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Author

Bell, Robert R

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California Marine Fish Landings For 1970



by
Robert R. Bell
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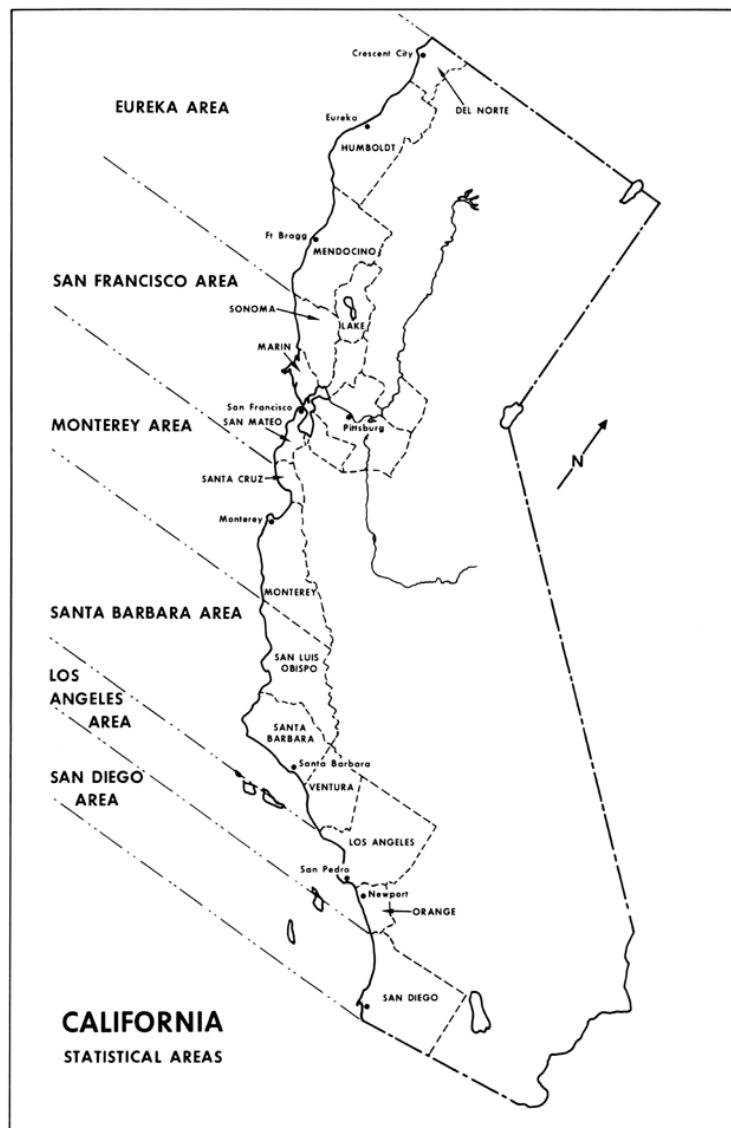


FIGURE 1. Geographical areas used to summarize California Fisheries statistics.

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FIGURE 1. Geographical areas used to summarize California Fisheries statistics.

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FOREWORD

Landing bulletins provide records of amounts and values of various living marine resources taken by California's commercial fisheries, and summarize catches made by the partyboat sportfishing industry. They also detail the small quantities of freshwater fish taken commercially in inland areas. These data provide the basic background for managing California's marine fishery resources. The published figures are of local, national, and international significance, and are used by fisheries scientists, legislators, educators, members of the fishing industry, and others interested in California fisheries.

This report for 1970 is the 30th in the series of landing bulletins. The first, published in 1929, contained the records of the 1926 and 1927 commercial fish landings.

California's fishery statistics are based on a system whereby fish dealers, processors, and partyboat operators send duplicate copies of their landing records to the Department. The statistical system and methods used to collect the records were fully described in Fish Bulletin 86, which reported the catch for 1950. In the intervening years, methods and equipment have been modified as conditions warranted, but the basic principles have remained unchanged.

Credit for this publication belongs to the Marine Fisheries Statistics Unit personnel who process the many documents necessary for its publication. Special acknowledgment is given to Marine Resources Region wardens and the clerks in field offices whose efforts help provide completeness of records. The cooperation of the many wholesale fish dealers and canners is appreciated.

1. EXPLANATION OF TABLES

Tables in this bulletin summarize statistics of various fishery operations in California during 1970. Five types of activity are being reported this year: landings of commercial fishermen in California; imports of tuna from other states or foreign countries destined for processing in California; sport catches of the partyboat fleet; landings of inshore species used for bait; and catches of boats supplying live bait for sportfishing. In addition, Appendix A details the species composition of the 1970 ocean salmon landings.

Statistics presented in this publication do not encompass all fishing activities in California since not all of these functions are reported. For example: sportfishing from private boats or from shore is not reported, nor is the quantity of fish imported for use in a fresh state compiled. Department biologists do sample some facets of the sportfishery, but since this is part of specific studies, most of the results are not reported here.

The Department annually publishes a circular which enumerates some of the fishery products produced from the catch. The 1970 figures are contained in circular No. 45, "Statistical Report of Fresh, Canned, Cured and Manufactured Fishery Products for 1970" (Bell, 1971).

1.1. SOURCE OF DATA

Data on each commercial landing, inshore bait delivery, and import are recorded on receipts by fish dealers or processors at the time of delivery. Copies of these documents are transmitted to the Department twice each month. For each transaction, the dealer is required to provide the species weight and price paid to the fishermen. The date of the transaction, the fisherman's name, the fishing boat registration number, and intended use of the fish (canning, fresh, etc.) also are required. In addition, the specific area where the fish were caught and type of gear used usually are reported.

Partyboat catch data are obtained from logs completed by the boat operator. The log for each trip includes the number of each species taken, number of anglers, number of hours fished, and the specific area fished. The date, boat name, and boat registration number also are furnished. Copies of these records are sent to the Department monthly.

Operators of boats supplying live bait keep a voluntary daily log showing number of sets, species caught, area fished, and number of scoops of bait sold. Copies of these logs are furnished the Department monthly. While these records represent most live bait landings, the reported catch should be regarded as minimal.

Clerical personnel at field offices in Eureka, Monterey, Long Beach, 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 received by the Department are carefully edited for completeness and coded to facilitate processing. The data are then punched into cards and summarized with electric tabulating machines.

1.2. STATISTICAL AREAS

California is divided into seven areas for the purpose of reporting fisheries statistics (Figure 1). Each statistical area is named for a major port within its boundaries. Sacramento area landing statistics are incorporated with San Francisco totals in the tables.

1.3. SPECIES

The common and scientific names of species reported in 1970 are listed in Table 1. Some varieties are reported only collectively when, for economic or other reasons, a specific separation is not practical. A further combination of species is made in preparing the tables.

The "Miscellaneous (Animal Food)" category consists of a variety of low value species caught by trawling. Since it is impractical for dealers to report the many species separately, Department biologists periodically sample this catch to determine its species composition. Based on this sampling, the percentage and weight compositions of 1970 animal-food landings are as follows:

<i>Species</i>	<i>Percent</i>	<i>Pounds</i>
Hake	25.1	265,410
Rockfish	21.2	224,171
Arrowtooth flounder	15.9	168,128
Dover sole	13.1	138,521
Sablefish	8.8	93,052
English sole	7.1	75,076
Sanddab	2.0	21,148
Rex sole	1.5	15,861
Twenty-three other species	5.3	56,043
	100.0	1,057,411

Salmon landings reported in the tables are for all species combined. However, biologists from the Department's Anadromous Fisheries Branch sample the commercial and sport salmon fisheries to determine species composition of catches and to obtain estimates of the unreported skiff catch. The sampling methods and results for 1952 and 1965 were detailed by Jensen and Swartzell (1967); since 1966, results have been presented annually in the landing bulletins. Appendix A details the salmon catch for 1970.

1.4. CONDITION

Most fish and shellfish are landed in a round condition; however, some species, such as barracuda, salmon, and swordfish are usually eviscerated or cleaned before being brought ashore. The condition of fish landed or shipped into the state cannot always be determined, so the tables summarize weights as reported to the Department without regard to condition.

Since 1963, oyster landings have been reported as packed weight rather than weight in the shell. Packed weight is estimated to be 15.5% of the live weight for Pacific oysters and 10.9% for eastern oysters.

Landings reported in measurements other than weight are equated to pounds using conversion factors determined by periodic sampling.

Factors used in 1970 were:

Abalone, red	50 pounds per dozen
Abalone, pink	25 pounds per dozen
Abalone, white	25 pounds per dozen
Abalone, green	35 pounds per dozen
Clam, Washington	7 pounds per dozen
Crab, market	2 pounds each
Live bait	12.5 pounds per scoop

1.5. VALUE

Value is computed from prices paid to fishermen. Area value figures are ascertained by summing the value of all individual landings in that area. The value for an individual port within an area is calculated from weights of each species landed at that port and the average price paid for the species in that area. When the price paid for an individual landing is not specified, the average price paid for the species in the area is used.

1.6. INSHORE BAIT

The inshore bait fishery takes several kinds of fish and invertebrates from bays, rivers, and intertidal regions for sale as bait. Records of this fishery have been published as a separate summary in the landing bulletins since 1963. Conversion factors used for inshore bait for 1970 were as follows:

Crab, sand	0.041 pound per dozen
	4.5 pounds per gallon
Crab, shore	0.013 pound per dozen
Mudskipper	0.465 pound per dozen
Mussel	80.000 pounds per sack
Sculpin, staghorn	0.065 pound per sack
Shrimp, ghost	0.082 pound per dozen

1.7. REFERENCES

- Bell, Robert R. 1971. Statistical report of fresh canned, cured and manufactured fishery products for 1970. Calif. Dept. Fish and Game, Circular, (45): 1-15.
- Jensen, Paul T., and Phillip G. Swartzell. 1967. California salmon landings 1952 through 1965, Calif. Dept. Fish and Game, Fish Bull., (135): 43-57.

TABLES

MARINE FISH CATCH FOR 1970

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TABLE 1
Common and Scientific Names of Fishes, Crustaceans, and Mollusks in the 1970 Catch

Common name	Scientific name	Common name	Scientific name
FISHES			
Anchovy.....	<i>Engraulis mordax</i>	Sargo.....	<i>Anisotremus davidsoni</i>
Barracuda, California.....	<i>Sphyraena argentea</i>	Seaperch.....	<i>Sebastodes guttatus</i>
Base, rock.....		Sculpin, Pacific staghorn.....	<i>Lepidocottus armatus</i>
Kelp bass.....	<i>Paralabrax clathratus</i>	Sea bass, giant.....	<i>Stereolepis gigas</i>
Sand bass.....	<i>Paralabrax nebulifer</i>	Seabass, white.....	<i>Cynoscion nobilis</i>
Spotted sand bass.....	<i>Paralabrax maculatusfasciatus</i>	Shark.....	
Blacksmith.....	<i>Chromis punctipinnis</i>	Basking.....	<i>Celorhinus maximus</i>
Bonito, Pacific.....	<i>Sarda chilensis</i>	Blue.....	<i>Prionace glauca</i>
Cabezon.....	<i>Scorpaenichthys marmoratus</i>	Bonito.....	<i>Iurus oxyrinchus</i>
Cabrilla, spotted.....	<i>Epinephelus analogus</i>	Leopard.....	<i>Triakis semi-fasciata</i>
Croaker		Pacific angel.....	<i>Squatina californica</i>
White.....	<i>Genyonemus lineatus</i>	Soupfin.....	<i>Galeorhinus zypperius</i>
Queenfish.....	<i>Seriola politus</i>	Spiny dogfish.....	<i>Squalus acanthias</i>
Dolphinfish.....	<i>Coryphaena hippurus</i>	Thresher.....	<i>Alopias vulpinus</i>
Eel		Miscellaneous.....	Various species
California moray.....	<i>Gymnothorax mordax</i>	Shorehead, California.....	<i>Pimelodellus pulchrum</i>
Wolf.....	<i>Anarrhichthys ocellatus</i>	Skate.....	
Flounder.....		Bat ray.....	<i>Myliobatis californica</i>
Arrowtooth.....	<i>Atheresthes stomaia</i>	Big skate.....	<i>Raja binoculata</i>
Starry.....	<i>Platichthys stellatus</i>	California skate.....	<i>Raja inornata</i>
Miscellaneous.....	Various species	Longnose skate.....	<i>Raja rhina</i>
Flyingfish.....	<i>Cypselurus spp.</i>	Shovelnose guitarfish.....	<i>Rhinobatos productus</i>
Freshwater fish		Miscellaneous.....	Various species
Carp.....	<i>Cyprinus carpio</i>	Smelt.....	
Hardhead.....	<i>Mugilophorus conocephalus</i>	Jacksmtl.....	<i>Atherinopsis californiensis</i>
Hitch.....	<i>Larina exilicauda</i>	Night smelt.....	<i>Spirinchus starksii</i>
Sacramento blackfish.....	<i>Orthodon microlepidotus</i>	Surf smelt.....	<i>Hypomesus pretiosus</i>
Greenling, kelp.....	<i>Hexagrammos decagrammus</i>	Smelt, whitebait.....	<i>Altosmerus elongatus</i>
Groups.....		<i>Spirinchus starksii</i>	
Halibut, Pacific.....	<i>Myctophorus spp.</i>	Young of several spp.	
Halfmoon.....	<i>Merluccius productus</i>	Sole.....	
Halibut		Dover.....	<i>Microstomus pacificus</i>
California.....	<i>Paralichthys californicus</i>	English.....	<i>Parophrurus velutus</i>
Pacific.....	<i>Hippoglossus stenolepis</i>	Petrale.....	<i>Eopsetta jordani</i>
Herring, Pacific.....	<i>Clupea pallasi</i>	Rex.....	<i>Glyptocephalus zachirus</i>
Lingcod.....	<i>Ophiodon elongatus</i>	Rock.....	<i>Lepidopsetta bilineata</i>
Mackerel		Sand.....	<i>Psettidichthys melanostictus</i>
Jack.....	<i>Trachurus symmetricus</i>	Scalyfin.....	<i>Isopsetta isolepis</i>
Pacific.....	<i>Scomber japonicus</i>	Miscellaneous.....	Various species
Mudsucker, longjaw.....	<i>Gillichthys mirabilis</i>	Swordfish.....	<i>Xiphias gladius</i>
Opahye.....	<i>Girella nigricans</i>	Tuna.....	
Pacific cod.....	<i>Gadus macrocephalus</i>	Albacore.....	<i>Thunnus alalunga</i>
Perch.....		Bipeyer.....	<i>Thunnus obesus</i>
Pompano, Pacific.....	<i>Peporus similimus</i>	Bluefin.....	<i>Thunnus thynnus</i>
Rockfish.....	Various species of <i>Sebastodes</i> and	Skipjack.....	<i>Katsuwonus pelamis</i>
	<i>Sebastolobus</i> spp.	Yellowfin.....	<i>Thunnus albacares</i>
Sablefish.....	<i>Anoplopoma fimbria</i>	Turbot.....	
Salema.....	<i>Xenistius californiensis</i>	Curlfin.....	<i>Pleuronichthys decurrens</i>
Salmon		Diamond.....	<i>Hypopsetta guttulata</i>
King.....	<i>Oncorhynchus tshawytscha</i>	Hornyhead.....	<i>Pleuronichthys verticalis</i>
Pink.....	<i>Oncorhynchus gorbuscha</i>	Miscellaneous.....	Various species
Silver.....	<i>Oncorhynchus kisutch</i>	Wahoo.....	<i>Acanthocybium solandri</i>
Sanddab.....	<i>Citharichthys sordidus</i>	Whitefish, ocean.....	<i>Caulolatilis princeps</i>
Sardine.....	<i>Sardinops caeruleus</i>	Yellowtail, California.....	<i>Seriola dorsalis</i>
CRUSTACEANS			
Crab		Prawn.....	
Market.....	<i>Cancer magister</i>	Ridgeback.....	<i>Eusicyonia ingentis</i>
Rock.....	<i>Cancer productus</i>	Spot.....	<i>Pandalus platyceros</i>
	<i>Cancer antennarius</i>	Shrimp.....	
	<i>Cancer anthonyi</i>	Bay.....	<i>Crangon franciscorum</i>
Sand.....	<i>Emerita analoga</i>		<i>Crangon nigricauda</i>
Shore.....	<i>Hemigrapsus oregonensis</i>	Ghost.....	<i>Calianassa californica</i>
	<i>Pachygrapsus crassipes</i>	Ocean.....	<i>Pandalus jordani</i>
Spider.....	<i>Loxorhynchus sp.</i>	Red.....	<i>Hippolytis californica</i>
Crayfish.....	<i>Astacus troubridgii</i>		
Lobster, spiny.....	<i>Panulirus interruptus</i>		
MOLLUSKS			
Abalone		Mussel.....	
Black.....	<i>Haliotis cracherodii</i>	Bay.....	<i>Mytilus edulis</i>
Green.....	<i>Haliotis fulgens</i>	Rock.....	<i>Mytilus californianus</i>
Pink.....	<i>Haliotis corrugata</i>	Octopus.....	<i>Octopus spp.</i>
Red.....	<i>Haliotis rufescens</i>	Oyster.....	
Threaded.....	<i>Haliotis assimilis</i>	Eastern.....	<i>Crassostrea virginica</i>
White.....	<i>Haliotis sorenseni</i>	European flat.....	<i>Ostrea edulis</i>
Clam		Giant Pacific.....	<i>Crassostrea gigas</i>
Freshwater.....	<i>Corbicula fluminea</i>	Squid.....	<i>Loligo opalescens</i>
Jackknife.....	<i>Tapetula californiana</i>		
Littleneck.....	<i>Paphia staminea</i>		
Purple.....	<i>Sanguinolaria nuttalli</i>		
Washington.....	<i>Saxidomus nuttalli</i>		

