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**STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF FISH AND GAME
FISH BULLETIN 153
The California Marine Fish Catch For 1969**



by
Leo Pinkas
1970



FIGURE 1

(2)

FIGURE 1

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FOREWORD

Catch bulletins provide records of the amounts and values of various living marine resources taken by California's commercial fisheries, and summarize the 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 national and international significance, and are used by fisheries scientists, legislators, educators, members of the fishing industry, and others interested in the State's fisheries.

This report for 1969 is the 29th in the series of catch bulletins. The first, published in 1929, contained the records of the 1926 and 1927 commercial fish catches.

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 personnel of the Marine Fisheries Statistics Unit who process the many documents necessary for its publication. Special acknowledgment is given to the wardens along the coast and the clerks in the field offices whose efforts insure the completeness of the records. We appreciate as well the cooperation of the many wholesale fish dealers and canners.

Our sincere thanks to John E. Fitch for his counsel on some of the questionable elements in the list of common and scientific names of fishes, crustaceans and mollusks.

1. EXPLANATION OF TABLES

The tables in this bulletin summarize the statistics of the various fishery operations in California during 1969. 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 shows the species composition of the salmon catch for 1969.

The statistics presented in this publication do not encompass all of the fishing activities in the State since not all of these activities are reported. For example: sportfishing from private boats or from shore is not reported, nor is the importation of fish for use in a fresh state. 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 1969 figures are contained in circular No. 44, "Statistical Report of Fresh, Canned, Cured and Manufactured Fishery Products for 1969" (Carlisle, 1970).

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 weight of each species and the 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.) are also required. In addition, the specific area where the fish were caught and the type of gear used are usually reported.

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

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

Clerical personnel at field offices at 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 to insure correctness and coded to facilitate processing. The data are then punched into cards and summarized with electric tabulating machines.

1.2. STATISTICAL AREAS

The State 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 the species reported in 1969 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 the 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 the 1969 animal-food category are as follows:

<i>Species</i>	<i>Percent</i>	<i>Pounds</i>
Sablefish	36.2	872,993
Arrowtooth flounder	19.5	470,259
Rockfish	11.6	279,744
Dover sole	9.7	233,923
Hake	8.5	204,984
Rex sole	5.6	135,049
English sole	4.9	118,168
Thirty-one other species	4.0	96,463
	100.0	2,411,583

Salmon catches 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 the species composition of the catches and to obtain estimates of the unreported catch from skiffs. The sampling methods and results for 1952 through 1965 were detailed by Jensen and Swartzell (1967); since 1966 results have been presented annually in the catch bulletin. Appendix A details the salmon catch for 1969.

1.4. CONDITION

Most fish and shellfish are landed in a round condition; however, some species, such as 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 the 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. The packed weight is estimated to be 15.5 percent of the live weight for Pacific oysters and 10.9 percent for eastern oysters.

Landings reported in measurements other than weight are equated to pounds using conversion factors determined by periodic sampling. The factors used in 1969 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 the fishermen. The area value figures are ascertained by summing the value of all the individual landings in that area. The value for an individual port within an area is calculated from the 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 Catch Bulletin since 1963. Conversion factors used for inshore bait for 1969 were as follows:

Crab, sand	.041 pound per dozen
	4.5 pounds per gallon
Crab, shore	.013 pound per dozen
Mudsucker	.465 pound per dozen
Mussel	80 pounds per sack
Sculpin, staghorn	.465 pound per dozen
Shrimp, ghost	0.82 pound per dozen

1.7. REFERENCES

Carlisle, John G. 1970. Statistical report of fresh canned, cured and manufactured fishery products for 1969. Calif. Fish and Game, Circular, (44) : 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.

2. TABLES

TABLE 1
Common and Scientific Names of Fishes, Crustaceans, and Mollusks in the 1969 Catch

Common name	Scientific name	Common name	Scientific name
FISHES			
Anchovy	<i>Engraulis mordax</i>	Sculpin	<i>Scorpaena guttata</i>
Barracuda, California	<i>Sphyraena argentea</i>	Sculpin, Pacific staghorn	<i>Leptocottus armatus</i>
Bass, rock		Sea bass, giant	<i>Stereolepis gigas</i>
Kelp bass	<i>Paralabrax clathratus</i>	Seabass, white	<i>Cynoscion nobilis</i>
Sand bass	<i>Paralabrax nebulifer</i>	Shark	
Spotted sand bass	<i>Paralabrax maculatofasciatus</i>	Basking	<i>Cetorhinus maximus</i>
Blacksmith	<i>Chromis punctipinnis</i>	Blue	<i>Prionace glauca</i>
Bonito, Pacific	<i>Sarda chilensis</i>	Bonito	<i>Isurus oxyrinchus</i>
Cabezon	<i>Scorpaenichthys marmoratus</i>	Leopard	<i>Triakis semifasciata</i>
Cabrilla, spotted	<i>Epinephelus analogus</i>	Pacific angel	<i>Squatina californica</i>
Carp	<i>Cyprinus carpio</i>	Soupfin	<i>Galeorhinus zyopterus</i>
Croaker		Spiny dogfish	<i>Squalus acanthias</i>
White	<i>Genyonemus lineatus</i>	Thresher	<i>Alopius vulpinus</i>
Queenfish	<i>Seriophas politus</i>	Miscellaneous	Various species
Dolphinfish	<i>Coryphaena hippurus</i>	Sheephead, California	<i>Pinnacodon pulchrum</i>
Eel		Skate	
California moray	<i>Gymnothorax mordax</i>	Bat ray	<i>Myliobatis californica</i>
Wolf	<i>Anarrichthys ocellatus</i>	Big skate	<i>Raja binoculata</i>
Flounder		California skate	<i>Raja inornata</i>
Arrowtooth	<i>Atheresthes stomias</i>	Longnose skate	<i>Raja rhina</i>
Starry	<i>Platichthys stellatus</i>	Shovelnose guitarfish	<i>Rhinobatos productus</i>
Miscellaneous	Various species	Miscellaneous	Various species
Flyingfish	<i>Cypselurus</i> spp.	Smelt	
Greenling, kelp	<i>Hexagrammos decagrammus</i>	Jacksmelt	<i>Atherinopsis californiensis</i>
Groupers	<i>Megaloperca</i> spp.	Night smelt	<i>Spirinchus starki</i>
Hake, Pacific	<i>Merluccius productus</i>	Surf smelt	<i>Hypomesus pretiosus</i>
Halfmoon	<i>Medialuna californiensis</i>	Smelt, whitebait	<i>Allosmerus elongatus</i>
Halibut		Spirinchus starki	<i>Spirinchus starki</i>
California	<i>Paralichthys californicus</i>	Young of several others	
Pacific	<i>Hippoglossus stenolepis</i>	Sole	
Hardhead		Dover	<i>Microstomus pacificus</i>
Sacramento blackfish	<i>Orthodon microlepidotus</i>	English	<i>Parophrys retulus</i>
Hardhead	<i>Mylopharodon conocephalus</i>	Petrale	<i>Bopsetta jordani</i>
Herring, Pacific	<i>Clupea pallasii</i>	Rex	<i>Glyptocephalus zachirus</i>
Hitch	<i>Lavinia exilicauda</i>	Rock	<i>Lepidopsetta bilineata</i>
Lingcod	<i>Ophiodon elongatus</i>	Sand	<i>Pastichthys melanostictus</i>
Mackerel		Scalyfin	<i>Isopsetta isolepis</i>
Jack	<i>Trachurus symmetricus</i>	Miscellaneous	Various species
Pacific	<i>Scomber japonicus</i>	Swordfish	<i>Xiphias gladius</i>
Mudsnucker, longjaw	<i>Gillichthys mirabilis</i>	Tuna	
Opalyc	<i>Girella nigricans</i>	Albacore	<i>Thunnus alalunga</i>
Perch	Members of family Embiotocidae	Bigeye	<i>Thunnus obesus</i>
Pompano, Pacific	<i>Peprilus simillimus</i>	Bluefin	<i>Thunnus thynnus</i>
Rockfish	Various species of <i>Sebastes</i> and <i>Sebastes</i>	Skipjack	<i>Katsuwonus pelamis</i>
Sablefish	<i>Anoplopoma fimbria</i>	Yellowfin	<i>Thunnus albacares</i>
King	<i>Oncorhynchus tshawytscha</i>	Turbot	
Pink	<i>Oncorhynchus gorbuscha</i>	Curfin	<i>Pleuronichthys decurrens</i>
Silver	<i>Oncorhynchus kisutch</i>	Diamond	<i>Hypsopsetta guttulata</i>
Sanddab	<i>Citharichthys sordidus</i>	Hornyhead	<i>Pleuronichthys verticalis</i>
Sardine	<i>Sardinops caeruleus</i>	Miscellaneous	Various species
Sargo	<i>Anisotremus davidsoni</i>	Wahoo	<i>Acanthocybium solanderi</i>
CRUSTACEANS			
Crab		Whitefish, ocean	<i>Canalatlatus princeps</i>
Market	<i>Cancer magister</i>	Yellowtail, California	<i>Seriola dorsalis</i>
Rock	<i>Cancer productus</i>		
Sand	<i>Cancer antennarius</i>		
Shore	<i>Cancer anthonyi</i>		
Spider	<i>Emerita analoga</i>		
Crayfish	<i>Hemigrapsus oregonensis</i>		
Lobster, spiny	<i>Pachygrapsus crassipes</i>		
	<i>Loxorhynchus</i> sp.		
	<i>Astacus troybridgei</i>		
	<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</i> spp.
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>
Glam		Giant Pacific	<i>Crassostrea gigas</i>
Freshwater	<i>Corbicula fluminea</i>	Squid	<i>Loligo opalescens</i>
Jackknife	<i>Tagelus californianus</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 1969 Catch

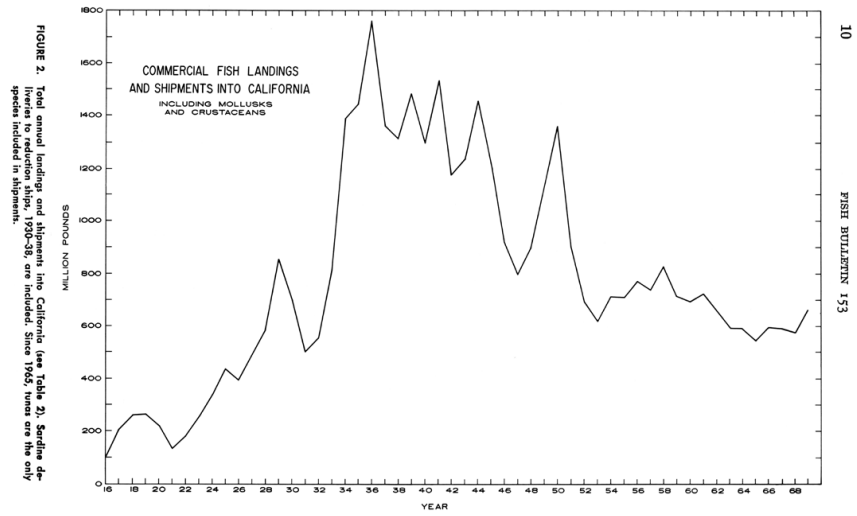


FIGURE 2. Total annual landings and shipments into California (see Table 2). Sardine deliveries to reduction ships, 1930-38, are included. Since 1965, tunas are the only species included in shipments.

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

* 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 *

1968				1969			
Species	Rank	Thousands of pounds	Thousands of dollars	Species	Rank	Thousands of pounds	Thousands of dollars
Yellowfin tuna	1	212,238	\$36,438	Yellowfin tuna	1	240,747	\$40,536
Albacore tuna	2	76,100	18,237	Anchovy	2	135,278	1,353
Skipjack tuna	3	60,674	7,959	Albacore tuna	3	71,055	13,021
Jack mackerel	4	55,868	2,122	Jack mackerel	4	51,921	1,967
Anchovy	5	31,076	284	Skipjack tuna	5	48,680	6,558
Squid	6	24,933	553	Squid	6	20,779	555
Market crab	7	16,016	3,535	Pacific bonito	7	17,202	805
Pacific bonito	8	14,922	620	Bluefin tuna	8	15,607	2,462
Bluefin tuna	9	13,016	1,968	Dover sole	9	12,919	925
Rockfish	10	9,444	668	Rockfish	10	9,227	694
Dover sole	11	8,536	578	Market crab	11	7,939	2,295
Salmon	12	6,952	4,014	Salmon	12	6,151	3,843
English sole	13	5,811	501	Sablefish	13	4,137	310
Abalone	14	4,475	1,124	English sole	14	3,804	334
Sablefish	15	3,219	229	Abalone	15	3,658	1,161
Pacific mackerel	16	3,133	168	Ocean shrimp	16	2,943	413
Petrale sole	17	2,947	389	Petrale sole	17	2,867	414
Miscellaneous (animal food)	18	2,590	52	Miscellaneous (animal food)	18	2,412	48
Ocean shrimp	19	2,275	250	Pacific mackerel	19	2,357	122
Rex sole	20	1,931	163	Rex sole	20	2,259	218
All others		11,288	1,935	All others		10,826	2,402
Totals		567,214	\$81,787	Totals		672,793	\$85,436

* 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*	
	1968-69	1969-70
Eureka.....	2,101	1,977
Sacramento.....	477	508
San Francisco.....	1,633	1,852
Monterey.....	743	910
Santa Barbara.....	915	911
Los Angeles.....	1,969	1,912
San Diego.....	1,613	1,452
Alaska, Washington and Oregon fishermen licensed in California.....	505	414
Mexican nationals licensed in California.....	6	12
Other.....	42	41
Totals.....	10,004	9,989

* 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
1968-69.....	1,677	1,829	1,080	137	25	106	4,854†
1969-70.....	1,703	1,828	1,050	140	20	107	4,848‡

* April 1 to March 31.

† The owners of 492 boats were issued fishing party licenses in 1968-69.

