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Title

Fish Bulletin No. 80. The Commercial Fish Catch of California For the Years 1948-1949 With Yield Per Area of the California Sardine Fishing Grounds 1937-1949

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**STATE OF CALIFORNIA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FISH AND GAME BUREAU OF MARINE FISHERIES
FISH BULLETIN NO. 80**

**The Commercial Fish Catch of California For the Years 1948–1949
With
Yield Per Area of the California Sardine Fishing Grounds 1937–1949**



By
the Staff of the
BUREAU OF MARINE FISHERIES
1951

FORWARD

This is the twelfth in a series of fish bulletins begun in 1929 for the purpose of presenting detailed records of the State's commercial fish catch and related statistical information compiled by the Bureau of Marine Fisheries.

The Bureau of Patrol and Law Enforcement has cooperated in collecting the original material.

November, 1950

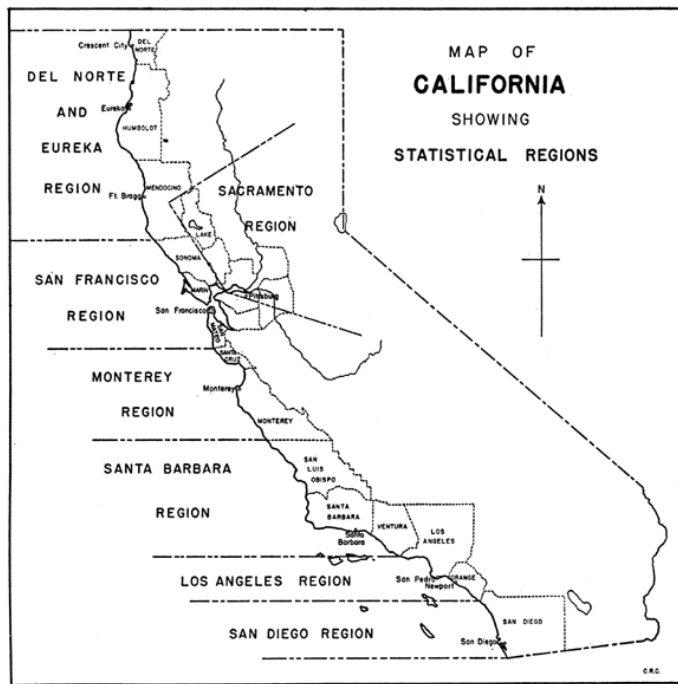


FIGURE 1

(4)

FIGURE 1

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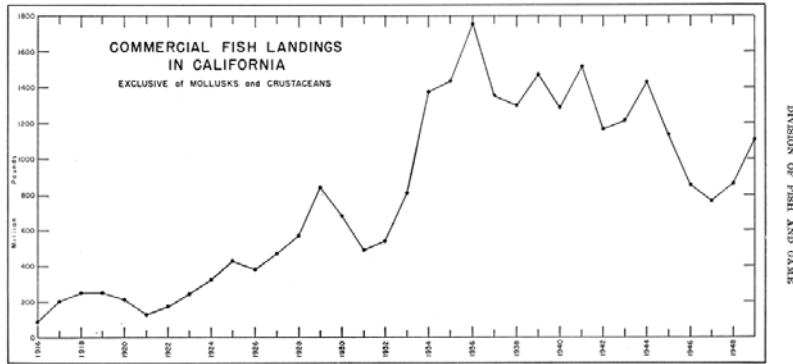


FIGURE 2. Deliveries to reduction ships (1930-1938 inclusive) and tuna importations are included. See Table 1

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TABLE 1
 Yearly Landings in Pounds—Commercial Fish
 Exclusive of Mollusks and Crustaceans ¹

Year	Pounds	Year	Pounds
1916	88,590,465	1933	811,002,474
1917	202,987,474	1934	1,215,151,189
1918	354,288,270	1935	1,432,616,046
1919	356,130,774	1936	1,782,662,108
1920	315,681,810	1937	1,584,600,750
1921	129,098,209	1938	1,268,008,943
1922	174,214,686	1939	1,473,988,711
1923	246,382,030	1940	1,284,861,693
1924	328,648,382	1941	1,517,883,166
1925	428,008,707	1942	1,166,614,164
1926	383,603,801	1943	1,253,191,265
1927	471,310,060	1944	1,403,302,520
1928	872,070,120	1945	1,138,943,880
1929	841,149,549	1946	858,977,788
1930	680,008,788	1947	763,241,820
1931	491,008,119	1948	843,000,004
1932	342,000,302	1949	1,110,074,882

¹ Includes sardine deliveries to reduction ships (1936-1938) and tuna importations.

TABLE 1
 Yearly Landings in Pounds—Commercial Fish
 Exclusive of Mollusks and Crustaceans

1. INTRODUCTION

This is a fourth report on the fishing areas for the sardine, *Sardinops caerulea*, off the California coast. Previous accounts (Calif. State Fish. Lab., 1930; Clark 1937a,b) described the areas in detail from shortly after the industry's inception (investigation records date from 1919), through the period of rapid expansion (1920's), and terminated with the peak season of production (1936–37). During the twenties the fishing grounds were extended from the localities near port to greater distances both offshore and north and south along the coast. By the end of that decade the fishermen were operating from Pt. Reyes to the Farallon Islands and southward to Pt. Sur, and by the mid-thirties the San Francisco fishermen were catching sardines as far north as Pt. Arena. In Southern California the fishing grounds extended from Pt. Conception to San Diego and around all the Channel Islands. The present study covers the 12 seasons 1937–38 through 1948–49. In this time interval the maximum boundaries of the fishing grounds remained the same. The only marked change was the development by the Monterey fishermen of the grounds between Pt. Sur and Pt. Buchon. The purpose of this report is threefold: to record where sardines were caught, to note the yield of sardines per block area, and to indicate any shift of fishing grounds during the period of study.

The earliest reports were based on fishermen interviews, giving accurate pinpoint locations of catches. This method is limited by the number of interviews that can be held during any given season, which, in practice, never encompasses the entire fleet. The full extent of the fishing grounds is thus difficult to determine. The recording of the successful fishing locations of the entire fleet during each fishing day of the season was begun in the early 1930's, when the waters off the coast were divided into numbered blocks of 10 minutes of latitude and 10 minutes of longitude. The Division of Fish and Game provides the fishermen with charts showing these blocks and requests that the block in which the catch was made be recorded on the receipt which the weighmaster makes out when a load of fish is purchased. A copy of this receipt furnishes the basic information from which the California fishery statistics are compiled. To obtain supplementary data, checkers are maintained at each port during the sardine season; they observe and make notes on the unloading of the boats, the composition of the catch, the condition of the fish, and any other pertinent information. These notes are filed with the corresponding boat receipts and the two combined represent a fairly complete history of a load of sardines.

In the present study the material was first compiled to show total tonnages taken from each specific block without regard to port of delivery. To indicate general trends and to eliminate minute details the 12 seasons were combined into four three-season groups: 1937–38 through 1939–40, 1940–41 through 1942–43, 1943–44 through 1945–46, and 1946–47 through 1948–49. The average tonnage of each block area in each of the three-season groups was then computed and plotted (Figures 3 to 6).

The present extent of the sardine fishing grounds was well established by the early 1930's (Clark, 1937a, b). To note any shift of fishing intensity within these known grounds, the tonnages for individual blocks were grouped into broader areas. (See inserts in Figure 3 and 4.) The seasonal tonnage for each of these larger regions was computed and its relative importance indicated as a percentage of the total season catch for the entire State (Table 2).

2. FISHING GROUNDS

The fishing grounds exploited by the sardine fishing fleet off the California coast extend from Bodega Bay southward to the United States-Mexican boundary and westward from the inshore waters to the offshore islands as far as the Farallons, Santa Rosa and San Nicolas. This major area is composed of two large distinct regions, one off the central section of the State and the other off the southern portion. The two regions are generally exploited by different fleets which operate out of the ports of San Francisco, Monterey, and San Pedro. The San Francisco and Monterey vessels fish the central coastal section which is bounded by Bodega Bay on the north, the Farallon Islands on the west, and Pt. Sur on the south. The San Pedro fleet fishes the waters about the offshore islands as well as along the coast from Pt. Conception south to the United States-Mexican boundary.

3. YIELD PER BLOCK

Details of the varying yields of block areas are shown by three-season groupings in Figures 3 to 6.

3.1. 1937–38 through 1939–40

In the period 1937 to 1940 the most productive blocks were off Pt. Montara, 464; off Pigeon Pt., 478; and the north-western part of Monterey Bay, 509. The average season's yield of each of these blocks was over 30,000 tons. off San Francisco seven blocks yielded from 20,000 to 30,000 tons each (448, 449, 456, 457, 465, 473, and 502). These blocks form a broad band which runs southeast from Pt. Reyes toward Pt. Montara and thence along the coast into Monterey Bay. The band is surrounded by areas of fair yield, from 10,000 to 20,000 tons. Only incidental catches were made between Pt. Sur and Pt. Conception.

off Southern California there was a relatively uniform yield of 1,000 to 10,000 tons throughout the principal fishing grounds. There were four general fishing areas: (1) the northern Channel Islands, Anacapa and Santa Cruz; (2) along the mainland from Pt. Hueneme to Newport Beach; (3) the outlying islands, Santa Barbara and San Nicolas; and (4) Santa Catalina Island. of minor importance were the waters around San Clemente Island and off Oceanside and San Diego.

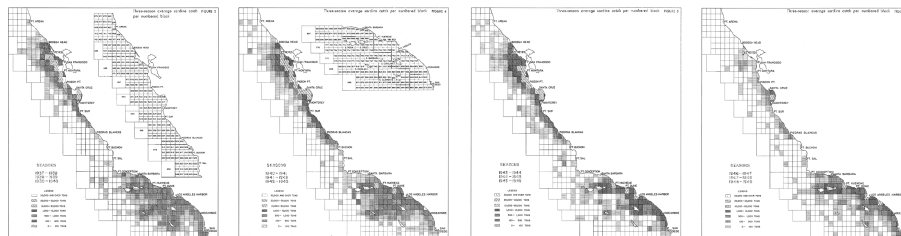


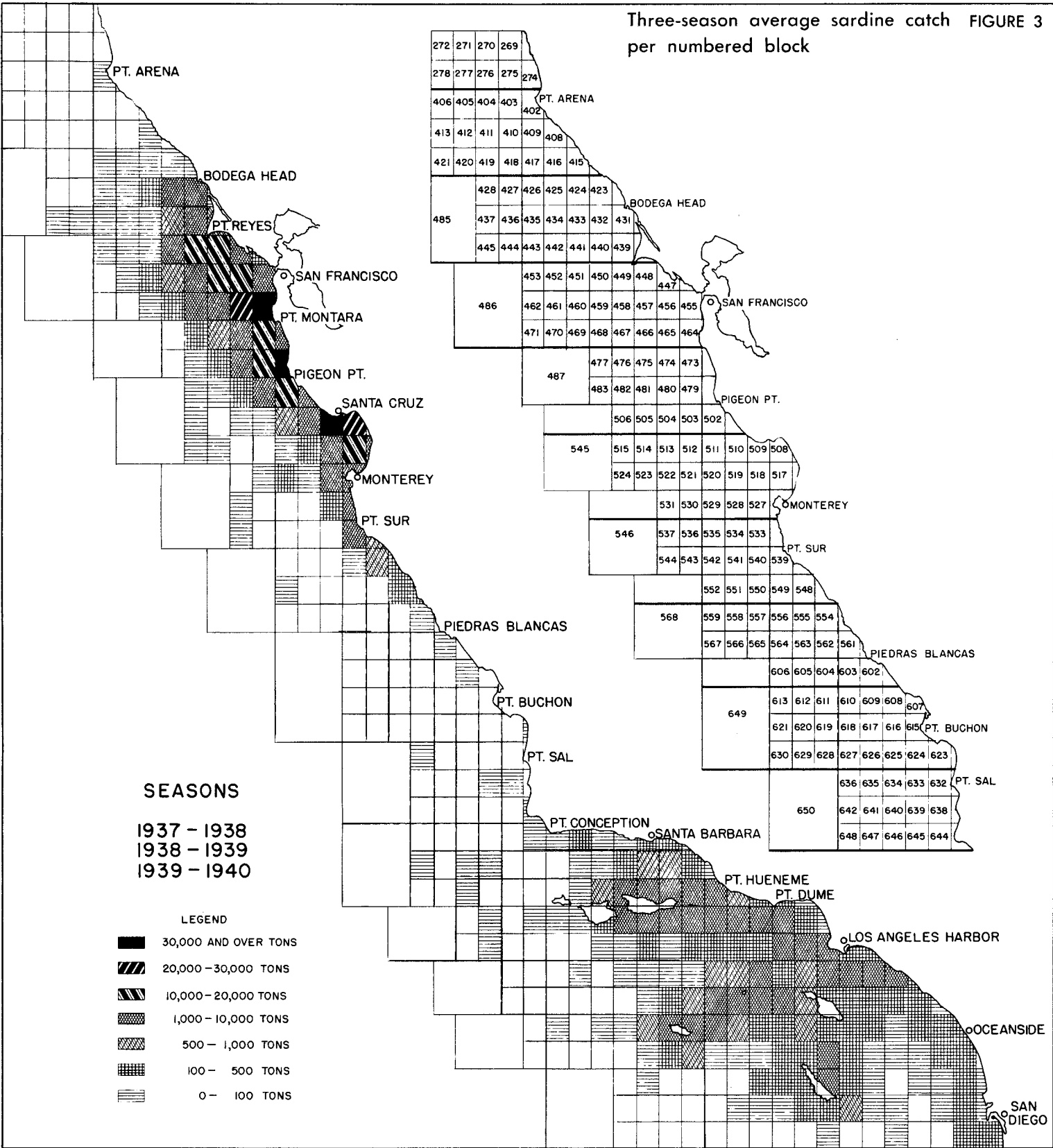
FIGURE 3 Three-season average sardine catch per numbered blockd

FIGURE 4 Three-season average sardine catch per numbered block

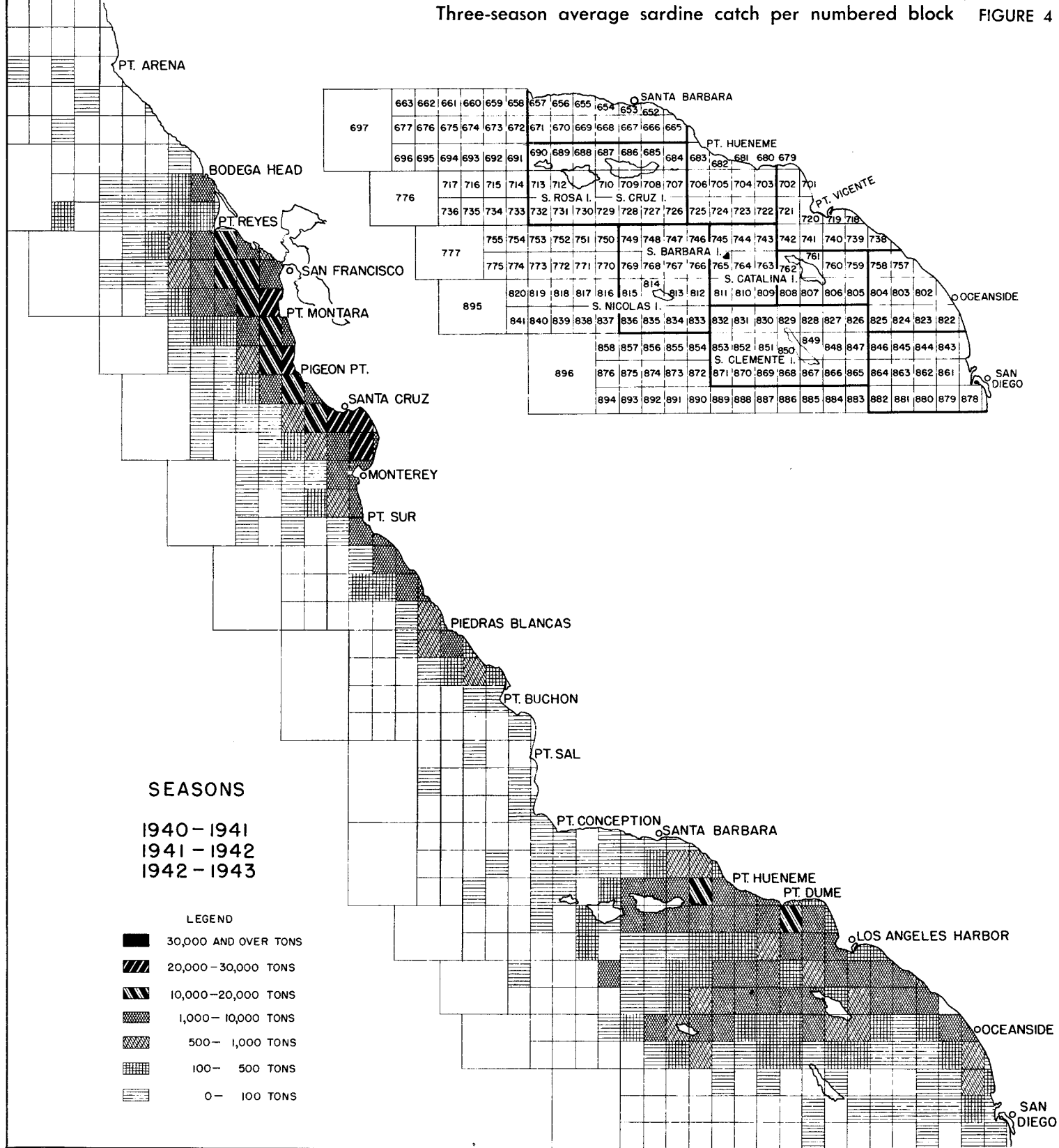
FIGURE 5 Three-season average sardine catch per numbered block

FIGURE 6 average sardine catch per numbered block

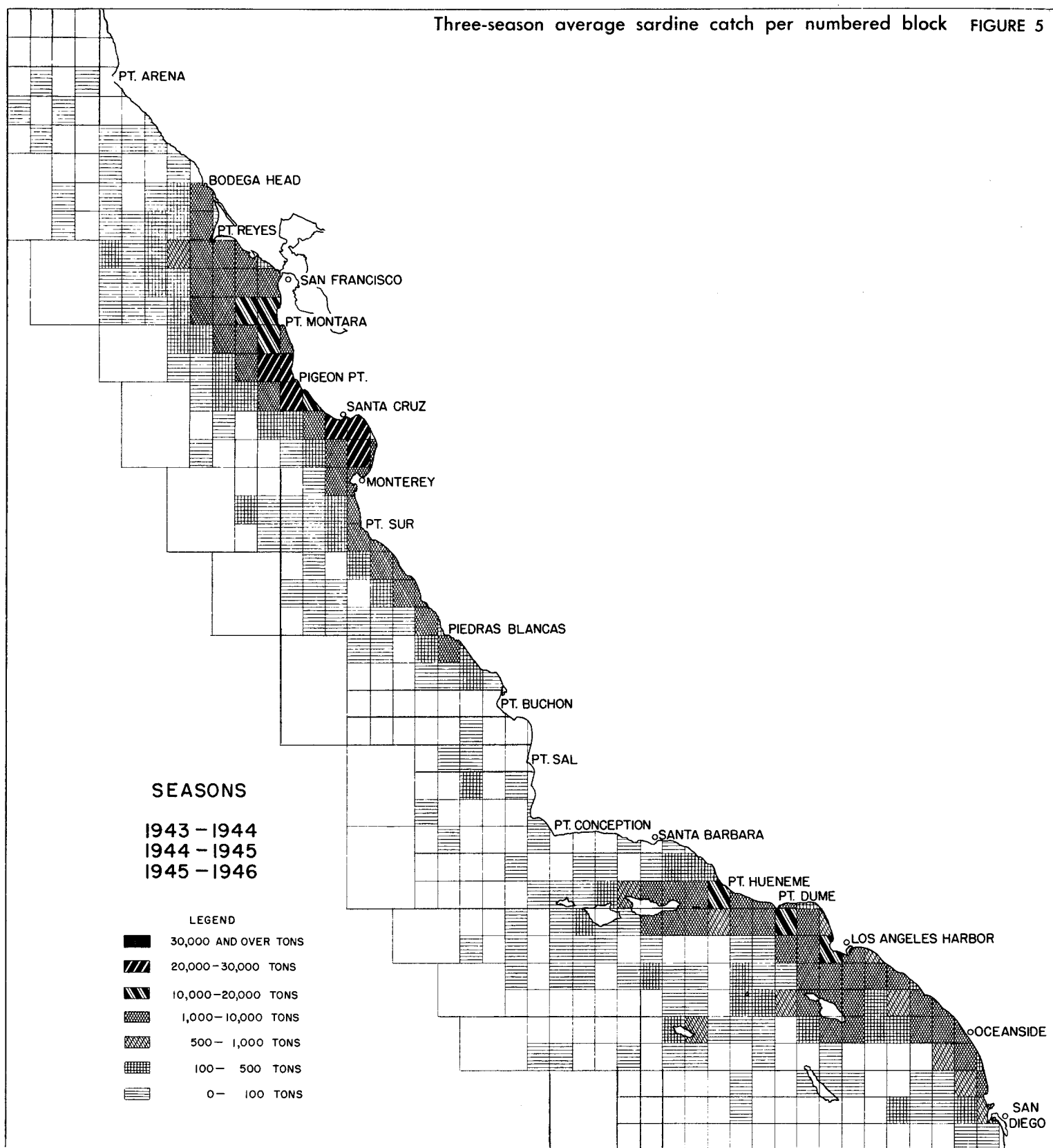
Three-season average sardine catch FIGURE 3
per numbered block

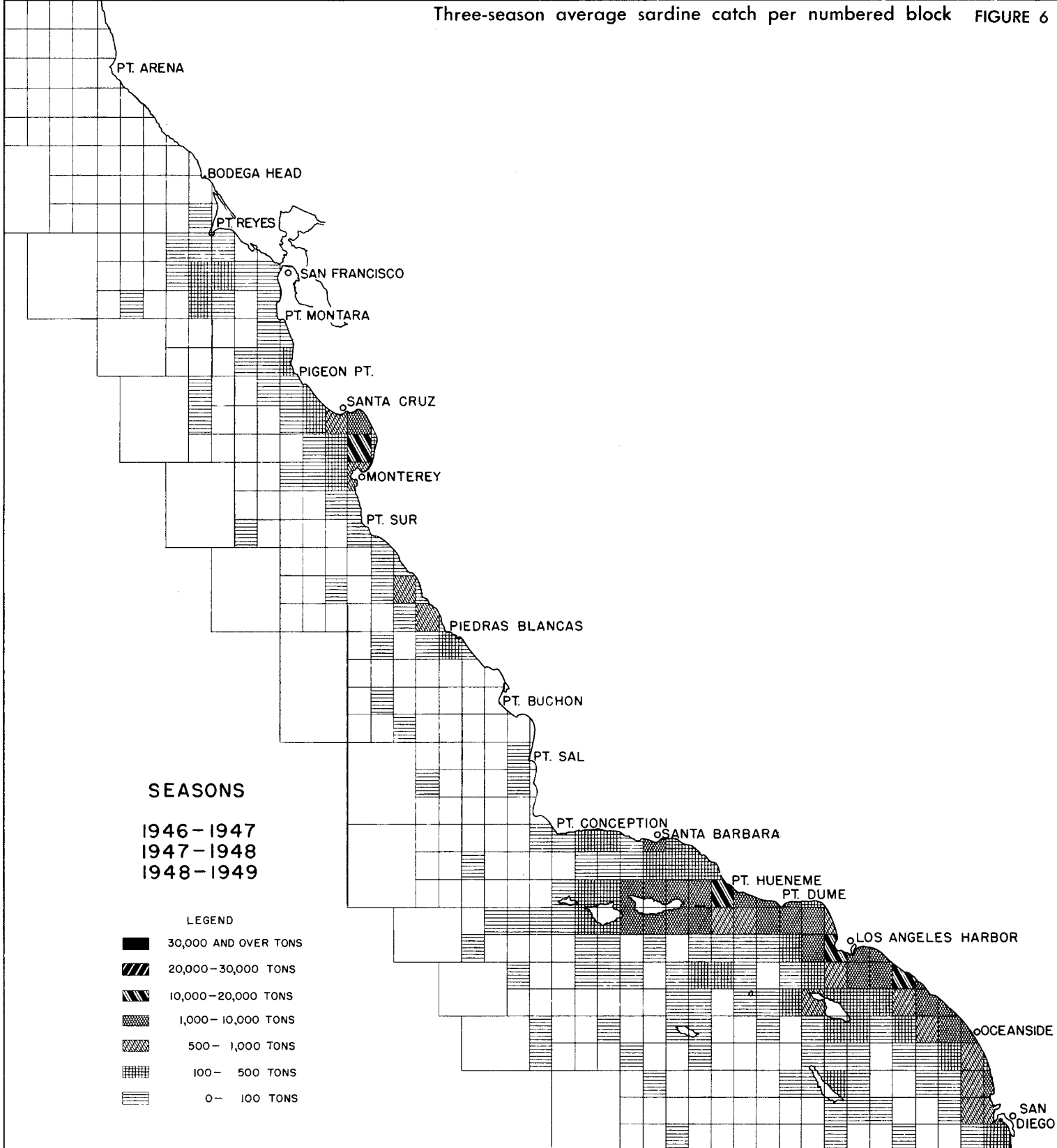


Three-season average sardine catch per numbered block FIGURE 4



Three-season average sardine catch per numbered block FIGURE 5





3.2. 1940–41 through 1942–43

The outstanding areas over the State during this period were again the blocks off Pt. Montara, 464; Pigeon Pt., 478; and the northern part of Monterey Bay, 508 and 509. The same broad band extending from Pt. Reyes to Pt. Montara contributed a high percentage of the total catch. There was a uniform yield throughout most of Monterey Bay. South of Monterey the yield from the coastal blocks was higher than in the previous period, 1937–40, and extended farther south to about Cape San Martin. From Piedras Blancas to Ventura the catch of sardines was negligible.

In Southern California the area about the northern Channel Islands produced a good yield with most of the blocks in the 1,000- to 10,000-ton group. Two blocks stood out with over 10,000 tons: Anacapa, 684, and Pt. Dume, 703. The fishing grounds in Santa Monica Bay off Pt. Vicente, Newport Beach, and Oceanside produced only fair catches, with most tonnages below 1,000. A few blocks were in the 1,000- to 10,000-ton class. Fishing around the outlying islands centered at Santa Barbara Island and extended eastward toward Santa Catalina. This was a slight eastward shift from the previous three-season period. The yield from the waters about San Diego was very low.

