 125,300 |
|  |  | Shark.-- | 113,600 |
|  |  | Albacore-- | 77,400 |
|  |  | Pacific Cultus | 13,400 |
|  |  | Whitebait | 6,000 |
|  |  | All other. | 6,800 |
| Crescent City-.---...----.-- | \$149,700 | Salmon. | 66,800 |
|  |  | Shark | 49,400 |
|  |  | Crab | 13,400 |
|  |  | Whitebait | 5,900 |
|  |  | Pacific Cultus | 5,700 |
|  |  | All other-- | 8,500 |
| All other ports_--.-.-.-.---- | \$2,070 |  |  |

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TABLE 5
CALIFORNIA COMMERCIAL FISH LANDINGS-1943 Values for Eureka Region, Indicating Leading Ports and Species
division of fish and game
table 6
CALIFORNIA COMMERCIAL FISH LANDINGS-1943 Values for Sacramento Region, Indicating Leading Ports and Species

| SACRAMENTO REGION.-- | \$1,175,375 | 77,916,080 pounds |  |
| :---: | :---: | :---: | :---: |
| Pittsburg | \$499,900 | Sardine_ | \$278,600 |
|  |  | Salmon_ | 112,100 |
|  |  | Shad. | 82,800 |
|  |  | Catfish_ | 25,600 |
|  |  | All other. | 800 |
| Benicia_ | \$316,600 | Sardine_ | 316,600 |
| Port Chicago-------------- | \$168,300 | Sardine. | 159,300 |
|  |  | Shad. | 9,000 |
| Martinez.------------------ | \$95,400 | Sardine_ | 55,400 |
|  |  | Salmon | 27,200 |
|  |  | Shad. | 12,800 |
| Collinsville---------------- | \$50,100 | Salmon. | 38,400 |
|  |  | Shad. | 10,000 |
|  |  | Catfish | 1,700 |
| Sacramento.--------------- | \$31,800 | Salmon. | 23,400 |
|  |  | Catfish | 7,600 |
|  |  | All other | 800 |
| Stockton------------------- | \$12,400 | Catfish. | 11,400 |
|  |  | Salmon. | 1,000 |
| All other ports.----------- | \$875 |  |  |

TABLE 6
CALIFORNIA COMMERCIAL FISH LANDINGS—1943
Values for Sacramento Region, Indicating Leading Ports and Species

COMMERCIAL FISH CATCH OF CALIFORNIA
TABLE 7
CALIFORNIA COMMERCIAL FISH LANDINGS-1943
Values for San Francisco Region, Indicating Leading Ports and Species

| SAN FRANCISCO REGION. \$3,619,202 |  | 180,963,255 pounds |  |
| :---: | :---: | :---: | :---: |
| San Francisco.-.------...--- | \$1,410,300 | Sardine | \$540,100 |
|  |  | Shark | 523,700 |
|  |  | Crab | 159,600 |
|  |  | Smelt.- | 62,700 |
|  |  | Sole | 47,800 |
|  |  | Pacific Herring | 13,300 |
|  |  | Salmon. | 12,300 |
|  |  | Sand Dab | 9,700 |
|  |  | All other. | 41,100 |
| Richmond.---------.-...-- | \$1,192,700 | Sardine. | 1,190,700 |
|  |  | Shrimp.- | 2,000 |
| Point Reyes . -------------- | \$511,900 | Salmon. | 269,900 |
|  |  | Shark_- | 90,100 |
|  |  | Crab- | 64,800 |
|  |  | Albacore | 60,600 |
|  |  | Rockfish. | 8,800 |
|  |  | Eastern Oyster | 7,500 |
|  |  | All other. | 10,200 |
|  | \$217,400 | Shark | 87,400 |
|  |  | Salmon. | 53,400 |
|  |  | Crab- | 47,200 |
|  |  | Sole.- | 9,000 |
|  |  | Albacore | 6,200 |
|  |  | All other. | 14,200 |
| McNear's Point.-.-.-....-. - | \$170,500 | Sardine. | 166,100 |
|  |  | Shrimp_ | 4,400 |
| Menlo Park | \$76,500 | Salmon_ | 34,100 |
|  |  | Crab--- | 17,200 |
|  |  | Shark_ | 14,400 |
|  |  | Albacore. | 9,600 |
|  |  | All other. | 1,200 |
|  | \$27,800 | Crab-- |  |
|  |  | All other- | 1,400 |
|  | \$6,000 | Japanese Oyster-.-- | 6,000 |
| All other ports.-.-.-.-.-...- | \$6,102 |  |  |

TABLE 7
CALIFORNIA COMMERCIAL FISH LANDINGS—1943
Values for San Francisco Region, Indicating Leading Ports and Species

TABLE 8
CALIFORNIA COMMERCIAL FISH LANDINGS-1943 Values for Monterey Region, Indicating Leading Ports and Species

| MONTEREY REGION...-.- | \$5,836,892 | 458,159,474 pounds |  |
| :---: | :---: | :---: | :---: |
| Monterey.- | \$5,096,600 | Sardine | \$4,373,000 |
|  |  | Squid. | 260,900 |
|  |  | Salmon_ | 171,800 |
|  |  | Pacific Mackerel | 83,900 |
|  |  | Rockfish | 42,000 |
|  |  | Shark.-- | 37,400 |
|  |  | Albacore | 37,300 |
|  |  | Sablefish. | 25,400 |
|  |  | Smelt_ | 16,500 |
|  |  | Kingfish_- | 10,300 |
|  |  | All other- | 38,100 |
| Moss Landing-------------- | \$525,900 | Sardine_- | 519,500 |
|  |  | Crab-.-- | 4,900 |
|  |  | All other. | 1,500 |
| Santa Cruz. | \$214,300 | Sablefish. | 68,500 |
|  |  | Salmon. | 66,900 |
|  |  | Shark--- | 28,100 |
|  |  | Rockfish.---- | 13,000 |
|  |  | White Sea-bass | 12,200 |
|  |  | Albacore-- | 11,500 |
|  |  | All other. | 14,100 |
| All other ports-.------------ | \$92 |  |  |

TABLE 8
CALIFORNIA COMMERCIAL FISH LANDINGS—1943 Values for Monterey Region, Indicating Leading Ports and Species

TABLE 9
CALIFORNIA COMMERCIAL FISH LANDINGS-1943
Values for Santa Barbara Region, Indicating Leading Ports and Species

| SANTA BARBARA REGION.- \$591,462 |  | 4,037,382 pounds |  |
| :---: | :---: | :---: | :---: |
| Santa Barbara------------ | \$497,400 | Shark_ | \$169,900 |
|  |  | California Halibut. | 55,100 |
|  |  | Broadbill Swordfish | 41,200 |
|  |  | Barracuda. | 39,200 |
|  |  | Spiny Lobster | 35,100 |
|  |  | Albacore. | 33,900 |
|  |  | Bonito Tuna | 28,500 |
|  |  | Bluefin Tuna | 26,100 |
|  |  | Abalone. | 19,700 |
|  |  | Sole.- | 11,500 |
|  |  | White Sea-bass | 10,100 |
|  |  | Sheepshead. | 8,400 |
|  |  | All other. | 18,700 |
| Morro-------------------- | \$50,500 | Abalone. | 30,900 |
|  |  | Japanese Oyster | 18,200 |
|  |  | All other.-.-- | 1,400 |
| Avila | \$39,000 | Shark | 20,800 |
|  |  | Albacore | 14,000 |
|  |  | California Halibut. | 2,600 |
|  |  | All other. | 1,600 |
| Pismo---------------------- | \$3,200 | Pismo Clam | 2,800 |
|  |  | All other.-. | 400 |
| All other ports ------------ | \$1,362 |  |  |