TABLE 1
Common and Scientific Names of Fishes, Crustaceans, and Mollusks in the 1970 Catch

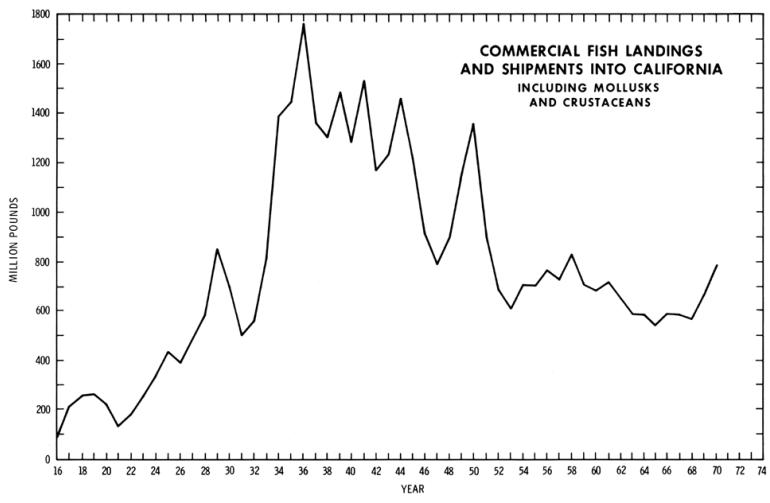


FIGURE 2. Total annual landings and shipments into California (see Table 2). Sardine deliveries to reduction ships, 1930–38 are included. Since 1965, tunas are the only species included in shipments.

FIGURE 2. Total annual landings and shipments into California (see Table 2). Sardine deliveries to reduction ships, 1930–38 are included. Since 1965, tunas are the only species included in shipments.

TABLE 2
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.....	1,528,892
1917.....	209,877	1942.....	1,173,414
1918.....	261,134	1943.....	1,234,049
1919.....	266,270	1944.....	1,459,456
1920.....	222,004	1945.....	1,216,501
1921.....	135,348	1946.....	919,822
1922.....	182,343	1947.....	795,499
1923.....	253,875	1948.....	900,467
1924.....	340,446	1949.....	1,135,339
1925.....	437,502	1950.....	1,366,676
1926.....	394,964	1951.....	904,114
1927.....	487,166	1952.....	694,996
1928.....	583,527	1953.....	618,919
1929.....	856,854	1954.....	713,410
1930.....	702,189	1955.....	710,713
1931.....	502,390	1956.....	772,551
1932.....	556,139	1957.....	738,550
1933.....	821,805	1958.....	832,919
1934.....	1,390,798	1959.....	713,423
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	1964.....	591,131
1940.....	1,297,518	1965*.....	544,480
		1966.....	591,533
		1967.....	589,028
		1968.....	567,214
		1969.....	672,793
		1970.....	798,415

* Beginning in 1965 only tuna shipments are recorded.

TABLE 2
Total Annual Landings and Shipments Into California of Commercial Fish, Mollusks, and Crustaceans; Includes Sardine Deliveries to Reduction Ships During 1930 Through 1938

TABLE 3
Landings and Shipments of Leading Species Ranked by Pounds *

1969				1970			
Species	Rank	Thousands of pounds	Thousands of dollars	Species	Rank	Thousands of pounds	Thousands of dollars
Yellowfin tuna.....	1	240,747	\$40,536	Yellowfin tuna.....	1	261,817	\$50,399
Anchovy.....	2	135,278	1,353	Anchovy.....	2	192,485	2,157
Albacore tuna.....	3	71,055	18,021	Skipjack tuna.....	3	96,918	15,868
Jack mackerel.....	4	51,921	1,967	Albacore tuna.....	4	73,112	22,274
Skipjack tuna.....	5	48,680	6,558	Jack mackerel.....	5	47,746	1,881
Squid.....	6	20,779	555	Squid.....	6	24,591	667
Pacific bonito.....	7	17,202	805	Market crab.....	7	15,414	3,946
Bluefin tuna.....	8	15,607	2,462	Dover sole.....	8	15,161	1,233
Dover sole.....	9	12,919	925	Rockfish.....	9	10,687	824
Rockfish.....	10	9,227	694	Bluefin tuna.....	10	9,531	1,803
Market crab.....	11	7,939	2,295	Pacific bonito.....	11	9,192	651
Salmon.....	12	6,151	3,843	Salmon.....	12	6,612	5,101
Sablefish.....	13	4,157	310	Sablefish.....	13	4,428	319
English sole.....	14	3,804	334	Ocean shrimp.....	14	4,048	567
Abalone.....	15	3,658	1,161	Petrile sole.....	15	3,416	531
Ocean shrimp.....	16	2,948	413	English sole.....	16	3,282	324
Petrile sole.....	17	2,867	414	Abalone.....	17	2,901	948
Miscellaneous animal food	18	2,412	48	Rex sole.....	18	1,741	190
Pacific mackerel.....	19	2,357	122	Lingcod.....	19	1,531	139
Rex sole.....	20	2,259	218	Swordfish.....	20	945	534
All others.....		10,826	2,402	All others.....		12,857	3,023
Totals.....		672,793	\$85,436	Totals.....		798,415	\$113,379

* Only the tunas are included in the shipments.

TABLE 3
Landings and Shipments of Leading Species Ranked by Pounds

TABLE 4
Number of Licensed Commercial Fishermen

Area of residence	License year*	
	1969-70	1970-71
Eureka.....	1,977	1,735
Sacramento.....	508	409
San Francisco.....	1,852	1,546
Monterey.....	910	712
Santa Barbara.....	911	751
Los Angeles.....	1,912	1,744
San Diego.....	1,452	1,386
Alaska, Washington and Oregon fishermen licensed in California.....	414	627
Mexican nationals licensed in California.....	12	19
Other.....	41	40
Totals.....	9,989	8,969

* April 1 to March 31.

TABLE 4
Number of Licensed Commercial Fishermen

TABLE 5
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
1969-70.....	1,703	1,828	1,050	140	20	107	4,848†
1970-71.....	1,202	1,666	1,175	156	30	108	4,337‡

* April 1 to March 31.

† The owners of 479 boats were issued fishing party licenses in 1969-70.

‡ The owners of 457 boats were issued fishing party licenses in 1970-71.

TABLE 5
Number of Registered Fishing Boats by Length

TABLE 6
Origin of Shipments Received for Processing in California During 1970 *

Shipped from:	Species	Pounds shipped to each area		Total pounds
		Los Angeles	San Diego	
Oregon, Washington, Canada and Alaska:				
Tuna, albacore.....	11,130,440	1,609,615		12,830,055
Tuna, skipjack.....	446	---		446
Mexico and Central America:				
Tuna, skipjack.....	41,172	11,925		53,097
Tuna, yellowfin.....	759,197	1,123,408		1,882,605
South America:				
Tuna, albacore.....	4,554,035	---		4,554,035
Tuna, skipjack.....	1,142,638	---		1,142,638
Tuna, yellowfin.....	208,186	---		208,186
Japan:				
Tuna, albacore.....	16,643,430	750,943		17,394,373
Tuna, bigeye.....	763,510			763,510
Tuna, skipjack.....	14,249,183	1,943,237		16,192,420
Tuna, yellowfin.....	22,583,429	259,902		22,843,331
Australia:				
Tuna, bluefin.....	876,197	---		876,197
China (Formosa):				
Tuna, albacore.....	290,100	---		290,100
Tuna, skipjack.....	70,815	---		70,815
Tuna, yellowfin.....	573,993	40,118		614,111
Malaya:				
Tuna, albacore.....	1,854,711	1,079,425		2,934,136
Tuna, bigeye.....	31,480			31,480
Tuna, yellowfin.....	2,461,033	272,521		2,733,554
Philippines:				
Tuna, bigeye.....	50,215	---		50,215
Tuna, skipjack.....	3,710	---		3,710
Tuna, yellowfin.....	582,889	---		582,889
South Pacific Islands:				
Tuna, albacore.....	4,246,974	830,770		5,177,744
Tuna, skipjack.....	2,974,144			2,974,144
Tuna, yellowfin.....	840,772	355,265		1,196,027
Total pounds.....	86,832,899	8,367,119		95,199,818

* Beginning in 1965 only tuna shipments are recorded.

TABLE 6
Origin of Shipments Received for Processing in California During 1970

TABLE 7
Origin of Commercial Fish Landings and Volume of Shipments Into California During 1970

Species	Landings of catches from						Tuna shipments*	Grand total
	California waters	Waters north of State	Waters south of State	Central Pacific waters	African waters	Total pounds		
Fish:								
Archovy.	192,485,074	----	2,080	----	----	192,485,074	----	192,485,074
Bass, California.	1,000,000	----	24,388	----	----	24,388	----	24,388
Blackfish, Sacramento.	412,430	----	412,430	----	----	412,430	----	412,430
Blacksmith.	1,185,419	----	100	----	----	1,185,519	----	1,185,519
Bone, Pacific.	8,793,788	----	398,516	----	----	9,192,304	----	9,192,304
Cabron.	10,988	----	10,988	----	----	10,988	----	10,988
Carp.	338,530	----	338,530	----	----	338,530	----	338,530
Croaker, white.	564,871	----	564,871	----	----	564,871	----	564,871
Flounder.	27,153	2,229	27,153	----	----	27,153	----	27,153
Flounder, arrowtooth.	6,120	----	6,120	----	----	6,120	----	6,120
Flyingfish.	78,631	----	78,631	----	----	78,631	----	78,631
Greenglass, kelp.	146	----	146	----	----	146	----	146
Grouper.	7,142	----	7,142	----	----	7,142	----	7,142
Hake.	9,775	----	9,775	----	----	9,775	----	9,775
Halfmoon.	38,544	----	65	----	----	38,609	----	38,609
Halibut, California.	256,988	----	546	----	----	257,444	----	257,444
Herring, Pacific.	315,968	----	315,968	----	----	315,968	----	315,968
Lingcod.	1,520,232	23,147	1,520,232	----	----	1,520,232	----	1,520,232
Mackerel, jack.	47,746,424	----	85	----	----	47,746,509	----	47,746,509
Mackerel, Pacific.	621,308	----	611	----	----	621,919	----	621,919
Oakleye.	22,452	----	22,452	----	----	22,452	----	22,452
Pike.	2,409	400	2,409	----	----	241,409	----	241,409
Pompano, Pacific.	131,368	----	131,368	----	----	131,368	----	131,368
Rockfish.	10,456,188	182,563	48,093	----	----	10,686,544	----	10,686,544
Sablefish.	4,294,015	186,562	----	4,294,015	----	4,428,077	----	4,428,077
Salmon.	18,450	----	18,450	----	----	18,450	----	18,450
Salmon.	6,610,661	581	6,610,661	----	----	6,611,222	----	6,611,222
Sandlaf.	676,752	1,815	138	----	----	678,505	----	678,505
Sardine.	410,119	----	410,119	----	446,511	----	442,505	----
Sargo.	548	----	548	----	548	548	----	548
Sauri, Pacific.	28,300	----	28,300	----	----	28,300	----	28,300
Sculpin.	76,313	----	78,648	----	----	154,961	----	154,961
Sea bass, giant.	11,340	11,340	11,340	----	----	129,541	----	129,541
Sebaston, white.	450,299	----	673,146	----	----	1,123,445	----	1,123,445
Shark.	386,597	----	33,721	----	----	420,318	----	420,318

TABLE 7
Origin of Commercial Fish Landings and Volume of Shipments Into California During 1970

Shastan, California	5,677	---	528	---	---	9,305	---	3,958
Siskiyou	10,000	---	1,000	---	---	10,000	---	10,000
Sierra	96,531	---	---	---	---	96,531	---	60,531
Sierra, whiteback	96,612	---	---	---	---	96,612	---	56,612
Sierra, Dungeness	13,960,454	1,322,452	---	---	---	13,960,454	---	13,960,454
Santa Barbara	44,622	---	---	---	---	44,622	---	30,622
Santa Barbara	5,207,324	4,452	---	---	---	5,207,324	---	3,002,314
Santa Barbara	71,525	8,216	---	---	---	71,525	8,216	41,525
Santa Barbara	54,125	5,116	---	---	---	54,125	5,116	31,125
Santa Barbara	1,585,784	85,116	262	---	---	1,585,784	85,116	1,141,478
Santa Barbara	20,781	2,078	---	---	---	20,781	2,078	15,781
Santa Barbara	10,781	---	---	---	---	10,781	---	10,781
Santa Barbara	252,122	1,474,172	15,055	---	---	252,122	1,474,172	944,745
Santa Barbara	52,248,122	1,474,172	2,614,635	---	---	52,248,122	1,474,172	72,115,107
Santa Barbara	151	8,216	8,216	---	---	151	8,216	10,000
Santa Barbara	505,225	5,116	5,116	---	---	505,225	5,116	355,100
Santa Barbara	570,344	---	71,384,570	350,006	0,017,657	570,344	---	25,017,904
Santa Barbara	116,003	---	935,382,728	8,451,920	3,228,205	935,382,728	8,451,920	581,017,341
Santa Barbara	28,007	---	1,000	---	---	28,007	1,000	20,007
Santa Barbara	151	8,216	8,216	---	---	151	8,216	10,000
Santa Barbara	505,225	5,116	5,116	---	---	505,225	5,116	355,100
Santa Barbara	570,344	---	127,816	---	---	570,344	---	10,233
Santa Barbara	116,003	---	127,816	---	---	116,003	---	2,713
Santa Barbara	505,225	5,116	5,116	---	---	505,225	5,116	355,100
Santa Barbara (salmon, food)	500,157	77,395	---	---	---	500,157	77,395	1,007,411
Castroville	18,413,955	---	---	---	---	18,413,955	---	16,013,955
Cape, marsh	682,479	---	---	---	---	682,479	---	550,379
Cape, sand	1,053	---	---	---	---	1,053	---	1,053
Cape, spider	1,053	---	---	---	---	1,053	---	1,053
Cape Cod	168,120	---	---	---	---	168,120	---	150,120
Cape Cod	200,000	---	---	---	---	200,000	---	222,500
Pearl, sand	93,598	---	---	---	---	93,598	---	83,598
Shrimp, off.	9,275	---	9,275	---	---	9,275	---	8,275
Shrimp, ocean	2,051,831	16,765	16,765	---	---	2,051,831	16,765	4,047,009
Mallards	2,000,813	---	---	---	---	2,000,813	---	2,000,813
Aleutian	738	---	738	---	---	738	---	738
Otoway	1,378	---	1,378	---	---	1,378	---	1,378
Oyster, giant Pacific	112,755	---	112,755	---	---	112,755	---	10,755
Oysters	24,590,838	---	24,590,838	---	---	24,590,838	---	20,590,838
Abalone, rock	1,000	100	100	100	100	1,000	100	100
Total pounds	890,894,912	5,000,000	803,980,014	5,000,000	0,000,719	803,980,014	5,000,000	795,914,902

* For origin of shipments refer to Table 8. Beginning in 1968 only total shipments are recorded.

