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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

TABLE OF CONTENTS

	Page
Foreword	5
Explanation of Tables	6
Common and Scientific Names of Fishes, Crustaceans and Mollusks in the 1969 Catch	9
Annual Landings and Shipments (Figure 2)	10
Annual Landings and Shipments, 1916 through 1969	11
Landings and Shipments of Leading Species Ranked by Pounds	11
Number of Licensed Commercial Fishermen	12
Number of Registered Fishing Boats by Length	12
Origin of Shipments	13
Origin of Commercial Fish Landings	14
Monthly Landings and Shipments—Statewide	16
Monthly Landings and Shipments—by Area	18
Value and Poundage, Annual Landings and Shipments by Areas	30
Value of Landings and Shipments by Ports and Areas	33
Partyboat Sport Catch, 1960–1969	43
Inshore Bait Landings, 1969	44
Live Bait Catch, 1965–1969	44
Appendix A—Species Composition of Salmon Landings	45

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
Crab, shore	4.5 pounds per gallon
Mudsucker	.013 pound per dozen
Mussel	.465 pound per dozen
Sculpin, staghorn	80 pounds per sack
Shrimp, ghost	.465 pound per dozen
	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 californicus</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>Priacanthus glauca</i>
Bonito, Pacific.....	<i>Sarda chilensis</i>	Bonito.....	<i>Iurus oxyrinchus</i>
Cabazon.....	<i>Scorpaenichthys marmoratus</i>	Leopard.....	<i>Triaenodon semifasciata</i>
Cabrilla, spotted.....	<i>Epinephelus analognus</i>	Pacific angel.....	<i>Squatina californica</i>
Carp.....	<i>Cyprinus carpio</i>	Soupfish.....	<i>Gymnophorus zosterus</i>
Croaker.....		Skinny dogfish.....	<i>Gymnophorus zosterus</i>
White.....	<i>Gymnothorax lineatus</i>	Thrasher.....	<i>Alopias vulpinus</i>
Queenfish.....	<i>Seriphus politus</i>	Miscellaneous.....	Various species
Dolphinfish.....	<i>Coryphaena hippurus</i>	Sheephead, California..	<i>Pimelododon pulchrum</i>
Eel.....		Skate.....	
California moray.....	<i>Gymnothorax mordax</i>	Bat ray.....	<i>Myliobatis californica</i>
Wolf.....	<i>Anarrhichthys ocellatus</i>	Big skate.....	<i>Raja binoculata</i>
Flounder.....		California skate.....	<i>Raja inornata</i>
Arrowtooth.....	<i>Atheresthes stomaia</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 spp.</i>	Smelt.....	
Greenling, kelp.....	<i>Hexagrammos decagrammus</i>	Jacksmelt.....	<i>Atherinops californiensis</i>
Greenling.....		Night smelt.....	<i>Spirinchus starksii</i>
Hake, Pacific.....	<i>Micromesistius spp.</i>	Surf smelt.....	<i>Hypomesus pretiosus</i>
Hakon.....	<i>Merluccius productus</i>	Smelt, whitebait.....	<i>Allomyrus elongatus</i>
Halfmoon.....	<i>Medituita californiensis</i>		<i>Spirinchus starksii</i>
Halibut.....			Young of several others
California.....	<i>Paralichthys californicus</i>	Sole.....	
Pacific.....	<i>Hippoglossus stenolepis</i>	Dover.....	<i>Microstomus pacificus</i>
Hardhead.....		English.....	<i>Parophrys reticulus</i>
Sacramento blackfish.....	<i>Orthodon microlepidotus</i>	Petrale.....	<i>Eopsetta jordani</i>
Hardhead.....	<i>Mylropharodon conocephalus</i>	Rex.....	<i>Glyptocephalus zachirus</i>
Herring, Pacific.....	<i>Clupea pallasi</i>	Rock.....	<i>Lepidopsetta bilineata</i>
Hitch.....	<i>Larina exilicauda</i>	Sand.....	<i>Psettichthys melanostictus</i>
Lingcod.....	<i>Ophiodon elongatus</i>	Seafish.....	<i>Iosopelta isolepis</i>
Mackerel.....		Miscellaneous.....	Various species
Jack.....	<i>Trachurus symmetricus</i>	Swordfish.....	<i>Xiphias gladius</i>
Pacific.....	<i>Seriola jacksoni</i>	Tuna.....	
Mudskipper, longjaw.....	<i>Gillichthys mirabilis</i>	Albacore.....	<i>Thunnus alalunga</i>
Opah.....	<i>Girella nigripinnis</i>	Bigeye.....	<i>Thunnus obesus</i>
Perch.....	Members of family Embiotocidae	Bluefin.....	<i>Thunnus thynnus</i>
Pompano, Pacific.....	<i>Pepijnus simillimus</i>	Skipjack.....	<i>Katsuwonus pelamis</i>
Rockfish.....	Various species of <i>Sebastodes</i> and	Yellowfin.....	<i>Thunnus albacares</i>
Sablefish.....	<i>Sebastolobus</i>		
Salmon.....	<i>Anoplopoma fimbria</i>	Turbot.....	
King.....	<i>Oncorhynchus tshawytscha</i>	Curfin.....	<i>Pleuronichthys decurrens</i>
Pink.....	<i>Oncorhynchus gorbuscha</i>	Diamond.....	<i>Hypsosbeta guttulata</i>
Silver.....	<i>Oncorhynchus kisutch</i>	Hornyhead.....	<i>Pleuronichthys verticalis</i>
Sanddab.....	<i>Citharichthys sordidus</i>	Miscellaneous.....	Various species
Sardine.....	<i>Sardinops caeruleus</i>	Wahoo.....	<i>Acanthocybium solanderi</i>
Sargo.....	<i>Antisotremus davidsoni</i>	Whitefish, ocean.....	<i>Caulophryne princeps</i>
		Yellowtail, California..	<i>Seriola dorsalis</i>
CRUSTACEANS			
Crab.....		Prawn.....	
Market.....	<i>Cancer magister</i>	Ridgeback.....	<i>Eusicyonia ingentis</i>
Rock.....	<i>Cancer productus</i>	Spot.....	<i>Pandalus platyceros</i>
		Shrimp.....	
		Bay.....	<i>Crago franciscorum</i>
			<i>Crago nigricauda</i>
Sand.....	<i>Emerita analoga</i>	Ghost.....	<i>Callianassa californicus</i>
Shore.....	<i>Hemigrapsus oregonensis</i>	Ocean.....	<i>Pandalus jordani</i>
		Red.....	<i>Hippolytessa californica</i>
Spider.....	<i>Pachygrapsus crassipes</i>		
Crayfish.....	<i>Potamonautes sp.</i>		
Lobster, spiny.....	<i>Astacus traversi</i>		
MOLLUSKS			
Abalone.....		Mussel.....	
Black.....	<i>Haliothis cracherodii</i>	Bay.....	<i>Mytilus edulis</i>
Green.....	<i>Haliothis fulgens</i>	Rock.....	<i>Mytilus californianus</i>
Pink.....	<i>Haliothis corrugata</i>	Octopus.....	<i>Octopus spp.</i>
Red.....	<i>Haliothis rufescens</i>	Oyster.....	
Threaded.....	<i>Haliothis assimilis</i>	Eastern.....	<i>Crassostrea virginica</i>
White.....	<i>Haliothis sorenseni</i>	European flat.....	<i>Ostrea edulis</i>
Clam.....		Giant Pacific.....	<i>Crassostrea gigas</i>
Freshwater.....	<i>Corbicula fluminea</i>	Squid.....	<i>Loligo opalescens</i>
Jackknife.....	<i>Tegula californiana</i>		
Littleneck.....	<i>Paphia staminea</i>		
Purple.....	<i>Sanguinolaria vittata</i>		
Washington.....	<i>Saxidomus nutalli</i>		

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

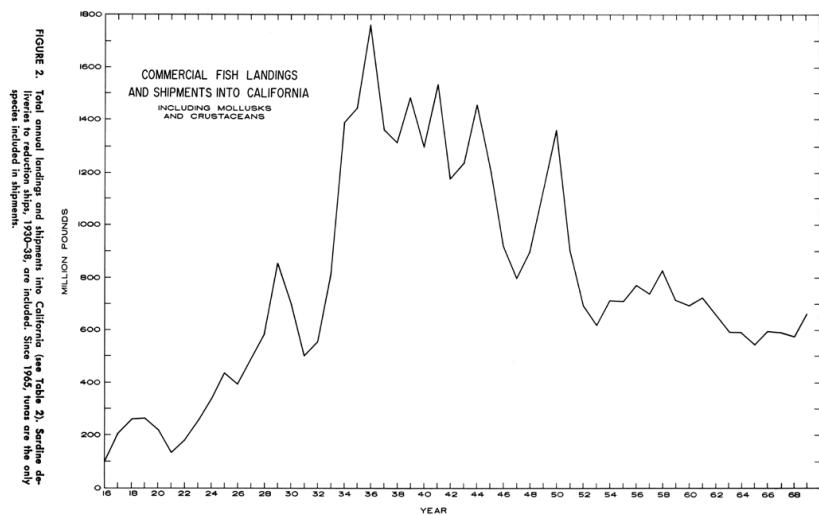


FIGURE 2. Total annual landings and shipments into California (see Table 2). Sardine deliveries to reduction ships, 1930–38, are included. Since 1965, tunas are the only species included in shipments.