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

TABLE 5
Number of Registered Fishing Boats by Length

TABLE 6
Origin of Shipments Received for Processing in California During 1969 *

Shipped from: Species	Pounds shipped to each area		Total pounds
	Los Angeles	San Diego	
Oregon, Washington, Canada and Alaska:			
Tuna, albacore.....	12,564,798	----	12,564,798
Mexico and Central America:			
Tuna, bluefin.....	372,589	----	372,589
Tuna, skipjack.....	1,042,597	----	1,042,597
Tuna, yellowfin.....	6,341,710	----	6,341,710
South America:			
Tuna, albacore.....	3,277,060	----	3,277,060
Tuna, skipjack.....	1,484,984	----	1,484,984
Tuna, yellowfin.....	228,843	----	228,843
Japan:			
Tuna, albacore.....	16,591,705	1,556,054	18,147,759
Tuna, skipjack.....	20,911	----	20,911
Tuna, yellowfin.....	18,399,713	969,420	19,369,133
China (Formosa):			
Tuna, albacore.....	238,851	14,320	253,171
Tuna, yellowfin.....	942,034	11,250	953,284
Malaya:			
Tuna, albacore.....	3,154,439	401,430	3,555,869
Tuna, yellowfin.....	5,205,430	----	5,205,430
Philippines:			
Tuna, bigeye.....	1,695	----	1,695
Tuna, yellowfin.....	980,053	----	980,053
South Pacific Islands:			
Tuna, albacore.....	8,071,028	1,456,686	9,527,714
Tuna, skipjack.....	217,104	----	217,104
Tuna, yellowfin.....	3,007,297	----	3,007,297
Africa:			
Tuna, Albacore.....	7,906,430	1,100,230	9,006,660
Tuna, yellowfin.....	498,823	----	498,823
Total pounds.....	90,548,094	5,509,390	96,057,484

* Beginning in 1965 only tuna shipments are recorded.

TABLE 6
Origin of Shipments Received for Processing in California During 1969

TABLE 7
Origin of Commercial Fish Landings and Volume of Shipments Into California During 1969

Species	Landings of catches from				Tuna shipments*	Grand total
	California waters	Waters north of State	Waters south of State	Total pounds		
Fish:						
Anchovy.....	135,277,718	----	----	135,277,718	----	135,277,718
Barracuda, California.....	70,833	----	3,760	74,593	----	74,593
Blackfish.....	258,272	----	----	258,272	----	258,272
Blacksmith.....	246,517	----	----	246,517	----	246,517
Bonito, Pacific.....	13,174,505	----	4,027,342	17,201,847	----	17,201,847
Cabezon.....	25,837	----	----	25,837	----	25,837
Cabrilla, spotted.....	----	----	5,755	5,755	----	5,755
Carp.....	298,142	----	----	298,142	----	298,142
Croaker, white.....	525,514	----	----	525,514	----	525,514
Flounder.....	369,830	5,010	----	374,840	----	374,840
Flounder, arrowtooth.....	9,553	433	----	9,986	----	9,986
Flyingfish.....	99,758	----	----	99,758	----	99,758
Greenling, kelp.....	420	----	----	420	----	420
Grouper.....	----	----	255,111	255,111	----	255,111
Hake, Pacific.....	27,047	----	----	27,047	----	27,047
Halfmoon.....	26,813	----	215	27,028	----	27,028
Halibut, California.....	272,331	----	1,946	274,277	----	274,277
Hardhead.....	10,051	----	----	10,051	----	10,051
Herring, Pacific.....	170,532	----	----	170,532	----	170,532
Lingcod.....	1,022,394	91,114	----	1,113,508	----	1,113,508
Mackerel, jack.....	51,921,162	----	----	51,921,162	----	51,921,162
Mackerel, Pacific.....	2,357,194	----	----	2,357,194	----	2,357,194
Opaleye.....	15,849	----	80	15,929	----	15,929
Perch.....	154,899	----	1,629	156,528	----	156,528
Pompano, Pacific.....	216,758	----	200	216,958	----	216,958
Rockfish.....	8,802,529	268,418	156,504	9,227,451	----	9,227,451
Sablefish.....	3,975,704	181,142	----	4,156,846	----	4,156,846
Salmon.....	6,150,589	317	----	6,150,906	----	6,150,906
Sanddab.....	690,167	6,315	----	696,482	----	696,482
Sardine.....	105,273	----	----	105,273	----	105,273
Sculpin.....	74,206	----	41,265	115,471	----	115,471
Sea bass, giant.....	7,684	----	147,077	154,761	----	154,761
Seabass, white.....	250,996	----	847,802	1,098,798	----	1,098,798
Shark.....	452,271	32	25,932	478,235	----	478,235
Sheephead, California.....	12,450	----	835	13,285	----	13,285
Skate.....	106,068	----	----	106,068	----	106,068
Smelt.....	413,461	----	----	413,461	----	413,461
Smelt, whitebait.....	161,449	----	----	161,449	----	161,449
Sole, Dover.....	11,103,154	1,815,828	----	12,918,982	----	12,918,982
Sole, English.....	3,701,026	103,021	----	3,804,047	----	3,804,047
Sole, petrale.....	2,728,932	138,132	----	2,867,064	----	2,867,064
Sole, rex.....	2,142,332	116,833	----	2,259,165	----	2,259,165
Sole, sand.....	202,517	1,247	----	203,764	----	203,764
Sole, miscellaneous.....	17,022	----	78	17,100	----	17,100
Swordfish.....	1,024,518	----	7,065	1,031,583	----	1,031,583
Tuna, albacore.....	11,162,742	3,026,404	533,240	14,722,386	56,333,031	71,055,426
Tuna, bigeye.....	----	----	229,619	229,619	1,695	231,314
Tuna, bluefin.....	798,058	----	14,436,672	15,234,730	372,589	15,607,319
Tuna, skipjack.....	74,160	----	45,840,325	45,914,485	2,765,596	48,680,081
Tuna, yellowfin.....	717	----	204,161,220	204,161,937	36,584,573	240,746,510
Turbot.....	25,033	----	----	25,033	----	25,033
Whitefish, ocean.....	2,413	----	2,077	4,490	----	4,490
Yellowtail, California.....	11,744	----	222,411	234,155	----	234,155
Miscellaneous.....	2,166	----	10	2,176	----	2,176
Miscellaneous (animal food).....	2,072,917	338,666	----	2,411,583	----	2,411,583

TABLE 7
Origin of Commercial Fish Landings and Volume of Shipments Into California During 1969

TABLE 7—Continued
Origin of Commercial Fish Landings and Volume of Shipments Into California During 1969

Species	Landings of catches from				Tuna shipments*	Grand total
	California waters	Waters north of State	Waters south of State	Total pounds		
Crustacean:						
Crab, market.....	7,938,728	268	----	7,938,996	----	7,938,996
Crab, rock.....	504,076	----	----	504,076	----	504,076
Crayfish.....	550	----	----	550	----	550
Lobster, spiny.....	309,472	----	----	309,472	----	309,472
Prawn, spot.....	5,073	----	----	5,073	----	5,073
Shrimp, bay.....	8,041	----	----	8,041	----	8,041
Shrimp, ocean.....	2,947,563	----	----	2,947,563	----	2,947,563
Miscellaneous crustacean.....	36	----	----	36	----	36
Mollusk:						
Abalone.....	3,658,078	----	----	3,658,078	----	3,658,078
Octopus.....	4,443	219	----	4,662	----	4,662
Oyster, eastern.....	16,952	----	----	16,952	----	16,952
Oyster, giant Pacific.....	696,093	----	----	696,093	----	696,093
Squid.....	20,779,382	----	----	20,779,382	----	20,779,382
Miscellaneous mollusk.....	1,655	----	----	1,655	----	1,655
Total pounds.....	299,694,279	6,093,399	270,948,179	576,735,857	96,057,484	672,793,341

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

TABLE 7
Origin of Commercial Fish Landings and Volume of Shipments Into California During 1969

TABLE 8
Monthly Landings and Shipments Into California During 1969

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS:													
Fish:													
Anchovy.....	2,873,470	763,158	3,625,558	16,201,740	8,348,383	73,666	138,480	2,103,487	5,353,561	30,841,865	30,702,740	34,160,601	155,277,718
Barramundi, California.....	1,007	482	3	4,597	27,814	22,330	6,818	812	198	2,158	3,367	41	71,993
Blackfish.....	84,567	48,450	2	2	2	2	2	2	3,150	28,400	21,050	72,653	258,272
Blacksmith.....	1,233,353	278,018	641,010	429,435	815,941	1,498,245	2,987,439	5,218,052	1,340,580	1,320,556	989,628	440,560	17,201,847
Cabezon.....	2,650	568	1,296	131	35	....	339	401	2,883	5,972	8,364	3,159	25,837
Cabrilla, spotted.....	120	170,420	23,927	550	450	....	1,690	3,898	....	....	....	....	187
Calp.....	73,703	76,100	68,965	53,351	20,275	26,922	10,946	8,398	18,071	42,192	45,924	76,707	525,514
Flounder.....	35,368	63,008	83,331	127,766	3,092	13,336	23,048	61,696	28,793	27,927	49,090	11,427	371,860
Flounder, arrowtooth.....	....	750	433	....	1,600	1,130	5,093	500	390	....	....	....	9,886
Flyingfish.....	....	....	....	....	36,860	26,490	31,810	2,592	....	....	....	....	99,758
Greenling, helo.....	130	194	....	25	....	....	....	44	....	....	....	....	420
Groupers.....	17,746	50,107	....	....	....	....	310	49,687	16,446	33,455	26,180	62,152	255,111
Hake, Pacific.....	....	....	....	....	....	46	18,682	20	....	8,169	106	25	27,047
Hallibut.....	1,832	185	1,035	3,078	1,530	2,220	680	2,809	2,246	3,620	2,482	3,162	37,028
Hallibut, California.....	22,284	28,647	39,279	19,971	14,610	15,305	47,720	29,971	13,615	12,703	15,050	15,129	274,277
Hardhead.....	3,350	1,908	2,985	1,010	1,098	....	....	....	....	....	....	....	10,058
Herring, Pacific.....	18,212	9,120	....	11,705	82,700	39,660	9,045	....	....	....	....	....	176,832
Lingcod.....	21,920	21,965	47,373	35,171	95,847	168,497	123,114	175,108	178,744	117,852	109,035	21,982	1,113,508
Mackerel, jack.....	3,701,843	4,018,867	5,339,690	4,268,747	4,800,700	3,949,216	6,584,404	3,378,158	5,675,110	6,982,074	1,696,398	1,469,052	51,921,162
Mackerel, Pacific.....	229,546	37,316	192,148	122,496	305,301	380,454	184,420	298,855	269,950	89,808	249,096	73,729	3,987,194
Opaleye.....	105	....	190	3,463	4,803	659	97	2,204	666	1,942	782	1,088	15,529
Pech.....	11,116	6,222	25,317	32,129	9,980	4,205	9,479	12,540	18,943	11,571	18,901	7,225	159,928
Pompano, Pacific.....	4,711	11,730	39,566	43,399	16,265	25,882	15,610	22,573	19,582	11,971	3,721	2,038	216,558
Rockfish.....	486,072	233,759	1,001,815	805,657	894,027	1,195,731	877,285	616,789	914,690	833,696	866,699	481,231	9,227,451
Salmon.....	355,782	177,245	507,899	333,508	233,732	237,403	172,083	148,969	410,237	678,935	554,397	344,629	4,156,816
Sardines.....	39,663	21,467	69,514	21,901	44,306	66,113	84,696	97,556	115,719	61,094	50,000	21,205	696,482
Sardine.....	2,610	685	10,373	3,329	12,456	31,414	13,168	4,355	3,351	3,326	6,165	10,421	105,277
Sculpin.....	10,651	2,414	1,735	5,952	6,681	22,200	19,570	24,466	6,119	3,652	7,973	1,067	114,471
Sea bass, giant.....	14,344	22,831	11,553	12,917	15,056	2,526	4,119	8,405	14,821	17,298	10,096	15,725	154,761
Sea bass, white.....	61,982	65,040	195,019	142,491	91,926	13,184	33,621	65,498	122,184	129,671	67,658	80,734	1,068,708
Shark.....	21,967	8,687	17,589	30,070	47,056	61,999	62,881	54,720	27,494	44,842	47,500	46,850	478,235
Sheepshead, California.....	936	321	489	1,163	1,267	1,453	3,955	980	140	610	1,057	723	13,285
Skate.....	8,178	11,560	15,720	12,465	12,567	10,701	8,694	6,234	4,300	8,071	4,568	2,850	106,068
Smelt.....	14,116	14,593	10,789	22,816	43,301	25,639	19,800	45,786	76,140	66,600	53,071	17,780	413,461
Smelt, whitebelly.....	125	2,187	25,385	48,384	30,754	33,099	7,278	1,665	307	125	125	125	161,446
Sole, Dover.....	334,047	133,868	731,622	1,348,521	838,154	1,408,283	1,212,667	1,491,183	1,057,763	1,807,077	974,832	620,463	12,018,682
Sole, English.....	357,082	202,849	432,287	348,014	320,977	295,860	219,196	378,300	451,563	383,421	294,255	170,254	3,804,047