TABLE 9
CALIFORNIA COMMERCIAL FISH LANDINGS—1943
Values for Santa Barbara Region, Indicating Leading Ports and Species

| TABLE 10 |  |  |
| :---: | :---: | :---: |
| CALIFORNIA COMMERCIAL FISH LANDINGS-1943 |  |  |
| Values for Los Angeles Region, Indicating Leading Ports and Species |  |  |
| LOS ANGELES REGION.---\$11,062,168 | 420,950,453 pounds |  |
| Terminal Island.------------85,830,500 | Sardine | 82,279,300 |
|  | Yellowfin Tuna. | 1,021,400 |
|  | Albacore | 839,100 |
|  | Pacific Mackerel | 511,500 |
|  | Bluefin Tuna- | 493,100 |
|  | Skipjack Tuna | 334,800 |
|  | Yellowtail.... | 166,800 |
|  | Horse Mackerel. | 129,600 |
|  | Bonito Tuna- | 54,300 |
|  | All other. | 600 |
|  | Sardine. | 520,100 |
|  | Yellowfin Tuna_ | 455,300 |
|  | Bluefin Tuna-- | 266,100 |
|  | Pacific Mackerel | 130,900 |
|  | Skipjack Tuna | 113,900 |
|  | Albacore- | 66,400 |
|  | Yellowtail..- | 66,200 |
|  | Horse Mackerel. | 55,800 |
|  | Pismo Clam. | 19,800 |
|  | Bonito Tuna | 17,500 |
|  | Shark.-- | 14,000 |
|  | All other. | 14,000 |
| Wilmington.-.-....-.-....-- \$1,171,500 | Yellowfin Tuna. | 410,700 |
|  | Sardine-.---- | 307,200 |
|  | Skipjack Tuna | 170,300 |
|  | Albacore_--... | 88,200 |
|  | Bluefin Tuna_ | 62,900 |
|  | Yellowtail | 42,700 |
|  | Pacific Mackerel_ | 41,600 |
|  | Horse Mackerel | 29,400 |
|  | Bonito Tuna | 15,800 |
|  | Sablefish. | 2,700 |
| Newport-.------------------ \$915,600 | Pacific Mackerel | 384,900 |
|  | Albacore.- | 185,900 |
|  | Barracuda | 134,700 |
|  | Shark-.-- | 90,300 |
|  | California Halibut | 24,200 |
|  | Broadbill Swordfish. | 19,800 |
|  | Sardine | 14,800 |
|  | Anchovy | 13,100 |
|  | Rock Bass | 10,800 |
|  | Rockfish | 8,800 |
|  | All other. | 28,300 |

TABLE 10
CALIFORNIA COMMERCIAL FISH LANDINGS—1943
Values for Los Angeles Region, Indicating Leading Ports and Species

| COMMERCIAL FISH CATCH OF CALIFORNIA <br> TABLE 10-Continued |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| CALIFORNIA COMMERCIAL FISH LANDINGS-1943 |  |  |  |
| Values for Los Angeles Region, Indicating Leading Ports and Species |  |  |  |
| San Pedro----------------- | \$763,600 | Barracuda | \$281,900 |
|  |  | Black Sea-bass | 103,300 |
|  |  | California Halibut.............. | 54,100 |
|  |  | White Sea-bass | 53,800 |
|  |  | Shark.-.---- | 51,000 |
|  |  | Bluefin Tuna_ | 31,400 |
|  |  | Pacific Mackerel | 22,900 |
|  |  | Cabrilla | 22,000 |
|  |  | Yellowtail | 20,800 |
|  |  | Smelt-.- | 20,600 |
|  |  | Bonito Tuna | 16,800 |
|  |  | Albacore-- | 16,000 |
|  |  | Broadbill Swordfish | 14,800 |
|  |  | Kingfish_- | 8,700 |
|  |  | Rockfish. | 8,600 |
|  |  | Grouper | 8,400 |
|  |  | All other | 28,500 |
| Santa Monica | \$436,500 | Pacific Mackerel | 221,600 |
|  |  |  | 63,500 |
|  |  |  | 51,300 |
|  |  | California Halibut.----------- | 33,400 |
|  |  |  | 27,100 |
|  |  | White Sea-bass | 9,200 |
|  |  | Anchovy-- | 5,500 |
|  |  | Rockfish. | 5,100 |
|  |  | All other. | 19,800 |
| Redondo Beach.............- | \$74,200 | Pacific Mackerel. | 69,200 |
|  |  | Spiny Lobster-.-.-.-........-- | 1,500 |
|  |  |  | 3,500 |
| Los Angeles. | \$70,100 | Spiny Lobster_ | 47,900 |
|  |  | Cabrilla-.-----..............-- | 7,800 |
|  |  | White Sea-bass | 4,800 |
|  |  |  | 9,600 |
|  | \$39,700 | Albacore------------------- | 18,400 |
|  |  | Broadbill Swordfish.----.-..-- | 15,600 |
|  |  | All other-.---.-.-.-...-......-- | 5,700 |
|  | \$16,200 |  | 10,000 |
|  |  | Spiny Lobster-.---------1---- | 5,500 |
|  |  |  | 700 |
|  | \$4,268 |  |  |

TABLE 10
CALIFORNIA COMMERCIAL FISH LANDINGS—1943
Values for Los Angeles Region, Indicating Leading Ports and Species

| CALIFORNIA COMMERCIAL FISH LANDINGS-1943 <br> Values for San Diego, Indicating Leading Ports and Species |  |  |
| :---: | :---: | :---: |
| SAN DIEGO REGION..---- \$7,746,354 | 75,315,274 pounds |  |
| San Diego-----------------86,690,200 | Yellowfin Tuna | \$2,680,000 |
|  | Skipjack Tuna | 1,749,100 |
|  | Albacore-...-- | 1,538,500 |
|  | Spiny Lobster | 142,500 |
|  | Barracuda--- | 127,700 |
|  | California Halibut | 62,600 |
|  | Yellowtail. | 59,100 |
|  | Black Sea-bass | 51,500 |
|  | Bluefin Tuna. | 48,400 |
|  | Bonito Tuna | 39,600 |
|  | Sardine-. | 38,500 |
|  | Pismo Clam. | 34,600 |
|  | White Sea-bass | 22,600 |
|  | Rockfish.- | 19,800 |
|  | Shark. | 17,100 |
|  | Rock Bass | 10,700 |
|  | All other- | 47,900 |
| Point Loma-------.-.-...-. $\$ 1,053,900$ | Albacore. | 441,300 |
|  | Yellowfin Tuna | 313,000 |
|  | Skipjack Tuna | 214,500 |
|  | Bluefin Tuna- | 35,100 |
|  | Sardine-...-- | 19,500 |
|  | Pacific Mackerel | 13,000 |
|  | Yellowtail | 11,900 |
|  | Bonito Tuna | 5,600 |
| All other ports...-.-.....-- $\mathbf{\$ 2 , 2 5 4}$ |  |  |

TABLE 11
CALIFORNIA COMMERCIAL FISH LANDINGS-1943
Values for San Diego, Indicating Leading Ports and Species


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TABLE 12
CALIFORNIA COMMERCIAL FISH LANDINGS—1944 Values for Eureka Region, Indicating Leading Ports and Species
dIVISION OF FISH AND GAME


TABLE 13
CALIFORNIA COMMERCIAL FISH LANDINGS—1944
Values for Sacramento Region, Indicating Leading Ports and Species

TABLE 14
CALIFORNIA COMMERCIAL FISH LANDINGS-1944 Values for San Francisco Region, Indicating Leading Ports and Species


TABLE 14
CALIFORNIA COMMERCIAL FISH LANDINGS—1944
Values for San Francisco Region, Indicating Leading Ports and Species

| 30 DIVISION OF FISH AND GAME <br> TABLE 15 <br> CALIFORNIA COMMERCIAL FISH LANDINGS-1944 <br> Values for Monterey Region, Indicating Leading Ports and Species |  |  |  |
| :---: | :---: | :---: | :---: |
| MONTEREY REGION.----- | \$6,352,114 | $517,393,136$ pounds |  |
|  | \$5,383,800 | Sardine. <br> Squid. <br> Salmon. <br> Albacore. <br> Sablefish. <br> Pacific Mackerel <br> Kingfish <br> Shark <br> Rockfish. <br> Smelt <br> All other | $\$ 4,877,600$ 297,000 50,700 35,600 33,800 17,100 11,100 11,000 10,100 8,600 31,200 |
| Moss Landing-------------- | \$700,200 | Sardine. - <br> Crab <br> All other. | $\begin{array}{r} 694,200 \\ 3,200 \\ 2,800 \end{array}$ |
| Santa Cruz_-.------------- | \$267,400 | Sablefish <br> Salmon <br> Shark <br> Rockfish <br> Crab <br> Sole_ <br> Kingfish <br> All other | $\begin{array}{r} 142,600 \\ 39,700 \\ 21,300 \\ 19,200 \\ 14,600 \\ 10,800 \\ 5,500 \\ 13,700 \end{array}$ |
| All other ports...-.-.----- - | \$714 |  |  |