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 *

Species	Rank	1968		1969			
		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	75,100	18,237	Anchovy.....	2	135,278	1,353
Skipjack tuna.....	3	60,674	7,959	Albacore tuna.....	3	71,055	18,021
Jack mackerel.....	4	55,668	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	2,205
Salmon.....	12	6,952	4,014	Salmon.....	12	6,151	3,843
English sole.....	13	5,811	501	Sabiefish.....	13	4,157	310
Abalone.....	14	4,475	1,124	English sole.....	14	3,804	334
Sabiefish.....	15	3,219	168	Abalone.....	15	3,658	1,161
Pacific mackerel.....	16	3,133	168	Ocean shrimp.....	16	2,948	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.....		11,258	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		
		Los Angeles	San Diego	Total pounds
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	3,760	135,277,718	135,277,718
Barracuda, California.....	70,833	74,593	74,593	74,593
Blackfish.....	258,272	258,272	258,272	258,272
Blacksmelt.....	246,517	246,517	246,517	246,517
Bonito, Pacific.....	13,174,805	4,027,342	17,201,847	17,201,847
Cabazon.....	25,837	25,837	25,837	25,837
Cabrilla, spotted.....	5,755	5,755	5,755	5,755
Carp.....	298,142	298,142	298,142	298,142
Croaker, white.....	525,514	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	99,758
Greenling, kelp.....	420	420	420	420
Grouper.....	255,111	255,111	255,111	255,111
Hake, Pacific.....	27,947	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.....	170,832	170,832	170,832	170,832
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
Opah.....	15,849	80	15,929	15,929
Perch.....	154,899	1,629	156,528	156,528
Pompano, Pacific.....	216,738	200	216,958	216,958
Rockfish.....	8,802,620	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	6,316	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.....	250,906	847,802	1,098,708	1,098,708
Shark.....	452,271	32	25,932	478,235	478,235
Sheepshead, 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.....	2,728,032	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	1,031,588	1,031,588
Tuna, albacore.....	11,162,742	3,026,404	532,249	14,722,395	56,333,031	71,055,426
Tuna, bigeye.....	229,619	229,619	1,695	1,695	231,314
Tuna, bluefin.....	798,055	14,436,672	15,234,730	372,589	15,601,119
Tuna, skipjack.....	74,160	45,840,325	45,914,485	2,765,506	45,680,081
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	763,155	3,629,558	16,201,740	8,345,383	73,695	138,480	2,103,457	5,355,561	30,841,863	30,702,740	34,110,001	135,277,118
Bass, California.....	107	1,000	1,000	1,000	1,000	22,200	5,000	1,000	1,000	1,000	1,000	1,000	30,000
Blackfish.....	84,561	48,459	2,100	1,000	4,055	40,351	150,312	40,465	3,150	25,400	21,050	72,653	288,472
Bonito, Pacific.....	1,233,535	275,015	641,010	429,435	815,941	1,408,245	2,987,459	5,218,032	1,246,580	1,246,580	1,246,580	1,246,580	1,246,580
Cabazon, spotted.....	2,459	568	1,206	131	35	339	401	2,883	9,864	3,150	167	25,837	25,837
Cabrilla, black.....	120	170,452	2,525	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	5,755
Carp, white.....	73,720	76,190	58,965	53,351	26,275	26,222	10,945	8,388	13,071	24,480	15,422	51,760	308,912
Flounder.....	35,588	53,008	53,331	12,766	9,694	13,835	22,048	61,694	28,763	27,927	45,099	11,427	525,514
Flounder, arrowtooth.....	750	45	1,000	1,130	5,093	5,093	500	390	500	500	500	500	9,986
Flyingfish.....	130	194	100	100	35	36,860	25,490	34,810	2,962	1,000	1,000	1,000	99,758
Grouper.....	17,745	50,107	100	100	100	100	310	49,657	15,445	33,485	26,180	62,152	255,111
Hake, Pacific.....	100	100	100	100	45	18,052	20	100	100	100	100	100	27,047
Hallumon, California.....	1,852	165	1,605	3,976	1,856	2,229	2,899	2,246	3,620	2,482	3,162	1,000	1,000
Herring, kelp.....	25,264	28,640	20,000	19,071	14,100	15,000	47,890	29,000	12,270	12,270	12,270	12,270	274,277
Hardhead.....	3,350	1,608	2,585	1,010	1,008	1,000	1,000	1,000	1,000	1,000	1,000	1,000	10,051
Herring, Pacific.....	15,192	15,192	15,192	15,192	15,192	15,192	15,192	15,192	15,192	15,192	15,192	15,192	15,192
Herring, silver.....	21,920	21,065	47,373	35,171	95,547	168,097	123,114	175,108	175,108	117,582	100,035	21,065	1,113,508
Mackerel, jack.....	3,701,843	4,018,857	5,336,600	4,988,747	4,800,700	3,949,216	6,584,404	3,278,158	5,675,110	6,932,074	1,606,208	1,460,054	51,091,162
Mackerel, Pacific.....	228,549	37,316	192,118	132,499	305,391	350,454	166,120	268,555	292,059	88,808	248,096	70,720	2,387,194
Opreye.....	108	100	100	100	100	100	100	100	100	100	100	100	100
Pompano, California.....	11,119	6,222	25,317	33,129	1,000	4,200	9,200	12,140	13,000	11,270	15,370	15,370	156,528
Pompano, Pacific.....	4,711	11,730	39,566	43,309	16,261	25,882	15,610	22,573	19,582	11,971	3,721	3,721	216,558
Rockfish.....	486,072	233,750	1,001,815	805,057	894,027	1,105,731	877,285	616,789	914,690	853,696	866,699	481,231	9,227,451
Sablefish.....	355,732	177,245	507,899	335,568	233,752	237,003	172,083	148,569	410,237	678,935	554,397	344,029	4,156,546
Sardines.....	39,963	21,407	69,314	21,901	44,300	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
Sardines.....	2,610	683	10,373	3,329	12,860	31,414	18,168	4,255	5,181	3,236	6,185	10,421	103,273
Sculpin.....	10,651	2,414	1,728	5,952	6,681	22,200	19,570	24,466	6,119	3,652	7,073	1,067	115,471
Sole.....	14,241	14,241	14,241	14,241	14,241	14,241	14,241	14,241	14,241	14,241	14,241	14,241	14,241
Seaslug, white.....	61,902	95,040	198,019	142,461	91,829	131,184	33,021	93,408	122,184	128,671	67,658	50,734	1,008,708
Shorebird, California.....	21,967	8,000	10,000	10,000	4,000	4,000	69,000	50,000	27,000	44,000	44,000	46,000	47,035
Skate.....	8,175	11,590	15,720	12,485	10,507	10,701	8,904	6,234	4,230	8,071	4,568	2,820	106,688
Smelt.....	14,116	14,593	10,789	22,816	45,301	25,639	19,860	45,756	79,140	66,600	53,071	17,780	413,461
Smelt, whitesait.....	125	187	25,265	48,354	39,754	35,099	1,278	1,505	397	125	125	125	1,149
Sole, Dover.....	224,145	188,121	188,121	188,121	188,121	188,121	188,121	188,121	188,121	188,121	188,121	188,121	188,121
Sole, English.....	357,092	202,846	432,257	348,014	330,077	295,869	210,196	378,300	431,563	383,421	264,285	170,284	3,804,047

TABLE 8
Monthly Landings and Shipments Into California During 1969

Sole, petrale-----	426,355	110,585	310,559	161,486	205,762	244,489	180,811	206,332	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	116,639	204,012	292,050	143,785	230,824	90,931	2,259,165	
Sole, sand-----	18,482	17,710	20,585	18,450	5,955	17,529	22,595	20,612	33,649	13,213	8,687	6,455	203,764	
Sole, miscellaneous-----	1,132	1,132	4,534	881	1,002	26,209	55,522	1,022	2,025	2,025	1,018	1,018	11,100	
Swordfish-----	-----	-----	4,594	884	-----	26,236	137,047	255,584	312,226	235,076	55,525	1,341	1,031,553	
Tuna, albacore-----	35,011	72,400	99,445	-----	-----	260,796	2,158,278	4,646,736	5,736,870	1,237,750	9,280	691,965	14,722,395	
Tuna, bigeye-----	22,365	-----	468,475	169,311	1,955,046	4,084,103	13,483	652,868	108,402	108,443	1,390,115	1,390,115	229,619	
Tuna, bluefin-----	1,548,084	1,085,774	3,612,445	7,173,541	4,622,104	2,753,514	4,100,400	3,565,116	4,580,521	7,185,947	4,591,485	15,334,750	45,914,485	
Tuna, skipjack-----	35,191,656	30,286,558	38,061,108	38,061,108	38,061,108	38,061,108	5,718,288	4,246,645	4,184,507	8,568,654	6,438,444	11,763,572	204,161,937	
Tuna, yellowfin-----	4,594,761	35,191,656	30,286,558	38,061,108	38,061,108	38,061,108	17,371,467	6,145,770	2,160,691	8,341,143	8,341,143	8,341,143	2,411,563	
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	448,475	4,622,104	4,622,104	5,718,288	5,718,288	5,718,288	319	328	151	4,490	
Yellowtail, California-----	33,537	33,465	10,873	4,402	10,946	7,583	11,803	7,480	30,403	31,692	30,500	21,762	234,155	
Miscellaneous-----	-----	-----	24	30	38	227	563	563	1,436	705	705	63	2,176	
Miscellaneous (animal food)-----	63,787	22,911	114,636	240,816	185,129	392,587	263,155	241,060	289,988	413,943	126,641	57,430	2,411,563	
Crustacean:														
Crab, market-----	3,991,802	955,531	822,595	334,378	616,721	120,279	13,524	48,451	43,784	49,312	780,578	333,768	7,938,996	
Crab, rock-----	42,769	46,380	39,345	20,278	28,330	36,345	40,625	375	175	85,530	64,057	43,670	504,076	
Crayfish-----	48,179	32,266	15,900	-----	-----	-----	-----	-----	-----	66,140	550	309,472	309,472	
Lobster, spiny-----	1,584	610	92	-----	-----	-----	-----	-----	-----	825	1,955	5,073	5,073	
Prawn, spot-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Shrimp, bay-----	-----	-----	-----	-----	1,031,461	1,260,317	6,645	331	1,065	-----	-----	-----	8,041	
Shrimp, ocean-----	-----	-----	-----	-----	-----	600,540	55,245	-----	-----	-----	-----	36	2,947,563	
Miscellaneous crustacean-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	36	36	
Mollusk:														
Abalone-----	376,939	116	606	315,237	383,292	420,339	414,269	329,661	365,904	305,939	339,519	206,388	3,658,078	
Octopus-----	129	1,762	911	177	249	156	471	537	587	254	498	512	4,862	
Oyster, eastern-----	1,334	34,841	47,870	2,115	714	1,611	1,487	1,324	1,324	1,100	1,839	16,952	16,952	
Oyster, giant Pacific-----	47,309	1,217,580	940,630	58,349	53,255	40,658	33,091	36,159	36,159	90,772	105,333	121,187	698,033	
Squid-----	1,770,693	30	41	669,470	3,275,289	4,410,330	3,001,600	1,849,010	51,630	70,786	1,147,340	2,306,060	20,773,382	20,773,382
Miscellaneous mollusk-----	-----	-----	30	43	43	43	43	43	43	12	12	713	1,655	
Total pounds-----	23,327,005	45,452,562	50,045,537	72,601,447	64,672,486	40,584,459	35,932,855	31,004,205	37,303,606	65,106,186	54,918,533	55,696,926	576,735,557	
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	7,245,965	5,982,603	8,587,156	1,659,315	56,333,031	
Tuna, bigeye-----	1,695	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	1,695	
Tuna, bluefin-----	1,750,421	206,985	2,927,677	132,760	58,136	314,433	4,220	9,977	504,914	62,335	372,589	372,589	372,589	
Tuna, skipjack-----	1,571,970	1,694,088	-----	2,787,098	5,145,303	7,090,314	4,292,555	3,409,445	1,531,182	2,083,725	2,266,084	1,815,529	36,584,573	
Tuna, yellowfin-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Total pounds-----	4,874,580	3,067,081	6,407,713	4,026,860	7,917,643	11,233,119	9,992,919	16,790,641	9,281,161	8,128,683	10,883,240	3,474,844	96,057,484	
Grand total-----	28,201,585	48,519,643	56,453,250	76,718,307	72,590,129	51,817,578	45,925,774	47,893,846	46,584,767	73,234,869	65,771,823	59,171,770	672,793,341	