FISH BULLETIN 153

TABLE 8
Monthly Landings and Shipments Into California During 1969

MARINE FISH CATCH FOR 1969

Sole, petrale.....	426,355	110,585	310,559	161,486	205,762	244,489	180,811	296,332	274,021	196,485	239,753	220,426	2,867,064
Sole, rex.....	243,452	80,214	318,277	217,419	143,755	177,157	116,689	204,012	292,650	230,824	143,785	90,931	2,259,165
Sole, sand.....	18,482	17,710	20,885	18,480	5,955	17,229	22,585	33,649	20,464	13,213	6,897	6,455	203,764
Sole, miscellaneous.....	1,613	1,132	4,834	881	1,002	209	532	527	1,522	2,245	2,018	1,018	17,100
Swordfish.....	---	4,594	---	854	---	26,236	137,047	258,584	312,326	235,076	55,525	1,341	1,031,583
Tuna, albacore.....	35,011	72,400	99,445	---	---	---	260,796	2,158,278	4,646,736	5,736,370	1,227,750	691,965	14,722,395
Tuna, bigeye.....	22,365	---	---	468,475	169,511	1,955,046	4,084,103	4,106,400	3,565,116	652,868	9,280	229,619	15,234,730
Tuna, bluefin.....	1,548,084	1,085,774	3,612,445	7,173,541	4,622,104	2,753,514	5,718,288	4,246,645	1,784,507	4,820,521	7,188,947	1,890,115	45,914,485
Tuna, skipjack.....	4,594,761	35,191,656	30,236,558	38,061,103	35,378,118	17,371,467	6,145,770	2,160,691	8,241,143	8,568,654	6,448,444	11,763,572	204,161,937
Tuna, yellowfin.....	---	---	---	---	---	---	---	---	---	---	---	---	---
Turbot.....	2,188	1,148	2,272	3,123	2,151	1,243	1,755	6,170	1,356	2,251	262	1,114	25,033
Whitefish, ocean.....	290	1,199	1,378	4,402	10,946	7,283	11,803	7,480	30,403	31,692	30,509	21,762	234,155
Yellowtail, California.....	33,537	33,465	10,873	24	30	38	227	563	436	795	63	63	2,176
Miscellaneous.....	63,787	22,911	114,036	240,816	185,129	392,687	263,155	241,060	289,988	413,943	126,641	57,430	2,411,583
Miscellaneous (animal food).....	---	---	---	---	---	---	---	---	---	---	---	---	---
Crustacean:	---	---	---	---	---	---	---	---	---	---	---	---	---
Crab, market.....	3,991,802	955,351	822,595	324,378	616,721	120,279	13,524	45,451	43,784	49,342	760,578	333,768	7,938,996
Crab, rock.....	42,769	46,580	39,845	20,278	28,330	36,845	40,625	375	175	---	64,057	43,670	504,076
Crayfish.....	---	---	---	---	---	---	---	---	---	---	---	---	550
Lobster.....	48,179	32,266	15,900	---	---	---	---	---	---	85,520	66,140	61,467	309,472
Lobster, spiny.....	1,684	619	92	---	---	---	---	---	---	---	825	1,953	5,073
Prawn, spot.....	---	---	---	---	---	---	---	---	---	---	---	---	---
Shrimp, bay.....	---	---	---	---	---	---	6,645	331	1,065	---	---	---	8,041
Shrimp, ocean.....	---	---	---	---	---	---	600,540	55,245	---	---	---	---	2,947,563
Miscellaneous crustacean.....	---	---	---	---	---	---	---	---	---	---	---	---	36
Mollusk:	---	---	---	---	---	---	---	---	---	---	---	---	---
Abalone.....	376,839	---	202,201	315,237	383,292	420,339	414,269	329,661	365,294	305,939	339,519	205,388	3,658,078
Octopus.....	129	116	606	177	249	756	471	537	387	254	468	512	4,662
Oyster, eastern.....	1,334	1,762	911	2,115	714	1,161	1,487	1,324	1,332	1,100	1,873	1,839	16,952
Oyster, giant Pacific.....	47,309	34,841	47,870	58,349	53,257	40,658	33,091	26,649	36,759	90,772	105,353	121,187	696,093
Squid.....	1,776,693	1,217,580	940,690	669,470	3,278,289	4,410,630	3,091,600	1,849,010	51,690	70,390	1,147,340	2,306,060	20,779,382
Miscellaneous mollusk.....	30	41	30	43	---	---	---	---	---	12	786	610	1,655
Total pounds.....	23,327,005	45,452,562	50,045,537	72,691,447	64,672,486	40,584,459	35,932,855	31,004,205	37,303,606	65,106,186	54,918,583	55,696,926	676,735,887
SHIPMENTS*:	---	---	---	---	---	---	---	---	---	---	---	---	---
Fish:	---	---	---	---	---	---	---	---	---	---	---	---	---
Tuna, albacore.....	1,541,494	1,166,008	3,480,636	1,107,002	2,687,176	4,080,449	5,415,908	13,380,219	7,245,065	5,982,603	8,587,156	1,659,315	56,333,031
Tuna, bigeye.....	1,695	---	---	---	---	---	---	---	---	---	---	---	1,695
Tuna, bluefin.....	1,759,421	206,985	4,220	132,760	84,064	58,136	314,453	9,977	504,914	62,355	---	---	372,589
Tuna, skipjack.....	1,571,970	1,694,088	2,927,077	2,787,098	5,145,503	7,090,314	4,262,558	3,409,445	1,531,152	2,083,725	2,266,084	1,815,520	2,765,596
Tuna, yellowfin.....	---	---	---	---	---	---	---	---	---	---	---	---	36,584,573
Total pounds.....	4,874,580	3,067,081	6,407,713	4,026,860	7,917,643	11,233,119	9,992,919	16,799,641	9,281,161	8,128,683	10,853,240	3,474,844	96,057,454
Grand total.....	28,201,585	46,519,643	56,453,250	76,716,307	72,590,129	51,817,578	45,925,774	47,803,846	46,584,767	73,234,869	65,771,823	59,171,770	672,783,341

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

TABLE 8—Cont'd.

TABLE 9
Monthly Landings of Commercial Fishing Boats in the Eureka Area During 1969

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM:													
California waters:													
Fish:													
Anchovy.....	.....	.....	.....	.....	.....	.....	.....	2,000	1,883	.....	.....	.....	2,000
Bonito, Pacific.....	.....	.....	.....	.....	.....	.....	.....	134	.....	.....	.....	.....	1,985
Cabazon.....	.....	.....	10	34	.....	.....	.....	.....	2	.....	.....	.....	4
Flounder.....	7,147	275	12,645	659	1,764	9,073	.....	34,023	10,635	10,545	35,352	6,075	139,017
Flounder, arrowtooth.....	.....	750	.....	1,000	.....	.....	.....	2,623	.....	.....	.....	.....	4,273
Greenling, kelp.....	.....	.....	.....	.....	.....	.....	.....	44	6	1	.....	.....	51
Halibut, California.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	88
Langost.....	8,722	12,953	26,595	22,225	80,945	98,105	92,000	185,044	118,503	95,470	75,205	.....	8,710
Perch.....	4,879	2,683	7,709	6,515	.....	.....	2,594	4,093	6,176	2,331	2,023	.....	713
Rockfish.....	133,343	65,908	270,302	179,970	224,475	372,855	200,082	207,144	283,082	309,344	281,422	.....	177,862
Salmon.....	220,202	77,086	214,476	257,584	155,833	122,921	86,464	65,066	205,124	409,312	288,647	127,309	2,247,204
Sardine.....	.....	.....	.....	149,812	988,088	864,832	1,194,145	355,226	197,149	.....	.....	.....	3,359,233
Shad.....	11,766	1,287	29,748	9,567	9,453	40,228	39,974	77,391	73,820	25,967	21,477	11,678	353,442
Shack.....	713	112	23	.....	.....	.....	.....	15	81	424	1,220	.....	2,434
Shake.....	.....	.....	.....	4,075	4,722	4,605	2,964	2	10	20	.....	.....	17,295
Smelt.....	.....	72	1,095	4,681	7,411	5,380	12,475	41,203	69,294	6,048	.....	.....	145,269
Snout, whitefish.....	.....	2,907	24,927	44,836	39,284	33,009	6,023	1,280	772	.....	.....	.....	123,448
Sole, Dover.....	334,647	131,438	351,245	970,730	612,638	1,128,708	1,054,959	1,295,865	1,600,130	1,574,170	706,121	848,675	10,458,226
Sole, English.....	82,129	65,384	175,710	187,374	120,096	174,257	86,126	256,977	232,922	204,213	105,321	.....	1,230,220
Sole, petrale.....	407,964	98,644	146,069	74,965	65,379	124,475	80,975	195,143	144,792	132,969	145,237	.....	1,241,663
Sole, rex.....	219,328	65,484	209,135	166,533	95,368	152,632	99,833	186,282	245,146	185,020	91,902	50,837	1,767,200
Sole, sand.....	.....	.....	675	.....	.....	6,739	1,340	18,464	8,128	2,796	2,227	.....	14,645
Sole, Miscellaneous.....	.....	.....	.....	.....	.....	25	5	38	33	.....	.....	.....	101
Tuna, albacore.....	.....	.....	.....	.....	.....	.....	10,672	1,654,993	2,691,219	322,269	6,567	.....	4,684,222
Turbot.....	.....	.....	50	30	.....	.....	143	415	61	145	102	164	1,110
Miscellaneous.....	.....	.....	.....	.....	.....	.....	.....	223	10	110	255	.....	597
Miscellaneous (animal food).....	20,247	7,295	34,731	89,083	101,145	303,202	176,945	210,993	240,294	301,200	82,224	.....	30,405
Crustacean:													
Crab, market.....	3,884,271	896,653	864,515	318,776	611,061	119,833	13,524	.....	.....	.....	.....	14,048	6,661,701
Crab, rock.....	110	320	740	1,260	360	810	4,440
Shrimp, ocean.....	1,031,461	1,260,317	600,540	55,245	2,947,563

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TABLE 9
Monthly Landings of Commercial Fishing Boats in the Eureka Area During 1969

Mollusk:																				
Octopus.....	16,876	66	216	12	114	396	42	414	392	227	129	76,667	1,928							
Oyster, giant Pacific.....	8,798	19,888	24,764	30,284	15,743	8,520	6,128	13,238	59,265	60,526	76,667	300,737								
Total pounds.....	5,361,651	1,441,148	2,334,306	2,525,577	3,761,237	4,839,417	3,836,103	5,037,855	6,142,204	3,729,017	1,990,758	1,233,581	42,202,854							
Waters north of state:																				
Fish:																				
Flounder.....			648	1,700	301	1,106	346		874		355		5,010							
Flounder, arrowtooth.....			483										433							
Langcod.....			2,611	4,668	7,624	19,554	10,551	9,775	35,889	705	1,267		91,114							
Rockfish.....			81,312	26,282	29,798	34,670	11,107	16,072	39,451	18,452	21,786	8,564	308,195							
Sablefish.....			62,610	28,697	7,020	12,035	7,521	2,633	33,671	12,469	9,234	5,228	181,142							
Salmon.....				175	221	288	29						317							
Sanddab.....			1,603	179	331	689	1,662	440	1,274				6,315							
Shark.....													32							
Sole, Dover.....			263,246	349,843	108,639	222,445	95,100	72,318	312,694	215,917	78,760	35,622	1,815,828							
Sole, English.....			12,755	13,194	19,381	17,143	7,510	7,110	25,294	348	316		105,021							
Sole, petrale.....			13,677	9,882	9,777	35,731	13,324	26,007	24,209	4,251	1,254	20	138,132							
Sole, rex.....			29,212	27,210	12,618	9,708	6,087	4,323	17,480	2,175	4,196	3,994	116,833							
Sole, sand.....									1,620		221		1,847							
Miscellaneous (animal food).....			53,100	111,122	37,199	26,980	1,655	1,227	22,741	73,420	11,822		338,666							
Crustacean:																				
Crib, market.....			216		52								288							
Mollusk:																				
Octopus.....				115				80					219							
Total pounds.....			491,123	572,823	282,431	381,450	154,586	140,014	834,853	327,734	129,243	82,738	3,066,995							
Grand total.....	5,361,651	1,441,148	2,825,429	3,098,400	4,043,668	5,220,867	3,990,689	5,177,869	6,877,057	4,056,751	2,090,001	1,286,319	45,269,849							

MARINE FISH CATCH FOR 1969

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TABLE 9—Cont'd.

TABLE 10
Monthly Landings of Commercial Fishing Boats in the San Francisco Area During 1969 *

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM:													
California waters:													
Fish:													
Anchovy.....	.....	.....	.....	1,475	8,264	1,760	20,720	17,080	10,980	22,840	12,880	.....	85,999
Blackfish.....	.....	84,567	45,450	2	.....	.....	.....	.....	2,150	28,490	21,000	72,653	285,372
Bonito, Pacific.....	.....	.....	.....	.....	.....	.....	.....	1,658	7,219	.....	67	.....	8,944
Chickadee.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	37
Carp.....	120	170,420	23,927	850	450	.....	.....	.....	10,700	24,800	15,435	61,750	298,142
Croaker, white.....	4,094	165	1,215	95	440	240	1,015	292	1,073	7,580	1,610	1,625	19,414
Flounder.....	23,347	49,329	26,300	7,375	5,440	416	8,145	22,760	14,397	12,291	7,465	3,065	131,276
Flounder, arrowtooth.....	.....	.....	.....	.....	600	1,130	2,370	890	.....	.....	.....	.....	5,390
Hake, Pacific.....	.....	.....	.....	.....	.....	.....	15,555	.....	.....	7,085	.....	.....	25,640
Hallbut, California.....	9,203	13,973	16,637	6,399	281	744	13,185	8,180	9,007	6,713	3,233	2,710	90,238
Headhead.....	3,350	1,608	2,985	1,010	1,098	.....	.....	.....	.....	.....	.....	.....	10,051
Herring, Pacific.....	18,312	9,120	.....	.....	.....	.....	95	.....	.....	.....	.....	.....	27,427
Langost.....	4,854	8,359	13,342	5,975	31,011	34,674	14,378	6,659	13,722	8,723	20,668	.....	9,113
Prech.....	566	807	3,510	6,625	.....	.....	651	1,449	2,036	2,674	6,308	3,928	105,549
Pompano, Pacific.....	18	.....	.....	.....	.....	.....	.....	.....	.....	65	.....	.....	75
Rockfish.....	33,799	14,796	135,743	24,512	63,193	80,511	27,467	30,499	62,526	53,032	53,564	28,807	608,469
Salmon.....	42	5,068	54,455	9,068	6,479	9,687	7,808	830	7,334	24,420	49,470	32,001	288,232
Sandlab.....	22,965	9,880	18,283	7,630	25,140	8,354	32,923	9,380	22,089	21,707	10,789	7,813	172,027
Seabass, white.....	.....	.....	.....	.....	.....	.....	50	45	.....	.....	.....	.....	149
Shark.....	3,123	1,933	3,426	783	689	8,266	18,803	2,206	4,336	6,551	7,377	2,845	60,118
Shark.....	2,455	6,359	4,007	209	95	.....	600	400	.....	3,900	1,000	1,200	20,707
Smelt.....	233	5,106	9,299	11,848	14,721	16,046	2,748	1,830	3,279	3,538	290	.....	68,726
Snout, whitefish.....	125	380	428	3,528	470	2,060	345	125	125	125	125	125	8,901
Sole, Dover.....	.....	4,430	163,981	27,278	50,751	42,811	46,744	19,392	33,289	16,025	135,496	41,956	582,153
Sole, English.....	200,942	31,670	115,025	70,905	123,390	35,023	68,771	59,784	103,985	94,935	101,900	77,034	1,084,084
Sole, petrale.....	13,145	3,580	75,285	20,595	75,997	39,025	48,908	16,620	40,927	30,183	74,522	88,530	524,057
Sole, rex.....	9,620	3,345	39,660	11,750	18,740	8,515	8,127	5,862	14,129	28,196	26,537	18,008	191,619
Sole, mixed.....	15,570	16,375	18,495	16,949	4,415	5,590	15,998	13,140	9,990	8,735	5,115	3,200	134,460
Sole, miscellaneous.....	.....	.....	.....	320	.....	.....	.....	.....	1,290	1,145	880	.....	3,605
Tuna, albacore.....	.....	.....	.....	.....	.....	.....	.....	498,288	91,651	39,726	.....	.....	704,674
Tuna, skipjack.....	.....	.....	.....	.....	.....	.....	.....	75	.....	.....	.....	.....	75
Turbot.....	2,118	970	1,673	1,833	1,210	1,100	1,755	5,755	1,255	2,106	160	.....	20,291
Miscellaneous.....	.....	.....	.....	.....	.....	.....	.....	653	.....	291	.....	.....	1,467

FISH BULLETIN 153

TABLE 10
Monthly Landings of Commercial Fishing Boats in the San Francisco Area During 1969

Crustaceans:																			
Crab, market.....	107,061	58,072	16,383	5,207	5,558	1,426	-----	-----	-----	-----	-----	-----	-----	700,349	319,421	1,273,537			
Crayfish.....	-----	-----	-----	-----	-----	-----	-----	375	175	-----	-----	-----	-----	-----	-----	500			
Shrimp, NW.....	-----	-----	-----	-----	-----	-----	6,645	331	1,065	-----	-----	-----	-----	-----	-----	8,041			
Albatross.....	1,304	-----	1,400	850	382	1,021	550	12,208	200	2,849	1,265	-----	-----	-----	-----	22,020			
Octopus.....	129	50	390	80	135	400	405	42	35	25	65	-----	-----	-----	58	1,755			
Mollusk:																			
Oyster, eastern.....	1,324	1,762	911	2,115	714	1,161	1,487	1,324	1,322	1,100	1,873	1,839	1,839	16,652					
Oyster, giant Pacific.....	15,453	14,731	17,520	14,507	12,866	17,102	15,762	10,995	22,205	24,094	23,363	21,595	222,544						
Miscellaneous mollusk.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	12	12	25	49						
Grand total.....	495,174	515,396	812,724	414,960	834,471	834,257	888,320	344,630	996,313	535,531	1,384,146	885,071	8,901,993						

* Includes Sacramento area landings.