TABLE 7 [continued]

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TABLE 7 [continued]

TABLE 8
Monthly Landings and Shipments Into California During 1970

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS:													
Fish:													
Ashley	23,489,832	11,904,456	16,477,030	799,886	16,948,412	5,405	818,735	2,302,157	17,716,841	38,859,727	34,056,141	29,259,721	192,434,071
Barracuda, California			10,020	2,218	4,932	5,405	903	181	541	249	350	20	24,558
Blackfish, Sacramento	126,600	105,336	35,084		27,362	16,430	245,888	145,117	345,240	238,467	25,782	1,178,130	1,430,493
Bonito, Pacific	104,169	245,061	85,787	419,257	327,621	243,001	191,893	2,890,178	2,112,377	458,533	786,356	1,360,469	9,192,304
Cabron	1,140	958	2,137	611	140	57	51	172	919	2,829	1,103	871	10,098
Carp	116,698	90,608	26,179	7,700	30,252	30,682	11,844	17,255	27,348	1,850	8,300	33,552	100,943
Carp, white			33,228	34,428	41,076					45,140	64,489	57,871	255,871
Flounder	19,080	26,682	33,076	21,507	7,109	11,172	15,344	58,450	20,178	15,014	5,314	4,514	21,514
Flounder, arrowtooth	1,833	1,554	195		1,140	565			565			248	6,120
Flyingfish			6,495	28,305	23,692	15,669	3,337	1,233	-----	-----	78,631	-----	78,631
Grenadier, kelp		12	8	-----	-----	-----	-----	-----	-----	-----	-----	-----	148
Grouper	5,570	1,572	-----	375	6,800	203	716	200	1,132	324	25	7,142	10,609
Hake, Pacific	1,273	50	2,775	1,624	9,070	8,584	3,894	5,169	2,405	3,670	270	155	38,609
Halibut	18,746	30,511	30,146	16,018	24,143	29,378	26,105	14,158	6,817	8,131	20,916	32,375	257,444
Hake, silver	24,239	12,201	41,758	41,234	72,090	28,159	25,181	13,881	14,055	23,571	30,476	20,992	134,739
Lingcod	12,231	26,284	26,082	49,205	93,140	210,129	375,614	353,383	178,856	120,556	64,472	31,447	1,531,399
Mackerel	1,300,553	499,554	1,817,591	1,588,001	6,004,142	2,052,651	4,377,461	4,538,998	6,192,632	10,853,215	5,322,980	3,083,105	47,746,509
Mackerel, Pacific	6,062	8,301	510	1,571	161,141	127,629	193,513	17,171	3,298	15,910	6,170	3,650	65,309
Oakley	200	1,343	43	3,130	1,212	767	4,201	2,320	4,143	2,320	2,320	2,320	22,433
Perch	8,835	15,590	42,900	32,457	3,971	30,356	7,582	48,079	18,071	15,537	11,908	6,603	241,409
Pompano, Pacific	2,250	1,787	9,798	4,885	6,538	4,566	5,160	11,391	20,262	20,305	12,850	29,157	131,368
Sabalefish	227,693	399,941	472,050	329,002	252,088	376,390	371,046	358,548	401,678	469,444	374,731	404,466	4,428,077
Salma	-----	-----	-----	-----	-----	-----	14,456	-----	-----	-----	-----	-----	16,450
Salmon	-----	-----	229,880	1,171,789	2,114,084	1,004,889	1,111,226	376,276	269	-----	-----	-----	6,611,522
Sardines	13,206	47,284	35,253	45,889	57,600	57,600	100,000	110,000	81,000	91,706	34,882	10,025	678,500
Sargo	9,983	11,268	45,474	83,192	81,663	48,165	41,095	220,535	108,914	52,663	53,890	8,071	442,319
Sauries	-----	-----	-----	-----	548	-----	-----	-----	-----	-----	-----	548	-----
Sauries, Pacific	1,112	6,698	1,310	3,734	14,496	26,722	25,374	24,257	12,329	9,943	12,408	154,861	28,300
Sea bass, giant	12,812	23,675	27,990	9,814	14,454	16,710	4,981	239	10,405	12,726	33,211	37,251	106,930
Sebastodes, white	63,514	126,793	136,054	130,898	81,663	48,165	41,095	220,535	108,914	52,663	53,890	47,361	1,101,445
Sole, rock	22,995	11,382	20,110	19,635	38,009	64,426	70,844	33,804	24,345	42,850	37,557	29,153	420,318
Stargrid, California	142	467	434	277	504	374	427	277	146	55	569	138	3,605
Stargrid	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Smelt	4,427	8,561	5,021	9,331	24,020	24,020	5,021	6,037	2,037	3,000	3,000	500	30,932
Smelt	313	3,873	8,442	12,534	31,038	70,256	89,637	127,843	100,000	88,119	31,202	292	561,551
Smelt, whitebelly	351	22,197	19,502	37,965	50,808	65,708	31,463	111,173	503	-----	-----	-----	249,813
Sole, Dover	431,727	1,946,740	830,073	1,440,817	1,208,653	2,384,253	1,723,494	1,718,533	1,347,289	1,685,998	773,309	505,524	15,180,398

Sole, English.....	191,310	268,534	210,024	290,955	234,928	191,593	247,295	520,545	409,092	266,979	238,093	172,966	3,965,316	
Sole, petrale.....	234,727	346,494	223,080	189,509	285,943	273,073	378,379	631,372	373,121	265,654	226,060	24,116,708		
Sole, sand.....	94,101	167,400	32,290	20,800	141,341	141,341	130,981	209,223	140,598	165,343	131,217	18,641	1,741,479	
Sole, sand.....	14,676	13,517	28,679	11,377	3,583	3,583	13,271	25,758	7,944	10,352	29,432	27,784	193,201	
Sole, miscellaneous.....	1,866	1,132	616	869	1,654	1,403	2,980	4,125	1,071	1,847	1,071	1,071	1,071	
Swordfish.....	1,344	-----	-----	221	16,177	256,468	228,510	122,500	212,300	80,110	6,705	941,715		
Tuna, albacore.....	-----	-----	-----	-----	-----	7,700,000	8,200,000	12,300,000	10,323,772	15,407,200	10,482,266	10,512,711	231,956,638	
Tuna, bigeye.....	-----	-----	-----	-----	-----	18,235	18,235	185	-----	942	2,555	924	59,449	29,931,714
Tuna, bluefin.....	30,095	193	-----	-----	615	-----	4,470,099	4,470,099	350	350	350	350	18,460	
Tuna, skipjack.....	916,000	4,236,198	1,882,277	5,981,209	8,170,235	8,010,232	7,803,514	4,642,324	12,850,303	7,174,938	6,846,935	76,450,634		
MARINE FISH CATCH FOR 1961														
Tuna, yellowfin.....	9,284,911	43,043,222	41,589,581	27,073,172	30,900,080	11,927,574	8,756,293	10,334,384	10,323,772	15,407,200	10,482,266	10,512,711	231,956,638	
Tuna, yellowfin.....	315	2,433	2,486	4,024	5,575	4,536	1,314	1,480	1,480	1,480	1,480	1,480	28,067	
Wahoo.....	507	203	-----	-----	650	-----	-----	-----	-----	-----	-----	463	1,032	
Whitefish, ocean.....	18	-----	-----	615	-----	479	-----	40	-----	350	-----	273	1,778	
Yellowtail, California.....	13,324	32,067	13,847	10,244	8,224	11,869	3,150	15,024	21,484	12,130	12,731	30,129	184,223	
Miscellaneous.....	409	1,244	157	157	565	1,235	196	196	196	196	196	196	196	
Miscellaneous (animal food).....	43,032	60,538	63,960	66,875	57,204	101,705	150,237	114,825	147,394	134,448	83,377	33,589	1,057,411	
Total pounds.....	46,914,359	71,807,102	69,078,592	41,973,270	73,209,114	36,360,398	37,769,718	48,546,969	55,273,832	95,392,978	68,702,426	59,385,733	703,215,500	
SHIPMENTS: ^a														
Fish:														
Tuna, albacore.....	1,721,799	3,856,786	1,208,323	1,610,145	1,731,056	748,457	4,923,182	6,684,212	10,066,507	3,708,948	1,844,182	5,075,555	43,190,443	
Tuna, bigeye.....	50,215	-----	-----	-----	-----	-----	222,840	407,160	164,990	45,757	-----	-----	845,305	
Tuna, bluefin.....	246	622	1,105	160	118	330	491	713	45	73	25	350	3,928	
Oyster, eastern.....	1,641	1,323	464	1,247	1,444	1,095	1,694	1,239	1,958	1,558	1,380	1,384	97,435	
Oyster, eastern.....	108,400	97,400	100,400	117,400	55,400	55,400	49,400	51,400	100,400	127,500	127,500	127,500	1,109,400	
Shrimp, ocean.....	2,775,783	2,605,385	1,709,050	263,250	2,932,705	3,398,500	1,600,055	776,355	359,900	60,200	3,407,647	4,706,263	24,590,985	
Miscellaneous mollusk.....	92	76	100	22	-----	-----	-----	-----	31	108	46	46	475	
Total pounds.....	4,982,039	7,462,625	4,864,368	3,576,645	2,218,116	5,553,932	13,783,725	14,774,036	18,544,831	7,199,698	3,762,856	8,476,947	95,199,818	
Grand total.....	51,896,398	79,066,727	73,940,960	45,549,815	75,427,220	41,914,320	51,553,443	63,323,998	73,818,683	103,592,679	70,465,282	67,982,680	798,415,322	

* For origin of shipments refer to Table 6. Beginning in 1965 only tuna shipments are recorded.

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TABLE 8 [continued]

TABLE 9
Monthly Landings of Commercial Fishing Boats in the Eureka Area During 1970

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM:													
California waters:													
Fish:													
Balito, Pacific.....	30	244	274
Flounder.....	7,157	15	1,412	2,767	4,654	3,317	8,184	45,020	10,335	12,814	3,115	1,272	100,965
Pike, arctic/tooth.....	1,883	1,554	248	3,653
Greenling, California.....	8	10
Hake, Pacific.....	3	16	19
Haddock, California.....	10	83	45	219
Herring.....	3,350	16,222	12,557	20,550	49,108	109,229	18,372	256,049	110,138	79,257	18,648	4,153	894,242
Pacific halibut.....	1,943	4,690	8,053	6,988	24,053	24,053	18,482	18,089	12,019	4,207	4,227	1,556	65,414
Rockfish.....	122,738	292,145	278,565	286,907	245,063	244,065	458,209	389,173	367,666	506,358	222,171	141,352	3,734,459
Sablefish.....	135,935	350,392	287,792	240,596	175,524	271,402	177,506	203,189	203,803	252,464	168,061	206,917	2,673,505
Salmon.....	100,508	574,495	1,371,754	1,031,057	748,443	120,233	3,946,490
Salmon, pink.....	9,089	14,292	10,697	23,308	29,473	34,482	46,482	73,482	47,000	60,323	1,119	308,110	308,110
Shark.....	50	20	543	548
Skate.....	15	4,380	19,520	22,629	6,855	715	54,444
Smelt.....	362	517	2,869	11,338	47,478	79,482	119,480	89,670	44,859	382	396,467
Sole, blackback.....	35	21,000	18,120	33,200	53,200	53,200	53,200	53,200	53,200	53,200	53,200	53,200	53,200
Sole, Dover.....	340,485	864,076	655,311	1,243,177	1,069,059	2,104,129	1,544,582	1,534,546	1,213,839	1,223,259	544,893	346,310	12,728,566
Sole, English.....	23,554	63,408	77,124	212,219	116,821	108,877	163,273	186,837	162,330	122,798	59,185	17,121	1,605,347
Sole, petrale.....	175,222	278,081	124,290	81,200	121,000	149,150	221,000	218,000	164,000	100,000	100,000	100,000	1,800,900
Sole, rex.....	150	108,388	92,750	167,561	97,088	130,521	130,059	191,250	158,397	130,019	74,314	38,254	1,813,998
Sole, sand.....	1,181	494	203	654	1,189	3,358	10,526	21,293	8,546	3,088	2,900	2,900	52,537
Sole, miscellaneous.....	94,671	2,860,022	3,270,054	827,550	24,794	3
Turbot.....	56	356	48	341	645	277	214	1,237
Miscellaneous.....	1,213	155	83	10	77,555	10	1,481
Commercial animals (animal food)....	23,407	26,504	24,259	9,011	18,665	53,869	69,660	54,425	77,505	63,098	20,702	5,907	460,970
Crustaceans:													
Crab, market.....	6,296,047	5,082,220	1,209,917	804,013	541,695	144,800	19,016	447,845	14,545,562
Crab, rock.....	240	555	440	240	240	220	6,1,701
Shrimp, ocean.....	566,537	837,025	1,788,249	375,559	3,086,370

TABLE 9
Monthly Landings of Commercial Fishing Boats in the Eureka Area During 1970