* 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													
Herring.....	2,000
Bonito, Pacific.....	1,585
Chub.....	41
Flounder.....	7,147	275	12,645	659	1,761	6,973	8,734	34,923	10,625	10,845	35,532	6,075	139,017
Flounder, arrowtooth.....	750	1,000	2,023	4,273
Greenling, kelp.....	51
Halibut, California.....	85
Lamprey.....	8,732	13,965	26,595	22,326	50,945	98,195	92,000	155,044	118,503	95,470	75,205	8,710	766,128
Perci.....	4,879	2,685	7,705	6,515	9,455	2,594	4,093	6,176	2,231	2,023	713	39,715
Rodfish.....	133,343	66,908	279,302	179,670	224,476	372,855	260,082	297,144	283,082	396,344	281,422	177,862	2,352,490
Solefish.....	229,202	77,086	214,476	237,400	155,833	122,921	86,400	88,220	205,124	406,312	288,647	127,309	2,347,424
Salmon.....	1,000	1,052	1,052	1,052	1,052	1,052	3,168,423
Sanddab.....	11,766	1,287	29,792	9,567	9,455	40,228	39,074	77,381	73,320	28,967	21,477	11,978	355,142
Seal.....	713	112	23	4,975	4,722	4,605	2,566	15	73,30	41	42	1,220	2,434
Skate.....	2	10	20	17,298
Smelt.....	72	1,005	4,681	7,411	5,330	12,475	41,503	69,504	6,048	148,250
Smelt, whitetail.....	2,207	24,927	44,536	39,284	33,009	6,033	1,380	272	1,071	1,071	1,071	1,071	133,448
Sole, Dover.....	33,347	11,438	351,310	970,720	812,688	912,708	1,054,563	1,369,563	1,600,151	1,600,151	1,600,151	1,600,151	542,775
Sole, green.....	82,126	64,100	130,110	120,127	120,127	120,127	120,127	120,127	120,127	120,127	120,127	120,127	1,720,620
Sole, petrale.....	407,984	98,644	146,059	74,965	65,379	124,475	80,715	196,143	147,602	132,960	145,237	124,030	1,741,063
Sole, rex.....	210,328	65,484	209,135	166,533	95,368	152,632	99,833	186,282	245,146	185,020	91,002	50,537	1,767,200
Sole, sand.....	675	6,720	1,240	18,464	8,138	2,796	2,327	1,445	41,924
Sole, Minto.....	55	55	55	55	55	55	55	101
Tuna, albacore.....	50	36	143	10,672	1,054,863	2,601,319	322,209	6,567	562
Tuna, yellowfin.....	19	225	10	110	145	164	111	597
Miscellaneous.....	20,247	7,296	34,731	89,983	101,145	305,202	176,945	210,992	240,294	301,200	82,924	39,405	1,617,365
Crustacean:													
Crab, rock.....	3,884,271	896,653	804,615	315,776	611,001	118,853	13,531	2,240	14,048	6,681,701
Crab, rock.....	110	820	1,031,461	1,290,317	600,540	55,245	200	4,440	2,947,563
Shrimp, ocean.....

FISH BULLETIN
133TABLE 9
Monthly Landings of Commercial Fishing Boats in the Eureka Area During 1969

Mollusk:															
Octopus.....	66	216	12	114	356	42	414	302	227	129	76,497	1,928			
Oyster, giant Pacific.....	8,708	19,888	34,764	30,284	15,753	8,820	6,128	13,338	59,255	60,536	350,757	42,202,854			
Total pounds.....	5,361,651	1,441,148	2,334,306	2,625,577	3,761,237	4,830,417	3,836,103	8,037,855	6,142,204	3,729,017	1,960,768	1,233,581	42,202,854		
Waters north of state:															
Fish:															
Flounder, arrowtooth.....	648	1,700	301	1,106	346	—	874	—	335	—	5,010				
Flounder, sand.....	433	—	—	—	—	—	—	—	—	—	433				
Lingcod.....	2,011	4,568	7,024	19,554	10,551	9,775	35,589	705	1,307	—	91,114				
Rockfish.....	51,700	29,262	20,795	10,151	10,171	10,151	18,252	21,452	5,094	29,611	1,233,581	42,202,854			
Sabrefish.....	62,610	28,697	7,020	12,035	7,021	2,633	33,671	12,493	9,234	5,228	181,142				
Salmon.....	—	—	—	—	—	29	—	—	—	—	317				
Sanddab.....	1,403	179	331	688	1,052	440	1,374	—	50	—	6,315				
Sole, rock.....	—	—	—	—	—	—	—	—	—	—	32				
Sole, Dover.....	265,246	349,843	168,030	225,549	95,109	72,318	313,604	215,017	78,780	35,432	1,815,832				
Sole, English.....	12,755	13,194	19,381	17,143	7,510	7,110	25,364	348	316	—	103,021				
Sole, petrale.....	13,077	9,882	9,777	35,731	13,324	26,007	24,309	4,251	4,254	20	135,132				
Sole, rex.....	29,212	27,210	12,518	9,708	6,087	4,323	17,150	2,178	4,150	3,094	116,250				
Sole, rock.....	—	—	—	—	—	—	—	1,028	—	221	—	1,247			
Miscellaneous (animal food)....	53,100	111,122	37,199	26,980	1,055	1,237	22,741	73,420	11,822	—	338,666				
Crustacean:															
Crab, market.....	—	216	—	52	—	—	—	—	—	—	268				
Mollusk:															
Octopus.....	—	—	115	—	—	24	80	—	—	—	219				
Total pounds.....	—	491,124	573,923	282,431	381,450	154,586	140,014	534,853	327,734	120,243	52,738	3,066,995			
Grand total.....	5,361,651	1,441,148	2,825,429	3,098,400	4,043,688	5,220,867	3,990,689	5,177,889	6,677,057	4,056,751	2,090,001	1,286,319	45,269,649		

