STATE OF CALIFORNIA THE RESOURCES AGENCY OF CALIFORNIA DEPARTMENT OF FISH AND GAME FISH BULLETIN 161 California Marine Fish Landings For 1972 and Designated Common Names of Certain Marine Organisms of California



By Leo Pinkas Marine Resources Region and By Doyle E. Gates and Herbert W. Frey > Marine Resources Region 1974

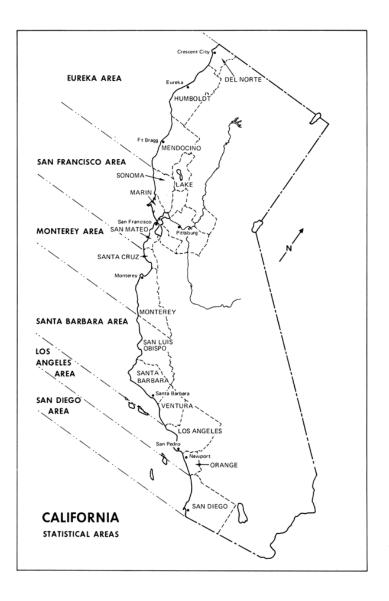


Figure 1. Geographical areas used to summarize California Fisheries statistics.

(2)

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

TABLE OF CONTENTS

P California Marine Fish Landings for 1972 by Leo Pinkas	age 4
Introduction	4
Explanation of Tables	5
Common and Scientific Names of Fishes, Crustaceans and Mol- lusks in the 1972 Catch	9
Annual Landings and Shipments (Figure 2)	10
Annual Landings and Shipments, 1916 through 1972	11
Landings and Shipments of Leading Species Ranked by Pounds	11
Number of Licensed Commercial Fishermen	12
Number of Registered Fishing Boats by Length	12
Origin of Shipments	13
Origin of Commercial Fish Landings	14
Monthly Landings and Shipments-Statewide	16
Monthly Landings and Shipments by Area	18
Value of Landings and Shipments by Area	32
Value of Landings and Shipments by Ports and Areas	35
Partyboat Sport Catch, 1963-1972	46
Inshore Bait Landings, 1972	47
Live Bait Catch, 1966–1972	47
California Ocean Recreational Salmon Landings and Success— 1972	
California Commercial Troll Salmon Landings-1972	50
Appendix I Monthly Landings From Inland Waters	51
Appendix II Value of Landings From Inland Waters	52
Appendix III Kelp Harvest in Tons 1916–1972	53
Designated Common Names of Certain Marine Organisms of Cali- fornia by Doyle E. Gates and Herbert W. Frey	55

1. CALIFORNIA MARINE FISH LANDINGS FOR 1972

LEO PINKAS

Marine Resources Region

1.1. INTRODUCTION

The protection, propagation, and wise utilization of California's living marine resources (established as common property by statute, Section 1600, Fish and Game Code) is dependent upon the welding of biological, environmental, economic, and sociological factors. Fundamental to each of these factors, as well as the entire management process, are harvest records. The California Department of Fish and Game began gathering commercial fisheries landing data in 1916. Commercial fish catches were first published in 1929 for the years 1926 and 1927. This report, the 32*nd* in the landing series, is for the calendar year 1972. It summarizes commercial fishing activities in marine as well as fresh waters and includes the catches of the sportfishing partyboat fleet.

Preliminary landing data are published annually in the circular series which also enumerates certain fishery products produced from the catch. The 1972 figures are contained in Circular No. 47, "Statistical Report of Fresh, Canned, Cured and Manufactured Fishery Products for 1972" (Bell, 1973).

California's fishery statistics are based on a system whereby fish dealers, processors, and operators of sportfishing partyboats send duplicate copies of their landing records to the Department. The system and methods used to collect commercial fishing records were fully described in Fish Bulletin 86, which reported the catch for 1950. In the intervening years, methods and equipment have been modified as conditions warranted, but the basic principles remain unchanged. Parke Young (1969) described the partyboat fishing log system in Fish Bulletin 145.

Statistical compilations are normally the result of the combined efforts of many people, this report is no exception. Credit for this publication truly belongs to the cooperating units of the fishing industry (fishermen, wholesale fish dealers, canners, and processors) and Department personnel responsible for the market receipt system which is designed to gather fishery landing data (namely, Fish and Game wardens, field office clerks, marine and anadromous fisheries biologists, and all members of the Marine Fisheries Statistical unit at Long Beach). My appreciation and thanks are extended to one and all.

Portions of the salmon statistics were collected under the Anadromous Fish Act Project: California A F C-12, Ocean Salmon Study and supported by the National Marine Fisheries Service, Department of Commerce, Washington, D.C.

1.2. EXPLANATION OF TABLES

Tables in this bulletin summarize statistics of various fishery operations in California during 1972. Five types of activity are being reported this year: landings of commercial fishermen in California; imports of tuna from other states or foreign countries destined for processing in California; sport catches of the partyboat fleet; landings of inshore species used for bait; and catches of boats supplying live bait for sportfishing. In addition, the species composition of the 1972 ocean salmon landings is reported.

Statistics presented in this publication do not encompass all fishing activities in California since not all of these functions are reported. For example: sportfishing from private boats or from shore is not reported, nor is the quantity of fish imported for use in a fresh state compiled. Some facets of the sportfishing industry, other than the partyboat fleet are sampled by Department biologists but since these are specific studies the results are not reported here.

The landing bulletin series has, for over 20 years, been relatively stable in its format and presentations.

New fisheries (sea urchin), evolving fishery practices (aerial scouting for swordfish), and changing sociological needs (environmental impact statements) all create demands for additional and/or new statistical presentations. To satisfy these needs some table formats have been altered (Table 5, fishing boat lengths), new tables have been added (speciation and percent composition of the salmon catch), and additional detail has been included in existing tables (speciation of abalone landings, various tables).

Principal changes this year encompass nomenclature, new abalone conversion factors, commercial fish landings from inland waters separated from marine landings, and inclusion of landing data of marine plants.

1.3. SOURCE OF DATA

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

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

Operators of boats supplying live bait keep a voluntary daily log showing number of sets, species caught, area fished, and number of

scoops of bait sold. Copies of these logs are furnished the Department monthly. While these records represent most live bait landings, the reported catch should be regarded as minimal.

Clerical personnel at field offices in Eureka, Menlo Park, Long Beach, and San Diego maintain contact with fish dealers, local Fish and Game Wardens, and field biologists to insure that the records are accurate and transmitted promptly. All data received by the Department are carefully edited for completeness and coded to facilitate processing. The information then is punched into cards and summarized with electric tabulating machines.

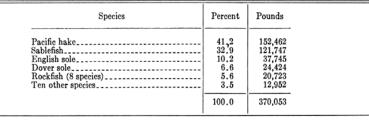
1.4. STATISTICAL AREAS

California is divided into seven areas for the purpose of reporting fisheries statistics (Figure 1). Each statistical area is named for a major port within its boundaries. Sacramento area landings were, for many years, incorporated with San Francisco totals and other general summary tables. This procedure resulted in the co-mingling of marine, fresh, and brackish water species in the reports. In a departure from this tradition the 1972 data are presented with all inland water fish landings removed from the usual tables and grouped into two separate tables, Appendix I and II. Should this format prove useful, these tabulations will be elevated to table status in future presentations.

1.5. SPECIES

The common and scientific names of species reported here have been revised to conform with the list prepared by Gates and Frey (1974). Some species are reported only collectively when, for economic or other reasons, their separation is not practical (Table 1).

The "Miscellaneous (Animal Food)" category consists of a variety of low value species caught by trawling. Since it is impractical for dealers to report the many species separately, Department biologists periodically sample this catch to determine its species composition. Based on this sampling, the percentage and weight compositions of 1972 animal food landings are as follows:



TABLE

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

The miscellaneous fish category, as reported in the 1972 landings tables, consists of small volume deliveries of the following species: lamprey, California moray, striped mullet, Pacific halibut, sargo, shad, spotted cabrilla, and wolf-eel. Speciation of skates and rays, on the market receipts was poor; the reported species consisted of skates, rays, stingrays and shovelnose guitarfish. Miscellaneous mollusks consisted of mussels, quahogs, sea snails, soft shell clams, and Washington clams.

Marine plant harvest data have not been routinely published by the Department. Frey (1971) presented a table of Giant Kelp, Macrocystis *spp.*, landings by open and leased beds dating back to 1916. Requests for kelp harvesting information are increasing: partially in response to the need to evaluate numerous proposed nearshore developments, and in response to the need to evaluate animal resources in relation to their total environment. An updated version of kelp landings is presented (Appendix III).

1.6. CONDITION

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

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

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

Abalone number to weight conversion factors were reexamined during the 1970–71 abalone season by a Department biological team. From December 1970 through July 1971, over 4,866 individual abalone (of all species) were measured and weighed, and new conversion factors were calculated. These conversion factors, rounded off to whole numbers, were used to convert the 1972 abalone landings in this bulletin.

Factors used in 1972 were:

Abalone, red Abalone, pink Abalone, green Abalone, black Abalone, white Clam, Washington Crab, Dungeness Live bait 45 pounds per dozen 25 pounds per dozen 25 pounds per dozen 25 pounds per dozen 20 pounds per dozen 7 pounds per dozen 2 pounds each 12.5 pounds per scoop

1.7. VALUE

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

1.8. INSHORE BAIT

The inshore bait fishery takes several kinds of fish and invertebrates from bays, rivers, and intertidal regions. Records of this fishery have been published as a separate summary in landing bulletins since 1963. Conversion factors used for inshore bait for 1972 were as follows:

Crab, sand0.041 pound per dozen
4.5 pounds per gallonCrab, shore0.013 pound per dozenMudsucker0.465 pound per dozenMussel80.000 pounds per sackSculpin, staghorn0.465 pound per dozenShrimp, ghost0.082 pound per dozen

1.9. REFERENCES

Bell, Robert R. 1973. Statistical report of fresh, canned, cured and manufactured fishery products for 1972. Calif. Dept. Fish and Game, Circular, (47): 1–19.

Frey, Herbert W. (Ed) 1971. California's living marine resources and their utilization. Calif. Dept. Fish and Game, Sacramento, 148 p.

Gates, Doyle E., and Herbert W. Frey. 1974. Designated common names of certain marine organisms of California. Calif. Dept. Fish and Game, Fish Bull., (161): 55–90.

Jensen, Paul T., and Phillip G. Swartzell. 1967. California salmon landings 1952 through 1965. Calif. Dept. Fish and Game, Fish Bull., (135) : 43-57.

Young, Parke H. 1969. The California partyboat fishery 1947–1967. Calif. Dept. Fish and Game, Fish Bull., (145): 91 p.

MARINE LANDINGS 1972

TABLE 1

Common and Scientific Names of Fishes, Crustaceans, and Mollusks in the 1972 Catch

Common name	Scientific name	Common name	Scientific name				
	FIS	HES					
Anchovy, northern Barracuda, California	Engraulis mordax	Salmon					
Barracuda, California	Sphyraena argentea	King	Oncorhynchus tshawytscha Oncorhynchus gorbuscha Oncorhynchus kisutch Citharichthys sordidus Sardinops sagaz caeruleus				
Bass, rock		Pink	Oncorhynchus gorbuscha				
Kelp bass	Paralabraz clathratus Paralabraz nebulifer Paralabraz maculatofasciatus Chromis punctipinnis Sarda chiliensis Scorpaenichthys marmoratus Epinephelus analogus	Silver	Oncorhynchus kisutch				
Sand bass, barred	Paralabrax nebulifer	Sanddab	Citharichthys sordidus				
Spotted sand bass	Paralabraz maculatofasciatus	Sardine, Pacific	Sardinops sagax caeruleus				
Blacksmith	Chromis punctipinnis	Sargo	Anisotremus davidscnii Scorpaena guttata Leptocottus armatus				
Bonito, Pacine	Saraa chuiensis	Sculpin	Scorpaena guttata				
Cabezon	Scorpaenichthys marmoratus	Sculpin, Pacific stagnorn	Leptocottus armatus				
Croaker	L'pinéphéius analogus	Sea bass, giant Seabass, white	Composition mobilie				
		Shark	Cynoscion noonis				
White Queenfish Dolphinfish	Serinhua nelitus		piidae, Carcharhinidae, Lamnidae				
Dolphinfish	Coruphaena hippurus	and Squalidae	piluae, Carcharminuae, Daminuae				
Eel, wolf	A narrhichthus ccellatus	Sheenhead California	Pimelometonon nulchrum				
Flounder		Skates and Rays	Pimelometopon pulchrum				
Arrowtooth	Atheresthes stomias	Members of family Rh	inobatidae, Rajidae, and Mylio-				
Starry	Platichthus stellatus	batididae	incontrate, staftane, and stylic				
Arrowtooth Starry Flyingfish	Cupselurus spp.	C14	ſ				
		Jacksmelt	Atherinopsis californiensis Spirinchus starksii Hypomesus pretiosus Allosmerus elongatus and Spirinchus starksii				
Carp	Cyprinus carpio Orthodon microlepidotus Hezagrammos decagrammus	Night	Spirinchus starksii				
Sacramento blackfish	Orthodon microlepidotus	Surf	Hypomesus pretiosus				
Greenling, kelp	Hezagrammos decagrammus	Whitebait	Allosmerus elongatus and				
			Spirinchus starksii				
California	Nezumia stelgidolepis						
Pacific	Coryphaenoides acrolepis	Butter	Isopsetta isolepis				
Hake, Pacific	Merluccius productus	Dover	Microstomus pacificus				
Halfmoon	Nezumia stelgidolepis Coryphaenoides acrolepis Merluccius productus Medialuna californiensis	Butter Dover English	Parophrys vetulus				
		Petrale	Eopsetta jordani Glyptocephalus zachirus Lepidopsetta bilineata Psettichtys melanostictus Xiphias gladius				
California	Paralichthys californicus Hippoglossus stenolepis Clupea harengus pallasii Fundulus parteipinnis Lampetra spp. Ophiodon elongatus	Rex	Glyptocephalus zachirus				
Pacific	Hippoglossus stenolepis	Rock	Lepidopsetta bilineata				
Herring, Pacific	Clupea harengus pallasii	Sand	Psettichthys melanostictus				
Killifish, California	Fundulus parvipinnis	Swordfish	Xiphias gladius				
Lamprey	Lampetra spp.	Tuna					
Lingcod	Ophiodon elongatus	Albacore Bigeye Bluefin Skipjack, tuna Skipjack, black Yellowfin	Thunnus alalunga				
Mackerel		Bigeye	Thunnus obesus				
Jack	Trachurus symmetricus	Bluefin	Thunnus thynnus				
Pacific	Trachurus symmetricus Scomber japonicus Gymothoras mordaz Gillichthya mirabilis Mugil cephalus Girella nigricans Members of family Embiotocidae Peerilus in illimus	Skipjack, tuna	Euthynnus pelamis				
Moray, California	Gymnothorax mordax	Skipjack, black	Euthynnus lineatus				
Mudsucker, longjaw	Gillichthys mirabilis	Yellowfin	Thunnus albacares				
Mullet, striped	Mugil cephalus	Turbot					
Opaleye	Girella nigricans	Curlfin	Pleuronichthys decurrens				
Perch, ocean	Members of family Embiotocidae	Diamond	Hypsopsetta guttulata				
Pompano (Butternsh,	B 0 1 00	Hornyhead	Pleuronichthys verticalis				
Pacific)	Peprilus simillimus Members of family Scorpaenidae	Wahoo	A canthocybium solanderi				
Rockfish	Members of family Scorpaenidae	Whitehsh, ocean	Pleuronichthys decurrens Hypsopsetta guttulata Pleuronichthys verticalis Acanthocybium solanderi Caulolatilus princeps Seriola dorzalis				
Sablefish	Anoplopoma fimbria	Y ellowtail	Seriola aorzalis				
	AMP	HIBIA					
Bullfrog	Kana calesbeiana						
-1	CRUSTA	CEANS					
rab	Canada maniatar	Prawn	Eucimenia incentue				
Pool	Cancer magister	Ridgeback	Pandalus platueeros				
rab Dungeness Rock Sand Shore Sheep Crayfish Lobster, spiny	Emerita analoga	Spot Shrimp	2 anaaras pratyceros				
Shore	Hemigraneus epp	Bay	Craao spp				
Sheen	Lororhunchus app.	Choet Bay	Crago spp. Callianassa californiensis Pandalus jordani Hippolysmata californica				
Cravesh	A stanue transmidani	Occep Pasific	Pandalus iordani				
Crayiisi	Astacus trowortaget	Ded Ded	Hinneluemata californica				
Looster, spiny	Fanutrus interruptus	Reu	II ippolysmata cattfornica				
	ECHINOD	ERMS					
Starfish, common	Pisaster spp.	Sea urchin	Strongylocentrotus spp.				
	MOLL	USKS					
Abalone							
Black	Haliotis cracherodii	Softshell Washington, common_	Mya arenaria				
	Haliotis fulgens	Washington, common.	Saxidomus nuttalli				
Green	Haliotis corrugata	Mussel	M				
Pink		Bay	Mytilus edulis				
Black Green Pink Red	Haliotis rufescens		Madalata anistamanana				
Green Pink Red Threaded	Haliotis rufescens Haliotis assimilis	Rock	Mytuus cattjornianus				
Red Threaded White	Haliotis rufescens Haliotis assimilis Haliotis sorenseni	Bay Rock Octopi	Polypus spp.				
Red Threaded White	Haliotis rufescens Haliotis assimilis Haliotis sorenseni						
Red Threaded White	Haliotis rufescens Haliotis assimilis Haliotis sorenseni						
Red Threaded White	Haliotis rufescens Haliotis assimilis Haliotis sorenseni						
Red Threaded White	Haliotis rufescens Haliotis assimilis Haliotis sorenseni						
Red Threaded White	Haliotia srufeseens Haliotia assimilis Haliotia sorenseni Corbicula fluminea Tagelus californianus Protothaca staminea Sanguinelaria nutalli Mercenaria mercenaria	Rock Octopi Oyster Eastern Giant Pacific Snail, sea Squid, market					

 TABLE 1

 Common and Scientific Names of Fishes, Crustaceans, and Mollusks in the 1972 Catch

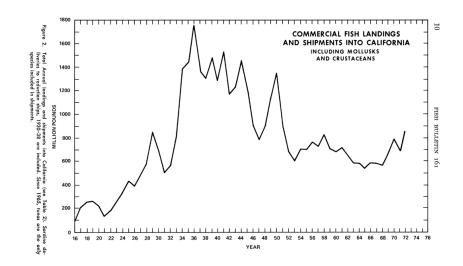


Figure 2. Total Annual landings and shipments into California (see Table 2). Sardine deliveries to reduction ships, 1930–38 are included. Since 1965, tunas are the only species included in shipments.