MARINE FISH CATCH FOR 1969

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TABLE 10—Cont'd.

TABLE 11
Monthly Landings of Commercial Fishing Boats in the Monterey Area During 1969

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM:													
California waters:													
Fish:													
Anchorley.....	.....	.....	.....	421,155	671,906	5,600	9,350	2,059,242	1,188,005	919,100	258,300	.....	5,532,857
Boonie, Pacific.....	.....	.....	.....	.....	.....	.....	.....	7,087	2,607	300	2,688	.....	14,125
Cabezon.....	1,476	872	637	.....	.....	.....	.....	.....	2,011	4,791	5,550	.....	17,909
Croaker, white.....	8,762	18,475	2,948	3,238	1,011	6,869	5,189	3,197	13,898	27,909	21,191	8,691	118,578
Flounder.....	4,862	2,442	7,184	2,982	2,129	2,948	4,820	4,912	3,149	4,790	1,938	.....	42,198
Greenling, hdp.....	130	194	.....	.....	25	.....	.....	.....	.....	.....	.....	.....	20
Hallbut, California.....	3,047	2,212	2,838	1,709	871	671	3,102	3,876	.....	140	2,247	1,602	2,434
Herring, Pacific.....	.....	.....	.....	11,705	82,760	39,699	8,926	.....	.....	.....	.....	.....	143,105
Langool.....	4,882	1,915	3,506	1,120	1,147	3,221	1,775	382	1,825	6,685	10,688	.....	40,164
Mackerel, jack.....	.....	.....	.....	4,300	5,945	66,828	364,109	1,782	4,190	2,000	.....	.....	448,754
Perch.....	829	378	4,744	10,435	285	.....	.....	.....	290	894	563	430	18,890
Pompano, Pacific.....	88	71	89	6,799	9,921	877	3,749	14,375	8,695	2,965	.....	.....	46,833
Rockfish.....	96,863	24,495	271,165	275,316	268,799	292,405	298,694	50,700	144,478	122,370	154,747	48,292	2,055,144
Sablefish.....	135,488	94,691	170,118	39,852	64,329	12,769	69,015	69,300	164,988	238,710	206,910	178,771	1,817,900
Salmon.....	.....	.....	.....	236,770	228,099	132,728	113,735	103,313	10,105	.....	.....	.....	821,740
Sandlab.....	5,820	10,840	20,137	4,825	9,130	16,845	9,757	10,175	18,786	10,320	17,620	4,090	137,705
Sardines, white.....	148	85	194	.....	.....	.....	88	6,134	220	4,728	11,330	6,215	29,117
Shark.....	1,138	2,480	2,328	1,853	2,753	3,752	6,487	7,735	2,696	4,411	12,323	7,088	55,720
Skate.....	5,315	8,348	11,712	2,208	2,245	3,900	8,240	5,832	4,225	4,451	2,968	.....	1,620
Snuff.....	13,738	9,415	305	3,144	1,273	353	1,317	1,358	2,407	2,054	.....	.....	36,354
Sole, Dover.....	.....	.....	2,710	175	4,566	9,250	13,955	4,140	3,525	835	455	.....	39,640
Sole, English.....	14,340	20,960	67,762	47,889	39,890	58,780	53,310	29,295	37,625	37,232	27,950	20,625	485,639
Sole, petrale.....	1,020	6,300	63,100	37,940	24,410	29,320	23,470	16,145	21,064	11,657	13,780	4,880	260,759
Sole, rex.....	3,425	3,850	31,410	4,970	8,025	3,465	1,030	2,390	2,890	6,113	11,289	4,617	53,375
Sole, sand.....	2,520	1,290	1,715	1,395	1,540	4,560	6,350	2,945	1,310	1,821	695	.....	28,927
Sole, smallmouth.....	1,024	427	2,948	823	617	184	20	152	40	870	1,154	453	7,812
Tuna, albacore.....	.....	.....	.....	.....	.....	.....	150	14,001	540,387	252,303	51,221	41,725	900,697
Turbot.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	576

FISH BULLETIN 151

TABLE 11
Monthly Landings of Commercial Fishing Boats in the Monterey Area During 1969

Crustacean:																					
Crab, market.....	427	626	1,481	335	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Crab, rock.....	48	.....	194	42	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Crab, spot.....	1,894	619	92	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Malusk:																					
Alaska.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Olepnas.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Squid.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Grand total.....	306,922	203,847	674,456	1,125,207	3,891,843	4,918,396	4,036,732	4,188,390	2,221,741	1,666,841	827,829	340,283	24,501,389								

MAINE FISH CATCH FOR 1969

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TABLE 11—Cont'd.

TABLE 12
Monthly Landings of Commercial Fishing Boats in the Santa Barbara Area During 1969

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM:													
California waters:													
Fish:													
Anchovy.....	47,600	3,200	3,750	455,825	758,480	23,950	35,400	49,200	933,700	5,260,012	6,070,890	5,588,776	19,861,433
Barramundi, California.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10
Bonito, Pacific.....	28,734	.....	.....	.....	.....	.....	10	.....	11,660	18,680	703,499	131,445	53,781
Californian.....	1,183	326	649	.....	.....	.....	.....	.....	389	297	270	1,851	1,096
Craker, white.....	.....	.....	.....	4,494	.....	.....	.....	.....	.....	.....	.....	.....	114
Flounder.....	202	463	6,054	347	65	.....	.....	.....	.....	48	31	.....	130
Hake, Pacific.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	25
Halibut, California.....	6,667	1,010	2,117	1,350	5,068	7,309	12,960	8,925	1,620	1,084	109	.....	1,307
Lingcod.....	3,982	85	1,496	1,141	4,817	12,353	4,479	3,233	6,105	5,653	1,713	1,045	46,832
Mackerel, jack.....	193,690	.....	233,930	715,330	164,796	311,530	700,320	133,990	94,350	99,500	84,400	51,940	2,303,946
Mackerel, Pacific.....	.....	.....	.....	2,400	1,900	.....	.....	.....	.....	.....	.....	.....	6,800
Opaleye.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Perch.....	2,415	621	3,417	4,666	1,555	.....	.....	2,652	3,325	2,212	1,203	3,955	456
Pompano, Pacific.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	700
Rockfish.....	135,180	47,552	165,761	192,674	231,822	331,864	352,960	177,678	313,733	210,469	266,863	167,218	2,496,714
Sablefish.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Salmon.....	.....	.....	10,481	100,327	56,493	1,275	110	.....	.....	.....	.....	.....	1,385
Sandfish.....	.....	.....	197	.....	340	.....	.....	.....	.....	.....	.....	.....	366
Sculpin.....	.....	.....	278	297	45	.....	.....	.....	.....	.....	.....	.....	908
Sea bass, giant.....	14	.....	.....	.....	303	305	113	77	35	.....	.....	.....	1,077
Seaham, white.....	.....	.....	95	817	344	1,107	4,722	10,326	5,091	12,018	8,190	5,560	48,180
Shark.....	3,159	1,353	1,547	11,354	31,469	32,448	10,521	2,306	3,415	4,215	9,967	7,773	120,525
Sheepshead, California.....	30	137	150	.....	.....	.....	.....	.....	.....	.....	.....	.....	394
Skate.....	405	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	809
Smelt.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	251
Sole, Dover.....	.....	.....	340	466	2,180	3,955	2,800	6,470	6,755	130	.....	.....	23,135
Sole, English.....	59,674	89,335	66,935	28,352	18,410	9,186	9,479	25,134	31,767	46,692	28,767	23,862	430,663
Sole, petrale.....	5,626	1,791	12,428	18,074	39,709	21,028	14,134	41,414	42,729	17,534	4,960	3,560	211,968
Sole, rex.....	11,069	7,563	9,439	6,956	9,104	2,837	1,612	5,455	13,035	9,350	9,010	13,875	100,138
Sole, sand.....	92	45	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	996
Sole, miscellaneous.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Swordfish.....	550	672	1,996	55	65	.....	.....	415	197	32	.....	.....	565
Tuna, albacore.....	.....	.....	.....	.....	.....	.....	1,788	33,699	69,117	35,897	51,516	10,746	202,152
Turbot.....	.....	.....	.....	.....	.....	.....	.....	53,957	39,020	166,136	306,274	308,774	1,198,409
Miscellaneous (animal food).....	34,640	15,615	26,305	39,711	46,785	62,565	85,155	25,840	26,953	89,223	31,855	18,025	485,552

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FISH BULLETIN 153

TABLE 12
Monthly Landings of Commercial Fishing Boats in the Santa Barbara Area During 1969

Crustacean:																					
Crab, market.....	48	.....	.....	.....	.....	80	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	83
Crab, rock.....	24,346	25,033	17,194	1,187	6,303	7,271	5,827	10,063	13,254	24,005	41,448	17,262	195,905								
Lobster, spiny.....	19,675	14,252	5,950	.....	.....	.....	.....	.....	.....	.....	17,181	20,428	21,819	99,255							
Miscellaneous crustacean.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	36	.....							36
Mollusk:																					
Abalone.....	192,915	.....	104,233	142,440	192,692	198,945	139,222	138,216	214,515	184,975	208,612	125,368	1,841,006								
Oyster, giant Pacific.....	11,980	11,352	16,462	8,628	15,185	7,267	8,518	928	1,356	7,443	20,054	25,104	122,492								
Squid.....	857,360	448,495	324,390	154,623	607,700	164,875	18,550	10,800	.....	.....	.....	.....	519,700	3,035,150							
Miscellaneous mollusk.....	30	41	30	43	.....	.....	.....	.....	.....	.....	774	.....	1,800								
Total pounds.....	1,670,777	662,972	1,022,609	1,832,773	2,135,141	1,261,993	1,451,868	787,506	1,930,759	7,203,906	7,872,367	6,772,503	34,614,177								
Waters south of State:																					
Fish:																					
Shark.....	.....	74	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	74								
Swordfish.....	.....	612	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	612								
Total pounds.....	.....	686	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	686								
Grand total.....	1,670,777	663,658	1,022,609	1,832,773	2,135,141	1,261,993	1,451,868	787,506	1,930,759	7,203,906	7,872,367	6,772,503	34,614,863								

MARINE FISH CATCH FOR 1969

TABLE 12—Cont'd.

TABLE 13
Monthly Landings and Shipments of Commercial Fish Into the Los Angeles Area During 1969

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM:													
California waters:													
Fish:													
Albacore.....	2,825,870	759,958	3,618,849	15,288,994	6,910,134	42,256	73,010	65,965	3,221,178	24,639,913	23,700,700	28,570,638	109,777,744
Barramundi.....	.....	.....	.....	1,103	19,010	18,855	5,438	485	166	2,147	8,051	.....	54,986
Blackmouth.....	.....	.....	10,375	4,625	40,321	190,314	49,496	.....	.....	.....	.....	.....	248,517
Bonito, Pacific.....	1,203,065	274,531	641,030	426,277	805,750	471,265	723,868	4,115,026	1,260,804	965,496	849,874	284,970	11,232,896
Croaker, white.....	60,332	60,515	64,770	45,415	24,584	16,150	4,052	4,967	228	6,315	22,987	.....	376,447
Flyingfish.....	.....	.....	.....	.....	36,866	25,490	34,810	2,892	.....	.....	.....	.....	99,758
Halibut.....	46	.....	870	1,820	1,498	493	28	.....	831	3,620	2,163	3,112	14,027
Halibut, California.....	2,826	10,129	16,794	8,221	7,360	2,704	7,940	1,459	.....	75	1,062	5,503	6,110
Lingcod.....	82	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	91
Mackerel, jack.....	3,598,753	4,018,857	5,081,600	3,549,217	4,620,059	3,570,858	5,919,975	3,242,386	8,576,370	6,850,874	1,611,968	1,417,418	48,668,462
Mackerel, Pacific.....	228,549	37,274	187,419	127,683	303,931	347,946	165,591	266,855	262,959	86,808	244,518	79,729	2,339,262
Opah.....	105	.....	180	2,868	878	.....	.....	2,209	598	1,942	782	1,628	11,098
Petrel.....	1,102	1,516	8,122	2,844	1,647	1,941	352	219	899	2,449	1,789	1,760	21,840
Pompano, Pacific.....	4,850	11,324	39,526	36,610	7,244	24,972	11,861	8,198	11,116	9,176	2,454	1,860	166,844
Rockfish.....	53,399	32,229	61,578	73,923	64,259	64,144	15,902	19,322	27,836	21,169	39,316	30,956	900,931
Sablefish.....	.....	.....	200	.....	.....	.....	.....	30	.....	.....	.....	.....	230
Salmon.....	13	.....	.....	.....	.....	.....	.....	15	.....	10	.....	.....	23
Sandfish.....	.....	.....	.....	.....	.....	.....	.....	170	260	70	.....	.....	512
Sardine.....	2,610	655	1,543	3,229	12,436	31,414	15,168	4,255	5,181	3,236	955	2,321	82,843
Sculpin.....	475	344	700	683	946	3,414	1,494	64	194	303	364	369	10,074
Sea bass, giant.....	53	892	127	.....	40	80	750	304	.....	316	.....	.....	2,802
Sea bass, white.....	1,023	1,636	112	637	1,543	1,409	10,616	45,506	26,447	16,842	1,086	9,179	116,038
Shark.....	984	1,082	1,400	3,023	4,266	5,996	5,312	16,131	9,195	14,618	2,862	1,946	68,933
Sheepshead, California.....	337	109	104	323	497	567	1,277	531	29	.....	172	401	4,597
Snell.....	95	.....	.....	3,045	19,645	3,860	3,320	1,365	3,860	54,040	52,811	17,780	159,821
Sole, miscellaneous.....	.....	29	.....	854	.....	21,793	69,173	146,223	206,865	114,832	37,979	.....	621,179
Swordfish.....	.....	.....	.....	.....	.....	.....	.....	128,004	223,967	1,379,879	755,209	441,488	3,294,484
Tuna, albacore.....	.....	.....	.....	.....	.....	16,789	241,443	472,799	69,550	.....	.....	.....	727,881
Tuna, bluefin.....	.....	.....	.....	.....	.....	.....	.....	56,375	17,490	.....	.....	.....	73,855
Tuna, skipjack.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tuna, yellowfin.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	840	.....	.....	840
Whitefish, ocean.....	.....	.....	1,378	.....	.....	.....	.....	.....	.....	150	.....	.....	1,528
Yellowtail, California.....	.....	.....	.....	.....	79	292	276	191	134	190	.....	102	1,284
Miscellaneous.....	.....	.....	.....	.....	2	9	.....	4	.....	38	.....	.....	50
Crustacean:													
Crab, rock.....	15,919	20,421	21,629	18,073	21,287	23,314	34,538	38,978	30,288	25,337	22,435	25,674	300,893
Lobster, spiny.....	19,661	14,128	6,392	.....	.....	.....	.....	.....	.....	35,033	28,027	27,079	127,320