Mollusk:	40	390	730	100	74	27,133	146	133	48	18	74,315	70,572	1,676
Octopus.....	66,250	61,180	68,500	73,921	74,724	27,570	17,237	27,081	64,694	70,572	663,455		
Oyster, giant Pacific.....													
Total pounds.....	7,268,318	7,188,893	2,671,478	3,335,069	3,771,232	5,912,332	6,097,092	7,624,614	6,130,731	3,486,409	1,334,090	1,432,187	56,372,445
Waters north of State:													
Fish:													
Piander.....	1,584	---	---	220				94	331				2,229
Lingcod.....	1,162	1,163	1,155	4,407	2,155	5,356	4,384	8,434	2,475	350			23,117
Rockfish.....	3,736	5,381	13,334	18,927	22,284	27,533	23,946	8,308	26,238	20,334	10,601	182,563	
Sablefish.....	3,156	7,015	23,841	39,950	23,053	7,628	16,782	6,961	21,494	36,952	8,848	185,562	
Salmon.....	---	---	---	461	400	---	---	---	---	---	---	981	
Sanddab.....	44	600	20	228	667	5	46						1,415
Sole, American.....	3,043	49,985	180	189,320	173,930	105,519	118,334	83,449	182,646	134,111	65,743	1,262,652	
Sole, English.....	940	3,906	2,469	4,312	1,694	6,572	4,571	15,572	3,591	285		44,053	
Sole, petrale.....	12,671	2,667	1,234	8,222	1,710	1,304	7,574	14,729	5,988	2,585		74,116	
Sole, rock.....	2	2,010	4,940	9,640	4,640	3,458	4,209	5,090	5,886	2,710	52,715		
Sole, sand.....	---	---	324	---	---	---	---	238	---	---	---	562	
Miscellaneous (animal food)....	---	8,941	25,174	10,379	2,575	1,663	6,884	---	5,326	7,435	9,107		77,284
Crustacean:													
Shrimp, ocean.....	---	---	---	14,780	80,975	---	---	---	---	---	---	95,755	
Total pounds.....	---	25,733	80,694	225,404	268,713	317,738	187,927	196,114	140,223	289,654	201,177	97,873	1,991,131
Grand total.....	7,268,318	7,214,828	2,952,172	3,560,473	4,039,945	6,230,071	6,285,019	7,710,728	6,270,954	3,745,943	1,535,267	1,350,060	58,383,576

TABLE 9 [*continued*]

TABLE 10
Monthly Landings of Commercial Fishing Boats in the San Francisco Area During 1970 *

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM:													
California waters:													
Fish:													
Blackfish, Sacramento.....	126,600	105,336	35,984	7,860	19,120	13,440	17,200	51,600	45,960	40,880	29,520	6,220	217,720
Bottom, Pacific.....	350	19,850	47,300	69,210	412,430	1,030
Caleson.....	1,180	497	30	33	183
Carp.....	116,698	90,608	26,179	7,700	150	388,645
Craker, white.....	1,245	380	39,....	85	287	668	456	868	1,120	585	880	6,574
Flounder.....	5,120	17,472	7,250	12,390	1,140	4,780	2,243	9,456	7,607	8,358	15,515	4,342	128,763
Pompano.....	185	5,400	565	5	2,465
Hake, Pacific.....	5,400
Halibut, California.....	9,092	9,856	11,849	3,279	467	295	2,108	8,317	734	2,077	15,722	22,822	81,590
Herring, Pacific.....	24,530	2,569	115	2,117
Lamprey, sea.....	4,000	6,000	7,200	3,356	15,510	39,589	107,312	61,451	35,602	17,488	21,642	15,000	350,300
Mackerel, jack.....	4,555	7,594	7,250	9,437	357	22	5,733	1,575	1,597
Rockfish.....	38,534	131,549	99,209	21,783	24,750	51,908	54,711	59,934	54,675	109,045	75,272	89,816	770,413
Salmonid.....	31,140	48,549	28,068	11,250	100	5,921	15,327	14,545	10,420	70,651	38,635	43,706	345,762
Salmon.....	85,547	401,023	591,599	388,769	224,109	222,388	227	1,012,452
Sardine.....	8,143	11,692	13,850	19,267	29,219	26,795	20,270	12,053	15,190	22,145	15,740	6,499	195,760
Shad.....	2,000	1,140	1,140	1,140	1,140	1,140	1,140	1,140	1,140	1,140	1,140	1,140	12,000
Skate.....	2,600	4,200	1,200	400	800	624	1,200	17,227
Smelt.....	287	3,082	6,833	7,129	14,776	21,115	9,336	4,835	8,222	1,538	77,347
Smelt, whitebait.....	285	2,478	4,572	9,237	9,884	4,786	70	4,786	70	26,555	27,667	101,957	88,525
Sole, sand.....	91,145	178,500	63,400	46,500	50,531	68,580	43,500	50,632	50,293	46,510	46,195	58,720	106,151
Sole, English.....	110,378	91,938	43,142	31,767	67,632	48,530	48,530	48,530	48,530	48,530	48,530	48,530	119,933
Sole, petrale.....	55,243	44,274	37,752	43,781	111,493	55,100	101,615	95,584	109,470	99,966	98,074	61,125	911,477
Sole, rex.....	16,630	34,213	28,590	14,923	10,562	5,585	10,375	6,270	13,485	35,589	34,312	19,397	223,931
Sole, sand.....	12,120	8,640	22,360	7,755	900	1,703	1,060	1,975	1,125	7,690	26,940	23,930	114,528
Sole, sand.....	460	60	520
Tuna, albacore.....	2,143	1,045,127	1,485,222	1,663,532	94,211	20,465	4,310,700
Miscellaneous.....	309	866	1,035	1,540	410	125	838	665	2,555	710	38	5,338
Miscellaneous (animal food).....	2	5,400	9,185	1,295	6,655	4,490	436
													27,035

TABLE 10
Monthly Landings of Commercial Fishing Boats in the San Francisco Area During 1970

Cuttlefish.....													
Crab, market.....	177,629	122,419	35,745	22,903	20,784	18,032	5,719	22,085	2,600	216,592	251,157	865,620	
Crayfish.....	---	---	---	---	5,983	22,337	680	1,145	---	---	---	105,714	
Shrimp, bay.....	---	---	---	---	192	---	---	---	---	---	---	259	2,476
Shrimp, ocean.....	---	---	---	220,910	77,839	---	---	---	---	---	---	205,769	
Neopisces:													
Alewife.....	330	---	1,803	4,429	5,219	4,559	2,333	3,962	2,795	2,992	250	1,993	30,668
Octopus.....	40	145	---	42	330	245	480	530	55	55	1,407	1,407	
Oyster, eastern.....	1,111	123	464	1,547	1,441	1,035	1,094	1,098	1,558	1,330	1,454	16,245	
Oyster, giant Pacific.....	17,202	12,692	17,251	16,436	14,825	16,270	16,278	17,630	15,874	20,802	25,681	28,366	210,297
Grand total.....	856,480	922,483	548,940	386,329	1,040,208	1,094,815	905,860	1,740,854	2,175,045	2,543,394	1,023,668	944,684	14,103,162

* Includes Sacramento area landings.

TABLE 10 [*continued*]

TABLE 11
Monthly Landings of Commercial Fishing Boats in the Monterey Area During 1970

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM:													
California waters:													
Fish:													
Anchovy.....	25	383,050	230,250	10,200	32,650	713,500	13,600	220,450	303,800	1,907,500
Bonito, Pacific.....	236	22	1,659	453	15	2,890	32,922	35,947	1,490	85	73,449
Croaker, white.....	4,820	13,350	2,659	4,512	4,729	9,806	101,463	9,163	13,204	10,710	20,854	2,646	7,353
Flounder.....	5,773	5,230	8,016	2,151	1,460	3,064	3,847	2,083	128	31	36,584
Greenling, kelp.....	125	372	1,455	200	150	250	125
Hake, Pacific.....	1,655	935	615	415	487	401	2,869	2,014	367	33	23	16	10,430
Herring, Pacific.....	2,990	2,819	4,219	2,038	16,639	45,739	59,199	12,551	7,046	11,139	10,388	6,701	286,618
Lingcod.....	179,288
Mackerel, jack.....	179	515	70	915	1,155	2,680	18,402	165,418	46,730	21,000	161,825	533	81,452
Pompano, Pacific.....	140	685	72	893	1,915	2,130	2,215	1,873	398	487	12,433
Rockfish.....	39,987	72,209	337,472	583,200	47,900	352,911	431,200	188,185	137,850	145,478	96,511	80,115	2,620,259
Solefish.....	60,016	2,574	186,175	50,315	45,790	73,243	170,185	123,720	150,534	118,550	132,315	145,095	1,220,107
Salmon.....	154
Sandab.....	565	21,125	9,946	5,681	6,521	1,595	2,104	20,364	19,286	6,229	2,913	2,378	110,697
Sauries, Pacific.....	29	47	1,886	5,059	5,269	3,172	86	20,309
Shark.....	70	582	600	411	325	2,940	1,383	2,008	2,570	4,933	5,652	3,423	24,902
Skate.....	1,812	3,400	1,765	4,000	4,440	4,110	2,720	4,938	1,688	1,830	1,154	505	29,642
Smelt.....	11	429	725	1,918	1,988	1,103	563	518	1,425	800	96	7	9,822
Sole, Dab.....	110	5,116
Sole, English.....	6,608	31,780	37,215	19,815	35,545	17,818	21,540	62,075	51,235	41,428	23,825	14,585	364,066
Sole, petrale.....	1,645	9,160	43,050	11,303	17,390	5,180	18,894	63,232	37,125	23,340	20,798	16,555	265,544
Sole, rex.....	2,460	11,055	2,415	2,455	7,070	345	820	4,915	7,705	6,100	8,750	24,220	78,920
Sole, sand.....	1,085	1,820	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	10,550
Sole, miscellaneous.....	2,000	473	1,144	404	1,691	3,789	1,671	1,410	802	392	11,776
Swordfish.....	997
Miscellaneous.....	1,409	312,471	15,94762	2,488,103	109,801	4,508,230
Miscellaneous (animal food).....	450	900	45	1,350

TABLE 11
Monthly Landings of Commercial Fishing Boats in the Monterey Area During 1970

TABLE 11 [continued]

Crustacean:													
Crab, market.....	253	473	376	30	26	104	13	1,275		
Crab, rock.....	688	172	317	2,044	195	237	100	1,414		
Crab, spot.....	2,547	2,760	2,017	2,349	11,621		
Mollusca:													
Mussel.....	45	190	200	250	100	60	735		
Odeopus.....	165	50	375	60	2,175,550	2,879,000	707,145	343,675	353,800	83,450	1,469,145	644,750
Squid.....	8,637,115	
Grand total.....	134,592	182,265	612,238	1,250,163	3,364,819	3,678,062	2,122,603	2,125,797	2,514,898	3,204,682	2,380,942	951,427	22,612,488

TABLE 12
Monthly Landings of Commercial Fishing Boats in the Santa Barbara Area During 1970

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM: California waters: Fish:													
Saltwater:													
Anchoa.....	1,180,300	441,300	299,400	20,700	486,600	41,600	594,740	41,200	2,373,510	6,174,700	4,734,750	3,243,500	19,614,200
Barracuda, California.....	2,671	1,998	254	18	140	57	30	189,659	48,672	44,753	173,279	175,929	638,379
Bonito, Pacific.....	79	10	383	188	1,200	990	1,200	250	150	10	102	102	1,200
Croaker, white.....	3,800
Flounder.....	30	2,378	3,814	4,199	10,421
Greenling, kelp.....	4	7	11
Lake, Pacific.....	6,438	11,263	8,735	3,779	8,399	5,966	13,167	3,516	3,416	3,954	1,657	7,078	77,396
Lingcod.....	924	1,009	1,595	4,152	7,416	15,220	22,805	12,096	11,569	10,177	5,209	4,734	95,906
Mackerel, jack.....	314,603	241,850	411,450	142,250	509,620	260,371	226,478	192,696	74,130	606,770	400,300	3,383,416
Mackerel, Pacific.....	797	797
Mullet, California.....	1,304	1,153	1,377	4,835	5	1,818	1,624	1,770	4,572	2,812	1,669	22,412
Pompano, Pacific.....	60	168	3,384	100	100	100	110	3,622
Rockfish.....	168,348	199,424	251,989	254,962	261,167	242,428	328,575	247,547	91,305	192,829	114,847	103,034	2,457,155
Salmon, pink.....	460	131	2,970	20,238	41,501	71,281	45,707	26,828	42	20,937
Sea bass, giant.....	114	6	62	371	218	1,634
Seabass, white.....	2,242	791	1,000	6,158	1,262	574	3,192	13,055	4,655	8,115	8,555	1,555	51,318
Seal, harbor.....	3,759	2,049	4,503	3,431	8,663	22,865	31,417	5,354	11,033	10,371	3,459	2,574	104,338
Shorthead, California.....	40	200	28	5	77	99	5	53	408
Skate.....	556	798	183	4	93	1,634
Sole, Dover.....	15	510	1,840	6,259	10,160	8,688	4,800	1,347	1,725	39,735
Sole, petrale.....	50,470	80,488	48,086	26,161	10,733	19,129	19,000	40,212	32,117	35,150	36,237	29,053	1,100,203
Sole, petrale.....	2,717	4,648	15,425	28,801	26,733	62,118	27,911	25,000	46,930	18,221	8,690	4,575	27,203
Sole, rex.....	5,490	8,555	6,645	8,600	6,490	5,665	3,600	1,885	2,675	5,545	5,255	2,810	63,215
Sole, sand.....	10	2,693	3,911	2,763	561	1,840	6,259	10,160	8,688	4,800	1,347	612
Sole, miscellaneous.....	1,864	1,128	482	291	395	99	582	53	357	214	222	322	14,614
Swordfish.....	13,342	49,122	26,746	24,330	12,781	12,331	12,331	12,331
Tuna, albacore.....	267	130,647	921,438	3,423,459	723,177	4,058	4,058	5,203,044
Tuna, bluefin.....	185	185	19	19	1,505
Tuna, skipjack.....	1,184	1,184	1,505
Yellowtail, California.....	268	1,217	1,406	2,143	6,575	4,126	1,244	55	15	425
Miscellaneous.....	31	255	255	255
Miscellaneous (animal food).....	10,625	31,229	29,580	31,190	22,860	36,255	80,215	52,223	62,730	61,534	55,340	18,495	501,172

TABLE 12
Monthly Landings of Commercial Fishing Boats in the Santa Barbara Area During 1970

Crustacean:																				
Crab, market.....	25,489	12	93	573	454	14,217	15,217	17,710	12,150	10,349	11,091	7,377	22,394	29,547	1,132	29,112	1,032	85,20	11,533	
Crab, rock.....	207	203	15,007	278	30	14	14,611	16,707	16,871	16,707	16,871	16,707	16,871	
Crab, stone.....	207	203	15,007	278	30	14	
Lobster, spiny.....	13,676	15,133	8,022	755	1,094	6,048	3,564	
Fish, ocean.....	4,575	60	28,330	35,730	
Shrimp, ocean.....	
Grand total.....	2,540,804	1,963,109	1,915,686	906,374	1,834,963	1,226,953	1,762,080	1,371,387	3,955,176	10,821,277	6,884,784	4,953,851	40,156,224							

TABLE 12 [*continued*]

TABLE 13
Monthly Landings and Shipments of Commercial Fish Into the Los Angeles Area During 1970

