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Fish Bulletin 129. The California Marine Fish Catch For 1963

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**THE RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF FISH AND GAME
FISH BULLETIN 129
The California Marine Fish Catch For 1963**



By
*THE BIOSTATISTICAL SECTION
MARINE RESOURCES OPERATIONS*
1965



FIGURE 1

(2)

FIGURE 1

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FOREWORD

Catch bulletins provide records of California's commercial fisheries and their value to fishermen. They also summarize the marine partyboat angler's catch.

The report for 1963 is the 23rd in the series. Prior records have been published regularly beginning with those for 1926 and 1927. In recent years, catch bulletins have been published annually instead of biennially.

Records are obtained from each wholesale fish dealer or processor who receives fish from fishermen or who processes fish. Partyboat operators record each trip's catch, and these records are also sent to the Department. Clerical personnel in strategic locations (Eureka, San Francisco, Monterey, Terminal Island, and San Diego) maintain contact with fish dealers and local Fish and Game wardens to insure that the records are accurate and transmitted promptly. All data are edited and subsequently processed by electric accounting machines.

Landings of inshore bait have become of increasing interest and are included among this year's statistics. We are indebted to Sterling P. Davis for his initial work in this area and the continued enthusiasm of Ken Aasen, our field representative. Both have encouraged the cooperation of bait dealers and the Fish and Game wardens, enabling us to present the first figures to indicate the magnitude of the fishery.

Published figures are of national and international concern, but they are used primarily by fisheries scientists and state legislators to manage and regulate California's important fisheries. Chambers of commerce, members of the fishing industry, educators, and others also find these catch statistics of value.

1. EXPLANATION OF TABLES

The tables in this report summarize the recorded 1963 landings of the California commercial fishing fleet, the imports from other states or foreign countries of fresh fish received for processing, the catches of the partyboat fleet, and poundages of inshore bait handled during the year. Fish shipped into California that are utilized in a fresh state are not reported to the Department nor recorded in the tables.

1.1. SOURCE OF DATA

The sources of all commercial fish landing and import data are sales slips or receipts which are completed by fish dealers at the time of delivery and transmitted to the Department. Each dealer is required by law to include the following information on the receipt:

- 1) the weight of each species received .
- 2) the price paid to the fisherman .
- 3) the date .
- 4) name of the fisherman .
- 5) Department of Fish and Game registration number of boat .
- 6) name of the dealer .
- 7) an indication of the intended disposition of the fish (canned, fresh, etc).

In addition, area of catch and type of gear used by the vessel making the delivery are reported for most landings. Receipts, prepared by each dealer, are sent to the Department twice each month. The documents are edited and the data punched into cards before being summarized with electric accounting machines.

Marine partyboat catch statistics are obtained from records of each fishing trip. The partyboat skipper is required by law to transmit the records each month.

1.2. STATISTICAL AREAS

California is divided into seven areas for the purpose of reporting fisheries statistics. Each statistical area is named for a major port within its boundaries. Figure 1 shows the boundaries of the seven areas. Department personnel are responsible for collecting and inventorying landing receipts in each statistical area.

1.3. SPECIES

The species of fish landed or shipped into California are listed in Table 2. Both common and scientific names are given. Some varieties are reported collectively when, for economic or other reasons, dealers do not report a specific separation.

One example of species grouping is the animal-food category which consists of a variety of fish caught by trawling. In an attempt to determine the species comprising animal food landings, a sampling program

has been conducted by biologists of the Department's Bottomfish Investigation. Based on their findings, the estimated weight each species contributed to the 1963 animal-food category is:

<i>Species</i>	<i>Percent</i>	<i>Pounds</i>
Sablefish	33.0	341,207
Pacific hake	25.3	261,592
Rockfish	20.7	214,030
English sole	12.4	128,211
Twenty-nine other species	8.6	88,921
	100.0	1,033,961

1.4. CONDITION

Most fish and shellfish landed in California are in a round condition; however, some species, such as salmon and swordfish, are eviscerated or cleaned before landing. The condition of fish landed and shipped into the State cannot always be determined; therefore, the weights summarized in the tables are as reported to the Department without regard to condition.

Starting with the 1963 records, the oyster poundage is published as packed gallon weight instead of live (in the shell) weight. Packed gallon weight is more meaningful to the oyster industry and researchers and will be used in future statistical publications. The packed gallon weight of Pacific oyster is estimated to be 15.5 percent of live weight landings; that for Eastern oysters is somewhat lower at 10.9 percent.

1.5. CONVERSIONS

Landings reported by units of measure other than pounds are equated to pounds by using appropriate conversion factors. Conversion factors are determined periodically by sampling landings at delivery points. The factors applied to six species of mollusks and crustaceans during 1963 were:

Abalone, red	50 pounds per dozen
Abalone, pink	25 pounds per dozen
Abalone, green	35 pounds per dozen
Clams, Mexican Pismo	8 pounds round weight per 1 pound cleaned weight
Clams, Washington	7 pounds per dozen
Crab, market	2 pounds each

1.6. VALUE

Value is computed from prices paid to the fishermen. Values, therefore, reflect the contribution of the fishermen to the total worth of the fisheries. When the price paid for an individual landing is not specified, the average price for the species in the area in which it was landed is used.

1.7. INSHORE BAIT FISHERY

Sport fishing is one of California's major recreational activities. More than 1.5 million fishermen purchase licenses, tackle, bait, food, and lodging each year. The number of licensees and an estimate of the amount of money expended for tackle, food, and lodging has been published, but little is known or published on bait taken from bays, rivers, and the intertidal zone.

In many locations, bait grounds are disappearing. Urbanization requires that we learn as much as possible concerning this minor commercial fishery which is of prime importance to the angler.

Early in 1962, we became interested in the feasibility of collecting inshore bait records. We were mostly interested in the type of fish, mollusk, or crustacean taken in this fishery, plus their volume and value.

The eight major species appearing in the fishery are:

Bay mussel, <i>Mytilus edulis</i>	.
Freshwater clam, <i>Corbicula flumines</i>	.
Ghost shrimp, <i>Callianassa californicus</i>	.
Jackknife clam, <i>Tegulus californianus</i>	.
Longjaw mudsucker, <i>Gillichthys mirabilis</i>	.
Red shrimp, <i>Hippolympata californica</i>	.
Rock mussel, <i>Mytilus californianus</i>	.
Sand crab, <i>Emerita analoga</i>	.

These species are primarily taken south of Santa Barbara, but there is also a small fishery in the San Francisco, Sacramento-San Joaquin-Delta area. Most sales occur in southern California, except for freshwater clams which are used as catfish bait in central California.

Bait sales are recorded on our regular fish receipt. Receipt books are issued to dealers who purchase bait from commercial fishermen. In some instances, the commercial fisherman is issued a book—in either case, a receipt is completed for each sale (Figure 2).

Units of measure frequently used by the bait industry are trays, sacks, dozens and gallons. It was desirable to convert measuring units of four species into pounds for uniform reporting. Samples collected from bait dealers and weighed on a Welch beam balance were used to compute the following conversion factors:

<i>Species</i>	<i>Reporting Unit</i>	<i>Conversion Factor Pounds per Unit</i>	<i>Comment</i>
Mussel	Sack	80.0	Unshucked
	Shucked Pound	3.8	Unshucked
	Gallon	30.0	Unshucked
Mudsuckers	Tray	19.0	About 500 fish
	Dozen	.465	
Ghost Shrimp	Dozen	.046	
Sand Crab	Dozen	.041	Softshell
	Gallon	4.5	Hardshell

Records for the first complete year showed the fishery handled 361,000 pounds worth approximately \$122,000 to the fishermen. Freshwater clams were the least valuable per pound, and ghost shrimp the most valuable.

The Los Angeles area bait fishery led all other areas with an \$80,395 value and 144,818 pounds. Details of this fishery are recorded in Table 1. The magnitude of inshore bait will be recorded annually in future bulletins.

THIS COPY FOR FISHERMAN

CALIFORNIA DEPARTMENT OF FISH AND GAME

NAME OF DEALER Ted's Rancho Bait & Tackle 7388-729 Malibu

PORT WHERE FISH FIRST LANDED Newport

DATE 11-4 1964 GEAR Hand + Net

BOAT NAME None F & G BOAT NO. -

FISHERMAN John Doe
 OR DEALER FROM WHOM FISH PURCHASED)

WHERE WERE FISH CAUGHT? Newport Bay 738
 GIVE BLOCK NO.

VARIETY	WEIGHT	PRICE	AMOUNT
Ghost shrimp	15 doz	.20¢	\$ 3.00
Sand crab	20 doz	.25¢	\$ 5.00
Mussel	1 sack	\$4.00	\$ 4.00
<u>Sample</u>			

TO BE USED FOR Bait

No. N 487172 Rec'd By Ted Smith

FG 620

FIGURE 2. An example of a completed receipt from a bait dealer.

FIGURE 2. An example of a completed receipt from a bait dealer.

2. TABLES

TABLE 1
Inshore Bait Landings
Pounds and Value
1963

Species	Sacramento	San Francisco	Los Angeles	San Diego	Statewide
Mudsuckers	---	---	---	---	9,861 \$9,534
Freshwater clams	151,624 \$11,660	254 \$38	---	---	151,878 \$11,698
Mussels (bay and rock)	---	---	85,260 \$7,032	19,858 \$1,782	105,818 \$8,814
Jackknife clams	---	---	40,657 \$20,776	32,403 \$15,297	73,060 \$36,073
Ghost shrimp	---	---	7,737 \$33,126	453 \$2,924	8,190 \$36,050
Sand crabs	---	---	4,673 \$11,919	---	4,673 \$11,919
Red shrimp	---	---	4,056 \$6,382	---	4,056 \$6,382
Miscellaneous	---	130 \$22	2,435 \$1,160	1,499 \$712	4,064 \$1,894
Totals	151,624 \$11,660	384 \$60	144,818 \$80,395	54,213 \$20,715	360,900 \$122,364

TABLE 1
Inshore Bait Landings Pounds and Value 1963

TABLE 2
Common and Scientific Names of Fishes, Crustaceans, and Mollusks in the 1963 Catch

Common name	Scientific name	Common name	Scientific name
<i>FISHES</i>			
Anchovy.....	<i>Engraulis mordax</i>	Shark.....	
Baracuda.....	<i>Sphyraena argentea</i>	Brown Smooth-hound.....	<i>Triakis semifasciata</i>
Blacksmith.....	<i>Chromis punctipinnis</i>	Leopard.....	<i>Triakis semifasciata</i>
Bone, Pacific.....	<i>Solea pacifica</i>	Pacific angel.....	<i>Synatina californica</i>
Cabpon.....	<i>Scarpaenichthys marmoratus</i>	Soufin.....	<i>Galeorhinus zyopterus</i>
Cabron, spotted.....	<i>Epinephelus analogus</i>	Spiny dogfish.....	<i>Squalus acanthias</i>
Carp.....	<i>Cyprinus carpio</i>	Tresher.....	<i>Alopias vulpinus</i>
Croaker, white.....	<i>Gymnocranius lineatus</i>	Small amounts of others.....	
Small amounts of queenfish.....	<i>Seriphis politus</i>	Sheephead, California.....	<i>Pimelometopon pulchrum</i>
Flounder.....	<i>Platichthys stellatus</i>	Skate.....	
Starry flounder.....		Big.....	<i>Raja binoculata</i>
Small amounts of other flatfishes.....		California.....	<i>Raja tigrata</i>
Flounder, arrowtooth.....	<i>Atheresthes stomias</i>	Longnose.....	<i>Raja rhina</i>
Flounder.....	<i>Cyprinodon spp.</i>	Small amounts of others.....	
Gromper.....	<i>Muraenesox pictus</i>	Rajiformes.....	
Hake, Pacific.....	<i>Merluccius productus</i>	Smelt.....	
Halfmoon.....	<i>Medialuna californiensis</i>	Grunion.....	<i>Leuresthes tenuis</i>
Halibut, California.....	<i>Paralichthys californicus</i>	Jacksnelt.....	<i>Atherinopsis californiensis</i>
Halibut, Pacific.....	<i>Hippoglossus stenolepis</i>	Surf.....	<i>Hypomesus pretiosus</i>
Hardhead.....		Topsnelt.....	<i>Atherinops affinis</i>
Sacramento black-fish.....	<i>Orthodon microlepidotus</i>	Smelt, whitebait.....	<i>Allosmerus elongatus</i>
Hardhead.....	<i>Myropharodon conocephalus</i>		<i>Spirinchus starksii</i>
Herring, Pacific.....	<i>Clupea pallasi</i>		Young of several others
Lingcod.....	<i>Sebastodes elongatus</i>	Sole.....	
Rockcod, jack.....	<i>Sebastodes symmetricus</i>	Dover.....	<i>Microstomus pacificus</i>
Mackerel, Pacific.....	<i>Scomber japonicus</i>	English.....	<i>Serranus vetulus</i>
Opah.....	<i>Girella nigricans</i>	Petrale.....	<i>Eopsetta jordani</i>
Perch.....	Members of family Embiotocidae	Rex.....	<i>Glyptocephalus zachirus</i>
Pompano, Pacific.....	<i>Palometa simillima</i>	Sand.....	<i>Psettidichthys melanostictus</i>
Rockfish.....	All species of <i>Sebastodes</i> and <i>Sebastodes</i>	Small amounts of others.....	
Sablefish.....	<i>tobolus</i>	Splittail.....	<i>Pogonichthys macrolepidotus</i>
Salmon.....	<i>Anoplopoma fimbria</i>	Sturgeon.....	<i>Acipenser spp.</i>
King.....	<i>Oncorhynchus tshawytscha</i>	Sucker.....	<i>Catostomus spp.</i>
Silver.....	<i>Oncorhynchus kisutch</i>	Swordfish.....	<i>Xiphias gladius</i>
Sanddab.....	<i>Citharichthys sordidus</i>	Tuna.....	
Sole, white.....	<i>Solea solea</i>	Albacore.....	<i>Thunnus alalunga</i>
Seuline.....	<i>Scorpaena guttata</i>	Bluefin.....	<i>Thunnus thynnus</i>
Sea bass, giant.....	<i>Stereolepis gigas</i>	Bluenose.....	<i>Thunnus thynnus</i>
Seabass, white.....	<i>Cynoscion nobilis</i>	Skinjack.....	<i>Katsuwonus pelamis</i>
Shad.....	<i>Alosa sapidissima</i>	Yellowfin.....	<i>Thunnus albacares</i>
<i>CRUSTACEANS</i>			
Crab, market.....	<i>Cancer magister</i>	Prawn.....	<i>Pandalus platyceros</i>
Crab, rock.....	<i>Cancer productus</i>	Shrimp, bay.....	<i>Crangon franciscorum</i>
	<i>Cancer antennarius</i>		<i>Crangon nigricauda</i>
	<i>Cancer anthonyi</i>	Shrimp, ocean.....	<i>Pandalus jordani</i>
Lobster, spiny.....	<i>Panulirus interruptus</i>	Small amounts of others.....	
<i>MOLLUSKS</i>			
Abalone.....		Octopus.....	<i>Octopus spp.</i>
Pink.....	<i>Haliotis corrugata</i>	Oyster.....	
Red.....	<i>Haliotis rufescens</i>	Eastern.....	<i>Crassostrea virginica</i>
Green.....	<i>Haliotis fulgens</i>	Giant Pacific.....	<i>Crassostrea gigas</i>
White.....	<i>Haliotis sorenseni</i>	Squid.....	<i>Loligo opalescens</i>
Clam, Washington.....	<i>Saxidomus nuttalli</i>		