TABLE 15
CALIFORNIA COMMERCIAL FISH LANDINGS—1944 Values for Monterey Region, Indicating Leading Ports and Species

| COMMERCIAL FISH CATCH OF CALIFORNIA 31 |  |  |  |
| :---: | :---: | :---: | :---: |
| table 16 |  |  |  |
| CALIFORNIA COMMERCIAL FISH LANDINGS-1944 |  |  |  |
| Values for Santa Barbara Region, Indicating Leading Ports and Species |  |  |  |
| SANTA BARBARA REGION | \$549,914 | 4,391,389 pounds |  |
| Santa Barbara | \$445,100 | California Halibut_ | \$93,400 |
|  |  | Abalone-- | 88,800 |
|  |  | Albacore | 68,700 |
|  |  | Shark-- | 48,500 |
|  |  | Broadbill Swordfish. | 41,700 |
|  |  | Spiny Lobster | 34,700 |
|  |  | Bluefin Tuna | 14,900 |
|  |  | Barracuda | 12,900 |
|  |  | Sheepshead | 9,000 |
|  |  | White Sea-bass | 8,400 |
|  |  | All other. | 24,100 |
|  | \$41,500 | Japanese Oyster | 24,000 |
|  |  | Abalone...- | 17,300 |
|  |  | Pismo Clam_ | 200 |
|  | \$29,700 | Albacore. | 29,700 |
| Avila - | \$19,900 | Albacore. | 7,400 |
|  |  | Shark.----- | 5,800 |
|  |  | California Halibut | 3,600 |
|  |  | All other---- | 3,100 |
|  | \$6,700 | Abalone | 6,700 |
| Pismo Beach..--.-.-.-.-..-- | \$3,500 | Pismo Clam. |  |
|  |  | All other- | 1,000 |
| All other ports.-.----------- | \$3,514 |  |  |

TABLE 16
CALIFORNIA COMMERCIAL FISH LANDINGS—1944
Values for Santa Barbara Region, Indicating Leading Ports and Species

CALIFORNIA COMMERCIAL FISH LANDINGS-1944
Values for Los Angeles Region, Indicating Leading Ports and Species


TABLE 17
CALIFORNIA COMMERCIAL FISH LANDINGS—1944
Values for Los Angeles Region, Indicating Leading Ports and Species

TABLE 17-Continued CALIFORNIA COMMERCIAL FISH LANDINGS-1944 Values for Los Angeles Region, Indicating Leading Ports and Species

| San Pedro----------------- | \$594,800 | Barracuda_ | \$226,500 |
| :---: | :---: | :---: | :---: |
|  |  | California Halibut | 58,500 |
|  |  | Black Sea-bass_ | 43,600 |
|  |  | Yellowtail | 34,400 |
|  |  | Shark | 32,700 |
|  |  | White Sea-bass_ | 30,200 |
|  |  | Cabrilla | 27,200 |
|  |  | Spiny Lobster. | 25,000 |
|  |  | Pacific Mackerel | 24,300 |
|  |  | Smelt--- | 14,700 |
|  |  | Bluefin Tuna | 13,800 |
|  |  | Bonito Tuna | 10,700 |
|  |  | Albacore | 10,400 |
|  |  | All other | 42,800 |
| Redondo Beach_ | \$132,200 | Pacific Mackerel | 123,600 |
|  |  | Barracuda--- | 4,000 |
|  |  | Spiny Lobster | 2,900 |
|  |  | All other.- | 1,700 |
| Avalon-------------------- | \$61,900 | Broadbill Swordfish. | 58,700 |
|  |  | All other | 3,200 |
| Costa Mesa---------------- | \$10,000 | Shark | 7,300 |
|  |  | All other | 2,700 |
| All other ports------------- | \$13,301 |  |  |

TABLE 17
CALIFORNIA COMMERCIAL FISH LANDINGS—1944 Values for Los Angeles Region, Indicating Leading Ports and Species

TABLE 18
CALIFORNIA COMMERCIAL FISH LANDINGS-1944
Values for San Diego Region, Indicating Leading Ports and Species


TABLE 18
CALIFORNIA COMMERCIAL FISH LANDINGS—1944
Values for San Diego Region, Indicating Leading Ports and Species

## 3. COMMERCIAL FISHERMEN

The commercial fishing license season in California is from April 1st of one year through March 31st of the following calendar year. Although there was considerable turnover in the personnel of the fleet as a result of the war, the tables of number of licenses sold show a rather steady increase from season to season. Many fishermen entered the armed services or defense plants and were replaced by new men, but such changes do not appear in a table of totals. The elimination of alien fishermen from the fleet after Pearl Harbor Day resulted only in a small drop in the total number of fishermen in the season 1942-1943. The increased number in 1943-1944 probably is to be partially explained by the fact that some operators of sport fishing and pleasure boats were attracted to commercial trolling by the large albacore catch of 1942 and the record catch of 1943. Also many pleasure boat operators purchased licenses and registered their boats with the Division of Fish and Game in the hope that the United States Coast Guard would give them clearance from port as commercial fishermen. In other cases the license was purchased so that it could be used to influence local boards in draft classification and gasoline allotments. As a result, several hundred license holders did not deliver fish. It is probable that the number of commercial licenses sold in future years will more closely indicate the number of active fishermen.

NUMBER OF_COMMERCIAL FISHING_LICENSES SOLD IN CALIFORNIA

| 1937-1938 | 7,665 |
| :---: | :---: |
| 1938-1939 | 7,793 |
| 1939-1940 | 8,724 |
| 1940-1941. | 9,047 |
| 1941-1942 | 9,344 |
| 1942-1943 | 9,043 |
| 1943-1944. | 11,804 |
| 1944-1945. | 10,871 |



TABLE 20
NATIVITY OF LICENSED FISHERMEN License Year 1944-1945

## TABLE 21 CITIZENSHIP

| Citizens: |  |
| :---: | :---: |
| United States born | 7,880 |
| Foreign-born United States citizens | 13 |
| Naturalized citizens. | 2,625 |
| Noncitizens: |  |
| First naturalization papers------------------------------------- | 758 |
|  | 411 |
| Nativity not given. | 28 |
|  | 89 |
| Total licensed commercial fishermen, license year April 1, 1943, through March 31, 1944 | 11,804 |
| TABLE 21 |  |
| CITIZENSHIP |  |
| 1943-1944 Licensed Commercial Fishermen |  |
| TABLE 22 |  |
| CITIZENSHIP |  |
| 1944-1945 Licensed Commercial Fishermen |  |
| Citizens: |  |
|  | 6,836 |
| Foreign-born United States citizens------------------------------ | 7 |
| Naturalized citizens------------------------------------------- | 2,901 |
| Noncitizens: |  |
|  | 553 |
| Aliens | 471 |
| Nativity not given. | 26 |
| Citizenship not given----------------------------------------------- | 77 |
| Total licensed commercial fishermen, license year April 1, 1944, through March 31, 1945 | 10,871 |
| TABLE 22 |  |
| CITIZENSHIP |  |
| 1944-1945 Licensed Commercial Fishermen |  |



TABLE 23
CALIFORNIA COMMERCIAL FISHERMEN, LICENSE YEAR 1943-1944

CALIFORNIA COMMERCIAL FISHERMEN, LICENSE YEAR 1944-194.