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM:													
California waters:													
Fish:													
Barracuda, California	22,259,535	11,363,255	15,177,620	396,188	16,191,045	352,415	174,146	1,395,837	15,277,470	32,153,637	28,988,073	26,015,725	170,745,664
Blacksmith			9,430		3,620	1,757		1,000				30	14,972
Bonefish, Pacific	101,097	246,235	83,650	416,809	327,027	344,807	143,355	355,549	238,650	56,720			1,184,108
Cabazon	---	185											7,948,772
Carp													1,130,687
Croaker, white	55,193	39,449	29,932	30,250	25,424	9,223	16,139	7,220	12,888	30,890	42,157	\$2,059	351,760
Flyingfish	---	---	9,485	27,375	19,620	28,301	23,749	18,404	3,337	1,253			76,366
Haddock	55	56	2,671	2,700	749	631	3,045	3,045	2,450	3,670			135
Halibut, California	340	4,852	5,756	7,074	13,228	22,092	7,404	1,914	1,874	1,257	2,765	1,922	70,508
Lingcod			33										154
Mackerel, jack	1,051,450	257,770	1,400,210	1,364,400	5,481,607	1,826,382	4,136,705	4,178,662	6,071,837	10,232,570	4,761,770	3,082,570	43,846,064
Mackerel, mako	5,148	8,201	4,400	1,000	1,020	12,020	1,983,880	4,521,600	11,373	10,880	15,910		38,038
Opahs	---	1,321		2,337	862	530	4,200	7,919	5,690				20,345
Perch	693	1,607	24,108	1,366	1,074	27,358	181	28,652	1,095	735	1,397	208	88,364
Pompano, Pacific	2,110	7,193	9,654	3,992	4,623	2,436	177	6,134	19,794	19,618	12,859	29,077	117,637
Rockfish	12,187	72,929	77,476	27,852	36,076	38,149	27	2,724	8,378	11,373	21,865	28,566	379,975
Salmon	---	---	---	---	---	18,450	---	152	12	---	---	---	18,450
Salmon	---	---	140				---	---	60	60	250		164
Sardines	385	11,268	13,374	4,02	18,113	93,660	107,145	9,235	7,963	---	2,271	870	267,924
Sauries, Pacific	---	---	8,000		99	93	22	8	13	45	5	1,664	5,000
Seafin	234	321	624	200	31	95	1,781	2,160	3,160	3,555	791	8,180	23,000
Seabass, black	21	75	31	15	15	15	1,781	2,160	3,160	3,555	791	8,180	23,000
Seabass, white	3,705	15,634	---	1,743	5,235	7,036	10,364	103,402	51,146	10,765	10,459	10,520	230,988
Shark	10,519	2,732	1,558	6,386	13,095	18,741	8,751	9,885	5,870	4,095	10,199	5,441	98,932
Sheepshead, California	---	---	247	---	---	33	224	285	105	8	39	19	939
Shorefish	18	---	---	15	355	588	2,039	560	314	2,710	845	288	35
Sole, English	---	---	---	588	2,039	560	314	49	49	---	30,629	288	77,915

TABLE 13
Monthly Landings and Shipments of Commercial Fish Into the Los Angeles Area During 1970

Sole, miscellaneous.....	1,344	---	---	---	221	14,578	216,300	234	10	2,123	244	
Swordfish.....							26,110	160,915	70,234	151,459	41,296	667,580
Tuna, albacore.....							732,708	660,870	2,267,628	544,346	21,412	4,262,074
Tuna, bigeye.....					42	61,063	12,050	62,114	110,125	12,601	---	132
Tuna, yellowfin.....							1,057	1,411	1,805	2,534	3,302	1,349
Whitefish, ocean.....	75	858				6	4	38	34	34		20
Miscellaneous.....	100	---										170
Crustacean:												
Crab, rock.....	27,352	24,181	41,255	26,089	26,396	25,860	31,055	28,938	20,575	20,369	23,092	22,314
Lobster, spiny.....	11,079	12,920	7,357	---	---	---	---	---	---	14,982	19,943	15,271
Mollusk:												
Above.....	71,118	---	43,338	94,012	130,346	96,628	80,055	85,844	85,298	82,852	133,693	112,208
Octopus.....		37										37
Squid.....	2,189,453	1,719,655	1,948,250	104,859	463,125	208,570	731,500	248,450	---	1,499,820	2,866,150	11,985,353
Total pounds.....	25,804,338	13,785,657	18,978,927	2,527,699	22,988,131	3,350,202	6,044,287	10,378,201	24,800,863	45,560,696	36,759,636	33,395,712
Total pounds.....	25,804,338	13,785,657	18,978,927	2,527,699	22,988,131	3,350,202	6,044,287	10,378,201	24,800,863	45,560,696	36,759,636	33,395,712
Waters north of State:												
Fish:												
Tuna, albacore.....										991,524		991,524
Total pounds.....										991,524		991,524
Waters south of State:												
Fish:												
Barracuda, California.....		1,500	400	1,640	---	155,508	14,810	45,797	---	---	4,975	2,040
Bonito, Pacific.....		187	185	---							570	229,570
Grouper.....	5,570		65	---				39	---	20	15	290
Haddock, California.....		151	65	---							85	85
Mackerel, jack.....												
Rockfish.....	14,185	715	6,045	4,315	3,119	1,217	1,745	---	---	3,490		34,548
Salmon.....												
Sea bass, giant.....	12,601	14,057	22,033	9,703	7,789	7,454	1,820	2,833	4,507	2,385	4,432	89,884
Seabream, white.....	38,082	89,406	114,671	122,419	64,153	16,228	20,044	54,683	17,162	21,921	9,021	259,186
Shad.....	5,504	1,506	1,120	300	---					1,050		7,245
Sheepshead, California.....		22	33	---	303	---						388
Swordfish.....								238				238
Tuna, albacore.....								7,667	381,454	6,107	44,038	954
Tuna, bigeye.....								1,271	2,262,564	91,347	90,636	18,325
Tuna, bluefin.....	30,095	---	---	---	62,310	454,196	3,189,230	2,262,564	91,347	90,636	---	6,160,380

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TABLE 13 [continued]

TABLE 13—Continued
Monthly Landings and Shipments of Commercial Fish Into Los Angeles Area During 1970

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Tuna, skipjack.....	419,963	3,902,250	1,586,360	4,940,735	6,678,314	6,591,789	5,855,591	5,561,121	3,039,966	7,474,009	4,086,617	3,996,475	53,741,179
Tuna, yellowfin.....	7,599,104	31,210,082	33,837,626	20,723,554	24,817,617	10,434,632	7,512,403	10,450,294	11,633,927	8,604,197	8,558,609	184,348,245	
White albacore.....	12,721	26,304	12,924	10,167	4,131	6,228	1,635	4,967	7,661	4,366	7,092	18,317	119,413
Total pounds.....	8,135,834	34,847,776	35,581,780	25,832,068	31,637,666	17,071,300	16,603,270	18,773,134	12,421,996	19,274,832	12,730,724	12,287,712	245,788,012
Central Pacific waters:													
Fish:													
Tuna, skipjack.....	63,090	428,830	310,555	27,030	829,504	
Tuna, yellowfin.....	359,170	1,924,815	386,530	165,105	3,421,720	
Total pounds.....	1,022,260	2,353,645	680,185	195,135	4,251,225	
African waters:													
Fish:													
Tuna, skipjack.....	1,047,765	1,047,765	
Tuna, yellowfin.....	800,532	800,532	
Total pounds.....	1,848,317	1,848,317	
SHIPMENTS:^a													
Fish:													
Tuna, albacore.....	1,732,799	3,275,330	1,208,323	1,327,707	1,671,748	748,657	3,542,067	5,574,072	8,948,043	3,708,948	1,844,162	5,047,794	38,818,690
Tuna, bigeye.....	50,215	222,540	407,160	164,990	845,205
Tuna, bluefin.....	826,440	407,160	164,990	49,767	875,197
Tuna, longtail.....	3,710	130,216	487,960	4,666,059	3,133,811	5,124,310	2,388,059	576,960	14,727,078
Tuna, yellowfin.....	3,208,315	3,333,318	3,452,104	831,167	487,060	2,158,808	5,553,932	12,047,354	13,226,341	15,860,905	7,159,580	3,762,856	1,098,059
Total pounds.....	4,082,039	6,608,688	4,690,427	2,358,874	2,158,808	5,553,932	12,047,354	13,226,341	15,860,905	7,159,580	3,762,856	8,423,225	86,832,699
Grand total.....	38,922,201	55,242,101	59,251,134	30,708,841	56,794,805	26,576,434	34,694,911	43,399,936	53,063,364	75,340,287	53,933,401	56,150,101	584,086,116

* For origin of shipments refer to Table 6. Beginning in 1965 only tuna shipments are recorded.

TABLE 13 [continued]

TABLE 14
Monthly Landings and Shipments of Commercial Fish Into the San Diego Area During 1970

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM:													
California waters:													
Fish:													
Abalone, California.....	1,222	1,181	190	324	1,932	3,648	896	63	6,963
Blacksmith.....	981	332	1,313
Bonito, Pacific.....	481	18	118	594	720	36,125	77,887	3,447	2,856	1,870	2,738	133,217	1,222
Conefish, white.....	670	733	712	316	70	220	78	144	410	863	605	4,821
Flounder.....	5	35	127	167
Flyingfish.....	101	1,255	8,221	7,745	2,265	1,251	195	2,265
Halibut, California.....	1,222	1,181	3,099	1,456	1,415	614	477	675	380	790	2,749	624	22,327
Herring, Pacific.....	1,184	8,414	22	43	793	350	427	162	16,747
Lungcod.....	38	12	35	14	13	7	69	8	68	97	121	44	553
Mackerel, jack.....	310	677	605
Mackerel, mako.....	80	390	31	797	987	347	347	37	2,473
Opahs.....	300	22	43	793	350	427	162	2,097
Perch.....	502	604	263	2,860	2,998	19	546	360	10,049
Rockfish.....	10,901	26,094	31,055	33,761	45,360	18,768	16,557	4,485	11,431	14,478	10,538	15,308	238,956
Sabrefish.....	282	768	1,041
Sardines.....	6,600	32,100	59,150	15,000	15	23,580	28,250	5,800	174,395
Seafin.....	590	6,318	836	3,532	6,443	6,281	10,164	3,399	1,644	12,551	9,041	13,441	74,426
Sealip.....	50	97	78	151	111	212	490	122	3,082
Seabass, white.....	944	3,708	772	266	2,904	4,352	6,808	47,490	30,000	3,862	7,101	23,888	132,099
Shark.....	1,152	1,849	3,490	4,074	10,051	13,929	28,003	15,773	4,153	7,601	6,195	11,195	107,465
Sheepshead, California.....	102	245	126	272	271	108	108	12	36	47	530	66	2,020
Sole, black.....	70
Sole, miscellaneous.....	2	4	133	115	15	8	20	62	45	404
Swordfish.....	22,655	25,053	2,779	36,103	45,753	4,882	137,212
Tuna, albacore.....	12,260	232,099	121,560	141,796	79,461	6,514	563,715
Tuna, bluefin.....	193	151	151	151	151	151	4,219
Tuna, yellowfin.....	2,402	2,573	7,050	736	7	13,668
Yellowtail, California.....	18	618	174	747	971	1,058	72	3,272
Miscellaneous.....	78	140	1,974	1,345	310	7,273	7,566	6,054	3,223	4,390	32,353
	15	18

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TABLE 14
Monthly Landings and Shipments of Commercial Fish Into the San Diego Area During 1970

TABLE 14—Continued
Monthly Landings and Shipments of Commercial Fish Into the San Diego Area During 1970

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Crustacean:													
Crab, rock.....	971	5,639	31	291	126	---	---	---	120	308	2,391	1,599	11,476
Lobster, spiny.....	4,825	4,334	2,455	---	---	---	---	---	---	25,640	13,533	9,040	59,857
Mollusk:													
Octopus.....	48,977	---	24,755	28,111	44,322	36,401	68,300	36,537	58,062	37,332	47,166	50,166	479,093
Squid.....	---	---	---	---	---	---	---	---	---	55	132	65	197
Total pounds.....	81,762	52,907	101,904	133,675	146,508	106,709	213,082	470,274	274,168	301,812	239,857	144,266	2,275,554
Waters north of State:													
Fish:													
Tuna, albacore.....	---	---	---	---	---	---	---	---	---	482,649	---	---	482,649
Total pounds.....	---	---	---	---	---	---	---	---	---	482,649	---	---	482,649
Waters south of State:													
Fish:													
Baracuda, California.....	---	---	---	---	---	---	100	---	---	40	---	40	100
Blacksmith.....	---	---	---	160	---	300	72,985	12,461	48	189	500	50,460	160,460
Bonito.....	---	---	---	---	---	---	---	---	---	---	---	---	---
Grouper.....	1,572	---	---	---	---	---	---	---	---	---	---	1,572	---
Halibut.....	---	---	---	---	---	---	---	---	---	65	---	65	4
Halibut, California.....	37	---	57	15	147	450	181	---	---	---	---	---	256
Mackerel, Pacific.....	---	---	---	100	---	300	450	---	---	---	---	---	611
Perch.....	---	---	---	---	300	---	---	---	---	---	---	---	400
Rockfish.....	296	3,467	2,487	---	205	3,156	2,677	70	---	246	380	248	13,262
Salmon.....	---	---	---	---	---	138	---	---	---	---	---	---	138
Solefish.....	288	89	6	---	7,767	13,448	19,188	20,900	11,048	---	---	---	73,648
Sea bass, giant.....	8,140	5,772	---	---	5,054	7,198	1,125	1,125	1,125	---	---	---	23,717
Seabass, white.....	8,512	17,473	10,272	312	8,074	10,977	809	---	2,497	5,103	3,727	522	85,978
Shad.....	1,460	1,094	7,264	4,833	4,771	4,771	100	100	100	369	389	---	1,716
Swordfish.....	---	---	---	---	1,569	---	3,795	180	10,319	---	---	---	16,397
Tuna, albacore.....	---	---	---	---	---	---	15,520	1,432,216	180,058	265,360	177,155	---	2,071,218
Tuna, bluefin.....	---	---	---	---	---	---	---	---	---	82,848	---	---	2,232,702
Tuna, skipjack.....	302,907	746,555	296,217	1,031,457	2,057,981	1,428,003	1,014,999	1,903,943	1,631,692	4,157,814	1,624,544	1,646,357	17,913,149
Tuna, yellowfin.....	1,683,577	11,453,133	8,052,235	8,349,618	8,050,618	1,466,810	1,241,813	844,693	1,631,396	1,262,780	641,370	283,570	40,534,621
Wahoo.....	---	---	---	---	650	---	---	---	---	65	---	---	650

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TABLE 14 [continued]

Whitefish, ocean.....	480	8,465	783	77	1,632	261	---	390	---	146	---	---	241
Yellowtail, California.....	---	---	---	---	---	235	---	105	---	---	---	---	8,535
Miscellaneous.....	---	---	---	---	---	---	---	---	---	---	---	---	340
Total pounds.....	2,092,233	12,617,869	8,384,937	7,386,589	8,166,774	3,102,398	4,233,517	4,948,351	2,890,942	5,774,781	2,528,889	1,353,943	63,481,002
African waters:													
Fish.....	---	---	---	---	---	---	---	---	---	756,660	1,081,755	731,277	2,569,692
Tuna, skipjack.....	---	---	---	---	---	---	---	---	---	581,173	856,995	999,599	2,437,740
Tuna, yellowfin.....	---	---	---	---	---	---	---	---	---	---	---	---	---
Total pounds.....	---	---	---	---	---	---	---	---	---	1,337,933	1,958,753	1,730,846	5,007,432
SHIPMENTS:^a													
Fish.....	---	---	---	---	---	---	---	---	---	27,761	4,360,753	1,955,162	1,955,162
Tuna, albacore.....	581,436	---	82,438	59,308	---	1,381,116	1,110,140	1,118,554	---	---	---	---	---
Tuna, skipjack.....	---	---	11,025	---	---	377,555	377,555	1,565,682	40,118	---	25,961	2,951,204	2,951,204
Tuna, yellowfin.....	272,551	173,941	1,121,408	---	---	356,355	60,000	---	---	---	---	---	---
Total pounds.....	853,957	173,941	1,217,771	59,308	---	1,736,371	1,547,695	2,684,236	40,118	---	53,722	8,367,119	8,367,119
Grand total.....	2,173,995	13,524,733	8,660,782	8,737,935	8,372,590	3,208,995	6,162,970	8,975,320	5,819,246	7,837,193	4,707,220	3,312,777	79,613,756

* For origin of shipments refer to Table 6. Beginning in 1965 only tuna shipments are recorded.