3.3. 1943–44 through 1945–46

In the period 1943 to 1946, fishing was more uniformly distributed resulting in less tonnage per block and with no block yielding as much as 30,000 tons. Most productive blocks were in the same general localities as in previous periods but there was a definite shift toward the south. The catch from the block off Pt. Montara was about half (15,000 tons) that of previous seasons. The greatest landings were made in three areas: off Pescadero Pt., 478 and 479; off Pt. Ano Nuevo, 502; and most of Monterey Bay, 508, 509 and 517. South of Monterey the catches were generally greater and extended farther south to the Piedras Blancas and San Simeon regions.

In Southern California there was a trend toward greater concentrations of fishing in individual blocks. Three blocks, off Pt. Hueneme, 683, off Pt. Dume, 703, and off Pt. Vicente, 720, each yielded well over 10,000 tons. The tonnages from the waters about the northern Channel Islands were fair but the westward extension was less than usual, reaching only to the eastern end of Santa Cruz Island. The waters about Santa Catalina produced a fair yield.

3.4. 1946–47 through 1948–49

The three-year period from 1946 to 1949 showed a marked change in the fishing grounds. The central area, which once contributed about two-thirds of the sardine tonnage, produced almost nothing. Block 517 in Monterey Bay not only yielded the greatest tonnage but was almost the sole producer of the region. South of Monterey the areas about Cape San Martin showed some strength but failed to attain the tonnages of past seasons.

The total catch in Southern California was below normal but assumed the leading role because of the failure in the north. Blocks with over 10,000 tons each were: off Pt. Hueneme, 683; off Pt. Vicente, 720; and off Newport Beach, 738. There were fair yields off Santa Monica Bay, around the northern Channel Islands, and southward along the coast to

TABLE 2
Sardine Catch by General Fishing Area

General area	Block numbers	1937-38		1938-39		1939-40		1940-41		1941-42	
		Tons	Percentage	Tons	Percentage	Tons	Percentage	Tons	Percentage	Tons	Percentage
Pl. Arica	401-421	172	.1			110		74		108	
Delago Head	422-445	20,624	6.0	283		1,302	.3	2,252	.5	2,641	.4
San Francisco	446-471	120,145	36.3	129,639	24.6	145,113	29.3	62,917	20.3	143,377	24.7
Yagou Pu	472-500	43,208	13.3	121,659	23.1	170,499	34.4	72,210	23.4	114,653	19.8
Montevideo	501-511	32,973	9.7	115,132	21.9	135,760	27.7	82,038	26.1	129,514	22.3
Pl. Sur	512-532	2,817	.8	11,850	2.3	24,346	4.8	10,413	3.2	25,401	4.3
Piedra Blanca	533-606	65	.02	707	.1	1,221	.2	5,411	1.7	13,812	2.4
Pl. Buchon	607-610			25		32		2,040	.6	339	
Pl. Isl	611-648	178				81		390	.1	77	
Santa Barbara	649-667, 668-671	5,029	1.5	1,745	.3	2,444	.4	1,439	.4	2,695	.4
Pl. Hornos	668, 689-693, 700-706, 722-725	17,359	5.1	26,814	5.0	2,821	.5	34,953	10.8	32,847	5.6
Santa Cruz Id.	694-699, 707-713, 726-732, 737-743	52,666	15.3	70,024	13.3	30,773	6.1	29,839	9.1	87,629	15.1
Pl. Viuda	670, 701-705, 718-721, 727-743	15,637	4.6	19,635	3.7	796	.1	16,887	5.1	596	.1
Oswende	756-758, 801-804, 821-825	4,894	1.4	307		83		737	.2	323	
Santa Catalina Id.	759-762, 805-809	2,568	.7	2,742	.5	3,708	.7	13,421	4.1	11,717	2.0
Santa Barbara Id.	763-745, 765-765, 809-811	1,848	.5	3,965	.7	30,155	5.7	26,149	8.0	8,474	1.5
San Nicolas Id.	767-769, 769-769, 812-813, 823-825	3,000	.9	8,663	1.6	27,788	5.2	37,985	11.6	2,215	.4
San Diego	814-816, 819-824, 827-832	608	.1	2,473	.5	45		1,347	.4	1,233	.2
San Clemente Id.	833-837, 847-852, 864-871	2,433	.7	10,703	2.0	4,869	.9	2,545	.8	132	
Totals		343,204	100.0	526,131	99.7	531,427	99.9	432,637	100.1	579,272	99.8

DIVISION OF FISH AND GAME

TABLE 2
Sardine Catch by General Fishing Area

TABLE 2—Continued
Sardine Catch by General Fishing Area

General area	1942-43		1943-44		1944-45		1945-46		1946-47		1947-48		1948-49	
	Tons	Per-centage	Tons	Per-centage	Tons	Per-centage	Tons	Per-centage	Tons	Per-centage	Tons	Per-centage	Tons	Per-centage
Pl. Arroyo.....	60		678	.1	34		346	.1						
Salada Head.....	1,052		9,093	1.9	498	.1	2,311	.6	22					
San Francisco.....	121,674	24.5	104,110	22.2	70,351	15.0	65,032	14.0	2,751	1.2	12			
Pigeon Pt.....	35,587	7.2	105,924	22.8	105,452	22.4	93,756	20.7	1,582	.6	38		178	.4
Monterey.....	64,312	12.9	78,920	16.8	190,265	39.4	81,179	17.6	19,632	8.7	10,941	9.4	32,339	20.9
Pt. St.....	11,419	2.3	20,438	4.4	20,458	4.4	2,540	.6	252	.1			162	.1
Pedra Blanca.....	12,594	2.5	14,186	3.0	11,433	2.1	2,141	.5	4,456	2.0	9		1,615	1.0
Pt. Pinos.....	52	.1	181		843	.2	124		101				61	
Pt. Sal.....			100		173		331		243		23		61	
Santa Barbara.....	1,617		67		1,722	.3	888	.2	4,661	2.1	9,453	8.9	129	.1
Pt. Harmer.....	62,497	12.6	17,417	3.7	22,472	4.7	65,123	14.5	41,718	19.8	26,453	24.8	23,299	14.3
Santa Cruz Isl.....	27,828	5.6	18,477	3.9	24,739	5.2	9,722	2.5	20,962	12.0	24,824	23.3	17,598	11.4
Pt. Vicente.....	71,631	14.4	44,823	9.5	57,253	12.3	65,033	14.2	49,231	31.0	19,061	17.9	20,661	12.7
Oceanside.....	23,013	4.6	23,299	5.0	31,690	6.8	17,166	4.4	32,240	14.3	9,571	9.0	22,327	15.1
Santa Catalina Isl.....	7,422	1.5	18,830	4.0	4,645	1.0	6,919	1.7	1,511	.7	2,658	2.5	2,430	1.5
Santa Barbara Isl.....	621	.1	2,276	.5	1,055	.2	1,472	.4	337	.2	399	.3	100	.1
San Nicolas Isl.....	827	.1	2,165	.5	391	.1	1,127	.3	1,259	.6	384	.3	14	.0
San Diego.....	2,490	.5	3,533	.8	4,461	.9	1,070	.3	7,203	3.2	3,173	3.0	3,472	2.2
San Clemente Isl.....	252	.1	129		130		151		796	.4	341		473	.3
Totals.....	495,910	99.9	468,430	99.7	546,202	100.1	394,398	100.0	231,697	100.0	196,424	99.7	154,911	99.8

COMMERCIAL FISH CATCH OF CALIFORNIA

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TABLE 2
Sardine Catch by General Fishing Area

Oceanside and Del Mar. Only occasional loads were taken from the waters about San Diego and the outlying islands.

3.5. Relationship of Catch to Bottom Topography

Examination of the charts shows that in each general fishing area there are distinct patterns of production, which are relatively consistent from season to season. These indicate concentrations of fish in certain small areas. In relation to the mainland these are generally off headlands and in bays. In relation to the topography of the ocean floor (Shepard and Emery, 1941) the areas are found over broad shallow plains (within the 100-fathom line), over submarine canyons, and over escarpments (steep slopes or cliffs). All of the high yielding areas are located over one or more of the above bottom formations and not over regions of deep water. For example, Pt. Montara and Pigeon Pt. are over a broad plain that slopes away from the mainland, while off Pt. Dume there is a submarine canyon and off Pt. Vicente there is an escarpment. In Monterey Bay there is a canyon and shallow plain, which may be a key to its generally high and consistent productivity.

4. YIELD PER GENERAL AREA

In the 12 seasons under study, as shown in Table 2, the greatest single change in fishing areas occurred during the three-season period 1946–47 to 1948–49. The disappearance of sardines north of Pt. Conception during this period caused the San Francisco and Monterey fleets to shift their operations from the central fishing grounds to those off Southern California. While the disappearance of fish was abrupt, the actual shift in fishing localities was more gradual. The San Francisco and Monterey fleets spent about half of the first season of failure, 1946–47, in scouting their usual fishing grounds. When it became evident that sardines were not to be found in the area, some of the boats moved south; others remained, extending their scouting operations north and south of the usual range. In the following seasons, 1947–48 and 1948–49, the boats scouted the central fishing grounds until the season opened in the south, at which time most of them again shifted their operation to the southern grounds.

San Francisco is the only general area which shows significant changes in tonnages throughout the period. Landings declined with fair consistency from 36 percent of the state total in 1937–38 to less than 15 percent in 1944–45 and 1945–46 and to less than 1 percent in the succeeding seasons. In no other area was there a consistent upward or downward trend.

5. REFERENCES

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- Clark, Frances N. 1937a. Fishing localities for the California sardine, *Sardinops caerulea*, 1928–1936. Calif. Div. Fish and Game, Fish Bull. 48, 11 p., 5 figs.
- 1937b. Yield per area of the California sardine fishing grounds, 1935–1937. Calif. Fish and Game, vol. 23, no. 4, p. 307–309, 2 figs.
- Shepard, Francis P., and K. O. Emery 1941. Submarine topography off the California coast: canyons and tectonic interpretation. Geol. Soc. of America, special papers no. 31, 171 p., 4 charts.

6. COMMERCIAL FISHERMEN AND FLEET

In the past two years there has been an increase of 2,000 licensed fishermen and 1,000 boats in California's commercial fishing fleet. The percentage of larger vessels is increasing and the boats are equipped with improved gear and modern devices which permit them to go farther afield and remain longer on the fishing grounds. This period has been marked by an extensive movement of vessels along the coast and there is no longer a concentration of local boats and local fishermen delivering to the home ports. Small ports have risen in importance due to the deliveries of large quantities of fish by the vessels to be transported by truck to distant canneries and markets.

Each year a few boats have come south from Alaska, Washington and Oregon to fish in California waters but in 1948 and 1949 there was an influx of large vessels which offered definite competition for the local operators. In 1949, 424 large vessels from the north were registered to fish in California waters and 918 northern fishermen were licensed. They invaded the otter trawl fishery delivering quantities of bottom fish at Eureka and nearby ports. They fished for salmon and crabs as far south as Monterey and seined for sardines from Monterey to Los Angeles. They fished the length of the State for albacore and some went south to foreign waters to return with tuna for the California canneries.

Fishing vessels are required to register with the Division of Fish and Game once each year. Vessels entering fishing activities for the first time are required to apply for Fish and Game boat plates. The plates carry a serial number which acts as the identifying code for the boat during the life of the vessel. The boat plates are issued free of cost to the boat owner but they remain the property of the State and if they are lost or defaced there is a charge of \$4 per pair for replacement.

The first boat plates were issued in 1931 and many of these were lost or had been painted over so that the serial number was no longer clear. During the war, rustproof metals were not available and the inferior plates issued at that time soon deteriorated. During 1949 boat plates in the series from 1 through 7,000 were replaced by the State without cost to the fishermen. The one requirement was that the fishing vessel be properly registered for that year, or in the case of a fishing party vessel, that the owner apply for his party permit.

It is important that the Fish and Game boat plates be placed in a prominent place on the superstructure of the vessel and that the serial number appear on every fish receipt issued by a market or cannery when the catch is delivered. The serial number insures the proper identification of the vessel especially in those cases where there are several boats with identical names. Through the use of the number as a code in the statistical system the boat loses its identity and merely becomes a unit in the State's records of the catch.

TABLE 3
Licensed Commercial Fishermen

1938-1939.....	7,793	1944-1945.....	10,871
1939-1940.....	8,724	1945-1946.....	11,747
1940-1941.....	9,047	1946-1947.....	12,312
1941-1942.....	9,344	1947-1948.....	12,894
1942-1943.....	9,043	1948-1949.....	14,261
1943-1944.....	11,804	1949-1950.....	14,962

TABLE 3
Licensed Commercial Fishermen

TABLE 4
Licensed Commercial Fishermen

Region of residence	Number of fishermen	
	1948-1949	1949-1950
Eureka.....	929	917
Sacramento.....	665	619
San Francisco.....	1,292	1,325
Monterey.....	1,267	1,319
Santa Barbara.....	622	594
Los Angeles.....	5,832	5,961
San Diego.....	2,914	3,273
Alaska, Washington and Oregon fishermen licensed in California.....	716	918
Mexican nationals licensed in California.....	24	36
Total.....	14,261	14,962

TABLE 4
Licensed Commercial Fishermen

TABLE 5
Licensed Commercial Fishermen

NATIVITY	Number of fishermen	
	1948-1949	1949-1950
United States.....	10,152	10,734
Italy.....	1,386	1,401
Jugoslavia.....	772	690
Norway.....	446	523
Portugal.....	414	468
Great Britain.....	204	194
Japan.....	143	170
Sweden.....	98	99
Mexico.....	87	91
Finland.....	51	70
Spain.....	52	57
Germany.....	59	56
Greece.....	55	53
Denmark.....	59	51
Costa Rica.....	37	35
Philippine Islands.....	30	33
Russia.....	31	32
All others.....	185	205
Total licensed fishermen.....	14,261	14,962

CITIZENSHIP	Number of fisherman	
	1948-1949	1949-1950
Citizens:		
United States born.....	10,147	10,731
Foreign-born United States citizens.....	5	3
Naturalized citizens.....	3,161	3,179
Noncitizens:		
First naturalization papers.....	354	338
Aliens.....	519	654
Nativity not given.....	40	39
Citizenship not given.....	35	18
Total.....	14,261	14,962

TABLE 5
Licensed Commercial Fishermen

TABLE 6
Commercial Fishing Fleet

Season	Under 40 feet	40 to 84 feet	85 feet and over	Total
1939-1940.....	2,253	755	102	3,110
1940-1941.....	2,510	836	108	3,454
1941-1942.....	2,331	765	106	3,202
1942-1943.....	2,264	650	51	2,965
1943-1944.....	2,929	750	47	3,726
1944-1945.....	2,852	870	60	3,782
1945-1946.....	3,103	943	99	4,145
1946-1947.....	3,558	1,144	155	4,857
1947-1948.....	3,639	1,201	202	5,042
1948-1949.....	4,088	1,378	256	5,722
1949-1950.....	4,294	1,595	271	6,160

TABLE 6
Commercial Fishing Fleet

TABLE 7
Commercial Fishing Fleet
1948-1949

Region of home port	Number of boats, grouped by length						Total number of boats for each region
	Up to 24 feet	25 to 39 feet	40 to 64 feet	65 to 84 feet	85 to 99 feet	100 feet and over	
Eureka.....	146	292	98	8	-----	2	546
Sacramento.....	116	267	11	-----	-----	-----	394
San Francisco.....	62	530	118	31	4	5	750
Monterey.....	72	226	56	41	9	2	406
Santa Barbara.....	53	136	51	1	1	2	244
Los Angeles.....	462	1,165	422	112	41	28	2,230
San Diego.....	128	371	161	43	38	104	845
Alaska, Washington and Oregon.....	2	60	154	71	13	7	307
Total number of boats.....	1,041	3,047	1,071	307	106	150	5,722

TABLE 7
Commercial Fishing Fleet 1948-1949

TABLE 8
Commercial Fishing Fleet
1949-1950

Region of home port	Number of boats, grouped by length						Total number of boats for each region
	Up to 24 feet	25 to 39 feet	40 to 64 feet	65 to 84 feet	85 to 99 feet	100 feet and over	
Eureka.....	109	339	124	7	-----	2	581
Sacramento.....	109	247	12	-----	-----	1	369
San Francisco.....	73	567	129	28	2	1	800
Monterey.....	83	246	56	43	5	1	434
Santa Barbara.....	51	128	60	5	-----	-----	244
Los Angeles.....	437	1,256	445	140	50	34	2,362
San Diego.....	135	429	186	37	41	118	946
Alaska, Washington and Oregon.....	-----	85	273	50	9	7	424
Total number of boats.....	997	3,297	1,285	310	107	164	6,160

TABLE 8
Commercial Fishing Fleet 1949-1950

TABLE 9
Fishing Party Vessels ¹

	1948	1949
Boat owners with market fishermen's licenses.....	567	549
Boat owners with party permit only.....	241	265
Total party permit or "sport" boats.....	808	814

¹ The fishing party vessels are included in the preceding tables which present the record of the fleet. When not under charter for "sport" fishing they engage in commercial fishing activities.

TABLE 9
Fishing Party Vessels

7. LIST OF COMMON AND SCIENTIFIC NAMES OF FISHES, CRUSTACEANS AND MOLLUSKS

<i>Common name</i>	<i>Scientific name</i>
Anchovy	
Deep-bodied	Anchoa compressa
Northern	Engraulis mordax
Slough	Anchoa delicatissima
Barracuda	Sphyraena argentea
Bonito, California	Sarda lineolata
Cabezone	Scorpaenichthys marmoratus
Cabrilla	Epinephalus analogus
Carp	Cyprinus carpio
Catfish	
Forktail	Ictalurus catus
Squaretail	Ameiurus nebulosus
Corbina, Mexican	Cynoscion orthonotus
Crevally	Caranx sp.
Flounder, starry	Platichthys stellatus
Flying fish, California	Cypselurus californicus
Grouper	Species of Mycteroperca
Hake	Merluccius productus
Halibut, California	Paralichthys californicus
Halibut, Pacific	Hippoglossus stenolepis
Hardhead	
Greaser blackfish	Orthodon microlepidotus
Hardhead	Mylopharodon conocephalus
Herring, Pacific	Clupea pallasii
Kingfish	
Kingfish	Genyonemus lineatus
Queenfish	Seriphus politus
Lingcod	Ophiodon elongatus
Mackerel, jack	Trachurus symmetricus
Mackerel, Pacific	Pneumatophorus diego
Mullet	Mugil cephalus
Perch	
Blacksmith	Chromis punctipinnis
Halfmoon	Medialuna californiensis
Opaleye	Girella nigricans
Salt-water perch	Members of family Embiotocidae
Pike (Sacramento squawfish)	Ptychocheilus grandis
Pompano, California	Palometa simillima
Rock bass	
Kelp bass	Paralabrax clathratus
Sand bass	Paralabrax nebulifer
Rockfish	All species of Sebastodes and Sebastolobus
Sablefish	Anoplopoma fimbria
Salmon	
King	Oncorhynchus tshawytscha
Silver	Oncorhynchus kisutch
Sand dab	Citharichthys sordidus
	Citharichthys stigmaeus
Sardine, Pacific	Sardinops caerulea
Sculpin	Scorpaena guttata
Sea bass, black	Stereolepis gigas
Sea bass, white	Cynoscion nobilis
Seatrout, greenling	Hexagrammos decagrammus
Shad	Alosa sapidissima
Shark	
Basking shark	Cetorhinus maximus
Dogfish	Squalus suckleyi
Gray smoothhound	Mustelus californicus
Leopard shark	Triakis semifasciata
Soupfin	Galeorhinus zyopterus
Varying amounts of other species	
Sheepshead, California	Pimelometopon pulchrum
Sierra	Scomberomorus sierra
Skate	
Big	Raja binoculata
California	Raja inornata
Longnose	Raja rhina
Varying amounts of other species	
Smelt	
Grunion	Leuresthes tenuis
Jack smelt	Atherinopsis californiensis
Surf smelt	Hypomesus pretiosus
Top smelt	Atherinops affinis
Small amounts of other Osmerids	
Sole	
English	Parophrys vetulus

Dover	<i>Microstomus pacificus</i>
Petrale	<i>Eopsetta jordani</i>
Rex	<i>Glyptocephalus zachirus</i>
Varying amounts of other species	
Split-tail	<i>Pogonichthys macrolepidotus</i>
Sucker, western	<i>Catostomus occidentalis</i>
Swordfish, broadbill	<i>Xiphias gladius</i>
Tomcod	<i>Microgadus proximus</i>
Tuna	
Albacore	<i>Thunnus germon</i>
Bluefin tuna	<i>Thunnus thynnus</i>
Skipjack	<i>Katsuwonus pelamis</i>
Yellowfin tuna	<i>Neothunnus macropterus</i>
Turbot	
Curffin	<i>Pleuronichthys decurrens</i>
Diamond	<i>Hypsopsetta guttulata</i>
Sharpridge	<i>Pleuronichthys verticalis</i>
Small amounts of other species	
Wahoo	<i>Acanthocybium solandri</i>
Whitebait	<i>Allosmerus attenuatus</i>
	<i>Spirinchus starksi</i>
	Young of several other species
Whitefish, ocean	<i>Caulolatilus princeps</i>
Yellowtail	<i>Seriola dorsalis</i>

<i>Common name</i>	<i>Scientific name</i>
Crab, market	Cancer magister
Crab, rock	Cancer antennarius
	Cancer anthonyi
	Cancer productus
Lobster, spiny	Panulirus interruptus
Shrimp	Crago franciscorum
	Crago nigricauda
	Squilla sp.
Abalone	
Pink	Haliotis corrugata
Red	Haliotis rufescens
Southern green	Haliotis fulgens
Clam	
Cockle	Paphia staminea
	Species of Chione
Gaper	Schizothaerus nuttalli
Jackknife	Tagelus californianus
Pismo	Tivela stultorum
Softshell	Mya arenaria
Washington	Saxidomus nuttalli
Mussel	Mytilus californianus
	Mytilus edulis
Octopus	Paroctopus apollyon
Oyster	
Eastern	Ostrea virginica
Pacific	Ostrea gigas
Squid	Loligo opalescens

TABLE 10
California Landings

Species	Pounds	Species	Pounds
1948		1949	
Sardine.....	362,037,087	Sardine.....	633,374,991
Yellowfin tuna.....	191,723,801	Yellowfin tuna.....	185,612,094
Jack mackerel.....	72,898,335	Skipjack.....	78,574,657
Skipjack.....	58,772,070	Jack mackerel.....	51,250,088
Pacific mackerel.....	39,385,796	Pacific mackerel.....	49,771,273
Albacore.....	37,622,760	Albacore.....	44,277,161
Sole.....	21,654,927	Sole.....	19,729,485
Squid.....	19,255,687	Crab.....	11,134,012
Crab.....	11,913,293	Yellowtail.....	7,319,494
Anchovy.....	10,835,930	Squid.....	6,859,129
Yellowtail.....	10,445,663	Salmon.....	6,847,774
Bonito.....	9,135,126	Rockfish.....	6,067,877
Salmon.....	7,769,178	Bluefin tuna.....	4,389,390
Bluefin tuna.....	6,606,987	Abalone.....	3,599,998
Rockfish.....	6,540,976	Anchovy.....	3,322,273
Abalone.....	3,228,727	Barracuda.....	2,473,901
Shark.....	2,480,555	Bonito.....	1,835,196
Barracuda.....	2,125,737	Spiny lobster.....	1,779,911
Sablefish.....	2,068,433	Sablefish.....	1,771,223
All others.....	23,949,138	All others.....	15,328,387
Total pounds.....	900,540,206	Total pounds.....	1,135,318,314

This table includes actual landings at California ports by the commercial fishing fleet as well as shipments from other states and foreign countries by truck, rail and ocean liner to California canneries and to the fresh fish dealers.

TABLE 10
California Landings

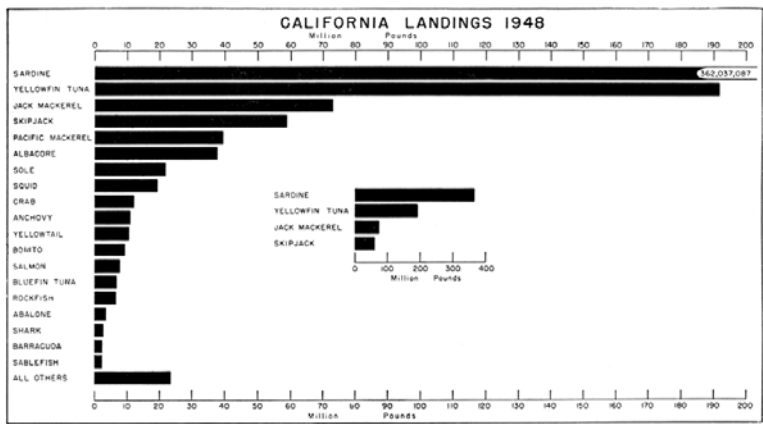
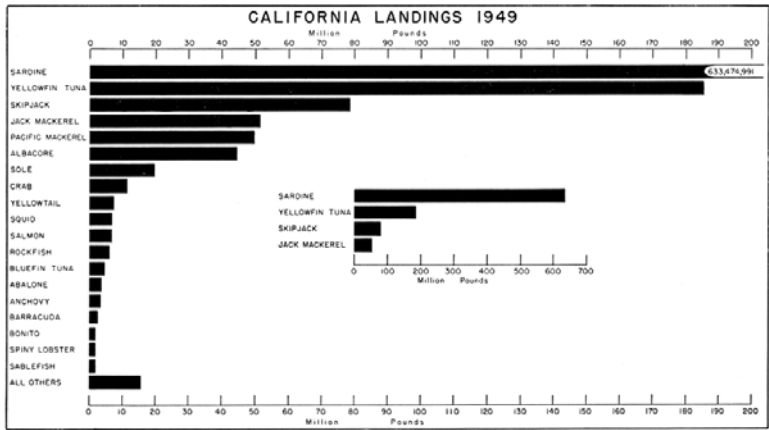


FIGURE 7

FIGURE 7



COMMERCIAL FISH CATCH OF CALIFORNIA

FIGURE 8

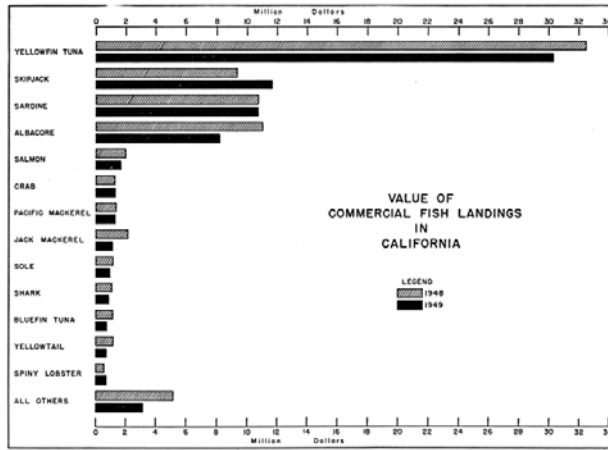


FIGURE 9

FIGURE 9

TABLE 11
Value—Commercial Fish Landings in California

Species	1948	1949
Yellowfin tuna.....	\$32,436,867	\$30,295,142
Skipjack.....	9,328,804	11,654,637
Sardine.....	10,732,237	10,756,897
Albacore.....	11,019,190	8,191,729
Salmon.....	2,009,401	1,677,719
Crab.....	1,263,246	1,297,131
Pacific mackerel.....	1,380,584	1,285,892
Jack mackerel.....	2,136,341	1,111,123
Sole.....	1,138,725	918,380
Shark.....	1,051,306	833,392
Bluefin tuna.....	1,124,538	712,702
Yellowtail.....	1,162,721	686,000
Spiny lobster.....	549,331	685,904
All others.....	5,223,680	3,119,603
Total value.....	\$80,556,971	\$73,226,801

TABLE 11
Value—Commercial Fish Landings in California

8. EXPLANATION OF TABLES

8.1. Shipments Into California

The tables in this series of bulletins present a record of the landings of the commercial fishing boats at California ports and of shellfish harvested along the coast. In addition there are included shipments of fish first landed outside of the State and brought in by rail, truck or cargo vessel to be canned or processed in California or to be sold fresh. The tables do not include the fish which is canned, frozen, packaged or processed outside of the State and shipped to our markets and wholesale dealers.