Year	Thousands of pounds	Year	Thousands of pounds
1010	95.003	1010	919.822
916	209,877	1946	795,499
917	261,134	1947	900.467
918	266,270	1948	1,135,339
		1949	1,135,339
920	222,004	1950	1,300,070
921	135,348	1951	904.114
922	182,343	1952	694,996
923	253,875	1953	618,919
924	340,446	1954	713,410
1925	437,502	1955	710,713
1926	394,964	1956	772.551
1927	487,166	1957	738,550
1928	583,527	1958	832,919
1929	856,854	1959	713,423
1930	702.189	1960	694,663
	,		
1931	502,390	1961	725,253
1932	556,139	1962	663,107
1933	821,805	1963	592,899
1934	1,390,798	1964	591,131
1935	1,448,017	*1965	544,480
1936	1.764.900	1966	591.533
1937	1,362,984	1967	589,028
938	1,310,596	1968	567,214
939	1,486,535	1969	672,793
1940	1,297,518	1970	798,415
	1 700 000	1071	687,995
1941	1,528,892	1971	
1942	1,173,414	1972	845,699
1943	1,234,049		
1944	1,459,456		
1945	1,216,501		

TABLE 2

TABLE 2

Total Annual Landings and Shipments Into California of Commercial Fish, Mollusks, and Crustaceans; Includes Sardine Deliveries to Reduction Ships During 1930 Through 1938 TABLE 3

1	971			1972							
Species	Rank	Thousands of pounds	Thousands of dollars	Species	Rank	Thousands of pounds	Thousand of dollar				
Yellowfin tuna Skipjack tuna Anchovy, northern Albacore tuna Jack mackerel	2	168,365 154,942 89,705 68,131 59,883	\$36,211 30,570 1,093 22,675 2,416	Yellowfin tuna Anchovy, northern Skipjack tuna Albacore tuna Jack mackerel	1 2 3 4 5	278,487 138,202 123,768 97,132 51,118	\$65,37 1,67 28,85 38,88 2,15				
Squid Pacific bonito Bluefin tuna Dover sole Rockfish	6 31,517 7 20,269 8 19,828 9 14,249	760 1,841 4,207 1,178 942	Bluefin tuna Pacific bonito Dover sole Squid Rockfish	6 7 8 9 10	30,974 22,313 22,082 20,159 16,421	7,03 2,05 1,80 53 1,49					
Dungeness crab Salmon Sablefish Petrale sole Ocean shrimp	12 13 14	9,662 8,117 4,424 3,704 3,081	2,821 4,757 290 611 400	Sablefish Salmon Petrale sole Lingcod Abalone	$ \begin{array}{c} 11 \\ 12 \\ 13 \\ 14 \\ 15 \end{array} $	8,396 6,423 3,575 3,246 3,093	64 4,83 59 33 1,24				
English sole Abalone Lingcod Bigeye tuna Rex sole All others	17 18	2,964 2,945 2,098 1,871 1,468 9,603	$316 \\ 953 \\ 201 \\ 394 \\ 169 \\ 2.658$	English sole Ocean shrimp Rex sole Dungeness crab Black skipjack All others	16 17 18 19 10	3,002 2,490 1,662 1,563 1,543 10,050	34: 37- 20 88: 12: 3,06-				
Totals		687,995	\$115,463	Totals		845,699	\$162,51				

 TABLE 3

 Landings and Shipments of Leading Species Ranked by Pounds

TABLE 4 Number of Licensed Commercial Fishermen

	License year*				
Area of residence	1971-72	1972-73			
Eureka	1,846	1,870			
Sacramento	455	488			
San Francisco	1,711	2,035			
Monterey	686	800			
Santa Barbara	871	941			
Los Angeles	2,028	2,070			
San Diego	1,652	1,688			
Alaska, Washington and Oregon fishermen licensed in California Mexican nationals licensed in California	848	524			
Mexican nationals licensed in California	26	39			
Other	58	58			
Totals	10.181	10.513			

* April 1 to March 31.

TABLE 4 Number of Licensed Commercial Fishermen

TABLE 5

Number of Registered Fishing Boats by Length

	License	e year*		License year*			
Length group in feet	1971-72 1972-73		Length group in feet	1971-72	1972-73		
0- 10	5	3	101-105	8	8		
11- 15	128	128	106-110	7	6		
16- 20	807	954	111-115	5	4		
21-25	553	679	116-120	11	8		
26- 30	645	707	121-125	6	5		
31- 35	600	628	126-130	ğ	7		
36-40	787	820	131-135	Š.	6		
1- 45	446	429	136-140	11	9		
6- 50	349	311	141-145	ĩ	1		
1- 55	147	136	146-150	ő	i õ		
6-60	124	113	151-155	17	16		
1- 65	120	110	156-160	4	3		
6-70	34	35	161–165	4	3		
1-75	37	32	166-170	5	4		
6-80	28	29	171-175	4	4		
81- 85	21	19	176-180	Ô	l ô		
36-90	21	10	181 and over	ğ	19		
91-95	7	8	I for and over				
96–100	7	7	Total	4,962†	5,261±		

April 1 to March 31.
† The owners of 482 boats were issued fishing party licenses in 1971-72.
‡ The owners of 465 boats were issued fishing party licenses in 1972-73.

TABLE 5 Number of Registered Fishing Boats by Length

MARINE LANDINGS 1972

TABLE 6

Origin of Shipments Received for Processing in California During 1972 *

	Pounds shippe	d to each area	
Shipped from: Species	Los Angeles	San Diego	Total pounds
Continental United States:			
Tuna, bluefin	576,088		576,088
Tuna, skipjack	37,500		37,500
Dregon, Washington, Canada and Alaska:			
Tuna, albacore	16,735,782	1,403,092	18,138,874
Tuna, yellowfin	449,320		449,320
Mexico and Central America:			
Tuna, albacore	82,033		82,033
Tuna bluefin	543,120	51,404	594,524
Tuna, skipjack. Tuna, skipjack, black.	1,512,323	365,776	1,878,099
Tuna, skipjack, black	420,279		420,279
Tuna, yellowfin	4,862,812	1,973,117	6,835,929
South America:			
Tuna, albacore	2,708,013		2,708,013
Tuna, bigeye	8,495		8,495
Tuna, skipjack	1,610,108		1,610,108
Tuna, yellowfin	1,875,376		1,875,376
apan:			
Tuna, albacore	35,598,299	3,281,417	38,879,716
Tuna, bigeye	100,645	7,991	108,636 89,160
Tuna, bluefin Tuna, skipjack	89,160 65,387,247	7,609,352	72,996,599
Tuna, skipjack, black	2,860	7,005,002	2,860
Tuna, yellowfin	7,925,216	1,704,405	9,629,621
Australia and New Zealand:			
Tuna, albacore	436,598		436,598
Tuna, bluefin	4,836,935		4,836,935
Tuna, skipjack	255,870		255,870
China (Formosa):			
Tuna, albacore	313,790	8,060	321,850
Tuna, skipjack	614,352	21,666	636,018
Tuna, yellowfin	5,386,433	303,074	5,689,507
Malaya:			
Tuna, albacore	322,392		322,392
Tuna, skipjack	224,105		224,105
Tuna, yellowfin	1,804,205		1,804,205
South Pacific Islands:			
Tuna, albacore	9,939,401	588,729	10,528,130
Tuna, skipjack	48,756	1.727.552	48,756
Tuna, yellowfin	5,345,167	1,727,552	7,072,715
Africa:			1 810 000
Tuna, albacore	4,712,891		4,712,891
Tuna, bigeye	1,978 9,118,931		9,118,931
Tuna, skipjack Tuna, skipjack, black	0,110,001	11,265	11,265
Tuna, yellowfin	1,001,361		1,001,361
Philippines:			
Tuna, bigeye	72,102		72,102
Tuna, skipjack	218,610		218,610
Tuna, yellowfin	2,423,529		2,423,529
Spain:			
Tuna, skipjack	798,958		798,958
Tuna, on place			

* Beginning in 1965 only tuna shipments are recorded.

 TABLE 6

 Origin of Shipments Received for Processing in California During 1972

TABLE 7 Origin of Commercial Fish Landings and Volume of Shipments Into California During 1972												
						-						
Species	California waters	Waters north of State	Waters south of State	Central Pacific waters	Total pounds	Tuna shipments*	Grand total					
Fish:								-				
Anchovy, northern	138,201,522		51		138,201,573		138,201,573					
Barraeuda, California	13,915				13,915		13,915					
Blacksmith	75,880				75,880		75,880					
Bonito, Pacific	15,600,361		6,712,266		22,312,627		22,312,627					
Cabezon	5,853				5,853		5,853					
Outline all the	373.410				373,410		373,410					
Croaker, white	1,567		6,217		7,784		7,784					
Dolphinfish	657,070	2.640			659,710		659,710	TOT A				
Flounder Flounder, arrowtooth	147,226	16,721			163,947		163,947	- 8				
	128,889				128,889		128,889	- :				
Flyingfish	140,000				100,000		1=0,000					
Grenadiers	56,647	7,376			64,023	·	64,023	- 2				
Hake, Pacific	10,525				10,525		10,525					
Halfmoon	27,122				27,122		27,122	- 6				
Halibut, California	309,003		242		309,245		309,245	- 6				
Halibut, Pacific	235				235		235	DODDETIN				
Herring, Pacific	125,448				125,448		125,448					
Lingcod	3,129,455	116,731			3,246,186		3.246.186					
Mackerel, jack	51,116,891	110,101	682		51,117,573		51.117.573					
Mackerel, Pacific	108.035		43		108.078		108,078					
Mudsucker, longiaw	1,289		10		1,289		1,289					
Muusucket, Iongjaw	1,200				1,200							
Opaleye	15,390				15,390		15,390					
Perch	272,470		443		272,913		272,913					
Pompano, Pacific	154,842		90		154,932		154,932					
Queenfish	46,473				46,473		46,473					
Rockfish	15,868,230	510,848	42,174		16,421,252		16,421,252					
Sablefish	7,983,299	412,415			8,395,714		8,395,714					
Salmon	6,422,171	1,118			6,423,289		6,423,289					
Sanddab.	916,680	4.142			920,822		920.822					
Sardine, Pacific	372,230	1,110			372,230		372,230					
Sargo	637		229		866		866					
	61.000		70 100		122.010		132.016					
Sculpin	61,896		70,120		132,016		95,313					
Sea bass, giant	12,329		82,984		95,313		95,313					
Seabass, white	550,891		226,497		777,388		400,769					
Shark	364,062	31	36,676		400,769							
Sheephead, California	6,919	·	165		7,084		7,084					

 TABLE 7

 Origin of Commercial Fish Landings and Volume of Shipments Into California During 1972

Total pounds	320,889,756	5,517,831	311,825,454	8,174	638,241,215	207,457,940	845,699,155
iscellaneous mollusk	582				20,159,312 582		20,139,312 582
ster, giant Pacific	876,127 20,159,312				876,127 20,159,312		876,127 20,159,312
ster, eastern	9,028				9,028		9,028
alone, white	143,819 10,323	259			143,819 10,582		143,819 10,582
alone, threaded	1,868				1,868		1,868
palone, red	1,104,462				1,104,462		1,104,462
alone, pink	403,709				403,709		403,709
alone, green	424,828				424,828		424,828
usk: alone, black	1,014,892				1,014,892		1,014,892
fiscellaneous echinoderm	1,260				1,260		1,260
inoderm: a urchin	76,457 1.260				76,457		76,457 1.260
hrimp, ocean	2,443,027	46,843			2,489,870		2,489,870
rawn, spot	20,970				20,970		20,970
obster, spiny	398,217				398,217		398,217
rab, rock	843,503		27		843.530		843.530
stacean: rab, Dungeness	1,563,006				1.563.006		1.563.006
iscellaneous (animal food)	370,053				370,053		370,053
iscellaneous	1,147		26		1,173		1,173
'hitefish. ocean ellowtail	95,102		1,100 162,969		2,569 258.071		2,569
ahoo.	1,469		1,807		1,807		1,807 2,569
urbot	17,463	660			18,123		18,123
una, yellowfin	71,522		241,633,460		241,704,982	36,781,567	278,486,549
una, skipjack, black	27,000		1,082,110		1,109,110	434,404	1,543,514
una, skipiack	41,418		35,903,466		35,944,884	87,823,554	123,768,438
una, bluefin	1,525,962		23,351,759		24,877,721	6,096,707	30,974,428
una, bigeye	11,010,001	1,103,210	191,476	0,174	191,476	191,211	382,687
una, albacore	17.573.831	1,105,210	2,313,999	8,174	21.001.214	76,130,497	97.131.711
wordfish	261,624		4,358		265,982		265,982
ole, miscellaneous	29,669	370	18		30,057		30,057
ole, sand	384.097	5.055			389,152		389,152
sle, petralesle, rex	3,493,522 1,569,369	81,723 92,241			3,575,245		3,575,245
sle, English	2,915,830	86,135			3,001,965		3.001.965
ole, Dover	189,358 19.054.384	3.027.313			189,358 22.081.697		189,358 22.081.697
melt	514,298						
whitebait	514,298 189,358				514,298 189,358		514,298 189,358

TABLE 7—Cont'd.

					TABL	E 8								
		N	lonthly La	ndings and	Shipment	ts Into Cal	ifornia Du	ring 1972						Ц
Species	January	February	March	April	Мау	June	July	August	September	October	November	December	Total pounds	6
LANDINGS: Fish: Anchovy, northern Barracuda, California Blacksmith Bonito, Pacific Cabezon	25,337,993 41 552,087 750	20,029,208 31 252,518 8	5,758,467 3,797 121,721 268	7,840,988 1,051 351,343 670	6,746,236 1,871 29,440 775,904 393	887,807 1,300 46,440 1,530,984	729,017 730 342,145 92	2,115,868 177 2,252,809 214	4,001,562 3,527 7,118,096 428	25,590,784 569 5,500,760 426	25,934,015 644 2,062,290 2,469	13,229,628 177 1,451,970 135	138,201,573 13,915 75,880 22,312,627 5,853	
Croaker, white Dolphinfish Flounder. Flounder, arrowtooth Flyingfish	75,539 1,664 21,788 4,941	37,512 3,372 45,983 1,467	37,522 85,546 9,131	67,390 1,804 24,734 9,165	40,845 85 28,642 15,047 24,543	24,529 14,745 3,980 40,088	13,143 31,311 8,934 51,463	20,505 69 30,327 26,123 12,795	7,514 288 138,218 29,021	12,817 258 116,335 27,837	14,481 244 70,351 13,508	21,613 51,730 14,793	373,410 7,784 659,710 163,947 128,889	
Grenadiers Hake, Pacific Halfmoon Halibut, California Halibut, Pacific	1,985 18,916	714 56,026	50 1,299 18,496	4,190 3,551 9,143	2,390 3,919 19,231 28	150 6,922 30,972 86	4,152 210 1,149 47,886 34	39,680 3,000 2,126 49,510 87	7,230 980 17,819	8,264 535 1,567 19,503	4,259 1,833 15,049	438 1,077 6,694	64,023 10,52 9 27,122 309,245 235	FISH BUI
Herring, Pacific Lingcod Mackerel, jack Mackerel, Pacific Mudsucker, longjaw	$12,000 \\ 69,123 \\ 5,692,755 \\ 2,390 \\ 71$	9,700 89,662 3,530,389 27,486 45	125,061 4,805,018 6,670 85	$13,900 \\ 142,014 \\ 651,165 \\ 11,565 \\ 122$	81,332 357,288 542,656 1,254 175	8,000 439,171 1,724,182 937 72	500,753 7,000,259 260 135	213 538,549 9,915,802 140 150	427,439 13,429,289 448 105	309,177 648,127 16,222 160	195 111,791 2,182,506 32,134 90	108 136,158 995,425 8,572 79	125,448 3,246,186 51,117,573 108,078 1,289	BULLETIN I
Opaleye Perch Pompano, Pacific Queenfish Rockfish	121 10,984 83,560 7,300 936,022	11,517 4,738 10,000 1,361,640	187 27,340 9,649 17,970 1,491,181	285 27,801 19,642 4,200 1,044,917	2,495 11,517 6,698 3,500 1,265,067	3,649 110,165 2,197 1,369,004	2,260 11,928 735 253 1,285,645	2,320 26,788 1,511 1,445,419	715 15,068 2,523 1,207,810	900 8,336 4,166 250 1,843,431	510 3,530 3,929 3,000 1,608,773	1,948 7,939 15,584 1,562,343	15,390 272,913 154,932 46,473 16,421,252	61
Sablefish Salmon Sanddab Sardine, Pacific Sargo	809,946 50,268	1,036,248 81,716 17,657	743,883 79,885 6,795 100	400,796 3,044 52,207 9,385 229	566,441 1,811,359 78,196 10,681	523,893 1,902,685 118,539 42,935 207	638,581 1,645,556 123,211 135,791 220	695,795 841,603 148,997 9,430 110	684,001 218,166 82,271 35,808	1,002,457 876 62,998 18,959	628,474 21,479 32,306	665,199 21,055 52,483	8,395,714 6,423,289 920,822 372,230 866	
Sculpin	1,424 4,281 58,648 35,021 1,136	1,726 22,805 96,784 25,123 1,038	739 9,205 88,692 10,454 461	2,192 2,175 29,920 10,392 483	2,817 2,302 25,752 23,243 686	41,001 2,347 26,066 37,566 1,900	33,395 2,091 19,767 44,789 110	28,561 725 191,132 43,663 29	3,297 18,830 95,723 36,855 188	4,568 22,086 51,450 51,840 663	6,306 1,305 38,218 48,792 89	5,990 7,161 55,236 33,031 301	132,016 95,313 777,388 400,769 7,084	
Skate Smelt. Smelt, whitebait Sole, Dover. Sole, English	4,184 44,731 624 576,534 258,721	14,234 2,016 3,114 1,539,593 313,693	11,115 4,676 16,916 1,765,840 237,105	12,809 9,153 19,827 1,626,690 158,087	22,384 25,166 45,898 2,534,123 214,617	9,225 44,675 51,713 2,355,441 195,874	10,781 143,393 42,215 2,622,923 218,784	13,767 167,553 8,728 2,601,776 375,875	8,395 25,893 323 2,501,117 410,087	3,310 30,161 2,058,125 312,483	2,520 6,940 1,026,042 141,669	5,662 9,941 873,493 164,970	118,386 514,298 189,358 22,081,697 3,001,965	

 TABLE 8

 Monthly Landings and Shipments Into California During 1972

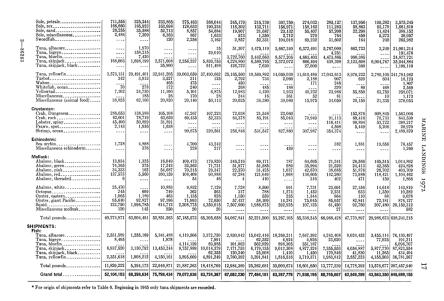


TABLE 8—Cont'd.