MARINE FISH CATCH FOR 1969

19

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.....	84,567	48,480	1,475	8,264	1,760	20,720	17,080	10,080	22,840	12,880	1,610	1,625	95,090
Bonito, black.....	2	1,058	28,480	21,000	67	72,555	25,572
Bonito, Pacific.....	7,219	32	8,344
Cabeson.....	10,700	24,300	15,455	51,200	298,143	32
Clam.....	130	170,480	23,957	850	460	298,143
Craker, white.....	4,004	103	1,215	95	440	340	1,015	292	1,072	7,580	1,610	1,625	19,414
Flounder.....	23,347	49,822	26,580	7,375	5,440	410	8,148	22,750	14,357	7,455	3,065	3,065	151,270
Flounder, arrowtooth.....	600	1,130	2,670	590	390	7,085	5,280
Hake, California.....	9,203	15,073	16,637	6,369	281	744	13,186	8,180	6,007	6,713	5,235	2,710	90,238
Haddock.....	3,350	1,608	2,985	1,010	1,098	10,051
Herring, Pacific.....	18,312	9,120	98	27,427
Lamprey.....	4,345	5,450	15,355	5,575	31,011	34,674	14,278	6,650	15,722	8,722	26,068	5,111	188,554
Perch.....	456	807	3,510	6,625	651	1,449	2,038	2,674	6,308	3,028	25,554
Pompano, Pacific.....	13	65	78
Rockfish.....	33,799	14,796	135,743	24,512	63,193	80,511	27,467	30,499	62,526	53,052	53,564	25,307	608,469
Sablefish.....	42	5,098	54,493	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	32,901
Salmon.....	155,291	381,451	518,005	483,519	87,115	9,213	9,213	9,213	9,213	9,213	1,722,027
Sandab.....	22,065	9,580	18,285	7,530	25,140	8,354	32,923	9,380	22,089	21,797	10,789	7,813	195,845
Seabass, white.....	50	54	54	54	54	54	141
Shad.....	3,123	1,623	5,420	763	850	8,206	18,803	2,305	4,336	6,551	7,377	2,200	60,113
Stale.....	2,455	6,250	9,207	204	98	900	490	490	490	3,900	1,900	1,200	20,707
Smelt.....	233	5,106	9,299	11,346	14,721	16,046	2,748	1,530	3,279	3,585	260	1,200	68,726
Smelt, silverside.....	125	3,380	3,380	3,380	3,380	3,380	1,451	1,451	1,451	1,451	1,451	1,451	5,180
Sole, Dover.....	4,430	163,981	27,278	50,751	42,811	46,744	19,395	33,289	16,023	138,499	41,056	582,153
Sole, English.....	200,942	31,670	115,025	70,905	122,200	35,903	68,771	59,784	103,985	94,935	101,900	77,034	1,084,084
Sole, petrale.....	13,145	3,580	75,285	20,895	75,487	36,055	48,908	16,620	40,627	30,183	71,522	88,330	524,487
Sole, rex.....	2,645	3,645	39,380	11,710	18,471	18,471	8,127	5,815	9,401	9,401	20,000	18,000	151,011
Sole, sand.....	15,570	10,155	15,155	15,155	415	3,935	1,310	13,150	9,390	8,735	5,315	3,260	134,460
Sole, miscellaneous.....	320	1,960	1,145	880	3,605
Tuna, albacore.....	498,388	91,051	39,726	75,209	704,574
Tuna, skipjack.....	2,115	970	1,675	1,835	1,210	1,100	1,755	5,755	1,205	2,106	160	315	20,291
Tuna, yellowfin.....	553	291	560	63	1,467
Miscellaneous.....

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

TABLE 10—*Cont'd.*

Crustacean:											
Crab, market.....	107,061	58,072	16,353	5,207	5,550	1,438	---	---	760,319	319,421	1,273,537
Crayfish.....	---	---	---	---	---	---	375	175	---	---	550
Shrimp, bay.....	---	---	1,450	550	383	1,021	6,645	331	1,065	---	8,041
Asterias.....	1,304	50	390	50	135	400	405	550	12,206	200	21,860
Otopus.....	129	50	390	50	135	400	405	550	2,849	1,555	1,785
Mollusk:											
Oyster, eastern.....	1,334	1,762	911	2,115	714	1,161	1,487	1,321	1,322	1,100	1,839
Oyster, east Pacific.....	1,350	14,781	17,440	14,500	12,607	11,102	15,732	10,700	22,265	24,101	16,652
Miscellaneous mollusk.....	---	---	---	---	---	---	---	---	12	12	222,844
Grand total.....	495,174	\$15,396	812,724	414,960	824,471	834,257	\$89,320	344,630	996,312	535,531	1,304,146
											\$865,071
											8,901,993

* Includes Sacramento area landings.

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:													
Anchoa.....	---	---	---	421,155	671,505	5,600	9,350	2,050,312	1,186,405	919,100	283,200	5,833,867	
Bonefish, Pacific.....	---	272	637	55	---	---	7,000	2,667	300	2,355	1,113	11,125	
Cabazon.....	1,476	272	637	55	---	---	5,189	2,011	2,011	4,791	5,550	2,117	17,509
Croaker, white.....	8,762	15,475	2,948	3,238	1,011	6,505	5,189	3,195	13,938	27,700	2,145	8,011	111,118
Diamond, black.....	4,930	2,459	7,184	2,459	2,122	2,000	4,820	4,012	3,140	4,790	1,385	2,157	42,198
Greening, hake.....	120	194	---	35	---	---	---	---	20	---	---	---	369
Haddock, California.....	3,047	2,212	2,838	1,709	571	671	3,102	3,376	140	2,247	1,602	2,434	24,149
Herring, Pacific.....	11,705	82,760	39,600	8,820	8,820	8,820	8,820	8,820	8,820	8,820	8,820	8,820	140,105
Lamprey, sea.....	4,622	1,918	3,508	1,918	1,918	1,918	1,918	1,918	1,918	1,918	1,918	1,918	40,383
Mackerel, jack.....	---	---	4,900	5,945	66,528	364,109	1,782	4,190	2,000	---	---	---	445,784
Perch.....	829	373	4,744	10,435	285	---	250	894	563	430	87	15,890	
Pompano, Pacific.....	48	71	30	6,799	6,021	877	3,740	11,375	8,466	9,293	547	235	40,533
Rockfish.....	96,621	24,160	27,100	29,000	268,400	29,200	30,000	10,000	10,000	122,000	16,527	45,771	2,085,750
Sablefish.....	135,488	94,461	176,115	39,652	64,320	92,760	69,015	60,300	164,088	235,710	209,910	178,771	1,517,590
Salmon.....	---	---	236,770	225,099	132,728	113,725	105,313	10,105	---	---	---	---	821,740
Sandab.....	5,820	10,540	20,137	4,825	9,130	16,845	9,757	10,175	18,786	10,320	17,820	4,050	137,705
Sole, white.....	141	59	59	1	1	1	1	1	1	1	1	1	127,717
Shark.....	1,136	2,480	2,336	1,953	2,753	3,752	6,457	7,735	2,696	4,411	12,233	7,688	55,720
Skate.....	5,315	5,340	11,713	7,395	7,545	5,960	5,011	5,828	4,225	4,461	2,668	1,620	61,154
Sole.....	15,750	9,412	8,133	1,703	3,553	3,317	3,288	2,045	2,045	2,045	2,045	2,045	36,554
Sole, Dover.....	---	2,710	175	4,505	2,950	13,055	4,140	5,425	535	455	---	---	30,840
Sole, English.....	14,340	20,960	67,792	47,839	39,890	58,780	53,310	29,295	37,625	37,233	27,350	20,825	455,659
Sole, petrale.....	1,620	6,300	63,100	37,949	24,410	26,320	23,470	16,148	21,664	11,557	13,780	4,490	250,789
Sole, sand.....	5,412	3,950	31,100	4,900	15,155	15,000	2,000	2,000	2,000	2,000	2,000	1,420	23,725
Tuna, albacore.....	2,620	1,290	1,715	1,395	1,540	4,560	5,250	2,045	1,310	1,682	665	1,525	25,527
Sole, miscellaneous.....	1,024	427	2,048	623	617	184	20	152	40	870	1,154	453	7,612
Tuna, Albacore.....	---	---	---	---	---	---	160	14,901	540,387	252,303	51,221	41,725	900,697
Turbot.....	---	---	---	---	---	---	---	---	---	---	---	375	375

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

TABLE 11—*Cont'd.*

Crustacean:													
Crab, market.....	427	626	1,481	335	229	299	3,397	
Crab, rock.....	45	615	154	42	154	154	552	
Trout, spot.....	1,459	52	820	1,053	4,073	
Mollusk:													
Ahalone.....	150	274	454	150
Octopus.....	728
Squid.....	50	2,550,070	4,145,500	3,034,050	1,779,510	40,850	11,569,220
Grand total.....	306,622	203,947	674,456	1,125,207	3,991,343	4,918,398	4,036,732	4,188,390	2,221,741	1,686,541	827,829	340,283	24,501,369

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:													
Anchoa.....	47,000	3,200	3,750	485,525	758,490	23,950	35,400	49,200	933,700	5,260,012	6,670,860	5,589,776	19,861,453
Barracuda, California.....	—	—	—	—	—	10	—	—	—	—	—	—	10
Bluefin Tuna.....	28,734	—	—	—	—	—	—	—	—	11,166	18,580	703,469	131,145
Cabron.....	1,183	326	649	42	35	—	339	297	—	270	1,181	2,814	1,006
Croaker, white.....	—	—	—	4,405	—	3,425	—	—	—	137	200	91	114
Flounder.....	202	462	6,034	347	65	—	45	—	—	48	31	—	130
Hake.....	—	—	—	—	—	—	27	50	—	—	169	1,05	23
Halibut, California.....	6,607	1,010	2,117	1,350	5,008	7,809	12,860	8,025	1,820	93	1,003	2,680	51,682
Herring.....	3,982	85	1,406	—	—	12,833	4,479	3,233	6,105	8,653	1,400	1,040	24,640
Mackerel, jack.....	169,690	—	254,900	715,330	164,796	311,850	133,590	94,250	99,290	84,400	61,740	—	2,803,946
Mackerel, Pacific.....	—	—	—	—	—	—	—	—	—	—	—	—	6,800
Otakies.....	—	—	—	—	—	—	—	4	—	—	—	—	4
Perch.....	2,415	621	3,417	4,056	1,253	—	2,652	3,325	2,312	1,203	3,055	456	24,705
Pompano.....	—	—	—	—	—	—	—	—	—	423	700	—	3,140
Rockfish.....	135,180	47,552	165,761	192,674	231,822	331,364	252,960	177,678	315,733	210,409	268,583	167,218	2,406,714
Sablefish.....	—	—	—	—	—	—	1,275	110	—	—	—	—	1,385
Salmon.....	—	—	—	10,451	106,837	56,465	53,301	9,698	7,734	—	—	—	247,546
Seabass, black.....	—	—	—	—	—	—	—	—	—	—	60	366	600
Sealipin.....	—	—	276	257	45	—	—	—	—	—	—	—	—
Sea bass, giant.....	14	—	—	—	303	305	113	77	—	35	—	220	10
Seabass, white.....	—	—	—	—	—	—	—	—	—	—	—	—	1,077
Seabream, California.....	8,155	1,355	1,547	11,584	31,040	32,448	10,237	20,238	10,326	5,091	12,018	8,100	5,560
Sheepshead, California.....	30	137	160	—	—	—	31	36	—	—	—	—	7,770
Skate.....	408	—	—	—	5	205	196	—	—	55	—	—	394
Soles.....	—	—	—	—	—	—	—	—	—	—	—	—	251
Sole, Dover.....	—	—	—	—	310	405	2,190	3,065	2,909	6,470	6,355	130	23,135
Sole, English.....	69,674	83,333	66,005	28,352	15,410	9,186	9,479	25,134	31,767	46,692	28,767	23,862	430,663
Sole, petrale.....	3,626	1,791	12,428	18,074	30,709	21,028	14,134	41,414	42,729	17,534	4,900	3,569	211,993
Sole, sand.....	11,659	7,583	6,000	6,000	1,571	1,571	1,571	1,571	1,571	13,600	9,610	15,753	104,533
Sole, sand.....	62	45	—	—	115	—	—	—	—	—	129	225	600
Sole, miscellaneous.....	550	672	1,966	55	65	—	413	197	32	—	163	565	4,677
Swordfish.....	—	—	—	—	—	—	1,786	—	—	—	51,616	10,746	202,152
Tuna, albacore.....	—	—	—	—	—	—	—	—	—	166,136	506,274	305,714	122,348
Miscellaneous (animal food)....	73	178	517	1,288	941	62,505	85,155	28,840	26,053	39,323	31,895	290	485,582
	34,540	15,615	26,205	39,711	46,785	—	—	—	—	—	—	—	18,025