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TABLE 2
Common and Scientific Names of Fishes, Crustaceans, and Mollusks in the 1963 Catch

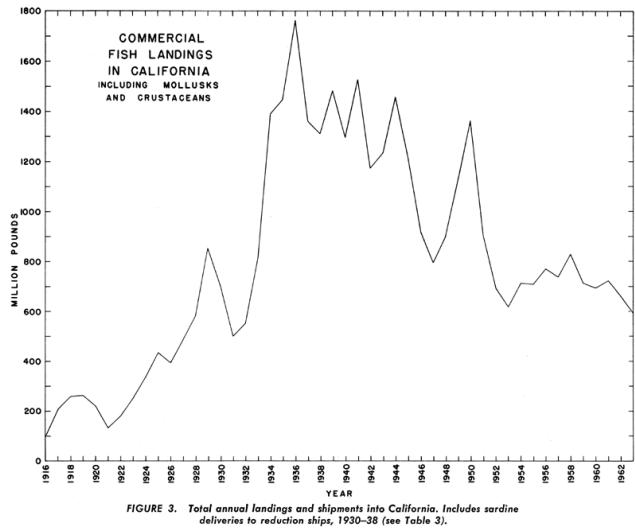


FIGURE 3. Total annual landings and shipments into California. Includes sardine deliveries to reduction ships, 1930-38 (see Table 3).

FIGURE 3. Total annual landings and shipments into California. Includes sardine deliveries to reduction ships, 1930-38 (see Table 3)

TABLE 3

Total Annual Landings and Shipments Into California of Commercial Fish, Mollusks, and Crustaceans, Includes Sardine Deliveries to Reduction Ships During 1930 Through 1938

Year	Thousands of pounds	Year	Thousands of pounds
1916	95,003	1941	1,529,148
1917	209,877	1942	1,173,414
1918	261,134	1943	1,234,049
1919	266,270	1944	1,459,446
1920	222,004	1945	1,216,467
1921	135,348	1946	919,850
1922	182,343	1947	795,499
1923	253,875	1948	900,540
1924	340,446	1949	1,135,325
1925	437,502	1950	1,366,596
1926	394,964	1951	904,088
1927	487,166	1952	694,977
1928	583,527	1953	618,899
1929	856,854	1954	713,406
1930	702,189	1955	710,714
1931	502,390	1956	772,549
1932	556,139	1957	738,550
1933	821,805	1958	832,919
1934	1,390,799	1959	713,491
1935	1,448,017	1960	694,663
1936	1,764,900	1961	725,253
1937	1,362,984	1962	663,107
1938	1,310,596	1963	592,899
1939	1,486,535		
1940	1,297,517		

TABLE 3

Total Annual Landings and Shipments Into California of Commercial Fish, Mollusks, and Crustaceans, Includes Sardine Deliveries to Reduction Ships During 1930 Through 1938

**TABLE 4
Landings and Shipments of Leading Species Ranked by Pounds**

1962				1963			
Species	Rank	Thousands of pounds	Thousands of dollars	Species	Rank	Thousands of pounds	Thousands of dollars
Yellowfin tuna	1	218,149	36,478	Yellowfin tuna	1	162,326	23,461
Skipjack	2	99,059	12,742	Skipjack	2	106,285	11,411
Jack mackerel	3	89,979	1,869	Jack mackerel	3	95,442	1,989
Albacore	4	73,354	13,261	Albacore	4	65,805	10,710
Pacific mackerel	5	48,579	1,027	Pacific mackerel	5	40,243	861
Bluefin tuna	6	32,916	4,638	Bluefin tuna	6	32,702	3,724
Sardine	7	15,363	490	Rockfish	7	11,761	683
Giant Pacific oyster	8	11,044	302	Squid	8	11,561	240
Rockfish	9	9,834	574	Dover sole	9	9,782	599
Squid	10	9,368	168	Salmon	10	8,035	4,110
Dover sole	11	8,581	517	Sardine	11	7,131	299
Salmon	12	6,884	4,195	Anchovy	12	4,570	78
English sole	13	4,206	303	Abalone	13	4,354	627
Abalone	14	4,183	593	English sole	14	4,254	329
Market crab	15	3,223	872	Pacific bonito	15	4,022	113
Petrale sole	16	3,041	362	Petrale sole	16	3,318	400
Anchovy	17	2,764	50	Ocean shrimp	17	2,093	202
Pacific bonito	18	2,150	63	Sablefish	18	1,998	136
Sablefish	19	2,150	140	Market crab	19	1,951	688
Miscellaneous (animal food)	20	1,880	37	Rex sole	20	1,566	108
All others	--	16,400	2,242	All others	--	13,700	2,050
Totals	--	663,107	80,923	Totals	--	592,899	62,818

**TABLE 4
Landings and Shipments of Leading Species Ranked by Pounds**

TABLE 5
Number of Licensed Commercial Fishermen

Area of residence	License year*	
	1962-63	1963-64
Eureka.....	1,211	1,195
Sacramento.....	151	190
San Francisco.....	1,198	1,284
Monterey.....	651	684
Santa Barbara.....	706	659
Los Angeles.....	2,332	2,163
San Diego.....	1,800	1,736
Alaska, Washington and Oregon fishermen licensed in California.....	465	523
Mexican nationals licensed in California.....	70	64
Other.....	16	46
Totals.....	8,600	8,544

* April 1 to March 31.

TABLE 5
Number of Licensed Commercial Fishermen

TABLE 6
Number of Registered Fishing Boats by Length

License year*	Up to 24 feet	25 to 39 feet	40 to 64 feet	65 to 84 feet	85 to 99 feet	100 feet and over	Total
1962-1963.....	845	1,729	1,032	108	37	103	3,854†
1963-1964.....	852	1,698	1,050	109	37	96	3,842‡

* April 1 to March 31.

† The owners of 523 boats were issued fishing party licenses in 1962-63.

‡ The owners of 523 boats were issued fishing party licenses in 1963-64.

TABLE 6
Number of Registered Fishing Boats by Length

TABLE 7
Origin of Shipments of Fresh Fish Into California During 1963

Shipped from:	Species	Pounds shipped to each area			Total Pounds
		San Francisco	Los Angeles	San Diego	
Continental United States:					
Shad.....	2,765				2,765
Miscellaneous.....	120,340	152,835	----	----	273,175
Oregon, Washington, Canada and Alaska:					
Sablefish.....	96,309				96,309
Salmon.....	175,728				175,728
Sturgeon.....	1,063				1,063
Tuna, albacore.....			65,627		65,627
Miscellaneous.....	70,959		----		70,959
Mexico and Central America:					
Halibut, California.....	8,357		103		8,460
Rockfish.....	11,146		----		11,146
Shark.....	2,488		----		2,488
Tuna, albacore.....	64,816		----		64,816
Tuna, bluefin.....	843,831		----		843,831
Tuna, skipjack.....	1,475,371		----		1,475,371
Tuna, yellowfin.....	1,640,119		----		1,640,119
Miscellaneous.....	584		----		584
South America:					
Tuna, skipjack.....	4,723,727		3,247,961		7,971,688
Tuna, yellowfin.....	3,586,782		1,994,812		5,581,594
Japan:					
Sablefish.....	92,250		----		92,250
Tuna, albacore.....	1,103,669	14,073,173	----		15,182,842
Tuna, bigeye.....	40,480		----		40,480
Tuna, skipjack.....	217,830		----		217,830
Tuna, yellowfin.....	12,872,152	27,038,455	----		40,510,607
Australia:					
Tuna, bluefin.....	51,990	1,452,571	----		1,504,561
Tuna, yellowfin.....	4,500	----	----		4,500
China (Formosa):					
Tuna, albacore.....	50,842	6,185	----		57,027
Tuna, bigeye.....	54,841		----		54,841
Tuna, yellowfin.....	783,717	373,445	----		1,157,162
Malaya:					
Tuna, albacore.....	417,745	1,154,793	----		1,572,538
Tuna, bigeye.....	578,989	59,675	----		638,664
Tuna, yellowfin.....	2,177,819	1,586,303	----		3,764,122
Java:					
Tuna, albacore.....		2,375	----		2,375
Tuna, yellowfin.....		84,962	----		84,962
Africa:					
Abalone.....	----	10,000	----		10,000
Total pounds.....	18,477,679	59,394,292	5,308,503		83,180,474

TABLE 7
Origin of Shipments of Fresh Fish Into California During 1963

TABLE 8
Origin of Commercial Fish Landings and Volume of Shipments Into California During 1963

Species	Landings of catches from				Shipments*	Grand total
	California waters	Waters north of State	Water south of State	Total pounds		
Fish:						
Anchovy.....	4,570,380	---	31,360	4,570,380	---	4,570,380
Baracuda, California.....	347,354	---	378,714	378,714	---	378,714
Blacksmith.....	2,900	---	2,900	2,900	---	2,900
Bonito, Pacific.....	4,013,505	---	9,017	4,022,522	---	4,022,522
Cabezon.....	2,811	---	2,811	2,811	---	2,811
Cabrilla, spotted.....	37,088	37,088	37,088	37,088	37,088	37,088
Carp.....	255,061	---	255,061	255,061	255,061	255,061
Croaker, white.....	550,653	406	551,059	551,059	551,059	551,059
Flounder.....	518,961	2,349	521,310	521,310	521,310	521,310
Flounder, arrowtooth.....	17,345	---	17,345	17,345	---	17,345
Flyingfish.....	46,613	---	46,613	46,613	46,613	46,613
Grouper.....	233,482	233,482	233,482	233,482	233,482	233,482
Hake, Pacific.....	139,699	---	139,699	139,699	139,699	139,699
Halfmoon.....	8,683	---	8,683	8,683	8,683	8,683
Halibut, California.....	855,092	---	265,277	1,120,369	8,460	1,128,829
Halibut, Pacific.....	4,508	---	4,508	4,508	4,508	4,508
Hardhead.....	148,242	---	148,242	148,242	148,242	148,242
Herring, Pacific.....	630,087	---	630,087	630,087	630,087	630,087
Lingcod.....	1,047,923	84,594	491	1,133,008	---	1,133,008
Mackerel, jack.....	95,442,284	---	95,442,284	95,442,284	95,442,284	95,442,284
Mackerel, Pacific.....	40,241,832	---	844	40,242,676	---	40,242,676
Opahye.....	4,378	---	4,378	4,378	4,378	4,378
Perch.....	171,666	---	1,218	172,884	---	172,884
Pompano, Pacific.....	58,155	---	58,155	58,155	58,155	58,155
Rockfish.....	11,095,802	438,514	215,144	11,749,460	11,146	11,760,606
Sablefish.....	1,701,780	107,569	---	1,809,349	188,559	1,997,908
Salmon.....	7,859,035	151	7,859,186	7,859,186	175,728	8,034,914
Sanddab.....	554,125	1,358	---	555,783	---	555,783
Sardine.....	7,131,221	---	7,131,221	7,131,221	7,131,221	7,131,221
Sculpin.....	75,209	---	312	75,321	---	75,321
Sea bass, giant.....	13,060	---	289,619	303,579	---	303,579
Seabass, White.....	372,479	---	518,741	891,220	---	891,220
Shad.....	555	---	555	555	2,765	2,765
Shark.....	605,252	---	60,115	665,367	2,488	667,855
Sheephead, California.....	25,210	---	2,801	28,011	---	28,011
Skate.....	216,811	---	14	216,825	---	216,825
Smelt.....	358,456	---	358,456	358,456	---	358,456
Smelt, whitebait.....	148,080	---	148,080	148,080	---	148,080
Sole, Dover.....	8,392,044	1,389,688	---	9,751,733	---	9,781,732
Sole, English.....	4,175,651	78,894	---	4,254,545	---	4,254,545
Sole, petrale.....	2,934,924	383,024	---	3,317,948	---	3,317,948
Sole, rex.....	1,535,794	28,878	---	1,565,672	---	1,565,672
Sole, sand.....	331,088	120	---	331,208	---	331,208
Sole, miscellaneous.....	43,415	---	43,415	43,415	---	43,415
Splittail.....	5,383	---	5,383	5,383	---	5,383
Sturgeon.....	5,947	---	5,947	5,947	1,063	1,063
Sucker.....	95,672	2,402	98,074	98,074	---	98,074
Swordfish.....	41,925,739	---	6,933,839	48,859,578	16,945,225	65,804,803
Tuna, albacore.....	7,130,960	23,222,449	30,353,409	2,348,392	32,701,801	32,701,801
Tuna, skipjack.....	2,224,116	94,395,828	96,619,944	9,664,889	106,284,833	106,284,833
Tuna, yellowfin.....	60,220	109,522,946	109,583,166	52,743,056	162,326,222	162,326,222
Turbot.....	96,819	---	96,819	96,819	96,819	96,819
Wahoo.....	---	21,900	21,900	21,900	21,900	21,900
Whitefish, ocean.....	996	---	2,258	3,254	---	3,254
Yellowtail, California.....	25,443	---	44,283	69,726	---	69,726
Miscellaneous.....	3,380	---	876	4,256	344,718	345,974
Miscellaneous (animal/food).....	1,014,634	19,327	---	1,033,961	---	1,033,961