	TABLE 9 Monthly Landings of Commercial Fishing Boats in the Eureka Area During 1972												
Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
ANDINGS FROM: California waters:													
Fish: Bonito, Pacific Cabeson. Flounder. Flounder, arrowtooth Grenadiers.	2,499 2,606	3,494 1,467	23,774 8,276	289 11,597 9,165	147 23,092 13,220	10,128 3,980	28 6,822 8,084 4,152	12,378 26,123 39,680	29,635 29,021 1,914	58,202 22,468 7,844	12 61,317 12,748 3,057	106 43,613 2,238	650 476 286,551 139,396 56,647
Halibut, California. Halibut, Pacifie. Lingcod. Mackerel, jack. Perch.	26,009	27,712 3,385	59,143 11,987	75,445 10,551	28 158,916 75	304,548 22	40 12 369,123 7,984	87 399,016 385 17,936	324,666 1,522 9,346	150,531 835 2,784	26,671	23,842	40 213 1,945,622 2,742 69,004
Rockfish Sablefish Salmon Sanddab Shark	386,595 488,767 32,220 850	507,842 594,262 50,719 612	594,162 391,838 41,753 451	301,720 253,658 114 18,053 476	459,709 406,807 972,342 48,162 1,540	490,146 375,199 1,029,951 61,770 483	646,332 488,103 1,098,551 79,719 144	656,408 510,630 236,481 87,667 95	496,032 441,780 30,587 55,039 184	619,136 514,089 12 30,140 5,958	576,652 222,961 10,381 3,265	291,594 303,133 5,348 1,988	6,026,328 4,991,227 3,368,038 520,971 16,046
Skate Smelt Smelt, whitebait Sole, Dover Sole, English	296 402,919 64,863	2,600 108 2,646 541,186 129,512	2,600 50 14,513 996,024 130,038	5,940 242 14,688 1,233,119 97,764	14,849 9,781 35,481 2,051,524 147,550	5,370 26,353 47,763 2,061,494 112,651	6,550 108,457 41,207 2,122,408 105,771	1,288 144,798 8,242 1,741,850 170,028	5,700 16,741 323 1,590,923 230,070	400 216 1,427,810 133,210	673,030 23,900	2,705 515,176 22,966	48,002 306,746 165,159 15,357,463 1,368,323
Sole, petrale Sole, rex Sole, miscellaneous Turna, albacore Turbot Miscellaneous	427,468 117,403 11,735 516 	130,302 121,844 17,761 2,207	91,701 119,722 27,109 1,545 1,837	42,012 95,682 5,499 177 303 170	111,417 154,133 49,532 836 	107,581 99,813 7,342 100 77	91,351 114,812 2,536 285,633	96,543 133,424 5,166 25 419,168 270	94,287 126,970 20,271 202,779 173 16	116,786 84,027 18,222 25,469 302	44,008 34,418 11,963 975 180	111,321 39,696 10,024 4,333 1,908 43	$\substack{\substack{1,464,777\\1,241,944\\187,160\\7,432\\936,032\\5,749\\186}$
Crustacean: Crab, Dungeness Crab, rock Shrimp, ocean	251,413	99,727	79,507	36,664 20 56,782	96,357 220,324	54,472 290 249,126	21,548 550 531,547	23,060 180 528,674	285,456	350,796		543,761	1,206,509 1,040 2,222,705

TABLE 9Monthly Landings of Commercial Fishing Boats in the Eureka Area During 1972

Octopus. Oyster, giant Pacific Miscellaneous mollusk	66 86,192 120	153 84,906 65	157 92,119	124 67,938	221 68,295	136 54,090	483 47,037	829	929 64,098	1,332 70,867	150 61,932	394 54,358	4,974 751,832 185	
Total pounds	2,306,630	2,322,510	2,688,306	2,338,192	5,044,353	5,102,971	6,188,984	5,260,431	4,058,462	3,641,980	1,767,838	1,979,512	42,700,169	
Waters north of State: Fish: Flounder. Flounder, arrowtooth Grenadiers		119	502 525	531	367 1,827		392	425	292 5,316	12 5,369 420	1,202	9,000	2,640 16,721 7,376	
Lingcod Rockfish	120 13,597	1,907 8,317	2,264 23,289	11,707 36,306	20,819 26,259	12,842 16,833	19,168 37,194	23,421 93,846	21,922 137,595	1,993 70,042	407 25,835	435 161 21,735	116,731 510,848	
Sablefish Salmon Sanddab Shark Sole, Dover	7,551	1,113 - 573 - 742	14,606 173 32,012	30,346 480 183,026	32,166 65 514 174,440	14,811 81 101,231	38,462 859 115 300,380	72,335 36 1,809 619,207	88,960 77 478 709,670	65,577 31 494,678	27,242 239,051	19,246	412,415 1,118 4,142 31 3,027,313	MARINE
Sole, English Sole, petrale Sole, erx. Sole, and Sole, miscellaneous. Turbot.	3,346 2,459	22,763 7,400 2,521 1,567 446	1,845 5,115 6,942 1,109 238	4,073 4,008 6,881 223 	6,113 9,136 15,050 745 132	1,537 1,543 4,865 	8,661 7,032 8,399 181 -214	8,178 7,521 11,728 627 	30,320 22,665 14,107 	2,645 3,527 10,076 603 	1,306 4,866 	9,124 4,347	86,135 81,723 92,241 5,055 370 660	VE LANDINGS
Crustacean: Shrimp, ocean				3,614	9,440			7,680	22,531	3,578			46,843	GS .
Mollusk: Octopus								88	123	48			259	1972
Total pounds	67,165	47,468	88,620	281,195	297,073	153,743	421,057	846,901	1,054,056	658,599	299,909	196,835	4,412,621	
Grand total	2,373,795	2,369,978	2,776,926	2,619,387	5,341,426	5,256,714	6,610,041	6,107,332	5,112,518	4,300,579	2,067,747	2,176,347	47,112,790	

TABLE 9—Cont'd.

													20
				TABLE	10								
Mont	thly Landin	igs of Com	mercial Fi	shing Boa	ts in the S	an Francis	sco Area D	During 197	2				
	-	-	1	-	1			-		1	1		
January	February	March	April	May	June	July	August	September	October	November	December	Total pounds	
5,800	4,790		36,880	61,810	45,750	33,220	58,117	78,790	35,570			360,727	
255		85	359	246			22	12				979	
445 13,060	36,968	50,691	8,845	4,110	3,747 3,165	20,983	3,611 12,033	2,186 97,313	3,489 56,364		974 800	20,226 311,238	ы
2,335		330				850				760	3,555	7,830	FISH
12,320	35,760	6,179	4,190 483	2,100 159	379	14,110	3,000 9,100	6,595	12,346	8,370	1,361	9,290 107,162	
12,000	9,700					22				·	108	22 21,808	ĝ
13,994	18.078	18,574	19,563	110,467	21,521	56,125	64,387	12,926	22,766	13,269	22.025	393,695	BULLETIN
				175	5	1,005	265	115	160			1,390	117
5,960	3,641	7,580	8,037			911	1,934	2,027	1,238	1,470	2,555	35,353	
													19
89,221	182,555	138,771	83,563	70,137	57.545	57,205	64,890	70,888	170,859		137,599	1,194,904	
8,663	12,065	27,300	125	564,911 17,055	707,209 37,500	503,015 22,180	580,001 31,452	18,290	25,030	8,531	4,529	227,470	
			·										
7,434	4,390		50 300	250	160	14,203		8,610	21,613	10,297	4,957	78,811	
475	816	3,146	2,633	5,155	8,314	3,618	697					27,435	
132,568	988,990	726,541	185,115	269,839	168,546	185,655	226,759	196,519	133,372	113,136	224,653	3,551,693	
125,935	87,639	51,817	18,898	32,915	53,937	81,054	120,748	103,585	120,558	55,643	76,393	929,122	
32,898	36,264	22,752	9,300	3,114	7,590	7,695	8,794	11.870	12,095	12,634	37,135	202,141	
8,420	5,960	18,130	2,645		8,880	16,830	16,599 85				1,355	161,015 913	
	January 5,800 -2255 445 13,060 2,335 -12,330 12,000 13,994 -771 5,960 	January Pebruary 5,800 4,700 255	January Pebruary March 5,800 4,790	January Pebruary March April 5,800 4,700	January Pebraary March April May January Pebraary March April May 5,500 4,700 50,500 15,800 13,600 35,655 5,500 15,800 15,800 13,600 35,655 5,600 8,846 4,110 12,2255 25,7500 6,1750 4,500 15,050 12,2000 6,7500 16,5751 15,574 16,565 5,900 3,541 7,580 5,527 15,774 5,900 3,641 7,580 5,537 16,757 6,900 13,640 13,580 10,577 16,753 17,177 6,900 1,540 2,7500 11,749 17,177 11,149 11,149 11,149 6,900 1,26,550 15,577 18,26,55 13,571 18,26,55 10,1573 17,177 7,454 4,300 2,300 2,300 12,2640 12,2649 116,483 2,563 15,351	January February March April May June 5,800 4,700	Monthly Landings of Commercial Fishing Boats in the San Francis January Pehraary March April May June July 5,500 4,700 36,580 61,510 45,700 33,220 13,660 350 13000 1500 1500 1500 1500 12,230 36,590 6,510 45,700 33,220 1500 1500 12,230 36,570 6,770 4,500 10,000 15,100 45,700 33,220 12,2300 5,570 6,770 4,500 10,000 15,110 45,120 20,058 20,058 10,000 15,110 14,110 3,165 20,058 16,111 10,000 15,110 14,110 3,165 16,111 10,000 15,111 10,000 15,110 10,000 16,111 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000 10,000	January Pebraary March April May June July August 5,000 4,700 35,890 61,810 45,750 33,220 55,111 3265 7100 35,890 61,810 45,750 33,220 55,111 3265 7100 55,900 4,700 55,900 1,760 33,220 55,111 3,610 45,750 33,220 55,111 3,611 3,616 3,777 3,611 3,614 3,614 3,616 3,777 3,611 3,611 3,616 3,777 3,611 3,610 5,770 6,777 3,611 1,610 1,000 3,700 4,711 5,700 5,770 6,777 5,770	January February March April May June July August September 5,500 4,700 50,580 01,810 45,720 33,220 55,117 75,790 2555 160 150 55,590 1,500 55,117 75,790 2555 160 150 55,20 1,600 5,690 5,611 75,790 2555 160 150 55,20 1,600 2,698 3,600 7,713 1,109 2535 160 150 55,20 1,600 3,698 3,600 6,586 4,100 3,688 0,000 6,586 1,600 1,600 6,586 1,600 1,600 6,586 1,600 1,600 6,586 1,600 1,6,586 1,600 1,6,586 1,600 1,6,586 1,600 1,6,586 1,600 1,6,586 1,600 1,6,586 1,600 1,6,586 1,600 1,6,586 1,600 1,6,586 1,6,596 1,6,596 1,	Jamary Pebraary March April May June July August September October 5,890 4,770	Monthly Landings of Commercial Fishing Boats in the San Francisco Area During 1972 January Pelruary March April May June July August September October November 5,509 4,709	Monthly Landings of Commercial Fishing Boats in the San Francisco Area During 1972 Jammary Pehraary March April May Jame July August September October November Detember 5,509 4,709 35,589 61,510 45,529 33,229 58,117 75,709 55,579 2565 7169 555 1266 7277 5,717 1,718 4,442	Monthly Landing: of Commercial Fishing Boats in the San Francisco Area During: 1972 January February March April May Jans July Angust September October November Desember Total Possion 5,500 4,700 50,500 61,510 55,570 52,570 50,907 75,790 55,570 61,510 90,797 90,797 10,908 4,444 64,797 90,797 61,790 90,797 10,908 44,444 65,790 90,797 10,908 45,444

 TABLE 10

 Monthly Landings of Commercial Fishing Boats in the San Francisco Area During 1972

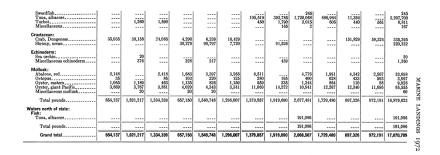


TABLE 10—Cont'd.

	N	fonthly La	ndings of (Commercia	TABLE I Fishing I		ne Montero	ey Area Du	uring 1972				
Species	January	February	Mareh	April	May	June	July	August	September	October	November	December	Total pounds
ANDINGS FROM: California waters: Fish:													
Anchovy, northern Bonito, Pacific Cabezon Croaker, white Flounder	495 1,996 6,229	2,218 4,845	158 1,739 5,746	50 22 48,660 1,126	32,189 873	8,375 1,422	64 7,603 2,944	61,905 12 88 11,046 5,447	123,800 28,981 366 4,138 10,940	295,310 17,739 6,682 1,751	643,033 1,089 1,025 11,197 2,123	64,000 33 10,304 7,123	1,188,098 47,821 2,251 146,147 50,569
Halibut, California Herring, Pacific Lingcod. Mackerel, jack. Perch	171 13,099 	4,715 14,323 343	740 16,286 2,550 1,829	2,596 13,900 4,717 5,005 2,342	822 81,332 16,022 10,221	2,014 8,000 17,349	12,943 12,936 11,850 12	21,659 213 6,829 27,470 265	2,122 18,526 11,130 5	292 39,116 5,030	423 195 45,162 36,720	1,059 68,834 14,270 404	49,556 103,640 273,199 124,246 5,228
Pompano, Pacific Rockfish Sablefish Salmon Sanddab	223,848 229,551 9,229	226,319 258,036 18,013	4 268,303 198,359 10,492	194,459 31,855 1,730 18,752	40 240,825 53,446 231,631 12,465	874 362,723 73,300 114,386 19,269	76 200,150 53,174 16,841 21,097	1,250 224,668 46,845 23,866 27,973	2,105 220,139 82,373 31,360 8,244	147 563,485 251,789 850 7,828	447,264 300,784 2,567	334 505,399 205,221 11,162	4,830 3,677,582 1,784,733 420,664 167,091
Seabass, white Shark Skate Smelt Sole, Dover	2,836 2,492 2,506 925	1,633 9,785 922 8,675	528 7,115 1,078 5,605	16 153 6,569 4,230 3,850	310 7,535 5,370 7,585	1,642 3,700 1,388 6,960	85 5,550 3,911 269 4,460	1,320 4,750 12,479 1,673 6,875	1,620 2,167 2,510 581 3,855	4,670 10,104 2,510 235 1,205	214 6,637 2,280 115 540	124 3,563 2,568 880	8,049 39,873 63,454 18,367 51,415
Sole, English Sole, petrale Sole, rex Sole, sand Sole, miscellaneous Tuna, albacore Miscellaneous	9,435 11,755 9,360 	35,800 22,705 20,480 1,435 198 	29,014 24,460 6,415 1,725 130	24,666 20,694 1,055 170 15	16,864 20,753 800 485 361 15	14,275 14,150 1,585 40 163 	17,155 13,085 905 1,199 658,289	53,068 37,504 1,940 740 2,093 1,173,340	25,295 39,910 1,790 1,370 63 2,051,606	31,932 71,135 1,565 210 728 522,148		26,755 27,240 4,970 45 225	310,025 338,011 52,115 7,185 5,258 4,452,673 106

 TABLE 11

 Monthly Landings of Commercial Fishing Boats in the Monterey Area During 1972

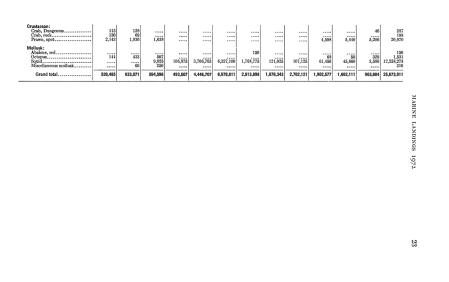


TABLE 11—Cont'd.