TABLE 14 [continued]

TABLE 15
Value of Landings and Shipments of Commercial Fish Into California by Area, 1970

Species	Eureka	San Francisco*	Monterey	Santa Barbara	Los Angeles	San Diego	Total
LANDINGS:							
Fish:							
Anchovy.....	217,720	1,907,500	19,614,260	170,745,594	192,485,074	
	\$21,772	\$33,391	\$224,597	\$1,877,424	\$2,157,184	
Barracuda, California.....	572	17,013	7,003	24,588	
	\$166	\$4,737	\$2,023	\$6,926	
Blackfish, Sacramento.....	412,430	412,430	
	\$123,275	\$123,275	
Blacksmith.....	1,184,106	1,413	1,185,519	
	\$39,830	\$181	\$40,011	
Bonito, Pacific.....	274	1,636	73,449	636,379	8,178,275	302,291	9,192,304
	\$32	\$165	\$3,820	\$41,653	\$584,008	\$21,677	\$651,356
Cabezon.....	12	183	7,436	2,902	165	10,698
	\$18	\$406	\$173	\$16	\$613
Carp.....	385,845	185	385,830	
	\$26,918	\$26,918	
Croaker, white.....	6,574	197,916	3,800	351,760	4,821	564,871	
	\$883	\$10,651	\$204	\$32,283	\$540	\$44,561	
Flounder.....	102,294	128,048	36,884	10,421	187	277,814
	\$5,741	\$8,948	\$2,938	\$942	\$26	\$18,595
Flounder, arrowtooth.....	3,655	2,465	6,120	
	\$222	\$107	\$329	
Flyingfish.....	76,366	2,265	78,631	
	\$11,262	\$367	\$11,620	
Greenling, kelp.....	10	125	11	146	
	\$7	\$7	
Grouper.....	5,570	1,572	7,142	
	\$1,393	\$393	\$1,786	
Hake, Pacific.....	19	5,400	2,875	1,481	9,775
	\$108	\$57	\$30	\$195
Halfmoon.....	14,771	23,838	38,609	
	\$3,170	\$5,331	\$8,501	
Halibut, California.....	219	81,598	10,430	77,396	70,798	17,003	257,444
	\$110	\$22,154	\$3,099	\$30,938	\$27,934	\$6,978	\$91,213
Herring, Pacific.....	29,340	286,818	10	315,968
	\$9,049	\$27,702	\$1	\$36,752
Lingcod.....	917,570	336,456	179,258	96,906	657	552	1,531,399
	\$87,762	\$27,286	\$14,929	\$8,523	\$113	\$78	\$138,691
Mackerel, jack.....	1,597	514,682	3,383,416	43,846,149	695	47,746,509
	\$81	\$23,970	\$128,899	\$1,728,106	\$32	\$1,881,088
Mackerel, Pacific.....	797	618,038	3,064	621,919
	\$43	\$49,090	\$424	\$49,557
Opaleye.....	20,355	2,087	22,452
	\$3,132	\$401	\$3,533
Perch.....	65,414	41,857	12,435	22,590	88,364	10,749	241,409
	\$13,584	\$14,056	\$2,440	\$6,634	\$4,424	\$1,847	\$42,985
Pompano, Pacific.....	9,809	3,922	117,837	131,368
	\$4,744	\$600	\$36,018	\$41,362
Rockfish.....	3,917,022	770,413	2,875,230	2,457,155	414,806	252,218	10,686,844
	\$241,586	\$56,833	\$224,269	\$171,390	\$81,530	\$45,926	\$824,534
Sablefish.....	2,859,167	347,762	1,220,107	1,041	4,428,077
	\$217,872	\$18,499	\$82,768	\$111	\$319,250

TABLE 15
Value of Landings and Shipments of Commercial Fish Into California by Area, 1970

TABLE 15—Continued
Value of Landings and Shipments of Commercial Fish Into California by Area, 1970

Species	Eureka	San Francisco*	Monterey	Santa Barbara	Los Angeles	San Diego	Total
Salema.....	---	---	---	---	16,450 \$493	---	16,450 \$493
Salmon.....	3,947,351 \$2,892,007	1,912,462 \$1,549,096	542,978 \$473,786	208,567 \$186,150	164 \$114	---	6,611,522 \$5,101,153
Sanddab.....	370,031 \$40,649	195,760 \$20,324	110,607 \$8,943	1,519 \$194	450 \$102	138 \$69	678,505 \$70,281
Sardine.....	---	---	---	---	267,924 \$57,705	174,395 \$43,596	442,319 \$101,301
Sargo.....	---	---	---	---	548 \$98	---	548 \$98
Saury, Pacific.....	---	---	20,300 \$427	---	8,000 \$400	---	28,300 \$827
Sculpin.....	---	---	---	---	1,664 \$668	153,297 \$45,770	154,961 \$46,438
Sea bass, giant.....	---	---	---	678 \$102	98,064 \$22,223	30,799 \$7,380	129,541 \$29,685
Seabass, white.....	---	---	11,998 \$4,391	51,316 \$19,245	820,054 \$286,889	218,077 \$75,639	1,101,445 \$386,164
Shark.....	648 \$44	46,882 \$2,128	24,902 \$1,435	109,738 \$12,973	104,207 \$14,849	133,941 \$21,891	420,318 \$53,320
Sheephead, California.....	---	---	---	498 \$48	1,227 \$118	2,080 \$261	3,805 \$427
Skate.....	54,444 \$1	17,227 \$230	29,642 \$592	1,634 \$128	35 \$3	---	102,982 \$954
Smelt.....	396,487 \$33,458	77,347 \$9,364	9,822 \$1,177	---	77,915 \$4,062	---	561,551 \$48,061
Smelt, whitebait.....	218,501 \$26,828	31,312 \$4,220	---	---	---	---	249,813 \$31,048
Sole, Dover.....	13,979,118 \$1,148,086	1,108,603 \$80,484	42,430 \$2,583	30,735 \$1,844	---	---	15,160,886 \$1,232,997
Sole, English.....	1,650,299 \$168,979	876,784 \$87,765	364,066 \$34,300	391,033 \$32,642	64 \$12	70 \$10	3,282,316 \$323,708
Sole, petrale.....	1,967,424 \$309,128	911,477 \$137,651	265,544 \$42,515	271,263 \$41,423	---	---	3,415,708 \$531,015
Sole, rex.....	1,366,413 \$150,676	232,931 \$25,652	78,920 \$6,515	63,215 \$6,659	---	---	1,741,479 \$189,802
Sole, sand.....	53,499 \$5,903	114,328 \$14,153	10,850 \$1,358	14,814 \$1,757	---	---	193,291 \$23,171
Sole, miscellaneous.....	3 ---	520 \$57	11,776 \$1,294	6,804 \$703	244 \$37	404 \$116	19,751 \$2,207
Swordfish.....	---	---	997	122,321	667,815 \$384,458	153,612 \$84,833	944,745 \$534,046
Tuna, albacore.....	7,067,951 \$1,787,074	4,310,700 \$1,113,208	4,508,626 \$1,174,224	5,203,044 \$1,362,116	5,693,816 \$1,568,385	3,147,577 \$840,624	29,931,714 \$7,845,629
Tuna, bigeye.....	---	---	---	---	18,460 \$3,407	---	18,460 \$3,407
Tuna, bluefin.....	---	---	---	19	6,418,355 \$1,200,022	2,238,921 \$395,762	8,655,295 \$1,595,791
Tuna, skipjack.....	---	---	---	1,505	55,982,620 \$8,793,770	20,498,509 \$3,289,329	78,480,634 \$12,083,309
Tuna, yellowfin.....	---	---	---	---	188,682,403 \$34,150,388	43,274,235 \$7,736,816	231,956,638 \$41,887,204

TABLE 15 [continued]

TABLE 15—Continued
Value of Landings and Shipments of Commercial Fish Into California by Area, 1970

Species	Eureka	San Francisco*	Monterey	Santa Barbara	Los Angeles	San Diego	Total
LANDINGS:—Continued							
Fish:—continued							
Turbot.....	1,937 \$177	8,738 \$444	----	17,392 \$1,223	----	----	28,067 \$1,844
Wahoo.....	----	----	----	----	----	650 \$65	650
Whitefish, ocean.....	----	----	----	----	586 \$51	1,192 \$183	1,778 \$234
Yellowtail, California.....	----	----	----	70 \$10	143,265 \$20,329	40,888 \$4,459	184,223 \$24,798
Miscellaneous.....	1,461 \$60	438 \$11	45 \$1	256 \$18	170 \$55	355 \$88	2,723 \$233
Miscellaneous (animal food).....	527,854 \$10,558	27,035 \$540	1,350 \$20	501,172 \$10,019	----	----	1,057,411 \$21,137
Crustacean:							
Crab, market.....	14,545,562 \$3,644,924	885,820 \$299,668	1,275 \$533	1,132 \$566	----	----	15,413,589 \$3,945,691
Crab, rock.....	1,701	----	1,414 \$71	207,512 \$16,999	317,476 \$41,574	11,476 \$1,078	539,579 \$59,722
Crab, spider.....	----	----	----	1,032 \$52	----	----	1,032 \$52
Crayfish.....	106,714 \$41,850	----	----	----	----	----	106,714 \$41,850
Lobster, spiny.....	----	----	----	85,920 \$104,925	79,622 \$93,471	58,857 \$69,924	225,399 \$268,320
Prawn, spot.....	----	----	11,821 \$11,098	10,638 \$5,332	----	----	22,259 \$16,430
Shrimp, bay.....	2,276 \$1,084	----	----	----	----	----	2,276 \$1,084
Shrimp, ocean.....	3,682,125 \$515,498	298,769 \$41,851	----	66,695 \$9,850	----	----	4,047,589 \$567,199
Mollusk:							
Abalone.....	----	30,668 \$12,149	----	1,375,132 \$470,471	1,015,920 \$331,060	479,093 \$133,836	2,900,813 \$947,516
Mussell.....	----	----	735 \$16	----	----	----	735 \$16
Octopus.....	1,676 \$34	1,407 \$63	751 \$98	----	37 \$13	55 \$11	3,926 \$219
Oyster, eastern.....	----	16,745 \$49,230	----	----	----	----	16,745 \$49,230
Oyster, giant Pacific.....	663,455 \$597,109	219,297 \$197,368	----	219,887 \$197,988	----	----	1,102,739 \$992,465
Squid.....	----	----	8,627,115 \$346,527	4,878,300 \$70,561	11,085,253 \$249,584	197 \$20	24,590,865 \$666,602
Miscellaneous mollusk.....	----	----	----	475 \$5,529	----	----	475 \$5,529
Total pounds.....	58,363,576	14,183,162	22,012,488	40,156,224	497,253,417	71,246,637	703,215,504
Total value.....	\$11,898,100	\$4,018,740	\$2,548,293	\$3,238,693	\$51,708,811	\$12,841,076	\$86,253,713

TABLE 15 [continued]

TABLE 15—Continued
Value of Landings and Shipments of Commercial Fish Into California by Area, 1970

Species	Eureka	San Francisco*	Monterey	Santa Barbara	Los Angeles	San Diego	Total
SHIPMENTS:†							
Fish:							
Tuna, albacore.....	----	----	----	38,819,680 \$15,039,821	4,360,753 \$1,388,669	43,180,443 \$14,428,490	
Tuna, bigeye.....	----	----	----	845,205 \$193,516	-----	845,205 \$193,516	
Tuna, bluefin.....	----	----	----	876,197 \$207,625	-----	876,197 \$207,625	
Tuna, skipjack.....	----	----	----	18,482,108 \$3,395,815	1,955,162 \$389,280	20,437,270 \$3,785,095	
Tuna, yellowfin.....	----	----	----	27,809,499 \$8,036,580	2,051,204 \$474,757	29,860,703 \$5,511,337	
Total pounds.....	-----	-----	-----	86,832,699 \$24,873,357	8,367,118 \$2,252,706	95,199,818 \$27,126,063	
GRAND TOTAL POUNDS	58,383,576	14,183,162	22,012,488	40,156,224	584,086,116	79,613,756	798,415,322
GRAND TOTAL VALUE	\$11,898,100	\$4,018,740	\$2,545,293	\$3,253,693	\$76,582,168	\$15,093,782	113,370,776

* Includes Sacramento area landings.

† For origin of shipments refer to Table 6. Beginning in 1965 only tuna shipments are recorded.