TABLE 12
Shipments and Importations of Fresh Fish, 1948

Shipped from	Shipped to			Total pounds
	San Francisco region	Monterey region	Los Angeles region	
Continental United States:				
Carp.....			36,540	36,540
Tuna, bluefin.....	31,233		136,947	168,180
Tuna, skipjack.....	364			364
North of state boundary:				
Lingcod.....			3,156	3,156
Rockfish.....	33,771			33,771
South of international boundary				
Tuna, albacore.....			7,885	7,885
Tuna, skipjack.....			1,000	1,000
Japan:				
Tuna, albacore.....		277,000	864,747	1,141,747
Total pounds.....	65,368	277,000	1,050,275	1,392,643

Recapitulation:
Tuna, albacore—1,149,632 pounds.
Tuna, skipjack— 1,364 pounds.

TABLE 12
Shipments and Importations of Fresh Fish, 1948

TABLE 13
Shipments and Importations of Fresh Fish, 1949

Shipped from	Shipped to			Total pounds
	San Francisco region	Los Angeles region	San Diego region	
Continental United States: Miscellaneous fish		11,905		11,905
British Columbia: Salmon		296,335		296,335
Oregon and Washington: Sablefish		27,851		27,851
Salmon		121,818		121,818
Tuna, albacore			131,621	131,621
Miscellaneous fish		2,400		2,400
South of international boundary: Barracuda			16,217	16,217
Bonito			5,655	5,655
Cabrilla		323		323
Halibut, California			6,157	6,157
Rock bass		588	27,713	28,301
Rockfish			106,508	106,508
Sablefish			3,347	3,347
Sea bass, black		420	7,640	8,060
Sea bass, white		275	2,364	2,639
Shark			591	591
Sheepshead			1,928	1,928
Tuna, albacore		28,618	9,768	38,386
Tuna, skipjack			48,454	48,454
Tuna, yellowfin			447,899	447,899
Whitefish, ocean			6,660	6,660
Yellowtail			1,773	1,773
Miscellaneous fish		374	281	655
Mollusk: Clam, Pismo			644,732	644,732
Peru: Tuna, skipjack	4,285			4,285
Tuna, yellowfin	336,918	302,891		639,809
Japan: Tuna, albacore		114,033		114,033
Total pounds	341,203	907,831	1,469,308	2,718,342

Recapitulation:			
Sablefish	31,198 pounds	Tuna, albacore	284,040 pounds
Salmon	418,153 pounds	Tuna, skipjack	52,739 pounds
		Tuna, yellowfin	1,087,708 pounds

TABLE 13
Shipments and Importations of Fresh Fish, 1949

8.2. Statistical Regions

The boundaries of the regions of landings shown in Figure 1 and in the tables are as follows:

- Eureka region: Del Norte, Humboldt and Mendocino Counties.
- Sacramento region: Sacramento and San Joaquin River systems with the delta areas, including Suisun Bay and Lake County.
- San Francisco region: Sonoma, Marin, San Francisco and San Mateo Counties, including San Francisco and San Pablo Bays; Alameda and Contra Costa Counties to Carquinez Straits.
- Monterey region: Monterey and Santa Cruz Counties.
- Santa Barbara region: San Luis Obispo, Santa Barbara and Ventura Counties.
- Los Angeles region: Los Angeles and Orange Counties.
- San Diego region: San Diego and Imperial Counties.

8.3. Value

The value tables represent the amount paid to the fishermen for their catch. The fish receipt does not always show the price paid per pound. Where this information is lacking, the calculated value is based on the average price paid for the month and in the area where the fish is delivered.

8.4. Conversion Factors

The source from which the tables are compiled is a copy of the original fish receipt issued to the fisherman by the buyer at the time the fish is first landed. The poundage reported is assumed to be round weight unless the receipt indicates that the fish is cleaned or out of the shell. There are inconsistencies in some weights, however, due to the fact that the receipt does not always indicate whether the fish was or was not cleaned before landing, or the manner in which it was cleaned. Salmon, white sea bass and barracuda are examples of such species and for these no adjustments have been possible. Some other species are as a rule landed in a cleaned condition but again adjustments have not been made since accurate field data which would provide the basis for adjusting the weights are lacking. Catfish is always cleaned and the cleaning loss is known to be 50 percent, therefore the catfish totals have been adjusted.

Conversion factors are available for shellfish and when these species are reported in numbers rather than pounds, or as cleaned rather than round weight, the factors used are: "Crab, 2 pounds each; red abalone, 50 pounds per dozen; green and pink abalone, 35 pounds per dozen; Mexican Pismo clams, 8 pounds for each 1 pound cleaned weight; Washington clams, 7 pounds per dozen; Eastern oysters, 30 pounds per hundred; Pacific oysters, 50 pounds per hundred or 8 pounds per gallon cleaned."

TABLE 14
Origin of Commercial Fish Landings in California During 1948

Species	California	North of the state boundary	Continental United States	South of the international boundary	Japan	Total pounds
Anchovy.....	10,835,930					10,835,930
Barracuda.....	1,100,081			1,025,656		2,125,737
Bonito.....	214,992			8,920,134		9,135,126
Cabezone.....	8,202					8,202
Cabrilla.....	1,036,212		36,540	230,725		1,072,722
Carp.....	274,730					274,730
Catfish.....					105	105
Corbina, Mexican.....						405,249
Flounder.....	394,876	10,373				70,896
Flying fish.....	70,896					335,315
Grouper.....				355,315		4,600
Hake.....	4,600					1,306,613
Halibut, California.....	1,041,124			265,489		130,444
Halibut, Pacific.....	130,444					24,363
Hardhead.....	24,363					8,000,377
Herring, Pacific.....	8,000,377					643,027
Kingfish.....	643,027					2,058,675
Lingcod.....	1,971,485	82,749		4,441		72,898,335
Mackerel, jack.....	72,898,335					39,385,796
Mackerel, Pacific.....	39,385,796					172,288
Mullet.....	172,288					305,164
Perch.....	305,164					166
Pike, Sacramento.....	166					160,553
Pompano, California.....	160,553					164,289
Rock bass.....	164,289			26,930		6,540,976
Rockfish.....	6,540,976	471,440		60,338		2,068,433
Sablefish.....	2,012,343	35,078		1,012		7,769,178
Salmon.....	7,754,308	14,870				804,695
Sand dab.....	800,083	4,612				362,037,087
Sardine.....	362,037,087					155,076
Sculpin.....	154,087			389		188,011
Sea bass, black.....	16,837			171,374		1,114,290
Sea bass, white.....	789,691			324,599		725
Seatrou, greenling.....	725					426,386
Shad.....	426,386					2,480,555
Shark.....	2,473,654	331		6,570		100,227
Sheepshead.....	87,491			12,736		24,472
Sierra.....				24,472		119,101
Skate.....	119,101					782,096
Smelt.....	781,841			255		21,654,927
Sole.....	20,178,519	1,476,408				1,442
Split-tail.....	1,442					2,200
Sucker.....	2,200					236,125
Swordfish, broadbill.....	877,683					1,113,808
Tuna, albacore.....	10,499,390	55,167		25,926,456	1,141,747	37,622,760
Tuna, bluefin.....	1,693,760		168,180	4,835,047		6,696,987
Tuna, skipjack.....	319,194		364	58,452,512		58,772,070
Tuna, yellowfin.....	413			191,725,388		191,725,801
Turbot.....	114,701					114,701
Wahoo.....				300		300
Whitebait.....	222,499					222,499
Whitefish, ocean.....	24,253			17,587		41,840
Yellowtail.....	246,553			10,199,110		10,445,663
Miscellaneous fish.....	202,009			5,222		207,231
Crustacean:						
Crab.....	11,912,191	1,102				11,913,293
Lobster, spiny.....	365,520			954,109		1,517,629
Prawn.....	2,771					2,771
Shrimp.....	926,707					926,707
Shrimp, ghost.....	1,339					1,339
Mollusk:						
Abalone.....	3,228,727					3,228,727
Clam.....	51,118					51,118
Clam, cockle.....	834					834
Clam, gasper.....	4,656					4,656
Clam, jackknife.....	5,247					5,247
Clam, softshell.....	1,373					1,373
Clam, Washington.....	6,602					6,602
Mussel.....	4,770					4,770
Octopus.....	119,690	1,037				120,697
Oysters, eastern.....	331,238					331,238
Oysters, Pacific.....	166,524					166,524
Squid.....	19,255,687					19,255,687
Total pounds.....	593,239,812	2,173,167	205,084	303,780,396	1,141,747	900,540,206

This table includes actual landings at California ports by the commercial fishing fleet as well as shipments from other states and foreign countries by truck, rail and ocean liner to California canneries and to the fresh fish dealers.

TABLE 14
Origin of Commercial Fish Landings in California During 1948

TABLE 15
Monthly Commercial Fish Landings in California During 1948 *

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Anchovy.....	497,821	3,200,192	2,364,506	518,689	300,272	189,220	493,509	789,828	1,179,613	712,262	190,133	379,801	10,833,820
Herring.....	73,278	126,747	382,642	166,065	225,661	477,596	212,521	114,122	61,665	142,721	62,247	38,221	2,128,727
Booby.....	38,810	66,454	17,756	6,566	165,201	331,177	2,612,829	4,034,900	1,139,132	675,569	102,168	144,783	9,133,126
Calappa.....	1,872	426	906	2,513	130	282	823	842	279	118	231	482	8,200
Caballa.....	31,702	73,454	49,292	4,543	130	282	823	842	279	118	231	482	230,725
Carp.....	36,597	64,944	73,000	84,620	103,233	194,316	205,241	41,758	23,278	64,201	96,600	14,869	1,072,152
Clupea.....	22,023	4,972	16,278	61,682	3,814				608	31,284	62,196	69,691	27,400
Coquina, Mendocino.....		168								21,814		13,214	35,028
Flounder.....	69,245	86,596	27,246	26,782	27,436	32,284	26,284	32,728	31,284				70,896
Flying fish.....				2,628	17,704	31,274	14,170	2,429	3,499				
Gopher.....	94,291	86,356	30,729	47,444	14,452	28,582				2,248	12,833	79,668	353,316
Hake.....	100,222	108,122	142,262	171,084	101,162	12,249	26,292	12,691	92,191	90,827	61,899	73,441	94,996
Hallibut, California.....	22,669	20,987	2,812	1,587					4,866	2,514	3,026	5,187	14,787
Hallibut, Pacific.....	5,199	11,641	1,820						99		1,710	4,699	473
Hardhead.....	19,684	39,816	63,922	20,202	30,709	50,159	1,300	254,313	199,008		4,265	118,178	8,000,377
Herring, Pacific.....	227,142	138,112	104,862	170,356	228,514	206,991	172,981	36,019	31,681	62,817	47,282	31,663	843,027
Kingfish.....	19,684	39,816	63,922	20,202	30,709	50,159	1,300	254,313	199,008		4,265	118,178	8,000,377
Leporello.....	15,424,638	11,490,037	4,040,737	346,296	382,220	12,283	1,817,009	3,802,191	16,968,369	2,209,719	1,319,041	13,094,261	72,899,263
Mackerel, jack.....	872,112	599,851	523,249	114,914	64,623	323,423	2,259,263	5,262,158	9,200,869	11,945,963	4,411,246	3,260,712	30,583,799
Mackerel, Pacific.....	23,270	19,266	14,365	32,265	26,293	196	10,147	27,834	13,122	11,655	12,061	54,173	172,288
Mullet.....	28,312	29,356	71,092	74,953	2,436	2,436	30,147	27,834	13,122	11,655	12,061	15,704	305,164
Pike, Sacramento.....	21	18	13	103	7								166
Pompano, California.....	8,852	4,677	24,699	14,055	44,466	4,067	33,618	3,211	3,211	3,211	8,788	4,691	7,600
Pompano, California.....	15,744	11,062	8,029	10,114	14,794	23,685	26,843	17,560	7,818	12,430	12,124	7,569	154,239
Rock bass.....	906,000	435,316	658,137	399,256	140,133	995,014	801,530	373,526	315,003	371,290	320,193	420,119	6,549,976
Rockfish.....	70,850	24,273	68,171	178,019	234,514	231,341	221,798	296,832	177,207	353,990	183,712	180,227	2,066,432
Sablefish.....	29,388	84,261	69,388	363,281	1,746,862	1,261,836	1,837,119	1,245,009	1,477,200		33,420	48,239	7,769,178
Salmon.....	72,213	83,848	62,131	61,202	66,600	61,000	55,320	59,021	71,028	83,492	62,287	42,604	804,683
Sardine.....	4,782,830	19,445,329	2,100,267	3,067,261	11,854,448	11,017,211	22,102,332	44,783,370	89,300,999	68,896,332	83,814,065	362,027,987	1,056,076,000
Sculpin.....	6,809	11,801	22,420	25,960	15,274	15,271	18,188	15,813	2,508	1,183	1,724	12,832	155,076
Sea bass, black.....	22,729	14,117	18,327	8,421	16,025	8,561	29,025	3,289	10,842	1,201	31,716	20,700	188,011
Sea bass, white.....	37,220	21,071	20,431	83,147	106,615	199,877	196,319	110,953	184,287	62,813	78,796	110,628	1,114,290
Sea trout, greenling.....			88		111,619	270,810	5,135	98	35	107			725
Shad.....	237,267	62,782	379,383	163,381	123,213	105,843	89,749	51,432	41,021	184,356	218,782	648,346	2,480,533
Shark.....	29,048	26,262	5,338	9,560	2,287	3,690	1,223	1,001	1,443	6,277	10,871	8,156	100,277
Sheepshead.....	617	1,613	4,506	599	3,639	4,901	1,112	3,770			2,133	1,622	24,172

DIVISION OF FISH AND GAME

TABLE 15
Monthly Commercial Fish Landings in California During 1948

Shad.....	8,917	4,506	10,667	7,871	4,558	14,179	15,968	11,540	6,807	11,616	10,582	5,340	119,301
Seel.....	27,934	62,279	230,918	92,887	55,992	44,781	47,940	67,790	40,157	33,964	22,924	33,220	782,096
Sole.....	1,562,226	1,996,829	828,622	1,598,384	2,530,272	2,575,926	2,367,074	3,693,220	2,171,449	1,866,319	1,203,600	1,164,761	21,684,927
Spotted hal.....	263	339	.....	.....	.....	.....	.....	35	922	.....	.....	75	1,412
Sucker.....	.....	2,300	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,300
Swedish broodfish.....	.....	.....	.....	.....	.....	20,226	129,876	278,312	619,678	237,288	27,986	692	1,113,808
Tuna, albacore.....	.....	.....	.....	.....	.....	85	6,011,141	20,270,035	9,068,128	1,979,042	.....	353,272	954
Tuna, bluefin.....	263,687	669,682	302,670	28,780	.....	82,371	1,896,454	2,362,449	422,731	158,161	.....	.....	6,690,887
Tuna, skipjack.....	1,282,784	2,184,211	582,590	880,387	1,811,918	3,839,316	8,544,645	13,648,159	12,551,464	6,517,167	2,957,372	4,021,667	58,772,070
Tuna, yellowfin.....	5,917,647	8,264,530	11,108,718	21,173,415	24,494,988	21,969,066	16,988,054	11,178,879	16,023,244	16,496,804	9,296,511	28,501,541	161,228,861
Turbot.....	14,463	20,071	4,990	4,034	6,058	7,562	6,452	6,132	12,017	12,724	8,093	12,098	114,791
Walleye.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Whitefish.....	14,163	42,083	44,592	33,333	30,667	43,550	6,812	2,513	651	50	738	183	229,490
Whitefish, ocean.....	14,159	10,265	3,320	3,009	.....	.....	373	800	92	697	1,109	4,633	41,840
Yellowtail.....	245,211	388,179	130,569	206,437	176,649	1,324,323	3,198,379	1,966,293	1,623,564	298,146	261,237	374,148	10,445,663
All others.....	4,303	5,899	8,455	30,935	37,098	23,971	14,285	21,227	7,817	6,692	8,164	38,965	267,331
Crustaceans:	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Crab.....	660,149	1,315,666	1,456,780	1,656,735	1,365,206	436,749	262,337	94,453	1,265	1,477	2,581,233	1,677,774	11,613,260
Lobster, spiny.....	348,837	396,875	119,470	.....	.....	.....	.....	.....	.....	190,628	221,118	231,491	1,541,629
Penaeid.....	827	942	562	.....	.....	120	30	.....	.....	.....	42	568	2,771
Shrimp.....	67,751	47,056	54,854	66,627	54,949	83,013	127,284	172,914	80,803	20,138	89,914	41,737	926,202
Shrimp, ghost.....	12	54	109	235	326	134	262	169	38	.....	.....	.....	1,239
Mollusks:	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Albacore.....	303,978	.....	63,135	269,377	354,727	335,005	454,472	424,238	330,491	358,726	223,600	229,878	3,228,717
Clam.....	1,580	2,766	3,204	8,619	7,356	8,028	8,068	6,243	8,798	2,882	1,569	874	41,118
Clam, rock.....	.....	42	24	.....	.....	.....	.....	.....	.....	.....	13	15	814
Clam, paper.....	80	20	24	80	190	20	360	240	555	900	700	650	4,656
Clam, rockfish.....	173	215	490	841	506	100	100	143	942	420	888	480	3,217
Clam, softshell.....	1,063	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,373
Clam, Washington.....	572	4,422	4,939	4,901	317	.....	.....	.....	.....	.....	.....	.....	5,602
Mussel.....	370	200	180	120	750	550	800	800	330	350	300	160	4,770
Octopus.....	19,168	14,668	14,151	14,922	2,702	6,196	6,227	7,258	8,376	8,410	8,311	130,687	6,602
Oyster, eastern.....	20,262	17,881	18,284	16,124	83,724	13,677	11,118	15,540	99,063	10,046	9,500	5,800	331,238
Oyster, Pacific.....	6,500	6,310	6,713	12,810	14,003	6,584	12,163	12,200	12,200	15,000	26,600	22,133	156,854
Squid.....	1,530,192	2,450,926	630,749	3,829,749	4,282,747	8,336,490	668,135	286,558	134,396	.....	.....	.....	19,255,697
Total pounds.....	42,690,542	54,908,735	28,020,042	35,925,738	43,749,041	52,751,791	62,823,943	66,405,594	119,739,206	133,919,835	91,377,124	139,126,611	600,540,206

* This table includes actual landings at California ports by the commercial fishing fleet as well as shipments from other states and foreign countries by truck, rail and ocean liner to California canneries and to the fresh fish dealers.

COMMERCIAL FRESH CATCH OF CALIFORNIA

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TABLE 15—Cont'd.

TABLE 16
Commercial Fish Landings in the Eureka Region During 1948

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Fishing boat landings from California													
Water:													
Atchovy.....							1,200		610				11,165
Calicos.....	249	123	91	153	43								13,415
Flounder.....	26,187	2,562	11,879	15,434	13,229	10,334	12,544	13,129	12,220	5,302	160	227	126,978
Hallibut, Pacific.....	278	819	209	156	11,218	18,877	10,398	3,163	1,479	1,831	117	123	55,228
Herring, Pacific.....	15,387	21,349											120,507
Langost.....	191,189	147,951	78,117	132,907	186,135	176,168	169,534	177,475	172,414	114,777	24,684	35,444	1,088,915
Perch.....	1,212	1,378	16,314	15,565	17		6,949	16,831	2,266	732			82,115
Rockfish.....	833,939	201,348	282,635	128,435	324,741	601,313	394,448	343,730	107,520	197,193	58,225	141,167	3,014,871
Sablefish.....	92,778	17,228	87,484	117,438	228,662	188,456	193,178	224,123	118,399	312,878	146,153	117,207	1,008,004
Salmon.....				45,841	698,672	940,459	943,482	1,243,351	147,814				4,016,122
Seed fish.....	27,167	28,993	27,498	20,852	32,781	52,215	21,426	41,116	19,745	18,053	3,692	3,253	276,922
Sardine.....							1,200	4,735	1,200				7,235
Sea bream, white.....	81	15	200	17	115	105							503
Shark.....	129,823	2,067	693	421	164	117	69	476	5,129	4,332	32,009	470,022	643,613
Skate.....				650	800	80	900	1,100	1,450	1,600	200	1,200	7,200
Snail.....				436	1,900	9,638	1,726	7,834	4,050	2,333			29,112
Soft-shell.....	742,731	370,311	493,716	868,794	1,018,673	1,977,652	1,614,003	2,202,923	1,812,142	1,286,194	792,719	308,671	14,886,732
Tuna, albacore.....							1,338	60,028	60,042	18,681	827		731,858
Turbot.....	1,210	2,230	698	298		2,882	1,105	1,042	1,852	2,419	948	149	14,899
Whitefish.....	2,476	21,148	38,660	30,504	22,738	33,037	5,923	2,124	69			287	106,031
Miscellaneous fish.....	809	293	788	1,514	2,133	2,811	1,283	13,920	3,725	2,127	2,581		33,339
Crustacean:													
Crab.....	231,323	817,658	1,308,429	1,878,660	1,263,028	329,502	61,053	27,531			23,795	213,504	5,855,012
Mollusk:													
Clam, Washington.....	372	1,425	1,239	1,801	117					333	220	228	802
Octopus.....	7,090	8,200	4,977	8,787	2,963	683	1,762	3,978		1,663	3,841	1,096	3,350
Octopus.....													43,139
Total pounds.....	1,976,137	1,848,000	2,428,289	2,992,935	4,745,584	4,410,781	3,339,384	4,406,433	2,820,563	1,888,017	1,999,154	1,709,314	33,905,204

DIVISION OF FISH AND GAME

TABLE 16
Commercial Fish Landings in the Eureka Region During 1948

Fishing boat landings from waters north of the state boundary:																					
Flounder.....	2,225				2,699	2,420	2,687			415											10,373
Lingcod.....	3,975	1,471	7,496	4,991	19,756	9,932	1,839	9,937	17,788	3,658											79,563
Rockfish.....	43,134	2,652	16,080	6,535	128,645	72,905	31,680	115,004	11,128	9,906											437,699
Subfish.....				282	1,423	22,717	1,824	20,874	4,929	3,329											55,978
Salmon.....				38				14,765	67												14,870
Sand dab.....	350	1,225	2,455	109	146		327														4,612
Shark.....	208						23														231
Sole.....	114,882	17,155	103,702	78,369	148,225	130,758	185,687	492,283	230,898	64,749											1,476,498
Tuna, albacore.....								569													569
Crustacean:																					
Crab.....	1,102																				1,102
Mollusk:																					
Octopus.....	96		48	298	220	28		130	217												1,037
Total pounds.....	165,472	22,503	129,691	92,348	300,835	239,397	220,730	563,997	265,027	81,642											2,081,642
Grand totals Eureka region.....	2,141,609	1,865,593	2,552,980	3,085,285	5,046,419	4,650,178	3,560,114	4,970,450	3,085,560	1,920,259	1,099,154	1,709,214									35,686,846

TABLE 16—Cont'd.

TABLE 17
Commercial Fish Landings in the Sacramento Region During 1948

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Fishing boat landings from California waters:													
Carp.....	21,521	46,014	49,682	44,719	108,003	186,711	190,560	17,350	31,065	30,997	75,846	5,819	808,617
Catfish.....	18,156	5,562	12,166	57,852	3,514				27,192	33,772	54,960	25,402	240,146
Flounder.....				25							1,710	4,669	6,379
Hardhead.....	975	350											1,325
Herring, Pacific.....	369,656	202,254						97,000					668,910
Pike, Sacramento.....	21	18	13	103	7								142
Salmon.....	29,888	84,261	68,388	181,353	254,730	58,390		77,079	1,104,334		32,639	48,739	1,939,901
Shad.....			29,292	110,886	270,770	5,135							426,183
Split tail.....	160							35	932				1,202
Grand totals Sacramento region.....	440,377	338,459	169,941	394,638	637,024	250,236	190,560	191,464	1,163,463	68,479	167,744	80,512	4,093,227

TABLE 17
Commercial Fish Landings in the Sacramento Region During 1948

TABLE 18
Commercial Fish Landings in the San Francisco Region During 1948

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Fishing boat landings from California waters:													
Anchorovy.....				81,390	230,830	9,808	14,063	43,650		8,500		610	380,251
Clupeoid.....				200				48	60			32	278
Carp.....	18,418	18,823	21,721	28,031	14,690			900	2,772	7,814	8,674	11,094	112,299
Crab.....	3,576	3,410	4,212	3,850				568	568	4,232	6,424	6,104	34,544
Cutthroat.....				8,375	7,644	16,839		8,926	18,103	9,212	9,212	4,961	126,433
Flounder.....	30,358	83,276	13,186										206,820
Hake.....													2,600
Haddock, Pacific.....	22,488	20,148	2,263	1,461	1,331		715	2,183	1,703	1,255	3,070	14,654	78,116
Haddock, California.....	2,499	2,239	793	162	179		79	242	199	116	499	603	3,645
Hardhead.....	2,145	11,291	1,920		731								16,186
Herring, Pacific.....	6,181,023	37,7140	9,543										6,772,274
Kingfish.....	39	65		167	343	418	702	383	383	1,273	498	33	4,176
Lingcod.....	16,480	19,754	13,384	26,097	12,968	13,943	17,658	30,811	43,908	43,144	34,154	19,897	284,546
Mackerel, Pacific.....													2,190
Perch.....	1,419	2,068	27,209	26,395				2,660	7,479	9,945	6,796	2,260	47,384
Pompano, California.....													638
Rockfish.....	6,712	8,263	9,945	16,319	17,662	25,045	26,215	17,174	24,796	37,382	45,381	30,757	271,135
Schistothorax.....	10			113	331	320	3,008		1,121	1,451	6,645	7,106	11,157
Salmon.....				113,658	276,236	312,733	806,344	138,375	176,449				1,414,470
Sardine.....	18,827	47,792	7,163	23,984	25,143	26,000	21,626	58,594	48,705				417,701
Sardines.....	18,800	9				13,000	13,600				174,900		279,809
Sea bass, white.....							22	2,700					2,722
Sea trout, greenling.....			48				36	277		107			488
Shark.....	43,027	21,765		165	46								203
Shark.....				7,826	62,572	14,488	3,892	3,029	8,214	4,690	10,622	22,029	201,860
Shark.....	2,573	3,750	4,320	14,473	4,745	15,415	12,300	9,500	4,700	7,450	9,550	5,750	127,663
Smelt.....	5,843	42,394	211,261	73,377	37,469	14,208	14,784	9,091	8,740	11,603	908	41	427,987
Sole.....	64,153	427,273	135,007	207,516	299,374	324,730	390,295	429,741	590,486	471,169	332,235	471,060	4,546,261
Spill fish.....	101	199											240
Tuna, albacore.....							6,218	22,899	420,024	191,348	5,716		668,204
Turbot.....	11,491	6,476	3,301	3,944	3,728	8,227	2,666	8,068	10,678	10,999	6,036		61,821
Whiting.....	10,697	19,395	8,272	2,759	3,755	8,622	684	961	503	50	506	183	56,234
Miscellaneous fish.....	122	396	346	13,622	29,949	4,211	6,218	5,407	1,219	1,142	1,443	781	66,896

DIVISION OF FISH AND GAME

TABLE 18
Commercial Fish Landings in the San Francisco Region During 1948

Crustacean																					
Crab.....	745,884	386,617	138,406	73,699	96,339	101,709	133,649	62,696						2,949,331	1,290,302						5,077,042
Shrimp.....	67,781	47,056	54,854	66,627	51,949	83,613	127,284	172,944						80,860	39,183						926,707
Mollusk																					
Abalone.....				3,150	2,099	10,243	10,909	8,080	5,247												1,978
Clam, soft-shell.....	1,093																				1,093
Octopus.....	7,561	8,369	6,374	5,748	7,657	1,777	2,521	3,458	3,416	3,296	2,121	2,319									50,543
Oyster, eastern.....	20,252	17,383	18,294	16,124	82,734	32,677	11,112	13,350	99,989	19,046	9,900	8,809									331,228
Oyster, Pacific.....																					11,571
Total pounds.....	7,883,719	1,783,777	697,268	896,419	1,283,495	1,016,720	1,316,789	1,500,221	1,407,482	941,109	3,765,248	2,693,230									31,033,587
Shipments and importations of fresh fish																					
Headfish.....																					33,771
Tuna, bluefin.....																					31,236
Tuna, skipjack.....																					364
Total pounds.....	364	31,353	33,771																		65,368
Grand total San Francisco Region.....	7,884,103	1,815,070	731,039	899,419	1,283,495	1,016,720	1,316,789	1,500,221	1,407,482	941,109	3,765,248	2,693,230									34,098,955

¹ See Table 12 for origin record of shipments and importations of fresh fish.