TABLE 24
CALIFORNIA COMMERCIAL FISHERMEN, LICENSE YEAR 1944-1945

## 4. COMMERCIAL FISHING FLEET

Commercial fishing boats are registered with the California Division of Fish and Game by the license season which is April 1st through the following March 31st. The total figures showing the number of boats registered each season do not fully explain the changes that have occurred in the fleet. In order to contrast small and large boats in the accompanying table the boats are divided into those under 40 feet in length and those 40 feet and over.

| Season | Under 40 feet | 40 feet and over | Total |
| :--- | :--- | :--- | :--- |
| $1939-1940$ | 2253 | 857 | 3110 |
| $1940-1941$ | 2510 | 944 | 3454 |
| $1941-1942$ | 2331 | 871 | 3202 |
| $1942-1943$ | 2264 | 701 | 2965 |
| $1943-1944$ | 2929 | 797 | 3726 |
| $1944-1945$ | 2852 | 930 | 3782 |

The 1943-1944 increase of 665 small boats over the previous season probably was due largely to the increased registration of pleasure and sport fishing boats. The small boat totals for the last two seasons are abnormally high and do not represent the boats of this class that were actively engaged in full time commercial fishing.

The registration of large fishing boats, as contrasted with boats under 40 feet, represents active units of the fishing fleet. The numbers registered during the last two seasons show an increase over the early war years and almost equal the numbers registered during the prewar seasons. In the first years of the war roughly 95 purse seine boats and 38 tuna vessels were taken over by our armed services. When the government small boat building program began to catch up with our war needs, the fishing vessels which had been used by the government as substitutes were gradually relinquished to their original owners. The increase in numbers of the large boats registered during the last two seasons may be accounted for by the return of these vessels to commercial fishing together with the construction of new boats during the war period and the transfer of some boats to this State from Washington and Oregon.

> TABLE 25
> COMMERCIAL FISHING FLEET-1943-1944

|  | OMMERC | TABLE | LEET-19 | 1945 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Region of home port | Number of boats, grouped by length |  |  |  |  | Total number of boats for each region |
|  | Up to 24 feet | $\begin{gathered} 25 \text { to } 39 \\ \text { feet } \end{gathered}$ | $\begin{gathered} 40 \text { to } 64 \\ \text { feet } \end{gathered}$ | $\begin{gathered} 65 \text { to } 84 \\ \text { feet } \end{gathered}$ | 85 feet and over |  |
| Eureka | 30 | 225 | 55 |  |  | 310 |
| Sacramento -. | 129 | 150 | 4 |  |  | 283 |
| San Francisco. | 68 | 471 | 92 | 22 | 2 | 655 |
| Monterey | 98 | 203 | 21 | 56 | 1 | 379 |
| Santa Barbara. Los Angeles. | $\begin{array}{r}38 \\ 264 \\ \hline\end{array}$ | 63 815 8 | 26 266 | 107 |  | 127 1,467 |
| San Diego.-. | 80 | 212 | $\begin{array}{r}266 \\ 89 \\ \hline\end{array}$ | 17 3 | 37 | 1,467 455 |
| Alaska, Washington and Oregon.- |  | 6 | 40 | 55 | 5 | 106 |
| Total number of boats. | 707 | 2,145 | 593 | 277 | 60 | 3,782 |

TABLE 26
COMMERCIAL FISHING FLEET—1944-1945

## 5. FISHING-PARTY VESSELS

Every person operating a fishing-party vessel for profit in this State must first obtain from the Division of Fish and Game a permit good for one calendar year. A record of these party-permit boats is included with the regular commercial fishing fleet because they draw upon the same supply of fish. The majority of the owners and operators hold commercial fishing licenses and sell the excess catch to the fresh fish markets and canneries.

The number of party vessels under permit has dropped steadily from 553 in 1941 to 235 in 1944. During this fouryear period ocean sport fishing was so curtailed that many of the party boats turned to commercial fishing and some were tied up in port awaiting a happier day when Coast Guard restrictions and gasoline rationing could be lifted.

TABLE 27
FISHING PARTY VESSELS


TABLE 27
FISHING PARTY VESSELS

## 6. SHIPMENTS INTO CALIFORNIA

The primary object of this bulletin is to record the fish delivered by commercial fishing boats to California ports. In addition shipments of fresh fish by truck, rail or cargo vessel to California from outside the State are included. Shipments of frozen, processed or canned fish to our markets and wholesalers are not included.

1943 shipments included in the state-wide tables are as follows:

| To canneries from south of the international boundary, Pismo clam only | Pounds |
| :--- | :---: |
| To fresh fish markets from south of the international boundary- | 565,764 |
| Spiny lobster | 218,692 |
| Miscellaneous fish | 284,249 |
| 1944 shipments included in the state-wide tables are as follows: | Pounds |
|  | $2,535,547$ |
| To canneries from north of the State line, albacore only | 899,862 |
| To canneries from south of the international boundary- | 72,859 |
| Yellowfin tuna | $11,719,792$ |
| Skipjack tuna | 147,878 |
| Pismo clam | 10,740 |

## 7. STATISTICAL REGIONS

The boundaries of the regions of landings shown in the tables are as follows:
Eureka region: Del Norte, Humboldt and Mendocino counties.
Sacramento region: Sacramento and San Joaquin river systems with the delta areas, including Suisun Bay and Lake County.
San Francisco region: Sonoma, Marin, San Francisco and San Mateo counties, including San Francisco and San Pablo bays; Alameda and Contra Costa counties to Carquinez Straits.
Monterey region: Santa Cruz and Monterey counties.
Santa Barbara region: San Luis Obispo, Santa Barbara and Ventura counties.
Los Angeles region: Los Angeles and Orange counties.
San Diego region: San Diego and Imperial counties.

## 8. CONVERSION FACTORS

The following conversion factors are used when shellfish are reported in numbers rather than in pounds; or cleaned weight instead of round weight: "Crabs, 2 pounds each; abalones, 50 pounds per dozen; gaper clams, 2 pounds each; Pismo clams, 24 pounds per limit of 15 ; Mexican Pismo clams, 8 pounds for each 1 pound cleaned weight; Washington claims, 7 pounds per dozen; eastern oysters, 30 pounds per hundred; Japanese oysters, 50 pounds per hundred or 8 pounds per gallon cleaned."

TABLE 28

\begin{tabular}{|c|c|c|c|c|}
\hline Species \& California \& North of the State Boundary \& South of the International Boundary \& Total pounds <br>
\hline Anchovy \& 1,570,803 \& \& \& 1,570,803 <br>
\hline Barracuda \& 2,382,824 \& \& 1,392,454 \& 3,775,278 <br>
\hline Cabezone.
Cabrilla. \& 7,519 \& \& 233,886 \& 7,519
233,886 <br>
\hline Carp. \& 17,241 \& \& \& 17,241 <br>
\hline Catfish. \& 209,485 \& \& \& 209,485 <br>
\hline Corbina, Mexican \& \& \& 5,106 \& 5,106 <br>
\hline Cultus, Pacific. \& 718,703 \& 125 \& 190 \& 719,318 <br>
\hline ${ }_{\text {Flounder, }}$ Starry \& 504,391
2,271 \& 1,008 \& \& 505,399 <br>
\hline Grouper.- \& 2,271 \& \& 81,887 \& 2,287
81,887 <br>
\hline Hake. \& 10,499 \& \& \& 10,499 <br>
\hline Halibut, California \& 710,894 \& \& 410,779 \& 1,121,673 <br>
\hline Halibut, Northern \& 270,881
2796 \& 565 \& \& 271,446
2,796 <br>
\hline Herring, Pacific. \& 630,358 \& \& \& 630,358 <br>
\hline Kingfish. \& 396,606 \& \& 27 \& 396,633 <br>
\hline Mackerel, Horse. \& 12,698,931 \& \& \& 12,698,931 <br>
\hline Mackerel, Pacific \& 75,249,954 \& \& 13,928 \& 75,263,882 <br>
\hline Mackerel, Spanish \& \& \& 18,652 \& 18,652 <br>
\hline Mullet \& 66,063 \& \& 7,218 \& 73,281 <br>
\hline ${ }_{\text {Perch. }}$ \& 112,822 \& \& 213 \& 113,035