TABLE 8
Origin of Commercial Fish Landings and Volume of Shipments Into California During 1963

TABLE 8—Continued
Origin of Commercial Fish Landings and Volume of Shipments Into California During 1963

Species	Landing of catches from				Shipments*	Grand total
	California waters	Waters north of State	Water south of State	Total pounds		
Crustacean:						
Crab, market.....	1,951,461	----	----	1,951,461	----	1,951,461
Crab, rock.....	240,611	----	----	240,611	----	240,611
Lobster, snowy.....	584,192	----	----	584,192	----	584,192
Prawn.....	8,445	----	----	8,445	----	8,445
Shrimp, bay.....	1,225	----	----	1,225	----	1,225
Shrimp, ocean.....	2,093,063	----	----	2,093,063	----	2,093,063
Mollusk:						
Abalone.....	4,343,879	----	----	4,343,879	10,000	4,353,879
Clam, Washington.....	3,879	----	----	3,879	----	3,879
Octopus.....	74,614	----	----	74,614	----	74,614
Oyster, eastern.....	13,502	----	----	13,502	----	13,502
Oyster, giant Pacific.....	1,255,515	----	----	1,255,515	----	1,255,515
Squid.....	11,560,834	----	----	11,560,834	----	11,560,834
Miscellaneous mollusk.....	869	----	----	869	----	869
Total pounds.....	271,370,217	2,535,466	235,812,710	509,718,393	83,180,474	592,898,867

* For origin of shipments refer to Table 7.

TABLE 8
Origin of Commercial Fish Landings and Volume of Shipments Into California During 1963

TABLE 9

Monthly Landings and Shipments Into California During 1963

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS:													
Fish													
Anchovy	967,045	594,450	95,435	91,778	450,465	190,459	208,877	138,872	130,950	803,250	289,691	699,208	4,570,380
Bailey, California	30,299	9,579	28,283	41,645	34,099	105,188	32,200	10,831	4,992	21,864	17,529	21,864	374,214
Bucksmith	—	—	—	—	—	—	2,900	—	—	—	—	—	2,900
Bonito, Pacific	1,349,380	926,991	648,767	2,655	4,821	63,663	45,143	25,697	164,246	332,729	317,083	143,337	4,022,522
Cabazon	84	74	180	194	194	194	194	194	194	110	194	194	111
Cabilla, spotted	—	27,184	—	84	2,083	—	1,087	660	—	—	1,022	3,326	37,088
Catfish	36,683	62,184	21,513	18,147	15,945	15,960	9,758	7,418	11,085	15,250	16,660	18,350	255,091
Croaker, white	31,193	95,387	68,573	86,698	40,041	35,349	23,044	15,903	25,738	55,546	15,314	59,272	551,059
Flounder	72,922	112,088	37,859	52,312	20,000	10,111	24,782	22,291	29,280	29,280	7,931	46,040	511,110
Glassy smooth	319	134	1,162	4,688	2,764	2,603	940	1,839	1,776	110	—	130	17,345
Flyingfish	—	—	—	—	9,807	13,712	16,900	3,770	2,321	103	—	—	46,613
Grouper	36,940	54,672	25,574	200	14,230	—	11,909	11,055	—	7,488	7,131	6,426	233,482
Hake, Pacific	290	—	—	7,600	34,460	26,395	34,454	27,300	7,990	—	1,070	9,040	139,666
Hallibut	—	10	—	—	—	—	—	—	—	—	1,974	1,012	5,695
Hallibut, California	138,852	180,854	106,223	76,044	71,294	67,369	95,026	65,112	59,740	97,123	34,538	98,194	1,120,369
Hallibut, Pacific	—	—	—	—	—	—	—	—	—	—	—	—	4,508
Haddock	6,270	51,655	17,233	15,160	5,045	9,590	732	—	100	5,065	16,600	15,150	48,287
Herring	323,442	47,592	3,295	30,904	120,116	20,714	1,240	—	—	—	500	1,071	6,687
Lingcod	68,218	45,823	42,973	92,404	120,116	113,862	147,016	179,937	148,835	72,075	32,279	65,540	1,153,008
Mackerel, jack	15,249,344	6,165,814	4,015,135	6,241,270	6,297,167	5,819,402	2,837,230	10,690,923	10,163,158	17,261,974	10,455,779	2,399,841	55,442,284
Mackerel, Pacific	1,440,465	1,890,467	2,249,893	2,640,078	6,698,051	1,756,960	1,146,431	4,884,155	2,270,699	8,884,579	3,238,232	3,397,782	40,242,676
Ophrey	—	—	—	—	—	—	—	—	—	—	—	—	4,478
Perci	26,646	11,506	31,312	37,751	1,233	369	13,404	20,382	11,612	7,756	1,704	9,008	172,884
Pompano, Pacific	1,066,333	1,049,518	880,224	1,023,184	1,011,848	825,681	909,799	1,230,046	1,113,911	872,519	875,032	918,592	11,179,490
Sablefish	151,302	111,819	193,680	155,303	159,654	154,299	140,532	200,038	150,380	73,821	118,521	150,800	1,809,249
Salmon	—	—	591,528	1,894,251	1,591,453	2,200,068	1,238,791	333,070	19	—	—	—	7,859,186
Sanddab	53,677	40,715	55,132	57,313	72,112	40,105	51,034	59,478	58,381	31,058	14,479	17,777	555,783
Sardine	408,155	616,155	430,155	735,055	798,055	452,155	547,155	1,118,155	1,250,155	984,055	3,010,055	3,172,352	7,121,211
Sculpin	2,519	987	1,339	0,040	6,101	5,373	18,614	18,829	2,823	8,314	2,613	3,985	75,521

TABLE 9

Monthly Landings and Shipments Into California During 1963

MARINE FISH CATCH FOR 1963

TABLE 9—*Cont'd.*

TABLE 9—Continued
Monthly Landings and Shipments Into California During 1963

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
SHIPMENTS:^a													
Fish:													
Hake, California	---	---	---	---	---	351	85	553	617	2,070	2,197	2,027	8,460
Haddock	---	---	---	---	---	---	3,282	4,407	4,481	4,253	4,253	4,253	11,633
Solefish	34,884	---	---	9,092	10,380	---	13,130	---	3,333	104,985	12,735	---	185,559
Salmon	321	61,977	14,647	6,292	5,439	---	550	35,282	51,190	---	---	175,728	175,728
Shark	---	---	---	---	---	---	---	---	---	2,753	---	2,753	2,753
Shark	---	---	---	---	178	792	960	82	223	50	203	2,988	2,988
Sturgeon	1,963	---	---	---	---	---	---	---	---	---	---	1,963	1,963
Tuna, albacore	2,281,932	1,230,117	3,313,165	1,352,575	251,241	261,200	68,435	411,235	1,014,300	2,600,943	1,043,110	2,607,922	18,615,225
Tuna, bluefin	121,482	---	170,469	100,469	94,122	67,469	441,886	508,145	106,549	260,913	78,214	206,824	78,214
Tuna, skipjack	882,530	1,959,808	121,256	1,084,417	28,621	2,427,901	2,218,669	441,587	---	---	---	6,664,859	6,664,859
Tuna, yellowfin	6,746,026	6,548,425	9,746,457	4,383,600	3,475,905	3,296,859	1,078,135	2,750,563	2,982,195	5,273,704	1,824,460	4,656,727	52,743,056
Miscellaneous	---	44,905	8,000	11,000	15,930	23,940	20,120	78,137	41,180	104,773	34	239	344,718
Mollusk:													
Abaalone	---	10,000	---	---	---	---	---	---	---	---	---	---	10,000
Total pounds	10,048,600	7,888,424	15,224,879	7,163,403	3,823,385	5,084,464	1,758,767	5,759,815	7,057,102	9,078,093	2,865,472	7,472,070	83,180,474
Grand total	49,895,223	42,262,832	45,570,436	47,197,855	46,208,936	28,606,285	45,726,817	73,273,125	70,006,773	71,897,153	33,825,255	38,428,377	592,898,867

* For origin of shipments refer to Table 1.

TABLE 9
Monthly Landings and Shipments Into California During 1963

TABLE 10
Monthly Landings of Commercial Fishing Boats in the Eureka Area During 1963

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM: California Waters:													
Flounder.....	11,368	2,087	11,830	26,312	13,274	3,393	14,393	69,933	10,957	5,054	199	3,777	172,577
Flounder, arrowtooth.....	549	629	952	4,578	2,489	1,573	335	674	1,426	110	—	130	13,445
Haddock.....	92	71	61	29	31	—	—	—	—	29	—	—	255
Halibut, Pacific.....	—	—	—	—	—	—	1,123	2,737	648	—	—	—	4,508
Herring, Pacific.....	—	4,425	—	—	—	—	—	—	—	—	—	—	4,425
Lingcod.....	21,450	16,238	17,490	42,804	49,452	60,726	75,660	111,509	87,896	39,638	6,265	34,885	564,061
Rockfish.....	151,200	112,167	115,175	120,420	118,400	115,175	115,447	115,175	115,175	115,175	115,175	115,175	1,255,225
Sablefish.....	325,753	255,232	164,634	247,210	179,287	230,107	268,239	395,069	319,043	154,081	172,558	227,924	2,634,737
Salmon.....	59,237	21,223	20,346	43,688	22,070	33,021	39,048	59,111	38,053	34,777	62,061	65,439	500,984
Sardine.....	—	—	180,462	70,000	129,138	129,138	129,138	129,138	129,138	129,138	129,138	129,138	3,778,282
Sanddab.....	7,482	3,984	7,404	11,723	7,945	5,520	12,258	21,720	20,944	6,924	1,693	4,001	111,403
Shark.....	—	—	—	—	—	—	—	—	—	105	185	—	290
Skate.....	—	—	—	—	—	655	476	225	278	383	—	1,805	3,828
Smelt, whitebait.....	4,715	12,807	20,079	16,641	34,940	19,045	15,055	4,736	1,548	—	—	—	129,364
Sole, Dover.....	108,256	34,153	62,889	375,097	478,487	600,340	928,460	1,069,815	785,036	528,036	493,074	379,978	6,144,150
Sole, English.....	150,405	46,155	66,351	121,770	66,482	53,383	111,195	221,058	283,095	119,505	31,606	138,334	1,407,320
Sole, green.....	272,100	15,000	15,000	50,000	74,000	74,000	10,000	10,000	10,000	10,000	10,000	10,000	1,000,000
Sole, rex.....	47,083	28,743	26,383	41,931	34,940	44,138	84,657	74,383	101,085	45,008	23,879	66,031	561,911
Sole, sand.....	4,218	1,013	3,059	5,533	2,481	942	10,568	5,994	870	1,302	150	1,305	37,908
Sole, miscellaneous.....	92	315	100	—	—	—	—	8	34	—	—	—	539
Turbot, albacore.....	—	—	488	850	—	—	—	—	—	1,292,422	4,981,200	380,065	35,495
Miscellaneous.....	—	—	105	—	—	—	—	1,422	1,139	1,300	140	205	598
Crustacean:													
Crab, rock.....	299,483	64,007	41,333	56,460	56,982	7,402	481	—	—	—	—	210,501	730,029
Shrimp, ocean.....	2,175	1,375	1,850	3,050	6,100	3,650	2,575	1,760	1,350	1,250	800	1,000	26,925
Mollusk:													
Oyster, Washington.....	705	865	1,300	1,147	—	—	—	—	—	42	—	59	3,879
Oyster.....	305	448	124	109	186	457	465	742	360	1,931	3,838	8,510	—
Oyster, giant Pacific.....	75,919	\$3,788	55,497	76,819	64,673	31,736	30,655	31,325	60,155	141,579	133,160	114,266	942,412
Total pounds.....	1,402,267	610,137	610,622	1,419,076	2,129,055	2,784,651	3,449,522	4,516,218	7,304,908	1,019,536	1,017,837	1,601,147	28,501,578