FISH MARKET 15

TABLE 13
Monthly Landings and Shipments of Commercial Fish Into the Los Angeles Area During 1969

Meluaik:	134,050	70,450	138,273	138,430	139,531	213,275	141,704	108,229	67,232	69,137	58,904	1,279,224	
Albacore.....	889,333	769,173	616,300	514,705	211,500	100,400	58,300	10,780	70,390	1,146,650	1,786,360	6,182,983	
Squid.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total pounds.....	9,043,255	6,014,834	10,448,345	20,254,502	13,263,611	5,092,098	7,361,602	8,877,801	11,263,285	33,990,244	28,662,299	32,935,009	187,206,895
Waters north of State:													
Fish:													
Tuna, albacore.....	.....	.....	.....	.....	.....	.....	.....	.....	63,998	2,421,729	14,376	2,800,103
Total pounds.....												2,800,103	
Waters south of State:													
Fish:													
Bonito, Pacific.....	95	487	.....	195	.....	640,980	1,650,315	375,790	26,899	50,820	1,795	2,157,082
Cabrilla, spotted.....	.....	.....	.....	.....	.....	.....	.....	.....	3,888	.....	.....	3,888
Groupers.....	17,743	22,480	.....	.....	.....	.....	.....	.....	40,057	15,445	33,485	152,055
Halibut, California.....	.....	219	33	87	229	200	50	.....	.....	86	25	929
Perch.....	37	.....	.....	.....	27	.....	36	.....	.....	.....	.....	365
Pompano, Pacific.....	.....	200	.....	.....	.....	.....	.....	.....	.....	.....	.....	200
Rockfish.....	7,118	18,483	1,882	1,940	1,260	2,083	72	14,268	16,165	16,148	23,033	20,063	
Saia bass, giant.....	11,382	18,002	6,706	10,744	10,117	1,967	2,225	7,403	14,074	15,599	11,207	12,976	
Saia bass, white.....	43,643	84,653	150,323	135,544	69,705	7,501	4,058	19,338	79,521	72,249	30,224	24,519	
Shark.....	2,620	1,485	.....	1,545	965	.....	.....	577	.....	430	.....	7,152
Sheepshead, California.....	190	.....	.....	.....	38	.....	73	219	.....	.....	.....	628
Sole, Miscellaneous.....	.....	.....	.....	.....	.....	.....	.....	75	.....	.....	.....	75
Swordfish.....	.....	2,885	.....	.....	.....	.....	4,848	2,265	16,438	.....	.....	2,885
Tuna, albacore.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	23,545
Tuna, bigeye.....	2,038	72,400	99,445	.....	.....	.....	.....	10,625	.....	.....	9,280	193,788
Tuna, bluefin.....	22,365	.....	.....	202,285	169,511	1,200,228	3,499,933	2,272,241	2,714,294	194,917	.....	108,443
Tuna, skipjack.....	1,271,736	1,073,103	3,161,630	5,395,363	3,831,745	2,489,773	4,010,326	2,812,739	2,904,102	5,309,261	3,445,504	585,520	
Tuna, yellowfin.....	3,766,653	25,403,350	24,451,040	28,664,914	27,753,745	12,783,443	5,158,494	1,485,116	7,834,806	7,381,630	5,270,832	10,232,974	
Whiting, ocean.....	286	1,199	.....	.....	.....	.....	.....	.....	.....	162	51	1,762
Yellowtail, California.....	27,507	32,270	7,031	4,000	9,267	6,445	9,239	5,894	20,716	26,132	23,220	17,730	
Total pounds.....	6,173,387	20,737,122	27,888,150	35,416,636	31,546,264	17,133,620	14,943,883	7,062,034	12,253,027	11,100,619	8,832,721	11,007,342	209,093,805
SHIPMENTS:*													
Fish:													
Tuna, albacore.....	1,541,494	1,166,008	2,135,074	1,107,002	2,672,856	2,980,219	5,296,108	12,867,665	6,770,797	5,530,150	8,098,023	1,656,315	
Tuna, bigeye.....	1,695	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tuna, bluefin.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tuna, skipjack.....	1,769,421	200,983	.....	132,760	84,964	4,229	54,133	31,433	.....	.....	.....	.....
Tuna, yellowfin.....	1,871,970	1,496,638	2,927,077	2,787,098	4,038,673	7,096,314	4,202,558	3,469,445	9,077	80,914	62,355	.....
Whiting, ocean.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Yellowtail, California.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total pounds.....	4,874,880	2,869,631	5,062,151	4,026,860	7,696,493	10,132,889	9,873,119	16,287,067	6,765,121	7,636,068	9,850,231	3,474,844	
Grand total.....	19,091,232	35,621,567	43,398,946	69,697,996	52,606,368	32,358,607	32,176,804	32,226,922	32,334,431	55,146,880	47,386,627	47,417,195	483,348,887

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

MARINE FISH CATCH FOR 1965

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TABLE 13—Cont'd.

TABLE 14
 Monthly Landings and Shipments of Commercial Fish Into the San Diego Area During 1969

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM:													
California waters:													
Fish:													
Barracuda, California.....	457	152	3,955	4,500	3,044	6,073	3,071	1,382	237	8	81	40	8,565
Bass, Pacific.....	924	---	---	963	10,211	11,272	29,507	389,495	10,725	6,741	845	380	469,755
Croaker, white.....	545	35	32	198	240	235	60	312	1,637	188	45	343	2,613
Halibut.....	1,812	165	735	2,156	888	1,621	908	2,899	1,415	---	---	50	12,946
Halibut, California.....	901	1,104	390	2,033	993	3,177	10,530	6,251	2,573	2,262	4,982	1,195	36,121
Langcod.....	108	116	---	19	---	25	39	---	---	16	24	11	330
Mackerel, Pacific.....	---	42	4,729	2,418	469	2,628	829	---	---	---	148	---	11,132
Opaleye.....	---	---	---	158	3,925	879	97	---	---	---	---	---	4,793
Perch.....	1,288	220	818	1,828	1,940	2,894	3,204	2,026	2,351	1,921	---	881	21,695
Pompano, Pacific.....	---	135	---	---	---	33	---	---	---	---	---	---	188
Rockfish.....	21,610	28,107	27,365	29,741	15,711	16,292	8,296	11,107	7,419	11,625	11,712	2,999	188,881
Sablefish.....	---	---	---	167	100	---	---	---	---	---	---	---	420
Sardine.....	---	---	5,539	---	---	---	---	---	---	---	---	---	5,539
Scup.....	10,176	2,070	750	4,055	6,040	4,416	8,362	6,668	5,925	3,549	7,609	994	63,824
Sea bass, giant.....	1,488	831	4	388	76	137	631	121	112	---	162	55	4,005
Sebass, white.....	9,337	2,398	1,065	2,783	8,390	2,075	5,512	11,850	6,182	2,254	217	4,651	57,424
Shark.....	6,331	195	3,886	10,922	6,169	11,947	28,738	24,917	7,771	13,312	10,171	20,757	144,585
Sheepshead, California.....	373	75	225	752	702	846	2,474	200	114	600	885	253	7,459
Snout.....	69	---	---	---	---	---	---	---	---	---	---	---	90
Sole, misollatocon.....	39	4	320	203	---	---	65	22	157	43	9	---	892
Swordfish.....	---	---	---	---	---	2,742	10,779	43,064	69,624	69,128	5,850	---	201,187
Tuna, albacore.....	---	---	---	---	---	---	6,304	28,362	11,094	270,351	51,577	---	380,955
Tuna, bluefin.....	---	---	---	---	---	---	11	---	---	166	---	---	177
Tuna, skipjack.....	---	---	---	---	---	---	---	---	230	---	---	---	230
Tuna, yellowfin.....	---	---	---	---	---	---	221	495	177	85	---	---	177
Whitefish, ocean.....	---	---	---	---	100	---	---	---	---	---	---	---	885
Yellowtail, California.....	861	320	16	402	1,429	546	1,263	1,395	262	845	281	2,869	10,480
Miscellaneous.....	---	---	---	24	28	---	---	---	---	---	---	---	92
Crustaceans:													
Crab, rock.....	446	1,126	328	156	---	---	---	---	---	---	20	80	2,156
Langost, spiny.....	8,843	3,886	3,558	---	---	---	---	---	---	33,556	20,658	12,669	82,997
Mollusk:													
Abalone.....	48,570	---	26,118	33,674	51,898	81,142	60,972	37,533	42,347	50,883	60,505	21,116	514,788
Squid.....	---	---	---	---	19	---	---	---	---	---	---	---	19
Total pounds.....	114,179	37,946	82,771	101,359	115,262	145,453	179,962	571,310	178,858	468,888	183,682	87,371	2,266,971

FISH BULLETIN 153

TABLE 14
 Monthly Landings and Shipments of Commercial Fish Into the San Diego Area During 1969

Waters north of State:												
Fish:												
Tuna, albacore.....										34,327	491,974	526,301
Total pounds.....										34,327	491,974	526,301
Waters south of State:												
Fish:												
Barracuda, California.....	550	300		450	2,131	94					235	3,760
Bonito, Pacific.....	805					374,728	573,798	317,039			2,644	1,270,350
Califnia, spotted.....							1,690					167
Groupers.....		27,627						310			10,075	27,335
Halfmoon.....							218					215
Hallibut, California.....			497	302	68							1,017
Opaleye.....							80					80
Preble.....							324					1,264
Rockfish.....	5,120	4,186	4,210	1,698	3,760	65	2,765			4,163	7,088	33,092
Sculpin.....				1,127	3,350	12,370	9,724	14,794				41,265
Sea bass, giant.....	1,407	3,156	4,550	885	4,520	27	370			1,392	4,337	23,464
Sebastes, white.....	7,231	6,206	46,209	2710	11,944	102	8,373	309	4,660	20,976	14,701	124,822
Shark.....	3,981		5,271		1,107				231		481	3,948
Sheepshead, California.....											50	309
Swordfish.....		1,097									180	3,568
Tuna, albacore.....							57,151	194,410	257,915			225
Tuna, bigeye.....	32,973							2,858				25,531
Tuna, bluefin.....			266,190		738,018	345,727	1,355,390	783,836	457,051			4,088,885
Tuna, skipjack.....	276,288	6,669	450,815	778,159	1,090,364	263,741	1,107,458	1,433,331	223,810	1,493,770	3,113,443	11,672,643
Tuna, yellowfin.....	325,106	9,785,406	5,775,515	9,366,139	7,024,373	4,488,016	987,366	674,373	405,928	1,187,015	1,177,012	13,336,568
Whitefish, ocean.....								95			100	375
Yellowtail, California.....	5,169	875	3,826		180		925		291	4,525	7,008	23,860
Miscellaneous.....												10
Total pounds.....	1,161,650	9,838,611	6,291,053	10,447,610	8,742,736	8,977,773	3,098,359	3,994,662	1,676,241	3,170,003	5,051,462	2,403,028
SHIPMENTS:-												
Fish:												
Tuna, albacore.....			1,345,562		11,320	1,100,230	119,800	512,554	465,308	452,453	518,533	4,528,720
Tuna, yellowfin.....		197,450			206,820				60,772	40,142	475,476	980,670
Total, pounds.....		197,450	1,345,562		221,150	1,100,230	119,800	512,554	526,040	492,595	994,009	5,509,390
Grand total.....	1,278,829	10,074,007	7,718,386	10,548,969	9,078,138	7,223,456	3,398,561	5,078,826	2,415,466	4,823,460	6,228,153	2,490,399

MAINE FISH CATCH FOR 1969

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

TABLE 14—Cont'd.