TABLE 18—Cont'd.

UNBROUGHT TO HEAVEN USE A TROUBLE

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TABLE 19
Commercial Fish Landings in the Monterey Region During 1948

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Fishing boat landings from California waters													
Anchovy	2,931,650	2,078,490	264,820	35,820	7,200	22,655	468,443	721,527	481,773	300	245,098		7,255,644
Calamander	1,185	205	872	1,924	20	212	201	688	219	30	159		5,900
Flounder	10,480	308	22	208	3,684	2,047	4,643	414	30	2,435	8,035		40,048
Hake							800						800
Haddock, California	15,222	5,722	2,218	2,524	8,017	6,413	18,559	8,393	4,838	318	8,999		73,118
Herring, Pacific		100			16,750	63,150	1,300	198,313	129,008				438,521
Kingfish	2,241	4,053	16,683	14,508	21,075	35,355	39,995	7,982	14,187	90,490	16,441	8,821	273,699
Langost	17,712	13,120	4,583	6,428	5,204	5,292	4,290	2,656	1,491	1,802	6,143	12,379	81,570
Mackerel, jack	11,210	16,700	2,247	134,090	197,192	10,288	4,770	15,322	6,702,133	1,460,017	100	304,294	8,907,720
Mackerel, Pacific	1,000			37,142	22,943	2,842	1,921	16,550	44,656				130,331
Perch	2,900	331	7,428	16,692	40	1,015	2,262	1,090	82	1,190	4,631		1,227
Pompano, California	156	3,361	14,576	6,375	43,122	1,055	31,658	420	1,760	3,566	199		85,486
Rockfish	102,356	182,842	119,111	148,307	186,671	125,442	122,171	88,188	79,612	95,297	154,071		1,641,633
Sablefish	1,210	2,200	7,411	39,033	3,341	20,175	29,808	29,699	33,636	20,909	27,292		244,620
Salmon				24,471	17,582	50,164	80,282	41,856	18,703				230,248
Sand dab	2,487	8,810	2,223	6,227	4,340	8,096	5,200	7,451	1,243	3,228	2,482		50,845
Sardine	1,082,564	408,951	44,194	39,112	2,364,643	11,018,320	10,550,450	12,948,650	35,861,840	4,128,203	7,855,433	8,632,683	95,511,921
Sea bass, black	545	87	109		74	134	495	452	7,522	31,255	1,809		48,107
Sea bass, white					111	88					48		247
Seastrout, greenling				67,299	71,744	6,730	6,222	2,262	7,118	134,696	134,616		77,478
Shark	20,298	11,629	204,940		17	200	427	260	267	501	1,830		5,164
Skate	620	99		318	17	300	427	260	267	501	1,830		1,614
Squid	921	299	5,309	2,296	13,674	10,344	29,620	30,422	19,200	28,258	12,103		22,728
Sole	38,163	21,697	17,485	13,120	71,820	95,363	71,213	14,430	268	5,293	19,396		16,289
Steindind, broadbill							82,277	311,632	450,677	862,949	283,336		1,491,782
Tuna, albacore					1,903	686	1,783			146			196
Tuna, skipjack					118								4,422
Turbot				68									214
Whitefish							258						258
Miscellaneous fish													87

DIVISION OF FISH AND GAME

TABLE 19
Commercial Fish Landings in the Monterey Region During 1948

Crustacean																									
Crab.....	10,062	7,926	8,462	6,292	3,332	1,478	2,656	1,388						6,966	3,349	51,931									
Prawn.....	887	542	562			120	30							45	568	2,771									
Mollusk																									
Abalone.....	3,750				8,425	3,869	6,838	5,775	675	3,155	2,250					33,037									
Clam, razor.....	80	30	130	80	180	40	390	740	650	900	760				600	4,658									
Mussel.....																30									
Oregon.....	3,617	2,609	2,329	2,949	1,597	3,693	1,951	85	532	1,389	1,475				3,136	23,373									
Squid.....	1,313,162	2,407,714	628,923	3,327,118	4,292,717	5,335,790	668,128	208,650	134,279						99,687	19,115,225									
Total pounds.....	2,863,697	4,090,826	3,263,139	4,713,799	7,837,604	17,447,212	11,759,097	14,404,025	44,281,227	7,288,067	8,215,681	9,731,173				137,654,847									
Shipments and importations of fresh fish ¹																									
Tuna, salmon.....										277,000						277,000									
Total pounds.....										277,000						277,000									
Grand totals Monterey region.....	2,903,097	4,090,826	3,263,139	4,713,799	7,837,604	17,447,212	11,759,097	14,681,025	44,281,227	7,288,067	8,215,681	9,731,173				137,931,847									

¹ See Table 12 for origin record of shipments and importations of fresh fish.

COMMERCIAL FISH CATCH OF CALIFORNIA

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TABLE 19—Cont'd.

TABLE 20
Commercial Fish Landings in the Santa Barbara Region During 1948

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Fishing boat landings from California waters						51,970	182,164						234,140
Anchovy						239	81		1,400	462	398	1,137	34,224
Bonito	19,609	2,895	543	1,065	485								287
Cabezona	388	101	30	33	55	170	274	54	80	20			1,185
Flapper													969
Halibut, California	62,837	46,492	125	33	258	37,304	44,729	47,619	23,900	31,663	35,001	35,131	837,745
Kingfish	197	75	219	480	200	439	328	485	423	170	813	211	307
Langost	197	1,565											9,744
Mackerel, jack	1,282,737	1,781,056		553	187,704			82	8,204	23,080	420,323	264,037	1,296,107
Mackerel, Pacific	192,133	4,054						65	73,909	68,581	100,967	533	5,681,486
Perch	797	365	18	1,484	42			134	53	728	12	11	1,282
Rock fish	217	338	198	368	1,469	7,511		4,233	963	366	883	600	17,669
Rockfish	6,558	2,890	10,788	7,213	7,490	8,928	8,867	8,651	6,166	3,477	9,142	2,482	79,818
Salmon				170	288	112	6,596		10,980				26,542
Sand dab	336	333		148		314			12	1,127	1,268	829	39,391
Sardine	382,331	353,135		18	114,960			64	3,251,481	3,754,650	10,851,959	1,123,443	6,892,619
Sardine	314	360	263	1,228	273	147	13					118	2,378
Sea bass, black	186	180		311	384	603	253					172	3,019
Sea bass, white	3,097	1,820	21,287	16,667	12,477	23,073	26,933	26,241	28,290	11,813	7,262	4,821	224,031
Shark	11,134	16,720	70,587	29,039	38,048	38,304	14,464	21,113	2,423	12,866	7,232	51,769	318,339
Shorefish	11,629	16,424	933	105		204	207	257	41	304		87	27,627
Skate	105		1,561										2,145
Stickle	329	3,797	1,701	3,709	1,000	86				1,769			11,703
Sole	14,116	49,640	70,039	88,471	90,870	49,263	41,655	29,808	24,469	73,774	28,164	37,239	653,486
Steindach													166,836
Tuna, bluefin								9,094	31,241	13,254	46,162	304	194
Tuna, albacore								4,928	138,448	184,933	24,016	3,481	352,847
Tuna, skipjack									9	8,062			8,071
Turbot	1,740	9,265	900	216	427	527			189	269			358
Whalefish, 00000	565	947	33	10			45	136			449		11,861
Miscellaneous fish	1,342	1,233	2,009	6,292	1,676	2,194	1,488	671	863	714	995	31,226	60,073

PERSONS OF FISH AND GAME

TABLE 20
Commercial Fish Landings in the Santa Barbara Region During 1948

Crustaceans:																				
Crab.....		214	244	54	433	370	2,214	888					706	1,045	6,288					
Lobster, spiny.....	22,499	17,297	10,119									20,788	23,094	20,955	117,111					
Mollusk:																				
Albatross.....	288,042		42,177	213,646	303,972	390,729	275,836	368,321	243,900	172,794	120,183	131,818	2,312,018							
Ostrea.....		35	69	15								80	87	296						
Oyster, Pacific.....	6,300	5,810	6,213	12,810	14,603	6,954	13,163	19,260	17,280	15,600	20,220	14,800	154,033							
Squid.....			375	2,354									2,929							
Grand total Santa Barbara region.....	2,887,246	2,295,697	299,703	489,803	787,270	481,032	617,670	4,048,819	4,513,001	11,204,559	1,976,963	9,129,246	38,491,619							

COMMERCIAL FISH CATCH OF CALIFORNIA

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TABLE 20—Cont'd.

TABLE 21
Commercial Fish Landings in the Los Angeles Region During 1948

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Fishing boat landings from California waters:													
Anchovy.....	494,928	271,342	288,271	178,589	103,622	80,305	202,471	278,435	448,944	226,879	144,200	133,405	2,673,813
Barracuda.....	8,899	3,164	39,876	14,998	114,130	188,421	120,671	32,700	8,480	3,286	6,283	65	611,075
Bonito.....	2,907	2,037	7,964	4,488	4,297	18,403	11,906	18,218	1,298	1,667	1,010	10	68,353
Carp.....	1,000	10,330	29,440	6,710	13,000	30,917	3,050	3,050					84,456
Flounder.....	26	16	43	66	222	47	132	268	35	148	68	74	1,180
Flourish.....	28,664	48,017	61,497	60,178	22,709	28,190	17,710	9,099	5,487	8,189	26,773	9,699	238,719
Halibut, California.....	9,616	19,648	62,255	41,159	38,715	15,294	111,988	29,972	17,291	26,667	27,696	13,441	394,729
Kingfish.....	249	31	173	159	243	1,016	1,016	109	207	319	133	146	2,819
Langost.....	22,088	21,131	20,714	13,847	2,217	2,433	7,170	1,496	1,959	3,015	5,259	11,554	111,535
Macarel, Pacific.....	178,013	487,081	330,219	92,499	330,028	128,226	2,339,653	3,470,174	9,847,947	11,171,416	4,380,047	2,671,675	37,847,899
Perch.....	14,027,711	9,678,701	4,043,780	231,968	28,864	2,947	1,812,187	3,778,068	10,171,150	459,189	754,297	11,350,076	85,268,313
Pompano, California.....	8,296	1,816	9,699	7,947	2,344	4,122	1,387	2,791	769	2,079	4,387	8,571	61,699
Rock bass.....	6,560	2,118	2,213	4,965	5,259	10,669	16,733	5,867	4,364	6,281	8,817	2,437	83,512
Rockfish.....	54,657	40,053	54,534	58,992	43,231	41,166	12,434	3,087	5,499	23,478	90,094	38,865	441,090
Sablefish.....	6,729	4,765	3,096	5,383	2,514	2,416	1,189	2,013	2,882	2,564	4,851	7,406	45,862
Sand dab.....	3,200	2,499	2,342	1,822	1,850	2,348	1,177	218	38	353	787	2,298	19,967
Sardine.....	3,204,283	18,726,010	3,040,203	2,977,737	390,258	198,134	472,017	5,797,867	5,100,880	79,002,668	32,889,032	65,863,738	231,788,201
Snailfish.....	2,828	6,248	16,462	17,893	12,213	14,818	18,173	15,209	1,729	2,429	4,438	10,668	120,779
Sea bass, black.....	644	22	15	460	861	861	2,838	1,536	1,317	11	115		8,636
Sea bass, white.....	1,203	2,412	2,627	30,061	76,278	137,031	88,234	44,064	28,333	13,363	810	2,271	440,045
Shark.....	11,542	9,354	8,027	29,928	90,432	65,064	85,988	20,487	22,843	21,345	17,366	11,212	322,381
Sheepshead.....	6,038	6,811	5,014	2,770	2,642	3,988	1,016	756	293	5,579	8,554	6,337	45,068
Skate.....	807	2,417	4,496	3,128	616	474	651	250	379	976	632	285	15,512
Snipe.....	23,372	13,141	22,991	14,029	2,239	10,517	7,754	9,566	8,673	10,989	9,450	12,672	140,049
Sole.....	183	334	650	1,832	1,308	800	229	130	77	80	343	80	2,900
Swordfish, broadbill.....		2,200				16,988	56,214	113,781	262,168	162,754	1,392	528	862,775
Tuna, albacore.....						20	24,539	1,023,909	430,405	60,916	60,824		2,143,561
Tuna, bluefin.....							49,383	1,096,778	227,430				1,683,600
Tuna, skipjack.....								83,653	59,496	6,963	62		153,114
Trout.....	21			190				87					339
Whitefish, ocean.....	9,076	3,697	2,734	2,714	213	839	221	168	92	41	703	410	21,269
Yellowtail.....			69,039	135	2,619	1,278	12,296	2,314	242	191	55		88,589
Miscellaneous fish.....	1,127	1,481	5,196	9,147	3,044	13,944	2,882	965	1,737	2,550	3,145	2,941	48,199

DIVISION OF FISH AND GAME

TABLE 21
Commercial Fish Landings in the Los Angeles Region During 1948

Crustaceans:														
Crab	1,547	1,281	1,229	1,890	2,033	3,490	3,373	2,800	1,293	1,477	434	473	30,908	
Lobster, spiny	60,993	25,378	13,818							104,406	81,994	65,370	332,139	
Mollusk:														
Abalone	10,624		17,388	37,943	56,169	55,597	157,509	136,837	74,259	79,265	96,907	94,654	797,112	
Cham, cockle		42	24								13	15	91	
Octopus			25	31	28		89	7			44	39	83	
Squid	18,000	43,175	451			790		68,308	21		13		137,553	
Total pounds	18,588,490	29,427,805	8,307,028	3,848,773	1,318,730	1,067,668	6,178,613	20,335,111	26,770,737	85,411,343	58,883,673	80,366,334	340,248,116	
Fishing boat landings from waters north of the state boundary:														
Tuna, albacore									2,329				2,329	
Total pounds									2,329				2,329	
Fishing boat landings from waters south of the international boundary:														
Burmese	991	80,965	254,662	107,025	7,041	1,149	29,934	80,712	47,727	333,432	2,356	7,137	767,536	
Bonito	5,119	10,294	2,549	1,112	54,697	278,125	2,490,724	3,994,191	1,137,327	627,390	21,627	86,033	6,098,132	
California	31,861	68,313	27,782	4,845	926	3,138	154			2,551	17,963	44,096	212,819	
Groupers	24,554	41,205	10,295	1,700	2,955	28,095				1,690	12,271	2,545	170,754	
Haddock, California	5,297	14,604	91	30		10			1,827	493	429	4,801	2,427	
Lingcod			88									862	39,169	
Rock bass	323		370				110	1,267				158	668	
Rockfish	48	7,589	6,790									6,629	21,237	
Sea bass, black	7,562	7,076	10,955	1,790	13,476		13,310	307	5,551	124	30,597	12,597	193,245	
Sea bass, white	31	14,560	4,092	4,839	545	92	84	19,338	30,924		9	60,449	155,617	
Shark	78							80					138	
Sheepshead	2,373		85	911									262	
Serra	387	848		389				2,420				243	4,489	
Swordfish, broadbill							4,386	10,544	6,331	2,621			39,053	
Tuna, albacore							799,192	3,688,938	690,658	162,317	5,429		6,645,561	
Tuna, bluefin	263,627	638,430	302,473		36,746	82,251	1,262,711	1,891,943	119,865				4,211,982	
Tuna, skipjack	243,017	334,562	392,959	418,294	889,650	777,926	2,721,123	3,491,585	2,493,220	1,109,492	292,641	97,1379	82,933,288	
Tuna, yellowfin	1,637,185	1,498,791	6,169,637	10,071,589	12,817,947	7,094,416	7,456,375	2,990,851	3,500,786	2,797,789	476,890	6,118,371	62,653,419	
Whitefish, ocean	13	2,068	794	285				62				861	1,021	
Yellowtail	50,958	56,741	23,298	10,427	98,903	889,689	2,798,838	1,832,996	1,560,778	112,143	103,593	89,737	7,519,393	
Miscellaneous fish	39												1,118	
Crustaceans:														
Lobster, spiny	14,828	9,783										11,835	16,319	82,355
Total pounds	2,310,624	2,793,880	7,118,694	10,621,335	13,613,193	9,097,012	17,976,761	17,588,071	9,845,793	5,000,279	992,613	7,660,669	104,627,264	

COMMERCIAL FISH CATCH OF CALIFORNIA

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TABLE 21—Cont'd.

TABLE 21—Continued
Commercial Fish Landings in the Los Angeles Region During 1948

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Shipments and importations of fresh fish:													
Crab.....										27,130	9,410		36,540
Salmon.....							1,580	1,656					3,236
Tuna, albacore.....							10,300	572,721	288,001				876,022
Tuna, bluefin.....										65,156	91,791		156,947
Tuna, skipjack.....								1,000					1,000
Total pounds.....							10,300	574,331	335,413	118,921	9,410		1,099,273
Grand total, Los Angeles region.....	20,899,504	22,216,485	15,425,722	14,471,108	14,831,923	10,164,680	24,165,673	38,519,443	26,954,262	90,820,543	59,383,098	88,068,943	443,927,984

¹ See Table 12 for origin record of shipments and importations of fresh fish.

TABLE 21
Commercial Fish Landings in the Los Angeles Region During 1948

TABLE 22
Commercial Fish Landings in the San Diego Region During 1948

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Fishing boat landings from California waters:													
Anchovy.....	2,865	200	1,145	290	202,184	208,255	27,253	210	16	310	4,368		9,767
Barramundi.....				25,290	104,642	37,106	111	17	2,096	1,771		106	146,242
Clupe.....	358	775	650	1,130	805	711	764	330					6,879
Halibut, California.....	4,791	6,093	16,869	18,987	1,203	1,082	2,775	9,199	1,375	15,327	15,020	7,382	97,828
Herring, Pacific.....	1,878	2,860	6,756	2,450	690	1,728	447		833	4,872	3,278	2,296	28,006
Kingfish.....	907	95	134	545	164	799	25	18			571	1,140	4,011
Mackerel, jack.....		14,700	1,775			280				10,210		1,984	30,819
Mackerel, Pacific.....	94	11,516	1,919	4,083	91,960	202,555	17,611	1,485	5,015	37,088			408,312
Mullet.....	25,270	19,596	14,365	32,385	28,293	109							172,288
Perch.....							349						342
Pompano, California.....													384
Rock bass.....	5,173	2,609	2,415	2,848	1,662	3,011	4,801	3,853	507	2,211	4,383	2,272	36,148
Rockfish.....	925	4,698	9,642	31,723	5,303	901	685	65	194	600	2,680	1,712	53,169
Salmon.....							116						116
Sand dab.....													41
Sardine.....	1,081	96,374	18,870	28,100	17,331	20,368				1,500,150	4,147,369	2,075,138	8,004,091
Sculpin.....	2,195	4,903	1,078	6,002	564	3				1,500,150	4,147,369	2,075,138	8,004,091
Southern flounder.....		556	53		41	427	1,426	552		390	977		4,415
Southern whiting.....	8	55	1,011	2,384	16,825	21,666	2,870	4,504	5,963	5,210	4,656		71,819
Shark.....	19,021	2,131	1,723	4,016	17,978	43,319	9,016	2,352	2,304	6,697	11,442		133,774
Sheepshead.....	5,927	2,712	629	11									14,706
Snout.....	613	571	16	40						2,769	1,415		762
Sole.....		119	20	262									517
Sturgeon.....													17
Swanfish, broadbill.....								58,990					58,990
Tuna, albacore.....						65	1,418,260	1,671,215	1,412,993	130,445	6,537		4,039,144
Tuna, bluefin.....						1,842	195						1,842
Tuna, skipjack.....							4,197	138,743	41,490				184,726
Tuna, yellowfin.....							276	157	60,260				61,093
Whiting, ocean.....	111	228	281		76		190					189	1,100
Yellowtail.....		116			5	66,461	70,368	2,872	6,724	11,768			137,964
Miscellaneous fish.....	102	406	165	350		411	148	251		171			1,385

COMMERCIAL FISH CATCH OF CALIFORNIA

TABLE 22
Commercial Fish Landings in the San Diego Region During 1948

TABLE 22—Continued
Commercial Fish Landings in the San Diego Region During 1948

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Fishing boat landings from California waters—Continued													
Crab.....	21											9	30
<i>Libinia emoryi</i>	7,745	4,858	2,954							50,242	30,247	17,093	114,259
Shrimp, ghost.....	12	54	109	235	326	194	262	169	58				1,339
Mollusk:													
Abalone.....	1,630		3,670	5,618	4,182	5,167	3,690	5,725	4,210	3,482	4,560	1,438	42,844
<i>Cham.</i>	1,500	2,700	2,504	5,619	7,256	5,028	8,068	6,542	5,795	2,882	1,500	875	51,118
<i>Cham. rock</i>													749
<i>Cham. jack</i>	178	215	450	841	516	100	100	748	411	595	835	490	5,547
<i>Cham. softshell</i>	356	399	189	120	250	550	800	350	200	80	300	30	3,110
<i>Muscle</i>									350	250	300		4,750
Total pounds.....	83,513	181,740	99,878	164,874	301,374	722,871	1,600,290	1,776,102	1,608,384	2,064,272	4,570,408	2,167,637	13,220,632
Fishing boat landings from waters north of the state boundary:													
Tuna, albacore.....									13,963	38,306			52,269
Total pounds.....									13,963	38,306			52,269
Fishing boat landings from waters south of the international boundary:													
Barramundi.....	46,069	22,723	37,561	18,221	1,821	10,242	34,390		372	6,047	47,828	19,876	254,080
Bonito.....	27,468	24,124	7,566	5,140	1,555	482		3,379	210	41,450	27,730	58,741	311,082
<i>Colialis</i>	141	4,241	11,440		2,294								18,106
<i>Cortina, Mexican</i>		105											105
<i>Cyprin</i>	69,227	45,000	22,732	3,044	11,698	4,487				258	232	31,413	184,831
<i>Hallibut, California</i>	49,399	75,014	8,960	27,858	7,068	8,911	13,015	12,348	4,569				225,679
<i>Lingcod</i>													127
<i>Rock bass</i>	228	1,377	1,338	2,733	6,484	5,994	782		38	31	1,096	3,581	3,881
<i>Rockfish</i>		1,461	13,061	4,841	3,080	74			30	2,952			22,583
<i>Subfish</i>				1,012									949
Total pounds.....	143,303	101,530	80,252	37,416	21,819	25,758	53,223	17,066	18,079	48,787	78,813	100,209	639,888

BUREAU OF FISH AND GAME

TABLE 22
Commercial Fish Landings in the San Diego Region During 1948

Scallop.....					103		296											389
Sea bass, black.....	13,034	6,319	7,269	3,448	1,398	6,379	1,222											54,157
Sea bass, white.....	31,565	1,430	253	333		17,024	12,479											167,364
Shark.....		189																6,412
Shorehead.....	2,079	3,319		4,411	1,273													8,322
Sorta.....	298	765	630		345													18,991
Squid.....	115	140			133													355
Swordfish, broadbill.....																		20,100
Tuna, albacore.....																		20,295,999
Tuna, bluefin.....																		83,480
Tuna, bigeye.....	689,382	1,849,259	279,081	601,903	922,268	2,701,266	4,123,322	10,137,254	9,949,658	5,305,747	2,600,183	3,147,288	44,607,754				129,000,909	
Tuna, yellowfin.....	4,260,482	6,688,009	4,946,183	11,103,865	11,953,142	14,806,493	9,531,699	8,187,732	12,522,421	13,322,394	8,809,931	22,483,210					320	
Yellowtail.....		300																13,129
Whitefish, ocean.....	4,845	3,394																2,984,907
Miscellaneous fish.....	194,223	223,222	44,122	196,595	76,053	386,325	306,149	137,541	66,840	174,919	485,667	284,411	1,399				4,104	
Crustacean:																		
Lobster, spiny.....	201,043	338,988	92,629															901,754
Total pounds.....	8,932,094	9,564,138	5,477,949	11,838,721	13,000,632	18,014,862	19,272,318	31,112,621	26,720,614	19,622,622	12,287,208	28,190,470	198,999,523					
Shipments and importations of fresh fish: ¹																		
Barracuda.....																		3,860
Halibut, California.....																		611
Rock bass.....																		590
Scallop.....																		12,492
Sea bass, black.....																		12,572
Sea bass, white.....																		68
Shorehead.....																		634
Squid.....																		1,112
Tuna, albacore.....																		4,011
Whitefish, ocean.....																		434
Total pounds.....																		37,004
Grand totals, San Diego region.....	6,035,606	9,686,965	5,677,818	12,000,865	13,303,206	18,741,733	20,884,010	32,894,172	28,362,481	21,663,819	16,866,616	28,388,107	211,399,728					

¹ See Table 12 for origin record of shipments and importations of fresh fish.