MARCH 1964

TABLE 10
Monthly Landings of Commercial Fishing Boats in the Eureka Area During 1963

TABLE 10—Continued
Monthly Landings of Commercial Fishing Boats in the Eureka Area During 1963

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM—Continued													
Water north of state:													
Fish:													
Flounder.....	60	410	34	20	82	270	865	214	384	2,339	
Rockfish.....	3,518	10,859	6,569	15,206	29,569	39,138	86,364	103,149	87,774	10,063	14,637	31,647	438,514
Solefish.....	1,691	749	8,153	5,335	10,887	10,757	9,991	13,114	8,176	7,783	11,456	18,473	107,269
.....	151
Sandlsh.....	94	102	94	102	94	94	30	1,258
Sole, Dover.....	13,375	4,127	31,062	124,018	126,574	151,639	177,060	175,046	198,369	87,517	88,998	213,003	1,389,688
Sole, English.....	670	2,045	2,027	1,888	15,425	10,227	10,615	28,880	2,735	5,540	2,002	78,894
Sole, rex.....	70	3,371	1,721	2,769	43,242	10,241	10,241	29,301	10,241	2,141	2,141	2,141	30,874
Sole, rex.....	540	2,039	1,575	2,462	3,351	3,989	2,774	2,301	5,652	1,452	1,263	2,180	39,878
Sole, sand.....	19,327	120	19,327
Miscellaneous (animal food).....	10
Total pounds.....	19,871	23,297	48,280	155,169	198,950	274,471	408,535	486,344	387,563	190,395	125,672	276,910	2,535,466
Grand total.....	1,422,138	669,434	658,911	1,574,845	2,328,005	3,059,122	3,858,057	5,002,562	7,692,471	1,749,931	1,143,509	1,876,057	31,037,042

TABLE 10
Monthly Landings of Commercial Fishing Boats in the Eureka Area During 1963

TABLE 11
Monthly Landings and Shipments of Commercial Fish Into the San Francisco Area During 1963 *

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds	MARINE FISH CATCH FOR 1963
LANDINGS FROM: California Waters; Fish														
Ashley.....	1,225	2,900	3,000	14,100	2,400	4,100	27,775	205
Cabazon.....	114	11
Carp.....	35,240	68,705	21,578	18,147	13,945	13,660	9,740	7,418	11,083	15,100	16,660	18,350	242,028	117
Cod, white.....	14,950	14,950	14,950	14,950	14,950	14,950	14,950	14,950	14,950	14,950	14,950	14,950	149,950	117
Flounder.....	54,866	92,201	15,626	19,525	8,900	3,725	5,535	2,520	6,235	19,000	3,655	26,650	250,178	117
Flounder, arrowtooth.....	75	210	90	275	1,330	605	965	330	3,900	71,710
Hake, Pacific.....	4,965	20,820	19,925	20,465	5,535
Herring, California.....	20,514	28,985	26,566	1,515	1,515	2,215	2,215	1,662	1,209	17,408	3,280	18,555	152,180	145
Hardhead, California.....	9,270	51,683	17,235	15,160	5,955	9,500	732	100	3,065	16,000	19,450	148,342	145
Herring, Pacific.....	333,064	43,245	240	471	377,020	145
Lingcod.....	21,111	27,496	15,588	27,158	50,660	30,119	32,597	30,401	31,000	23,508	12,880	13,275	315,889	145
Mahi-mahi, jack.....
Perch.....	5,570	2,714	8,875	7,233	1,170	1,316	3,133	1,346	40	655	32,322	145
Rockfish.....	201,388	296,247	178,477	151,571	141,124	117,652	109,428	173,558	323,186	270,222	234,866	148,789	2,855,200	145
Sablefish.....	76,017	80,115	124,621	83,458	83,458	104,151	104,151	104,151	104,151	25,152	36,055	35,200	840,564	145
Sardines.....
Sandlance.....	30,500	30,316	30,516	31,014	11,035	20,533	22,715	21,047	25,500	17,981	11,925	12,530	3,493,501	145
Santauas, white.....	910	232	156
Sardines.....	12,951	9,515	16,100	10,287	9,505	12,322	11,208	1,385	10,670	16,177	8,063	1169	25,707	145
Skate.....	15,235	12,442	13,575	12,800	7,425	5,550	6,525	5,500	6,793	11,175	7,075	9,050	113,437	145
Smelt.....	2,467	5,174	6,980	8,352	7,260	5,489	3,018	5,059	6,302	1,583	417	51,149	145
Smelt, whitesmelt.....	2,311	8,452	1,127	6,092	2,414	2,411	889	18,716	145
Sole, Dover.....	165,537	200,937	420,452	281,277	237,100	128,215	103,641	98,541	6,411	69,853	72,222	20,032	2,000,032	145
Sole, English.....	447,635	131,883	117,661	101,499	108,435	120,215	138,740	121,940	129,925	183,938	130,115	144,545	1,902,811	145
Sole, petrale.....	80,660	59,055	75,569	71,453	161,910	88,307	88,307	56,231	47,625	60,347	109,068	20,350	922,376	145
Sole, rex.....	83,870	40,485	42,208	63,905	61,055	28,905	34,210	25,330	38,895	30,145	41,235	19,333	514,644	145
Sole, sand.....	40,000	55,000	20,861	12,000	7,260	25,630	10,700	4,240	9,490	20,300	20,300	25,000	241,412	145
Sole, miscellaneous.....	208	40	59	115	38	322	145
Splittail.....	4,487	331	80	155	300	30	5,383	145
Tuna, albacore.....	88,045	2,639,291	614,280	57,053	5,798	3,424,487	145

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TABLE 11
Monthly Landings and Shipments of Commercial Fish Into the San Francisco Area During 1963

TABLE 11—Continued

Monthly Landings and Shipments of Commercial Fish Into the San Francisco Area During 1963 *

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM—Continued													
California Waters—Continued													
Fish—Continued													
Tuna, market.....	17,555	8,525	4,245	4,103	3,770	2,185	2,105	2,674	2,625	2,925	1,910	2,525	55,147
Miscellaneous.....	11	----	50	20	----	----	----	----	----	----	1,537	455	81
Miscellaneous (animal food).....	----	----	----	----	----	----	----	----	----	----	----	----	1,912
Crabs, ocean.....	----	----	----	----	----	----	----	----	----	----	----	----	----
Crab, market.....	120,930	71,205	16,272	24,155	11,568	10,445	-----	425	800	-----	722,411	233,333	1,210,319
Shrimp, bay.....	----	----	----	----	65,124	81,295	46,068	12,390	-----	----	----	----	1,225
Shrimp, ocean.....	----	----	----	----	57	52	60	54	57	45	-----	----	204,667
Mollusks.....	4,571	8,155	2,792	18,503	13,963	6,751	15,107	10,144	5,830	250	1,514	4,817	84,242
Octopus.....	5,256	4,970	3,635	6,330	2,687	3,150	2,555	4,015	2,110	3,701	4,375	50,948	-----
Oyster, eastern.....	1,486	1,257	1,257	1,257	1,257	1,257	1,257	1,257	1,257	1,257	1,257	1,257	13,562
Oysters, Pacific.....	15,261	17,002	19,211	12,516	12,294	9,160	5,279	3,378	1,671	18,835	20,726	22,014	172,267
Miscellaneous mollusk.....	45	57	52	60	54	57	45	-----	-----	-----	-----	-----	370
Total pounds.....	1,830,779	1,413,141	1,203,017	1,275,102	2,033,336	1,349,838	1,603,684	1,592,417	3,725,346	1,574,468	1,543,320	870,637	19,821,785
Waters South of State:													
Fish.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Tuna, bluefin.....	-----	-----	-----	-----	-----	-----	68,001	-----	-----	-----	-----	-----	88,001
Tuna, yellowfin.....	-----	-----	-----	-----	-----	-----	52,261	138,087	-----	-----	21,700	-----	212,048
Tuna, yellowfin.....	-----	-----	-----	-----	-----	448,234	694,227	-----	-----	-----	255,077	-----	1,267,538
Total pounds.....	-----	-----	-----	-----	-----	588,496	832,314	-----	-----	276,777	-----	1,697,587	-----
SHIPMENTS:†													
Fish.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Salmon.....	190,632	200,000	267,784	361,327	90,756	100,000	100,000	100,000	100,000	100,000	100,000	100,000	2,765
Tuna, albacore.....	121,824	-----	172,772	139,466	-----	-----	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Tuna, bonito.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	74,665	12,561	146,177
Tuna, skipjack.....	40,520	58,690	2,000	1,386,860	1,473,034	18,340	18,340	18,340	18,340	18,340	18,340	18,340	51,990
Tuna, skipjack.....	0,056,633	2,417,010	3,275,000	2,800,000	1,386,860	1,473,034	698,465	701,150	21,050	21,050	21,050	21,050	217,830
Miscellaneous.....	-----	10,000	-----	11,000	-----	-----	-----	-----	-----	-----	51,000	-----	30,000
Total pounds.....	2,377,759	2,057,940	3,790,794	2,956,566	1,477,616	1,657,374	690,500	846,510	307,000	481,693	344,880	919,015	18,477,679
GRAND TOTAL.....	4,208,568	4,071,081	4,963,811	4,231,668	3,510,952	3,007,212	2,802,680	3,271,241	4,030,246	1,656,163	2,164,977	1,795,452	39,997,051

* Includes Sacramento area landings.

† For origin of shipments refer to Table 7.

TABLE 11

Monthly Landings and Shipments of Commercial Fish Into the San Francisco Area During 1963

TABLE 12
Monthly Landings of Commercial Fishing Boats in the Monterey Area During 1963

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds	MARINE FISH CATCH FOR 1963	
LANDINGS FROM:															
California Waters:															
Fish:															
Bonito, Pacific.....	771,050	571,900	21,150	16,678	268,800	53,800	94,048	32,997	17,800	686,625	265,494	559,300	3,390,212	1,169	
Cabron.....	44	15	10	11	11	11	1,017	1,017	193	115	152	120	386	1,737	
Cod.....	925	4,492	13,531	2,635	1,827	4,200	4,184	2,551	9,875	2,711	2,929	1,314	63,920	70,656	
Flounder.....	1,430	13,071	8,729	5,023	4,437	2,073	4,833	6,175	4,269	4,239	3,322	12,155	2,152		
Hake, Pacific.....	260	3,423	3,181	1,959	5,594	8,253	14,529	6,835	2,455	1,610	640	1,010	67,989		
Halibut, California.....	684	3,423	3,181	1,959	5,594	8,253	13,563	14,139	2,539	1,915	1,357	5,207	62,381		
Herring, Pacific.....	35	3,050	30,910	1,750	20,400	10,100	10,100	10,100	10,100	10,100	10,100	10,100	20,772		
Lingcod.....	20,250	3,251	8,659	7,228	2,966	5,038	6,943	7,660	7,335	3,406	6,776	10,569	90,087		
Mackerel, jack.....	480	1,605	4,090	75	347,040	3,782	610,379	119,491	40,981	222,830	93,244	8,325	1,632,202		
Mackerel, Pacific.....	68	364	3,659	7,669	---	---	355	581	197	65	55	267	13,253		
Pompano, Pacific.....	10,918	20	75	1,805	2,702	5,569	3,089	298	50	125,406	184,625	2,455	24,556		
Rockfish.....	176,921	161,153	217,743	29,500	227,016	165,000	209,481	255,857	185,000	265,010	125,406	184,625	2,455	271,229	
Sailfish.....	41,819	7,938	11,110	18,545	28,039	18,481	32,429	38,230	5,690	5,114	24,600	1,020	1,020		
Salmon.....														512,354	
Sardines.....	15,431	5,809	8,092	14,311	20,038	13,629	15,971	13,629	10,991	9,439	882	2,455	130,135		
Sardine, Chile.....	11,200	10	3,600	---	5,510	58,054	87,569	747,227	334,905	18,025	466	73,000	1,370,196		
Shark.....	1,141	2,844	664	1,075	2,181	9,060	5,160	6,429	946	7,067	3,728	4,749	45,344		
Skate.....	7,666	12,389	18,195	13,153	6,450	6,285	7,834	7,328	3,820	5,184	3,071	4,339	96,464		
Smelt.....	210	5,751	1,189	900	839	4,202	8,067	5,790	4,882	382	311	661	33,181		
Sole, English.....	21,719	13,563	37,905	70,002	56,905	35,075	33,433	42,200	34,038	15,228	8,940	18,745	390,453		
Sole, petrale.....	16,020	7,928	28,083	33,272	32,291	15,835	29,467	34,917	27,211	3,215	1,692	3,110	233,611		
Sole, rock.....	11,730	6,478	10,030	7,198	5,118	4,550	8,369	5,648	6,528	5,100	11,215	23,600	105,555		
Sole, sand.....	549	6,150	4,572	397	642	1,716	1,189	2,411	645	2,447	1,059	2,153	23,901		
Sole, miscellaneous.....	549	6,150	4,572	397	642	1,716	1,189	2,411	645	2,447	1,059	2,153	23,901		
Swordfish.....	---	---	---	---	---	---	11,833	205,579	3,654,895	1,932,707	16,009	---	11,800		
Tuna, albacore.....	---	---	---	---	---	---	11,833	205,579	3,654,895	1,932,707	16,009	---	5,846,787		