	Mor	thly Landi	ngs of Cor	nmercial F	TABLI ishing Boa		Santa Bar	bara Area	During 19	72		- -		24
Species	January	February	Mareh	April	May	June	July	August	September	October	November	December	Total pounds	
LANDINGS FROM: California waters: Fish:														
Anchovy, northern Barracuda, California Bonito, Pacific	5,294,675 26,816	3 41	1,170,900	127,200 545	1,143,500 18 34	36,400 241 21	47,200 628	1,703,000 220 104	3,528,500 1,108,993	5,040,300 683,657 426	2,969,450 411 539,737 1,432	2,338,600 177 275,457 102	27,476,975 880 2,636,149 2,089	
Cabezon Croaker, white	1,925	20	25					104		426	1,432	102	2,089 2,445	
Flounder. Hake, Pacific. Halibut, California. Lingcod. Mackerel, jack.	4,490 15,832	557 9,328 27,547 366,900	4,833 50 8,194 28,778 266,600	2,635 2,009 30,527	200 290 3,389 51,064	16,240 82,826	13,338 43,388 25,420	12,295 44,781 33,008	38 5,034 49,399 24,888	6 535 5,343 94,665	5,595 26,141 55,100	168 3,799 20,651	8,442 875 89,054 515,599 771,916	FISH
Perch Pompano, Pacific Rockfish Sablefish Salmon	1,151 110 97,254	1,184 216,844	1,008 215 301,331 225	3,055 296,382 1,215 1,075	35 301,682 3,737 42,410	20 331,981 2,725 51,058	1,074 299,464 1,425 26,271	1,420 305,021 965 1,197	1,005 211,531 8,013	2,271 354,379 25	1,003 315,972 630	1,393 2,000 259,382	14,599 2,345 3,291,223 10,947 130,024	BULLETIN
Sanddab Sea bass, giant Seabass, white Shark Shark Sheephead, California	96 49 4,423 6,153 97	280 517 3,008	127 2,159 3,655 16	1,266 4,082	2,945 9,047	166 4,119 11,606 10	14 295 4,510 9,535	284 10,056 6,701 12	21,483 2,584	9,834 5,318 16	14 13,273 9,862 13		517 808 77,195 74,673 164	191
Skate Smelt Sole, Dover Sole, English Sole, petrale	287 41,750 30 58,488 14,465	40 37,979 23,205	5,658 24,391 60,065	21,580 12,686 85,835	30,735 11,175 60,100	16,525 12,249 55,631	9,685 6,015 20,525	7,085 23,853 62,796	125 150 20,817 57,140	1,060 24,138 68,100	285 36,360 15,237	38,856 7,982	452 41,750 92,793 307,007 531,181	
Sole, rex	4,540 6,100 1,918	4,800 8,865 6,979	7,867 4,640 4,328 	15,715 320 326 	17,137 3,097 187 	2,449 3,645 1,119	1,395 1,235 59 10,248 1,890,489	1,085 12 17,788 701,068	3,425 60 6,284 542,638	3,520 12 746,260	5,165 835 172 46,826	6,022 171	73,120 28,737 14,224 34,320 3,928,400	
Turbot Yellowtail Miscellaneous Miscellaneous (animal food)	38,825	185 62,160	20,820	8 20,140	50,113	2,465	70 2 36,380	30,080	267 15,975	34,050	20,150	21,335	2,543 267 187 370,053	

 TABLE 12

 Monthly Landings of Commercial Fishing Boats in the Santa Barbara Area During 1972

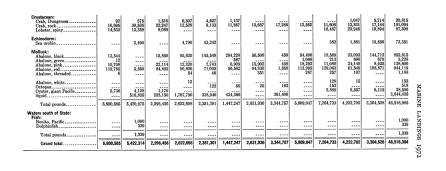


TABLE 12-Cont'd.

														26
	Month	y Landing	s and Ship	ments of (TABL Commercia		the Los I	Angeles Ar	ea During	1972				
Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds	
LANDINGS FROM: California waters: Fish:														
Anchovy, northern Barracuda, California. Blacksmith Bonito, Pacific. Croaker, white.	20,037,518 240,444 71,173	15,947,168 38,790 34,508	4,587,538 3,475 127 35,611	7,676,738 793 3,345 18,680	5,539,932 916 29,440 77 7,378	805,657 629 46,440 201 12,362	648,569 6 46,875 2,453	292,682 80 47,385 5,210	270,472 3,454 5,820,151 1,190	20,219,604 18 4,064,754 2,116	22,321,532 30 1,386,531 2,010	10,827,028 1,131,265 10,335	109,174,438 9,401 75,880 12,779,945 203,026	F
Dolphinfish Flounder Flyingfish Hake, Pacific Halfmoon				 395	24,543 1,096	40,088 150 2,737	35 51,463 210	12,795	150				150 35 128,889 360 5,914	FISH BUL
Halibut, California Lingcod Mackerel, jack Mackerel, Pacific Mudsucker, longjaw	327 69 5,692,755 2,000	3,130 13 3,163,457 27,486	1,876 16 4,535,840 6,670	2,833 646,160 10,670	10,822 532,435 984	10,190 85 1,724,177 787	4,955 13 6,961,984 	5,909 95 9,854,614 	43 13,391,527 190 2	6 641,687 16,005	6 141 2,090,410 32,134	73 645 981,155 8,540	40,164 1,083 50,216,201 105,466 2	BULLETIN 16
Opaleye Pereh Pompano, Pacific Queenfish Rockfish	90- 83,450 7,300 62,485	224 4,738 10,000 98,480	2,191 9,430 17,970 62,774	285 2,551 19,642 4,200 50,291	2,495 7,677 6,658 3,500 39,185	3,649 109,546 1,155 57,026	2,260 93 95 253 10,508	2,320 385 261 26,648	715 395 418 30,770	900 435 3,859 250 56,603	510 180 3,929 3,000 59,784	1,948 1,163 13,250 109,071	15,082 124,930 146,885 46,473 663,625	51
Sablefish	60 12	14,757	84 3,245 100	159 8,868 987	148 3,060 235	313 42,935 207 843	212 135,791 220 1,023	130 79 9,430 110 89	220 20,075 431	118 12,759 388	42 22,906 613	52,483	1,206 359 326,309 637 5,195	
Sea bass, giant Seabass, white Shark Sheephead, California Skate	182 2,353 907	194 1,949 972 9	242 299 4,122 445	662 3,963 3,921 392	889 11,244 6,927 194	1,156 10,878 9,461 1,768 155	1,509 7,299 3,608 40 320	36 131,201 15,033	52,579 6,844 60	43 9,833 4,283 14	4,564 5,175 20	3,938 11,235 11,071 125	8,475 243,471 74,747 4,877 544	

 TABLE 13

 Monthly Landings and Shipments of Commercial Fish Into the Los Angeles Area During 1972

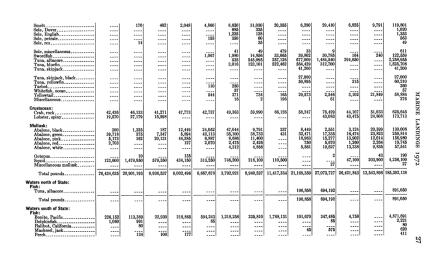


TABLE 13—Cont'd.

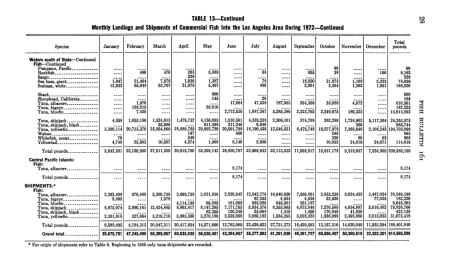


 TABLE 13

 Monthly Landings and Shipments of Commercial Fish Into the Los Angeles Area During 1972

	Month	ıly Landing	s and Ship	ments of	TABLI Commerci		o the San	Diego Are	a During 1	972				
Species	January	February	March	April	Мау	June	July	August	September	October	November	December	Total pounds	
LANDINGS FROM: California waters: Fish:														
Anchovy, northern Barracuda, California. Bonito, Pacific. Cabeson. Croaker, white.	41 39	28 48 8 626	29 292 135 	120 258 13	994 937 97 185	430 170 	28 724 47,765	113 97 1,944 138	73 31,037 50	551 28,019 530	203 765	20,286	1,284 3,634 130,318 58 1,566	
Dolphinfish Flounder Halfmoon Halibut, California Lingcod	294 1,985 1,608	940 714 2,964 82	1,103 1,465	3,156 1,201 55	2,823 4,039	30 4,185 2,149	135 1,149 2,500	44 1,126 547 20	10 980 4,025	173 1,567 1,522 100	1,343 611	26 1,077 396	1,417 235 21,208 23,027 257	
Mackerel, jack Mackerel, Pacific Opaleye Perch Pompano, Pacific	390 121 4	32	28 187 2,645	895 1,056	270 3,730	150 597	260 1,854 80	60 140 4,848	215	217	276 659	32 1,459	396 2,569 308 23,356 80	
Rockfish Sablefish Salmon Sanddab Sardine, Pacific	54,002	86,400 282 66 2,900	65,824 40 3,550	69,828 47 517	76,310 7,621	40,668	32,376 19 86	34,249 22 17	26,261 15,733	38,071		35,749	587,762 282 41 272 45,921	
Sculpin Sea bass, giant Seabass, white Shark	1,412 844 25,001 6,814 132	1,726 132 19,681 1,283 66	739 463 25,747 854	1,205 3,283 1,186 91	488 26 6,066 4,569 347	12,609 1,025 11,069 14,214 122	12,934 209 7,393 11,749 50	7,719 277 48,555 8,292 17	2,580 14,098 13,591 188	4,180 8,995 2,873 633	70 13,091	5,416 38,706 8,256 176	56,701 3,046 221,685 79,912 1,878	
Smelt	50	48 132	294 122	90 59	117 2,095	361 877 21,089	19 21 25,245 273,398	30 18 52,565 157,380	118 114 22,901 192,844	4 15 817 1,064,321		150 	199 554 1,231 104,500 1,790,071	
Tuna, bluefin Tuna, skipjack. Tuna, yellowfin Whitefish, ocean. Yellowtail. Miscellaneous.	 40	278	 172 411	11,272 334	2,457	211 3,928 132	90 26 485 970 12	106 14 188 1,491	58 12 7,860 33	206 2,773 20	6,995	78 8,692	254 218 11,312 1,412 35,951 225	

 TABLE 14

 Monthly Landings and Shipments of Commercial Fish Into the San Diego Area During 1972

				T/	ABLE 14—	-Continued	I						
M	ionthly Lan	dings and	Shipments	of Comm	ercial Fist	Into the	San Diego	Area Duri	ng 1972—	-Continued	1		
Species	January	February	March	April	Мау	June	July	August	September	October	November	December	Total pounds
Crustacean: Crab, rock Lobster, spiny	3,340 11,297	1,981 10,361	111 8,204	114	453	2,858	6,994	1,449	140	3,051 56,841	2,478 32,473	2,556 18,020	25,525 137,196
Echinoderm: Sea urchin	1,728	2,358											4,086
Mollusk: Abalone, black Abalone, green Abalone, pink Abalone, threaded	34,635		12 9,896 12,442 13,336	1,404 26,668 13,510 9,793	10,220 29,618 14,717 14,416	14,944 16,290 6,975 4,962 4	2,874 12,852 4,123 17,732 59	258 579	1,750 2,457 5,415 17,084 29	221 3,981 12,328 5,536 145	350 7,259 13,825 6,835 284	404 17,872 5,763 4,719 159	32,269 161,786 108,129 107,350 680
Abalone, white Octopus Oyster, giant Pacifie Squid		13 26	10,883 26 287	9,820 26	7,129 12 62	3,416 6	3,722	991 	2,170 6 	3,936 	13,803	4,783 12	86,123 13 154 499
Total pounds	200,889	135,781	159,339	156,001	189,826	163,516	467,936	323,303	364,122	1,249,437	231,321	175,479	3,816,950
Waters north of State: Fish: Tuna, albacore									23,074				23,074
Total pounds									23,074				23,074
Waters south of State: Fish: Anchovy, northern Bonito, Pacific Dolphinfish. Halibut, California. Mackerel, jack	58,636 310	99,250 1,102 49	98,529	128,575 1,804 21	181,453	312,334	11,067	51 415,117 69	26,228 128 62	354,120	129,410 244 44	24,856	51 1,839,575 3,657 162 62
Mackerel, Jack Mackerel, Pacific. Perch Rockfish Sculpin. Sea bass, giant.	9,020	12,219	1,735	 32 4,637 	1,783 2,094	27,549	1,169	388 20,753 128	43 1,943 286	200	377	541	43 32 34,012 70,120 4,328

 TABLE 14

 Monthly Landings and Shipments of Commercial Fish Into the San Diego Area During 1972

Swordfish Tuna, albacore			120	2,256		2,596	1,982 579,470	378,380	280,171	285,018	177,180	683	4,358 1,703,498	
Tuna, bigeye Tuna, bluefin Tuna, skipjack Tuna, skipjack, black Tuna, yellowfin	163,445 183,017	645,013 8,778,031	1,046,795	776,505	1,683,660	947,224 2,314,269 115,376 4,573,762	1,232,205 2,241,557 990 1,379,440	2,769,251 1,065,971 1,512,504	1,775,214 250,574 3,070,846	4,251 1,812,110 175,903 465,735	801,062 398,796 1,607,261	887,403 671,864	4,251 9,337,066 11,649,891 116,366 46,929,564	
Wahoo Whitefish, ocean Yellowtail Miseellaneous	2,314	1,227	465 102 26	278 493	1,906	544	36	277	171 2,532	8,635	21,737	295 9,147	914 295 48,950 26	М
Crustacean: Crab, rock										27			27	ARIN
Total pounds	441,874	9,560,917	8,242,161	11,018,554	9,368,829	8,293,654	5,467,372	6,165,114	5,414,962	3,122,525	3,149,220	1,595,737	71,840,919	E
SHIPMENTS:* Fish:			· · ·											LAN
Tuna, albacore Tuna, bigeye Tuna, bluefin	169,181	278,681	40,750	422,828	350,914 7,991		2,199,640	1,325,561 51,404	77,531	408,152		8,060	5,281,298 7,991 51,404	DINGS
Tuna, skipjack. Tuna, skipjack, black	2,061,546	250,631	1,028,359	954,472	1,867,084		224,759	660,213	3,478	84,964		861,288 11,265	7,996,794 11,265	
Tuna, yellowfin Total pounds	2,230,727	680,548	930,451	92,309	1,621,060	221,324	2,836,058	232,123 2,269,301	91,048	126,813 619,929	158,343	2,023,083	5,708,148	1973
Grand total	2.873.490	10,906,558	10.401.060	12.644.164	13,405,704	8.678.494	8,771,366	8.757.718	5.974.215	4,991,891	3.538.884	3,794,299	94,737,843	10

TABLE 14—Cont'd.

TABLE 15

Value of Landings and Shipments of Commercial Fish Into California by Area, 1972

Species	Eureka	San Francisco	Monterey	Santa Barbara	Los Angeles	San Diego	Total
ANDINGS:							
Fish: Anchovy, northern		360.727	1,188,098	27.476.975	109,174,438	1,335	138,201,57
		\$28,767	\$24,263	\$364,475	\$1,260,196	\$213	\$1,677,91
Barracuda, California				880 \$320	9,401	3,634	13.91
Blacksmith				\$320	\$3,370 75,880	\$1,180	\$4,87 75,88
Bonito, Pacific	650	5.478	47,821	2.637.149	\$2,655 17,651,636	1.969.893	\$2,65 22,312,62
	\$85 476	\$535	\$3,442	\$224,286	\$1,628,816	\$198,353	\$2,055,51
Cabezon	476 \$24	979 \$104	2,251 \$164	2,089		58 \$7	5,85
Croaker, white	149 	20,226	146,147	2,445	203,026	1,566	373,4
Dolphinfish		\$3,867	\$12,342	\$49 339	\$16,196 2,371	\$277 5.074	\$32,73
-				\$136	\$464	5,074 \$1,761	\$2,3
Flounder	289,191 \$21,143	311,238 \$23,092	50,569 \$6,095	8,442 \$810	35 \$5	235 \$47	659,7 \$51,1
Flounder, arrowtooth	156,117	7,830					163.94
Flyingfish	\$7,830	\$426			128,889		\$8,2 128,8
					\$19,903		\$19.9
Grenadiers	64,023 \$3,204						64,0 \$3,2
Hake, Pacific		9,290		875	360		10,5
Halfmoon	·	\$228		\$18	\$18 5,914	21,208	27,1
	40	107,162	49,556	89,054	\$1,453 40,244	\$5,683 23,189	\$7,1 309,2
Halibut, California	\$23	\$36,281	\$20,885	\$45,613	\$19,718	\$13,069	\$135.5
Halibut, Pacific	213	22					2
Herring, Pacific	\$86	\$7 21,808	103,640				125,4
Lingcod		\$13,826 393,695	\$13,588 273,199	515,599	1,083	257	\$27,4 3,246,1
-	\$215,980 2,742	\$36,007	\$34,115 124,246	\$52,348	\$211	\$33	\$338,6
Mackerel, jack	2,742 \$139	1,390 \$70	124,246 \$10,503	771,916 \$32,282	50,216,821 \$2,109,810	458 \$53	51,117,5 \$2,152,8
Mackerel, Pacific	\$159	\$70	\$10,000	\$32,202	105,466	2,612	108,0
Mudsucker, longjaw		1,287			\$6,006	\$507	\$6,5 1,2
-		\$3,860			\$2		\$3.8
Opaleye					15,082	308 \$68	15,3 \$3,9
Perch	69,004	35,353	5,228	14,599	\$3,905 125,341	23,388	272,9
Pompano, Pacific	\$13,335	\$12,217	\$1,072 4,830	\$4,544 2.345	\$6,967 146,975	\$6,163	\$44,2 154,9
		\$766	\$4,620	\$112	\$36,492	\$20	\$42,0
Queenfish					46,473 \$955		46,4
Rockfish	6,537,176	1,621,710	3,677,582	3,291,223	671,787	621,774	16,421,2
Sablefish	\$455,700 5,403,642	\$132,657 1,194,904	\$330,693 1,784,733	\$291,015 10,947	\$140,789 1,206	\$139,435 282	8,395,7
Salmon	\$430,938	\$84,983 2,503,404	\$132,501 420,664	\$738 130,024	\$281	\$23	\$649,4
	3,369,156 \$2,338,463 525,113	\$2,027,319 227,470	\$357,108 167,091	\$106,861		\$31	\$4,829,7
Sanddab	525,113 \$63,147	227,470 \$26,528	167,091 \$16,636	517	359 \$54	272 \$68	920,8 \$106,5
Sardine, Pacific	405,147	e20,020	e10,000		326,309	45,921	372,2
Sargo					\$48,941 866	\$11,334	\$60,2
					\$151		\$1
Sculpin					5,195 \$2,136	126,821 \$45,258	132,0 \$47,3
Sea bass, giant				808	87,131	7,374	95,3
Seabass, white		491	8,049	\$199 77,195	\$26,526 412,391	\$1,991 279,262	\$28,1 777,3
		\$279	\$4,055	\$41,053	\$199,672	\$148,096 115,988	\$393,1
Shark	16,077 \$1,134	78,811 \$4,085	39,873 \$2,375		75,347 \$12,993	\$26,081	\$56,7
Sheephead, California				164 \$20	5,042	1,878 \$280	7,0
Skate	48,002	5,934	63,454	452		\$280	118,3
	\$1,178	\$153	\$1,470	\$35	\$80	199	\$2,9 514,3
Smelt	306,746 \$23,201	27,435 \$3,651	18,367 \$2,989			\$42	\$36,4
Smelt, whitebait	\$23,201 165,159	24,199					189,3
Sole, Dover	\$18,659 18,384,776	\$3,420 3,551,693	51,415	92,793	1,020		22,081,6
	\$1.504.302	\$291,894	\$3,284 310,025	\$8,116	\$92		\$1,807,6
Sole, English	1,454,458 \$168,849	929,122 \$106,353	\$33,940	307,007 \$33,023	\$205		\$342.3