273 <br>
\hline Pompano, California \& 5,168 \& \& \& 5,168 <br>
\hline Rock Bass \& 144,203 \& \& 53,929 \& 198,132 <br>
\hline Rockfish. \& 2,555,556 \& 346 \& 206,290 \& 2,762,192 <br>
\hline Salmon. \& $3,203,905$
$6,580,934$ \& \& 1,469 \& 6,580,934 <br>
\hline Sand Dab \& 504,329 \& 1,009 \& \& 505,338 <br>
\hline Sardine. \& 972,269,390 \& \& 525 \& 972,269,915 <br>
\hline Sculpin. \& 35,983 \& \& 6,567 \& 42,550 <br>
\hline Sea-bass, Whis \& 19,271
379,178 \& \& 681,584
121,005 \& 700,855
500,183 <br>
\hline Shad... \& 2,348,047 \& \& \& 2,348,047 <br>
\hline Shark. \& 3,680,481 \& 36,319 \& 12,534 \& 3,729,334 <br>
\hline Sheepshead \& 124,698 \& \& 26,350 \& 151,048 <br>
\hline Skate. \& 80,909 \& \& 200 \& 81,109 <br>
\hline Smelt. \& 1,565,059 \& \& 1,214 \& 1,566,273 <br>
\hline Split-tail \& 4, 10,75 \& 22,420 \& 202 \& 4, 10,925 <br>
\hline Swordfish, Broad \& 317,628 \& \& 18,758 \& 336,386 <br>
\hline Tuna, Albacore. \& 11,885,815 \& \& 9,499,049 \& 21,384,864 <br>
\hline Tuna, Bluefin. \& 7,683,887 \& \& 2,514,881 \& 10,178,768 <br>
\hline Tuna, Bonito- \& 801,535 \& \& 1,480,764 \& 2,282,299 <br>
\hline Tuna, Ykellowfin \& 17,904
2 \& \& $28,875,880$
$49,259,270$ \& 28,261,328 <br>
\hline Turbot. \& 38,047 \& \& \& 38,047 <br>
\hline Whitebait. \& 141,367 \& \& \& 141,367 <br>
\hline Whitefish, Ocean \& 42,015 \& \& 55,419 \& 97,434 <br>
\hline Yellowtail -- \& 33,346 \& \& 4,901,520 \& 4,934,866 <br>
\hline Miscellaneous Fish \& 158,698 \& \& 2,261 \& 160,959 <br>
\hline Crustacean: \& \& \& \& <br>
\hline Crab.... \& 2,315,338 \& \& \& 2,315,338 <br>
\hline Lobster, Spiny \& 298,377 \& \& 687,148 \& 985,525 <br>
\hline Shrimp.-. \& 253,258 \& \& \& 253,258 <br>
\hline Mollusk: \& \& \& \& <br>
\hline Abalone. \& 680,274 \& \& 170 \& 680,444 <br>
\hline Clam, Gaper. \& 120 \& \& \& ${ }_{611} 120$ <br>
\hline Clam, Pismo-- \& 45,870 \& \& 565,764 \& 611,634
46,557 <br>
\hline Clam, Washington. \& 46,728 \& \& \& ${ }^{7} 28$ <br>
\hline Octopus..... \& 18,020 \& \& \& 18,020 <br>
\hline Oyster, Eastern. \& 79,878 \& \& \& 79,878 <br>
\hline Oyster, Japanese. \& 741,105 \& \& \& 741,105 <br>
\hline Oyster, Native... \& 30,448
$9,164,361$ \& \& \& 30,448 <br>
\hline Squid. \& 9,164,361 \& \& \& 9,164,361 <br>
\hline Total pounds. \& 1,128,607,741 \& 62,092 \& 101,137,093 \& 1,229,806,926 <br>
\hline This table includes act states and foreign countrie see page 41. \& ria ports by the ean liner to Ca \& commercial fishin rnia canneries an \& fleet as well as sh to the fresh fish \& nts from oth rs. For deta <br>
\hline
\end{tabular}

TABLE 28


TABLE 29
POUNDS AND VALUE OF COMMERCIAL FISH LANDINGS IN CALIFORNIA DURING 1943


TABLE 29 [continued]

| TABLE 29－Continued |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Santa Bartarar Region |  | Los Angete Reseion |  | San Digeo Region |  | Toal |  |  |
| speeies |  |  |  |  |  |  |  |  |  |
|  | Pounds | Value | Poums | Value | Pouns | Value | Pounds | Value |  |
|  | 190，3i0 | \％3，20］ |  | $\underset{\substack{\text { 923，} \\ 889 \\ 8831}}{ }$ | 75，${ }^{815}$ | ${ }_{1227,73}{ }^{\text {\％3 }}$ |  |  |  |
| Cotereme |  |  | ${ }_{186,30}$ | 2，8，80 | 46,56 | 6，i29 | ${ }^{\text {che }}$ | 35，9090 |  |
|  |  |  |  |  |  |  | cile |  |  |
|  | 18，593 | ${ }^{176}$ |  | （ind | 1，2231 | ${ }_{130}^{130}$ | coin |  | \％ |
|  |  |  |  | \％ 8.384 | 43.15 | 7，2022 |  |  | 4 |
|  | 3322263 |  | basioio | ii13，33 | 2399850 | ${ }^{62,688}$ | cine |  | 육 |
|  |  |  |  |  |  |  | chitich |  | 既 |
| Kindemer | ${ }_{368} 36$ | ${ }_{15}{ }^{28}$ |  |  | 2．2468 |  | come |  | ＊ |
| Macterel Peaine | 22，880 | 3，668 |  | 1，38，2774 |  | \％ 18.101 |  |  | 年 |
|  | 20，2i4 | i，i，iou | 232631 | 3，991 |  |  | （izesid | cincile | － |
|  |  |  |  |  |  |  |  |  | 白 |
| Roxiticulu | 约3，1300 | ${ }_{\text {c，}}^{6,907}$ |  |  |  |  | coize |  |  |
| Somo |  |  |  |  |  |  |  | ${ }^{1,2766,64}$ |  |
| Soundin |  |  |  | s． 1.2 .2 .391 |  |  |  |  |  |
| Steme white |  | ${ }^{10,40}$ |  | cinizise | ${ }_{\text {che }}^{20,2035}$ | cin |  |  |  |
| $\xrightarrow{\text { shatex }}$ |  |  |  |  | ${ }_{\substack{21327 \\ 28,50}}^{\text {a }}$ | ${ }_{\substack{\text { a }}}^{17,263}$ |  |  |  |
| Smote |  | $\substack{12020 \\ 1 \\ 1,2292}$ |  |  | ${ }^{1,3060}$ | ${ }^{\mathrm{iij}}$（ |  |  |  |

TABLE 29 ［continued］

TABLE 29 [continued]


TABLE 30
MONTHLY COMMERCIAL FISH LANDINGS IN CALIFORNIA DURING 1943


TABLE 30 [continued]


TABLE 31
COMMERCIAL FISH LANDINGS IN THE EUREKA REGION DURING 1943 Fishing Boat Landings from California Waters

TABLE 31-Continued


TABLE 31 [continued]
table 32


TABLE 32
COMMERCIAL FISH LANDINGS IN THE SACRAMENTO REGION DURING 1943
Fishing Boat Landings from California Waters
table 33
commercial fish landings in the san francisco region during 1943


TABLE 33
COMMERCIAL FISH LANDINGS IN THE SAN FRANCISCO REGION DURING 1943 Fishing Boat Landings from California Waters


TABLE 34
COMMERCIAL FISH LANDINGS IN THE MONTEREY REGION DURING 1943
Fishing Boat Landings from California Waters


TABLE 35
COMMERCIAL FISH LANDINGS IN THE SANTA BARBARA REGION DURING 1943 Fishing Boat Landings from California Waters