COMMERCIAL FISH CATCH OF CALIFORNIA

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TABLE 22—Cont'd.

TABLE 23
Pounds and Value of Commercial Fish Landings in California During 1948¹

Species	Eureka region		Sacramento region		San Francisco region		Monterey region	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Anchovy.....	13,615	\$558			380,251	\$9,692	7,255,644	\$259,301
Barracuda.....								
Bonito.....	759	25			278	15	5,900	197
Calappa.....								
Clupea.....			808,617	\$58,515	137,269	5,466		
Cod.....			240,146	61,042	31,654	6,455		
Corbina, Mission.....	127,311		15	5	225,471	10,525	40,616	2,447
Flounder.....	187,281	6,016			225,478	10,525		
Flying fish.....								
Groupers.....					3,509	62	509	8
Hake.....					8,546	2,452	80,576	16,771
Haddock, California.....					25,116	12,057		
Haddock, Pacific.....	65,338	12,467			16,156	4,677		
Harrow.....			8,377	2,448				
Herring, Pacific.....	130,502	3,013	698,510	13,378	6,772,274	128,675	438,421	11,373
Kingfish.....					5,176	28	213,999	11,462
Langost.....	1,666,458	135,949			291,216	23,543	11,270	2,709
Mackerel, jack.....							8,987,228	273,731
Mackerel, Pacific.....					2,430	74	133,391	6,473
Mullet.....	62,118	6,257			87,358	14,655	38,466	3,668
Parrot.....								
Pike, Sacramento.....			166	10				
Pompano, California.....					858	289	107,652	22,771
Rock bass.....	3,362,243	192,199			399,563	23,601	1,540,617	119,845
Rockfish.....								
Salmon.....	1,233,102	138,473			23,227	917	244,630	10,715
Sardine.....	4,021,992	1,092,211	1,809,861	462,088	1,544,479	378,108	293,344	61,266
Sand dabs.....	291,424	13,586			417,201	23,415	60,965	3,771
Sardines.....	7,255	867			229,869	6,397	86,514,621	3,161,354
Sculpin.....								
Sea bass, black.....					5,662	1,333	267	2
Sea bass, white.....	693	134					48,107	10,212
Sea trout, greenling.....					468	29	257	15
Shad.....					893	13		
Shark.....	613,844	306,974	426,183	27,172	201,350	613,247	855,816	18,311
Sheepshead.....								
Sierra.....								

DIVISION OF FISH AND GAME

TABLE 23
Pounds and Value of Commercial Fish Landings in California During 1948¹

Shad.....	7,200	184	.....	87,650	1,162	5,164	118
Smelt.....	29,112	2,692	.....	427,297	26,449	160,421	9,687
Sole.....	16,066,140	882,225	.....	4,246,261	241,837	352,427	25,661
Spottail.....	.....	.....	1,202	83	240	.....	.....
Sucker.....	.....	.....	.....	.....	.....	.....	.....
Seafood, broadbill.....	.....	.....	.....	.....	.....	.....	.....
Tuna, albacore.....	732,435	304,373	.....	658,205	181,157	2,238,783	590,366
Tuna, skipjack.....	.....	.....	.....	31,233	5,158	.....	.....
Tuna, yellowfin.....	.....	.....	.....	364	58	186	20
Turbot.....	14,999	647	.....	30,580	2,456	4,422	157
Walleye.....	166,681	17,408	.....	56,221	6,784	214	23
Whitefish, ocean.....	.....	.....	.....	.....	.....	.....	.....
Yellowtail.....	33,335	1,754	.....	66,996	999	344	0
Miscellaneous fish.....	.....	.....	.....	.....	.....	.....	.....
Crustacean:	.....	.....	.....	.....	.....	.....	.....
Crab.....	5,856,114	614,859	.....	5,972,842	636,657	51,901	8,883
Lobster, spiny.....	.....	.....	.....	.....	.....	.....	.....
Dungeness.....	.....	.....	.....	926,707	56,180	2,771	1,086
Shrimp.....	.....	.....	.....	.....	.....	.....	.....
Shrimp, ghost.....	.....	.....	.....	.....	.....	.....	.....
Mollusk:	.....	.....	.....	.....	.....	.....	.....
Abalone.....	.....	.....	.....	41,816	6,093	35,037	5,266
Clam.....	.....	.....	.....	.....	.....	.....	.....
Clam, cockle.....	.....	.....	.....	.....	.....	4,656	482
Clam, gaper.....	.....	.....	.....	.....	.....	.....	.....
Clam, jackknife.....	.....	.....	.....	.....	.....	.....	.....
Clam, soft shell.....	.....	.....	.....	1,063	61	.....	.....
Clam, Washington.....	6,612	248	.....	.....	.....	.....	.....
Mussel.....	.....	.....	.....	50,412	3,413	20	.....
Octopus.....	44,174	2,281	.....	.....	.....	35,372	3,824
Oyster, eastern.....	.....	.....	.....	321,258	67,623	.....	.....
Oyster, Pacific.....	.....	.....	.....	12,271	1,265	15,115,225	314,199
Squid.....	.....	.....	.....	.....	.....	.....	.....
Total pounds and value.....	35,686,846	\$3,454,569	4,699,227	\$992,034	24,699,555	\$2,494,165	137,331,847	\$3,173,420

COMMERCIAL FISH CATCH OF CALIFORNIA

¹ This table includes actual landings at California ports by the commercial fishing fleet as well as shipments from other states and foreign countries by truck, rail and ocean liner to California canneries and to the fresh fish dealers.

² For regions north of Santa Barbara crab landings are market crab; in Santa Barbara Region both market and rock crab; in Los Angeles and San Diego Region rock crab.

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TABLE 23—Cont'd.

TABLE 23—Continued

TABLE 23—Continued
Pounds and Value of Commercial Fish Landings in California During 1948¹

Species	Santa Barbara region		Los Angeles region		San Diego region		Total	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Anchovy.....	204,149	\$6,022	2,972,513	\$74,605	9,707	\$379	10,033,920	\$317,927
Barramula.....	34,224	6,660	1,279,811	224,128	832,602	68,948	2,123,737	329,644
Bonito.....	307	41	6,676,535	1,012,552	455,224	48,985	9,135,126	1,061,278
Chum.....	1,685	189					9,500	96
Cabrillo.....			112,619	32,170	18,106	5,185	290,235	34,355
Carp.....			100,996	3,620	5,500	471	1,072,252	35,780
Catfish.....							271,230	49,481
Corbina, Mexican.....					105	11	805	18,879
Flounder.....	969	51	1,180	109			405,219	5,290
Flying fish.....			70,896	3,200			70,896	3,290
Groupers.....			170,754	34,858	154,821	20,262	335,575	69,945
Hake.....	307,245	99,744	305,419	79,983	354,159	60,869	1,260,613	268,735
Halibut, California.....							130,444	24,991
Halibut, Pacific.....							31,562	7,193
Hardhead.....					70	6	6,000,377	156,344
Herring, Pacific.....							940,027	37,554
Kiwi.....	867	43	394,239	22,616	20,969	2,749	2,688,675	172,560
Lingcod.....	9,744	943	6,865	1,006	7,582	840	22,090,852	2,436,341
Mackerel, jack.....	5,861,680	105,322	58,269,313	1,096,490	30,519	795	31,283,798	16,485
Mackerel, Pacific.....	976,714	29,107	37,847,899	1,227,794	48,212	17,229	208,584	47,427
Mullet.....					172,288	16,433	208,584	47,427
Perch.....	5,658	602	111,823	22,286	942	53	166	30
Pike, Sacramento.....			51,669	6,761	241	63	180,855	42,807
Pompano, California.....			17,669	4,701	284		164,299	22,823
Rock bass.....	17,669	2,117	47,000	14,660	69,690	6,846	6,549,578	346,911
Rockfish.....	79,619	8,799	462,247	92,708	1,012	41	2,098,433	174,999
Sablefish.....			45,802	4,847			7,709,178	2,099,491
Salmon.....	26,342	5,867			118	41	604,695	45,047
Sand dab.....	4,591	326	19,667	3,423	137	23	392,027,097	10,722,227
Sardines.....	26,485,190	831,949	211,785,961	6,892,719	8,084,061	148,591	185,076	30,605
Sea bass.....	2,778	107	190,779	27,223	31,519	4,296	1,114,290	262,804
Sea bass, black.....	3,019	400	113,181	19,205	71,544	11,003	225	44
Sea bass, white.....	228,651	42,138	696,698	158,933	299,662	60,064	426,586	27,186
Sea trout, greenling.....								
Shad.....								
Shark.....	316,320	162,209	322,589	55,827	180,186	10,728	2,610,555	1,051,306

TABLE 23
Pounds and Value of Commercial Fish Landings in California During 1948¹

Sheepshead.....	27,827	1,599	48,368	4,835	24,222	2,079	100,227	8,553
Sifts.....	.....	.....	4,459	399	20,013	1,821	24,472	1,729
Skate.....	2,265	222	15,512	883	.....	.....	19,101	2,597
Snail.....	11,705	1,159	146,996	13,205	1,512	137	782,096	55,197
Sole.....	681,698	38,331	6,066	545	363	96	21,664,927	1,138,728
Spink tail.....	.....	.....	.....	.....	.....	.....	1,412	168
Sardine.....	166,589	89,128	659,900	207,830	316,431	87,880	1,119,808	254,670
Swordfish, broadbill.....	332,942	32,545	8,695,083	2,611,169	24,094,423	7,855,541	27,622,760	11,018,190
Tuna, albacore.....	8,571	1,632	6,562,114	1,162,435	94,999	15,618	6,696,987	1,174,838
Tuna, bluefin.....	588	82	13,375,812	2,214,190	44,752,480	7,116,645	587,727,010	9,225,864
Tuna, yellowfin.....	14,361	347	62,629,449	10,587,446	129,064,252	21,879,621	191,226,801	32,486,987
Turbot.....	.....	.....	339	27	.....	.....	116,701	4,834
Walrus.....	.....	.....	.....	.....	.....	.....	309	30
Whitefish.....	1,741	223	25,363	2,682	11,663	1,219	222,499	24,228
Whitetail, ocean.....	.....	.....	7,698,792	866,883	2,746,571	295,838	10,443,663	1,162,721
Yellowtail.....	69,983	2,669	49,317	4,099	6,412	1,072	267,291	16,638
Crustaceans:	.....	.....	.....	.....	.....	.....	.....	.....
Crab.....	6,368	739	20,908	2,112	30	3	11,913,290	1,263,246
Langost, spiny.....	117,111	43,217	361,534	171,668	1,016,004	334,469	1,517,029	549,331
Prawn.....	.....	.....	.....	.....	.....	.....	2,711	1,198
Shrimp.....	.....	.....	.....	.....	.....	.....	968,787	66,119
Shrimp, ghost.....	.....	.....	.....	.....	1,339	1,004	1,339	1,004
Mollusk:	.....	.....	.....	.....	.....	.....	.....	.....
Abalone.....	2,312,018	279,292	797,112	75,964	42,944	4,295	3,228,727	376,000
Clam.....	.....	.....	.....	.....	31,118	16,265	31,118	16,265
Clam, cockle.....	.....	.....	94	14	780	148	834	162
Clam, geac.....	.....	.....	.....	.....	.....	.....	6,656	892
Clam, jackknife.....	.....	.....	.....	.....	3,217	1,131	3,217	1,131
Clam, soft-shell.....	.....	.....	.....	.....	319	62	1,273	126
Clam, Washington.....	.....	.....	.....	.....	.....	.....	6,602	748
Mussel.....	.....	.....	.....	.....	.....	.....	4,750	180
Octopus.....	255	27	320	65	.....	.....	120,697	9,439
Oyster, eastern.....	.....	.....	.....	.....	.....	.....	31,268	81,813
Oyster, Pacific.....	154,853	10,365	.....	.....	.....	.....	166,534	11,729
Squid.....	2,929	117	127,883	3,851	.....	.....	19,255,687	818,167
Total pounds and value.....	38,491,619	41,895,533	445,927,964	829,180,241	214,369,728	837,766,609	900,549,206	\$90,556,971

COMMERCIAL FISH CATCH OF CALIFORNIA

¹ This table includes actual landings at California ports by the commercial fishing fleet as well as shipments from other states and foreign countries by truck, rail and ocean liner to California canneries and to the fresh fish dealers.

² For regions north of Santa Barbara crab landings are market crab; in Santa Barbara Region both market and rock crab; in Los Angeles and San Diego Regions rock crab.

TABLE 23—Cont'd.

TABLE 24
California Commercial Fish Landings—1948
Values for Eureka Region, Indicating Leading Ports, Species and Pounds

		Value	Pounds
Eureka region totals.....		\$3,454,569	35,686,846
Eureka.....	Sole.....	\$535,040	10,328,965
	Salmon.....	294,457	976,003
	Crab.....	244,054	2,324,327
	Rockfish.....	87,703	1,902,443
	Sablefish.....	72,296	799,740
	Albacore.....	69,024	247,485
	Shark.....	68,041	272,031
	Lingcod.....	48,061	576,957
	Pacific halibut.....	9,065	40,252
	Sand dab.....	8,007	161,115
	Whitebait.....	6,151	58,688
	All other.....	13,702	287,088
	Total.....	\$1,425,641	17,975,094
Fort Bragg (Noyo).....	Salmon.....	\$356,491	1,315,465
	Sole.....	106,735	2,066,520
	Albacore.....	94,341	338,261
	Sablefish.....	61,151	676,451
	Lingcod.....	53,784	646,167
	Rockfish.....	43,194	936,953
	Crab.....	19,642	187,063
	All other.....	15,777	175,748
	Total.....	\$751,115	6,336,623
Fields Landing.....	Sole.....	\$188,313	3,635,391
	Crab.....	144,563	1,375,794
	Shark.....	85,199	340,934
	Salmon.....	55,064	203,190
	Rockfish.....	48,119	1,043,794
	Lingcod.....	25,830	310,090
	Sablefish.....	18,439	203,975
	Albacore.....	3,117	11,177
	All other.....	9,835	160,745
	Total.....	\$578,579	7,286,090
Crescent City.....	Salmon.....	\$198,844	733,744
	Crab.....	197,697	1,882,831
	Albacore.....	21,332	76,487
	Lingcod.....	8,614	103,415
	Whitebait.....	6,848	65,344
	All other.....	13,375	170,943
	Total.....	\$446,710	3,040,864
Point Arena.....	Salmon.....	\$99,730	368,006
	Albacore.....	14,650	52,530
	All other.....	1,367	15,212
	Total.....	\$115,747	435,748
Shelter Cove.....	Salmon.....	\$98,666	364,083
	Lingcod.....	1,710	20,527
	All other.....	658	4,667
	Total.....	\$101,034	389,277
Trinidad.....	Salmon.....	\$19,363	71,450
	Crab.....	7,366	70,455
	All other.....	5,698	52,722
	Total.....	\$32,427	194,627
All other ports.....	All other.....	\$3,316	28,523
	Total.....	\$3,316	28,523

TABLE 24
California Commercial Fish Landings—1948
Values for Eureka Region, Indicating Leading Ports, Species and Pounds

TABLE 25
California Commercial Fish Landings—1948
 Values for Sacramento Region, Indicating Leading Ports, Species and Pounds

		Value	Pounds
Sacramento region totals.....		\$592,634	4,093,227
Pittsburg.....	Salmon.....	\$282,586	1,172,068
	Shad.....	22,948	360,283
	Catfish.....	18,795	104,882
	Carp.....	8,972	186,911
	All other.....	70	1,007
	Total.....	\$333,371	1,825,121
Sacramento.....	Salmon.....	\$105,480	437,493
	Catfish.....	11,427	63,766
	Hardhead.....	2,446	8,177
	Shad.....	1,376	21,598
	All other.....	221	4,449
	Total.....	\$120,950	535,483
Martinez.....	Salmon.....	\$56,734	235,314
	Pacific herring.....	13,378	668,910
	All other.....	2,063	32,396
	Total.....	\$72,175	936,620
Lake Almanor.....	Carp.....	\$22,504	468,833
	Total.....	\$22,504	468,833
Benicia.....	Salmon.....	\$21,125	87,620
	All other.....	868	13,668
	Total.....	\$21,993	101,288
Stockton.....	Catfish.....	\$7,843	43,764
	All other.....	1,775	7,584
	Total.....	\$9,618	51,348
Tracy.....	Catfish.....	\$4,596	25,608
	Total.....	\$4,596	25,608
All other ports.....	Carp.....	\$7,046	146,800
	All other.....	381	2,126
	Total.....	\$7,427	148,926

TABLE 25
California Commercial Fish Landings—1948
 Values for Sacramento Region, Indicating Leading Ports, Species and Pounds

TABLE 26
California Commercial Fish Landings—1948
Values for San Francisco Region, Indicating Leading Ports, Species and Pounds

		Value	Pounds
San Francisco region totals.....		\$2,494,165	24,098,955
San Francisco.....	Shark.....	\$335,590	176,361
	Crab.....	437,969	4,118,880
	Sole.....	180,632	3,305,342
	Albacore.....	158,676	575,749
	Pacific herring.....	127,354	6,702,829
	Salmon.....	77,953	317,528
	Shrimp.....	28,608	472,074
	Smelt.....	21,149	341,660
	Sand dab.....	19,338	369,747
	Petch.....	14,037	87,348
	Lingcod.....	12,013	145,086
	Rockfish.....	11,302	145,454
	Pacific halibut.....	10,878	68,847
	All other.....	45,062	883,885
	Total.....	\$1,680,501	17,800,790
Point Reyes.....	Salmon.....	\$218,006	888,009
	Shark.....	75,372	24,836
	Crab.....	60,861	575,788
	Eastern oyster.....	41,061	227,863
	Sole.....	33,212	624,285
	Rockfish.....	6,643	85,495
	All other.....	14,205	208,551
	Total.....	\$449,360	2,634,927
Bay (Bodega).....	Crab.....	\$60,547	572,818
	Sole.....	27,967	326,268
	Salmon.....	22,777	92,789
	Albacore.....	16,517	59,932
	Lingcod.....	7,700	93,105
	Rockfish.....	5,707	73,455
	All other.....	14,070	251,868
	Total.....	\$155,324	1,670,235
Princeton by the Sea (Halfmoon Bay).....	Salmon.....	\$47,870	194,989
	Crab.....	12,679	130,055
	Abalone.....	6,093	41,616
	Albacore.....	6,069	22,020
	All other.....	5,634	238,697
	Total.....	\$78,345	617,377
Oakland.....	Crab.....	\$53,531	506,442
	Catfish.....	5,979	32,048
	Carp.....	2,658	36,964
	All other.....	538	1,973
	Total.....	\$62,706	577,427
Richmond.....	Shrimp.....	\$13,180	217,489
	All other.....	1,583	52,242
	Total.....	\$14,763	269,731
McNear's Point.....	Shrimp.....	\$11,092	183,042
	Total.....	\$11,092	183,042
All other ports.....	All other.....	\$42,074	345,426
	Total.....	\$42,074	345,426

TABLE 26
California Commercial Fish Landings—1948
Values for San Francisco Region, Indicating Leading Ports, Species and Pounds

TABLE 27
California Commercial Fish Landings—1948
 Values for Monterey Region, Indicating Leading Ports, Species and Pounds

		Value	Pounds
Monterey region totals.....		\$5,173,420	137,931,847
Monterey.....	Sardine.....	\$2,880,239	87,288,189
	Albacore.....	539,825	2,047,120
	Squid.....	501,382	18,638,730
	Jack mackerel.....	254,395	8,259,805
	Anchovy.....	240,008	6,741,782
	Rockfish.....	97,797	1,344,794
	Salmon.....	48,640	176,361
	Sole.....	15,537	231,546
	Pacific herring.....	11,271	438,571
	California halibut.....	7,721	37,281
	Sablefish.....	6,491	148,206
	Lingcod.....	6,140	68,525
	Smelt.....	5,971	102,587
	Kingfish.....	5,731	105,152
	Abalone.....	5,256	35,037
	All other.....	17,911	207,771
	Totals.....	\$4,653,285	125,871,267
Santa Cruz.....	Sardine.....	\$80,105	2,420,103
	Albacore.....	50,541	191,662
	California pompano.....	33,016	105,247
	Rockfish.....	22,139	304,225
	Anchovy.....	15,593	438,018
	Salmon.....	14,766	53,537
	Jack mackerel.....	11,570	375,961
	Sole.....	10,018	149,305
	White sea bass.....	9,652	45,466
	California halibut.....	8,884	42,805
	All other.....	26,075	479,165
	Totals.....	\$282,359	4,605,584
Moss Landing.....	Sardine.....	\$192,170	5,805,729
	Shark.....	17,287	807,790
	Squid.....	12,812	476,300
	Jack mackerel.....	7,766	232,157
	All other.....	7,741	113,020
	Totals.....	\$237,776	7,454,996

TABLE 27
California Commercial Fish Landings—1948
 Values for Monterey Region, Indicating Leading Ports, Species and Pounds

TABLE 28
California Commercial Fish Landings—1948
 Values for Santa Barbara Region, Indicating Leading Ports, Species and Pounds

		Value	Pounds
Santa Barbara region totals.....		\$1,895,533	38,491,619
Port Hueneme.....	Sardine.....	\$30,008	26,433,378
	Jack mackerel.....	185,319	5,681,034
	Pacific mackerel.....	28,904	969,912
	All other.....	17,560	260,870
	Totals.....	\$1,041,791	33,345,194
Santa Barbara.....	Abalone.....	\$145,073	1,200,936
	Shark.....	128,696	250,967
	California halibut.....	85,088	450,203
	Broadbill swordfish.....	58,478	165,905
	Spiny lobster.....	40,278	109,155
	White sea bass.....	39,318	209,027
	Albacore.....	21,535	81,140
	Sole.....	16,778	285,974
	Barracuda.....	6,556	33,692
	All other.....	10,059	126,071
	Totals.....	\$551,859	2,912,170
Morro Bay.....	Abalone.....	\$63,589	526,400
	Albacore.....	28,485	107,329
	Pacific oyster.....	10,366	154,953
	All other.....	6,545	50,753
	Totals.....	\$108,985	839,435
Avila.....	Abalone.....	\$31,408	259,999
	Sole.....	20,818	354,657
	Albacore.....	10,652	40,134
	Shark.....	8,609	16,789
	Salmon.....	5,963	20,173
	California halibut.....	5,949	29,830
	All other.....	6,164	52,148
	Totals.....	\$88,963	773,790
Cambria.....	Abalone.....	\$36,123	299,083
	All other.....	121	1,175
	Totals.....	\$36,244	300,208
San Simeon.....	Albacore.....	\$32,519	122,529
	Abalone.....	3,099	25,650
	Totals.....	\$35,618	148,179
Pismo Beach.....	Shark.....	\$17,557	34,237
	All other.....	160	1,272
	Totals.....	\$17,717	35,509
All other ports.....	All other.....	\$14,356	137,134
	Totals.....	\$14,356	137,134

TABLE 28
California Commercial Fish Landings—1948
 Values for Santa Barbara Region, Indicating Leading Ports, Species and Pounds

TABLE 29
California Commercial Fish Landings—1948
 Values for Los Angeles Region, Indicating Leading Ports, Species and Pounds

		Value	Pounds
Los Angeles region totals.....		\$29,180,241	445,927,984
Terminal Island.....	Yellowfin tuna.....	\$8,441,263	50,075,715
	Sardine.....	3,807,628	134,071,421
	Skipjack tuna.....	1,714,266	10,822,385
	Albacore.....	1,692,245	5,958,963
	Jack mackerel.....	981,365	33,723,890
	Bluefin tuna.....	829,969	4,940,294
	Bonito.....	606,027	5,193,035
	Yellowtail.....	528,417	4,692,870
	Pacific mackerel.....	261,683	7,459,598
	All other.....	32,939	137,836
	Totals.....	\$18,895,002	257,075,707
Long Beach.....	Yellowfin tuna.....	\$1,312,536	7,786,298
	Sardine.....	1,158,897	40,806,223
	Albacore.....	298,360	1,050,562
	Bonito.....	263,286	2,256,091
	Jack mackerel.....	244,560	8,404,110
	Skipjack tuna.....	241,230	1,522,918
	Yellowtail.....	199,031	1,757,713
	Pacific mackerel.....	152,501	4,347,252
	Bluefin tuna.....	144,369	859,339
	Spiny lobster.....	15,779	35,347
	Anchovy.....	6,160	245,422
	Barracuda.....	2,246	12,815
	All other.....	3,411	17,901
	Totals.....	\$4,041,366	69,102,991
Wilmington.....	Sardine.....	\$1,100,688	38,756,636
	Yellowfin tuna.....	796,746	4,726,499
	Jack mackerel.....	393,032	13,506,265
	Skipjack tuna.....	254,563	1,607,090
	Albacore.....	224,775	791,460
	Bonito.....	136,188	1,166,989
	Pacific mackerel.....	117,662	3,354,118
	Yellowtail.....	103,388	918,191
	Bluefin tuna.....	72,683	432,638
	All other.....	9,627	184,635
	Totals.....	\$3,209,352	65,444,521
Newport Beach.....	Pacific mackerel.....	\$582,508	16,605,130
	Sardine.....	230,586	8,119,209
	Albacore.....	207,329	730,030
	Broadbill swordfish.....	115,261	350,126
	Abalone.....	48,707	511,087
	Spiny lobster.....	33,543	75,142
	Shark.....	32,710	122,925
	Anchovy.....	32,576	1,297,894
	Barracuda.....	21,202	120,949
	Yellowtail.....	20,105	178,553
	Jack mackerel.....	18,475	634,896
	California halibut.....	16,132	71,794
	Rockfish.....	12,235	107,321
	All other.....	37,532	278,432
	Totals.....	\$1,408,901	29,203,458
San Pedro.....	Barracuda.....	\$180,247	1,028,222
	Sardine.....	147,263	5,185,312
	White sea bass.....	142,147	333,585
	Pacific mackerel.....	126,013	3,592,147
	Spiny lobster.....	72,215	161,773
	Jack mackerel.....	57,973	1,992,196
	Bluefin tuna.....	55,403	329,777
	California halibut.....	54,092	243,402
	Broadbill swordfish.....	42,854	130,177
	Shark.....	35,686	134,106
	Rockfish.....	29,633	259,939
	Grouper.....	29,515	145,755
	Cabrilla.....	28,500	186,382
	Albacore.....	25,413	89,482
	Perch.....	19,678	98,737