TABLE 15
Value of Landings and Shipments of Commercial Fish Into California by Area, 1969

Species	Eureka	San Francisco*	Monterey	Santa Barbara	Los Angeles	San Diego	Total
LANDINGS:							
Fish:							
Anchovy.....	2,000	95,099	5,532,857	19,861,453	109,777,744	8,565	135,277,718
.....	---	\$8,559	\$69,065	\$202,322	\$1,072,059	\$825	\$1,352,830
Barracuda, California.....	---	---	---	10	54,966	19,627	74,593
.....	---	---	---	\$3	\$12,590	\$4,287	\$16,880
Blackfish.....	---	258,272	---	---	---	---	258,272
.....	---	\$77,482	---	---	---	---	\$77,482
Blacksmith.....	---	---	---	---	246,517	---	246,517
.....	---	---	---	---	\$6,259	---	\$6,259
Bonito, Pacific.....	1,585	8,344	14,125	947,810	14,489,968	1,740,015	17,201,847
.....	\$186	\$765	\$758	\$40,488	\$676,676	\$86,353	\$805,226
Cabazon.....	184	32	17,509	8,112	---	---	25,837
.....	\$3	\$1	\$975	\$299	---	---	\$1,278
Cabrilla, spotted.....	---	---	---	---	3,898	1,857	5,755
.....	---	---	---	---	\$702	\$371	\$1,073
Carp.....	---	298,142	---	---	---	---	298,142
.....	---	\$21,207	---	---	---	---	\$21,207
Croaker, white.....	---	19,414	118,378	8,462	376,447	2,813	526,514
.....	---	\$1,192	\$7,989	\$219	\$31,421	\$339	\$41,160
Flounder.....	144,027	181,276	42,198	7,339	---	---	374,840
.....	\$7,222	\$11,871	\$3,493	\$587	---	---	\$23,173
Flounder, arrowtooth.....	4,706	5,280	---	---	---	---	9,986
.....	\$206	\$293	---	---	---	---	\$499
Flyingfish.....	---	---	---	---	99,788	---	99,788
.....	---	---	---	---	\$14,972	---	\$14,972
Greenling, kelp.....	51	---	369	---	---	---	420
.....	---	---	\$16	---	---	---	\$16
Grouper.....	---	---	---	---	198,864	66,247	265,111
.....	---	---	---	---	\$45,805	\$16,562	\$62,367
Hake, Pacific.....	---	25,740	---	1,307	---	---	27,047
.....	---	\$515	---	\$26	---	---	\$541
Halfmoon.....	---	---	---	---	14,467	12,561	27,028
.....	---	---	---	---	\$3,429	\$2,689	\$6,118
Halibut, California.....	58	90,238	24,149	51,882	71,112	37,138	274,277
.....	\$22	\$22,999	\$6,593	\$17,968	\$24,834	\$12,678	\$85,094
Hardhead.....	---	10,051	---	---	---	---	10,051
.....	---	\$2,010	---	---	---	---	\$2,010
Herring, Pacific.....	---	27,427	143,105	---	---	---	170,532
.....	---	\$7,131	\$3,628	---	---	---	\$10,759
Lingcod.....	857,242	168,849	40,184	46,832	91	330	1,113,508
.....	\$78,338	\$13,232	\$5,015	\$4,851	\$14	\$33	\$101,483
Mackerel, jack.....	---	---	448,754	2,903,946	48,668,462	---	51,921,162
.....	---	---	\$19,129	\$105,164	\$1,842,725	---	\$1,967,018
Mackerel, Pacific.....	---	---	---	---	6,800	2,338,262	2,345,062
.....	---	---	---	---	\$297	\$120,894	\$121,191
Opaleye.....	---	---	---	4	11,086	4,839	15,929
.....	---	---	---	\$1	\$2,272	\$1,045	\$3,318
Perch.....	39,715	28,554	18,890	24,705	21,705	22,969	156,528
.....	\$7,221	\$10,277	\$3,428	\$5,781	\$5,105	\$3,912	\$35,724
Pompano, Pacific.....	---	78	46,533	1,135	169,044	188	216,968
.....	---	\$40	\$16,925	\$118	\$30,151	\$36	\$47,270
Rockfish.....	3,220,908	608,469	2,055,144	2,496,714	624,293	221,923	9,227,451
.....	\$183,768	\$47,018	\$157,773	\$160,918	\$109,606	\$36,166	\$694,249
Sablefish.....	2,428,566	208,252	1,517,590	1,385	230	823	4,156,846
.....	\$199,147	\$10,978	\$99,633	\$62	\$69	\$159	\$310,048
Salmon.....	3,359,570	1,722,027	821,740	247,546	23	---	6,150,906
.....	\$1,983,138	\$1,118,398	\$557,082	\$184,495	\$20	---	\$3,843,133
Sanddab.....	361,457	195,845	137,705	963	512	---	696,482
.....	\$35,812	\$18,026	\$10,823	\$97	\$102	---	\$54,800
Sardine.....	---	---	---	---	82,843	22,490	105,273
.....	---	---	---	---	\$9,218	\$4,817	\$14,035
Sculpin.....	---	---	---	608	10,074	104,789	115,471
.....	---	---	---	\$73	\$3,650	\$29,476	\$33,199
Sea bass, giant.....	---	---	---	1,077	126,215	27,469	134,761
.....	---	---	---	\$189	\$24,061	\$5,465	\$29,706
Seabass, white.....	---	149	28,117	48,180	839,406	181,856	1,098,708
.....	---	\$45	\$9,084	\$17,563	\$265,641	\$59,101	\$351,434
Shark.....	5,144	60,118	55,720	120,602	73,087	163,564	478,235
.....	\$258	\$3,088	\$2,151	\$12,482	\$9,669	\$24,540	\$52,158
Sheephead, California.....	---	---	---	394	5,123	7,768	13,285
.....	---	---	---	\$32	\$500	\$903	\$1,435
Skate.....	17,298	20,707	67,154	909	---	---	106,068
.....	\$6	\$256	\$1,010	\$63	---	---	\$1,335

TABLE 15
Value of Landings and Shipments of Commercial Fish Into California by Area, 1969

TABLE 15—Continued
Value of Landings and Shipments of Commercial Fish Into California by Area, 1969

Species	Eureka	San Francisco*	Monterey	Santa Barbara	Los Angeles	San Diego	Total
Smelt.....	148,289	68,728	36,354	251	159,821	50	413,461
	\$10,697	\$5,517	\$4,420	\$9	\$5,508	\$6	\$30,157
Smelt, whitebait.....	153,448	8,001	-----	-----	-----	-----	161,449
	\$15,435	\$1,127	-----	-----	-----	-----	\$16,562
Sole, Dover.....	12,274,054	582,153	39,640	23,135	-----	-----	12,918,982
	\$882,785	\$38,468	\$2,524	\$1,408	-----	-----	\$925,185
Sole, English.....	1,833,641	1,084,084	455,859	430,863	-----	-----	3,804,047
	\$171,450	\$92,052	\$39,144	\$31,779	-----	-----	\$334,425
Sole, petrale.....	1,879,795	524,487	250,789	211,993	-----	-----	2,867,064
	\$268,388	\$76,840	\$39,139	\$29,756	-----	-----	\$414,123
Sole, rex.....	1,884,033	191,619	83,375	100,138	-----	-----	2,259,165
	\$185,438	\$18,285	\$6,773	\$9,283	-----	-----	\$217,779
Sole, sand.....	43,171	34,460	25,527	606	-----	-----	203,794
	\$4,325	\$15,622	\$3,199	\$75	-----	-----	\$23,221
Sole, Miscellaneous.....	101	3,605	7,612	4,677	213	892	17,100
	\$12	\$360	\$763	\$505	\$36	\$237	\$1,913
Swordfish.....	-----	-----	-----	202,764	624,064	204,755	1,031,583
	-----	-----	-----	\$96,747	\$318,794	\$95,034	\$510,575
Tuna, albacore.....	4,686,222	704,874	900,697	1,196,409	5,818,135	1,416,098	14,722,395
	\$937,734	\$141,244	\$184,536	\$245,799	\$1,308,537	\$318,254	\$3,136,104
Tuna, bigeye.....	-----	-----	-----	-----	193,788	35,831	229,619
	-----	-----	-----	-----	\$30,929	\$5,559	\$36,588
Tuna, bluefin.....	-----	-----	-----	-----	11,176,168	4,068,582	15,244,750
	-----	-----	-----	-----	\$1,784,220	\$620,858	\$2,405,078
Tuna, skipjack.....	-----	75	-----	-----	34,241,547	11,672,863	45,914,485
	-----	\$12	-----	-----	\$4,566,643	\$1,592,890	\$6,159,545
Tuna, yellowfin.....	-----	-----	-----	-----	160,198,363	43,963,574	204,161,937
	-----	-----	-----	-----	\$25,848,825	\$7,107,737	\$32,956,562
Turbot.....	1,110	20,291	375	3,257	-----	-----	28,033
	\$95	\$997	\$19	\$258	-----	-----	\$1,369
Whitefish, ocean.....	-----	-----	-----	-----	3,230	1,260	4,490
	-----	-----	-----	-----	\$407	\$111	\$518
Yellowtail, California.....	-----	-----	-----	-----	199,615	34,340	234,155
	-----	-----	-----	-----	\$24,777	\$5,710	\$30,487
Miscellaneous.....	597	1,467	-----	-----	50	62	2,176
	\$30	\$76	-----	-----	\$9	\$13	\$128
Miscellaneous (animal food).....	1,956,031	-----	-----	455,552	-----	-----	2,411,583
	\$39,119	-----	-----	\$9,111	-----	-----	\$48,230
Crustacean:							
Crab, market.....	6,661,969	1,273,537	3,397	93	-----	-----	7,938,996
	\$1,795,021	\$498,442	\$1,431	\$47	-----	-----	\$2,294,941
Crab, rock.....	4,440	-----	592	195,995	300,883	2,156	504,076
	-----	-----	\$32	\$17,345	\$37,607	\$164	\$55,148
Crayfish.....	-----	550	-----	-----	-----	-----	550
	-----	-----	-----	-----	-----	-----	-----
Lobster, spiny.....	-----	-----	-----	99,255	127,320	82,897	309,472
	-----	-----	-----	\$102,400	\$144,522	\$99,811	\$346,733
Prawn, spot.....	-----	-----	5,073	-----	-----	-----	5,073
	-----	-----	\$4,705	-----	-----	-----	\$4,705
Shrimp, bay.....	-----	8,041	-----	-----	-----	-----	8,041
	-----	\$1,633	-----	-----	-----	-----	\$1,633
Shrimp, ocean.....	2,947,563	-----	-----	-----	-----	-----	2,947,563
	\$412,652	-----	-----	-----	-----	-----	\$412,652
Miscellaneous crustacean.....	-----	-----	-----	36	-----	-----	36
	-----	-----	-----	\$4	-----	-----	\$4
Mollusk:							
Abalone.....	-----	22,030	150	1,841,906	1,279,224	514,768	3,658,078
	-----	\$7,745	\$45	\$589,204	\$415,426	\$148,527	\$1,160,947
Octopus.....	2,147	1,785	728	-----	2	-----	4,662
	\$88	\$84	\$109	-----	\$1	-----	\$282
Oyster, eastern.....	-----	16,952	-----	-----	-----	-----	16,952
	-----	\$50,258	-----	-----	-----	-----	\$50,258
Oyster, giant Pacific.....	350,757	222,844	-----	122,492	-----	-----	696,093
	\$81,551	\$51,811	-----	\$28,479	-----	-----	\$161,841
Squid.....	-----	-----	11,560,220	3,036,160	6,182,983	19	20,779,382
	-----	-----	\$385,107	\$45,169	\$124,206	\$4	\$555,426
Miscellaneous mollusk.....	-----	49	-----	1,606	-----	-----	1,655
	-----	-----	-----	\$18,700	-----	-----	\$18,700
Total pounds.....	45,269,849	8,901,993	24,501,389	34,614,863	398,800,803	64,646,960	576,735,857
Total value.....	\$7,298,147	\$2,378,056	\$1,654,516	\$1,978,107	\$38,923,891	\$10,282,705	\$62,516,322

TABLE 15
Value of Landings and Shipments of Commercial Fish Into California by Area, 1969

TABLE 15—Continued
Value of Landings and Shipments of Commercial Fish Into California by Area, 1969

Species	Eureka	San Francisco*	Monterey	Santa Barbara	Los Angeles	San Diego	Total
SHIPMENTS:†							
Fish:							
Tuna, albacore.....	----	----	----	----	51,804,311	4,528,720	56,333,031
Tuna, bigeye.....	----	----	----	----	\$13,657,854	\$1,227,513	\$14,885,367
Tuna, bluefin.....	----	----	----	----	1,695	----	1,695
Tuna, skipjack.....	----	----	----	----	\$356	----	\$356
Tuna, yellowfin.....	----	----	----	----	372,589	----	372,589
	----	----	----	----	\$56,930	----	\$56,930
	----	----	----	----	2,765,596	----	2,765,596
	----	----	----	----	\$398,230	----	\$398,230
	----	----	----	----	35,603,903	980,670	36,584,573
	----	----	----	----	\$7,366,742	\$212,222	\$7,578,964
Total pounds.....	----	----	----	----	90,548,094	5,509,390	96,057,484
Total value.....	----	----	----	----	\$21,480,112	\$1,439,735	\$22,919,847
GRAND TOTAL POUNDS.	45,269,849	8,901,993	24,501,389	34,614,863	489,348,897	70,156,350	672,793,341
GRAND TOTAL VALUE.	\$7,298,147	\$2,378,956	\$1,654,516	\$1,978,107	\$60,404,003	\$11,722,440	\$85,436,169

* Includes Sacramento area landings.

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

TABLE 15
Value of Landings and Shipments of Commercial Fish Into California by Area, 1969

TABLE 16
Value of Landings by Port, Eureka Area, 1969

	Value	Pounds
EUREKA		
Salmon.....	\$708,686	1,198,238
Market crab.....	822,784	3,053,649
Albacore.....	625,670	3,126,717
Dover sole.....	630,599	8,767,717
Ocean shrimp.....	92,795	662,831
Giant Pacific oyster.....	81,551	350,757
Petrale sole.....	158,535	1,110,385
Rex sole.....	124,654	1,280,280
Sablefish.....	95,725	1,167,356
Rockfish.....	95,884	1,696,554
English sole.....	107,454	1,149,208
Lingcod.....	31,342	342,970
Sanddab.....	28,538	288,036
Whitebait smelt.....	9,542	94,861
Smelt.....	9,015	126,085
Perch.....	4,223	23,094
Flounder.....	3,800	75,778
Sand sole.....	2,934	29,288
Miscellaneous (animal food).....	37,141	1,857,096
All other species.....	292	27,448
Port totals.....	\$3,671,164	26,428,348
Crescent City		
Market crab.....	\$747,508	2,774,272
Ocean shrimp.....	319,857	2,284,732
Salmon.....	238,051	431,280
Dover sole.....	144,923	2,014,971
Albacore.....	106,803	533,736
Petrale sole.....	65,763	460,603
Rex sole.....	41,001	421,106
English sole.....	39,889	426,607
Rockfish.....	35,628	611,610
Sablefish.....	28,418	346,555
Lingcod.....	26,431	289,228
Sanddab.....	5,467	55,179
Flounder.....	3,357	66,950
Whitebait smelt.....	3,047	30,253
Perch.....	2,768	14,896
Sand sole.....	1,358	13,558
All other species.....	949	35,490
Port totals.....	\$1,811,218	10,811,066
Fort Bragg		
Salmon.....	\$890,883	1,475,500
Albacore.....	205,261	1,025,769
Market crab.....	131,799	489,152
Dover sole.....	107,263	1,491,366
Sablefish.....	76,004	914,655
Rockfish.....	52,235	912,381
Petrale sole.....	44,090	308,807
English sole.....	34,107	257,826
Lingcod.....	20,555	224,331
Rex sole.....	17,783	182,647
Whitebait smelt.....	2,846	28,294
Sanddab.....	1,807	18,242
Miscellaneous (animal food).....	1,452	72,612
Smelt.....	1,379	17,961
All other species.....	822	10,293
Port totals.....	\$1,577,286	7,430,436
Trinidad		
Market crab.....	\$92,930	344,896
Salmon.....	39,508	72,545
All other species.....	23	344
Port totals.....	\$132,461	417,785