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

Crustacean:													
Crab, market.....	43												93
Crab, rock.....	26,246	25,033	17,194	1,187	6,303	7,271	5,927	10,663	13,256	24,005	41,448	17,762	195,965
Lobster, spiny.....	19,716	14,292	6,080	17,181	20,404	21,921	36	95,285
Miscellaneous crustacean.....
Mollusk:													
Ahalone.....	192,915												
Oyster, East Pacific.....	11,358	11,358	11,358	11,358	142,440	192,662	198,445	139,322	138,316	214,618	184,075	208,812	135,368
Squid.....	887,260	448,405	324,300	154,625	507,700	164,675	18,550	10,800	1,396	7,443	20,954	23,121	1,162
Miscellaneous mollusk.....	30	41	30	43	774	688	519,700	3,030,160
Total pounds.....	1,670,777	662,972	1,022,609	1,632,773	2,135,141	1,261,993	1,451,888	787,509	1,939,759	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	1,632,773	2,135,141	1,261,993	1,451,888	787,509	1,939,759	7,203,906	7,872,367	6,772,503	34,614,163

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:													
Commercial waters:													
Fish:													
Anchovy.....	2,825,870	759,058	3,618,843	15,388,694	6,010,134	42,256	73,010	65,965	3,221,176	24,639,913	23,790,700	28,570,582	109,777,744
Bellied, California.....			3	1,103	19,010	15,555	5,430	485	166	2,147	8,051	54,956
Blacksmith.....		10,275	4,626	40,321	150,314	40,466	40,466	5,116	516	248,517	248,517
Bullhead.....	1,261,265	27,531	61,070	428,200	600,000	41,253	41,253	1,260,804	565,496	846,000	284,070	11,200,968	65,594
Croaker, white.....	60,332	60,515	64,770	45,415	24,584	16,150	4,652	4,115,056	22,987	6,315	22,987	65,594	376,447
Flyingfish.....	36,866	25,490	34,810	2,602	99,758
Hallimoon.....	40	870	1,820	1,488	493	28	881	3,620	2,165	3,112	11,467
Hallibut, California.....	2,825	10,120	16,194	8,221	7,360	2,704	7,940	1,456	75	1,000	5,000	6,110	70,153
Lumpfish.....	52	9	5,576,570	6,850,874	1,611,998	1,417,418	45,668,461
Mackerel, jack.....	3,988,753	4,018,857	5,081,600	3,649,217	4,620,059	3,570,858	5,519,075	3,242,380	5,576,570	6,850,874	1,611,998	1,417,418	45,668,461
Mackerel, Pacific.....	228,549	37,274	187,419	127,083	303,931	347,946	165,591	266,855	262,059	86,808	244,518	79,729	2,339,262
Opahs.....	105	190	3,203	878	2,900	2,900	2,900	2,900	396	1,142	1,052	1,052	1,052
Perch.....	1,102	1,516	5,132	2,444	1,544	1,541	352	219	199	602,449	1,789	1,760	21,340
Pompano, Pacific.....	4,650	11,324	39,436	36,510	7,244	24,972	11,861	8,108	11,118	9,176	2,454	1,803	168,844
Rockfish.....	53,309	32,229	61,578	73,923	64,259	64,141	15,902	15,902	21,160	30,956	30,956	509,823
Sabrefish.....	200	30	230
Sardine.....	13	10	23
Sandab.....	12	170	250	70	10	512
Sardine.....	2,610	655	1,535	5,251	12,455	91,311	18,165	4,285	5,131	3,055	655	2,331	80,973
Sardine.....	475	344	700	453	346	5,414	64	194	105	364	105	103	10,074
Sea bass, giant.....	53	892	127	40	90	780	304	316	2,602
Seahorse, white.....	1,023	1,636	112	637	1,543	1,409	10,616	45,506	26,447	16,842	1,686	9,179	116,036
Shark.....	984	1,052	1,400	3,023	4,509	5,009	5,312	16,131	9,135	14,615	2,935	1,047	63,653
Shark.....	327	100	100	507	507	507	27	15	26	172	401	4,907	1,047
Smelt.....	95	3,045	19,645	3,860	3,320	1,365	3,860	54,040	52,811	17,780	150,821
Sole, miscellaneous.....	29	3,860	40	27	39	135
Swedfish.....	854	21,708	65,178	165,223	206,601	114,432	37,279	63,719
Tuna, bluefin.....	128,000	225,540	366,027	1,378,010	755,200	441,488	3,214,454
Tuna, skipjack.....	16,789	241,443	472,799	66,850	17,490	797,881
Wahoo.....	1,578	240	540
Yellowtail, California.....	70	292	276	191	134	190	102	1,264	1,264	1,264
Miscellaneous.....	2	9	4	4	35	50
Crustaceans:													
Crab, rock.....	15,919	20,421	21,620	18,073	21,287	28,314	34,588	36,978	30,288	25,327	22,435	25,674	309,893
Lobster, spiny.....	19,661	14,128	6,392	35,033	25,027	27,079	127,320

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

Mollusk:												
Ahalone.....	134,050	70,450	138,273	138,439	139,531	213,275	141,704	108,229	67,232	69,137	58,904
Oysters.....	769,175	616,5300	514,765	211,500	100,400	9,000	55,300	10,780	70,390	11,165,650	1,786,360
Squid.....	889,233	6,182,983
Total pounds.....	9,043,265	6,014,534	10,446,345	20,254,502	13,263,611	5,092,098	7,361,602	8,577,301	11,263,285	33,990,244	28,662,299	32,935,009
Waters south of State:												
Fish:												
Tuna, albacore.....	2,500,103
Total pounds.....	63,998	2,421,729	14,376
Waters south of State:												
Fish:												
Cabilla, spotted.....	95	487	105	640,980	1,060,315	375,706	26,899	50,520	1,705
Grouper.....	17,745	22,480	33	97	239	200	50	49,687	15,445	33,485	15,203
Hake, California.....	34,817
Prelch.....	37	27	36	365
Pompano, Pacific.....	200	200
Rockfish.....	7,118	18,485	1,882	1,940	1,290	2,988	72	14,258	16,165	16,145	23,053	20,063
Salmon, chinook.....	11,328	32,130	5,170	10,141	1,967	2,282	232	14,161	16,165	16,145	21,073	12,462
Seahass, white.....	43,643	84,655	150,323	139,544	69,705	7,591	4,058	19,538	79,521	72,249	32,224	24,519
Shark.....	2,620	1,485	1,545	595	577	430	7,152
Sheepshead, California.....	196	38	73	219	528
Sole, California.....	78	528
Swordfish.....	2,885	2,885
Tuna, albacore.....	4,548	2,665	16,435	2,348
Total pounds.....	2,038	72,400	99,445	10,125	1,100	1,100	1,100	1,100
Tuna, bluefin.....	32,265	10,573,367
Tuna, skipjack.....	1,271,739	1,079,103	3,161,630	202,265	160,511	1,900,295	3,408,053	2,272,311	2,714,491	191,917	108,419	555,290
Tuna, yellowfin.....	3,766,655	25,403,250	21,461,049	28,664,914	27,753,740	24,899,773	4,100,530	2,812,229	1,504,102	3,309,261	3,415,504	31,167,632
Whiting.....	27,307	32,270	7,051	4,000	2,667	6,445	9,389	5,584	29,716	26,132	23,220	17,780
Total pounds.....	5,173,387	26,737,122	27,888,150	35,416,636	31,546,204	17,133,620	14,945,883	7,062,034	12,232,027	11,100,619	8,852,721	11,007,342
SHIPMENTS:*												
Fish:												
Tuna, albacore.....	1,541,600	1,166,000	2,135,074	1,107,002	2,672,856	2,980,219	5,206,108	12,867,663	6,770,797	5,530,150	8,068,623	1,659,315
Tuna, albacore.....	1,603	1,603
Tuna, bluefin.....	48,136	314,453	372,589
Tuna, skipjack.....	1,705,221	290,555	2,927,077	132,701	84,501	5,400	5,077	60,511	62,355	2,100,966
Tuna, yellowfin.....	1,571,570	1,496,538	2,927,077	2,287,098	4,938,573	7,090,314	4,282,558	3,409,445	1,470,410	2,045,583	1,790,508	1,815,529
Total pounds.....	4,874,580	2,869,631	5,062,151	4,026,860	7,696,493	10,132,889	9,873,119	16,287,067	8,755,121	7,636,088	9,859,231	3,474,914
Grand total.....	19,091,232	35,621,587	43,398,846	58,697,998	52,506,388	32,358,607	32,178,604	32,226,922	32,324,431	55,148,688	47,368,827	47,417,195
												489,348,897