TABLE 36
COMMERCIAL FISH LANDINGS IN THE LOS ANGELES REGION DURING 1943
Fishing Boat Landings from California Waters

| Species | January | February | March | April | May | June | July | August | September | Oetober | November | December | ${ }_{\text {Pounds }}^{\text {Total }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 33,251 | (128,051 |  |  |  | 2,834 | cis, $\begin{gathered}47,270 \\ 17\end{gathered}$ | 107,745 | 103996 | 146,880 | ${ }_{\text {239,986 }}^{298}$ | $\underset{\substack{105,565 \\ 18,475}}{ }$ | ${ }^{98981116}$ |
| Corbina, Mexican. | 7,280 |  | - $\begin{array}{r}202 \\ 3.944 \\ \hline\end{array}$ |  | 445 | 395 |  |  |  |  |  |  |  |
| Hatibut Cilifornia | 23,835 | 10,507 | 20,310 | 4,137 |  |  |  | 343 | 26,7272 | 61,026 | ${ }_{42,544}^{10,54}$ | 16,030 | ${ }^{20,000}$ |
|  | ${ }^{2} 22$ | -......94 | 60 |  |  |  |  |  |  | 3.165 | 1,872 | ${ }_{632}$ | ${ }^{6.0013}$ |
| ${ }_{\text {Reck }}^{\text {Rockes }}$ |  | ${ }_{0}^{1788}$ | ${ }_{4}^{2975}$ | ${ }^{921}$ | 69 | 11.433 | 3,499 | ${ }_{25}^{213}$ |  | 794 | 4,073 | 650 | ${ }_{\text {12, }}^{1217}$ |
| Seathase Elick |  |  | 12,240 | 1,370 | 18, 8.86 | 8,682 |  | ${ }^{106,160}$ | ${ }^{152,668}$ | ${ }^{41,2288}$ | ${ }^{13,976}$ | 4,411 | - 28.235 |
| Starbas, White. | 10,918 | 1,808 |  |  |  |  | 1,116 | 25,918 | $\underbrace{}_{\substack{10.595 \\ 1.655}}$ | 7,8590 | $\underset{\substack{5,154 \\ 130}}{ }$ | ciski |  |
| Steephead..... | ${ }^{333}$ | 232 | 140 | 86 |  | 73 | .-....... | . | ${ }_{330}$ | 4160 200 |  | 417 | ${ }_{2}^{2,027}$ |
| Smelt...... |  |  | 167 |  |  |  |  |  |  |  | isi |  | ${ }_{1}^{201}$ |
| Tum, Alilucioce. | 12,6616 |  |  |  |  |  | -3.699 | ${ }^{355858185}$ | ${ }^{523,93}$ | 2,806 | 148 |  | ${ }^{1,1001,863}$ |
| Tuma, Boito | 5.063 | ${ }^{38,944}$ | ${ }^{191,366} 4$ | ${ }^{174,609}$ | ${ }^{488,643}$ | ${ }^{444,1.188} 1$ | ${ }^{7444,445}$ | ${ }_{\text {481, }}^{1029} 5$ | ${ }^{94,689}$ | ${ }^{206,616}$ | 10,031 | 20,753 | ${ }_{\text {2, }}^{\text {2,218,211 }}$ |
| Tuma, kkipiak | ${ }_{362,668}^{32,431}$ | ${ }_{823,484}^{24545}$ | 91,455 | 2, ${ }_{\text {2780,444 }}$ |  |  |  | , | ${ }_{\text {1, }}^{1,3505,579}$ |  |  |  |  |
| ${ }_{\text {When }}^{\text {White fexth }}$ Ocean... | ${ }^{3} .4 .456$ | -7938 | 2,331 40,046 | 5,894 | 197,388 |  |  | ${ }_{595,661}^{145}$ | 56,918 |  |  | ${ }_{40,988}^{400}$ | ${ }_{\text {4,0) }}^{4,5018}$ |
| Miseellaneous Filich........... |  |  |  |  |  | ${ }_{1} 1,47$ | ${ }_{433}$ |  |  | , 304 | 300 |  | ${ }_{1,177}$ |
| Crustacean: | 226 | 67,700 | 35,863 |  |  |  |  |  |  |  | 67 |  |  |
| Molluak: |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Clam, Pismo. | 17,886 | 52,113 | 35,590 | 33,818 | 19,954 | 10,690 | ${ }^{72,166}$ | 30,329 | 36,222 | 14,204 | 33,877 |  | 356,849 |
| Total pounds. | 650,910 | 1,471,603 | 1,188,477 | 4,082,647 | 4,392,862 | 5.838,165 | 5,076,809 | 5.309,321 | 3,602,337 | 1,933,439 | 1,047,102 | 2,325,222 | 36,883,954 |
| Grand totales Los Angeles Region. | 62,050,079 | 29,397,075 | 2,398,882 | 4,918,514 | 6,656,798 | 7,980,127 | 10,052,611 | 14,197,696 | 16,488,062 | 118,494,388 | 74,936,916 | 73,360,325 | 420,950,453 |

TABLE 36 [continued]


TABLE 37
COMMERCIAL FISH LANDINGS IN THE SAN DIEGO REGION DURING 1943
Fishing Boat Landings from California Waters

Fisthing Boat Landings frem Waters South of the International Boundary


TABLE 37 [continued]

TABLE 38


TABLE 38

용

| Species | Eureka Region |  | Sacramento Resion |  | San Francisoo Region |  | Monterey Rezion |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pounds | Value | Pounds | Value | Pounds | Value | Pounds | Valuo |
| ${ }_{\text {Anchovy }}^{\text {And. }}$ |  |  |  |  | 110,010 | \$3,062 | 847,915 | 80,079 |
| Caberone... |  |  |  |  | 2,933 | ${ }^{93}$ | 934 | $2{ }^{27}$ |
|  | i04 | \%i8 | ${ }^{140,235}$ | 80,261 |  |  |  |  |
| Corbion, Meexican | $\begin{gathered} \substack{513,5 i 5 \\ 1,175 \\ 197,354} \end{gathered}$ | $\begin{aligned} & { }^{50.5212} \\ & 10,851 \end{aligned}$ |  |  | 121,501 | 8,8i5 | 76,797 | $5.000{ }^{\circ}$ |
|  |  |  | --------130 |  | 130,767 | 6,199 | 34773 | 1,7890 |
|  |  |  |  |  |  |  |  |  |
| Hate Hatit Cailiomin. | 3,653240,04 | 43,163 | 1,664 |  |  | (1.138 | 17497 | 2,697 |
| Hailibut Northern. |  |  |  |  |  |  |  |  |
| Herring Pacific... | 1010394 | $2.536^{\circ}$ |  | ...............- |  |  |  |  |
|  | 497 | 10 |  |  |  |  |  |  |
|  |  |  |  |  | --.-.-.-- 838 | $\cdots$ |  |  |
|  | ${ }^{3} 3,7 \mathrm{iz}$ | --7-7.7.638 |  |  | 44,401 | 6,455 | 25,738 | $2,23{ }^{\circ}$ |
|  |  |  |  | --7.-.....-.- |  |  |  |  |
| Recter hase...-.-.-. |  |  | --.-.-.-.--- |  |  |  |  |  |
| Sablefis.............- |  |  |  |  |  |  |  |  |
| Sand diab... |  |  | 3,265,143 | 11, 274 |  |  |  |  |
|  |  |  | 70,500,250 | 811,52 |  |  |  |  |
| Stea | $\begin{array}{r} 3,300 \\ \hdashline \\ -754,321 \end{array}$ | $\cdots$ | ${ }^{2}, 688,56.17$ |  | $\begin{gathered} 8,9.12 \\ 850,229 \\ \hline 85 \end{gathered}$ | $\begin{gathered} 1,0,066 \\ 30,118 \end{gathered}$ |  |  |
|  |  |  |  |  |  |  | 9,099 | ${ }^{1,151}$ |
| Starkepbead... |  |  |  |  |  |  | 280,410 | ${ }^{32,268}$ |