TABLE 16
Value of Landings by Port, Eureka Area, 1969

TABLE 16—Continued
Value of Landings by Port, Eureka Area, 1969

	Value	Pounds
Aibion		
Salmon.....	\$85,075	146,309
All other species.....	8	132
Port totals.....	\$85,083	146,441
Point Arena		
Salmon.....	\$20,911	35,650
Port totals.....	\$20,911	35,650
All other ports		
All species.....	\$24	123
Totals.....	\$24	123
EUREKA AREA TOTALS.....	\$7,298,147	45,269,849

TABLE 16
Value of Landings by Port, Eureka Area, 1969

TABLE 17
Value of Landings by Port, San Francisco Area, 1969 *

	Value	Pounds
Bodega Bay		
Salmon.....	\$437,442	676,560
Market crab.....	142,060	362,942
English sole.....	37,824	445,444
Albacore.....	36,069	180,001
Petrale sole.....	17,186	117,308
Rockfish.....	12,841	146,914
Dover sole.....	10,359	156,767
Smelt.....	8,186	65,785
Rex sole.....	7,498	73,674
Lingcod.....	4,781	61,005
Sanddab.....	3,616	39,284
Flounder.....	1,960	29,923
Sablefish.....	1,398	26,519
All other species.....	2,304	28,674
Port totals.....	\$723,514	2,412,700
San Francisco		
Market crab.....	\$235,736	602,314
Salmon.....	180,698	278,769
Petrale sole.....	50,095	341,934
English sole.....	44,750	527,015
Rockfish.....	27,695	375,235
Dover sole.....	26,734	404,583
Sand sole.....	13,905	119,680
California halibut.....	12,369	48,530
Sanddab.....	11,112	120,726
Sablefish.....	9,083	172,313
Rex sole.....	8,737	91,560
Flounder.....	7,518	114,805
Lingcod.....	6,248	79,724
Albacore.....	4,807	23,989
Perch.....	2,134	5,787
All other species.....	3,580	94,179
Port totals.....	\$645,471	3,401,143
Point Reyes		
Salmon.....	\$187,151	285,786
Market crab.....	55,929	142,901
Giant Pacific oyster.....	46,201	198,712
English sole.....	8,495	100,050
Petrale sole.....	8,409	57,395
Rockfish.....	4,564	64,838
Flounder.....	2,199	33,580
Sanddab.....	2,022	21,970
Lingcod.....	1,871	23,877
California halibut.....	1,649	6,471
Rex sole.....	1,633	17,115
Sand sole.....	1,589	13,675
Dover sole.....	1,375	20,803
All other species.....	692	13,533
Port totals.....	\$323,779	1,000,806
Sausalito		
Salmon.....	\$164,991	252,290
Albacore.....	62,685	312,828
Market crab.....	40,499	103,476
Anchovy.....	8,559	95,099
Pacific herring.....	2,915	11,212
All other species.....	249	929
Port totals.....	\$279,898	775,834
Princeton		
Salmon.....	\$97,705	150,805
Market crab.....	16,542	42,266
California halibut.....	8,594	33,718
Abalone.....	4,669	13,280
Rockfish.....	1,918	21,482

TABLE 17
Value of Landings by Port, San Francisco Area, 1969

TABLE 17—Continued
Value of Landings by Port, San Francisco Area, 1969 *

	Value	Pounds
Princeton—Continued		
Shark.....	\$1,286	26,171
Sanddab.....	1,276	13,865
Petrale sole.....	1,150	7,850
All other species.....	3,250	41,008
Port totals.....	\$136,390	350,445
Clear Lake		
Blackfish.....	\$77,482	258,272
Carp.....	21,207	298,142
Hardhead.....	2,010	10,051
All other species.....	76	270
Port totals.....	\$100,775	566,735
Oakland		
Salmon.....	\$46,538	71,839
Albacore.....	37,650	187,892
Abalone.....	2,355	6,700
All other species.....	496	1,376
Port totals.....	\$87,039	267,807
Tomales Bay		
Eastern oyster.....	\$50,258	16,952
Giant Pacific oyster.....	5,610	24,132
Pacific herring.....	3,957	15,220
Perch.....	2,860	7,554
All other species.....	1,474	13,693
Port totals.....	\$64,189	77,951
Richmond		
Market crab.....	\$5,387	13,763
Perch.....	1,843	5,067
All other species.....	155	253
Port totals.....	\$7,385	19,083
Berkeley		
Salmon.....	\$3,682	5,683
All other species.....	885	2,530
Port totals.....	\$4,567	8,213
Alameda		
Perch.....	\$1,488	4,007
All other species.....	721	2,050
Port totals.....	\$2,209	6,057
All other ports		
Market crab.....	\$1,843	4,710
Bay shrimp.....	1,630	8,025
All species.....	267	2,484
Totals.....	\$3,740	15,219
SAN FRANCISCO AREA TOTALS.....	\$2,378,956	8,901,993

* Includes Sacramento area landings.

TABLE 17
Value of Landings by Port, San Francisco Area, 1969

TABLE 18
Value of Landings by Port, Monterey Area, 1969

	Value	Pounds
Monterey		
Squid.....	\$351,345	10,465,220
Salmon.....	130,496	192,432
Rockfish.....	121,947	1,565,951
Sablefish.....	88,356	1,345,830
Petrale sole.....	22,326	143,054
English sole.....	21,292	247,853
Albacore.....	8,930	43,586
White croaker.....	5,051	74,839
Spot prawn.....	4,705	5,073
Pacific pompano.....	3,380	9,293
Sanddab.....	3,256	41,430
Perch.....	3,210	17,239
Rex sole.....	2,498	30,756
Lingcod.....	2,104	16,854
Anchovy.....	2,093	167,650
California halibut.....	1,999	7,322
Jack mackerel.....	1,686	37,213
Pacific herring.....	1,158	19,200
All other species.....	4,332	83,865
Port totals.....	\$780,084	14,514,660
Moss Landing		
Salmon.....	\$365,261	538,816
Albacore.....	175,403	856,120
Anchovy.....	66,972	5,365,207
Squid.....	36,762	1,095,000
Rockfish.....	33,977	466,487
English sole.....	17,849	207,771
Jack mackerel.....	17,502	410,569
Petrale sole.....	16,803	107,670
Sablefish.....	11,254	171,415
Sanddab.....	7,562	96,208
Pacific herring.....	7,466	123,835
Rex sole.....	4,275	52,619
Smelt.....	3,666	28,018
Sand sole.....	3,170	25,297
White croaker.....	2,415	35,791
Flounder.....	2,173	26,250
California halibut.....	1,675	6,135
Dover sole.....	1,615	25,385
Lingcod.....	1,350	10,310
All other species.....	2,357	55,034
Port totals.....	\$779,507	9,704,417
Santa Cruz		
Salmon.....	\$61,325	90,492
Pacific pompano.....	13,409	36,866
White seabass.....	9,035	28,960
California halibut.....	2,919	10,692
Rockfish.....	1,849	22,705
Lingcod.....	1,561	12,500
All other species.....	4,827	80,096
Port totals.....	\$94,925	282,312
MONTEREY AREA TOTALS.....	\$1,654,516	24,501,389

TABLE 18
Value of Landings by Port, Monterey Area, 1969

TABLE 19
Value of Landings by Port, Santa Barbara Area, 1969

	Value	Pounds
Santa Barbara		
Abalone.....	\$376,183	1,166,239
Swordfish.....	83,620	175,254
Spiny lobster.....	77,880	75,488
Rockfish.....	66,822	1,067,389
English sole.....	23,767	322,077
Rock crab.....	11,189	126,435
White seabass.....	8,763	24,040
California halibut.....	8,472	24,320
Shark.....	7,709	75,167
Petrale sole.....	7,525	53,610
Miscellaneous (animal food).....	7,190	359,491
Rex sole.....	4,333	46,744
Salmon.....	2,233	2,958
All other species.....	1,697	29,394
Port totals.....	\$687,383	3,548,606
Morro Bay		
Albacore.....	\$229,177	1,115,501
Abalone.....	136,745	433,475
Rockfish.....	69,005	1,065,708
Giant Pacific oyster.....	28,479	122,492
Miscellaneous mollusk.....	18,700	1,606
Salmon.....	17,222	23,393
Petrale sole.....	15,042	107,161
Rock crab.....	6,012	67,937
California halibut.....	5,609	16,102
Perch.....	5,467	23,423
English sole.....	4,960	67,221
Lingcod.....	4,286	41,382
White seabass.....	3,362	9,222
Spiny lobster.....	3,330	3,228
Rex sole.....	3,154	34,024
Shark.....	1,998	18,854
Miscellaneous (animal food).....	1,274	63,705
All other species.....	2,428	44,430
Port totals.....	\$556,250	3,258,864
Port Hueneme		
Anchovy.....	\$202,322	19,861,453
Jack mackerel.....	105,159	2,803,306
Squid.....	43,109	3,036,160
Pacific bonito.....	38,458	900,285
Swordfish.....	9,303	19,497
Abalone.....	6,384	22,346
Spiny lobster.....	4,697	4,553
California halibut.....	2,474	7,103
All other species.....	1,920	19,524
Port totals.....	\$413,826	26,674,727
Avila		
Salmon.....	\$165,040	221,195
Abalone.....	58,026	184,132
Rockfish.....	23,856	351,876
Albacore.....	15,392	74,917
Petrale sole.....	6,967	49,638
White seabass.....	4,771	13,089
English sole.....	3,005	40,726
Shark.....	2,104	20,529
Rex sole.....	1,796	19,370
All other species.....	3,553	71,541
Port totals.....	\$284,510	1,047,313

TABLE 19
Value of Landings by Port, Santa Barbara Area, 1969

TABLE 19—Continued
Value of Landings by Port, Santa Barbara Area, 1969

	Value	Pounds
Oxnard		
Spiny lobster.....	\$16,050	15,557
Abalone.....	11,157	33,617
Swordfish.....	3,907	7,559
Rockfish.....	1,138	10,200
All other species.....	2,241	10,788
Port totals.....	\$34,193	77,721
All other ports		
All species.....	\$1,945	7,632
Totals.....	\$1,945	7,632
SANTA BARBARA AREA TOTALS.....	\$1,978,107	34,614,863

TABLE 19
Value of Landings by Port, Santa Barbara Area, 1969

TABLE 20
Value of Landings and Shipments by Port, Los Angeles Area, 1969

	Value	Pounds
Terminal Island		
Landings:		
Yellowfin tuna.....	\$25,763,114	159,667,169
Skipjack tuna.....	4,565,383	34,232,102
Bluefin tuna.....	1,679,008	10,517,132
Jack mackerel.....	1,531,080	40,467,566
Albacore.....	1,290,312	5,737,098
Anchovy.....	1,039,372	106,430,650
Pacific bonito.....	488,051	10,450,845
Pacific mackerel.....	73,839	1,428,764
Squid.....	38,290	1,906,088
Bigeys tuna.....	30,929	193,788
Sardine.....	5,285	47,499
All other species.....	2,330	35,477
Total landings.....	\$36,506,993	371,084,178
Shipments:*		
Albacore.....	\$13,657,854	51,804,311
Skipjack tuna.....	7,366,742	35,603,903
Squid.....	398,230	2,765,596
Bluefin tuna.....	56,930	372,589
All other species.....	356	1,695
Total shipments.....	\$21,480,112	90,548,094
Port totals.....	\$57,987,105	461,632,272
San Pedro		
Landings:		
Abslone.....	\$353,801	1,089,482
White seabass.....	282,030	827,995
Swordfish.....	181,604	355,505
Pacific bonito.....	141,572	3,031,552
Jack mackerel.....	125,041	3,302,464
Bluefin tuna.....	105,212	659,036
Rockfish.....	96,822	556,214
Squid.....	85,916	4,276,895
Yellowfin tuna.....	85,369	529,073
Spiny lobster.....	54,430	47,951
Grouper.....	45,805	188,864
Pacific mackerel.....	40,859	790,610
Rock crab.....	33,247	266,011
White croaker.....	31,017	361,905
Pacific pompano.....	29,403	164,550
Anchovy.....	24,978	2,557,745
California yellowtail.....	24,769	199,751
Giant sea bass.....	23,959	125,684
California halibut.....	22,365	64,040
Albacore.....	17,636	78,416
Flyingfish.....	14,584	97,170
California barracuda.....	11,667	50,927
Shark.....	9,130	69,006
Smelt.....	5,611	135,870
Sardine.....	3,933	35,344
Halfmoon.....	3,061	12,910
Blacksmith.....	2,712	106,805
Sculpin.....	2,629	7,253
Opaleye.....	2,259	11,021
Perch.....	2,196	9,349
Skipjack tuna.....	1,260	9,445
All other species.....	1,667	12,244
Port totals.....	\$1,846,544	20,031,392

TABLE 20
Value of Landings and Shipments by Port, Los Angeles Area, 1969

TABLE 20—Continued
Value of Landings and Shipments by Port, Los Angeles Area, 1969

	Value	Pounds
Wilmington		
Landings:		
Jack mackerel.....	\$186,602	4,928,371
Abalone.....	56,894	175,394
Pacific bonito.....	46,831	1,002,311
Pacific mackerel.....	6,086	117,796
Anchovy.....	5,891	603,270
Blacksmith.....	3,156	124,296
Spiny lobster.....	3,043	2,681
All other species.....	784	24,746
Port totals.....	\$309,287	6,979,335
Newport Beach		
Landings:		
Swordfish.....	\$134,554	263,401
Spiny lobster.....	23,793	20,961
California halibut.....	2,416	6,919
White seabass.....	1,240	3,917
All other species.....	1,539	46,901
Port totals.....	\$163,542	342,099
Long Beach		
Landings:		
Spiny Lobster.....	\$41,389	36,462
Rockfish.....	11,388	69,219
Perch.....	2,907	12,346
Abalone.....	1,555	4,662
Anchovy.....	1,437	147,111
Rock crab.....	1,389	11,113
All other species.....	2,407	11,354
Port totals.....	\$62,472	282,767
Redondo Beach		
Landings:		
Spiny lobster.....	\$14,657	12,912
Rock crab.....	2,822	22,577
All other species.....	191	1,065
Port totals.....	\$17,670	36,554
Santa Monica		
Landings:		
Spiny lobster.....	\$3,143	2,769
White seabass.....	2,347	7,417
Swordfish.....	1,280	2,505
All other species.....	880	6,553
Port totals.....	\$7,650	19,544
All other ports		
Landings:		
Spiny lobster.....	\$4,067	3,584
Abalone.....	2,741	8,316
Swordfish.....	1,284	2,513
All other species.....	1,641	10,521
Totals.....	\$9,733	24,934
LOS ANGELES AREA TOTALS.....	\$60,404,003	489,348,897

* Beginning in 1965 only tuna shipments are recorded.