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TABLE 12
Monthly Landings of Commercial Fishing Boats in the Monterey Area During 1963

TABLE 12—Continued
Monthly Landings of Commercial Fishing Boats in the Monterey Area During 1963

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM—Continued													
California Waters—Continued													
Fish—Continued													
Turbot.....	153	275	100	112	290	40	287	590	43	350
Miscellaneous (animal food).....	13,800	9,800	12,340	20,225	9,070	2,200	6,850	3,605	3,410	2,130	1610
Crustacean:													\$3,560
Crab, market.....	500	1,489	1,351	517	41	20	960	3,230	8,759	
Prawn.....	34	40	40	191	1,653	229	248	512	101	1,031	
Mollusk:													8,446
Absalone.....	773	1,461	58	500	342	1,021	824	517	1,251	6,456	11,168
Oyster, giant Pacific.....	632	143	1,257	579	1,988	382	884	3,937
Squid.....	253,700	153,305	903,700	2,105,945	1,480,141	964,758	437,575	308,046	3,318	5,820	48,725	6,754,463
Miscellaneous mollusk.....	20	11	0	51	21	10	16	58	116	292
GRAND TOTAL.....	1,388,916	1,003,722	427,200	1,557,435	3,882,898	2,160,629	2,211,769	2,016,179	4,708,814	3,294,308	500,474	1,006,662	24,103,000

FISH INLETTER MONTHLY

TABLE 12
Monthly Landings of Commercial Fishing Boats in the Monterey Area During 1963

TABLE 13
Monthly Landings of Commercial Fishing Boats in the Santa Barbara Area During 1963

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total* pounds	MARINE FISH CATCH FOR 1963
LANDINGS FROM:														
California Waters:														
Fish:														
Ashley, California.....	15	235	503	21,121	10	11	17	11,074	320	173	5,163	5,506	6,751	11,422
Bonito, Pacific.....	909	20	44	40	60	76	873	2,735	2,739	4,560	3,048	3,048	30	15,020
Cod, Pacific.....	90	55	130	5	174	15,020
Croaker, white.....	460	3,604	25	4,089
Flounder.....	4,838	4,009	1,709	1,042	125	20	520	250	241	3,186	16,550	16,550
Haddock, California.....	38,709	25,102	20,149	23,056	16,475	20,051	23,056	14,784	19,475	22,010	19,050	35,210	278,040	278,040
Herring, Pacific.....	5,389	1,392	1,105	15,283	11,479	7,050	8,209	10,569	4,268	2,811	5,245	6,482	77,282	77,282
Lingcod.....	221,000	261,500	900	100,000	246,000	338,180	791,730	2,117,400	1,877,290	1,034,000	7,021,300	7,021,300
Mackerel, Pacific.....	40,000	248,100	54,000	165,300	318,130	1,232,300	278,000	61,500	2,450,830	2,450,830
Percy.....	2,713	3,005	6,158	4,368	2,160	2,290	1,000	1,000	1,000	1,047	2,045	2,045	2,045
Pike, Pacific.....	224,286	222,285	159,410	256,367	306,089	178,969	188,474	274,056	168,579	146,421	282,470	195,247	2,002,299	508
Rockfish.....	2,655	2,570	20,410	9,809	2,483	1,973	3,750	2,715	1,200	2,173	2,633	5,380	5,380	5,380
Salmon.....	3,423	23,739	19,925	18,274	7,802	1,400	73,653	73,653
Sandlance.....	389	9,900	326,645	26,200	37,500	389	389
Sardine.....	10	110	21	231	19	19	19	400,245	400,245
Seabass, giant.....	115	150	157	125	125	125	125
Seabass, white.....	731	615	615	1,187	1,776	2,830	2,966	5,566	14,159	10,832	16,116	4,701	71,114	71,114
Shark.....	11,754	1,243	9,983	4,175	10,540	17,121	3,018	7,458	7,690	4,341	3,461	4,893	85,686	85,686
Sheepshead, California.....	42	34	85,76	85,76
State.....	1,126	217	290	183	163	115	150	157	83	176	2,314
Starfish.....	28	115	150	157	450	450
Sole, Diver.....	63	15,118	34,681	18,369	15,782	27,397	7,368	13,034	1,080	1,085	910	134,917	134,917
Sole, English.....	67,472	100,549	94,585	42,023	53,668	10,433	22,652	10,094	17,038	19,284	13,163	17,359	47,4320	47,4320
Sole, petrale.....	21,472	29,300	26,389	32,673	41,150	15,352	34,072	27,375	21,041	21,752	22,045	31,038	31,038	31,038
Sole, rock.....	\$8,103	22,990	13,391	11,746	6,188	10,507	11,746	11,746	20,256	20,256	25,120	72,046	72,046	72,046
Sole, sand.....	14,433	18,145	3,853	1,666	215	125	605	915	210	8,581	48,781	48,781
Sole, miscellaneous.....	81	614	733	733	1,350	51	35	23	35	23	23	1,029	4,927	4,927

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TABLE 13
Monthly Landings of Commercial Fishing Boats in the Santa Barbara Area During 1963

TABLE 13—Continued
Monthly Landings of Commercial Fishing Boats in the Santa Barbara Area During 1963

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM:—Continued													
CALIFORNIA WATERS—Continued													
FISH—Continued													
Swordfish.....	---	---	---	---	---	---	9,911	16,055	1,935	190	234	27,069	
Tuna, albacore.....	91	---	---	---	---	---	161,973	388,282	1,384,506	1,314,102	264,431	3,695,378	
Tuna, bluefin.....	8,804	6,303	5,671	1,997	995	42	832	988	1,270	12	85	6,352	12
Tuna, yellowfin.....	8,804	6,303	5,671	1,997	995	42	832	988	1,270	1,540	1,540	34,975	
Whitefish, ocean.....	---	11	---	---	5	---	---	---	---	---	---	16	
Yellowtail, California.....	---	21	---	---	44	---	45	14	192	231	335	882	
Miscellaneous.....	8	76	4	---	---	---	93	---	19	48	261	505	
Miscellaneous animal food.....	92,813	57,332	93,373	130,809	76,339	50,603	80,027	47,711	85,899	60,105	39,235	117,086	929,352
Crustacean:													
Crab, rock.....	12	69	495	1,170	395	197	---	---	---	53	41	2,324	
Lobster, spiny.....	9,175	7,617	7,238	15,817	11,130	7,345	16,496	7,725	2,286	1,777	5,539	8,260	100,416
Shrimp, ocean.....	17,147	19,656	11,410	---	---	190	---	---	---	27,273	24,451	23,398	123,335
Mollusk:													
Abalone.....	259,390	---	82,013	217,820	340,063	224,163	324,108	394,881	258,345	226,457	210,849	264,869	2,902,728
Octopus.....	28	---	440	300	215	215	500	135	135	135	135	135	1,833
Oyster, Pacific.....	20,250	14,957	17,397	5,975	6,012	6,122	4,495	6,851	12,668	17,435	18,313	13,959	
Squid.....	68,000	553,000	---	---	---	---	---	215	---	---	53,000	67,4215	
Miscellaneous mollusk.....	167	---	---	---	---	---	---	---	---	---	---	167	
Grand total:	1,191,754	1,348,698	843,412	837,153	934,418	700,517	1,256,803	2,247,805	3,184,682	5,323,058	3,128,358	1,985,496	22,963,048

TABLE 13
Monthly Landings of Commercial Fishing Boats in the Santa Barbara Area During 1963

TABLE 14
Monthly Landings and Shipments of Commercial Fish Into the Los Angeles Area During 1963

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds	MARINE FISH CATCH FOR 1963	
LANDINGS FROM: California Waters:															
Fish:															
Americorv.....	105,905	22,550	74,295	78,375	181,665	157,715	111,915	89,701	110,430	115,475	90,905	1170,441			
Barnacles, California.....	25,369	---	22,821	20,569	53,831	107,776	31,365	10,831	1,405	14,868	10,097	11,663	304,445	2,000	
Blacksmith.....	25,371	91,057	67,455	1,446	4,821	56,235	39,010	19,455	19,235	306,955	296,631	111,357	3,100	13,053	
Bream, Pacific.....	1,346,071	91,057	67,455	1,446	4,821	56,235	39,010	19,455	19,235	306,955	296,631	111,357	3,100	13,053	
Carp.....	4,453	8,475	55	55	---	---	---	---	---	100	---	---	481,890		
Croaker, white.....	29,708	92,828	54,935	88,310	36,130	26,701	11,273	8,477	14,572	50,598	14,657	58,191	46,613		
Flyingfish.....	---	---	9,807	13,712	16,900	2,770	2,321	103	7,974	5,555	1,974	4,093	5,903	268,634	
Hallibut.....	48,385	75,082	41,381	24,262	27,865	6,355	9,420	6,442	5,998	5,824	4,093	13,138	456		
Lingcod.....	13	---	121	17	---	30	18	32	51	35	---	---	---		
Mackerel, jack.....	13,028,064	5,900,713	4,010,145	6,341,195	5,720,127	5,715,680	1,980,854	10,142,953	9,329,682	14,891,664	8,485,345	1,224,516	88,767,837		
Mackerel, Pacific.....	1,409,320	1,889,105	2,001,566	2,640,075	6,685,551	1,758,837	1,362,154	4,518,785	1,919,114	7,344,312	2,988,073	3,300,134	37,787,303		
Omega.....	---	---	---	---	---	---	---	---	---	---	---	---	2,000		
Perch.....	1,500	1,764	1,317	2,082	85	200	519	826	532	2,898	42	1,061	13,724		
Pompano, Pacific.....	---	2,240	2,232	2,139	2,540	3,818	4,883	4,969	3,100	4,575	965	1,115	32,557		
Rockfish.....	67,564	41,424	49,629	55,200	74,272	26,658	10,652	15,563	15,320	22,720	23,008	82,198	486,203		
Sablefish.....	---	---	---	---	---	76	---	23	8	19	---	---	845		
Salmon.....	---	---	---	---	---	---	---	---	---	---	---	---	845		
Scallop.....	302,255	519,019	481,100	775,336	775,380	364,230	275,280	35,540	227,355	927,694	366,839	244,232	5,396,780		
Solefish.....	187	38	140	1,121	2,086	710	7,795	7,347	1,009	316	10	235	20,985		
Sea bass, giant.....	91	312	149	104	760	574	1,704	296	603	1,099	563	450	6,707		
Seabass, white.....	1,605	5,012	1,823	3,400	20,351	23,350	27,489	63,464	47,513	33,268	13,066	7,219	248,650		
Seadragon.....	11,125	11,292	9,185	8,489	29,825	50,141	19,141	32,545	12,929	17,750	22,065	12,291	220,131		
Sheepshead, California.....	109	102	185	54	767	460	614	72	145	316	883	528	4,245		
Skate.....	---	---	125	480	111	13	---	---	---	19	---	748			
Smelt.....	1,625	685	395	1,108	660	2,235	16,368	405	500	7,902	6,700	4,945	43,608		
Sole, flat.....	---	19	117	---	---	---	---	---	---	---	---	117			
Sole, petrale.....	---	105	105	---	---	---	---	---	---	---	---	124			
Sole, miscellaneous.....	73	178	70	30	163	---	85	67	---	18	181	---	702		

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TABLE 14
Monthly Landings and Shipments of Commercial Fish Into the Los Angeles Area During 1963

TABLE 14—Continued
Monthly Landings and Shipments of Commercial Fish Into the Los Angeles Area During 1963

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM—Continued:													
California Waters—Continued													
Fish—Continued													
Sailfish.....	2,030	2,960	25	11,188	17,527	15,585	1,474	32	5,947
Swordfish.....	47,583
Tuna, albacore.....	10,871	344	6,391	1,100	2,689	7,300	6,420	1,502,599	15,594	18,930,539
Tuna, bluefin.....	61,532	2,241,418	2,216,517	3,411,646	1,439,336	38,927	7,099,570
Tuna, skipjack.....	900	226,517	1,031,569	700,176	10,462	2,059,624
Tuna, yellowfin.....	1,915	38,064
Turbot.....	235	150
Wahoo.....	113	55	473	646
Yellowtail, California.....	44	265	573	1,961	2,723	5,469	2,337	2,808	416	16,569
Miscellaneous.....	6	395	284	201	39	90	39	20	1,063
Crustaceans.....													
Crab, rock.....	9,535	7,572	10,517	8,251	9,587	11,590	10,333	11,285	9,780	6,078	6,502	6,566	107,899
Lobster, spiny.....	32,135	13,556	8,894	103,412	50,806	37,319	252,142
Mollusk.....													
Ahalone.....	46,575	112,563	169,065	190,248	136,197	124,886	108,577	91,764	81,280	91,527	86,356	1,239,038
Oysters.....	30	24,018
Squid.....	1,770,440	876,976	409,555	167,130	67,250	25,660	18,355	10,005	54,470	717,125	4,131,866
Miscellaneous mollusk.....	40	40
Total pounds.....	18,436,846	10,396,152	7,942,208	10,273,333	13,883,399	8,465,091	5,341,918	20,038,069	22,844,469	33,428,276	14,730,475	6,176,715	171,956,981
Waters south of state:													
Fish.....													
Barracuda, California.....	8,605	422	684	356	34	1,045	11,106
Bonito, Pacific.....	387	3,624	4,011
Cobia, spotted.....	21,869	81	2,082	55	195	24,048
Cod, California.....	190	190
Grouper.....	26,489	47,948	23,055	14,230	6,792	11,055	1,630	45,331	179,550
Halibut, California.....	503	1,006	135	57	1,123	5,185	344	70	2,149	527	350	11,379
Lingcod.....	391	30	401
Petrale sole.....	880	100	160	18	1,218
Rockfish.....	24,604	19,442	5,895	3,157	2,770	10,755	11,170	106	937	20,375	99,711
Seafish.....	45	77