TABLE 39
POUNDS AND VALUE OF COMMERCIAL FISH LANDINGS IN CALIFORNIA DURING 1944

| simbid |  |  |  |  | (1, |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sole |  |  |  |  |  |  |  |  |
|  | $7_{\text {max }}$ | $1.8{ }^{\text {a }}$ |  |  |  | 离 | ${ }^{23} \times 10 \mathrm{iaF}$ | ${ }^{36909}$ |
|  |  |  |  |  |  |  |  |  |
|  | 2:Sise | ${ }^{\text {a }}$ |  |  | ${ }_{\text {cosem }}^{\substack{1329}}$ | ${ }_{\text {cosem }}^{\text {b,ase }}$ |  | ${ }^{121}$ |
|  | ${ }^{2 ;} i^{2}+0$ | isio |  |  | , ${ }^{\text {asi }}$ | bis | ${ }_{6}^{6,686}$ | ${ }^{20}$ |
| Comben | 30, $\mathrm{s}^{2}$ | 2, 2,67 |  |  | 2 208, 58 | 387,0s | 129,45 | 18,88 |
| Capme |  |  |  |  | 20,974 | \#i, 27 |  |  |
| Malutiom |  |  |  |  | 283,31 | ${ }_{2}$ 2,180 | 277 | 20 |
|  |  |  |  |  | अі1,ii6 | isiso | ijisi |  |
| 为 | ${ }_{\text {L }}$ | ${ }_{18}{ }^{18}$ |  |  |  |  | 98 | ${ }^{113}$ |
| Smider |  |  |  |  |  |  | iisemiai | ${ }^{20,6,32}$ |
| Toad poond mad milabe | ${ }^{12,238580}$ | s.172, ${ }^{\text {a }}$ | ${ }_{\text {cesersama }}$ | 8,4,0,459 | ${ }^{28,18,28860}$ | 8.88, 200 | ${ }_{\text {s72as,188 }}$ | ${ }^{\text {\%,352114 }}$ |

TABLE 39 [continued]


TABLE 39 [continued]

$\mathscr{E}$

TABLE 39 [continued]


TABLE 40
MONTHLY COMMERCIAL FISH LANDINGS IN CALIFORNIA DURING 1944


TABLE 40 [continued]


TABLE 41
COMMERCIAL FISH LANDINGS IN THE EUREKA REGION DURING 1944 Fishing Boat Landings from California Waters


9

TABLE 41 [continued]
table 42


TABLE 42
COMMERCIAL FISH LANDINGS IN THE SACRAMENTO REGION DURING 1944
Fishing Boat Landings from California Waters


TABLE 43
COMMERCIAL FISH LANDINGS IN THE SAN FRANCISCO REGION DURING 1944 Fishing Boat Landings from California Waters


TABLE 44
COMMERCIAL FISH LANDINGS IN THE MONTEREY REGION DURING 1944
Fishing Boat Landings from California Waters


TABLE 45
COMMERCIAL FISH LANDINGS IN THE SANTA BARBARA REGION DURING 1944 Fishing Boat Landings from California Waters


TABLE 46
COMMERCIAL FISH LANDINGS IN THE LOS ANGELES REGION DURING 1944
Fishing Boat Landings from California Waters


TABLE 46 [continued]

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{14}{|c|}{\multirow[b]{2}{*}{Fishing Boat Landings from Waters South of the International Boundary}} <br>
\hline \& \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline Species \& January \& February \& March \& April \& May \& June \& July \& August \& September \& October \& November \& Deeember \& ${ }_{\text {Total }}^{\text {Tounds }}$ <br>
\hline Barreuda.... \& ${ }^{78,466}$ \&  \& $\underset{\substack{165.526 \\ 32,45}}{ }$ \& $$
\begin{aligned}
& 130,781 \\
& 21,019
\end{aligned}
$$ \&  \& \& ${ }_{\text {che }}^{42,608}$ \&  \& 150,140 \& c|in9,094 \& ${ }_{7,348}^{95}$ \& 3,1465 \& 1063,037 <br>
\hline Corbina, Mexican. \& \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline Grouper Miliowio \& \& 10,701 \& 3,756 \& 738 \& 17,173 \& 15,5542 \& 188,362 \& 22,859 \& 28,036 \& ${ }^{12,359}$ \& 24.309 \& 535 \& (1,644 <br>
\hline Mackerl, Spanish. \& 100 \& \& \& \& \& 2,032 \& \& \& \& ${ }_{2}^{2,371}$ \& ${ }_{3,907}$ \& 600 \& $\substack { \text { ci, } \\ \begin{subarray}{c}{\text { 2,82 }{ \text { ci, } \\ \begin{subarray} { c } { \text { 2,82 } } } \end{subarray}$ <br>
\hline  \& 1.53 \& ${ }^{130}$ \& \& \& \& 1,856 \& 1,49 \& \& \& \& - 115 \& \& ${ }_{\text {cose }}^{1.985}$ <br>
\hline Rockfsh.... \& \& \& 3 \& \& 1,270 \& \& \& \& \& 1,78 \& 115 \& \& <br>
\hline Seatbas, Black \& 31,295 \& 3,927 \& 23,154 \& 45,055

220 \& 33.560 \& 1,348 \& 18,746 \& cin ${ }_{\text {3,420 }}$ \&  \& - \&  \& 1,619 \& $\underset{\substack{\text { 22,4,41 } \\ \text { 118,26 }}}{ }$ <br>
\hline Stoepsicad...... \& i03 \& \& ${ }_{617}^{60}$ \& 435 \& 173. \& \& \& \& \& \& \& \& ${ }_{1,228}^{281}$ <br>
\hline Sole Sordioib Bradibill \& \& \& 297 \& \& 415 \& 1.001 \& \& \& \& \& \& \& , <br>
\hline Tuna, Albacore.... \& \& \& \& \& 76.056 \& \& ${ }^{\text {1,542.34 }}$ \&  \& $\underset{\substack{688,275 \\ 58,82}}{\substack{\text { c/ }}}$ \& 51,951 \& ${ }^{65}, 1938$ \& 18,74 \&  <br>
\hline Tuna, \& ${ }_{8,47200}^{8,30}$ \& ${ }^{1313685}$ \&  \&  \&  \& 855, 8180 \&  \& 20,494 \& ( 538.828 \& 3, 3,322 \& 40, 193 \& 34,958 \&  <br>
\hline  \& ${ }_{58,8787}$ \& 1,140,731 \& 1,409,6888 \& ${ }_{2,03,460}^{2,989}$ \& ${ }^{\text {7,429, } 727}$ \& ${ }^{1,789,133}$ \& 2,295,067 \& 1,884,982 \& 1,667,741 \& 1,133,318 \& ${ }_{527,223}^{202,42}$ \& ${ }_{1}^{21,017,602}$ \&  <br>
\hline Yeilertail ocan. \& ${ }_{2,279}^{1,042}$ \& 69,1i2 \& 12,558 \& (10, \& 112, 100 \& 304,093 \& 6 63, 363 \& 2,386 \& 600,771 \& 50,4i2 \& 855,721 \& 43,110 \& 1,945,8231 <br>
\hline Misellineous F iba... \& 476 \& \& \& \& ${ }^{100}$ \& \& \& \& \& \& \& \& ${ }_{7} 746$ <br>

\hline | Crustacean |
| :--- |
| Lobster, Spi | \& \& \& \& \& \& \& \& \& \& \& \& \& 6,472 <br>

\hline \& \& \& \& \& \& \& \& \& \& \& \& \& <br>
\hline Clam, Pismo. \& 585,064 \& 745, \& ${ }^{630}$ \& 1,27 \& 653 \& 1,140,088 \& 1,307,600 \& 1,36,760 \& 81,384 \& 704,14 \& 1,172,112 \& 1,862,584 \& 11,719,792 <br>
\hline Total pounds \& 778,831 \& 2,311,086 \& 2,549,385 \& 6,568,527 \& 10,144,788 \& 4,783,107 \& 6,501,671 \& 4,879,021 \& 4,329,382 \& 2,730,372 \& 2,242,570 \& 3,228,525 \& 51,047,245 <br>
\hline
\end{tabular}

TABLE 46 [continued]


TABLE 46 [continued]