 TABLE 15

 Value of Landings and Shipments of Commercial Fish Into California by Area, 1972

32

MARINE LANDINGS 1972

TABLE 15—Continued

Value of Landings and Shipments of Commercial Fish Into California by Area, 1972—Continued

Species	Eureka	San Francisco	Monterey	Santa Barbara	Los Angeles	San Diego	Total
Sole, petrale	1,546,500	1,158,436	338,011	531,181	563	554	3,575,245
Sole, rex	\$260,168 1,334,185	\$189,433 202,141	\$58,543 52,115	\$90,917 73,120	\$106 49	\$200	\$599,367
Sole, sand	\$161,302 192,215	\$25,164 161,015	\$5,413 7,185	\$9,074 28,737	\$8		\$200,961 389,152 \$50,252
Sole, miscellaneous	\$24,626 7,802	\$20,712 913	\$890 5,258	\$4,024 14,224	611	1,249	30,057
Swordfish	\$554	\$130 245	\$675	\$1,479 34,320	\$128 122,559	\$415 108,858	\$3,381 265,982
Tuna, albacore	936,032	\$147 3,398,786	4,452,673	\$19,132 3,928,400	\$72,997 4,768,680	\$67,361 3,516,643	\$159,637 21,001,214
Tuna, bigeye	\$297,965	\$1,089,891	\$1,424,923	\$1,258,159	\$1,626,358	\$1,186,758 4,251	\$6,884,054
Tuna, bluefin					\$40,812 15,540,401 \$3,344,234	\$939 9,337,320	191,476 \$41,751 24,877,721
Tuna, skipjack					\$3,344,234 24,294,775	\$1,967,421 11,650,109	\$5,311,655 35,944,884
					\$4,860,543	\$2,355,349 116,366	\$7.215.892
Tuna, skipjack, black					992,744 \$76,159		1,109,110 \$84,886
Tuna, yellowfin					194,764,106 \$42,970,725	46,940,876 \$10,376,097	241,704,982 \$53,346,822
Turbot	6,409 \$765	8,811 \$551		2,543 \$204	360 \$54		18,123 \$1,574
Wahoo					893 \$186	914 \$185	1,807 \$371
Whitefish, ocean					862 \$105	1,707	2,569
Yellowtail				267 \$103	172,903 \$23,887	84,901 \$14,982	258,071 \$38,972
Miscellaneous	186 \$13	167	106 \$10	187	276	251	1,173
Miscellaneous				, , , , , , , , , , , , , , , , , , , ,	609	603	
(animal food)				370,053 \$7,401			370,053 \$7,401
rustacean:							
Crab, dungeness	1,206,509 \$644,808 1,040	335,395 \$228,865	287 \$161	20,815 \$14,702 191,094			1,563,006 \$888,536
Crab, rock	1,040		199 \$10	\$20,349	625,645 \$91,877	25,552 \$4,033 137,196	843,530 \$116,269
Lobster, spiny				87,308 \$131,109	\$91,877 173,713 \$273,289	137,196 \$217,621	398,217 \$622,019
Prawn, spot			20,970 \$22,707				20,970 \$22,707
Shrimp, ocean	2,269,548 \$340,436	220,322 \$33,094					2,489,870 \$373,530
chinoderm:	\$010,100	\$00,004					4010,000
Sea urchin		20		72,351		4,086 \$504	76,457
Miscellaneous		\$2		\$3,945		\$504	\$4,451
echinoderm		1,260 \$381					1,260 \$381
follusk:							
Abalone, black				852,615 \$145,116	130,008 \$21,382	32,269 \$7,444	1,014,892 \$173,942
Abalone, green				3,228 \$1,505	259,814 \$125,869 156,980	161,786 \$88,215	424,828 \$215,589 403,709
Abalone, pink				138,600 \$76,702	156,980 \$77,050	108,129 \$56,041	403,709 \$209,793
Abalone, red		33,098 \$15,420	150 \$90	944,119 \$484,762	\$77,050 19,745 \$9,823	107,350 \$52,310	1,104,463 \$562,403
Abalone, threaded				1,188 \$419		680 \$205	1,868
Abalone, white				155 \$107	57,541 \$33,154	86,123 \$52,483	143,819 \$85,74
Octopus	5,233	3,097	1,531	518	190 \$35	13	10,583
Oyster, eastern	\$519	\$264 9,028	\$381	\$62		\$4	\$1,265
Oyster, giant Pacific	751,832	\$26,543 95,555		28,586		154	\$26,543 876,127
Squid	\$654,094	\$83,132	12,258,278	\$24,870 3,644,435	4,256,100	499	\$762,096
Miscellaneous mollusk.	185		\$389,178 310	\$52,625	\$91,951 27	\$56	\$533,810 582
	\$30	\$150	\$4		\$4		\$188
Total pounds Total value	47,112,790 \$7,652,700	17,070,709 \$4,555,255	25,673,911 \$2,919,125	46,518,304 \$3,563,929	426,184,558 \$59,296,245	75,680,943 \$17,057,730	638,241,21 \$95,044,98
I otal value	e1,002,100	41,000,200	\$2,010,120	40,000,020	400,200,210	•••••••••	
3-86283							

Value of Landings and Shipments of Commercial Fish Into California by Area, 1972

FISH BULLETIN 161

TABLE 15—Continued

Value of Landings and Shipments of Commercial Fish Into California by Area, 1972-Continued

Tuna, bigeye	Species	Eureka	San Francisco	Monterey	Santa Barbara	Los Angeles	San Diego	Total
Tuna, albacore. 70,849,199 52,81,298 76,130,49 Tuna, bigeye. 13,220 7,991 191,25 Tuna, bluefin. 6,045,303 51,404 6,045,303 Tuna, skipjack. 79,826,760 79,987,94 67,432 Tuna, skipjack, black. 79,826,760 79,987,94 87,225 Tuna, skipjack, black. 31,073,419 51,206,148 8,707,951 Tuna, yellowfin. 31,073,419 51,200,035 512,030 Total pounds. 18,640,040 19,065,000 27,457,474,44								
Tuna, bigeye 183,220 7,991 191,25 Tuna, bluefin 6,045,303 51,404 6,045,303 Tuna, skipjack 79,826,760 798,724 67,932 Tuna, skipjack 79,826,760 798,724 67,925 Tuna, skipjack, black. 11,265 314,04 6,045,323 Tuna, skipjack, black. 79,826,760 79,826,760 79,826,761 Tuna, skipjack, black. 12,85 334,60 51,966,657 Tuna, yellowfin 31,073,419 57,081,48 36,701,51 Total pounds. 18,80,0635 12,030 19,065,000 07,457,474,44								76,130,497
Tuna, bluefin ************************************						\$29,860,981	\$2,137,082	\$31,998,063
Tuna, bluefin 6.045,303 61,404 6.096,503 Tuna, skipjack 79,826,760 79,826,760 79,826,760 79,826,760 Tuna, skipjack, black 79,826,760 79,826,760 79,826,760 79,826,760 78,169,927 Tuna, skipjack, black 43,139 11,265 434,45 31,673,419 53,169,427 Tuna, yellowfin 31,073,419 5,706,148 36,706,122,12,030 18,800,635 12,200,035 Total pounds 18,64,040 19,056,500 207,457,474,44 \$5,920,433 \$5,7474,4	Tuna, bigeye					183,220	7,991	191,211
Tuna, skipjack						\$49,907		\$51,705
Tuna, skipjack 79,826,760 79,866,794 87,826,860 Tuna, skipjack, black.	Tuna, bluefin					6.045.303	51,404	6,096,707
Tuna, skipjack 79,826,760 79,866,794 87,826,860 Tuna, skipjack, black.	,					\$1,710,836	\$10,846	\$1,721,682
Tuna, skipjack, black	Tuna, skipjack							87,823,554
Tuna, skipjack, black. 423,139 11,265 434,4 Tuna, yellowfin. 31,073,419 57,060 844 86,781 Total pounds. 18,029,403 \$1,800,635 \$12,030 11,205 434,4 Total value. 186,554,244 \$5,920,433 \$67,474,4 \$5,920,433 \$67,474,4							\$1,969,227	\$21,635,284
Tuna, yellowfin 337,060 \$845 \$37,7 Tuna, yellowfin 31,073,419 \$,708,148 \$6,781,14 Total pounds 188,401,040 19,056,900 207,457,4 Total value \$61,554,244 \$5,920,433 \$67,474,4	Tuna skiniack black							434,404
Tuna, yellowfin 31,072,419 S708,148 36,7812 Total pounds 118,400,635 \$1,800,635 \$12,030, Total value \$61,554,244 \$5,920,433 \$67,474,0	I unu, outpluch, orachi I							\$37,905
Total pounds \$10,229,403 \$1,800,635 \$12,030,0 Total value \$84,01,040 19,056,900 207,457,4 Total value \$81,554,244 \$5,920,433 \$67,474,4	Tune vellowfin							
Total value 188,401,040 19,056,900 207,457,5 Total value \$61,554,244 \$5,920,433 \$67,474,0	I una, yenowin							
Total value \$61,554,244 \$5,920,433 \$67,474,t						\$10,229,403	\$1,000,000	e12,030,038
Total value \$61,554,244 \$5,920,433 \$67,474,t	Total pounds					188,401,040	19.056.900	207,457,940
GRAND TOTAL POUNDS 47.112.790 17.070.709 25.673.911 46.518.304 614.585.598 94.737.843 845.699.1	a orun value					101,001,011	40,000,100	101111011
	GRAND TOTAL POUNDS	47 112 790	17 070 709	25 673 911	46 518 304	614 585 598	94 737 843	845 699 155
								\$162,519,66

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

 TABLE 15

 Value of Landings and Shipments of Commercial Fish Into California by Area, 1972

MARINE LANDINGS 1972

TABLE 16

Value of Landings by Port, Eureka Area, 1972

	Pounds	Value
ureka		
Dover sole	12,200,654	\$998,297
Salmon	1,136,028	801,096
Giant Pacific oyster	751,832	654,094
Dungeness crab	462,009	246,917
Rockfish	2,959,965	198,890
Sablefish	2,102,161	167,646
Albacore	512,255	163 065
Petrale sole	769,160	163,065 129,396
Rex sole	796,511	96,297
English sole	728,427	84,561
Lingcod Sanddab	605,097	63,369
Ocean shrimp	387,721 129,112	46,625 19,367
Smelt	259,046	19,026
Whitebait smelt	92,258	10,423
W Internal V Sinciv.	01,100	10,100
Perch	42,990	8,311
Flounder	78,763	5,758
Sand sole	38,131	4,885
Arrowtooth flounder	87,681	4,398
Grenadiers All other species	64,023 25,916	3,204 1,307
All other sportes	20,010	1,007
Port totals	24,229,740	\$3,726,935
ort Bragg		
Salmon	1,580,623	\$1,103,742 234,498
Dover sole	2,865,904	234,498
Sablefish	2.382.721	190.021
Rockfish	1,758,480	125,438 80,574
Lingcod	769,388	80,574
Details and	401,867	67,606
Petrale sole Dungeness crab	96,453	51,548
Albacore	127 083	40,454
Rex sole	127,083 217,700	26,320
English sole	182,033	21,132
Ocean shrimp	95,852	14,378
Whitebait smelt	36,744 31,107	4,151 2,743
Smelt Arrowtooth flounder	50,284	2,140
Sanddab	8,821	2,522 1,061
All other species	27,273	1,890
Port totals	10,632,333	\$1,968,078
rescent City		
Salmon	503,128	\$338,155
Ocean shrimp	2,044,584	306,691
Dover sole	2,044,584 3,318,218 473,767	271,507
Dungeness crab Rockfish	473,767 1,807,593	253,201 130,528
NOCKIISII	1,007,000	100,020
Albacore	294,184	93,647
Sablefish	918,248	73,230
Lingcod	683,128	71,540
Petrale sole	375,473	63,166
English sole	543,998	63,153
Rex sole	319,974	38,685
Sand sole	153,984	38,685 19,728
Sanddab	128.571	15,461 15,227
Flounder	208,273	15,227
Perch	25,417	4,949
Whitebait smelt	36,157	4,085
All other species	68,989	3,383
Port totals	11,903,686	\$1,766,336
rinidad		400.140
rinidad	174.280	\$93,142
Dungeness crab	174,280 76,231	46,452
	174,280 76,231 2,534	

TABLE 16 Value of Landings by Port, Eureka Area, 1972

FISH BULLETIN 161

TABLE 16—Continued

Value of Landings by Port, Eureka Area, 1972—Continued

	Pounds	Value
Albion Salmon All other species	43,997 16,351	\$30,496 1,377
Port totals	60,348	\$31,873
All other ports Salmon All other species	29,149 4,489	\$18,522 560
Totals	33,638	\$19,082
EUREKA AREA TOTALS	47,112,790	\$7,652,700

TABLE 16Value of Landings by Port, Eureka Area, 1972

MARINE LANDINGS 1972

TABLE 17

Value of Landings by Port, San Francisco Area, 1972

	Pounds	Value
odega Bay Salmon Albacore Dungeness erab Dover sole. Rockfah	1,308,355207,39986,964665,864489,393	\$1,051,798 66,507 59,342 54,724 43,244
English sole Ocean shrimp. Petrale sole. Sablefah. Rex sole.	360,263 213,452 145,693 305,878 89,075	41,238 32,062 23,824 21,754 11,089
Lingcod	$\begin{array}{c} 78,571 \\ 77,140 \\ 31,165 \\ 24,098 \\ 14,929 \\ 10,356 \end{array}$	7,186 5,723 3,635 3,094 2,110 1,332
All other species	21,368	2,450
Port totals	4,129,963 1,335,296 2,081,512 982,308 142,285 149,206	\$1,431,112 \$428,190 171,068 160,632 116,208 101,814
Dungeness cra0 Rockfish English sole	1,009,963 566,066 780,000 299,966 195,325	81,338 64,795 55,474 27,434 22,779
Sand sole. California halibut. Flounder. Rex sole. Perch.	149,714 51,202 215,082 110,208 6,987	$19,258 \\ 17,335 \\ 15,958 \\ 13,720 \\ 2,415$
Shark Ocean shrimp All other species	32,673 6,870 31,126	1,662 1,032 2,731
Port totals	8,145,789	\$1,303,843
ausalito Albacore	1,082,822 270,210 364,656 360,727 9,700	\$347,229 218,612 29,969 28,767 6,150
Dungeness crab	8,148 30,088 63,266 42,431 9,822	5,560 4,920 4,500 2,453 993
Port totals	2,241,870	\$649,153
rinceton Salmon Albacore Dungeness crab California halibut Red abalone	458,820 199,427 55,805 53,296 33,098	\$377,512 63,950 38,080 18,044 15,420
Rockfish	28,133 42,359 9,270 17,411 12,543	2,538 2,218 1,310 1,292 1,408
Port totals	910,162	\$521,772

TABLE 17Value of Landings by Port, San Francisco Area, 1972

TABLE 17—Continued

Value of Landings by Port, San Francisco Area, 1972-Continued

	Pounds	Value
Dakland		
Albacore	572,430	\$183,562
Salmon	86,301	69,148
Dover sole	439,661	36,133
Sablefish	45,610	3,244
Rockfish	47,098	2,632
Dungeness crab	2,063	1,408
All other species	7,181	1,098
Port totals	1,200,344	\$297,225
oint Reves		
Salmon	182,493	\$148,325
Giant Pacific oyster	74.014	64,392
Dungeness crab	17.723	12,094
All other species	3,220	595
Port totals	277,450	\$225,406
Berkeley		
Salmon	52,589	\$43,766
	14,870	10,147
Dungeness crab	5,725	1,505
All other species	5,725	1,505
Port totals	73,184	\$55,418
fomales Bay		
Eastern oyster	9,028	\$26,543
Giant Pacific ovster	21,541	18,740
Pacific herring	12,000	7,608
All other species	4,478	1.094
Port totals	47,047	\$53,985
lichmond		
Perch	16,373	\$5,684
White croaker	16,193	3,095
Salmon	2,106	1,748
All other species	1,613	153
Port totals	36,285	\$10,680
All other ports		
Longiaw mudsucker	1,287	\$3,860
Perch	5,577	1,927
All other species	1.751	874
Totals	8,615	\$6,661
AN FRANCISCO AREA TOTALS	17,070,709	\$4,555,255

TABLE 17 Value of Landings by Port, San Francisco Area, 1972

MARINE LANDINGS 1972

TABLE 18

Value of Landings by Port, Monterey Area, 1972

	Pounds	Value
Nonterey		
Albacore	2,041,166	\$653,204
Rockfish	3,572,445	318,865
Squid	9,724,090	308,722
Sablefish	1,672,717	124,185
Petrale sole	302,083	52,320
Lingcod	236,341	29,513
English sole	222 225	24,328
Spot prawn	222,225 20,970	22,707
Salmon	16 443	14,027
White croaker	16,443 129,787	10,960
Jack mackerel	116,746	9,869
Sanddab	91,423	9,102
California halibut	17,936	7,559
Rex sole	46,300	4,809
Northern anchovy	112,890	2,305
Dover sole	35,945	2,296
Shark.	25,636	1.461
Pacific bonito	18,715	1,347
Skate	43,405	1,006
All other species	43,405 22,123	4,095
Port totals	18,469,386	\$1,602,680
Moss Landing		
Albacore	2,379,734	\$761,551
Salmon	380,417	322,604
Squid	2,534,188	80,456
Northern anchovy	1,075,208	21,958
Pacific herring	2,534,188 1,075,208 102,332	13,416
English sole	87,736	9,605
Rockfish	76,506	8,787
Sablefish	112,016	8,316
Sanddab	75,331	7,500
Petrale sole	75,331 35,928	6,223
Lingcod	27,350	3,415
Smelt	14,007	2,294
Pacific bonito	26,917	1,937
Flounder	10,713	1,291
All other species	62,859	4,892
Port totals	7,001,242	\$1,254,245
Santa Cruz		
Salmon	23,804	\$20,477
California halibut	30,296	12,768
Albacore	31,773	10,168
White seabass	7,937	3,999
Flounder	33,075	3,987
Pacific pompano	4,052	3,876
Rockfish	28,631	3,041
Lingcod All other species	9,508 34,207	1,187 2,697
Port totals	203,283	\$62,200
MONTEREY AREA TOTALS		\$2,919,125
	25,673,911	\$2 919 125