TABLE 29
California Commercial Fish Landings—1948
 Values for Los Angeles Region, Indicating Leading Ports, Species and Pounds

TABLE 29—Continued
California Commercial Fish Landings—1948
 Values for Los Angeles Region, Indicating Leading Ports, Species and Pounds

		Value	Pounds
San Pedro—Continued	Black sea bass	\$18,119	106,773
	Sculpin	17,187	95,409
	Yellowtail	16,853	149,658
	Smelt	12,410	136,220
	Kingfish	11,907	205,997
	Anchovy	11,082	441,497
	Abalone	10,752	112,823
	All other	39,365	339,763
	Totals	\$1,184,607	15,697,142
Santa Monica	Sardine	\$106,879	3,869,014
	Pacific mackerel	83,112	2,528,133
	Spiny lobster	33,670	75,425
	Anchovy	22,989	757,183
	Shark	14,735	55,375
	Barracuda	11,563	65,960
	Albacore	9,067	31,925
	Broadbill swordfish	6,299	16,133
	California halibut	6,267	27,889
	Rockfish	6,211	54,486
	Abalone	6,115	64,168
	All other	17,018	164,030
	Totals	\$326,925	7,712,721
Redondo Beach	Sardine	\$27,778	978,116
	Spiny lobster	6,615	14,819
	Pacific mackerel	4,210	120,016
	Rockfish	2,941	25,800
	Barracuda	2,800	15,974
	Rock crab	2,009	19,890
	All other	12,644	92,585
	Totals	\$58,997	1,267,200
Avalon	Broadbill swordfish	\$10,866	33,007
	Abalone	5,560	58,345
	Barracuda	3,428	19,556
	Albacore	2,802	9,867
	All other	5,195	38,651
Totals	\$27,851	159,426	
All other ports	All other	\$27,240	264,818
	Totals	\$27,240	264,818

TABLE 29
California Commercial Fish Landings—1948
 Values for Los Angeles Region, Indicating Leading Ports, Species and Pounds

TABLE 30
California Commercial Fish Landings—1948
Values for San Diego Region, Indicating Leading Ports, Species and Pounds

		Value	Pounds
San Diego region totals.....		\$37,766,409	214,309,728
San Diego.....	Yellowfin tuna.....	\$18,482,255	109,063,892
	Skipjack tuna.....	6,136,416	38,637,491
	Albacore.....	6,058,106	20,203,790
	Spiny lobster.....	328,981	999,334
	Yellowtail.....	266,871	2,477,913
	Sardine.....	148,891	8,604,901
	Barracuda.....	98,548	808,787
	Broadbill swordfish.....	87,880	316,431
	California halibut.....	68,387	326,898
	White sea bass.....	53,023	230,525
	Bonito.....	41,019	411,775
	Grouper.....	25,245	184,406
	Pacific mackerel.....	16,924	398,205
	Bluefin tuna.....	15,504	94,881
	Black sea bass.....	10,919	70,674
	Shark.....	10,056	131,281
	Clam.....	9,248	46,070
	Rockfish.....	8,114	84,348
	All other.....	24,375	247,652
	Totals.....	\$31,866,562	182,739,254
Point Loma.....	Yellowfin tuna.....	\$3,397,166	20,030,460
	Albacore.....	1,427,426	4,760,468
	Skipjack tuna.....	978,029	6,154,999
	Yellowtail.....	28,921	268,531
	All other.....	4,963	46,381
	Totals.....	\$5,836,505	31,260,839
Salton Sea.....	Mullet.....	\$16,453	172,288
	Totals.....	\$16,453	172,288
All other ports.....	All other.....	\$19,889	137,347
	Totals.....	\$19,889	137,347

TABLE 30
California Commercial Fish Landings—1948
Values for San Diego Region, Indicating Leading Ports, Species and Pounds

TABLE 31
Origin of Commercial Fish Landings in California During 1949

Species	California	North of the state boundary ¹	South of the international boundary ²	Peru	Japan	Total pounds
Archway	3,322,273					3,322,273
Barracuda	903,824		1,500,247			2,474,061
Bonito	69,244		1,238,902			1,838,196
Cabezon	16,046					16,046
Chub			210,263			210,263
Cory	643,218					643,218
Cutthroat	201,739					201,739
Crowfish	10,646	6,468				17,114
Dromedary	34,269					34,269
Frying fish			290,615			290,615
Groper	1,305					1,305
Hake	1,076,993		182,613			1,259,606
Hallibut, California	167,247					167,247
Hallibut, Pacific	17,264					17,264
Harrow	279,211					279,211
Herring, Pacific	744,439					744,439
Kumquat		104,307		623		1,053,961
Langost	1,550,971					1,550,971
Mackerel, jack	11,259,984					11,259,984
Mackerel, Pacific	49,771,273					49,771,273
Mullet	291,161					291,161
Perch	29,599					29,599
Pike, Sacramento	604					604
Pompano, California	89,262					89,262
Rock bass	128,076		62,807			190,883
Rockfish	8,467,717	480,199	130,870			9,078,886
Sablefish	1,612,199	185,696	3,247			1,801,142
Salmon	6,403,179	446,545				6,849,724
Sand dab	211,626		523			212,149
Sardine	633,24,981					633,24,981
Scallop	147,083			1,264		148,347
Sea bass, black	17,221			198,299		215,520
Sea bass, white	948,262			698,736		1,647,038
Snookout, greenling	266					266
Shark	728,426					728,426
Sheepshead	1,822,172			29,411		1,851,583
Sierra	48,609			3,688		52,297

DIVISION OF FISH AND GAME

TABLE 31
Origin of Commercial Fish Landings in California During 1949

Salmon	123,350		114		123,464
Small	718,838				718,838
Sole	17,202,212	2,507,622			19,709,834
Spillo-tail	225				225
Starley	1,150				1,150
Swedish, headless	141,824		56,517		198,341
Tuna, albacore	20,863,819	170,051	20,879,585	114,033	44,777,561
Tuna, bluefin	2,599,115		2,122,215		4,721,330
Tuna, skipjack	29,677		78,418,005	4,265	78,447,947
Tuna, yellowfin	9,854		18,469,091	630,869	18,509,004
Turbot	85,002				85,002
Whalefish	241,754				241,754
Whalefish, ocean	12,655		25,166		37,821
Yellowtail	15,888		2,302,666		2,318,554
Miscellaneous fish	232,711	14,305	7,288		254,304
Crustaceans:					
Crabs	11,133,046	966			11,134,012
Limulus, king	834,205		945,696		1,779,901
Prawn	3,582				3,582
Shrimp	890,411				890,411
Mollusk:					
Abalone	3,399,998				3,399,998
Clam	47,739				47,739
Clam, cockle	112				112
Clam, dog	6,050				6,050
Clam, jackknife	4,139				4,139
Clam, Pismo			614,712		614,712
Clam, Washington	4,635				4,635
Mussel	1,465				1,465
Oyster, eastern	74,239	699			74,938
Oyster, Pacific	16,245				16,245
Squid	23,114				23,114
Squid	6,559,129				6,559,129
Total pounds	827,833,811	3,918,480	303,010,866	644,094	1,144,023
					1,133,318,314

¹ Includes 11,905 pounds of miscellaneous fish shipped from Continental United States.
² Includes 158,365 pounds of yellowfin tuna caught in the vicinity of the Hawaiian Islands.

COMMERCIAL FISH CATCH OF CALIFORNIA

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TABLE 31—Cont'd.

TABLE 32
Monthly Commercial Fish Landings in California During 1949

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Anchovy.....	42,280	44,569	134,496	344,665	298,427	303,244	370,885	191,208	229,285	29,625	1,149,427	221,462	3,222,279
Barracuda.....	90,443	287,243	224,148	392,633	335,834	390,881	129,182	242,256	103,298	107,698	142,236	11,266	2,473,961
Bonito.....	84,032	16,367	11,316	844	30,408	271,379	756,514	428,848	187,407	36,674	31,299	30,797	1,838,198
Cabernon.....	1,845	2,965	294	1,474	1,993	625	1,696	178	178	212	542	247	8,018
Calappa.....	20,652	14,917	37,029	20,023	4,547	10,226	33,874	3,465	6,002	4,172	26,101	37,110	240,233
Chum.....	2,238	6,472	25,288	46,995	52,908	115,278	49,801	8,662	122,785	100,000	98,247	8,439	648,218
Codfish.....	8,734	3,280	16,338	29,871	339	.....	.....	.....	31,714	68,870	44,818	.....	291,730
Crowfish.....	72,617	50,367	22,181	11,020	.....	.....	.....	14,559	33,425	18,375	33,132	32,602	353,874
Flounder.....	.....	.....	11	10,643	18,800	3,189	3,912	1,247	812	.....	.....	.....	34,299
Frying fish.....	15,477	16,117	39,669	7,909	1,911	25,862	46,268	707	4,863	8,488	68,748	37,607	299,615
Hake.....	.....	.....	25	.....	.....	.....	.....	.....	199	900	499	199	1,835
Haddock, California.....	63,590	99,419	221,881	127,244	119,741	138,243	51,443	81,870	81,337	76,268	106,746	69,849	1,263,511
Haddock, Pacific.....	21,844	12,478	8,724	1,657	28,736	49,917	16,569	10,007	3,385	3,777	6,038	8,114	167,347
Herring, Pacific.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17,234
Kingfish.....	90,032	97,323	15,710	410	.....	.....	.....	.....	.....	.....	.....	.....	379,311
Lincoln.....	18,121	45,109	72,414	118,303	66,340	54,829	132,810	60,199	2,243	36,897	42,555	24,411	754,429
Lucifer.....	156,065	83,709	63,236	118,303	198,851	182,428	186,001	294,772	127,838	111,677	114,677	79,139	1,655,961
Mackerel, jack.....	6,429,046	3,026,851	3,419,783	1,228,349	817,822	162,437	2,682,548	4,627,420	6,314,020	16,430,220	4,038,947	2,171,373	54,290,088
Mackerel, Pacific.....	393,965	6,588	177,016	105,627	245,299	1,614,417	8,148,067	9,437,903	12,738,127	11,280,617	6,265,929	2,024,411	69,771,273
Mullet.....	120,001	74,825	33,558	17,884	18,420	11,895	.....	.....	.....	.....	.....	.....	88,818
Perch.....	14,203	27,293	58,622	88,883	8,499	2,872	31,494	82,153	19,627	9,850	16,944	12,229	328,589
Pike, Sacramento.....	29	16	191	398	37	.....	.....	.....	.....	.....	.....	.....	694
Pompano, California.....	1,463	4,987	8,199	32,494	12,042	2,497	988	1,601	3,214	1,658	2,648	.....	88,382
Rock bass.....	2,887	10,799	18,249	18,152	21,117	35,498	28,496	21,518	10,397	18,497	16,692	22,424	220,570
Rockfish.....	481,264	264,698	308,477	337,128	499,633	689,613	893,987	727,967	586,999	393,182	394,595	602,268	6,967,477
Sablefish.....	115,570	71,132	87,668	281,393	170,356	128,758	215,072	294,601	107,691	130,506	156,512	47,171	1,771,229
Sardine.....	88,945	181,817	156,274	508,477	658,896	881,181	1,840,653	1,961,338	807,298	31,108	28,968	3,894	8,847,774
Salmon.....	25,210	46,215	69,699	84,886	81,316	69,274	60,299	71,613	55,298	61,891	29,032	.....	252,154
Sardines.....	33,277,858	286,230	12,235	818,555	4,943,328	497,661	624,421	32,190,658	104,298,365	249,476,264	87,472,669	119,865,639	682,374,699
Sediment.....	2,527	8,960	14,061	23,056	13,877	19,096	17,267	18,002	5,761	10,854	7,833	.....	141,412
Sea bass, black.....	2,141	3,816	8,394	9,889	5,302	4,999	28,615	9,033	7,070	13,285	12,374	17,298	122,461
Sea bass, white.....	1,872	13,066	62,438	47,858	137,297	221,189	147,447	327,181	199,929	132,600	81,907	16,648	1,442,238
Seastrom, greenling.....	13	100	24	24	.....	.....	.....	42	471	.....	.....	.....	736

DIVISION OF FISH AND GAME

TABLE 32
Monthly Commercial Fish Landings in California During 1949

Shad.....		3,854	256,114	476,146	2,212							735,826
Shark.....	297,940	226,628	80,322	292,427	167,239	199,828	76,665	37,940	43,867	46,714	49,484	1,841,883
Sheepshead.....	9,588	6,772	814	2,011	1,868	4,291	1,176	2,000	1,433	4,973	10,323	15,855
Serra.....	245	58	58	58	278						160	257
Skate.....	9,722	12,146	18,362	12,314	17,456	7,716	3,364	6,231	7,016	13,192	9,142	7,503
Snail.....	41,129	71,283	143,918	111,866	49,828	49,373	46,419	42,068	48,383	49,186	18,849	715,528
Sole.....	1,417,228	1,183,915	995,798	1,696,885	1,759,117	2,698,192	2,046,788	2,771,727	2,606,207	1,780,221	1,657,074	6,412,947
Spear-tail.....	6	201							110	3	3	23
Sucker.....		1,106	888	290	7,087	35,354	62,810		26,813	27,785	12,206	3,665
Swordfish, boned.....	60,111	33,743	131,631			82,717	15,038,966	12,487,101	11,201,491	4,990,672	883,339	28,061
Tuna, albacore.....	109,988	1,172,879	304,061		7,269	210,620	874,889	1,244,090	447,693	61,113		4,399,390
Tuna, bigeye.....	1,814,636	1,711,909	3,808,924	4,249,878	4,756,266	6,702,750	4,688,477	11,399,189	17,782,081	10,041,669	7,840,682	3,847,195
Tuna, yellowfin.....	10,489,372	4,822,187	14,407,218	22,448,569	35,898,262	24,817,091	33,780,232	14,484,473	12,836,190	9,382,187	16,052,867	16,454,581
Turbot.....	16,448	12,268	6,273	8,869	6,514	1,827	1,784	12,861		11,142	3,838	8,360
Whitefish.....	7,623	16,637	33,617	49,334	51,275	44,922	38,401	11,215	23	388		679
Whitefish, ocean.....	4,842	3,368	462	340	299	1,254	1,671	1,459	2,751	1,810	13,292	8,673
Yellowtail.....	147,768	180,050	202,279	162,241	322,943	593,269	564,209	2,657,615	1,506,774	183,790	315,507	192,681
Miscellaneous fish.....	4,249	6,496	6,495	4,734	10,315	8,214	15,625	24,632	8,003	30,116	17,899	118,441
Crustaceans:												
Crab.....	1,333,433	1,299,997	1,217,624	1,356,130	1,800,337	329,642	177,729	168,241	1,310	249	1,340,825	2,045,283
Lobster, spiny.....	180,416	250,926	76,663							380,417	470,344	602,115
Prawn.....	427	600	373	989	652	17		182	24	11	276	528
Shrimp.....	18,996	51,184	38,278	68,526	83,692	100,456	110,169	176,845	87,181	16,629	12,289	23,399
Mollusk:												
Albatross.....	124,665		84,748	469,026	699,215	270,620	370,477	441,901	242,154	300,442	304,056	331,756
Cham.....	719	1,073	2,297	4,533	7,801	6,881	7,810	6,378	4,449	2,262	1,950	1,282
Cham, rock.....	15	196	18	800	280	820	900	868	26	180	180	130
Cham, quaker.....	680	609	600	3	290	620	620	200	29	86	194	49
Cham, jackknife.....	295	653	175	290	290	650	669	688	17,000	23,480	126,204	477,888
Cham, Patuxent.....									699		943	445
Cham, Washington.....	662	948	1,090	882			50					1,365
Manila.....	430	688	180	143	25							
Octopus.....	16,160	9,153	9,267	9,847	9,659	3,801	1,669	1,677	2,697	3,162	2,031	3,022
Oyster, eastern.....	2,390	3,025	2,390	2,350	2,150	1,550	1,160	2,560	3,660	5,330	3,310	9,200
Oyster, Pacific.....	26,020	26,116	28,943	19,265	12,842	18,848	13,215	17,672	19,688	17,973	21,511	15,209
Squid.....	173,684	3,613	503,090	423,923	214,917	267,962	3,833,697	218,379	63,839	162,919	755,320	435,611
Total rounds.....	87,890,950	18,179,123	27,351,129	39,687,925	43,996,530	41,859,981	54,685,269	96,702,876	172,829,306	308,469,183	130,279,197	150,793,564

TABLE 32—Cont'd.

TABLE 33
Commercial Fish Landings in the Eureka Region During 1949

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Fishing boat landings from California waters													
Calamint					18						133		151
Carp					68,540			18,055	5,643				92,241
Flounder	44,398	13,899	8,219	3,487	9,476	1,952	11,175	11,655	9,750	16,689	24,125	22,143	178,385
Halibut, Pacific	49		515	156	25,270		39,317	11,348	8,919				85,125
Herring, Pacific	2,700												2,700
Langost	118,819	15,612	30,096	48,750	122,726	92,428	129,102	203,284	78,839	65,574	78,493	46,175	1,027,958
Perch	962	883	7,630	19,998	15,211	10,688	29,796	7,490					77,964
Roadfish	191,202	26,445	65,268	147,577	166,383	398,445	386,949	451,265	311,645	212,747	165,025	199,174	2,819,551
Sablefish	62,931	2,166	10,406	230,289	118,985	79,910	178,143	218,777	44,401	71,630	123,003	25,713	1,151,954
Salmon				182,506	271,159	398,359	795,974	999,058	61,862				2,678,918
Sand dab	20,665	10,614	16,743	17,299	14,945	6,776	8,291	18,907	4,042	5,398		11,000	142,239
Sardine							8,890		4,199				13,089
Sea loon, white			190						10				200
Shad	114,094	10,267	2,210	257	22		31	1,889		755			127,348
Shark		290	730		600								1,620
Snout			54	1,166	915	2,730		3,505	8,822	8,661	2,715	1,039	26,377
Tuna, bluefin	831,248	277,164	494,000	739,245	888,298	1,051,944	1,333,323	1,712,650	1,298,458	1,067,536	1,218,141	530,667	11,249,149
Tuna, yellowfin							4,190	640,828	1,808,941	310,296	7,864		2,779,099
Trottel	165	130	608	630	118	442	305	50	549	290	249		1,627
Whitefish	8,329	8,021	30,063	45,810	48,838	42,471	22,542	8,261	23	154			211,452
Miscellaneous fish	459	498	922	345	93		3,972	19,312	2,783	8,479	4,887	4,991	42,992
Crustacean:													
Crab	1,133,687	1,017,796	1,143,037	1,179,793	1,659,838	247,267	92,198	32,626			188,598	668,674	7,354,354
Mollusk:													
Clam, Washington	522	848	1,095	823					699			848	4,925
Ostrea	8,947	1,195	2,599	1,801	264		165	200	85	659		1,302	19,925
Total pounds	2,533,272	1,401,191	1,844,432	2,618,762	3,514,888	2,331,538	3,014,653	4,262,716	3,651,390	1,754,562	1,812,792	1,241,059	29,981,966

TABLE 33
Commercial Fish Landings in the Eureka Region During 1949

Fishing boat landings from waters north of the state boundary																								
Flounder.....	1,971		72	149			750						1,078	2,448										6,468
Lingcod.....	503		3,285	18,997	6,062	23,614	8,114	19,807	10,539				11,211	2,475										104,267
Rockfish.....	1,929		18,739	95,967	8,849	75,652	31,318	77,124	77,147				82,565	11,800										480,130
Sablefish.....				3,887	2,510	4,881	6,906	41,335	42,343				5,689	20,384										127,555
Salmon.....							22	9,044	18,376															37,442
Sand dab.....													114	88										625
Sole.....	14,807		43,969	424,831	90,030	354,134	300,108	606,016	310,332				208,872	173,033										2,527,632
Tuna, albacore.....								3,594	41,807															45,401
Crustacean:																								
Crab.....	500		115	216	135																			966
Mollusk:																								
Octopus.....							570						34	91										605
Total pounds.....	19,800		66,150	513,220	108,156	458,731	346,168	756,920	501,044				307,563	213,169										3,320,621
Grand totals Eureka region.	2,553,072	1,401,191	1,910,582	3,161,582	3,623,041	2,790,269	3,360,821	5,019,636	4,152,424			2,051,925	2,025,921	1,241,050										33,302,917

TABLE 33—Cont'd.

TABLE 34
Commercial Fish Landings in the Sacramento Region During 1949

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Fishing boat landings from California waters													
Carp.....	688	1,312	12,605	41,321	42,799	52,493	75	47	100,583	99,887	80,888	4,418	446,116
Catfish.....	8,754	3,580	15,708	19,628	330				29,308	47,878	40,318	24,296	189,560
Flounder.....			239	52					70		130		491
Hardhead.....			19	7	1,837	610				2,966	2,000	1,601	8,831
Herring, Pacific.....												2,650	2,650
Pike.....	30	16	101	398	37							22	604
Salmon.....	16,651	68,802	70,666	75,064	143,498	12,791		97,550	380,566		19,608	3,894	890,060
Sardine.....								400,500	1,234,000	575,000	53,500	173,500	2,536,500
Shad.....			3,331	255,026	474,993	2,212							735,255
Split-tail.....		6	201						110	3			325
Miscellaneous fish.....						80				110			190
Grand totals, Sacramento region.....	26,123	73,716	102,884	392,496	662,964	68,186	75	498,097	1,833,097	725,844	205,471	210,350	4,810,912

TABLE 34

Commercial Fish Landings in the Sacramento Region During 1949

TABLE 35
Commercial Fish Landings in the San Francisco Region During 1949

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Fishing boat landings from California waters													
Anchovy				31,200	28,062	18,700	18,700	63,910	21,990	19,700		17,160	218,474
Cabazon	1,259	582	50	433	729	471	900	160	150	182	112		4,370
Carp	1,650	1,000	3,813	5,574	2,789	4,765	2,670	2,967	290	260	3,320	461	22,208
Codfish			620	946					2,214	992	1,600	2,724	11,870
Flounder	21,316	40,379	12,917	8,470	1,684	1,403	2,559	18,705	7,252	12,960	8,600	8,888	138,419
Hake				35	35				100	500	100	100	1,155
Hallibut, California	2,422	1,266	910	167	283	1,074	280	243	319	243	627	565	9,091
Hallibut, Pacific	21,756	12,475	8,180	1,501	3,166	6,870	5,223	3,688	2,473	2,184	8,444	8,600	81,194
Hardhead										1,097	6,012	514	8,623
Herring, Pacific	96,411	67,073	13,253	359							15,000	48,383	271,969
Kingfish	256	109		11	45	117	339	750	345	50	20		2,518
Langost	29,379	25,499	19,964	37,262	51,195	54,222	42,235	33,370	38,569	22,440	24,739	13,143	292,617
Macaroni, Pacific													3,000
Perch	2,814	6,067	18,288	31,204									60,373
Rockfish	12,243	11,700	20,337	9,233	109,601	40,813	27,941	31,204	48,578	3,128	10,218	1,209	190,933
Subfish	9,770	1,837	8,073	8,828	13,331	5,723	2,318	314	319	1,221	1,880	557	53,061
Salmon	15,846	30,516	42,524	156,150	208,927	370,109	922,568	450,256	40,045	27,680	35,080	11,318	2,455,543
Sand dab				87,171	66,792	80,317	41,053						274,333
Sardine			900				4,065	3,207,200	6,908,410	9,501,020	8,167,720	3,458,540	31,162,655
Sea loon, white	18			8	17			199	212	3,296	4,170	318	8,718
Seavout, greenling													382
Shad				88	483								571
Shark	24,600	9,261	8,866	1,303	13,189	34,229	3,233	14,665	10,512	12,241	6,443	13,664	163,735
Skate	8,703	6,294	8,201	8,158	12,480	3,213	2,450	8,731	4,450	6,390	7,530	6,000	77,224
Sturgeon	14,487	43,089	126,418	86,210	47,112	44,419	36,213	9,716	7,073	6,627	1,568	80	440,166
Sole	698,222	329,243	290,274	598,718	664,811	691,703	208,203	309,011	323,120	288,713	238,002	264,823	4,504,053
Swordfish, broadbill					290								290
Tuna, yellow							714	65,033	1,178,790	23,862			1,668,097
Turbot	13,240	12,482	8,997	8,510	3,953	1,175	863	11,723	9,898	3,514	8,653	2,073	80,620
Whale	2,294	2,606	4,540	2,709	2,071	2,024	5,539	2,554	182				29,860
Miscellaneous fish	728	218	366	364	823	898	8,096	2,293	1,222	14,335	9,067	1,974	40,856

TABLE 35
Commercial Fish Landings in the San Francisco Region During 1949

Crustaceans																				
Crab	308,872	258,421	84,683	67,287	123,366	75,273	76,017	112,271					1,175,915	1,471,393	3,607,233					
Shrimp	18,096	21,184	28,278	65,228	81,692	109,466	110,189	176,845			87,481	16,639	13,289	25,886	606,141					
Mollusk																				
Abalone	4,042	4,855	3,412	6,764	11,260	8,717	8,350	8,471	3,252	5,709	1,050				33,644					
Cockles	2,309	3,625	2,209	2,588	3,987	1,893	1,690	734	302	182	670				24,164					
Oyster, eastern	11,529	11,536	10,283	11,675	12,552	16,583	15,517	22,895			11,948	11,967	15,371	8,133	111,838					
Oyster, Pacific																				
Total pounds	1,295,817	983,738	730,492	1,302,693	1,411,470	1,341,410	1,681,496	4,724,233	8,994,801	10,314,761	9,755,926	5,368,107	47,785,356							
Fishing boat landings from waters south of the international boundary																				
Shark		12,185													12,185					
Tuna, bluefin		222,705													222,705					
Total pounds		234,890													234,890					
Shipments and importations of fresh fish ¹																				
Tuna, yellowfin						29,229			239,375		98,314				338,918					
Tuna, skipjack									4,288						4,288					
Total pounds						29,229			243,663		98,314				343,206					
Grand totals, San Francisco region	1,295,817	1,188,648	730,492	1,302,693	1,411,470	1,370,639	1,681,496	4,724,235	9,234,161	10,383,065	9,755,926	5,368,107	48,261,449							

¹ See Table 13 for origin record of shipments and importations of fresh fish.

COMMERCIAL FISH CATCH OF CALIFORNIA

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TABLE 35—Cont'd.