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

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:													
Bass, yellow.	3,965	4,600	3,044	6,073	3,671	1,382	327	32	8	51	40	5,855	
Barreca, California	457	152	—	—	—	—	—	—	—	—	—	—	15,897
Bonito, Pacific	624	—	963	10,211	11,272	29,267	380,480	19,726	6,741	845	380	409,735	
Cod, Pacific	545	35	32	1,049	1,259	60	312	1,257	45	513	50	12,123	
Halibut	1,812	165	735	2,156	368	1,521	908	2,899	1,416	—	317	50	12,346
Halibut, California	601	1,104	390	2,033	998	3,177	10,530	6,251	2,573	2,592	4,682	1,195	36,121
Lingcod	108	110	—	10	—	25	25	25	—	16	24	11	330
Mackerel	108	42	4,729	2,441	466	2,508	859	—	—	—	148	—	11,620
Opahye	—	—	—	158	3,925	579	97	—	—	—	—	—	4,750
Perch	1,288	220	818	2,624	1,828	1,940	2,894	3,204	2,026	2,351	1,921	581	21,096
Pompano, Pacific	135	—	—	—	—	33	—	—	—	—	—	—	158
Rockfish	21,610	25,077	27,362	26,241	15,711	16,032	8,896	11,107	7,410	11,685	11,712	2,999	188,260
Sabine, Pacific	—	—	—	107	100	—	—	—	—	—	136	420	823
Sardine	—	8,830	—	—	—	—	—	—	—	—	5,600	8,100	22,436
Sole	10,176	2,070	750	4,055	6,040	4,416	8,362	6,688	6,925	3,549	—	—	62,014
Sea bass, giant	1,488	—	—	4	885	76	197	531	121	112	162	55	4,035
Seabass, white	9,837	2,398	1,005	2,733	8,390	2,975	5,812	11,830	6,182	2,354	217	4,031	57,424
Shark	6,351	166	—	3,586	10,632	6,160	11,447	28,785	24,917	7,771	13,812	10,171	20,757
Swordtail, California	373	76	225	1,028	702	768	1,074	1,074	1,060	1,060	1,060	1,060	7,650
Smelt	50	—	—	—	—	—	—	—	—	—	—	—	50
Sole, miscellaneous	39	4	320	203	—	—	95	22	157	43	9	—	892
Swordfish	—	—	—	—	—	2,742	—	10,779	43,064	69,624	69,128	5,850	201,187
Tuna, bluefin	—	—	—	—	—	—	11	—	6,801	28,584	11,301	270,381	51,880
Tuna, bluefin	—	—	—	—	—	—	—	—	—	166	220	—	177
Tuna, skipjack	—	—	—	—	—	—	—	—	—	—	—	—	220
Tuna, yellowfin	—	—	—	—	—	—	—	—	—	—	—	—	177
Whiting, ocean	—	—	—	—	100	—	—	221	406	169	86	—	385
Yellowtail, California	861	320	16	402	1,420	546	1,263	1,395	202	845	281	2,869	10,480
Miscellaneous	—	—	—	24	28	—	—	—	—	—	—	—	52
Crustacean:													
Lobster, rock	440	1,120	328	159	—	—	—	—	—	—	20	30	2,155
Lobster, spiny	8,843	3,380	3,553	—	—	—	—	—	—	—	33,356	20,685	12,669
Mollusk:													
Ahalone	48,670	—	26,118	33,674	51,808	81,142	60,072	37,533	42,347	50,883	60,505	21,116	514,788
Squid	—	—	—	—	19	—	—	—	—	—	—	—	19
Total pounds	114,179	37,646	82,771	101,359	115,252	145,453	179,602	571,310	178,858	468,888	183,682	87,371	2,396,971

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
Total pounds.....	34,327	491,974	526,301
Waters south of State:											
Fish:											
Barracuda, California.....	550	300	450	2,131	94	374,728	573,798	317,939
Bonito, Pacific.....	805	2,644	346
Cabrilla, spotted.....	1,000	1,000	1,000	167
Grouper, California.....	27,687	215	10,975	27,553
Halfmoon.....	310	61,477
Hallibut, California.....	467	202	68	55	280	1,017
Opah.....	940	324
Pike.....	1,294
Rockfish.....	5,120	4,186	4,210	1,698	3,769	45	2,765	4,163	7,088	33,042
Seabream.....	3,269	12,870	9,724	14,794	41,769
Sea bass, giant.....	1,407	3,156	4,059	885	4,620	27	370	1,392	4,357
Seal, California.....	725	6,056	4,620	2,141	1,141	102	8,200	209	4,666	20,070	1,121,000
Shark.....	3,981	5,271	1,107	231	481	3,948
Swordfish, California.....	190	50	3,687
Swordfish.....	1,097	180	950
Tuna, albacore.....	1,341	8,568
Tuna, bigeye.....	32,973	225
Tuna, bluefin.....	266,150	785,215	395,737	1,852,331	785,255	457,951	106,455
Tuna, yellowfin.....	276,288	6,669	450,815	778,159	1,090,364	283,241	1,107,458	1,438,331	1,223,810	1,493,770	3,713,443
Tuna, yellowfin.....	828,106	9,788,406	5,775,518	9,396,189	7,624,373	4,888,019	987,366	671,575	405,620	1,187,015	1,177,812
Whitefish, ocean.....	5,169	875	3,825	180	925	95	100	80	100
Yellowtail, California.....	10	291	4,525	7,008	1,061
Miscellaneous.....	70
Total pounds.....	1,161,650	9,838,011	6,291,053	10,447,610	8,742,736	5,977,773	3,098,859	3,094,662	1,676,241	3,170,003	5,051,462
SHIPMENTS: ^a											
Fish:											
Tuna, albacore.....	1,345,562	14,320	1,100,230	119,800	512,554	465,268	452,453	518,533	4,528,720
Tuna, yellowfin.....	197,450	206,830	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
Grand total.....	1,275,829	10,074,007	7,719,388	10,548,969	9,079,138	7,223,456	3,398,561	5,078,528	2,415,468	4,623,460	8,229,153
											2,490,399
											70,156,350