TABLE 18 Value of Landings by Port, Monterey Area, 1972

TABLE 19 Value of Landings by Port, Santa Barbara Area, 1972

Value of Lanungs by Port, San	la Dalbala Alea, 1972	
	Pounds	Value
Morro Bay		
Albacore	3,214,077	\$1,029,381 163,061 112,799
Bockfish	1.848.351	163,061
Red abalone	219,687 287,245	112,799
Petrale sole	287,245	49,165
Salmon	51,264	42,690
Lingcod	385,699	39,159
Giant Pacific ovster	28,586	39,159 24,870
Giant Pacific oyster Dungeness crab	28,586 16,225	11,460
English sole California halibut	63,860	6,869
California halibut	10,751	5,507
White seabass	10,084	5,363
Sea urchin	69,861	3,809
Rock crab	26,655	2.838
Dever colo	31,708	2,773
Perch	8,813	2.733
All other species	21,126	2,622 4,723
All other species	39,609	4,723
Port totals	6,333,601	\$1,509,822
anta Barbara		
Red abalone	640,543	\$328,890
Black abalone	823,505	· 140,162
Rockfish	1,145,397	98,951
Spiny lobster	52,852	79,367
Pink abalone	135,509	74,991
White seabass	58,881 322,332 107,725	31,313
Pasific honito	322,332	27.414
Petrale sole California halibut	107,725	18,438 17,553 16,769
California halibut	34,270	17,553
Swordfish	30,081	16,769
English sole	130,749	14.064
Rock crab	122,272	13,021
Per colo	46,879	5,817
Salmon	6,165 248,370	5,299
Mex sole	248,370	4,967
Lingcod	48,451	4,919
Shark	35,243	4,777
Dower colo	44,905	3,928
Albacore	6,791 3,228	2,175
Green abalone	3,228	1,505
All other species	4,622	1,132
Port totals	4,048,770	\$895,452
Port Hueneme		
Northern anchovy	27,476,975	\$364,475
Pacific bonito	2,258,295	192,066
Squid	3,644,435	52,625 32,227 10,743
Schutzerel	770,600 7,154	10.743
California halibut	9,017	4,618 2,249
Shark	16,065	2,249
Black abalone Red abalone	11,600	1,074
Swordfish	3,491 3,118	1,974 1,792 1,738
Pink abalone	2,347	1,299
White seabass	2,409 55,850	1,281 2,180
All other species	55,850	2,180
Port totals	34,261,356	\$669,267
Avila		
Albacore	698,387	\$223,674
Salmon	72,595	58,872
Red abalone Rockfish	698,387 72,595 78,793 277,169	40,457
Rockfish Petrale sole	277,169 136,134	26,788 23,301

TABLE 19Value of Landings by Port, Santa Barbara Area, 1972

MARINE LANDINGS 1972

TABLE 19—Continued

Value of Landings by Port, Santa Barbara Area, 1972—Continued

	Pounds	Value
Avila—Continued		
English sole	109,280	11.755
Lingeod	81,397	8,264
California halibut	10,039	5,142
Sand sole	28,697	4,018
Rock crab	35,359	3,765
Dungeness crab	4.590	3,242
Miscellaneous (animal food)	120,298	2,406
Pacific bonito	25,250	2,147
	4.002	2,128
White seabass		
Perch	5,505	1,723
Dover sole	16,180	1,415
Miscellaneous sole	12,878	1,339
All other species	23.075	2,597
All other species	20,070	2,091
Port totals	1,739,628	\$423,033
Dxnard		
Spiny lobster	25,892	\$38,882
California halibut	24,965	12,787
	8,183	2,621
Albacore		
Rockfish	17,374	1,905
Pacific bonito	20,275	1,724
Black abalone	9,885	1.682
All other species	18,732	4,064
Port totals	125,306	\$63,665
/entura		
Spiny lobster	804	\$1,207
All other species	7,101	1.285
Port totals	7,905	\$2,492
All other ports		
All species	1,738	\$198
Totals	1,738	\$198
SANTA BARBARA AREA TOTALS	46.518.304	\$3,563,929

TABLE 19Value of Landings by Port, Santa Barbara Area, 1972

TABLE 20 Value of Landings and Shipments by Port, Los Angeles Area, 1972

	Pounds	Value
erminal Island		
Landings		
Yellowfin tuna	194,545,756	\$42,922,551
Skipjack tuna Bluefin tuna	24,289,458	4,859,479
Juck mackard	14,971,867 44,562,634	3,221,888
Jack mackerel Albacore	4,682,619	1,872,255 1,597,007
Pacific bonito	14,565,776	1,344,065
Northern anchovy	105,291,561	1,215,376
Northern anchovy	900,681 187,225	69,096
Sardine	35,648	40,812 5,347
Perch	107,825 71,795 1,100	4,363
Pacific mackerel	71,795	4.089
All other species	1,100	24
Total landings	404 912 045	#E7 156 959
1 otai landings	404,213,945	\$57,156,352
Shipments* Albacore	70,849,199	\$29,860,981
Skipjack tuna	79,789,260	19,656,819
Vellowfin tuna	31.073.419	10.229.403
Bluefor tupe	6,045,303	1,710,836
Bigeve tups	6,045,303 183,220	1,710,836 49,907
Black skipjack tuna	423,139	37,060
Total shipments	188,363,540	\$61,545,006
Port totals	592,577,485	\$118,701,358
an Pedro		
Landings		
Pacific bonito	2,656,247	\$245,107
White seabass	389,220	188,453
In the mankened	3,821,160	160,542
Spiny lobster	99,378	156,343 129,303
Rockfish	618,535	129,303
Green abalone	256,806	124,412
Bluefin tuna	568,534	122,346
Squid.	4,255,000	91,927 76,217
Pink abalone Rock crab	155,284 503,827	73,989
Rock crao	000,047	10,000
Swordfish	106.468	63,413
Yellowfin tuna	106,468 218,350	48,174 43,594
Pacific sardine	290,661	43,594
Pacific pompano	146,975	36,492
White abalone	57,541	33,154
Giant sea bass	87.131	26,526
Vellowtail	172,087	23,775
Albacore	59,440	20,272
Black abalone	121,433	19,972
Flyingfish	128,106	19,782
O life of heliked	40,069	19,632
California halibut White croaker	202,588	16,161
Northern anchovy	1,174,579	13,558
Shark	71,957	12,316
Red abalone	71,957 19,745	9,823
Black skipjack tuna	92,063	7,063
Smelt	96,521	4,916
Opaleye	15,082	3,905
Opaleye California barracuda	9.144	3,278
Seulpin	4,871	2,002
Pacific mackerel	33,471	1,906
Perch	13,172	1,877
Halfmoon	5,914	1,453
Skipjack tuna	5,317	1,064 3,845
All other species	71,061	0,010
Port totals	16,567,737	\$1,806,592

TABLE 20Value of Landings and Shipments by Port, Los Angeles Area, 1972

MARINE LANDINGS 1972

TABLE 20—Continued

Value of Landings and Shipments by Port, Los Angeles Area, 1972—Continued

	Pounds	Value
Wilmington		
Landings		
Jack mackerel	1,832,938 423,662	\$77,009 39,094
Pacific bonito	423,662	39,094
Northern anchovy	2,515,914	29,041
Blacksmith	67,880	2,375
Spiny lobster	930	1,463
Black abalone	8,575	1,410
All other species	27,008	1,650
Total landings	4,876,907	\$152,042
Shipments*		
Skipjack tuna	37,500	\$9,238
Total shipments	37,500	\$9,238
Port totals	4,914,407	\$161,280
Dana Point		
Landings		
Spiny lobster	35,541	\$55,914
Rockfish	6,553 2,787	1,544 736
All other species	2,787	736
Port totals	44,881	\$58,194
Redondo Beach		
Landings		
Spiny lobster	23,133 119,404	\$36,393
Rock crab	119,404	17,535 1,752
White seabass	3,618	1,752
Rockfish	8,474	1,750
All other species	2,767	665
Port totals	157,396	\$58,095
Newport Beach		
Landings		
Spiny lobster White seabass	7,550	\$11,878
White seabass	18,042	8,736 8,362
Albacore	24,519	8,362
Swordfish	13,702 25,337	8,161
Rockfish	25,337	6,045
All other species	11,066	1,873
Port totals	100,216	\$45,055
ong Beach		
Landings		
Spiny lobster Northern anchovy	2,455	\$3,862
Northern anchovy	192,384	2,221
All other species	585	329
Port totals	195,424	\$6,412
Malibu		
Landings		
Spiny lobster	1,457	\$2,292
All other species	5,845	1,005
Port totals	7,302	\$3,297
Avalon		
Landings		
All species	4,780	\$2,688
Port totals	4,780	\$2,688
	-,	
Santa Monica Landings		
		\$1,257
Rockfish	7,598	1,20/
	7,598 2,983	1,163

TABLE 20Value of Landings and Shipments by Port, Los Angeles Area, 1972

TABLE 20—Continued

Value of Landings and Shipments by Port, Los Angeles Area, 1972—Continued

	Pounds	Value	
Playa Del Rey Landings			
All species	2,996	\$1,333	
Port totals	2,996	\$1,333	
All other ports Spiny lobster	2,393	\$3,765	
Totals	2,393	\$3,765	
LOS ANGELES AREA TOTALS	614,585,598	\$120,850,489	

• Beginning in 1965 only tuna shipments are recorded.

TABLE 20Value of Landings and Shipments by Port, Los Angeles Area, 1972

TABLE 21

Value of Landings and Shipments by Port, San Diego Area, 1972

San Diego Landings Yellowin tuna. Skipjack tuna. Bluefin tuna. Abacore. Pacific bonito. Spiny lobster. White seabass. Rockfah. Green abalone. Swordfish. Pink abalone. White sabalone. Subordin tuna. Black slone. Yellowtail California halibut. Pacific bardine. Black slopiek tuna. Black tuna. Slopments' Albacore. Skipjack tuna. Bluefin tuna.	$\begin{array}{c} 46,940,841\\ 11,550,109\\ 9,337,320\\ 3,511,585\\ 1,940,906\\ 114,662\\ 265,103\\ 522,844\\ 161,224\\ 108,131\\ 108,121\\ 86,123\\ 107,103\\ 126,667\\ 87,100\\ 81,350\\ 20,821\\ 45,700\\ 116,386\\ 32,269\\ 22,467\\ \end{array}$	\$10,376,089 2,355,349 1,967,421 1,185,051 140,543 140,5457 140,5457 140,5457 140,5457 140,5457 140,5457 140,5457 52,1459 45,2033 19,315 14,355 11,734 11,279 8,727
Landings Yellowin tuna. Skipjack tuna. Bluefin tuna. Albacore. Pacific bonito. Spiny lobster. White seabass. Green abalone. Swordfish. Pink abalone. Pink abalone. Swordfish. Yellowtail. California halbut. Pacific sardine. Black abalone. Black abalone. Black abalone. Perch. Rock crab. Halfmoon. Giant sea bass. Dolphinfish. California barracuda. All other species. Total landings. Stippack tuna. Yellowin tuna.	$11,650,109\\9,337,320\\3,511,585\\1,940,906\\114,662\\265,103\\562,844\\161,224\\108,131\\108,121\\86,123\\107,103\\126,667\\87,100\\81,350\\20,821\\45,700\\116,366\\32,269\\22,467$	$\begin{array}{c} 2,355,349\\ 1,967,421\\ 1,185,051\\ 195,434\\ 181,925\\ 140,587\\ 117,188\\ 87,909\\ 66,911\\ 56,037\\ 52,483\\ 52,2189\\ 45,203\\ 19,315\\ 14,355\\ \end{array}$
Skipjack tuna. Slucin tuna. Albacore. Pacific bonito. Spiny lobster. White scabass. Rockfish. Pink abalone. Swordfish. Pink abalone. White abalone. Swordfish. Yellowtail. California halbut. Pacific sardine. Black abalone. Black abalone. Black abalone. Perch. Rock rab. Halfmoon. Giant sea bass. Dolphinfish. California barracuda. All other species. Total landings. Stippack tuna. Stippack tuna. Stippac	$11,650,109\\9,337,320\\3,511,585\\1,940,906\\114,662\\265,103\\562,844\\161,224\\108,131\\108,121\\86,123\\107,103\\126,667\\87,100\\81,350\\20,821\\45,700\\116,366\\32,269\\22,467$	$\begin{array}{c} 2,355,349\\ 1,967,421\\ 1,185,051\\ 195,434\\ 181,925\\ 140,587\\ 117,188\\ 87,909\\ 66,911\\ 56,037\\ 52,483\\ 52,2189\\ 45,203\\ 19,315\\ 14,355\\ \end{array}$
Bluefin tuna. Albacore. Pacific bonito. Spiny lobster. White seabass. Rockfish. Green abalone. Swordfish. Pink abalone. White abalone. White abalone. Black abalone. Black abalone. Black abalone. Black abalone. Pacific sardine. Black abalone. Pacific sardine. Black abalone. Perch. Rock crab. Halfmoon. Giant sea bass. Dolphinfornis barracuda. All other species. Total landings.	9,337,320 3,511,585 1,940,906 114,662 265,103 522,844 161,224 108,131 108,121 86,123 107,103 126,667 87,100 81,350 20,821 45,700 116,366 32,269 22,467	1,967,421 1,185,051 1195,434 181,925 140,057 117,188 87,009 66,011 56,037 52,483 52,483 52,480 52,483 52,480 45,203 19,315
Bluefin tuna_ Albacore	3,511,585 1,940,906 114,662 265,103 562,844 161,224 108,131 108,121 86,123 107,103 126,667 87,100 81,350 20,821 45,700 116,356 32,269 22,467	$\begin{array}{c} 1,185,061\\ 195,434\\ 181,925\\ 140,587\\ 117,188\\ 87,909\\ 66,911\\ 56,037\\ 52,483\\ 52,2189\\ 45,203\\ 19,315\\ 14,355\\ \end{array}$
Pacific bonito. Spiny lobster White scabass. Rockfish. Green abalone. Swordfish. Pink abalone. White scalass. Rockfish. Pink abalone. White scalass. Rockfish. Pink abalone. Rock abalone. Rock abalone. Stark. Yellowtail California halibut. Pacific scafilee. Black skipjack tuna. Black abalone. Perch. Rock crab. Halfmoon. Giant sea bass. Dolphinfish. California barsecida. All other species. Total landings. Shipments* Albacore. Skipinack tuna. Skipinack tuna. Skipinack tuna.	1,940,906 114,692 265,103 522,844 161,224 108,121 108,123 107,103 126,667 87,100 81,350 20,821 45,700 116,366 32,269 22,467	195,434 181,925 140,587 117,188 87,909 66,911 56,037 52,483 52,189 45,203 19,315 14,355
Spiny lobster	114,692 265,103 562,844 161,224 108,131 108,121 86,123 107,103 126,667 87,100 81,350 20,821 45,700 116,366 32,269 22,467	181,925 140,587 117,188 87,909 66,911 52,483 52,189 45,203 19,315 14,355
White seabass. Green abalone. Swordfish. Pink abalone. White abalone. Red abalone. Swordfish. Yellowtail California halibut. Pacific sarcine. Black shalone. Pacific sarcine. Black shalone. Perch. Giant sea bass. Dolphinfish. California barracuda. All other species. Total landings. Shipments* Albacore. Skipjack tuna.	265,103 562,84 161,224 108,131 108,121 86,123 107,103 126,667 87,100 81,350 20,821 45,700 116,366 32,269 22,467	117,188 87,909 66,911 56,037 52,483 52,189 45,203 19,315 14,355
Rockfsh. Green abalone. Swordfsh. Pink abalone. Red abalone. Red abalone. Sculpin. Shark Yellowisil California halibut. Pacific sardine. Black skipiack tuna. Skipments* Albacore. Skipiack tuna. Yellowfin tuna.	522,844 161,924 108,131 108,121 86,123 107,103 126,667 87,100 81,350 20,821 45,700 116,366 32,269 22,467	117,188 87,909 66,911 56,037 52,483 52,189 45,203 19,315 14,355
Swordfish	$161,224\\108,131\\108,121\\86,123\\107,103\\126,667\\87,100\\81,350\\20,821\\45,700\\116,366\\32,269\\22,467$	56,037 52,483 52,189 45,203 19,315 14,355
Swordfish	108,131 108,121 86,123 107,103 126,667 87,100 81,350 20,821 45,700 116,366 32,269 22,467	56,037 52,483 52,189 45,203 19,315 14,355
Pink abalone. White abalone. Red abalone. Sulpin. Sulpin. Shark. Yellowtail. California halibut. Pacific sardine. Black shalone. Black shalone. Perch. Rock crab. Halmoon. California barrenda. All other species. Total landings. Shipments* Albacore. Skippack tuna.	108,121 86,123 107,103 126,667 87,100 81,350 20,821 45,700 116,366 32,269 22,467	56,037 52,483 52,189 45,203 19,315 14,355
White abalone	81,350 20,821 45,700 116,366 32,269 22,467	45,203 19,315 14,355
Red abalone	81,350 20,821 45,700 116,366 32,269 22,467	45,203 19,315 14,355
Sculpin	81,350 20,821 45,700 116,366 32,269 22,467	45,203 19,315 14,355
Shark Yellowtail California halibut. Pacific sardine. Black skipiack tuna. Black skipiack tuna. Black skipiack tuna. Black skipiack tuna. California barracuda. All other species. Total landings. Skipments* Albacore. Skipiack tuna. Yellowfin tuna.	81,350 20,821 45,700 116,366 32,269 22,467	14.355
Yellowtail California halibut. California halibut. Pacific sardine. Black skipjack tuna. Black shalone. Perch. Rock crab. Rock crab. Halfmoon. Giant sea bass. DolphinBar. DolphinBar.acuda. All other species. Total landings. Shipments* Albacore. Skipjack tuna. Yellowfin tuna. Yellowfin tuna.	81,350 20,821 45,700 116,366 32,269 22,467	14.355
Čalifornia halibut. Pacific sarvine. Black skipjack tuna. Black skalone. Perch. Rock crab. Halfmoon. Giant see bass. Dolphinfar. All other species. Total landings. Shipments* Albacere. Skipjack tuna. Yellowfin tuna.	20,821 45,700 116,366 32,269 22,467	14,355 11,734 11,279
Pacific sardine. Black skipiack tuna. Black abalone. Perch. Rock crab. Halfmoon. Giant sea bass. Dolphinfish. California barracuda. All other species. Total landings. Shipments* Albacore. Skipjack tuna. Yellowfin tuna.	45,700 116,366 32,269 22,467	11,279
Black skipjack tuna. Black skipjack tuna. Perch. Rock crab. Halfmoon. Giant sea bass. Dolphinfs. California barracuda. All other species. Total landings. Shipments* Albacore. Skipjack tuna. Yellowfin tuna.	116,366 32,269 22,467	11,2/9
Black abalone Perch Rock crab. Halfmoon California barracuda. All other species. Total landings. Shipments* Albacore. Skipjack tuna. Yellowfin tuna.	32,269 22,467	
Perch	22,467	7,444
Rock crab. Halfmoon. Giant sea bass. Dolphinfish California barracuda. All other species. Total landings. Shipments* Albacore. Skipjack tuna. Yellowfin tuna.	22,407	5,922
Halfmoon		3,007
Giant sea bass. Dolphinfish California barracuda All other species Total landings Shipments* Albacore Skipjack tuna	19,053 8,740	2,342
Dolphinfish. California barracuda. All other species. Total landings. Shipments* Albacore. Skipjack tuna. Yellowfin tuna.	7,198	1,943
All other species	4,823	1,674
All other species	3 126	1,015
Shipments* Albacore	3,126 21,953	4,095
Shipments* Albacore Skipjack tuna. Yellowfin tuna.	75,451,735	\$16,972,628
Albacore		
Skipjack tuna Yellowfin tuna	5,281,298	\$2,137,082
Yellowfin tuna	7,996,794	1,969,227
	5,708,148	1,800,635
	51,404	10,846
Bigeye tuna	7,991	1,798
Black skipjack	11,265	845
Total shipments	19,056,900	\$5,920,433
Port totals	94,508,635	\$22,893,061
ceanside		
Landings	17 000	*99.000
Spiny lobster	17,666	\$28,022
Rockfish	95,139	21,395
White seabass	13,963 28,819	7,405 6,751
	-	3,341
Halfmoon	12,468	2,919
Pacific bonito	28,987 5,058	1,707
Albacore California halibut	2,345	1,322
All other species	15,027	3,419
Port totals	219,472	\$76,281
	210,172	\$10,201
Landings		
Spiny lobster	4,838	\$7,674
All other species	4,898	1,147
Totals		\$8,821
AN DIEGO AREA TOTALS	9,736	\$22,978,163

• Beginning in 1965 only tuna shipments are recorded.