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TABLE 14
Monthly Landings and Shipments of Commercial Fish Into the Los Angeles Area During 1963

Sea bass, giant.....	11,568	29,302	18,647	4,345	6,098	4,000	37,530	40,705	40,570	38,399	220	4,919	288,039
Seabass, white.....	32,773	63,246	18,983	46,814	61,038	20,186	14,840	26,882	45,810	28,060	10,833	28,725	306,798
Shark.....	7,005	5,040	287	1,398	9,187	4,644	2,193	1,095	1,779	1,669	2,530	36,727
Shark, California.....	12	35	200	72	102	421
Skate.....	14	14
Swordfish.....	679	679
Tuna, albacore.....	3,882,372
Tuna, bluefin.....	9,644	47,223	20,507	30,033	96,169	3,055,360	415,262	301,080	14,471	3,882,372
Tuna, skipjack.....	4,270,518	6,232,704	4,413,271	5,791,385	4,415,804	3,378,428	2,870,884	8,008,730	5,054,700	7,918,645	4,557,314	7,67,250	69,350,948
Tuna, yellowfin.....	5,378,695	10,262,195	9,857,049	13,752,835	7,481,848	3,565,676	10,991,826	8,622,024	2,567,840	2,197,884	1,882,618	6,661,810	30,961,297
Wahoo.....	1,500	150	150	20,227
Weakfish, ocean.....	50	50
Yellowtail, California.....	9,096	6,303	618	910	4,118	8,086	817	173	1,173	1,173	285	912	3,740
Miscellaneous.....	758	100	173	858
Total pounds.....	9,062,577	16,800,079	14,393,222	19,601,092	12,299,368	7,203,154	21,400,794	26,808,286	13,569,188	13,777,849	6,444,465	14,546,185	176,776,332
SHIPMENTS:^a													
Fish:													
Rockfish, California.....	218	583	583	617	2,170	2,197	2,027	8,357
Salmon.....	34,884	0,092	10,380	3,789	4,407	481	2,174	2,174	1,146	1,146
Sardine.....	1,021	61,057	14,047	6,392	5,189	13,130	3,353	104,985	12,735	188,359
Shark.....	178	762	999	82	3582	51,090	50	178,238	2,488
Sturgeon.....	1,063	1,063
Tuna, albacore.....	2,092,020	1,030,117	3,045,411	1,191,348	100,455	101,200	95,435	341,888	1,014,300	2,797,464	1,028,381	2,436,652	15,307,312
Tuna, bluefin.....	945,152	67,469	441,080	456,155	105,549	260,913	18,314	99,675	59,702
Tuna, skipjack.....	882,530	366,283	32,596	1,084,617	28,621	1,907,893	1,455,094	411,587	2,296,477	6,119,098
Tuna, yellowfin.....	4,860,202	3,791,202	4,716,000	2,024,417	2,002,045	1,7,100	1,442,000	1,089,000	2,024,417	41,180	1,806,990	4,052,156	9,350,455
Miscellaneous.....	34,005	8,000	15,390	5,600	20,120	24,137	41,180	74,773	34	239	224,378
Mollusk:													
Abalone.....	10,000	10,000
Total pounds.....	7,670,811	4,018,201	8,225,551	4,206,837	2,345,769	3,427,087	1,068,267	4,357,677	5,575,147	8,494,368	2,550,592	6,553,950	56,394,292
Grand total.....	36,070,234	32,114,432	30,560,981	34,063,232	28,498,536	19,095,332	27,810,979	51,204,032	41,968,834	55,698,523	23,725,532	27,276,836	468,127,505

* For origin of shipments refer to Table 7.

MARINE FISH CATCH FOR 1963

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TABLE 14—Cont'd.

TABLE 15
Monthly Landings and Shipments of Commercial Fish Into the San Diego Area During 1963

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM:													
California Waters:													
Fish:													
Pacific sardine, California.....	770	169	15	248	2,060	1,215	2,237	2,992	2,307	15,629	19,054	31,450	5,419
Bonito, Pacific.....	2,013	3,390	1,235	1,223	4,333	2,237	2,247	1,204	1,204	141	159	95	53,567
Croaker, white.....	148	209	15	247	58	109	1,204	578	1,204	141	159	95	2,963
Flounder.....	19	19	19	19	19	19	19	19	19	19	19	19	19
Hallibut, California.....	15,048	12,925	13,443	14,713	5,370	9,703	18,821	10,806	5,908	2,832	2,652	8,880	120,101
Lingcod.....	35	32	10	13	19	40	40	40	40	40	40	40	149
Mackerel, Pacific.....	145	1,382	52	403	2,421	70	2,972	11,467	2,179	2,148	23,319	2,148	2,148
Opah.....	12	12	12	12	12	12	12	12	12	12	12	12	12
Pompano, Pacific.....	135	135	135	135	135	135	135	135	135	135	135	135	135
Rodfish.....	23,850	16,175	23,148	26,941	26,480	20,794	25,085	29,889	11,413	4,248	19,370	19,765	247,558
Sabinefish.....	140	140	365	87	906	158	136	244	102	102	102	102	1,838
Sailfish.....	10	10	10	10	10	10	10	10	10	10	10	10	1,124
Sailfin, California.....	2,332	904	1,196	4,812	4,105	2,693	10,768	11,394	1,769	7,098	2,503	3,750	54,324
Sea bass, giant.....	14	70	565	693	597	2,461	159	1,323	210	190	190	190	6,362
Sebastodes, white.....	50	496	1,315	570	2,138	2,650	1,538	3,710	5,201	1,080	2,297	1,200	2,297
Shark.....	9,653	3,041	3,773	6,700	11,451	17,210	13,345	8,778	8,929	8,278	5,498	4,710	100,963
Sheepshead, California.....	2,127	1,243	343	179	392	393	435	191	188	8,770	4,558	4,188	20,889
Sole, miscellaneous.....	244	113	184	390	1,306	4,025	1,055	2,412	2,313	72	72	72	13,024
Tuna, albacore.....
Tuna, bluefin.....
Tuna, skipjack.....
Whiting, Pacific.....	126	126	126	126	126	126	126	126	126	126	126	126	126
Yellowtail, California.....	16	16	1,173	602	836	2,071	884	2,162	228	20	20	20	7,902
Crustaceans:
Crab, rock.....	1,244	552	140	140	140	140	140	140	140	968	1,050	336	4,290
Lobster, spiny.....	15,119	8,031	5,340	5,340	5,340	5,340	5,340	5,340	5,340	86,565	53,341	40,319	208,715

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TABLE 15
Monthly Landings and Shipments of Commercial Fish Into the San Diego Area During 1963

Mollusk:														
Abacone.....	12,356	9,838	22,525	21,613	40,777	35,189	11,781	2,940	17,588	10,629	30,778	216,068	
Squid.....	310	310
Total pounds.....	85,046	49,375	61,946	80,104	76,225	113,339	542,379	498,279	1,610,999	558,686	182,651	158,809	4,017,827	
Waters South of State:														
Fish:														
Barracuda, California.....	4,915	4,700	23	270	20	2,730	3,447	1,892	2,190	20,254	
Bonito, Pacific.....	1,003	290	2,393	2,300	5,006	
Cod.....	6,055	1,003	464	1,922	2,666	1210	2,666	
Croaker, white.....	155	61	216	
Grouper.....	10,451	6,724	2,519	200	5,117	5,855	7,131	15,935	53,932	
Halibut, California.....	6,004	24,280	18,100	10,449	14,335	15,221	31,020	43,935	24,824	45,222	3,466	16,942	255,868	
Market fish.....	121	102	75	1,780	4,457	34,344	
Rockfish.....	21,349	26,980	21,422	11,440	14,041	11,733	1,561	465	100	115,433	
Sculpin.....	85	3,075	3,075	23,380	23,380	
Seal, giant.....	12,221	961	3,350	2,350	990	2,874	2,401	308	89	3,538	1,181	21,345	51,589	
Seabass, white.....	12,657	10,854	120	7,105	13,101	10,681	8,820	11,107	6,630	13,141	16,703	7,832	121,943	
Shark.....	1,776	867	200	855	1,162	2,595	910	1,848	1,665	3,140	4,695	3,075	23,380	
Sheepshead, California.....	268	25	280	147	1,172	190	1,780	
Swordfish.....	269	1,454	1,172	190	1,780	
Tuna, albacore.....	487,885	231,334	253,003	65,162	11,930	1,953	3,051,267	
Tuna, bluefin.....	1,780	
Tuna, skipjack.....	1,580,016	1,254,617	744,167	2,736,333	3,630,288	111,561	2,543,356	3,484,164	2,487,785	2,098,650	2,239,451	1,801,599	24,624,132	3,955,316
Tuna, yellowfin.....	3,989,400	1,365,456	4,024,167	2,000,729	3,424,000	312,192	2,082,400	1,844,164	1,798,451	570,650	612,451	2,438,451	25,603,132	
Vahoo.....	942	192	328	211	1,673
Whitefish, ocean.....	231	1,172	1,172	
Yellowtail, California.....	870	14	55	1,634	500	210	675	448	916	2,145	2,145
Miscellaneous.....	18	18	
Total pounds.....	5,548,567	2,696,807	4,815,641	4,833,418	7,006,906	470,044	7,163,950	8,447,399	5,635,872	3,476,490	2,919,754	4,324,045	57,338,869	
Grand total.....	5,633,613	3,055,465	8,116,121	4,913,522	7,083,129	583,477	7,706,329	9,531,308	8,421,828	4,035,176	3,102,405	4,482,852	66,665,221	

* For origin of shipments refer to Table 1.

MARINE FISH CATCH FOR 1963

TABLE 15—Cont'd.

TABLE 16
Value of Landings and Shipments of Commercial Fish Into California by Area, 1963

Species	Eureka	San* Francisco	Monterey	Santa Barbara	Los Angeles	San Diego	Total
LANDINGS:							
Fish:							
Anchovy.....	27,775	3,360,242	11,422	1,170,941	----	4,570,380	
Barracuda, California.....	2,900	\$49,396	\$933	\$24,356	----	\$77,585	
Blacksmith.....	----	----	37,490	315,551	25,673	378,714	
Bonito, Pacific.....	----	1,169	15,020	3,915,660	98,873	4,022,522	
Cabazon.....	205	1,737	869	----	----	2,811	
Cabrilla, spotted.....	----	\$13	\$142	\$50	----	205	
Carp.....	242,028	----	----	24,948	12,140	37,088	
Croaker, white.....	11,399	49,802	4,089	482,080	3,179	551,059	
Flounder.....	174,926	259,178	70,656	16,550	----	521,310	
Flounder, arrowtooth.....	8,729	\$14,514	\$6,402	\$857	----	\$30,397	
Flyingfish.....	13,445	3,900	----	----	----	17,345	
Grouper.....	667	\$143	----	46,613	46,613	830	
Hake, Pacific.....	71,710	67,989	----	179,550	53,932	233,482	
Halfmoon.....	1,083	\$1,143	----	38,388	\$12,561	\$50,949	
Halibut, California.....	365	125,801	62,361	278,040	279,803	373,999	1,120,369
Halibut, Pacific.....	865	\$27,802	\$14,704	\$62,003	\$66,202	\$73,379	\$241,353
Hardhead.....	4,500	----	----	----	----	4,500	
Herring, Pacific.....	1,220	29,648	----	----	----	1,220	
Lingcod.....	4,425	377,020	248,572	70	----	630,087	
Mackerel, jack.....	221	\$3,393	\$18,071	\$7	----	\$21,692	
Mackerel, Pacific.....	648,655	315,888	90,087	77,282	947	149	1,133,008
Opaleye.....	9,816	\$24,198	\$8,604	\$5,626	\$101	\$15	\$88,360
Percy.....	84,928	32,322	13,283	27,409	14,942	----	172,884
Pompano, Pacific.....	11,552	\$3,587	\$1,679	\$6,064	\$2,598	----	\$25,480
Rockfish.....	3,373,251	2,358,608	2,466,700	2,602,296	585,914	362,691	11,749,460
Sablefish.....	\$167,450	\$121,750	\$134,095	\$144,101	\$70,328	\$44,260	\$681,984
Salmon.....	637,937	840,564	271,226	57,436	348	1,838	1,809,349
Sanddab.....	3,778,433	3,493,591	512,354	73,963	845	7,889,186	
Sardine.....	\$1,668,062	\$1,956,801	\$280,650	\$11,300	\$57	----	\$3,659,000
Seabass, giant.....	112,761	310,525	130,355	389	321	1,152	455,783
Seabass, white.....	9,224	\$20,960	----	\$6,847	\$8	\$101	\$251
Sealpin.....	----	----	1,340,196	400,245	5,390,790	----	7,131,221
Sea bass, giant.....	----	----	\$63,704	\$20,532	\$214,553	----	\$298,879
Sea bass, white.....	25,707	3,934	71,114	645,448	145,017	54,414	75,521
Shark.....	88,936	\$1,324	20,587	\$177,176	\$33,832	\$21,562	
Sheepshead, California.....	290	152,588	45,344	85,686	257,108	124,351	685,367
Skate.....	15	\$7,171	\$2,263	\$8,886	\$32,010	\$11,839	\$57,556
Smelt.....	129,364	18,716	----	76	4,666	23,269	146,080
Sole, Dover.....	8,810	\$1,897	----	----	\$1	\$10,707	
Spiny dogfish.....	7,533,638	2,030,622	82,355	134,917	762	9,781,732	
Starfish.....	473,578	\$113,106	\$4,052	\$8,069	----	559,105	