TABLE 36
Commercial Fish Landings in the Monterey Region During 1949

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds	
Fishing boat landings from California waters:														
Anchovy.....			5,565	29,870	2,448	60,000			3,000	100,823	330	1,114,284	183,175	1,482,725
Calappa.....	600	1,478	157	901	190	121	341			8	417	2,315	2,562	10,411
Flounder.....	4,236	7,428	530	1,161	301	412	312	694		711	2,306	4,362	4,263	22,333
Hake.....														400
Haddock, California.....	9,783	12,833	23,083	5,284	1,971	12,361	14,870		4,354	145	884	5,652	6,554	97,500
Herring, Pacific.....		500	140	90				6,000	34,500	38,501				100,131
Knapfish.....	2,624	10,454	14,509	40,140	17,311	17,780	15,387	7,341	16,331	28,137	29,434	18,019		310,372
Lingcod.....	7,581	10,360	8,858	7,928	6,502	5,245	3,235	6,934	7,091	9,761	2,562	16,205	85,203	185,203
Masked gull.....	526			9,700	1,203	3,216	1,059	3,320	1,611,192	1,339,564	565,008	412,279		4,179,314
Masked, Pacific.....				39	300	13,500	4,316	1,703	21,645	165	62,243	119,593		235,917
Pomfret.....	564	961	3,148	19,878		11	2,064		2,441	502	1,432	1,584	539	32,083
Pompano, California.....	254	637	751	50,127	7,230	505			58	2,176			157	62,765
Rock bass.....										2,000				2,000
Rockfish.....	162,967	120,210	117,503	91,186	95,631	91,691	95,284	115,376	61,184	121,795	55,013	233,453		1,217,267
Salmon.....	27,307	34,555	19,928	23,416	20,431	31,302	26,802	20,305	20,083	50,199	8,553	19,880		229,230
Sand dab.....	4,060	2,786	4,162	9,607	7,931	11,881	9,963	14,073	17,197	22,101	2,392	4,837		109,988
Sea bass, white.....	106,305			274,819	3,487,428	465,841	511,612	29,605,687	63,701,941	74,320,309	37,692,531	22,910,447		262,373,393
Sea bass, greenling.....	131	49	249		2,201		2,781	28,316	20,496			301		53,044
Shark.....	127,471	154,169	89,136	178,828	26,565	9,320	11,811	5,020	609	1,000	681	31,821		608,239
Shrimp.....	2,977	3,966	4,616	1,214	1,105	1,584	601	68	1,100	670	426	150		21,443
Snail.....	5,662	2,576	2,390	4,112	5,782	2,523	3,871	18,045	26,682	21,974	8,856	11,369		116,142
Sole.....	21,754	34,103	42,996	60,591	47,292	40,314	41,686	89,306	92,403	210,443	15,103	20,000		720,023
Swordfish, broadbill.....												270		270
Tuna, albacore.....							6,190	675,107	2,988,607	1,455,474	27,618			5,135,996
Turbot.....									460	2,131				2,601
Whitefish.....			14	155	206	27								478
Miscellaneous fish.....	12	97			42	78	115	40	245	730				1,268

DIVISION OF FISH AND GAME

TABLE 36
Commercial Fish Landings in the Monterey Region During 1949

Crustacean:															
Crab.....	3,810	3,276	3,003	3,433	1,504	376	380					3,588	2,290	24,334	
Prawn.....	477	600	223	300	633	17				187		24	276	828	
Mollusk:															
Abalone.....					4,551	12,250	27,601	27,325	1,820	1,050			1,200	73,333	
Clam, razor.....	560	640	600	800	750	820	630	500	50	150			100	6,000	
Mussel.....				70	25									85	
Octopus.....	3,853	2,880	2,138	3,113	4,144	549	193	1,106	2,473	2,533			507	25,304	
Squid.....	142,235	1,830	499,281	523,523	214,355	207,963	3,533,697	213,370	65,830	162,010			750,290	6,816,004	
Total pounds.....	638,630	601,904	817,219	1,888,095	4,061,804	1,113,658	4,433,444	29,331,066	68,897,146	78,800,607			29,738,439	284,774,590	
Fishing boat landings from waters south of the international boundary:															
Tuna, bluefin.....		7,703												7,703	
Total pounds.....		7,703												7,703	
Grand totals, Monterey region.....	638,630	609,607	817,219	1,888,095	4,061,804	1,113,658	4,433,444	29,331,066	68,897,146	78,800,607			29,738,439	284,774,590	

MONTEREY REGION FISH CATCH (IN POUNDS)

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TABLE 36—Cont'd.

TABLE 37
Commercial Fish Landings in the Santa Barbara Region During 1949

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Fishing boat landings from California waters:													
Anchorovy.....	10,131	134	767	8,182	31	97,930	300,790	35,670	21,440		17,533		441,619
Barramundi.....		800		401				11	28	3,780	9,241	1,117	26,479
Bonito.....	198										67		488
Chubmussel.....	278	28	27	146	166	20	283	30	20		32		153
Flounder.....	278	28		39	878	696	330	88			25		3,133
Halibut, California.....	36,418	35,507	33,071	28,099	64,820	81,450	44,443	34,911	89,839	21,042	33,699	36,169	492,188
Kingfish.....	10	299								160	113	26	706
Langost.....	1,172	334	897	4,114	8,212	5,684	3,103	761	750	1,240	3,303	2,834	31,772
Macaroni, jack.....	1,760,898								29,640	73,290	694,100	191,760	176,696
Macaroni, Pacific.....	40,378								68,763	328	64,666	183	87
Perch.....	4,031	312	3,168	1,681	1,238	428	5	469	1,438	738	1,357	640	12,255
Rock bass.....		626	3,168	2,447	3,045	5,258	683	197	391	883	308	1,248	15,916
Rockfish.....	9,094	10,332	9,919	12,789	12,745	16,714	19,594	7,490	11,030	8,543	11,373	6,788	138,413
Sablefish.....						1,079	3,418						4,497
Salmon.....				135	2,819	1,422	603						4,881
Sand dab.....	4,451	299	2,187	45	671	159	74	188	131	310	28		6,688
Sardine.....	2,958,418						900	34,180	38,040	2,626,110	2,998,420		16,322,080
Scupin.....	39	283	65	27	632	140			34	35	222		877
Sea bass, black.....				211						268	333		1,764
Sea bass, white.....	1,200	4,128	40,888	16,378	21,227	20,712	24,412	44,222	18,310	104,917	62,291	6,618	378,666
Shark.....	4,315	22,772	12,981	34,163	37,278	27,017	17,742	4,271	6,317	6,030	9,310	10,471	191,219
Sheepshead.....	277	461		421	393	1,006	888	301	394	522	284	921	7,097
Sole.....	298	64	784	690	396	111	282	286	624	191	484	321	2,476
Swordfish.....	2	827	864	576	216	77			188	189	80	64	3,242
Sole.....	40,308	65,693	92,927	83,184	67,162	69,661	73,397	68,661	58,945	23,028	9,712	8,122	629,822
Swordfish, broadbill.....								617	6,190	9,276	791	117	17,188
Tuna, albacore.....								241	21,359	385,399	297,577	344	873,911
Turkey.....	2,043	694		654	584	10	616	1,101	555	73			818
Whitefish, ocean.....											15		748
Miscellaneous fish.....	1,399	2,207	2,075	2,093	3,999	2,781	1,182	808	1,171	522	606	289	18,405

DIVISION OF FISH AND GAME

TABLE 37
Commercial Fish Landings in the Santa Barbara Region During 1949

Crustaceans:																											
Crab.....	1,489	1,681	2,854	3,081	3,485	3,954	6,101	2,885						1,710	1,222										28,882		
Lobster, spiny.....	14,251	15,759	4,109											49,748	60,356	60,353										234,508	
Mollusk:																											
Abalone.....	99,403		22,554	265,379	439,122	117,104	212,719	200,740	91,600	179,017	145,740	311,790															2,035,361
Octopus.....	65	76	863	750	681	722	187	30	718	28																3,846	
Crater, Pacific.....	15,000	14,880	18,260	8,220	7,290	124,180	7,800	11,700	8,940	6,006	6,540															123,282	
Squid.....						561																				702	
Total pounds.....	4,997,694	179,131	248,422	474,863	667,693	467,653	732,222	622,916	699,431	4,913,414	3,667,128	7,962,478														24,972,795	
Fishing boat landings from waters south of the international boundary:																											
Hallett, California.....																											
Total pounds.....																											7,164
Grand totals Santa Barbara region.....	4,997,694	179,131	248,422	474,863	667,693	467,653	732,222	622,916	699,431	4,913,414	3,674,282	7,969,642														24,979,949	

COMMERCIAL FISH CATCH OF CALIFORNIA

TABLE 37—Cont'd.

TABLE 38
Commercial Fish Landings in the Los Angeles Region During 1949

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Fishing boat landings from California waters:													
Anchovy.....	41,280	43,235	124,031	273,680	180,917	206,377	51,425	89,428	82,002	9,285	4,270	23,127	1,133,967
Barracuda.....	1,499	5,977	33,305	49,968	144,054	280,268	26,815	14,869	1,803	2,024	4,487	8	486,274
Carp.....	55	83	749	731	88	9,762	1,723	40,094	21,442	76	3,109		82,553
Crab.....	4,109	8,270	731	731	7,320	9,500	20,000		22,000				71,269
Flounder.....	330	141	184	704	1,611	1,483	84	85	861	412	281	499	5,867
Flying fish.....				14	10,615	14,859	3,183	3,612	1,247				34,260
Halibut, California.....	4,054	21,270	124,149	79,011	43,203	13,945	7,943	3,597	8,173	11,109	9,957	18,349	231,712
Kingfish.....	9,836	24,677	30,911	74,198	54,498	66,938	167,729	38,291	18,233	7,991	12,728	6,017	652,867
Lingcod.....	287	618	1,282	281	339	907	56	44	225	118	294	417	5,149
Mackerel, jack.....	4,677,542	3,068,861	3,419,031	1,818,031	816,428	158,891	2,682,459	4,603,060	4,800,138	14,681,312	3,281,124	1,382,998	44,213,266
Mackerel, Pacific.....	223,291	8,819	176,056	93,646	212,217	1,423,163	3,122,718	9,340,060	12,638,807		6,400,138		89,517,496
Mullet.....		9,519	1,945		8,218	11,808							3,291
Perch.....	6,442	19,098	32,588	13,684	2,181	2,125	1,411	2,265	3,237	4,286	6,435	9,672	102,784
Pompano, California.....	1,169	1,110	4,558	2,277	4,728	1,272	988	1,513	1,658	1,658	2,408		1,863
Rock bass.....	1,178	1,133	4,110	6,961	16,931	21,121	5,203	4,302	5,904	7,405	12,661	3,849	80,978
Rockfish.....	607,125	72,169	92,967	79,174	66,834	86,312	3,131	8,986	14,229	30,327	44,571	47,074	470,759
Salmon.....	13,911	22,294	19,201	13,180	1,879	169	155	463	715	817	2,662	886	75,533
Sand dab.....	869	2,843	1,289	1,291	976	481	18	43	214	265	318	218	6,665
Starling.....	30,313,048	283,679	12,213	63,743	1,027,269	46,703	107,029	498,949	2,343,679	187,775,685	36,938,731	85,647,813	314,850,225
Sculpin.....	2,960	7,735	10,769	12,694	7,022	18,701	17,387	15,267	6,002	6,617	4,924	11,025	122,614
Sea bass, black.....	196	64	355	355	411	421	607	1,769	1,216	221	216		6,025
Sea bass, white.....	984	1,707	7,843	25,103	94,428	117,745	34,886	30,465	23,269	16,774	4,148	1,134	309,707
Shark.....	5,945	4,267	5,505	32,460	94,966	106,043	21,468	9,770	13,701	13,200	19,814	4,383	211,229
Sheepshead.....	1,484	3,109	454	242	276	2,017	288	1,109	798	3,412	13,603	6,277	34,988
Skate.....	983	1,804	2,051	2,349	2,785	2,868	491	156	642	648	1,308		16,473
Smelt.....	20,846	18,919	6,217	12,974	4,793	224	839	7,189	6,798	15,786	7,410	14,990	116,866
Sole.....	742	321	348	1,657	1,349	878	399	11	221	19	945		5,153
Surker.....			1,100										1,100
Crawfish, brownfish.....				688			4,883	21,038	22,080	21,264	11,692	3,654	107,489
Tuna, bluefin.....							2,672	1,427,666	796,817	981,802	237,022		3,445,911
Tuna, blackfin.....							151	812,449	1,060,065	253,021	72		2,288,619
Tuna, skipjack.....								782	1,699	2,560	1,111		10,289
Tuna, yellowfin.....								121	121	99	209		4,477
Whalefish, ocean.....								96	188	790	3,086		9,161
Yellowtail.....				817	1,929	4,603	1,165	412	25		609		9,149
Miscellaneous fish.....	1,433	1,647	3,497	1,797	3,779	2,988	469	697	941	727	1,082	10,812	36,469

DIVISION OF FISH AND GAME

TABLE 38
Commercial Fish Landings in the Los Angeles Region During 1949

COMMERCIAL FISH CATCH OF CALIFORNIA												
Crustaceans:												
Crab.....	660	2,723	1,972	2,555	2,270	2,440	2,814	489	1,310	163	553	271
Lobster, spiny.....	32,493	31,397	7,762							200,149	137,813	83,007
Total.....	33,153	34,120	9,734							200,312	138,366	83,278
Mollusk:												
Abalone.....	24,603		60,431	194,479	240,250	89,781	117,739	134,171	131,414	103,425	134,223	95,472
Chin, rock.....	15	166	18	3								142
Mussel.....	339	695	180	73								1,290
Octopus.....	67	177	233	306	33	183					35	26
Squid.....	31,209	3,186	4,829									2,629
Total.....	56,223	4,164	15,680	475,258	520,662	190,064	235,721	268,342	262,824	203,845	268,258	100,783
Fishing boat landings from waters north of the state boundary:												
Tuna, bluefin.....								1,532	1,097			2,629
Total.....								1,532	1,097			2,629
Fishing boat landings from waters south of the international boundary:												
Barramundi.....	43,059	294,092	131,030	182,240	34,721	27,289	105,419	161,381	99,292	62,369	103,224	144
Bullhead.....	1,468	4,034	65	83	1,863	254,714	73,768	287,444	144,553	27,015	10,816	3,543
Cobia.....	20,652	11,261	30,622	18,173	4,947	10,226	33,331	4,403	6,007	6,172	24,400	23,922
Crenilly.....	15,477	10,419	11									11
Grouper.....			16,284	6,758	1,511	22,562	45,358	22	8,862	8,183	61,164	61,503
Halibut, California.....		1,697	129		25	11,918	968	21,831			14,560	790
Lingcod.....											130	155
Rock bass.....	233	3,566	8,737	5,846	1,278		2,496		1,285	3,060	280	12,231
Rockfish.....												87
Sculpin.....												1,125
Sea bass, black.....	1,505	3,975	6,468	3,846	3,777	118	19,106	1,425	5,118	10,017	5,952	13,310
Sea bass, white.....		915	311	3,367	3,454	8,333	26,323	103,969	93,848	9,813	1,841	141
Shark.....		4,178	300		3,608						970	48
Shorehead.....			50	310					470		418	6,248
Sorta.....	248										213	150
Tuna, albacore.....							883	5,201	2,395		901	8,471
Tuna, bigeye.....												257
Tuna, bluefin.....	100,043	642,681	264,031		7,550	1,181	2,106,941	2,141,728	997,182	340,867	74,643	20,443
Tuna, skipjack.....	392,431	211,937	1,344,568	978,252	2,224,838	2,877,742	1,427,221	3,788,021	3,217,032	660,704	2,819,286	2,016,900
Tuna, yellowfin.....	3,118,947	84,295	16,421,900	9,298,769	11,842,743	10,090,038	8,871,023	4,359,067	3,243,419	1,814,566	3,627,444	7,318,233
Whitefish, ocean.....												487
Yellowtail.....	12,947	43,532	66,672	43,297		349,477	628,886	2,639,372	1,287,999	88,766	224,981	42,099
Miscellaneous fish.....					81						617	788
Crustaceans:												
Lobster, spiny.....	12,211	6,138	2,165							1,540		24,354
Total.....	3,760,697	2,690,217	8,233,713	10,458,091	14,294,218	14,773,110	10,891,621	13,331,896	11,181,261	2,487,826	8,509,699	9,709,110
Total.....	3,760,697	2,690,217	8,233,713	10,458,091	14,294,218	14,773,110	10,891,621	13,331,896	11,181,261	2,487,826	8,509,699	9,709,110

COMMERCIAL FISH CATCH OF CALIFORNIA

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TABLE 38—Cont'd.

TABLE 38—Continued
Commercial Fish Landings in the Los Angeles Region During 1949

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Shipments and importations of fresh fish ¹													
California							323						323
Rock bass							588						588
Sablefish	1,861	10,600		8,867		10,208							27,536
Salmon	72,294	83,015	86,308	46,350	30,000	103	14,000	5,308	15,845	31,105	34,285		418,133
Sea bass, black							420						420
Sea bass, white							273						273
Tuna, albacore	80,211	38,722					6,805	21,815					142,553
Tuna, yellowfin	200	700			350	350	2,100	1,200	1,500	185,812			302,491
Miscellaneous fish							8,865			7,778			14,643
Total pounds	153,856	127,437	86,308	51,817	30,350	10,996	24,209	28,423	17,075	228,693	34,285	114,452	907,851
Grand totals Los Angeles region	30,466,198	5,865,905	12,549,618	12,738,026	17,082,277	17,464,023	21,648,816	30,344,824	32,612,706	180,848,796	85,849,134	99,203,242	531,574,494

¹ Includes 128,365 pounds of yellowfin tuna caught in the vicinity of the Hawaiian Islands.
² See Table 13 for origin record of shipments and importations of fresh fish.

TABLE 38
Commercial Fish Landings in the Los Angeles Region During 1949

TABLE 39
Commercial Fish Landings in the San Diego Region During 1949

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Fishing boat landings from California waters:													
Anchovy.....		1,900		1,533		315		4,433			4,340		8,188
Barramunda.....	6,879		27,394	14,838	103,716	72,745	814						260,721
Bass.....	533			7,401	7,401	2,211	8			1,155			11,013
Carp.....			800										800
Halibut, California.....	2,617	6,267	28,287	15,094	2,107	1,248	617	763	6,754	34,979	21,824	6,494	129,150
Herring, Pacific.....	1,321				2,214								3,535
Kiaerfish.....	16	78	681	2,044	2,218	2,204		2,205	4,491	1,742	278		17,876
Lingcod.....	204	848	1,187	1,217	167	200		189	356	453	1,141		3,277
Mackerel, jack.....			728										728
Mackerel, Pacific.....	232	78	969	13,844	10,722	17,432	17,690	66,174	67,357	25,250			202,919
Mullet.....	120,601	64,818	31,413	17,698	8,207	3,438	1,683	777	187	46,660	27,900	84,616	426,311
Rock bass.....	2,282	3,819	1,325	62	2,662	3,438	1,437	2,055					34,981
Rockfish.....	369	508	10,406	14,778	13,197				4,494	2,376	4,297		30,547
Sardine.....		190			500				311	6,353	2,360,979	702,390	5,769,296
Sculpin.....	388	797	3,122	10,368	813	255		35	713	1,678	1,617		22,286
Sea bass, black.....	121	196	309	3,646	1,018	1,105		89	201	1,000	612		6,422
Sea bass, white.....	2,239	4,774	13,365	1,785	14,728	43,037	7,814	17,833	4,713	10,087	6,412		137,608
Shark.....	1,033	2,274	1,174	4,639	16,398	19,896	10,975	4,237	11,373	12,811	8,897		72,238
Shrewfish.....			12										12
Skate.....	89												89
Snook.....	3,107	3,873	1,611	288									9,079
Sole.....	50	279	23	679	279				747	2,368	33		4,136
Swordfish, broadbill.....						1,204							1,204
Tuna, bluefin.....						3,311		4,127	1,833	4,266	407		13,944
Tuna, skipjack.....						17,688	4,739,082	1,614,666	287,230	103,650	107,456		6,892,573
Tuna, yellowfin.....								6,339	21,027	280			27,646
Whitefish, ocean.....								2,371	6,600	1,796			11,767
Yellowtail.....	626	114	189				1,410	3,911					6,036
Miscellaneous fish.....	83	102											185
Crustaceans:													
Crab.....											77	161	374
Lobster, spiny.....	3,643	3,735	4,816									19,698	141,888

COMMERCIAL FISH CATCH OF CALIFORNIA
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TABLE 39
Commercial Fish Landings in the San Diego Region During 1949

TABLE 39—Continued
Commercial Fish Landings in the San Diego Region During 1949

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Fishing boat landings from California waters—Continued													
Mullet:													
Albacore.....	507		1,601	2,404	4,002	3,078	4,277	11,107	14,350	18,600	22,043	23,294	106,412
Chum.....	749	1,075	2,207	4,532	7,301	6,381	7,310	6,378	4,449	2,532	1,959	2,284	47,236
Clam, jackknife.....	285	655	90	178	206	620	650	655	275	90	104	40	4,130
Mussel.....	100						90						150
Octopus.....		55				70							125
Total pounds.....	154,379	199,002	141,098	110,586	276,663	430,949	4,807,483	1,743,683	407,903	3,005,790	2,681,995	981,281	14,844,861
Fishing boat landings from waters south of the international boundary:													
Barramunda.....	28,925	56,244	20,749	14,060	8,211	560	1,233	50,848	4,601	35,488	25,198	50,037	310,213
Bonito.....	21,222	12,650	10,171	10,171	29,359	1,152			18,710	5,401	2,468	27,142	129,415
Calappa.....		2,736	7,207	2,440						1,701	3,188	17,432	17,432
Crab.....		5,708	23,596	1,182		30				305	4,652	6,014	41,247
Halibut, California.....	10,089	3,675	1,252		5,275	16,387			15,720	28,571	16,708	11,298	118,660
Kingfish.....			1,278								338		338
Rock bass.....	181	1,223	909	1,508	1,769	5,341			1,667	922	1,198	1,211	18,190
Sea bass, black.....	42	1,346	114	1,829	1,686	2,144	2,320	1,150		658	4,610	2,743	23,191
Sea bass, white.....		416	821	896	3,271	23,480	40,964	99,611	19,166	5,135	6,299	3,508	207,584
Shark.....		1,245	81	60	265					1,062	812	4,372	8,099
Sheepshead.....	717	900		1,095						243	80	1,644	5,494
Skipjack.....													2,778
State.....	114												114
Swordfish, broadbill.....							10,025	20,040	11,208	603			47,696
Tuna, albacore.....						1,286	7,199,504	6,576,473	2,720,117	1,098,079	203,324	3,565	17,837,938
Tuna, bluefin.....													86,652
Tuna, blackfin.....	1,001,845	1,519,373	2,400,418	3,262,683	3,443,848	3,762,603	2,671,259	7,468,205	12,609,527	9,883,833	5,190,469	1,800,346	54,844,449
Tuna, yellowfin.....	7,300,625	4,029,964	7,974,212	13,240,190	16,088,479	13,345,025	7,918,287	10,502,860	9,244,525	7,510,129	10,425,716	8,827,549	114,464,589
Whalefish, common.....	2,107	1,565	239	349			641			205	9,086	1,797	16,671
Yellowtail.....	129,781	110,123	145,989	90,277	224,730	582,639	112,251	16,444	247,268	124,043	88,454	149,882	2,005,207
Miscellaneous fish.....	41	817		158	200					126	443	2,279	5,032

DIVISION OF FISH AND GAME

TABLE 39
Commercial Fish Landings in the San Diego Region During 1949

Crustaceans:														
Lobster, spiny.....	127,658	200,927	58,141							59,369	235,480	239,677		921,352
Total pounds.....	8,798,057	8,848,698	10,719,193	18,619,844	17,806,769	17,704,033	17,921,950	24,357,517	24,914,092	18,083,274	16,308,799	11,130,748		190,890,844
Shipments and importations														
of fresh fish:														
Barramundi.....					2,771		4,771	8,675						16,217
Bonito.....							2,575	392	995	483	5,855			8,885
Halibut, California.....		418					12,668	18,145						37,713
Rock bass.....		367					28,149	38,096	27,412	93,271	6,738	8,187		169,568
Rockfish.....							4,416	5,345						3,847
Saldfish.....								1,346	435	1,019	592			2,949
Sea bass, black.....								225	1,191	811	139			2,364
Sea bass, white.....										360	150			511
Shark.....											141			1,628
Shrimp.....		1,774												14,230
Tuna, albacore.....			131,621						788	2,323	6,473			65,454
Tuna, skipjack.....						42,112				1,267				447,950
Tuna, yellowfin.....						447,899								6,650
Whitefish, ocean.....		1,118					1,181	1,165	1,368	544				1,773
Yellowtail.....														281
Miscellaneous fish.....							21				390			
Mollusk:														
Clam, Pismo.....									17,090	23,480	125,304	477,888		644,732
Total pounds.....		3,875	131,621		4,636	490,011	53,954	61,900	53,479	47,899	141,200	481,894		1,469,368
Grand totals San Diego														
region.....	8,852,438	8,892,603	10,991,912	18,730,480	18,687,268	18,685,293	22,778,387	26,163,100	25,376,441	21,656,472	19,129,024	12,988,919		207,208,013

* See Table 13 for origin record of shipments and importations of fresh fish.

COMMERCIAL FISH CATCH OF CALIFORNIA

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TABLE 39—Cont'd.