TABLE 21
Value of Landings and Shipments by Port, San Diego Area, 1972

TABLE 22 Statewide Commercial Partyboat Catch by Species (Not including anchored barges) 1963–1972 *											
Species	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	
Barraeuda, California Bass, kelp and sand Bonito, Pacific. Cabezon Halibut, California	483,699 1,219,344 775,719 9,726 125,669	303,070 1,103,394 1,298,804 6,491 141,465	443,304 1,230,313 806,322 7,575 118,213	892,697 1,278,939 644,415 10,293 88,726	470,480 1,003,914 349,952 5,419 63,582	372,246 1,317,963 1,102,936 4,349 54,663	358,518 1,246,175 1,130,241 4,583 27,634	373,801 922,260 651,898 6,372 29,968	50,474 948,121 152,795 4,611 10,598	38,243 842,681 418,984 11,452 8,140	A TOTA
Lingeod Mackerel, jack Mackerel, Pacific Rockfish Salmon	27,513 9,342 146,560 962,659 72,457	$25,263 \\ 6,577 \\ 101,219 \\ 966,801 \\ 92,021$	33,260 25,619 151,896 1,347,430 51,677	44,676 19,027 205,090 1,688,718 70,151	43,559 16,236 108,366 1,894,057 84,946	42,449 13,588 78,933 2,102,859 127,584	32,693 11,272 120,036 1,978,981 111,389	61,833 15,725 129,770 2,663,882 98,301	$\substack{b3,239\\10,611\\224,223\\2,222,943\\130,812}$	103,965 5,913 245,882 3,054,959 151,595	DO LINE ALA
Seulpin	53,896 19,800 18,443 158,372 737	73,844 14,901 26,822 112,358 693	71,888 9,775 41,651 99,771 92	69,851 3,972 52,967 74,680 1,998	63,280 3,385 42,676 96,497 3,166	59,863 4,138 33,075 129,710 1,231	63,011 4,056 49,626 48,887 1,470	82,522 4,359 39,464 112,106 1,833	84,913 5,265 38,300 160,361 749	65,886 3,858 33,541 86,890 1,470	
Whitefish, ocean	$\begin{array}{r} 6,231\\ 45,705\\ 142,630\end{array}$	6,949 39,104 114,400	13,810 18,367 163,595	15,587 80,163 166,470	18,184 31,392 145,073	22,155 58,049 205,410	36,474 79,202 421,327	40,990 97,376 298,375	29,800 44,608 421,729	24,632 59,031 305,283	
Total number of fish	4,278,502	4,434,176	4,634,558	5,408,420	4,444,164	5,731,201	5,725,575	5,630,835	4,604,152	5,462,405	
Number of anglers	643,155	695,445	688,103	857,000	780,102	849,654	802,811	873,327	728,126	792,618	

 TABLE 22

 Statewide Commercial Partyboat Catch by Species (Not including anchored barges) 1963–1972

TABLE 23 Inshore Bait Landings by Area Pounds and Value 1972

Species	Sacramento	San Francisco and Monterey	Los Angeles	San Diego	Statewide*
Clam Freshwater	640.527				640.527
11001#4001	\$67,430				\$67,430
Gaper	••••				471
					\$118
Jacknife			45,551	12,653	58,204
			\$30,580	\$7,612	\$38,192
Purple			1,423	14,316	15,739
			\$810	\$6,919	\$7,729
Unclassified					90
					\$52
Crab					
Sand			6,786	28	6,814
isanu			\$20,770	\$175	\$20,945
Shore			25		26
5.0010111111111111111111111111111111111			\$5		\$7
Crayfish					3,979
•					\$1,544
Killifish					11
					\$32
Mudsucker, longjaw				223	6,511
				\$88	\$5,830
Mussel (bay and rock)			101,114	14,428	115,799
Challe in the share	702	185	\$17,121	\$2,024	\$19,171 887
Sculpin, staghorn	\$2,297	\$695		·	\$2,992
Shrimp	\$2,297	\$095			\$2,992
Bay	71,402	1,665			73.067
Day	\$113,433	\$2,423			\$115,856
Brine	¥110,100	42,120			300,065
21					\$174,934
Ghost			15,672	5,882	21,554
			\$35,718	\$11,222	\$46,940
Red			1,103		1,103
			\$1,103		\$1,103
		1.050		47 500	1 044 047
Total	712,631	1,850	171,674	47,530	1,244,847
	\$183,160	\$3,118	\$106,107	\$28,040	\$502,875

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

TABLE 23 Inshore Bait Landings by Area Pounds and Value 1972

TABLE 24

Recorded Catch of Live Bait for Saltwater Sportfishing 1968–1972

	Thousands of pounds*								
Species	1968	1969	1970	1971	1972				
Anchovy	$ \begin{array}{r} 14,353 \\ 158 \\ \\ 57 \\ \\ 23 \\ 57 \\ \end{array} $	10,627 103 8 34 9 	12,210 6 4	12,774 9 1 T 10 	11,700 5 T T 16				
Total pounds	14,648	10,781	12,220	12,794	11,721				
Number of Vessels‡	19	10	11	14	12				

Weights are estimated from voluntary records. They should be regarded as minimal because some fishermen do not supply catch information.
T Less than 500 pounds.
† Consists primarily of queenfish and white croaker.
‡ The number of live bait fishing vessels for which landings were reported. These numbers differ slightly from those in previous catch bulletins, since the earlier landing records, as submitted, sometimes included the catch of more than one boat.

TABLE 24

Recorded Catch of Live Bait for Saltwater Sportfishing 1968–1972

			C	aliforni	a Ocean N	Recreat Ionth an	ional Sa Id Speci	lmon La es, in Ni	ndings a umbers (nd Succ of Fish—	ess 1 by -1972	Fishery	, Port,						
		February			March		April		May			June			July			FISH	
	King	Silver	Fish /Day	King	Silver	Fish /Day	King	Silver	Fish /Day	King	Silver	Fish /Day	King	Silver	Fish /Day	King	Silver	Fish /Day	
Crescent City Partyboat Skiff	0	0	:	0	0	:	0	0	:	0	2	:	6 185	11 541	0.4	55 318	116 2,928	0.4	BULLETIN
Eureka Partyboat Skiff	0.	0	:	2	3	:	2	3	:	119	150	:	303 966	379 3,258	0.5	620 3,083	774 11,418	1.1 0.9	191 N
Fort Bragg Partyboat Skiff	0	0	:	4	4	:	26	27	:	260	260	:	437 597	437 585	0.4	1,113 2,082	1,659 4,202	$^{1.2}_{0.7}$	
San Francisco Partyboat Skiff	21,312 10,425	0	$^{2.1}_{1.5}$	21,086 8,525	123 0	$1.5 \\ 1.4$	8,258 6,065	956 435	$^{0.9}_{1.0}$	5,800 1,813	5,228* 812	$^{1.8}_{1.2}$	$15,340 \\ 2,394$	469 181	1.5 0.6	19,274 2,917	61 33	$^{1.5}_{1.1}$	
Monterey Partyboat Skiff	221 1,225	0	0.2	108 1,200	8	0.2	$152 \\ 1,367$	11 8	ь 0.6	241 866	17 809	0.3	190 1,107	13 768	ь 0.5	98 1,755	7 95	0.9	
Statewide Partyboat Skiff	21,533 11,650	0	2.1 0.9	21,200 9,725	138 0	$^{1.5}_{0.8}$	8,438 7,432	997 443	0.9 0.9	6,420 2,679	5,657* 1,621	1.8 0.6	16,276 5,249	1,309 5,333	1.5 0.5	21,160 10,155	2,617 18,676	$^{1.4}_{0.8}$	

TABLE 25

 TABLE 25

 California Ocean Recreational Salmon Landings and Success¹ by Fishery, Port, Month and Species, in Numbers of Fish—1972

	August			Septembe	r	October			November			December			Season			
	King	Silver	Fish /Day	King	Silver	Fish /Day	King	Silver	Fish /Day	King	Silver	Fish /Day	King	Silver	Fish /Day	King	Silver	Fish /Day
Crescent City Partyboat Skiff		74 799	0.4 0.3	36	1 26	0.2	0	0	:	0	0	:	0	0	;	97 1,077	204 4,294	0.4 0.4
Eureka Partyboat Skiff	142 1,437	627 4,701	0.8	26 179	116 220	0.4	3	14	:	0	1	:	0	0	:	1,217 5,665	2,067 19,597	1.0 0.7
Fort Bragg Partyboat Skiff	168 169	221 736	0.4 0.3	8 10	11 10	0.1	0	0	:	0	0	:	0	0	:	2,016 2,858	2,619 5,533	1.0 0.6
San Francisco Partyboat Skiff		28 21	1.7 1.0	17,361 2,838	0 12	1.6 1.1	7,439 1,600	18 0	0.9 1.2	515 512	0 13	0.4 1.0	0	8	:	135,485 41,018	6,883* 1,507	1.5 1.1
Monterey Partyboat Skiff		1 27	ь 0.6	11 1,043	2 57	0.8	1 400	1 25	0.2	0 100	0	0.2	0	8	:	1,028 10,061	60 1,789	ь 0.4
Statewide Partyboat Skiff	19,449 7,101	951 6,284	1.5 0.6	17,409 4,076	130 325	1.6 0.8	7,443 2,000	33 25	0.9	515 612	1 13	0.4	0	0	:	139,843 60,679	11,833* 32,720	1.5 0.7

TABLE 25—Cont'd.

	California Commercial Troll Salmon Landings by Port-Area, Month and Species, in Pounds * and Numbers—1972														
	A	pril	May		June		July		August		September		Season		
	Pounds	Numbers	Pounds	Numbers	Pounds	Numbers	Pounds	Numbers	Pounds	Numbers	Pounds	Numbers	Pounds	Numbers	
Crescent City King Silver Pink	0 0 0	0 0 0	159,816 14,816 0	18,777 2,969 0	132,050 60,682 0	14,994 10,752 0	35,285 75,262 0	3,775 11,461 0	13,037 10,887 0	1,266 1,315 0	$1,293 \\ 0 \\ 0$	259 0 0	341,481 161,647 0	39,071 26,497 0	FISH
Eureka King Silver Pink	114 0 0	20 0 0	487,970 12,647 22	54,398 2,568 7	303,145 130,759 34	36,135 23,106 9	150,587 64,993 0	15,407 8,966 0	17,109 36,588 0	2,123 4,585 0	$^{3,431}_{2,672}$	281 330 0	962,356 247,659 56	108,364 39,555 16	
Fort Bragg King Silver Pink	0 0 0	0 0 0	274,036 23,100 0	30,145 4,394 0	316,077 87,271 14	28,839 14,483 4	510,277 263,006 0	43,572 34,901 0	121,524 37,372 0	10,808 4,563 0	20,119 3,161 0	1,608 424 0	1,242,033 413,910 14	114,972 58,765 4	BULLETIN
San Francisco King Silver Pink	125 0 0	20 0 0	545,459 19,452 0	49,156 3,545 0	595,413 111,711 85	46,994 17,154 23	446,139 56,876 0	36,026 7,342 0	555,227 24,774 0	46,236 2,927 0	$146,824 \\ 1,124 \\ 0$	11,126 142 0	2,289,187 213,937 85	189,558 31,110 23	161
Monterey King Silver Pink	2,805 0 0	$281 \\ 0 \\ 0$	270,091 3,950 0	19,722 767 0	160,346 5,098 0	12,440 801 0	39,312 3,819 0	2,956 465 0	$24,799 \\ 286 \\ 0$	$^{1,844}_{\ 29}_{0}$	40,369 49 0	2,995 5 0	537,722 13,202 0	40,238 2,067 0	
Statewide King Silver Pink	3,044 0 0	321 0 0	1,737,372 73,965 22	172,198 14,243 7	1,507,031 395,521 133	139,402 66,296 36	1,181,600 463,956 0	101,736 63,135 0	731,696 109,907 0	62,277 13,419 0	212,036 7,006 0	16,269 901 0	5,372,779 1,050,355 155	492,203 157,994 43	
1 Dressed, head on.															

TABLE 26

TABLE 26California Commercial Troll Salmon Landings by Port-Area, Month and Species, in Pounds¹ and Numbers—1972

					APPEND	IX I							
		M	ionthly L	andings l	From Inla	nd Water	's During	1972					
Species	January	February	March	April	May	June	July	August	September	October	November	December	Totals
LANDINGS Fish Blackfish, Sacramento Carp Lamprey	33,015	29,070 21,104	74,210 20,955	46,800 17,500 1,500	58,700 12,700	2,091 167				22,800 4,700	41,133 46,390	36,825 40,175	337,412 196,706 1,500
Crustacean Crayfish	106	58	101	110	42,646	12,186	590	6,330	7,975	553	669	1,484	72,808
Mollusk Snail, freshwater						·					85	327	412
Amphibia Frog	625	1,802	2,182	690	1,219	1,025	1,690	128	598	1,228	213	50	11,450
Total pounds	59,529	52,034	97,448	66,600	115,265	15,469	2,280	6,458	8,573	29,281	88,490	78,861	620,288

APPENDIX I Monthly Landings From Inland Waters During 1972

52

County and species	Pounds	Value	County and species	Pounds	Value
Alameda			San Diego		
Crayfish	2,417	\$1,984 450	Carp	475	\$71
Lamprey Frog	1,500 6,410	4,048	County totals	475	\$71
County totals	10,327	\$6,482	San Joaquin	60	\$5
Contra Costa			Carp Crayfish	1,339	413
Blackfish, Sacramento	330,095	\$66,019	Frog Snail, freshwater	224	144
Carp	190,415	15,449	Snail, freshwater	327	53
County totals	520,510	\$81,468	County totals	1,950	\$615
Lake			Solano		
Blackfish, Sacramento	3,181 3,949	\$636 320	Crayfish	3,113	\$959
Carp			County totals	3,113	\$959
County totals	7,130	\$956	Stanislaus		
Madera			Carp	1,807	\$147
Crayfish	20	\$9	Blackfish, Sacramento	4,136	827
Frog	1,282	963	County totals	5.943	\$974
County totals	1,302	\$972		0,040	
			Yuba	~ ~	
Merced Crayfish	661	\$309	Frog	813	\$524
Frog	397	298	County totals	813	\$524
Frog Snail, freshwater	85	17	Grand total	620,288	\$115,255
County totals	1,143	\$624		620,288	\$115,255
Sacramento			Recap Blackfish, Sacramento	337,412	\$67,482
Cravfish	65,258	\$20,111	Carp.	196,706	15,992
Frog	2,324	1,499	Lamprey	1,500	450
County totals	67.582	\$21,610	- Frog	11,450 72,808	7,476 23,785
County totals	07,082	\$21,010	Crayfish Snail, freshwater	412	23,185
			Grand total	620,288	\$115,255

APPENDIX II Value of Landings From Inland Waters by County During 1972

APPENDIX II Value of Landings From Inland Waters by County During 1972

marine landings 1972

APPENDIX III Kelp harvest in tons

Year	Open Beds	Leased Beds	Total Tons
916	134,537.00		134,537.00
917	394,974.00		394,974.00
918	395,098.00		395,098.00
919	16,673.00		16,673.00
920	25,464.00		25,464.00
931		260.00	260.00
932	301.61	10,013,08	10,314.69
933	52.75	21,568,65	21,621,40
34	1.827.21	14,052,57	15,879.78
935		30,601.83	30,601.83
36	14,336.70	34,980.34	49,317.04
937	9,612.70	34,340.65	43,953.35
938	18,284.06	29,413.25	47,697.31
39	25,546.30	31,189.70	56,736.00
940	33,322.20	25,682.20	59,004.40
941	36,103.00	19,614.00	55,717.00
942	44,880.11	17,017.65	61,897.76
943	19,547.44	28,410.86	47,958.30
944	22,710.50	30,319.40	53,029.90
945	37,541.30	21,639.90	59,181.20
946	60,384.90	30,683.60	91,068.50
947	46,028.80	28,207.80	74,236.60
948	50,966.10	27,675.00	78,641.10
949	56,076.00	27,270.00	83,346.00
950	49,955.00	50,647.00	100,602.00
951	30,318.00	84,442.00	114,760.00
952	37,906.00	72,252.50	110,158.50
953	37,172.50	89,476.50	126,649.00
954	40,269.00	65,946.50	106,215.50
955	38,992.00	85,071.00	124,063.00
956	35,476.50	82,339.00	117,815.50
957	32,810.75	61,396.50	94,207.25
958	41,105.75	72,955.75	114,061.50
959	42,289.65	47,309.45	89,599.10
960	61,914.95	58,384.85	120,299.80
961	71,952.70	57,303.30	129,256.00
962	86,227,70	54,005,10	140,232,80
963	57,517.00	63,514,80	121,031.80
964	35,592,90	91,660,85	127,253.75
965	33,464.10	101,664.90	135,129.00
966	11,100.70	108,363.20	119,463.90
967	9,331.00	122,164.00	131,495.00
968	20,388.20	114,465.15	134,853.35
969	10,028.70	121,210.50	131,239.20
970	8,058.00	118,981.00	127,039.00
971	19,476.00	136,083.00	155,559.00
972	12,332.00	150,179.00	162,511.00

• No data available 1921-1930.