TABLE 20
Value of Landings and Shipments by Port, Los Angeles Area, 1969

TABLE 21
Value of Landings and Shipments by Port, San Diego Area, 1969

	Value	Pounds
San Diego		
Landings:		
Yellowfin tuna.....	\$7,107,737	43,963,574
Skipjack tuna.....	1,592,890	11,672,863
Bluefin tuna.....	620,858	4,058,562
Albacore.....	318,254	1,416,058
Abalone.....	148,423	514,418
Swordfish.....	95,034	204,755
Pacific bonito.....	85,951	1,731,915
Spiny lobster.....	85,569	71,068
White seabass.....	58,561	180,193
Rockfish.....	30,617	193,381
Sculpin.....	29,458	104,726
Shark.....	20,379	135,679
Grouper.....	16,552	66,247
California halibut.....	11,267	33,004
Bigeye tuna.....	5,659	35,831
Giant sea bass.....	5,405	27,169
Sardine.....	4,817	22,430
California barracuda.....	4,257	19,627
Perch.....	3,725	21,809
California yellowtail.....	3,431	31,754
Halfmoon.....	2,572	12,014
Opaleye.....	1,045	4,839
All other species.....	3,723	34,668
Total landings.....	\$10,256,224	64,556,584
Shipments:*		
Albacore.....	\$1,227,513	4,528,720
Yellowfin tuna.....	212,222	980,670
Total shipments.....	\$1,439,735	5,509,390
Port totals.....	\$11,695,959	70,065,974
Oceanside		
Landings:		
Rockfish.....	\$4,540	28,542
Shark.....	4,161	27,885
Spiny lobster.....	2,073	1,722
California halibut.....	1,411	4,134
All other species.....	2,118	17,986
Port totals.....	\$14,312	80,269
Cardiff		
Landings:		
Spiny lobster.....	\$12,169	10,107
Port totals.....	\$12,169	10,107
SAN DIEGO AREA TOTALS.....	\$11,722,440	70,156,350

* Beginning in 1965 only tuna shipments are recorded.

TABLE 21
Value of Landings and Shipments by Port, San Diego Area, 1969

TABLE 22
Statewide Commercial Partyboat Catch by Species
(Not including anchored barges)
1960-1969 *

Species	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
Barracuda, California.....	755,408	391,884	333,507	483,699	303,070	443,304	892,807	470,480	372,346	358,518
Bas, kelp and sand.....	478,656	613,604	789,149	1,219,344	1,103,394	1,230,313	1,278,039	1,003,914	1,317,963	1,246,175
Bonito, Pacific.....	1,199,919	349,426	798,725	774,219	1,299,804	895,222	644,415	319,982	1,102,656	1,139,241
Cabazon.....	2,516	2,639	4,838	9,728	6,491	7,575	10,293	5,419	4,349	4,883
Halibut, California.....	45,310	198,011	118,066	125,959	141,465	118,213	88,730	63,382	84,663	27,634
Langed.....	28,232	28,466	28,369	27,315	28,363	33,380	44,676	43,350	42,449	32,693
Mackerel, jack.....	5,357	23,391	9,029	9,542	6,377	25,619	19,027	16,236	13,688	11,272
Mackerel, Pacific.....	75,370	113,988	116,738	149,260	101,219	151,896	205,990	108,366	78,033	120,036
Rockfish.....	1,013,673	888,641	936,438	962,659	966,801	1,247,439	1,088,718	1,394,037	2,102,569	1,978,981
Salmon.....	37,941	42,965	87,612	72,457	92,021	61,677	70,151	84,946	127,884	111,389
Sculpin.....	15,111	25,672	33,314	53,896	73,844	71,888	69,851	63,280	59,863	63,011
Sea bass, white.....	15,057	14,982	14,864	19,800	14,901	9,775	3,972	5,385	4,138	4,056
Sheepshead, California.....	11,541	15,210	13,488	18,443	26,822	41,651	52,987	42,676	33,075	49,626
Tuna, albacore.....	76,975	184,891	225,214	188,372	112,338	99,771	74,680	96,497	129,710	48,887
Tuna, bluefin.....	97	2,268	2,453	737	693	92	1,098	3,166	1,231	1,470
Whitefish, ocean.....	5,850	6,647	6,157	6,231	6,949	13,810	15,587	18,184	22,155	36,474
Yellowtail, California.....	254,969	42,267	21,826	45,705	39,104	18,397	80,163	31,292	35,949	72,202
All others.....	56,152	87,581	92,776	142,659	114,400	163,595	166,470	145,073	205,410	421,227
Total number of fish.....	4,090,034	3,453,633	3,655,993	4,278,502	4,434,178	4,634,558	5,408,420	4,444,164	5,731,201	6,725,575
Number of angler days.....	516,255	495,805	508,866	643,155	695,445	688,103	857,000	790,102	849,554	802,811
Number of anglers.....	637,498	593,916	598,866	643,155	695,445	688,103	857,000	790,102	849,554	802,811

* See Fish Bulletin No. 121 for historical records 1936-1961.
 † Not available after 1961.

MARINE FISH CATCH FOR 1969

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TABLE 22
Statewide Commercial Partyboat Catch by Species (Not including anchored barges) 1960-1969

TABLE 23
Inshore Bait Landings by Area
Pounds and Value
1969

Species	Sacramento	San Francisco and Monterey	Los Angeles	San Diego	Statewide*
Clam					
Freshwater.....	653,371	17,785	----	----	671,156
Jackknife.....	\$57,529	\$1,604	----	----	\$59,133
Purple.....	----	----	34,697	32,467	67,164
Unclassified.....	----	282	\$21,232	\$19,067	\$40,299
	----	\$64	2,839	10,114	12,953
	----	----	\$1,423	\$5,034	\$6,457
	----	----	255	----	517
	----	----	\$166	----	\$230
Crab					
Sand.....	----	----	3,952	40	4,019
Shore.....	----	----	\$24,683	\$98	\$24,793
	----	----	----	----	5
	----	----	----	----	\$72
Crayfish.....	----	----	----	----	47
	----	----	----	----	\$228
Mudsucker, longjaw.....	----	4,118	149	11	4,278
	----	\$523	\$154	\$12	\$689
Mussell (bay and rock).....	----	477	92,981	8,210	101,668
	----	\$19	\$12,119	\$1,027	\$13,165
Perch, shiner.....	----	----	----	----	93
	----	----	----	----	\$150
Sculpin, staghorn.....	924	235	----	----	1,237
	\$3,006	\$427	----	----	\$3,685
Shrimp					
Bay.....	59,011	2,029	----	----	61,040
Ghost.....	\$70,884	\$2,675	----	----	\$73,559
Red.....	----	----	6,694	2,145	8,839
	----	----	\$27,850	\$4,607	\$32,457
	----	----	4,568	----	4,568
	----	----	\$7,230	----	\$7,230
Total.....	713,306	24,906	146,135	52,987	937,584
	\$131,419	\$5,312	\$94,857	\$29,845	\$262,147

* 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 1969

TABLE 24
Recorded Catch of Live Bait for Saltwater Sportfishing, 1965-1969

Species	Thousands of pounds*				
	1965	1966	1967	1968	1969
Anchovy.....	12,296	13,382	10,774	14,353	10,627
Mackerel, jack.....	----	25	----	158	103
Mackerel, Pacific.....	----	----	----	----	8
Sardine, adult.....	66	54	1	57	34
Sardine, juvenile.....	2	T	T	----	----
Squid.....	----	T	----	23	9
Miscellaneous†.....	82	84	22	57	----
Total pounds.....	12,446	13,545	10,797	14,648	10,781
Number of vessels‡.....	24	18	16	19	10

* 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, 1965-1969

APPENDIX A

APPENDIX A

TABLE 1
California Commercial Troll Salmon Landings by Port-Area, Month and Species, in Pounds¹ and Numbers—1969

	April		May		June		July		August		September		Season	
	Pounds	Numbers	Pounds	Numbers	Pounds	Numbers	Pounds	Numbers	Pounds	Numbers	Pounds	Numbers	Pounds	Numbers
Oregon City														
King.....	4,634	565	45,730	6,096	60,218	8,414	34,797	4,859	23,050	2,430	3,039	399	180,468	22,733
Silver.....	11	1	1,297	259	178,493	33,882	61,720	9,495	2,680	345	77	10	241,188	41,092
Pink.....	0	0	19	8	3,083	816	3,870	793	0	0	0	0	5,672	1,617
Eureka														
King.....	94,645	12,189	396,954	52,479	139,441	18,831	244,152	26,064	128,356	17,983	8,590	1,074	1,012,138	128,100
Silver.....	172	21	3,634	808	226,073	37,679	24,869	3,013	1,668	355	0	0	256,296	41,786
Pink.....	10	5	43	21	292	146	1,904	408	0	0	0	0	2,249	580
Fort Bragg														
King.....	80,368	6,013	147,683	18,031	137,883	15,312	444,338	49,471	172,438	16,710	156,226	14,691	1,108,836	129,228
Silver.....	73	16	2,671	475	107,875	16,136	373,684	51,788	27,073	3,587	29,217	3,437	540,293	75,439
Pink.....	0	0	27	14	3,172	793	8,131	941	0	0	0	0	8,330	1,748
San Francisco														
King.....	155,291	22,459	373,804	42,069	432,873	47,164	415,336	47,752	86,918	8,931	63,780	8,374	1,558,002	176,749
Silver.....	0	0	7,852	1,275	82,548	15,469	67,321	9,607	165	28	2,538	299	160,254	26,618
Pink.....	0	0	25	6	2,984	701	1,162	218	0	0	0	0	3,771	925
Monterey														
King.....	247,015	27,868	322,647	35,969	171,192	16,193	164,402	13,404	112,805	9,124	17,817	1,355	1,035,878	103,613
Silver.....	206	51	12,289	2,161	15,017	2,834	2,903	307	216	26	32	4	33,298	5,383
Pink.....	0	0	0	0	14	4	19	5	0	0	0	0	33	9
Statewide														
King.....	551,863	69,094	1,286,818	154,314	950,907	105,714	1,260,025	141,550	323,567	54,888	279,452	25,883	4,865,322	551,423
Silver.....	492	99	27,543	4,578	612,616	106,046	630,189	74,210	31,825	4,211	31,864	0	1,234,629	193,318
Pink.....	10	5	114	49	9,145	2,460	11,786	2,365	0	0	0	0	21,055	4,879

¹ Dressed, head on

MARINE FISH CATCH FOR 1969

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TABLE I
California Commercial Troll Salmon Landings by Port-Area, Month and Species, in Pounds and Numbers—1969

APPENDIX A—Continued

TABLE II
California Ocean Recreational Salmon Landings and Success¹ by Fishery, Port, Month and Species, in Numbers of Fish—1969

	February			March			April			May			June			July			
	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	--	141	18		
Skiff.....	0	0	--	0	0	--	0	0	--	0	0	--	68	112	0.5	2,349	1,303	0.9	
Eureka																			
Partyboat.....	0	0	--	0	0	--	5	5	*	20	51	0.2	131	332	0.6	623	701	0.7	
Skiff.....	0	0	--	0	0	--	0	0	--	26	61	0.2	1,317	1,467	0.6	8,512	4,756	0.7	
Fort Bragg																			
Partyboat.....	0	0	--	0	0	--	6	6	*	0	159	1.5	446	260	0.6	800	1,445	0.8	
Skiff.....	0	0	--	0	0	--	0	0	--	0	0	--	140	186	0.4	1,301	2,366	0.6	
San Francisco																			
Partyboat.....	8,292	0	2.5	13,848	0	1.7	7,106	0	1.5	5,308	2,435	1.5	9,998	4,244	1.4	11,783	673	1.3	
Skiff.....	1,163	0	1.8	3,260	0	1.2	1,916	0	0.5	1,574	544	0.8	2,455	851	1.1	3,078	225	0.8	
Monterey																			
Partyboat.....	178	0	^b	554	0	^b	615	51	^b	206	74	^b	148	48	^b	127	12	^b	
Skiff.....	464	0	0.9	2,664	0	0.4	1,876	148	0.4	1,245	447	0.3	1,593	515	0.3	2,047	198	0.3	
Statewide																			
Partyboat.....	8,470	0	2.5	14,402	0	1.7	7,732	62	1.5	5,594	2,719	1.5	10,723	4,884	1.3	13,474	2,849	1.2	
Skiff.....	1,627	0	1.5	5,054	0	0.8	2,662	148	0.4	2,545	1,032	0.6	3,573	3,131	0.7	17,190	8,940	0.7	

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TABLE II
California Ocean Recreational Salmon Landings and Success by Fishery, Port, Month and Species, in Numbers of Fish—1969

TABLE II—Continued
California Ocean Recreational Salmon Landings and Success^a by Fishery, Port, Month and Species, in Numbers of Fish—1969

	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
Creosent City																		
Partyboat.....	2	1	0.3	0	0	--	0	0	--	0	0	--	0	0	--	143	19	0.6
Skiff.....	352	675	0.4	4	9	0.1	0	0	--	0	0	--	0	0	--	2,773	2,191	0.7
Eureka																		
Partyboat.....	878	358	0.4	37	63	0.7	14	0	a	0	0	--	0	0	--	1,708	1,510	0.6
Skiff.....	8,838	1,995	0.7	237	105	0.3	0	0	--	0	0	--	0	0	--	15,550	8,384	0.7
Fort Bragg																		
Partyboat.....	596	152	0.4	297	151	0.6	6	0	a	1	0	a	0	0	--	2,152	2,173	0.6
Skiff.....	417	439	0.3	47	177	0.3	0	0	--	0	0	--	0	0	--	1,858	3,168	0.5
San Francisco																		
Partyboat.....	12,447	164	1.4	10,288	10	1.1	10,468	0	1.2	4,188	0	1.1	8	0	a	93,794	7,526	1.5
Skiff.....	2,432	64	0.8	2,470	9	0.8	1,363	0	0.7	882	0	0.5	0	0	--	19,723	1,693	0.8
Monterey																		
Partyboat.....	188	4	b	32	0	b	54	0	b	73	0	b	0	0	--	2,175	189	b
Skiff.....	1,595	33	0.3	484	0	0.2	324	0	a	270	0	a	0	0	--	12,562	1,341	0.4
Statewide																		
Partyboat.....	14,111	679	1.3	10,654	224	1.1	10,542	0	1.2	4,262	0	1.1	8	0	a	99,972	11,417	1.4
Skiff.....	13,634	3,206	0.6	3,242	300	0.6	1,687	0	0.7	1,152	0	0.5	0	0	--	55,796	16,777	0.7

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

MARINE FISH CATCH FOR 1969

TABLE II
California Ocean Recreational Salmon Landings and Success by Fishery, Port, Month and Species, in Numbers of Fish—1969