TABLE 40
Pounds and Value of Commercial Fish Landings in California During 1949¹

Species	Eureka region		Sacramento region		San Francisco region		Monterey region	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Anchovy.....					216,474	\$4,091	1,492,725	\$17,499
Barramundi.....								
Bonito.....								
Calappa.....	151	\$15			4,570	113	10,411	272
Carp.....	92,264	922	446,116	\$13,883	32,808	2,316		
Chickadee.....			139,399	35,264	11,370	2,269		
Cowley.....			491	83	133,449	8,469	22,653	1,221
Flounder.....	194,853	7,264						
Flying fish.....								
Groper.....					1,135	12	400	4
Hake.....					9,021	1,831	97,820	19,310
Hallibut, California.....					81,194	13,778		
Hallibut, Pacific.....	80,133	19,678	8,831	2,847	8,333	2,857		
Hardhead.....	2,200	65	2,650	80	271,909	6,264	100,131	761
Kingfish.....					2,348	147	210,572	11,919
Langostino.....	1,132,233	61,346			382,217	28,264	95,203	8,084
Mackerel, jack.....							4,179,518	92,795
Mackerel, Pacific.....					2,000	69	232,317	5,145
Mullet.....								
Perch.....							32,382	2,291
Pike, Sacramento.....			604	68				
Pompano, California.....					100,853	14,674	62,765	20,813
Rock Bass.....							2,600	313
Rockfish.....					237,271	3,739	1,047,267	101,876
Subfish.....	1,279,289	109,245			50,944	1,739	324,239	11,481
Salmon.....	2,091,200	617,581	899,690	220,098	2,455,543	662,491	498,737	117,612
Sand fish.....	142,734	1,066			131,266	25,091	109,388	7,449
Sardine.....	14,363	822	2,339,300	41,642	31,242,865	332,823	282,373,382	6,863,331
Squid.....								
Sea bass, black.....								
Sea bass, white.....	670	173			8,718	1,863	53,054	9,069

DIVISION OF FISH AND GAME

TABLE 40
Pounds and Value of Commercial Fish Landings in California During 1949

Sea trout, greenling.....				553	14	354	15	
Shad.....			785,255	571	29			
Shark.....	147,245	190,712		175,919	512,415	668,359	11,496	
Shovelnose.....								
Sisal.....	1,450	17		77,224	1,138	23,443	549	
Sole.....	25,277	1,855		440,785	87,668	115,742	5,479	
Sole.....	13,857,151	579,289		4,501,053	235,081	720,533	43,454	
Spotted tail.....			338					
Sucker.....								
Swordfish, broadbill.....				289	46	253	85	
Tuna, albacore.....	2,915,479	457,548		1,505,687	231,032	5,125,359	804,687	
Tuna, bluefin.....				222,705	36,746	7,790	1,714	
Tuna, skipjack.....				4,255	543			
Tuna, yellowfin.....				336,918	54,480			
Turbot.....	4,657	130		80,629	3,223	2,691	104	
Whitetail.....	311,433	19,379		29,860	4,013	472	68	
Whitfish, ocean.....								
Yellowtail.....								
Miscellaneous fish.....	42,692	1,790	190	49,555	1,246	1,363	41	
Crustaceans:								
Crab ¹	7,355,220	806,055		3,807,323	481,827	24,336	4,008	
Loose, open.....								
Penae.....				800,441	47,546	2,652	1,381	
Shrimp.....								
Mollusk:								
Abalone.....				53,544	7,310	73,503	9,000	
Clam.....								
Clam, cockle.....						6,000	698	
Clam, paper.....								
Clam, rock.....								
Clam, Pismo.....								
Clam, Washington.....								
Mussel.....	4,925	865						
Octopus.....	20,515	1,035		24,151	1,476	23,608	3,037	
Oyster, Pacific.....				65,053	4,054			
Oyster, Puget.....				111,852	13,003			
Squid.....						6,516,004	181,387	
Total pounds and value.....	33,202,917	\$3,006,338	4,819,912	\$266,591	63,261,419	\$2,922,528	294,771,590	\$6,061,569

¹ This table includes actual landings at California ports by the commercial fishing fleet as well as shipments from other states and foreign countries by truck, rail and ocean liner to California canneries and to the fresh fish dealers.

² For regions north of Santa Barbara crab landings are market crab; in Santa Barbara Region both market and rock crab, in Los Angeles and San Diego Regions rock crab.

COMMERCIAL FISH CATCH OF CALIFORNIA

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TABLE 40—Cont'd.

TABLE 40—Continued
Pounds and Value of Commercial Fish Landings in California During 1949¹

Species	Santa Barbara region		Los Angeles region		San Diego region		Total	
	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value
Anchovy.....	481,819	\$7,513	1,133,267	\$26,746	5,188	\$228	3,222,273	\$56,104
Barracuda.....	26,479	4,790	1,320,171	275,552	617,281	84,564	2,473,991	247,814
Bonito.....	539	89	1,674,455	167,590	160,105	16,000	1,834,196	178,749
Calappa.....	914	130					14,046	526
California.....			192,981	26,011	17,432	1,823	210,293	27,836
Clupea.....			71,259	2,209	860	98	643,218	21,418
Cod.....			111	10			301,210	38,956
Crowfish.....			6,597	712			15,028	15,028
Flounder.....	3,151	183	34,299	3,763			34,299	3,763
Flying fish.....			249,268	44,163	41,247	5,119	290,615	49,282
Groper.....							1,835	16
Hake.....	469,242	92,627	402,734	79,788	233,377	44,781	1,228,214	238,984
Haddock, California.....							167,247	33,437
Haddock, Pacific.....							12,264	4,968
Herring, Pacific.....					1,321	47	379,511	7,316
Herring, Pacific.....							754,429	46,128
Kingfish.....	78	44	332,347	26,824	17,274	1,477	754,429	46,128
Langostino.....	31,772	3,272	4,434	490	8,615	888	1,638,961	123,487
Limpet.....	2,829,222	67,237	44,218,266	850,994	35,582	377	41,269,086	1,111,126
Mackerel, jack.....	169,745	2,569	48,917,496	1,257,180	470,715	20,979	49,771,973	1,282,692
Mackerel, Pacific.....			26,317	3,083			391,161	28,452
Mullet.....	12,223	2,447	107,784	19,447			291,699	49,556
Pink shrimp.....							694	68
Pike, Sacramento.....							89,262	23,698
Pompano, California.....							220,879	29,856
Rock bass.....	19,918	2,178	129,698	19,609	66,293	7,839	220,879	29,856
Rockfish.....	136,413	14,514	371,797	28,462	260,298	12,066	6,067,577	311,269
Sablefish.....	4,497	123	10,384	12,323	3,489	313	1,771,238	135,205
Salmon.....	4,941	1,453	418,153	106,474			6,547,774	1,677,719
Sand dab.....	8,088	567	8,525	1,343			22,151	19,375
Sardine.....	16,627,090	294,064	214,868,225	5,209,179	5,208,296	59,314	633,774,981	10,758,367
Shrimp.....	1,083	994	129,939	22,713	22,425	3,013	148,387	29,999
Skipjack.....	1,784	109	86,484	11,319	46,283	5,677	124,461	17,499
Sea bass, black.....							61,855	14,122,285
Sea bass, white.....	378,695	78,793	626,213	139,821	347,986	61,855	1,412,285	291,514

DIVISION OF FISH AND GAME

TABLE 40
Pounds and Value of Commercial Fish Landings in California During 1949

Sevental, groundling.....												736	29	
Shad.....												785,505	48,083	
Shiner.....	192,219	42,413	315,754	60,263	109,216	8,061	1,851,583	833,392						
Sheepshead.....	7,087	427	41,981	3,071	14,486	1,028	83,524	4,320						
Sierra.....			910	86	2,774	222	3,658	288						
Snook.....	4,478	230	16,473	972	208	26	121,484	2,882						
Snout.....	2,742	256	118,886	9,115	12,006	1,053	715,584	32,378						
Sole.....	629,252	26,450	6,123	498	1,732	355	10,729,254	918,930						
Spotted-tail.....			1,100	33			235	59						
Stork.....			7,001				1,100	33						
Swordfish, broadbill.....	17,183	7,001	116,900	32,418	63,718	27,587	139,261	47,599						
Tuna, bluefin.....	375,081	82,069	9,274,925	1,722,283	24,981,282	4,016,313	44,271,181	8,191,729						
Tuna, blackfin.....			4,060,164	600,183	40,726	14,030	4,309,200	712,702						
Tuna, albacore.....			23,929,072	3,655,500	54,643,360	8,158,294	78,521,687	11,084,037						
Tuna, yellowfin.....			70,327,181	11,440,078	114,917,595	18,800,584	183,812,094	30,293,142						
Turbot.....	2,742	413					35,662	3,033						
Whiting.....			10,096	869	28,483	1,984	241,784	23,690						
Whitefish, ocean.....	7,420	115	5,245,566	491,094	2,603,328	194,496	7,319,494	686,000						
Yellowtail.....			82,819	6,581	93,679	9,000	234,491	20,570						
Miscellaneous fish.....	18,465	1,388												
Crustacean:														
Crab.....	28,583	3,220	17,309	1,874	613	117	11,134,012	1,297,131						
Lobster, spiny.....	204,836	83,091	311,933	178,000	1,660,140	484,810	1,779,911	608,084						
Traw.....							3,952	1,581						
Shrimp.....							900,441	47,846						
Mollusk:														
Alaskan.....	2,035,261	269,064	1,336,178	117,497	106,413	9,598	3,599,908	402,729						
Clam.....					47,286	9,724	47,228	9,724						
Clam, cockle.....			182	21			142	21						
Clam, razor.....							6,000	888						
Clam, surfclam.....							4,130	918						
Clam, Washington.....							644,732	4,513						
Mussel.....			1,200	33	120	6	1,495	51						
Octopus.....	2,586	262	1,090	163	125	11	75,001	5,073						
Oyster, Pacific.....	120,292	8,401	47,323	2,251			233,134	21,144						
Scud.....	782	59	42,873	2,881			8,990,129	194,172						
Total pounds and value.....	24,979,949	\$1,070,814	\$31,874,484	\$29,824,270	207,205,013	\$92,967,656	1,135,318,314	\$73,226,881						

¹ This table includes actual landings at California ports by the commercial fishing fleet as well as shipments from other states and foreign countries by truck, rail and ocean liner to California canneries and to the fresh fish dealers.

² For regions north of Santa Barbara crab landings are market crab; in Santa Barbara Region both market and rock crab; in Los Angeles and San Diego Regions rock crab.

COMMERCIAL FISH CATCH OF CALIFORNIA

TABLE 40—Cont'd.

TABLE 41
California Commercial Fish Landings—1949
 Values for Eureka Region, Indicating Leading Ports, Species and Pounds

		Value	Pounds
Eureka region totals.....		\$3,006,388	33,302,917
Eureka.....	Sole.....	\$387,306	9,273,111
	Albacore.....	246,309	1,622,894
	Crab.....	221,563	1,994,269
	Salmon.....	214,218	902,352
	Shark.....	108,449	82,433
	Rockfish.....	59,207	1,636,224
	Sablefish.....	48,680	570,962
	Lingcod.....	32,317	433,833
	Pacific halibut.....	16,180	70,840
	All other.....	17,241	291,205
	Totals.....	\$1,351,470	16,878,121
Fort Bragg (Noyo).....	Salmon.....	\$209,797	883,300
	Albacore.....	119,154	784,938
	Sole.....	54,930	1,315,283
	Sablefish.....	46,000	537,487
	Rockfish.....	33,622	929,383
	Lingcod.....	29,264	392,868
	Shark.....	24,116	18,331
	All other.....	8,463	123,427
	Totals.....	\$525,256	4,985,017
Crescent City.....	Crab.....	\$311,362	2,802,542
	Salmon.....	110,510	465,499
	Albacore.....	40,665	267,885
	Shark.....	16,563	12,590
	Sole.....	16,493	394,375
	Lingcod.....	9,467	127,079
	All other.....	17,996	265,773
	Totals.....	\$523,056	4,335,943
Fields Landing.....	Crab.....	\$173,677	1,563,252
	Sole.....	120,560	2,884,212
	Shark.....	44,584	33,889
	Rockfish.....	21,331	589,254
	Sablefish.....	14,017	163,747
	Salmon.....	10,910	45,956
	Lingcod.....	10,617	142,514
	Albacore.....	10,398	68,495
	All other.....	12,616	189,345
	Totals.....	\$418,710	5,680,664
Trinidad.....	Crab.....	\$96,800	871,283
	Salmon.....	8,887	37,436
	All other.....	160	1,187
	Totals.....	\$105,847	909,906
Shelter Cove.....	Salmon.....	\$42,333	178,321
	Albacore.....	6,995	46,082
	All other.....	421	5,916
	Totals.....	\$49,749	230,319
Point Arena.....	Salmon.....	\$21,016	88,526
	Albacore.....	3,794	24,401
	Lingcod.....	2,356	31,620
	All other.....	1,879	19,671
	Totals.....	\$28,955	164,218
All other ports.....	All other.....	\$3,345	118,729
	Totals.....	\$3,345	118,729

TABLE 41
California Commercial Fish Landings—1949
 Values for Eureka Region, Indicating Leading Ports, Species and Pounds

TABLE 42
California Commercial Fish Landings—1949
 Values for Sacramento Region, Indicating Leading Ports, Species and Pounds

		Value	Pounds
Sacramento region totals.....		\$366,504	4,819,912
Pittsburg.....	Salmon.....	\$105,757	432,013
	Shad.....	40,721	657,442
	Catfish.....	20,344	106,514
	Carp.....	3,858	108,368
	All other.....	137	3,168
	Totals.....	\$170,817	1,307,505
Sacramento.....	Salmon.....	\$60,757	248,189
	Catfish.....	9,576	50,134
	Hardhead.....	2,080	7,825
	Shad.....	2,005	25,032
	All other.....	429	10,498
	Totals.....	\$74,847	341,678
Benicia.....	Sardine.....	\$32,076	1,822,500
	Salmon.....	13,622	55,647
	Shad.....	2,804	35,003
	All other.....	78	1,837
	Totals.....	\$48,580	1,914,987
Martinez.....	Salmon.....	\$34,677	141,654
	Sardine.....	12,566	714,000
	All other.....	1,430	17,936
	Totals.....	\$48,673	873,590
Stockton.....	Salmon.....	\$5,107	20,861
	Catfish.....	4,286	22,442
	Totals.....	\$9,393	43,303
Hill's Ferry.....	Carp.....	\$3,265	91,697
	Hardhead.....	267	1,006
	Totals.....	\$3,532	92,703
All other ports.....	Carp.....	\$8,347	234,460
	All other.....	2,315	11,686
	Totals.....	\$10,662	246,146

TABLE 42
California Commercial Fish Landings—1949
 Values for Sacramento Region, Indicating Leading Ports, Species and Pounds

TABLE 43
California Commercial Fish Landings—1949
Values for San Francisco Region, Indicating Leading Ports, Species and Pounds

		Value	Pounds
San Francisco region totals.....		\$2,922,598	48,361,449
San Francisco.....	Shark.....	\$392,336	136,984
	Crab.....	306,443	2,424,389
	Sardine.....	293,988	17,293,420
	Sole.....	211,710	3,681,910
	Albacore.....	198,851	1,295,445
	Salmon.....	106,945	475,309
	Yellowfin tuna.....	54,480	335,918
	Bluefin tuna.....	36,746	222,705
	Shrimp.....	25,253	425,138
	Rockfish.....	22,156	332,168
	Smelt.....	20,886	273,986
	Sand dab.....	19,475	381,121
	Lingcod.....	18,929	254,078
	Perch.....	14,253	98,704
	Pacific halibut.....	11,072	65,206
	All other.....	31,377	819,173
	Totals.....	\$1,764,700	28,516,654
Point Reyes.....	Salmon.....	287,642	1,278,411
	Crab.....	46,637	368,935
	Sole.....	32,945	573,949
	Rockfish.....	9,426	141,323
	Albacore.....	8,961	58,375
	Lingcod.....	4,028	54,071
	Sand dab.....	2,851	56,798
	Shark.....	2,354	822
	All other.....	3,297	60,266
	Totals.....	\$398,141	2,590,980
Bay (Bodega).....	Shark.....	\$116,156	40,556
	Salmon.....	70,707	314,255
	Crab.....	65,280	516,459
	Albacore.....	14,804	96,440
	Sole.....	12,893	224,223
	Smelt.....	12,387	158,320
	Lingcod.....	4,865	65,299
	Rockfish.....	3,057	45,826
	All other.....	2,595	45,228
	Totals.....	\$302,744	1,506,606
Richmond.....	Sardine.....	\$203,910	11,994,705
	Shrimp.....	16,308	274,542
	Salmon.....	2,265	10,067
	All other.....	2,488	37,847
	Totals.....	\$224,971	12,317,161
Princeton by the Sea (Halfmoon Bay).....	Salmon.....	\$84,915	377,402
	Crab.....	33,212	257,908
	Albacore.....	8,416	54,827
	Sardine.....	7,781	457,700
	All other.....	9,112	72,131
	Totals.....	\$143,436	1,219,968
Oakland.....	Crab.....	\$27,330	216,222
	Catfish.....	1,977	10,194
	Sole.....	1,365	23,740
	Carp.....	1,176	16,964
	Shark.....	1,002	350
	All other.....	354	7,324
	Totals.....	\$33,204	274,494
McNear's Point.....	Sardine.....	\$27,146	1,596,840
	All other.....	1,103	30,275
	Totals.....	\$28,249	1,627,115

TABLE 43
California Commercial Fish Landings—1949
Values for San Francisco Region, Indicating Leading Ports, Species and Pounds

TABLE 43—Continued
California Commercial Fish Landings—1949
 Values for San Francisco Region, Indicating Leading Ports, Species and Pounds

		Value	Pounds
Tomales Bay	Pacific oyster	\$10,486	89,857
	Totals	\$10,486	89,857
Drakes Bay	Eastern oyster	\$4,654	46,535
	Pacific oyster	2,567	21,995
	Totals	\$7,221	68,530
China Camp	Shrimp	\$5,206	87,646
	Totals	\$5,206	87,646
All other ports	All other	\$4,240	62,438
	Totals	\$4,240	62,438

TABLE 43
California Commercial Fish Landings—1949
 Values for San Francisco Region, Indicating Leading Ports, Species and Pounds

TABLE 44
California Commercial Fish Landings—1949
 Values for Monterey Region, Indicating Leading Ports, Species and Pounds

		Value	Pounds
Monterey region totals		\$6,061,869	284,774,590
Monterey	Sardine	\$4,135,850	237,692,529
	Albacore	375,407	2,391,127
	Squid	181,973	6,815,464
	Jack mackerel	86,785	3,909,228
	Rockfish	75,370	996,956
	Salmon	59,946	238,925
	Anchovy	15,745	1,334,307
	Abalone	9,060	75,503
	California halibut	8,605	43,592
	Kingfish	8,581	151,604
	Sole	8,499	140,952
	Sablefish	6,475	186,608
	Lingcod	6,392	75,283
	All other	25,737	547,674
	Totals	\$5,004,425	254,599,752
Moss Landing	Albacore	\$381,842	2,432,114
	Sardine	376,227	21,622,266
	Shark	10,751	568,816
	White sea bass	7,136	41,975
	Salmon	6,903	27,511
	Jack mackerel	5,996	270,100
	All other	6,234	163,158
	Totals	\$795,089	25,125,940
Santa Cruz	Sardine	\$53,254	3,060,587
	Salmon	50,450	201,075
	Albacore	47,438	302,155
	Sole	34,752	576,313
	Rockfish	26,470	350,136
	California pompano	19,288	58,167
	California halibut	9,463	47,938
	Sablefish	4,944	142,482
	All other	15,152	294,159
	Totals	\$261,211	5,033,012
All other ports	All other	\$1,144	15,886
	Totals	\$1,144	15,886

TABLE 44
California Commercial Fish Landings—1949
 Values for Monterey Region, Indicating Leading Ports, Species and Pounds

TABLE 45
California Commercial Fish Landings—1949
Values for Santa Barbara Region, Indicating Leading Ports, Species and Pounds

		Value	Pounds
Santa Barbara region totals.....		\$1,076,814	24,979,949
Port Hueneme.....	Sardine.....	\$252,307	14,174,530
	Jack mackerel.....	64,137	2,694,822
	White sea bass.....	40,790	194,518
	Shark.....	9,756	45,984
	Anchovy.....	7,418	475,516
	California halibut.....	4,033	21,730
	All other.....	10,975	209,905
	Totals.....	\$389,416	17,815,005
Santa Barbara.....	California halibut.....	\$78,672	423,882
	Abalone.....	66,007	519,330
	Spiny lobster.....	49,307	190,227
	Shark.....	28,134	126,845
	White sea bass.....	23,715	113,089
	Sardine.....	14,026	788,000
	Sole.....	12,271	211,927
	Broadbill swordfish.....	6,409	15,605
	All other.....	10,751	94,481
	Totals.....	\$289,292	2,483,386
Morro Bay.....	Abalone.....	\$139,063	1,094,120
	Albacore.....	79,111	519,729
	Sardine.....	10,199	572,960
	Pacific oyster.....	8,691	123,282
	Rockfish.....	4,838	45,471
	All other.....	7,326	167,261
	Totals.....	\$249,228	2,513,820
Avila.....	Abalone.....	\$51,423	404,586
	Sole.....	23,972	414,030
	Sardine.....	17,561	986,590
	White sea bass.....	14,130	66,906
	Albacore.....	8,803	56,832
	California halibut.....	5,919	31,892
	Rockfish.....	5,385	50,611
	All other.....	6,975	65,282
	Totals.....	\$134,068	2,076,729
All other ports.....	All other.....	\$14,810	91,009
	Totals.....	\$14,810	91,009

TABLE 45
California Commercial Fish Landings—1949
Values for Santa Barbara Region, Indicating Leading Ports, Species and Pounds

TABLE 46
California Commercial Fish Landings—1949
Values for Los Angeles Region, Indicating Leading Ports, Species and Pounds

		Value	Pounds
Los Angeles region totals.....		\$26,824,770	531,874,484
Terminal Island.....	Yellowfin tuna.....	\$9,062,431	55,734,507
	Sardine.....	3,504,409	227,898,942
	Skipjack tuna.....	2,998,201	20,521,564
	Albacore.....	1,356,058	7,298,480
	Jack mackerel.....	615,133	28,610,814
	Pacific mackerel.....	457,230	17,791,062
	Bluefin tuna.....	372,780	2,295,442
	Yellowtail.....	344,205	3,701,132
	Bonito.....	117,848	1,213,677
	Anchovy.....	259	10,968
	Totals.....	\$19,128,554	364,986,588
Long Beach.....	Yellowfin tuna.....	\$1,621,702	9,973,567
	Sardine.....	812,042	48,625,257
	Skipjack tuna.....	318,193	2,177,913
	Pacific mackerel.....	206,420	8,031,910
	Jack mackerel.....	154,486	7,185,378
	Albacore.....	145,307	789,060
	Yellowtail.....	117,433	1,262,724
	Bluefin tuna.....	99,504	612,711
	Bonito.....	39,719	409,054
	Spiny lobster.....	10,721	30,833
	All other.....	11,894	164,979
	Totals.....	\$3,537,421	79,256,386
Wilmington.....	Yellowfin tuna.....	\$747,643	4,598,051
	Sardine.....	481,040	28,894,805
	Skipjack tuna.....	177,163	1,212,614
	Jack mackerel.....	155,434	7,229,479
	Pacific mackerel.....	89,924	3,498,987
	Bluefin tuna.....	70,968	435,147
	Albacore.....	61,710	332,130
	Kingfish.....	9,389	188,535
	All other.....	2,332	43,824
	Totals.....	\$1,795,303	46,343,572
San Pedro.....	Barracuda.....	\$247,799	1,628,115
	White sea bass.....	122,159	548,288
	Bluefin tuna.....	114,957	707,861
	Spiny lobster.....	70,492	202,738
	California halibut.....	55,087	267,983
	Pacific mackerel.....	44,595	1,735,208
	Grouper.....	43,526	245,770
	Rockfish.....	38,998	417,089
	Abalone.....	38,294	432,217
	Albacore.....	29,395	160,903
	Shark.....	26,491	129,794
	Cabrilla.....	25,159	186,643
	Yellowtail.....	24,960	268,386
	Broadbill swordfish.....	22,815	50,881
	Sculpin.....	20,089	104,909
	Perch.....	15,464	81,732
	Jack mackerel.....	14,898	692,937
	Rock bass.....	14,663	100,018
	Kingfish.....	12,272	246,426
	Sardine.....	11,748	703,478
	Black sea bass.....	10,154	72,220
	All other.....	40,981	576,172
	Totals.....	\$1,043,477	9,559,768

TABLE 46
California Commercial Fish Landings—1949
Values for Los Angeles Region, Indicating Leading Ports, Species and Pounds

TABLE 46—Continued
California Commercial Fish Landings—1949
 Values for Los Angeles Region, Indicating Leading Ports, Species and Pounds

		Value	Pounds
Newport Beach.....	Pacific mackerel.....	\$455,481	17,723,017
	Albacore.....	127,522	686,337
	Sardine.....	119,310	7,144,285
	Abalone.....	43,072	542,570
	Spiny lobster.....	31,935	91,845
	Shark.....	27,450	134,491
	Broadbill swordfish.....	24,823	55,360
	Barracuda.....	15,973	104,951
	California halibut.....	10,604	55,529
	Jack mackerel.....	10,393	483,365
	White sea bass.....	9,841	44,168
	All other.....	28,721	429,369
	Total.....	\$910,125	27,493,326
	Los Angeles.....	Salmon ¹	\$168,392	417,950
Spiny lobster.....		14,483	41,655
All other.....		9,596	131,912
Total.....		\$192,471	591,517
Santa Monica.....	Spiny lobster.....	\$41,580	119,587
	Sardine.....	31,621	1,793,458
	California halibut.....	14,008	70,710
	Anchovy.....	13,237	591,721
	Shark.....	10,366	50,788
	Barracuda.....	7,832	51,456
	All other.....	32,427	401,825
	Total.....	\$151,091	3,049,545
Redondo Beach.....	Rockfish.....	\$4,690	50,163
	Spiny lobster.....	4,184	12,034
	Perch.....	3,087	16,318
	Abalone.....	2,591	29,243
	All other.....	9,602	94,875
	Total.....	\$24,154	202,633
Avalon.....	Abalone.....	\$15,324	172,960
	Broadbill swordfish.....	3,101	6,915
	All other.....	3,967	27,509
Total.....	\$22,392	207,384	
Corona Del Mar.....	Abalone.....	\$8,058	90,945
	Total.....	\$8,058	90,945
San Juan Capistrano.....	Abalone.....	\$4,929	55,641
	Total.....	\$4,929	55,641
All other ports.....	All other.....	\$6,795	37,179
	Total.....	\$6,795	37,179

¹ Salmon shipments. See Table 13.

TABLE 46
California Commercial Fish Landings—1949
 Values for Los Angeles Region, Indicating Leading Ports, Species and Pounds

TABLE 47
California Commercial Fish Landings—1949
 Values for San Diego Region, Indicating Leading Ports, Species and Pounds

		Value	Pounds
San Diego region totals.....		\$32,967,858	207,205,013
San Diego.....	Yellowfin tuna.....	\$16,329,420	99,813,083
	Skipjack tuna.....	7,146,904	47,869,420
	Albacore.....	3,836,644	18,478,880
	Spiny lobster.....	445,648	1,041,721
	Yellowtail.....	139,085	1,454,891
	Barracuda.....	84,413	616,152
	Sardine.....	59,314	5,703,296
	White sea bass.....	57,663	324,312
	California halibut.....	44,904	249,174
	Broadbill swordfish.....	27,851	63,713
	Pacific mackerel.....	20,766	445,819
	Rockfish.....	16,065	183,185
	Bonito.....	14,456	143,844
	Bluefin tuna.....	13,956	93,042
	Clam.....	7,934	33,943
	Rock bass.....	6,682	62,105
	Shark.....	6,668	87,507
	Abalone.....	6,574	72,385
	All other.....	35,882	972,363
	Total.....	\$28,099,929	177,714,115
Point Loma.....	Yellowfin tuna.....	\$2,471,164	15,104,912
	Albacore.....	1,279,385	6,500,938
	Skipjack tuna.....	1,011,490	6,774,830
	Yellowtail.....	55,216	377,573
	All other.....	1,737	16,943
	Total.....	\$4,818,992	28,975,246
Salton Sea.....	Mullet.....	\$23,074	354,984
	Total.....	\$23,074	354,984
Encinitas.....	Spiny lobster.....	\$6,458	15,097
	All other.....	4,710	40,915
	Total.....	\$11,168	55,112
All other ports.....	All other.....	\$14,695	105,556
	Total.....	\$14,695	105,556

TABLE 47
California Commercial Fish Landings—1949
 Values for San Diego Region, Indicating Leading Ports, Species and Pounds