TABLE 16
Value of Landings and Shipments of Commercial Fish Into California by Area, 1963

TABLE 16—Continued

Value of Landings and Shipments of Commercial Fish Into California by Area, 1963

Species	Eureka	San Francisco	Monterey	Santa Barbara	Los Angeles	San Diego	Total
LANDINGS—Continued							
Fish—Continued							
Sole, English.....	1,486,214	1,902,841	390,453	474,320	717	—	4,254,545
Sole, English.....	\$117,709	\$15,612	\$29,675	\$32,414	\$43	—	\$329,001
Sole, petrale.....	1,851,376	2,027,776	233,840	316,838	124	—	3,172,918
Sole, petrale.....	\$211,389	\$110,171	\$28,763	\$30,069	\$13	—	\$400,405
Sole, rex.....	621,789	514,644	105,555	323,684	—	—	1,565,672
Sole, sand.....	\$45,452	\$34,894	\$5,288	\$22,464	—	—	\$108,098
Sole, sand.....	37,725	244,442	260	48,781	—	—	331,208
Sole, sand.....	\$4,101	\$25,202	\$21	\$5,356	—	—	\$34,680
Sole, miscellaneous.....	539	322	23,901	4,927	702	13,024	43,415
Sole, miscellaneous.....	\$26	\$18	\$2,342	\$288	\$98	\$2,855	\$5,627
Splittail.....	—	5,383	—	—	—	—	5,383
Splittail.....	—	\$1,163	—	—	—	—	\$1,163
Sucker.....	—	—	—	—	5,947	—	5,947
Swordfish.....	—	—	11,600	27,029	46,662	10,973	89,074
Tuna, albacore.....	6,689,651	3,424,487	5,940,787	3,608,379	23,593,961	5,697,314	49,859,578
Tuna, albacore.....	\$516,181	\$474,634	\$803,108	\$510,947	\$3,756,954	\$84,597	\$7,316,721
Tuna, bluefin.....	88,001	—	—	12	26,278,802	3,986,594	30,353,409
Tuna, bluefin.....	\$9,900	—	—	\$2	\$2,061,621	\$420,586	\$2,392,109
Tuna, skipjack.....	212,048	—	—	—	71,619,272	24,788,624	96,619,944
Tuna, yellowfin.....	1,397,538	—	—	—	\$7,720,558	\$2,632,552	\$10,374,442
Tuna, yellowfin.....	\$185,514	—	—	—	83,129,361	25,056,267	109,583,166
Turbot.....	5,998	55,147	330	34,979	365	—	96,819
Turbot.....	\$415	\$3,221	\$14	\$1,896	\$29	—	\$5,575
Wahoo.....	—	—	—	—	20,227	1,673	21,908
Whitefish, ocean.....	—	—	—	16	846	2,392	3,254
Yellowtail, California.....	—	—	—	—	\$1	\$146	\$214
Miscellaneous.....	105	81	1,610	509	1,923	28	4,256
Miscellaneous (animal food).....	\$5	\$13	\$45	\$35	\$393	\$5	\$496
Miscellaneous (animal food).....	19,327	1,942	83,360	929,332	—	1,033,961	—
Miscellaneous (animal food).....	\$387	\$31	\$1,601	\$18,587	—	—	\$20,606
Crustacean:							
Crab, market.....	730,029	1,210,319	8,758	2,354	—	—	1,951,461
Crab, market.....	\$42,369	\$441,525	\$3,670	\$935	—	—	\$688,499
Crab, rock.....	26,925	—	1,081	100,416	107,899	4,290	240,611
Lobster, spiny.....	—	—	—	\$62	\$7,150	\$12,743	\$139
Lobster, spiny.....	—	—	—	—	123,335	252,142	208,715
Prawn.....	—	—	—	—	\$78,922	\$167,624	\$134,820
Prawn.....	—	—	8,445	—	—	—	8,445
Shrimp, bay.....	—	—	—	—	\$5,868	—	\$5,868
Shrimp, bay.....	—	—	1,225	—	—	—	1,225
Shrimp, ocean.....	1,887,916	204,957	—	190	—	—	2,093,063
Shrimp, ocean.....	\$181,239	\$20,575	—	\$38	—	—	\$201,855
Mollusk:							
Abalone.....	—	84,242	1,863	2,802,728	1,239,038	216,008	4,343,879
Clam, Washington.....	3,879	—	—	\$413	\$432,080	\$158,813	\$18,841
Clam, Washington.....	\$900	—	—	—	—	—	3,879
Octopus.....	8,510	50,848	13,168	1,833	255	—	74,614
Oyster, eastern.....	\$392	\$2,166	\$1,434	\$112	\$54	—	\$4,158
Oyster, giant Pacific.....	942,412	172,227	3,937	136,939	—	—	1,255,515
Oyster, giant Pacific.....	\$160,634	\$31,001	\$1,726	\$24,649	—	—	\$228,754
Squid.....	—	—	6,754,463	674,415	4,131,888	310	11,560,884
Miscellaneous mollusk.....	—	—	\$176,966	\$8,024	\$55,367	\$9	\$240,366
Miscellaneous mollusk.....	—	—	370	292	167	40	869
Total pounds.....	31,037,042	21,519,372	24,109,000	22,963,048	348,733,213	61,356,718	509,718,393
Total value.....	\$4,360,786	\$3,926,109	\$1,735,031	\$1,702,298	\$29,411,165	\$7,617,067	\$48,752,456

TABLE 16
Value of Landings and Shipments of Commercial Fish Into California by Area, 1963

TABLE 16—Continued
Value of Landings and Shipments of Commercial Fish Into California by Area, 1963

Species	Eureka	San* Francisco	Monterey	Santa Barbara	Los Angeles	San Diego	Total
SHIPMENTS:†							
Fish:							
Halibut, California.....	---	---	---	---	8,357	103	8,460
Rockfish.....	---	---	---	---	\$2,002	\$23	\$2,025
Sablefish.....	---	---	---	---	11,148	---	11,148
Salmon.....	---	---	---	---	\$1,700	---	\$1,700
Shad.....	2,765	---	---	---	184,559	---	188,559
Shark.....	\$1,521	---	---	---	\$38,013	---	\$38,013
Sturgeon.....	---	---	---	---	175,728	---	175,728
Tuna, albacore.....	1,672,256	---	---	---	\$149,949	---	\$149,949
Tuna, bigeye.....	\$194,255	---	---	---	\$2,890,111	\$9,616	\$3,000,922
Tuna, bluefin.....	67,110	---	---	---	50,875	---	733,985
Tuna, skipjack.....	\$82,266	---	---	---	50,072	---	\$87,338
Miscellaneous.....	51,990	---	---	---	2,296,402	---	2,348,392
Total pounds.....	97,748	---	---	---	\$322,415	---	\$332,163
Total value.....	217,830	---	---	---	6,199,098	3,247,961	9,664,889
GRAND TOTAL POUNDS	15,838,188	---	---	---	34,910,056	1,994,812	52,743,056
GRAND TOTAL VALUE	\$3,097,950	---	---	---	\$5,545,717	\$289,248	\$5,930,915
	120,340	---	---	---	224,378	---	344,718
	\$12,539	---	---	---	\$78,396	---	\$90,935
Mollusks:							
Abalone.....	---	---	---	---	10,000	---	10,000
Total pounds.....	---	---	---	---	\$1,200	---	\$1,200
Total value.....	18,477,679	---	---	---	59,394,292	5,308,503	83,180,474
	\$3,723,437	---	---	---	\$9,685,940	\$656,388	\$14,065,765

* Includes Sacramento area landings.

† For origin of shipments refer to Table 7.

TABLE 16
Value of Landings and Shipments of Commercial Fish Into California by Area, 1963

TABLE 17
Value of Landings by Port, Eureka Area, 1963

	Value	Pounds
EUREKA AREA TOTALS.....	\$4,360,786	31,037,042
Eureka		
Salmon.....	\$669,580	1,487,323
Albacore.....	589,569	4,303,424
Dover sole.....	212,498	3,378,354
Giant Pacific oyster.....	169,634	942,412
Market crab.....	105,352	317,326
Ocean shrimp.....	97,375	1,014,325
Petrale sole.....	62,029	523,809
Rockfish.....	44,312	910,841
English sole.....	31,861	402,285
Sablefish.....	20,286	231,842
Rex sole.....	15,726	215,134
Lingcod.....	8,359	108,844
Perch.....	5,282	38,893
All other species.....	11,048	184,862
Totals.....	\$2,012,911	14,069,674
Fort Bragg		
Salmon.....	\$558,416	1,235,181
Albacore.....	274,717	2,005,236
Market crab.....	65,856	198,362
Dover sole.....	65,818	1,046,384
Petrale sole.....	41,902	360,603
Rockfish.....	37,934	762,689
English sole.....	22,304	281,620
Sablefish.....	15,799	180,565
Lingcod.....	12,744	165,943
Rex sole.....	9,273	126,860
All other species.....	10,782	158,733
Totals.....	\$1,115,545	6,522,176
Crescent City		
Salmon.....	\$315,437	779,170
Ocean shrimp.....	71,305	742,761
Albacore.....	46,847	341,950
Market crab.....	30,854	92,934
English sole.....	22,190	280,183
Rockfish.....	20,595	407,080
Petrale sole.....	16,519	142,161
Dover sole.....	14,312	227,537
Lingcod.....	13,875	180,667
All other species.....	17,062	228,844
Totals.....	\$568,926	3,423,287
Fields Landing		
Dover sole.....	\$181,250	2,881,563
Petrale sole.....	93,939	808,128
Rockfish.....	64,542	1,289,831
English sole.....	41,352	522,126
Sablefish.....	19,206	219,501
Rex sole.....	16,890	231,057
Lingcod.....	14,789	192,565
Ocean shrimp.....	9,017	93,930
Market crab.....	7,886	23,753
Smelt.....	6,733	129,462
Albacore.....	5,074	37,038
All other species.....	17,993	205,310
Totals.....	\$478,671	6,634,564
Albion		
Salmon.....	\$63,478	136,359
All other species.....	186	3,446
Totals.....	\$63,664	139,805

TABLE 17
Value of Landings by Port, Eureka Area, 1963

TABLE 17—Continued
Value of Landings by Port, Eureka Area, 1963

	Value	Pounds
Trinidad		
Market crab.....	\$32,421	97,654
Salmon.....	18,074	46,365
All other species.....	304	2,525
Totals.....	\$50,799	146,544
Point Arena		
Salmon.....	\$39,393	85,321
All other species.....	23	332
Totals.....	\$39,416	85,653
All other ports		
All species.....	\$854	15,339
Totals.....	\$854	15,339

TABLE 17
Value of Landings by Port, Eureka Area, 1963

TABLE 18
Value of Landings and Shipments by Port, San Francisco Area, 1963 *

	Value	Pounds
SAN FRANCISCO AREA TOTALS.....	\$7,649,546	39,997,051
San Francisco		
Makofin tuna.....	\$3,283,264	17,233,726
Albacore.....	555,129	2,082,583
Salmon.....	368,110	656,760
Market crab.....	274,886	753,826
English sole.....	106,358	1,361,822
Rockfish.....	99,708	1,935,464
Dover sole.....	98,864	1,774,935
Petrale sole.....	83,966	649,894
Bigeye tuna.....	82,266	674,310
Skipjack.....	56,490	429,578
Rex sole.....	26,327	388,299
Sablefish.....	24,942	729,308
Sand sole.....	22,438	217,632
California halibut.....	21,625	97,851
Bluefin tuna.....	19,648	139,991
Sanddab.....	18,271	270,680
Lingcod.....	14,217	185,600
White seabass.....	8,890	25,574
Flounder.....	7,316	130,638
All other species.....	13,607	375,276
Totals.....	\$5,186,222	30,116,057
Bodega Bay		
Salmon.....	\$688,018	1,227,584
Market crab.....	70,739	193,912
Albacore.....	34,437	248,461
English sole.....	27,503	352,149
Petrale sole.....	26,477	204,927
Ocean shrimp.....	19,581	195,027
Dover sole.....	8,876	158,504
Rockfish.....	7,474	132,391
Lingcod.....	5,183	67,669
Smelt.....	5,128	36,636
All other species.....	15,353	270,574
Totals.....	\$908,722	3,087,934
Sausalito		
Salmon.....	\$377,544	675,940
Albacore.....	124,830	900,649
Market crab.....	13,618	37,329
All other species.....	3,463	35,463
Totals.....	\$519,455	1,649,381
Oakland		
Albacore.....	\$243,555	1,757,249
Salmon.....	118,819	211,987
Market crab.....	16,410	44,984
All other species.....	12	195
Totals.....	\$378,796	2,014,415
Point Reyes		
Salmon.....	\$200,901	358,431
Giant Pacific oyster.....	24,937	135,530
Market crab.....	23,114	64,182
English sole.....	14,751	188,870
Rockfish.....	14,167	283,812
Petrale sole.....	8,728	67,555
Dover sole.....	5,413	97,183
All other species.....	22,665	347,450
Totals.....	\$314,976	1,545,822

TABLE 18
Value of Landings and Shipments by Port, San Francisco Area, 1963

TABLE 18—Continued
Value of Landings and Shipments by Port, San Francisco Area, 1963 *

	Value	Pounds
Princeton		
Salmon.....	\$100,778	356,429
Market crab.....	42,368	115,896
Ahalone.....	14,987	84,242
All other species.....	1,847	18,818
Totals.....	\$258,880	575,355
Clear Lake		
Hardhead.....	\$27,820	139,102
Carp.....	6,017	127,750
Totals.....	\$33,837	266,852
Tomales Bay		
Giant Pacific oyster.....	\$6,064	33,688
All other species.....	16,618	437,555
Totals.....	\$22,682	471,243
Richmond		
All species.....	\$14,117	134,841
Totals.....	\$14,117	134,841
Turlock		
All species.....	\$6,609	93,423
Totals.....	\$6,609	93,423
All other ports		
All species.....	\$5,250	41,728
Totals.....	\$5,250	41,728

* Includes Sacramento area landings.