* 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	5,632,857	19,861,453	109,777,744	8,565	135,277,718
	---	\$8,559	\$69,065	\$202,322	\$1,072,059	\$825	\$1,352,330
Barracuda, California.....	---	---	---	10	54,956	19,627	74,593
	---	---	---	3	\$12,590	\$4,287	\$16,880
Blackfish.....	258,272	---	---	---	---	---	258,272
	\$77,482	---	---	---	---	---	\$77,482
Blacksmith.....	---	---	---	246,817	---	---	246,817
	---	---	---	\$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
Cabeson.....	184	32	17,509	8,112	---	---	25,837
	\$3	\$1	\$975	\$299	---	---	\$1,373
Cabrilla, spotted.....	---	---	---	---	3,898	1,867	5,755
	---	---	---	---	\$702	\$371	\$1,073
Carp.....	298,142	---	---	---	---	---	298,142
	\$21,207	---	---	---	---	---	\$21,207
Croaker, white.....	19,414	115,378	8,462	376,447	2,813	525,514	
	\$1,192	\$7,989	\$219	\$31,421	---	\$339	\$41,160
Flounder.....	144,027	181,276	42,198	7,339	---	---	374,340
	\$7,222	\$11,871	\$5,393	\$587	---	---	\$23,173
Flounder, arrowtooth.....	4,706	5,280	---	---	---	---	9,068
	\$206	\$293	---	---	---	---	\$199
Flyingfish.....	---	---	---	99,758	---	99,758	
	---	---	---	\$14,972	---	---	\$14,972
Greenling, kelp.....	51	---	369	---	---	420	
	---	---	\$16	---	---	420	
Grouper.....	---	---	---	188,864	66,247	255,111	
	---	---	---	\$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	90,226	24,149	51,582	71,112	37,188	274,277
	\$22	\$22,999	\$6,593	\$17,968	\$24,834	\$12,678	\$50,994
Hardhead.....	10,051	---	---	---	---	10,051	
	\$2,010	---	---	---	---	2,010	
Herring, Pacific.....	27,427	143,105	---	---	---	170,532	
	\$7,131	\$8,628	---	---	---	\$15,759	
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.....	---	446,754	2,803,946	48,668,462	---	51,921,162	
	---	\$19,129	\$105,164	\$1,842,725	---	\$1,967,018	
Mackerel, Pacific.....	---	---	6,800	2,339,262	11,132	2,357,194	
	---	---	\$297	\$120,894	\$933	\$122,124	
Opaleye.....	---	---	4	11,086	4,839	15,929	
	---	---	1	\$2,729	\$1,045	\$1,718	
Perch.....	39,715	28,554	18,890	24,705	21,705	22,959	186,528
	\$7,221	\$10,277	\$3,428	\$5,781	\$5,105	\$3,912	\$35,724
Pompano, Pacific.....	78	46,533	1,135	169,044	168	216,958	
	40	---	\$16,925	\$118	\$30,151	\$36	\$47,270
Rockfish.....	3,220,901	608,469	2,055,144	2,498,714	624,293	221,923	9,227,451
	\$183,768	\$47,018	\$157,773	\$160,918	\$109,606	\$35,166	\$694,249
Sablefish.....	2,428,568	208,252	1,517,590	1,388	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	---	\$3,843,138
Sanddab.....	361,457	195,845	137,705	983	512	696,482	
	\$35,812	\$18,026	\$10,823	\$97	\$102	---	\$64,600
Sardine.....	---	---	---	82,943	22,430	10,273	
	---	---	---	\$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	154,761	
	---	---	\$180	\$24,061	\$5,465	\$29,706	
Seabass, white.....	149	29,117	48,180	839,406	181,856	1,098,708	
	\$45	\$9,084	\$17,563	\$265,641	\$50,101	\$351,434	
Shark.....	5,144	60,118	55,720	120,602	73,087	163,864	478,235
	\$258	\$3,088	\$2,151	\$12,482	\$9,669	\$24,540	\$52,188
Sheephead, California.....	---	---	394	5,123	7,768	13,285	
	---	---	\$32	\$500	\$903	\$1,635	
Skate.....	17,298	20,707	67,154	97	---	10,068	
	\$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.....	148,259	68,726	36,354	251	159,821	50	413,461
Smelt, whitebait.....	\$10,697	\$5,517	\$4,420	\$9	\$6,508	\$6	\$30,157
Smelt, whitebait.....	153,448	8,001	—	—	—	—	161,449
Smelt, whitebait.....	15,435	\$1,127	—	—	—	—	16,562
Sole, Dover.....	12,274,054	582,153	39,640	23,135	—	—	12,918,222
Sole, Dover.....	\$82,785	\$35,408	\$2,524	\$1,408	—	—	\$92,185
Sole, English.....	3,064,640	1,004,564	450,669	462,663	—	—	3,420,047
Sole, English.....	\$171,450	\$62,052	\$39,144	\$31,779	—	—	\$334,425
Sole, petrale.....	1,879,795	524,487	250,789	211,983	—	—	2,867,064
Sole, petrale.....	\$268,388	\$76,340	\$39,139	\$29,756	—	—	\$414,123
Sole, rex.....	1,884,033	191,619	83,375	100,138	—	—	2,259,185
Sole, rex.....	\$183,438	\$18,285	\$6,773	\$9,283	—	—	\$217,779
Sole, sand.....	43,171	134,460	25,527	606	—	—	203,764
Sole, sand.....	\$4,325	\$15,522	\$3,199	\$75	—	—	\$23,221
Sole, Miscellaneous.....	101	3,605	7,612	4,677	213	892	17,100
Sole, Miscellaneous.....	\$12	\$360	\$763	\$505	\$36	\$237	\$1,913
Swordfish.....	—	—	202,764	624,064	204,755	1,031,583	—
Tuna, albacore.....	4,686,222	704,874	900,697	1,196,409	5,481,355	1,416,053	14,222,865
Tuna, albacore.....	\$937,734	\$141,244	\$184,536	\$245,799	\$1,305,537	\$815,254	\$3,136,104
Tuna, bigeye.....	—	—	—	193,788	—	35,931	229,619
Tuna, bluefin.....	—	—	—	30,929	—	5,650	\$36,588
Tuna, bluefin.....	—	—	—	11,176,168	4,058,562	15,234,730	—
Tuna, skipjack.....	—	75	—	\$1,784,220	\$620,558	\$2,405,078	—
Tuna, skipjack.....	—	\$12	—	34,241,547	11,672,883	45,914,485	—
Tuna, yellowfin.....	—	—	—	\$4,565,643	\$1,592,890	\$6,159,545	—
Tuna, yellowfin.....	—	—	—	160,198,363	43,963,574	204,161,937	—
Turbot.....	1,110	20,291	375	3,257	—	—	25,033
Turbot.....	\$95	\$997	\$19	\$258	—	—	\$1,369
Whitefish, ocean.....	—	—	—	3,255	1,260	—	4,480
Yellowtail, California.....	—	—	—	\$407	\$111	\$18	—
Miscellaneous.....	597	1,467	—	—	199,815	34,340	234,155
Miscellaneous.....	\$30	\$70	—	—	\$24,777	\$3,710	\$28,497
Miscellaneous (animal food).....	1,956,031	—	—	455,552	—	—	2,411,583
Miscellaneous (animal food).....	\$39,119	—	—	\$9,111	—	—	\$48,230
Crustacean:							
Crab, market.....	6,661,969	1,273,537	3,397	93	—	—	7,938,996
Crab, market.....	\$1,795,021	\$495,442	\$1,431	\$47	—	—	\$2,294,941
Crab, rock.....	4,440	—	592	195,995	300,883	2,156	504,076
Crab, rock.....	—	—	\$32	\$17,345	\$37,607	\$164	\$55,148
Crayfish.....	—	550	—	—	—	—	550
Lobster, spiny.....	—	—	—	99,285	127,320	82,887	306,472
Prawn, spot.....	—	—	—	\$102,400	\$144,522	\$99,811	\$346,733
Shrimp, bay.....	—	8,041	—	5,073	—	—	5,073
Shrimp, bay.....	—	\$1,633	—	\$4,705	—	—	\$4,705
Shrimp, ocean.....	2,947,563	—	—	—	—	—	2,947,563
Miscellaneous crustacean.....	\$412,652	—	—	—	—	—	\$412,652
Mollusk:							
Abalone.....	—	22,030	150	1,841,906	1,279,224	514,768	3,658,078
Abalone.....	—	\$7,745	\$45	\$589,204	\$415,426	\$148,527	\$1,160,947
Octopus.....	2,147	1,785	728	—	2	—	4,662
Octopus.....	—	\$88	\$84	\$109	—	\$1	\$282
Oyster, eastern.....	—	16,952	—	—	—	—	16,952
Oyster, giant Pacific.....	350,757	222,844	—	122,492	—	—	\$50,258
Oyster, giant Pacific.....	\$81,551	\$51,811	—	\$28,479	—	—	696,093
Squid.....	—	—	11,580,220	3,036,160	6,182,983	19	20,779,382
Squid.....	—	—	\$388,107	\$43,169	\$124,206	\$4	\$550,626
Miscellaneous mollusk.....	—	49	—	1,686	—	—	1,685
Miscellaneous mollusk.....	—	—	—	\$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	\$38,923,591	\$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
					\$13,657,854	\$1,227,513	\$14,885,367
Tuna, bigeye.....	----	----	----	----	1,895	-----	1,895
					\$36,850	-----	\$36,850
Tuna, bluefin.....	----	----	----	----	372,599	-----	372,599
					\$56,930	-----	\$56,930
Tuna, skipjack.....	----	----	----	----	2,785,596	-----	2,785,596
					\$398,230	-----	\$398,230
Tuna, yellowfin.....	----	----	----	----	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	\$1,430,735	\$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	3,125,717
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
Mounder.....	3,800	75,778
Sand sole.....	2,034	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	426,807
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	30,293
Perch.....	2,768	14,596
Sand sole.....	1,358	13,538
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.....	75,004	914,655
Rockfish.....	52,235	912,381
Petrale sole.....	44,080	308,507
English sole.....	24,107	257,826
Lingcod.....	20,555	224,631
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
Albion		
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.....	149,050	362,042
English sole.....	37,824	445,444
Albacore.....	35,089	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	78,674
Lingcod.....	4,781	61,005
Sanddab.....	3,616	39,284
Flounder.....	1,960	29,923
Sablefish.....	1,398	26,510
All other species.....	2,304	25,674
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.....	13,035	119,690
California halibut.....	12,369	48,530
Sanddab.....	11,112	120,726
Sablefish.....	9,083	172,913
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.....	3,850	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	13,633
Port totals.....	\$323,779	1,000,806
Sausalito		
Salmon.....	\$164,991	252,290
Albacore.....	62,685	312,828
Market crab.....	40,499	103,700
Anchovy.....	8,559	95,090
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.....	2,890	7,954
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.....	130,486	192,432
Rockfish.....	121,947	1,565,551
Sablefish.....	88,356	1,445,530
Petrale sole.....	22,326	145,054
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	18,854
Anchovy.....	2,093	167,650
California halibut.....	1,999	7,322
Jack mackerel.....	1,586	37,213
Pacific herring.....	1,158	19,200
All other species.....	4,352	83,865
Port totals.....	\$780,084	14,514,660
Moss Landing		
Salmon.....	\$365,261	533,816
Albacore.....	175,403	456,150
Anchovy.....	66,972	5,962,207
Squid.....	35,762	1,093,000
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	25,365
Lingcod.....	1,350	10,810
All other species.....	2,357	55,034
Port totals.....	\$779,507	9,704,417
Santa Cruz		
Salmon.....	\$61,325	90,402
Pacific pompano.....	13,409	35,866
White seabass.....	9,935	24,869
California halibut.....	2,919	10,692
Rockfish.....	1,849	22,706
Lingcod.....	1,561	12,500
All other species.....	4,827	80,096
Port totals.....	\$94,925	282,312
MONTEREY AREA TOTALS	\$1,854,516	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
Petrle sole.....	7,525	53,610
Miscellaneous (animal food).....	7,190	359,491
Rex sole.....	4,833	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
Petrle 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	2,803,806
Squid.....	43,109	3,036,180
Pacific bonito.....	38,458	900,285
Swordfish.....	9,303	19,497
Abalone.....	6,884	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
Petrle 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	71,841
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.....	3,607	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	40,437,566
Albacore.....	1,290,312	5,737,098
Anchovy.....	1,039,372	106,420,650
Pacific bonito.....	488,051	10,450,845
Pacific mackerel.....	73,839	1,428,764
Squid.....	38,290	1,906,088
Bigeye 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
Yellowfin tuna.....	7,366,742	35,603,903
Skipjack tuna.....	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:		
Ahalone.....	\$353,801	1,089,482
White seabass.....	262,030	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	47,931
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	164,850
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	7,258
Opaleye.....	2,239	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	1,002,811
Pacific mackerel.....	6,086	117,766
Anchovy.....	5,591	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	20,991
California halibut.....	2,415	6,819
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	59,219
Perch.....	2,907	12,346
Abalone.....	1,355	4,662
Anchovy.....	1,437	147,111
Rock crab.....	1,389	11,113
All other species.....	2,407	11,854
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	6,853
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	11,672,982
Bluefin tuna.....	1,520,858	4,058,582
Albacore.....	315,254	1,410,038
Abaalone.....	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.....	16,562	66,247
California halibut.....	11,287	33,004
Bigeye tuna.....	5,659	35,831
Giant sea bass.....	5,405	27,169
Sardine.....	4,817	22,430
California barracuda.....	4,287	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	31,688
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	MARINE FISH CATCH FOR 1969
Barracuda, California.....	745,408	391,884	335,507	483,699	393,070	443,304	509,297	470,480	372,246	358,618	
Bass, largemouth.....	478,838	612,501	789,140	1,262,344	1,102,391	1,263,313	1,278,415	1,062,814	1,247,175	1,247,175	
Bonito, Pacific.....	1,199,919	849,426	798,725	775,719	1,298,804	806,322	944,415	349,932	1,162,936	1,130,241	
Carbuncle.....	2,518	2,639	1,838	1,728	6,491	7,578	10,293	5,419	4,349	4,853	
Diamond, California.....	45,100	108,101	118,166	135,169	146,160	118,213	117,213	117,213	117,213	117,213	
Lingcod.....	26,232	23,466	26,399	27,518	25,283	33,290	41,076	43,529	32,449	32,603	
Mackerel, jack.....	8,537	28,891	9,029	9,342	6,577	25,619	19,027	16,236	13,588	11,272	
Mackerel, Pacific.....	79,370	113,988	116,738	146,560	101,219	151,896	205,000	105,566	78,933	120,036	
Rockfish.....	1,000,984	989,141	952,560	952,560	1,031,030	1,031,030	1,081,935	1,081,935	1,070,351	1,070,351	
Salmon.....	37,941	42,965	87,012	72,457	92,021	51,677	70,151	84,946	127,884	111,389	
Solepinnis.....	15,111	26,672	33,314	53,896	73,844	71,888	69,851	63,280	59,863	63,011	
Seabass, white.....	15,697	14,082	14,564	19,800	14,901	9,775	3,972	3,385	4,138	4,056	
Shiner, California.....	15,100	15,101	15,101	15,101	15,101	15,101	15,101	15,101	15,101	15,101	
Tuna, albacore.....	70,075	184,891	229,314	158,372	112,388	99,771	74,680	96,497	129,710	48,887	
Tuna, bluefin.....	97	2,268	2,454	737	693	92	1,998	3,166	1,231	1,470	
Whitefish, ocean.....	5,550	6,647	6,157	6,231	6,949	13,810	15,857	18,184	22,155	36,474	
Yellowtail, California.....	250,132	92,271	45,765	45,765	18,104	18,397	30,073	31,292	49,467	52,322	
All others.....	56,132	87,981	92,776	142,630	114,400	163,595	166,470	145,073	205,410	421,327	
Total number of fish.....	4,090,034	3,453,833	3,655,993	4,278,502	4,434,176	4,634,558	5,408,420	4,444,164	5,731,201	5,725,575	
Number of angler days*.....	516,255	495,805	505,865	643,155	695,445	688,103	857,000	780,102	849,554	802,511	
Number of anglers.....	637,458	695,516									