TABLE 47
COMMERCIAL FISH LANDINGS IN THE SAN DIEGO REGION DURING 1944
Fishing Boat Landings from California Waters

| TAB |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Species | January | February | March | April | May | Juno | July | August | September | Octobe | November | December | Total pounds |
| ravd | ${ }^{11,254}$ | ${ }^{151,100}$ | ${ }^{129,109}$ | 30.394 | 15,989 | 1,287 | ${ }_{592}^{59}$ | 11,025 | 21,546 | 10,482 | 6,517 | ${ }^{14,546}$ |  |
| ${ }_{\text {Corbina, }}$ Mexic |  |  |  |  |  |  |  |  |  |  |  |  | 800 |
| Grouer necic | 2, 2.442 | ${ }^{6} 6.748$ |  | ${ }^{15} 7.7373$ | 2,431 |  | ${ }_{3}^{5,5085}$ |  | ${ }_{104}^{90}$ |  |  | 4, 4.888 | ${ }^{93,979}$ |
|  |  |  |  | ${ }_{381}$ |  | ${ }^{22,598}$ |  | 22,887 |  | 14, 19 | 6,890 |  | ${ }_{189}^{1897}$ |
| Mackerel, | 2,167 |  |  |  | - ${ }^{829}$ | ${ }_{80}^{17 \%}$ |  | 14 |  | 315 |  |  | ${ }_{\substack{1,402}}^{1,194}$ |
| Rock Bas. | 1,379 | ${ }_{7}^{7,085}$ | 3,441 |  | 6,414 | 5,008 | 5,809 | ${ }^{75}$ | 152 | 234 | 602 | 2.325 820 | ${ }^{41,1918}$ |
| Saraino.: |  |  |  | ${ }^{535}$ |  |  |  | 2058 |  |  |  |  | ${ }^{7} 785$ |
| Scarbas, Bilack | 12,0093 | 20,908 | 16,830 | 18,100 | ${ }_{\text {c }}^{29.072}$ | 27,0888 |  | ${ }_{6}^{6,655}$ | ${ }^{1,664}$ | iiis |  | 233 | ${ }^{47,7881}$ |
|  | ${ }_{80} 8$ |  | 51 | ${ }_{2} 367$ | ${ }^{8,9,95}$ | ${ }^{43}$ | ${ }_{598}^{83}$ | 8,252 | 259 | 1,510 | ${ }^{41}$ | 266 | ${ }_{\text {2 }}^{21,585}$ |
| Stheepsibed. | 1,1119 | 2,20i | 1,326 | 1,058 | ${ }_{323}$ | i,2,20 | 200 | 190 | ${ }^{23}$ | 315 | 1,517 | 769 | 10, 3228 |
| ${ }_{\text {Smordifib, }}$ Broadidill |  |  |  |  |  |  | 6, 6.256 | 30,88i | 67.365 | 128,259 | 60,027 |  |  |
| Tuna, Allacore. | ${ }_{1,212}^{212}$ |  |  |  |  |  | 183,822 | 1,452,3834 | 3,702,736 | 1,870,186 | 1,017,482 | ${ }^{477,789}$ | 8,4251,500 |
| Tuna, Boito |  | ${ }^{26.6569}$ | 14484 |  | ${ }^{6,291}$ | ${ }^{39}$ | 3.33i |  |  | ${ }^{32} 3239$ | 38,284 |  | ${ }_{2}^{2189,423}$ |
| Tuna, Skipijack | ${ }^{6338808} 1$ | 1, ${ }_{3,044,4,484}$ | ${ }_{\text {8,5892.53 }}^{\text {883 }}$ | ${ }_{\text {l }}^{1,208,101} 1$ | ${ }_{3,376.526}^{83,265}$ | (797,227 | ${ }_{4}^{1,2657,2}$ | (3,619,105 | 2,482,30 | \%,8,688,610 | $\xrightarrow{2,257,350}$ |  | $21.658,780$ <br> 0,082517 |
| Whitesath, coañ | 1,363,1887 | 3,012,019 | 3,514,023 | , 0,27 |  |  |  |  |  |  |  |  |  |
|  | 67,404 | ${ }^{69,767}$ | 24,955 | ${ }^{12,564} 1$ | 82,780 | ${ }^{151,681}$ | 87,195 | 22,319 | 6,836 | 64,545 | 116,618 | 210,735 | ${ }^{980,399}$ |
| ${ }^{\text {Crustacean }}$ Lobit | ,101 | 85,596 | 787 | 16,155 |  |  |  |  |  | 0.558 | 7,95 | 8030 | 40091 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total pounds. | 2,241,021 | 4,735,371 | 4,835,817 | 3,280,882 | 4,005,082 | 3,058,736 | 6,281,229 | 12,029,603 | 8,826,656 | 10,606,700 | 5,540,83 | 7,897,665 | 73,60, 398 |

TABLE 47 [continued]


TABLE 47 [continued]

## 9. COMMON AND SCIENTIFIC NAMES OF FISHES, CRUSTACEANS AND MOLLUSKS

| Common name | Scientific name |
| :--- | :--- |
| Anchovy | Anchoviella compressa |
|  | Anchoviella delicatissima |
| Barracuda | Engraulis mordax |
| Cabezone | Sphyraena argentea |
| Cabrilla | Scorpaenichthys marmoratus |
|  | Epinephelus analogus |
| Carp | Various species of Mycteroperca |
| Catfish | Cyprinus carpio |
|  | Ameiurus catus |
| Corbina, Mexican | Ameiurus nebulosus |
| Cultus, Pacific | Cynoscion sp. |
| Eel | Ophiodon elongatus |
|  | Cebidichthys violaceus |
|  | Xiphister mucosus |
|  | Other stichaeids and blenniids |
| Flounder, Starry | Gymnothorax mordax |
| Flying Fish | Platichthys stellatus |
| Grouper | Cypselurus californicus |
| Hake | Various species of Mycteroperca |
| Halibut, California | Merluccius productus |
| Halibut, Northern | Paralichthys californicus |
| Hardhead | Hippoglossus stenolepis |
|  | Orthodon microlepidotus |
| Herring, Pacific | Mylopharodon conocephalus |
| Kingfish | Clupea pallasii |
| Small percentage of Queenfish | Genyonemus lineatus |
| Mackerel, Horse | Seriphus politus |
| Mackerel, Pacific | Trachurus symmetricus |
| Mackerel, Spanish | Pneumatophorus diego |
| Mullet | Scomberomorus sierra |
| Perch | Mugil cephalus |
| Halfmoon |  |
| Opal-eye | Medialuna californiensis |
| Salt-water | Girella nigricans |
| Sargo | Various members of the Embiotocidae |
| Pike | Anisotremus davidsoni |
|  | Ptychocheilus grandis |
|  |  |


| Pompano, California | Palometa simillima |
| :---: | :---: |
| Rock Bass | Paralabrax clathratus |
|  | Paralabrax nebulifer |
| Rockfish | All species of Sebastodes and Sebastolobus found in California waters |
| Sablefish | Anoplopoma fimbria |
| Salmon | Oncorhynchus tschawytscha |
|  | Oncorhynchus kisutch |
| Sand Dab | Citharichthys stigmaeus |
|  | Citharichthys sordidus |
| Sardine | Sardinops caerulea |
| Sculpin | Scorpaena guttata |
| Sea-bass, Black | Stereolepis gigas |
| Sea-bass, White | Cynoscion nobilis |
| Shad | Alosa sapidissima |
| Shark | Alopias vulpes |
|  | Galeorhinus zyopterus |
|  | Mustelus californicus |
|  | Notorynchus maculatus |
|  | Prionace glauca |
|  | Rhinotriacis henlei |
|  | Squalus suckleyi |
|  | Triakis semifasciata |
|  | Small percentage of other species |
| Sheepshead | Pimelometopon pulcher |
| Skate | Raja binoculata |
|  | Raja inornata |
|  | Raja rhina |
|  | And other species |
| Smelt | Atherinops affinis |
|  | Atherinopsis californiensis |
|  | Leuresthes tenuis |
|  | Hypomesus pretiosus |
|  | Small percentage of other Osmeridae |
| Sole | Eopsetta jordani |
|  | Glyptocephalus zachirus |
|  | Parophrys vetula |
|  | Several other pleuronectids |
| Split-tail | Pogonichthys macrolepidotus |
| Sucker | Catostomus occidentalis |