TABLE 15 [continued]

TABLE 16
Value of Landings by Port, Eureka Area, 1970

	Pounds	Value
EUREKA		
Market crab.....	6,892,868	\$1,727,261
Salmon.....	1,692,601	1,255,187
Albacore.....	4,784,464	1,209,713
Dover sole.....	8,363,247	686,862
Giant Pacific oyster.....	663,455	597,109
Ocean shrimp.....	1,039,418	145,519
Petrale sole.....	796,235	125,106
Rockfish.....	1,982,723	118,960
Sablefish.....	1,371,608	104,518
Rex sole.....	770,119	84,922
English sole.....	743,164	76,095
Sanddab.....	246,123	27,037
Smelt.....	289,990	23,925
Lingcod.....	189,132	18,090
Whitebait smelt.....	115,075	14,129
Miscellaneous (animal food).....	522,214	10,445
Perch.....	39,010	7,999
Sand sole.....	21,041	2,321
Flounder.....	37,244	2,090
All other species.....	61,490	397
Port totals.....	30,621,221	\$6,237,685
Crescent City		
Market crab.....	6,061,228	\$1,518,863
Salmon.....	848,871	580,841
Ocean shrimp.....	2,642,707	369,979
Dover sole.....	2,576,726	211,623
Albacore.....	257,075	64,999
Petrale sole.....	365,067	57,360
English sole.....	506,620	51,874
Rockfish.....	752,345	47,040
Rex sole.....	347,051	38,270
Lingcod.....	267,111	25,548
Sablefish.....	272,227	20,744
Whitebait smelt.....	78,726	9,666
Sanddab.....	75,116	8,252
Perch.....	26,011	5,503
Sand sole.....	31,960	3,527
Flounder.....	54,455	3,056
Smelt.....	34,650	2,938
All other species.....	7,306	194
Port totals.....	15,205,252	\$3,020,277
Fort Bragg		
Salmon.....	1,118,655	\$847,676
Albacore.....	2,026,412	512,362
Market crab.....	1,076,039	269,641
Dover sole.....	3,039,145	249,601
Petrale sole.....	806,122	126,660
Sablefish.....	1,215,332	92,610
Rockfish.....	1,181,954	75,886
Lingcod.....	461,274	44,119
English sole.....	400,515	41,074
Rex sole.....	249,243	27,484
Smelt.....	65,937	5,951
Sanddab.....	48,792	5,360
Whitebait smelt.....	24,700	3,033
All other species.....	14,389	934
Port totals.....	11,728,509	\$2,302,027
Trinidad		
Market crab.....	515,427	\$129,159
Salmon.....	108,351	76,260
All other species.....	19	2
Port totals.....	623,797	\$205,421

TABLE 16
Value of Landings by Port, Eureka Area, 1970

TABLE 16—Continued
Value of Landings by Port, Eureka Area, 1970

	Pounds	Value
Aibion		
Salmon.....	109,667	\$81,723
Port totals.....	109,667	\$81,723
Point Arena		
Salmon.....	63,936	\$46,188
Port totals.....	63,936	\$46,188
All other ports		
Salmon.....	5,270	\$4,132
All other species.....	5,924	\$647
Totals.....	11,194	\$4,779
EUREKA AREA TOTALS.....	58,363,576	\$11,898,100

TABLE 16 [*continued*]

TABLE 17
Value of Landings by Port, San Francisco Area, 1970 *

	Pounds	Value
Bodega Bay		
Salmon.....	811,821	\$651,881
Albacore.....	419,885	108,432
Market crab.....	203,366	70,403
English sole.....	476,693	47,716
Ocean shrimp.....	298,769	41,851
Petrale sole.....	166,457	25,138
Dover sole.....	222,149	16,128
Rex sole.....	101,226	11,148
Rockfish.....	128,206	10,201
Smelt.....	71,963	8,592
Lingcod.....	105,186	8,530
Sanddab.....	58,440	6,067
Sablefish.....	52,857	2,812
Whitebait smelt.....	19,550	2,635
Flounder.....	34,892	2,438
All other species.....	20,068	1,503
Port totals.....	3,191,528	\$1,015,475
San Francisco		
Salmon.....	249,527	\$203,889
Market crab.....	427,601	148,031
Petrale sole.....	737,575	111,389
Dover sole.....	838,635	62,336
Rockfish.....	618,056	44,776
English sole.....	396,336	39,673
California halibut.....	71,120	19,309
Lingcod.....	226,058	18,333
Sablefish.....	283,260	15,068
Rex sole.....	129,755	14,289
Sanddab.....	135,987	14,119
Albacore.....	54,653	14,088
Sand sole.....	112,863	13,972
Pacific herring.....	21,915	6,759
Flounder.....	92,284	6,449
Abalone.....	8,979	3,560
Shark.....	42,440	1,922
Perch.....	5,539	1,849
All other species.....	56,585	2,135
Port totals.....	4,529,068	\$741,946
Sausalito		
Albacore.....	1,639,037	\$423,269
Salmon.....	239,118	194,148
Anchovy.....	217,720	21,772
Market crab.....	49,565	17,159
All other species.....	7,717	1,701
Port totals.....	2,153,157	\$658,049
Oakland		
Albacore.....	2,197,191	\$567,408
Salmon.....	85,827	69,672
Dover sole.....	27,819	2,020
All other species.....	11,543	816
Port totals.....	2,322,380	\$639,916
Point Reyes		
Salmon.....	245,944	\$200,508
Giant Pacific oyster.....	193,160	173,844
Market crab.....	103,714	35,905
All other species.....	1,129	100
Port totals.....	543,947	\$410,357
Princeton		
Salmon.....	273,863	\$223,816
Market crab.....	76,358	26,434
Abalone.....	21,689	8,589
California halibut.....	9,374	2,545
Whitebait smelt.....	11,062	1,491

TABLE 17
Value of Landings by Port, San Francisco Area, 1970

TABLE 17—Continued
Value of Landings by Port, San Francisco Area, 1970 *

	Pounds	Value
Princeton—Continued		
Rockfish.....	17,987	\$1,457
Petrale sole.....	7,445	1,124
All other species.....	20,274	1,849
Port totals.....	438,052	\$267,305
Clear Lake		
Blackfish, Sacramento.....	412,430	\$123,275
Carp.....	385,641	26,918
All other species.....	4	---
Port totals.....	798,075	\$150,193
Tomales Bay		
Eastern oyster.....	16,667	\$49,001
Giant Pacific oyster.....	25,975	23,378
Pacific herring.....	5,308	1,637
Perch.....	3,695	1,201
All other species.....	4,477	570
Port totals.....	56,122	\$75,787
Richmond		
Perch.....	18,031	\$6,084
All other species.....	3,847	1,566
Port totals.....	21,878	\$7,650
Berkeley		
Salmon.....	5,538	\$4,523
Perch.....	3,284	1,144
All other species.....	2,034	647
Port totals.....	10,856	\$6,314
All other ports		
Crayfish.....	106,714	\$41,850
Perch.....	6,008	2,064
Market crab.....	4,750	1,644
All other species.....	627	190
Totals.....	118,099	\$45,748
SAN FRANCISCO AREA TOTALS	14,183,162	\$4,018,740

* Includes Sacramento area landings.

TABLE 17 [*continued*]

TABLE 18
Value of Landings by Port, Monterey Area, 1970

	Pounds	Value
Moss Landing		
Albacore.....	3,681,371	\$958,774
Salmon.....	362,950	316,668
Anchovy.....	1,783,750	31,225
Pacific herring.....	264,168	25,332
Squid.....	625,875	25,440
Petrale sole.....	67,739	10,922
Jack mackerel.....	221,650	10,323
Rockfish.....	90,756	9,180
English sole.....	75,788	7,140
Sanddab.....	55,102	4,455
Sablefish.....	46,285	3,140
White croaker.....	56,461	3,038
Flounder.....	30,754	2,449
Pacific bonito.....	44,452	2,312
Lingcod.....	17,653	1,470
California halibut.....	4,606	1,369
Sand sole.....	10,550	1,355
Rex sole.....	14,985	1,292
All other species.....	38,373	4,135
Port totals.....	7,493,548	\$1,419,922
Monterey		
Squid.....	8,001,240	\$321,387
Albacore.....	819,137	213,336
Rockfish.....	2,768,204	213,228
Sablefish.....	1,173,822	79,628
Salmon.....	84,667	73,892
Petrale sole.....	197,805	31,903
English sole.....	288,175	27,150
Jack mackerel.....	291,740	13,888
Lingcod.....	144,983	12,075
Spot prawn.....	11,621	11,098
White croaker.....	138,507	7,454
Rex sole.....	63,955	5,523
Sanddab.....	55,461	4,484
Anchovy.....	123,750	2,166
Pacific herring.....	22,350	2,160
Perch.....	10,358	2,032
Dover sole.....	28,905	1,780
Pacific bonito.....	24,612	1,580
California halibut.....	4,198	1,247
Miscellaneous sole.....	10,591	1,163
All other species.....	62,483	3,001
Port totals.....	14,326,564	\$1,029,545
Santa Cruz		
Salmon.....	95,361	\$83,226
White seabass.....	11,891	4,352
Pacific pompano.....	6,893	3,334
Albacore.....	8,118	2,114
Rockfish.....	16,270	1,861
Lingcod.....	16,622	1,384
All other species.....	37,221	2,855
Port totals.....	192,376	\$98,826
MONTEREY AREA TOTALS.....	22,012,488	\$2,548,293

TABLE 18
Value of Landings by Port, Monterey Area, 1970

TABLE 19
Value of Landings by Port, Santa Barbara Area, 1970

	Pounds	Value
Morro Bay		
Albacore.....	4,555,863	\$1,192,689
Giant Pacific oyster.....	219,987	197,988
Rockfish.....	1,406,927	97,654
Salmon.....	69,975	63,223
Abalone.....	163,681	56,749
Petrale sole.....	99,731	15,229
California halibut.....	20,784	8,308
Spiny lobster.....	5,362	6,548
Lingcod.....	74,400	6,544
Perch.....	19,351	5,720
Miscellaneous mollusk.....	475	5,529
Rock crab.....	59,072	4,839
English sole.....	45,740	3,818
Rex sole.....	15,320	1,614
White seabass.....	3,800	1,425
All other species.....	74,479	4,689
Port totals.....	6,834,947	\$1,672,566
Santa Barbara		
Abalone.....	1,043,683	\$356,084
Spiny lobster.....	47,599	58,127
Swordfish.....	91,673	48,082
Rockfish.....	545,349	37,478
English sole.....	269,118	22,465
Pacific bonito.....	216,504	14,171
White seabass.....	32,866	12,326
Rock crab.....	135,228	11,078
California halibut.....	24,734	9,887
Shark.....	82,238	9,812
Miscellaneous (animal food).....	351,022	7,017
Petrale sole.....	44,096	6,734
Spot prawn.....	14,574	5,309
Salmon.....	4,794	4,318
Rex sole.....	26,715	2,814
Albacore.....	9,159	2,398
All other species.....	12,396	999
Port totals.....	2,947,748	\$609,090
Port Hueneme		
Anchovy.....	19,475,160	\$223,004
Jack mackerel.....	3,383,123	128,888
Squid.....	4,878,300	70,561
Pacific bonito.....	368,774	24,138
Abalone.....	24,834	8,466
Swordfish.....	16,017	8,401
California halibut.....	17,219	6,883
Spiny lobster.....	2,286	2,792
Turbot.....	17,375	1,222
All other species.....	13,287	1,404
Port totals.....	28,196,375	\$475,759
Avila		
Albacore.....	635,649	\$166,408
Salmon.....	133,743	118,560
Abalone.....	121,105	41,990
Rockfish.....	496,466	34,689
Petrale sole.....	125,498	19,164
Ocean shrimp.....	66,695	9,850
English sole.....	74,345	6,206
White seabass.....	14,204	5,327
California halibut.....	7,757	3,101
Rex sole.....	21,180	2,231

TABLE 19
Value of Landings by Port, Santa Barbara Area, 1970

TABLE 19—Continued
Value of Landings by Port, Santa Barbara Area, 1970

	Pounds	Value
Avila—Continued		
Miscellaneous (animal food).....	108,850	\$2,176
Lingcod.....	20,093	1,767
Sand sole.....	14,619	1,746
Pacific bonito.....	22,417	1,467
Dover sole.....	21,463	1,288
Rock crab.....	12,202	1,000
All other species.....	29,490	3,800
Port totals.....	1,925,676	\$420,770
Oxnard		
Spiny lobster.....	30,418	\$37,146
Swordfish.....	12,519	6,566
Abalone.....	15,677	5,118
California halibut.....	6,439	2,574
Anchovy.....	139,100	1,593
Pacific bonito.....	15,894	1,040
All other species.....	9,852	1,604
Port totals.....	229,899	\$55,641
Ventura		
Abalone.....	6,152	\$2,064
Rockfish.....	4,152	1,002
All other species.....	874	501
Port totals.....	11,178	\$3,567
All other ports		
Shark.....	9,811	\$1,140
All other species.....	590	160
Totals.....	10,401	\$1,300
SANTA BARBARA AREA TOTALS.....	40,156,224	\$3,238,693

TABLE 19 [continued]

TABLE 20
Value of Landings and Shipments by Port, Los Angeles Area, 1970

	Pounds	Value
Terminal Island		
Landings:		
Yellowfin tuna.....	187,921,774	\$34,012,719
Skipjack tuna.....	55,598,118	8,733,372
Anchovy.....	166,657,500	1,832,473
Albacore.....	5,615,884	1,546,917
Jack mackerel.....	37,854,255	1,491,948
Bluefin tuna.....	5,862,064	1,096,182
Pacific bonito.....	6,015,688	429,578
Squid.....	2,209,733	49,752
Blacksmith.....	147,080	4,947
Bigeye tuna.....	18,460	3,407
Pacific mackerel.....	33,250	2,641
Total landings.....	467,934,706	\$49,203,936
Shipments:		
Albacore.....	38,819,690	\$13,039,821
Yellowfin tuna.....	27,809,474	8,036,573
Skipjack tuna.....	18,482,108	3,395,815
Bluefin tuna.....	876,197	207,625
Bigeye tuna.....	845,205	193,516
Total shipments.....	86,832,674	\$24,873,350
Port totals.....	554,767,380	\$74,077,286
San Pedro		
Landings:		
Abalone.....	1,007,241	\$328,191
White seabass.....	795,197	278,193
Swordfish.....	357,674	205,911
Squid.....	8,875,520	199,832
Pacific bonito.....	1,697,234	142,622
Yellowfin tuna.....	760,083	137,570
Jack mackerel.....	2,858,487	113,661
Bluefin tuna.....	358,358	103,834
Rockfish.....	372,583	73,150
Skipjack tuna.....	353,980	60,318
Sardine.....	267,924	57,705
Pacific mackerel.....	584,788	46,449
Pacific pompano.....	116,920	35,798
Spiny lobster.....	29,947	35,156
White croaker.....	344,213	31,521
Rock crab.....	230,051	30,125
California halibut.....	70,798	27,934
Giant sea bass.....	96,114	21,781
California yellowtail.....	138,869	19,705
Shark.....	100,861	14,369
Albacore.....	49,572	13,655
Anchovy.....	1,062,791	11,688
Blacksmith.....	354,398	11,248
Flyingfish.....	73,491	10,838
Perch.....	86,553	4,336
California barracuda.....	14,676	4,086
Smelt.....	73,915	3,895
Halfmoon.....	14,771	3,170
Opaleye.....	20,355	3,132
Grouper.....	5,570	1,393
All other species.....	30,085	2,156
Total landings.....	21,710,019	\$2,032,418
Shipments:		
All other species.....	25	\$7
Total shipments.....	25	\$7
Port totals.....	21,710,044	\$2,032,425

TABLE 20
Value of Landings and Shipments by Port, Los Angeles Area, 1970

TABLE 20—Continued
Value of Landings and Shipments by Port, Los Angeles Area, 1970

	Pounds	Value
Wilmington		
Landings:		
Jack mackerel.....	3,133,342	\$123,494
Anchovy.....	2,841,426	31,243
Blacksmith.....	702,628	23,635
Pacific bonito.....	156,600	11,183
All other species.....	4,000	167
Port totals.....	6,837,996	\$189,722
Newport Beach		
Landings:		
Swordfish.....	235,049	\$135,317
Spiny lobster.....	7,277	8,543
Albacore.....	23,023	6,342
White seabass.....	13,913	4,867
Rockfish.....	10,761	2,387
All other species.....	13,439	2,083
Port totals.....	303,462	\$150,539
Long Beach		
Landings:		
Spiny lobster.....	28,585	\$33,557
Rockfish.....	19,317	4,183
Rock crab.....	22,468	2,942
Anchovy.....	183,877	2,022
Swordfish.....	2,646	1,523
All other species.....	16,676	2,656
Port totals.....	273,569	\$46,883
Santa Monica		
Landings:		
Swordfish.....	26,042	\$14,992
Spiny lobster.....	8,437	9,905
White seabass.....	9,752	3,412
Albacore.....	4,232	1,166
All other species.....	10,413	1,260
Port totals.....	58,876	\$30,735
Avalon		
Landings:		
Swordfish.....	39,217	\$22,577
Abalone.....	4,328	1,429
All other species.....	3,190	532
Port totals.....	46,735	\$24,538
Redondo Beach		
Landings:		
Rock crab.....	63,143	\$8,269
Swordfish.....	7,187	4,138
Spiny lobster.....	2,060	2,418
All other species.....	7,923	1,582
Port totals.....	80,313	\$16,407
All other ports		
Landings:		
Spiny lobster.....	3,316	\$3,392
All other species.....	4,425	741
Totals.....	7,741	\$4,633
LOS ANGELES AREA TOTALS.....	584,086,116	\$76,582,168

* Beginning in 1965 only tuna shipments are recorded.