TABLE 18
Value of Landings and Shipments by Port, San Francisco Area, 1963

TABLE 19
Value of Landings by Port, Monterey Area, 1963

	Value	Pounds
MONTEREY AREA TOTALS	\$1,735,031	24,109,000
Moss Landing		
Albacore.....	\$456,807	3,322,232
Salmon.....	223,006	394,669
Sardine.....	49,836	1,046,965
Anchovy.....	44,278	3,012,110
Jack mackerel.....	25,559	1,096,960
Squid.....	16,966	647,575
Pacific herring.....	12,287	168,740
All other species.....	20,772	216,842
Totals.....	\$849,491	9,906,093
Monterey		
Albacore.....	\$344,067	2,502,306
Squid.....	159,936	6,104,443
Rockfish.....	130,444	2,429,558
Salmon.....	42,226	74,367
Petrale sole.....	27,033	212,188
English sole.....	26,045	342,698
Sardine.....	13,781	289,511
Jack mackerel.....	12,883	552,159
Stablefish.....	8,580	211,320
Sanddab.....	6,070	115,620
Prawn.....	5,868	8,445
Rex sole.....	5,003	99,870
All other species.....	38,476	806,908
Totals.....	\$820,612	13,749,393
Santa Cruz		
Salmon.....	\$24,418	43,118
California halibut.....	10,554	44,760
Pacific herring.....	5,490	75,512
All other species.....	24,466	290,124
Totals.....	\$64,928	453,514

TABLE 19
Value of Landings by Port, Monterey Area, 1963

TABLE 20
Value of Landings by Port, Santa Barbara Area, 1963

	Value	Pounds
SANTA BARBARA AREA TOTALS.....	\$1,702,298	22,963,048
Morro Bay		
Albacore.....	\$475,765	3,359,921
Abalone.....	171,334	1,087,653
Rockfish.....	81,829	1,438,189
Giant Pacific oyster.....	24,649	136,939
Sardine.....	16,772	326,945
Petrale sole.....	12,864	109,950
Salmon.....	12,564	30,078
Jack mackerel.....	9,647	527,160
Rex sole.....	6,914	99,628
Perch.....	5,557	24,908
All other species.....	21,484	411,725
Totals.....	\$839,379	7,543,096
Santa Barbara		
Abalone.....	\$196,954	1,287,341
Spiny lobster.....	62,700	97,684
California halibut.....	40,116	115,893
Rockfish.....	31,173	605,156
English sole.....	26,296	378,366
Swordfish.....	16,237	27,039
Petrale sole.....	13,256	113,301
Miscellaneous (animal food).....	9,812	490,582
Rock crab.....	6,394	89,804
White seabass.....	5,791	20,005
California barracuda.....	5,720	36,642
All other species.....	12,442	153,630
Totals.....	\$426,891	3,479,743
Port Hueneme		
Jack mackerel.....	\$118,843	6,494,140
Abalone.....	47,174	318,484
Pacific mackerel.....	43,717	2,428,730
California halibut.....	9,030	41,529
Squid.....	8,021	674,000
All other species.....	14,883	156,786
Totals.....	\$242,568	10,116,669
All		
A		
Albacore.....	\$33,563	237,029
Salmon.....	31,127	53,510
Rockfish.....	27,120	508,879
Abalone.....	15,295	97,050
Rex sole.....	11,610	167,290
Petrale sole.....	10,949	93,585
White seabass.....	9,654	33,347
California halibut.....	9,276	41,598
Sand sole.....	5,229	47,626
Miscellaneous (animal food).....	5,047	252,350
All other species.....	14,986	227,028
Totals.....	\$173,856	1,758,292
Ventura		
Spiny lobster.....	\$11,999	18,752
All other species.....	2,707	16,933
Totals.....	\$14,706	35,685
All other ports		
All species.....	\$4,898	29,563
Totals.....	\$4,898	29,563

TABLE 20
Value of Landings by Port, Santa Barbara Area, 1963

TABLE 21
Value of Landings and Shipments by Port, Los Angeles Area, 1963

	Value	Pounds
LOS ANGELES AREA TOTALS.....	\$39,097,105	408,127,505
Terminal Island		
Yellowfin tuna.....	\$16,518,603	117,739,384
Skipjack.....	8,362,188	77,801,345
Albacore.....	6,611,934	38,628,468
Bluefin tuna.....	3,188,693	27,729,219
Jack mackerel.....	1,553,517	73,977,013
Pacific mackerel.....	680,773	31,517,285
Sardine.....	115,502	2,906,582
Pacific bonito.....	76,727	2,760,117
Squid.....	42,533	3,174,136
Dorado tuna.....	5,072	59,675
All other species.....	111	840
Totals.....	\$37,155,953	376,306,874
San Pedro		
White seabass.....	\$165,588	603,234
Sardine.....	98,588	2,477,088
Bluefin tuna.....	95,343	845,985
Spiny lobster.....	80,148	120,559
Rockfish.....	66,129	549,889
Jack mackerel.....	55,532	2,644,975
Pacific mackerel.....	52,799	2,444,394
California barracuda.....	48,448	297,407
California halibut.....	43,770	184,995
Yellowfin tuna.....	39,466	297,858
Giant sea bass.....	38,514	243,911
Grouper.....	38,353	179,387
White croaker.....	27,168	469,843
Abalone.....	26,878	208,819
Pacific bonito.....	25,151	907,967
Albacore.....	23,613	148,320
Swordfish.....	20,420	33,586
Anchovy.....	18,836	905,560
Shark.....	14,387	116,509
Squid.....	12,809	955,860
Pacific pompano.....	8,542	31,908
All other species.....	25,340	218,929
Totals.....	\$1,025,822	14,886,983
Newport Beach		
Abalone.....	\$131,324	1,025,288
Jack mackerel.....	64,376	3,065,500
Pacific mackerel.....	23,882	1,103,643
Spiny lobster.....	22,816	34,320
California halibut.....	18,621	78,672
Shark.....	16,446	130,597
Albacore.....	9,336	55,643
Wahoo.....	7,079	20,227
Swordfish.....	6,153	10,120
All other species.....	8,939	205,677
Totals.....	\$308,972	5,734,687
Los Angeles		
Salmon.....	\$149,949	175,728
Sablefish.....	38,013	188,559
All other species.....	81,110	253,867
Totals.....	\$269,072	618,154
Wilmington		
Jack mackerel.....	\$148,686	7,080,269
Pacific mackerel.....	58,706	2,717,851
Pacific bonito.....	5,877	212,160
All other species.....	303	4,710
Totals.....	\$213,572	10,014,990

TABLE 21
Value of Landings and Shipments by Port, Los Angeles Area, 1963

TABLE 21—Continued
Value of Landings and Shipments by Port, Los Angeles Area, 1963

	Value	Pounds
Santa Monica		
Spiny lobster.....	\$21,742	32,705
White seabass.....	7,993	29,119
All other species.....	13,353	87,253
Totals.....	\$43,118	149,077
Long Beach		
Spiny lobster.....	\$19,384	29,158
Albacore.....	10,710	67,277
All other species.....	12,358	164,441
Totals.....	\$42,452	260,876
San Clemente		
Spiny lobster.....	\$20,558	30,924
Totals.....	\$20,558	30,924
Redondo Beach		
Rock crab.....	\$7,497	63,477
All other species.....	3,353	33,054
Totals.....	\$10,850	96,531
All Other Ports		
All species.....	\$6,736	28,409
Totals.....	\$6,736	28,409

TABLE 21
Value of Landings and Shipments by Port, Los Angeles Area, 1963

TABLE 22
Value of Landings and Shipments by Port, San Diego Area, 1963

	Value	Pounds
SAN DIEGO AREA TOTALS.....	\$8,273,455	66,665,221
San Diego		
Yellowfin tuna.....	\$3,619,226	27,051,079
Skipjack.....	2,990,153	28,036,585
Albacore.....	884,113	5,762,941
Bluefin tuna.....	420,586	3,986,594
Spiny lobster.....	106,735	165,224
California halibut.....	72,312	368,562
Rockfish.....	38,500	316,711
White seabass.....	33,739	144,517
Abalone.....	18,779	218,408
Sculpin.....	14,017	54,379
Grouper.....	12,561	53,932
Shark.....	11,725	123,217
Giant sea bass.....	9,085	57,756
Swordfish.....	6,556	10,973
All other species.....	19,001	212,783
Totals.....	\$8,237,688	66,560,761
Cardiff		
Spiny lobster.....	\$11,642	18,022
All other species.....	2,408	19,324
Totals.....	\$14,050	37,346
La Jolla		
Spiny lobster.....	\$9,801	15,172
All other species.....	764	6,889
Totals.....	\$10,565	22,061
Oceanside		
Spiny lobster.....	\$5,466	8,462
All other species.....	4,165	34,585
Totals.....	\$9,931	43,047
All other ports		
All species.....	\$1,221	2,006
Totals.....	\$1,221	2,006

TABLE 22
Value of Landings and Shipments by Port, San Diego Area, 1963

TABLE 23
Statewide Commercial Partyboat Catch by Species
(Not including anchored barges)
1954-1963 *

Species	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
Barracuda, California	282,555	154,993	87,403	577,184	752,722	1,165,585	755,408	391,884	335,507	483,696
Bass, kelp and sand	576,667	497,333	470,362	699,071	653,571	428,439	475,056	615,604	789,159	1,219,344
Bonito, Pacific	70,078	22,409	61,404	268,655	422,568	776,363	1,190,919	840,426	798,729	775,719
Codfish, Pacific	13,120	12,399	18,187	179	69	12	12	15,070	15,070	15,070
Hakelet, California	59,674	35,892	21,691	10,795	16,192	23,36	48,310	108,011	118,966	125,669
Lingcod	22,940	29,113	37,649	38,012	39,801	31,206	28,232	23,466	25,399	27,513
Mackerel, jack	19,407	39,473	23,493	6,878	27,597	11,820	8,537	28,891	9,029	9,942
Mackerel, Pacific	313,037	151,918	131,138	151,860	150,107	152	78,375	115,181	149,181	149,181
Rockfish	1,194,252	1,179,707	2,007,600	1,309,151	1,561,132	1,177,979	1,015,773	888,641	956,438	962,650
Salmon	119,911	128,978	114,605	44,701	52,676	55,945	37,94	42,96	87,612	72,457
Solefish	33,462	28,613	36,558	13,473	13,743	11,477	15,111	26,072	33,314	53,896
Solefish, white	41,388	30,103	19,755	10,755	10,139	10,139	10,139	10,139	10,139	10,139
Sebastodes, California	21,169	14,178	14,178	13,105	18,120	17,146	11,541	15,210	13,488	18,443
Tuna, albacore	20,098	78,688	65,814	41,540	6,482	39	76,075	184,891	229,311	158,372
Tuna, bluefin	966	8,179	34,187	6,428	8,84	1,350	37	2,286	2,454	757
Whitefish, ocean	9,652	9,508	7,031	4,380	5,143	5,668	5,850	6,647	6,647	6,521
Yellowtail, California	40,357	56,188	29,198	212,889	123,234	457,550	254,992	43,492	21,255	45,705
All others	177,335	99,051	62,027	50,148	44,939	28,039	50,132	87,981	92,776	142,630
Total number of fish	3,274,537	3,113,883	3,282,995	3,499,585	3,850,880	4,328,575	4,090,034	3,453,833	3,855,993	4,278,502
Number of angler days†	\$32,190	496,280	523,063	536,175	516,152	557,154	516,235	495,805	505,866	643,155
Number of anglers	***	***	***	***	***	***	***	***	***	***

* See Fish Bulletin #121 for historical records 1936-1961.

† Not available after 1961.

STATEWIDE
1954-1963

1959

TABLE 23
Statewide Commercial Partyboat Catch by Species (Not including anchored barges) 1954-1963

TABLE 24
Recorded Catch of Live Bait for Saltwater Sportfishing, 1963

Species	Thousands of pounds*
Anchovy.....	8,884
Herring, Pacific.....	46
Mackerel, jack.....	15
Sardine, adult.....	38
Sardine, juvenile.....	3
Squid.....	5
Miscellaneous†.....	82
Total pounds.....	9,073

* Using a conversion factor of 12.5 pounds per live bait scoop, weights are estimated from voluntary records submitted by 21 boats. The weight of a scoop of live bait varies between 10 and 15 pounds. The records represent almost all the live bait landings, however, they should be regarded as minimal.

† Consists primarily of queenfish and white croaker.

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TABLE 24
Recorded Catch of Live Bait for Saltwater Sportfishing, 1963