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

† Not available after 1961.

43

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
	\$57,529	\$1,604			\$59,133
Jackknife-----	-----	-----	34,697	32,467	67,164
			\$21,232	\$19,067	\$40,299
Purple-----	-----	-----	2,839	10,114	12,953
			\$1,423	\$5,034	\$6,457
Unclassified-----	-----	262	255	----	517
		\$64	\$166	----	\$230
Crab					
Sand-----	-----	-----	3,952	40	4,019
			\$24,683	\$98	\$24,793
Shore-----	-----	-----	-----	-----	5
					\$72
Crayfish-----	-----	-----	-----	-----	47
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
Sculpin, staghorn-----	924	235	-----	-----	1,237
	\$3,006	\$427	-----	-----	\$3,685
Shrimp					
Bay-----	59,011	2,029	-----	-----	61,040
	\$70,884	\$2,675			\$73,559
Ghost-----	-----	-----	6,694	2,145	8,839
			\$27,850	\$4,607	\$32,457
Red-----	-----	-----	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
Crescent City														
King.....	4,634	565	45,730	6,096	69,218	8,414	34,207	4,850	23,050	2,430	3,039	399	180,468	22,733
Silver.....	11	1	1,297	259	175,403	33,082	61,720	9,495	2,680	345	77	10	244,188	44,092
Pink.....	0	0	19	8	3,083	816	3,570	793	0	0	0	0	6,672	1,617
Eureka														
King.....	94,645	12,180	398,654	52,479	139,441	18,631	244,152	26,064	128,356	17,663	8,890	1,074	1,012,138	128,100
Silver.....	172	31	3,634	808	226,073	37,679	24,859	3,013	1,658	255	0	0	256,396	41,786
Pink.....	10	5	43	21	292	146	1,904	408	0	0	0	0	2,249	580
Fort Bragg														
King.....	50,068	6,013	147,983	18,931	137,883	15,312	444,338	49,471	172,438	16,710	156,226	14,891	1,108,836	120,228
Silver.....	73	16	2,671	475	107,575	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	796	5,131	941	0	0	0	0	8,339	1,748
San Francisco														
King.....	155,201	22,459	373,804	42,069	432,573	47,164	415,306	47,752	86,915	9,801	93,780	8,374	1,558,002	176,749
Silver.....	0	0	7,652	1,275	82,545	15,409	67,321	9,667	155	28	2,538	299	160,231	26,618
Pink.....	0	0	25	6	2,584	703	1,162	218	0	0	0	0	3,771	925
Monterey														
King.....	247,015	27,908	322,447	35,669	171,192	16,193	164,402	13,404	112,805	9,124	17,817	1,355	1,035,578	103,613
Silver.....	238	51	12,289	2,151	18,017	2,834	2,905	397	219	26	32	4	33,398	5,583
Pink.....	0	0	0	14	4	19	5	0	0	0	0	0	33	9
Statewide														
King.....	551,855	69,094	1,288,818	154,314	850,607	106,714	1,263,105	141,650	523,507	54,888	279,452	35,863	4,805,322	581,423
Silver.....	492	99	27,543	4,978	812,619	106,040	530,189	74,210	31,825	4,211	31,864	3,794	1,234,529	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

45

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 Success^a by Fishery, Port, Month and Species, in Numbers of Fish—1969

	February			March			April			May			June			July			
	King		Silver	King		Silver	King		Silver	King		Silver	King		Silver	King		Silver	
Crescent City																			
Partyboat.....	0	0	..	0	0	..	0	0	..	0	0	..	0	0	..	0	112	141	18 0.6
Skiff.....	6	0	..	6	0	..	6	0	..	6	0	..	6	0	..	6	1,203	2,349	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	269	0.6	880	1,415	0.8	
Skiff.....	0	0	..	0	0	..	0	0	..	0	0	..	140	189	0.4	1,204	2,366	0.6	
San Francisco																			
Partyboat.....	8,292	0	2.5	13,848	0	1.7	7,106	0	1.5	5,368	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	1,046	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	0.4	615	51	b	206	74	b	148	48	b	127	12	b	
Skiff.....	461	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	5,591	2,719	1.5	10,723	4,884	1.3	13,474	2,849	1.2	
Skiff.....	1,627	0	1.5	5,924	0	0.8	2,922	148	0.4	2,845	1,032	0.6	3,573	3,131	0.7	17,190	8,940	0.7	

FISH RETENTION 153

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	King		Silver	King		Silver	King		Silver	King		Silver	King		Silver
Crescent City Partyboat.....	2	1	0.3	0	0	0.1	0	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	0	0	0	2,773	2,191	0.7
Eureka Partyboat.....	878	358	0.4	37	63	0.7	14	0	*	0	0	0	0	0	0	1,708	1,510	0.6
Skiff.....	8,338	1,995	0.7	237	105	0.3	0	0	0	0	0	0	0	0	0	15,590	8,384	0.7
Fort Bragg Partyboat.....	595	152	0.4	297	151	0.6	6	0	*	1	0	*	0	0	0	2,152	2,173	0.6
Skiff.....	417	439	0.3	47	177	0.3	0	0	0	0	0	0	0	0	0	1,802	3,168	0.5
San Francisco Partyboat.....	12,447	164	1.4	10,288	10	1.1	10,608	0	1.2	4,188	0	1.1	8	0	*	93,794	7,526	1.5
Skiff.....	2,452	64	0.5	2,410	9	0.5	1,369	0	0.7	882	0	0.5	0	0	0	15,712	1,069	0.5
Monterey Partyboat.....	188	4	b	32	0	b	54	0	b	73	0	b	0	0	0	2,175	189	b
Skiff.....	1,595	33	0.3	484	0	0.2	324	0	*	270	0	*	0	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	*	99,072	11,417	1.4
Skiff.....	15,634	3,206	0.6	3,244	300	0.6	1,687	0	0.7	1,155	0	0.5	0	0	0	55,779	16,777	0.7

^a Salmon per angler-day, species combined.

* No sampling.

^b Data not comparable to that of other ports or months.

MARINE FISH CATCH RPT 1969

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47

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