TABLE 20 [*continued*]

TABLE 21
Value of Landings and Shipments by Port, San Diego Area, 1970

	Pounds	Value
San Diego		
Landings:		
Yellowfin tuna.....	43,274,120	\$7,736,795
Skipjack tuna.....	20,496,609	3,289,329
Albacore.....	3,147,146	840,509
Bluefin tuna.....	2,236,921	395,762
Abaalone.....	477,403	133,452
Swordfish.....	152,585	84,265
White seabass.....	212,479	73,697
Spiny lobster.....	51,370	60,010
Sculpin.....	153,058	45,899
Rockfish.....	231,191	44,825
Sardine.....	174,395	43,596
Pacific bonito.....	287,732	20,633
Shark.....	80,927	13,199
Giant sea bass.....	30,429	7,272
California halibut.....	13,028	5,347
Halfmoon.....	19,733	4,413
California yellowtail.....	36,700	4,000
California barracuda.....	6,028	1,741
Perch.....	9,754	1,676
All other species.....	25,151	3,374
Total landings.....	71,116,659	\$12,809,597
Shipments:		
Albacore.....	4,360,753	\$1,388,669
Yellowfin tuna.....	2,051,204	474,757
Skipjack tuna.....	1,955,162	389,280
Total shipments.....	8,367,119	\$2,252,706
Port totals:		
Oceanside		
Landings:		
Shark.....	52,750	\$8,648
Rockfish.....	20,848	4,066
Spiny lobster.....	3,039	3,550
White seabass.....	5,359	1,859
California halibut.....	3,975	1,631
All other species.....	35,528	4,970
Port totals.....	121,499	\$24,724
Cardiff		
Landings:		
Spiny lobster.....	4,520	\$5,280
All other species.....	3,031	391
Port totals.....	7,551	\$5,671
All other ports		
Landings:		
Spiny lobster.....	928	\$1,084
Totals.....	928	\$1,084
SAN DIEGO AREA TOTALS:	79,613,756	\$15,093,782

* Beginning in 1965 only tuna shipments are recorded.

TABLE 21
Value of Landings and Shipments by Port, San Diego Area, 1970

TABLE 22
Statewide Commercial Partyboat Catch by Species
(Not including anchored barges)
1961-1970 *

Species	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	FISH BULLETIN 1971
Barracuda, California.....	301,684	335,507	483,609	302,070	445,304	882,697	470,480	372,240	388,518	371,801	
Bass, kelp and sand.....	613,604	789,149	1,219,344	1,103,394	1,230,313	1,278,539	1,003,914	1,317,983	1,246,178	922,269	
Bonito, Pacific.....	849,426	798,725	775,719	1,298,804	806,522	644,415	349,952	1,102,936	1,130,241	651,898	
Codfish, Pacific.....	100,459	95,459	102,459	102,459	102,459	102,459	102,459	102,459	102,459	95,372	
Halibut, California.....	108,011	118,966	125,669	141,465	118,213	88,723	63,582	54,653	27,654	29,968	
Lingcod.....	23,466	25,309	27,513	25,263	31,260	44,676	43,559	42,449	32,603	61,832	
Mackerel, jack.....	28,891	9,029	9,342	6,577	25,619	19,027	16,236	13,588	11,272	15,725	
Mackerel, Pacific.....	118,588	118,588	146,460	102,459	151,369	208,369	160,369	76,923	100,058	129,770	
Rockfish.....	898,641	956,438	968,669	968,501	1,002,600	1,082,718	1,894,037	2,102,569	2,082,392	1,978,014	
Salmon.....	42,965	57,611	72,457	62,023	51,677	70,151	84,946	127,584	111,389	98,301	
Solefish.....	26,672	33,314	53,800	73,844	71,858	69,851	63,280	59,863	63,011	82,522	
Seabass, white.....	18,822	18,800	14,901	9,775	3,972	3,885	4,138	4,054	4,259		
Seabream, California.....	15,210	15,485	15,485	15,485	15,485	15,485	15,485	15,485	15,485	15,485	
Tuna, albacore.....	184,891	229,314	158,372	122,358	99,771	74,680	95,497	129,710	48,587	112,106	
Tuna, bluefin.....	2,388	2,453	737	698	92	1,998	3,166	1,231	1,470	1,833	
Whitefish, ocean.....	6,647	6,157	6,231	6,949	18,810	15,587	15,184	22,155	36,474	40,990	
Yellowtail, California.....	67,587	92,275	48,635	36,115	118,981	88,361	31,587	55,587	79,276	97,276	
All others.....	87,581	92,776	142,630	114,460	163,595	166,470	142,073	205,410	421,327	298,375	
Total number of fish.....	3,463,633	3,855,993	4,278,502	4,434,178	4,634,558	5,406,420	4,444,104	5,731,201	5,725,575	5,630,375	
Number of angler days†.....	495,905	595,966	643,155	606,445	688,103	857,000	782,102	840,854	802,811	875,327	
Number of anglers.....	593,916	595,966	643,155	606,445	688,103	857,000	782,102	840,854	802,811	875,327	

* See Fish Bulletin No. 121 for historical records 1936-1961.

† Not available after 1961.

TABLE 22
Statewide Commercial Partyboat Catch by Species (Not including anchored barges) 1961-1970

TABLE 23
Inshore Bait Landings by Area
Pounds and Value
1970

Species	Sacramento	San Francisco and Monterey	Los Angeles	San Diego	Statewide*
Clam					
Freshwater.....	756,100	---	---	---	756,100
Gaper.....	\$67,855	665	---	---	\$67,855
Jackknife.....	---	166	41,622	17,104	58,726
Pencil.....	---	---	\$25,804	\$9,397	\$35,001
Purple.....	---	---	2,622	11,893	14,515
Unclassified.....	---	---	\$1,269	\$5,873	\$7,142
	---	---	---	---	11
	---	---	---	---	\$25
Crab					
Sand.....	---	---	8,904	---	8,904
Shore.....	---	---	\$22,614	---	\$22,614
	---	---	---	---	30
	---	---	---	---	\$445
Crayfish.....	---	---	---	---	336
Mudsucker, longjaw.....	---	---	---	---	\$1,719
Mussel (bay and rock).....	---	---	91,615	5,773	97,388
Perch, shiner.....	---	---	\$11,877	\$718	\$12,595
Sculpin, staghorn.....	658	747	---	---	5
	\$2,127	\$2,782	---	---	\$10
Shrimp					
Bay.....	46,743	16,742	---	---	63,485
Brine.....	\$50,713	\$23,065	---	---	\$73,778
Ghost.....	---	---	7,229	1,982	172,383
Red.....	---	\$210	\$29,635	\$7,550	\$37,395
	---	---	4,215	---	4,215
	---	---	\$7,630	---	\$7,630
Total.....	803,501	18,164	156,207	36,752	1,201,434
	\$120,695	\$26,223	\$98,629	\$23,538	\$459,354

* Some figures are reported statewide only to avoid revealing the business of an individual in an area.

TABLE 23
Inshore Bait Landings by Area Pounds and Value 1970

TABLE 24
Recorded Catch of Live Bait for Saltwater Sportfishing 1966–1970

Species	Thousands of pounds*				
	1966	1967	1968	1969	1970
Anchovy.....	13,382	10,774	14,353	10,627	12,210
Mackerel, jack.....	25	---	158	103	---
Mackerel, Pacific.....	---	---	1	8	---
Sardine, adult.....	54	1	57	34	---
Sardine, juvenile.....	T	T	23	9	6
Squid.....	T	---	57	---	4
Miscellaneous†.....	84	22	14,648	10,781	12,220
Total pounds.....	13,545	10,797	14,648	10,781	12,220
Number of vessels†.....	18	16	19	10	11

* Weights are estimated from voluntary records. They should be regarded as minimal because some fishermen do not supply catch information.

T Less than 500 pounds.

† Consists primarily of queenfish and white croaker.

‡ The number of live bait fishing vessels for which landings were reported. These numbers differ slightly from those in previous catch bulletins, since the earlier landing records, as submitted, sometimes included the catch of more than one boat.

TABLE 24
Recorded Catch of Live Bait for Saltwater Sportfishing 1966–1970

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APPENDIX A

TABLE I
California Commercial Troll Salmon Landings by Port-Area, Month and Species, in Pounds¹ and Numbers—1970

	April		May		June		July		August		September		Season	
	Pounds	Numbers	Pounds	Numbers	Pounds	Numbers	Pounds	Numbers	Pounds	Numbers	Pounds	Numbers	Pounds	Numbers
Crescent City														
King.....	5,268	684	17,235	2,171	245,341	31,969	49,151	4,519	69,016	8,219	7,020	818	393,051	46,180
Silver.....	0	0	1,772	0	279,400	42,512	126,501	16,370	47,188	5,023	1,089	127	452,862	64,663
Pink.....	0	0	0	0	0	0	0	0	12	3	0	0	12	3
Eureka														
King.....	79,676	10,876	440,331	56,766	280,716	28,249	269,637	28,007	246,418	24,757	48,283	5,221	1,385,061	154,495
Silver.....	148	24	13,882	2,310	153,400	23,501	176,532	21,307	88,908	9,189	2,753	324	432,958	58,586
Pink.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fort Bragg														
King.....	15,368	2,020	95,687	11,022	319,286	28,050	273,122	21,348	280,924	21,642	57,541	4,152	1,041,058	89,143
Silver.....	0	0	5,658	931	93,688	14,234	136,294	16,655	16,458	1,726	3,654	424	255,476	34,000
Pink.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0
San Francisco														
King.....	85,368	10,102	397,306	39,768	483,747	44,930	341,982	30,079	214,985	10,663	221,390	18,558	1,744,778	183,097
Silver.....	149	25	4,617	770	107,786	16,331	44,787	5,545	9,124	1,155	136	167,618	23,698	
Pink.....	0	0	0	0	66	17	0	0	0	0	0	0	66	17
Monterey														
King.....	43,812	4,752	193,258	17,819	130,333	11,321	181,498	14,034	137,106	10,725	36,636	5,061	724,646	83,732
Silver.....	22	4	2,113	352	19,807	2,990	3,545	442	1,285	140	181	19	26,933	3,947
Pink.....	0	0	0	0	130	35	0	0	0	0	0	0	130	32
Statewide														
King.....	229,572	28,434	1,145,817	128,466	1,459,423	144,538	1,117,300	98,887	948,452	83,006	370,949	33,827	5,269,494	515,645
Silver.....	317	53	27,971	4,662	654,465	99,888	457,499	60,306	182,883	16,977	8,705	1,030	1,341,820	182,895
Pink.....	0	0	0	0	196	49	0	0	12	3	0	208	0	52

¹ Dressed, head on.

FISHERIES INFORMATION

TABLE I

California Commercial Troll Salmon Landings by Port-Area, Month and Species, in Pounds and Numbers—1970

APPENDIX A

TABLE II
California Ocean Recreational Salmon Landings and Success^a by Fishery, Port, Month and Species, in Numbers of Fish—1970

	February			March			April			May			June			July			NAME FISH CATCH PORT
	King	Silver	Fish /Day	King	Silver	Fish /Day	King	Silver	Fish /Day	King	Silver	Fish /Day	King	Silver	Fish /Day	King	Silver	Fish /Day	
Crescent City																			
Partyboat.....	0	0	—	0	0	—	0	0	—	0	0	—	0	0	—	0	0	—	
Skiff.....	0	0	—	0	0	—	0	0	—	0	0	—	52	191	0.5	165	149	0.2	
Eureka																			
Partyboat.....	0	0	—	0	0	—	64	0	0	166	0	0	401	140	1.2	814	556	0.9	
Skiff.....	0	0	—	0	0	—	0	0	—	246	0	0	4,968	528	0.5	11,288	3,605	1.0	
Fort Bragg																			
Partyboat.....	0	0	—	0	0	—	0	0	—	287	317	0.8	617	427	0.5	626	978	0.3	
Skiff.....	0	0	—	0	0	—	0	0	—	125	42	0.2	125	42	0.2	125	42	0.2	
San Francisco																			
Partyboat.....	5,401	0	1.3	7,038	0	1.0	6,066	24	1.0	8,020	895	1.2	10,283	1,978	1.9	14,753	300	1.1	
Skiff.....	616	0	1.4	1,002	0	1.1	709	0	0.4	1,044	116	0.5	1,300	161	0.5	1,846	38	0.5	
Monterey																			
Partyboat.....	74	0	b	60	0	b	199	1	b	188	21	b	358	69	b	200	4	b	
Skiff.....	160	0	0.3	725	0	0.3	889	0	0.4	1,061	29	0.5	2,358	518	0.3	2,422	172	0.3	
Seaside																			
Partyboat.....	5,475	0	1.3	7,098	0	1.0	6,329	25	1.0	8,620	916	1.2	11,329	2,504	1.6	16,384	1,287	1.0	
Skiff.....	776	0	0.8	1,727	0	0.5	1,578	9	0.4	2,105	142	0.5	8,803	1,440	0.4	16,347	4,842	0.6	

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TABLE II
California Ocean Recreational Salmon Landings and Success by Fishery, Port, Month and Species, in Numbers of Fish—1970

	August			September			October			November			December			Season		
	King	Silver	Fish /Day	King	Silver	Fish /Day	King	Silver	Fish /Day	King	Silver	Fish /Day	King	Silver	Fish /Day	King	Silver	Fish /Day
Crescent City	8	3	*	0	0	*	0	0	*	0	0	*	0	0	*	8	3	*
Partyboat.....	622	884	0.7	0	0	*	0	0	*	0	0	*	0	0	*	539	1,224	0.5
Skipf.....																		
Eureka	1,324	474	1.2	213	0	0.2	52	0	0	*	0	0	*	0	0	3,034	1,170	0.9
Partyboat.....	11,924	1,667	1.0	1,310	137	0.7	0	0	*	0	0	*	0	0	*	29,490	5,837	0.9
Skipf.....																		
Fort Bragg	676	35	0.4	242	22	0.2	2	0	*	0	0	*	0	0	*	2,070	801	0.4
Partyboat.....	470	105	0.2	0	8	0.3	0	0	*	0	0	*	0	0	*	1,221	1,133	0.2
Skipf.....																		
San Francisco	16,705	73	1.5	12,106	4	0.9	5,151	0	0.6	797	0	0.3	0	0	*	86,498	3,274	1.1
Partyboat.....	1,900	6	1.0	1,475	0	0.5	758	0	0.6	152	0	0.3	0	0	*	10,802	321	0.6
Skipf.....																		
Monterey	214	1	b	29	0	b	22	0	b	2	0	b	1	0	b	1,347	55	b
Partyboat.....	2,800	24	0.4	935	5	0.2	1,128	0	b	210	0	0.3	0	0	*	12,491	756	0.3
Skipf.....																		
Statewide	19,017	586	1.3	12,680	26	0.8	5,227	0	0.6	799	0	0.3	1	0	b	92,057	5,344	1.0
Partyboat.....	17,516	2,685	0.7	3,743	150	0.4	1,886	0	0.6	362	0	0.3	0	0	*	54,843	9,271	0.5
Skipf.....																		

^a Salmon per angler-day, species combined. * No sampling. ^b Data not comparable to that of other ports or months.

△82615—800 11-71 3,500

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TABLE II—Cont'd.