APPENDIX III KELP HARVEST IN TONS

4. DESIGNATED COMMON NAMES OF CERTAIN MARINE ORGAN-ISMS OF CALIFORNIA

DOYLE E. GATES and HERBERT W. FREY

Marine Resources Region

4.1. INTRODUCTION

Common names of the more important fishes have been designated by the California Department of Fish and Game for many years. The original purpose was to assist in collecting accurate catch statistics. For the Department to understand the State's many fisheries it is essential that the catch of each species be known. A consistent terminology on the part of both the commercial fishing industry and the sportsman is of great importance in the collection of catch records since confusion and inaccuracy result when a particular species is listed by different names in different parts of California or if a certain common name refers to any of several species.

In California as elsewhere in the world, common nomenclature of marine organisms did not grow up with the language as in Europe or Asia. The people who settled here naturally named things because of similarities—either real or apparent, superficial or significant—to familiar species in their homeland. As a result when California initiated its recording system for commercial landings in 1916, the need for more uniform terminology with respect to common names became readily evident. A chaotic situation existed with a given species being identified by different names in different parts of the state, in different fisheries, or even in adjacent fish markets, and a number of species being referred to by a single name.

The State Legislature enacted a law in 1919 to help bring some order to collecting records concerning California fisheries. This regulation stated: ""The names used in the record for designating the variety of species of fish handled must be the name which is in common usage, and the Fish and Game Commission shall have the power to decide what is the common usage name of any variety."" In 1933, the law was amended to substantially its present form and its application limited to commercial varieties in connection with fish receipts. It now forms Section 8013 of Part 3 (Commercial Fishing), Article 6 (Commercial Fishing Reports), California Fish and Game Code, and reads: ""The names used in the receipt for designating the species of fish dealt with shall be those in common usage, and may be designated by the Department."" Section 45 of General Provisions and Definitions in the Fish and Game Code states: ""Fish means wild fish, mollusks, or crustaceans, invertebrates, or amphibians, including any part, spawn, or ova thereof.""

While the present law specifically applies to commercial landings, the Department has designated common names to species taken by other than commercial fishermen in an effort to insure uniformity in State publications and records, and in an attempt to attain common usage on the part of all fishermen.

4.2. PRIOR LISTS

Walford (1931) prepared the first comprehensive list to establish official common names of California fishes which were handled commercially, or which were of particular interest to fishermen or dealers. The more important fresh-water fishes, marine bony fishes, sharks and rays, marine mollusks, and marine and freshwater crustaceans were covered. Several of the names on this list were coined and not accepted by the public, others proved detrimental to marketing, and with the passage of time some of the scientific nomenclature changed. A revised official list was prepared by Roedel (1948), and reasons for name changes were set forth by the smae author in 1949. Roedel prepared a revised and expanded official list of common names in 1953, and 9 years later authored a revised and enlarged version (Roedel 1962).

In 1950 Shapovalov and Dill assigned common names to all freshwater fishes of California. This list was revised and expanded in 1959 (Shapovalov, Dill, and Cordone).

Committees of the American Fisheries Society on Names of Fishes have prepared three lists of common and scientific names of fishes from the United States and Canada (Amer. Fish. Soc. 1948, 1960, 1970). These lists have been widely used and have contributed to eliminating confusion in fish nomenclature. As far as the common names of California's marine fishes are concerned, the great majority are in agreement with the 1970 list; however, a few names, both common and scientific, are in variance with those used in this state.

Other than the few invertebrate species covered by Walford (1931) in his list of official common names, there has been no previous attempt by the Department to designate common names for some of the more common California marine invertebrates.

4.3. PRESENT LIST

This list includes the names of quite a few species that have not appeared on previous lists of official names of California marine fishes. In fact an attempt is made to list all known shallow water marine and anadromous finfishes occurring within California waters. These include fishes found in an area between the Mexican and Oregon borders and offshore at least 50 miles. Miller and Lea (1972) provided the basic background as far as the species covered and the scientific nomenclature used for identifying these species. Selected species in representative invertebrate groups have been designated only for animals likely to be taken by sport and commercial fishermen, most apt to be seen by a casual visitor to the seashore, or that are representative of a particular group.

With respect to common names, several rules have governed their designation. These rules were directed toward the guiding principle that the purpose of the names is to assist in compiling accurate records as well as preparing comparable reports.

An ideal common name would be one that is in exclusive usage throughout the entire range of the species; however, relatively few names have such universal and select usage in the vernacular. It then becomes necessary to evaluate such common names as are applied to a species with regard to the following criteria:

. Usage in California by both sportsmen and commercial fishermen, and the fishing industry:

- 2. Usage in other areas, particularly adjacent states.
- Usage on other common name lists.
 Connotations that may have an undesirable effect upon market ability.
- The name should be brief and descriptive.
 The name should be brief and descriptive.
 The name should indicate rather than confuse relationships.
 Is generally accepted by most California workers in the field of taxonomy.

While most of the designated names meet the majority of the above criteria, there are some exceptions. In these cases, the overriding criterion was the firm implantation of the name in the vernacular. Some of these names are misleading, are not accepted on other lists, are not necessarily descriptive, but in general are acceptable to California taxonomists.

When a common name on the present list deviates from either Roedel (1962) or the American Fisheries Society (1970), an annotated explanation is given. Not all changes in scientific nomenclature are annotated; however, Miller and Lea (1972) present detailed reasons for certain taxonomic positions.

Unlike previous lists which list the official common name and the scientific designation, this list presents a third column which details other common names by which the species is or has been known. This listing should facilitate the identification of species referred to in the literature and records.

The order in which the jawless fish (agnaths) and the sharks and rays (cartilaginous fishes) are presented generally follows that of the American Fisheries Society (1970).

The list of bony fish (teleosts) families is arranged in the sequence of Greenwood et al (1966), with the species in each family alphabetized to generic and specific names. The class, order, and family sequence for mollusks follows the arrangement of Keen (1963), while the family arrangement of the arthropod order Decapoda follows Schmitt (1921).

Designated common name Black hagfish Pacific hagfish Whiteface hagfish Western river lamprey

Pacific lamprey^{*} Frilled shark Sixgill shark

Sevengill shark

Horn shark

Whale shark Bigeye thresher * Common thresher Scientific name Eptatretus deani (Evermann and Goldsborough) Eptatretus stoutii (Lockington) Myxine circifrons Garman Lampetra ayresii (Gunther)

This species appears as western brook lamprey in AFS (1970); however, we apply the term river since it seems more descriptive of the animals' habitat. Lampetra tridentata (Gairdner)

Chlamydoselachus anguineus Garman Hexanchus griseus (Bonnaterre)

Notorynchus maculatus Ayres

Heterodontus francisci (Girard)

AFS (1970) changed the common family name from horn sharks since family is widely known as bullhead sharks; we concur. Rhincodon typus Smith Alopias superciliosus (Lowe)

Alopias vulpinus (Bonnaterre)

With the addition of the bigeye thresher to California, we follow Bigelow and Schroeder (1948) and add the attributive "common" to the name for A. vulpinus.

Other common names

California hagfish, lamperina

Western brook lamprey, river lamprey, western lamprey

Eel, river eel, three-toothed lamprey, western lamprey Frill shark

Shovelnosed shark, cow shark, mud shark, sixgill cowshark, griset, caffa bota Cowshark, mud shark, spotted cowshark, sevengill cowshark, Pacific sevengill cowshark

Port Jackson shark, bullhead shark, horned shark, California horn shark

Mhor, chagrin, tiburon ballenas, tint reva

Thresher, longtail shark, thresher shark, fish shark, sea ope, pez zorro, pesca pavone, swiveltail, fox shark, swingtail, sea fox

* Not listed in Roedel, 1962.

Ragged-tooth shark^{*} White shark Bonito shark

Salmon shark Basking shark

Brown cat shark Longnose cat shark * Swell shark

Filetail cat shark Bull shark

Pelagic whitetipped shark^{*} Dusky shark

Narrowtooth shark^{**} Tiger shark Soupfin shark Gray smoothhound Brown smoothhound

Sicklefin smoothhound Blue shark Pacific sharpnose shark Leopard shark Scalloped hammerhead Bonnethead Smooth hammerhead

Pygmy shark^{*} Prickly shark Pacific sleeper shark Spiny dogfish

Pacific angel shark

Odontaspis ferox (Risso) Carcharodon carcharias (Linnaeus) Isurus oxyrinchus Rafinesque

Shortfin mako in AFS (1970). We follow Miller and Lea (1972) and retain the name bonito shark. Lamna ditropis Hubbs and Follett Cetorhinius maximus (Gunnerus)

We follow Bigelow and Schroeder (1948) in placing this species in the family Cetorhinidae. Roedel (1962) and AFS (1970) include the basking shark in the family Lamnidae. Apristurus brunneus (Gilbert) Apristurus kampae Cephaloscyllium ventriosum (Garman) We follow Kato, Springer, and Wagner (1967) and regard C. uter a synonym of C. ventriosum. Parmaturus xaniurus (Gilbert) Carcharhinus leucas (Valenciennes) Referred to as the roundnose shark, Carcharhinus azureus, by Roedel (1962); we follow Kato, Springer, and Wagner (1967). Carcharhinus longimanus (Poey) Carcharhinus obscurus (Lesueur) Referred to as the bay shark, Carcharhinus lamiella, by Roedel (1962); we follow Kato, Springer, and Wagner (1967). Carcharhinus remotus (Dumeril) Galeocerdo cuvier (Peron and Lesueur) Galeorhinus zyopterus Jordan and Gilbert Mustelus californicus Gill Mustelus henlei (Gill)

Mustelus lunulatus Jordan and Gilbert Prionace glauca (Linnaeus) Rhizoprionodon longurio (Jordan and Gilbert) Triakis semifasciata Girard Sphyrna lewini (Griffith) Sphyrna tiburo (Linnaeus) Sphyrna zygaena (Linnaeus)

Euprotomicrus bispinatus Echinorhinus cookei Pietschmann Somniosus pacificus Bigelow and Schroeder Squalus acanthias Linnaeus

Squatina california Ayres

Maneater shark, great white shark Mackerel shark, spriglio, paloma, shortfin mako, mako

Porbeagle, mackerel shark, tiger shark Elephant shark, bone shark, sailfish, sunfish, pelerin, hoe-mother, capidoli, oilfish, oil shark, ground shark

Brown shark

California swell shark

Filetail shark Roundnose shark, pigeye shark

Oceanic whitetip shark Bay shark, bay grayshark, injerto

Spotted shark, tigrone Oil shark, soupfin, tope Mud shark, dogfish, paloma, sand shark, gray shark Mud shark, dogfish, paloma, sand shark, Henle's shark Dog shark, gato, smoothhound Great blue shark Sharpnose shark Cat shark

Pacific bonnethead, shovelhead shark Hammerhead shark, common hammerhead, axhead shark, shovelnose shark Slim shark Bramble shark Sleeper shark, nurse shark Dog shark, dogfish, grayfish, Pacific grayfish, spinarola, Pacific dogfish, California dogfish California angel shark, angel shark, monkfish, northern angel shark, squat, squato Designated common name Thornback

Shovelnose guitarfish

Banded guitarfish Pacific electric ray

Deepsea skate^{*} Big skate California skate Sandpaper skate

Longnose skate Starry skate Black skate

White skate^{*} Diamond stingray Pelagic stingray Round stingray California butterfly ray

Bat ray

Pacific manta Spinetail mobula Smoothtail mobula Ratfish

Scientific name Platyrhinoidis triseriata (Jordan and Gilbert) Rhinobatos productus (Ayres) Zapteryx exasperata (Jordan and Gilbert) Torpedo california Ayres Raja abyssicola Gilbert Raja binoculata Girard Raja inornata Jordan and Gilbert Raja kincaidii Garman Black skate in AFS (1970). We follow Miller and Lea (1972) in using the common name sandpaper skate for Raja kincaidii since this species is never black and has a uniformly rough denticulated dorsal surface. Black skate is designated for Raja trachura because this is the only black colored California skate. Raja rhina Jordan and Gilbert Raja stellulata Jordan and Gilbert Raja trachura Gilbert Roughtail skate in AFS (1970). See comment under sandpaper skate. Bathyraja spinosissima (Beebe and Tee-Van) Dasyatis dipterura (Jordan and Gilbert) Dasyatis violacea (Bonaparte) Urolophus halleri Cooper Gymnura marmorata (Cooper)

Myliobatis californica Gill

Manta hamiltoni (Newmann) Mobula japanica (Muller and Henle) Mobula lucasana Beebe and Tee-Van Hydrolagus collici (Lay and Bennett) Other common names Round skate, thornback, guitarfish, California thornback, shovelnose Shovelnosed shark, pointed nosed guitarfish, guitarfish Striped guitarfish, mottled guitarfish California electric ray, electric ray, torpedo fish, California torpedo, crampfish, torpedo Abyssal skate Big skate of California Common skate Black skate

Longnosed skate, California longnose skate Prickly skate, cheap skate Monterey skate, rock skate, roughtail skate

Pacific stingray, rat-tailed stingray, stingaree

Stingaree, stingray Butterfly stingray, stingaree, butterfly ray, angel shark, bay ray, eagle sting ray Eagle ray, California sting ray, stingaree, bat sting ray, batfish Manta, devilfish, sea devil, blanketfish

Mobula, Pacific mobula Chimaera, elephantfish, rattail, rabbitfish, goatfish, king-of-the-herrings, water hare Green sturgeon White sturgeon Bonefish

California moray Catalina conger Pacific worm eel Spotted snake eel Yellow snake eel Slender snipe eel American shad Pacific herring Threadfin shad Round herring

Flatiron herring Middling thread herring

Pacific sardine

Deepbody anchovy

Slough anchovy Slim anchovy Anchoveta Northern anchovy Acipenser medirostris Ayres Acipenser transmontanus Richardson Albula vulpes (Linnaeus) Gymnothorax mordax (Ayres) Gnathophis catalinensis (Wade) Myrophis vafer Jordan and Gilbert Ophichthus triserialis (Kaup) Ophichthus zophochir (Jordan and Gilbert) Nemichthys scolopaceus Richardson Alosa sapidissima (Wilson) Clupea harengus pallasii Linnaeus Dorosoma petenense (Gunther) Etrumeus teres (DeKay)

Roedel (1962) listed Etrumeus acumintus as Pacific round herring; however, E. acumintus is now considered synonymous with Etrumeus teres, a species with a worldwide distribution in warmer seas. We drop the attributive "Pacific" since it now is inappropriate. Harengula thrissina (Jordan and Gilbert) Opisthonema medirastre Berry and Barrett Roedel (1962) listed Pacific thread herring, Opisthonema libertate; however, this species has been subsequently divided into three species, only one of which, the middling thread herring, Opisthonema

mediraste, occurs in California waters. Sardinops sagax caeruleus (Jenyns) AFS list this species as Sardinops sagax, but we follow Miller and Lea (1972) and retain the subspecies

low Miller and Lea (1972) and retain the subspecies designation of caeruleus. Anchoa compressa (Girard)

Anchoa delicatissima (Girard) Anchoviella miarcha (Jordan and Gilbert) Cetengraulis mysticetus (Gunther) Engraulis mordax Girard Sacramento sturgeon, Oregon sturgeon Ladyfish, bananafish, sanducha, macabi, mullet, silver shuttle Moray, moray eel, eel, conger eel, marina, muraena

Pacific snake eel

Shad, common shad Herring, California herring

California round herring, Pacific round herring, Japanese herring

Pacific thread herring

California sardine, pilchard, sardina, young called firecrackers

Deep-bodied anchovy, sprat, sardinus, California deepbody anchovy Southern anchovy

California anchovy, anchovy, plain anchovy, young called pinheads

Designated common name Pink salmon

Chum salmon Silver salmon

Sockeye salmon

King salmon

Cutthroat trout

Rainbow trout (Steelhead)

Whitebait smelt Surf smelt Delta smelt Night smelt Longfin smelt

Eulachon

Pacific argentine Robust blacksmelt* Popeye blacksmelt Pacific blacksmelt Snubnose blacksmelt California smoothtongue Pacific barreleye

Benttooth bristlemouth Bigeye lightfish

Scientific name Oncorhynchus gorbuscha (Walbaum)

Oncorhynchus keta (Walbaum) Oncorhynchus kisutch (Walbaum)

Coho salmon in AFS (1970). We follow Roedel (1962) since the term "silver salmon" is so deeply ingrained in the laws of California and in the vernacular of the fishermen. Oncorhynchus nerka (Walbaum)

Oncorhynchus tshawytscha (Walbaum)

AFS (1970) lists "chinook"; however, we retain "king" as the designated name since it is so deeply ingrained in the laws of California. Both names are widespread in the vernacular of the fishermen. Salmo clarkii Richardson

Salmo gairdnerii Richardson

Allosmerus elongatus (Ayres) Hypomesus pretiosus (Girard) Hypomesus transpacificus McAllister Spirinchus starksi (Fisk) Spirinchus thaleichthys (Ayres) Roedel (1962) listed this species as Sacramento smelt. We follow AFS (1970) and use longfin smelt. Thaleichthys pacificus (Richardson) Argentina sialis Gilbert Bathylagus milleri Jordan and Gilbert Bathylagus ochotensis Schmidt Bathylagus pacificus Gilbert Bathylagus wesethi Bolin Leuroglossus stilbius Gilbert Smoothtongue, northern smoothtongue Macropinna microstoma Chapman Barreleye in AFS (1970). We follow Miller and Lea (1972) and add the attributive "Pacific". Cyclothone acclinidens Garman Danaphos oculatus (Garman)

Other common names Humpback salmon, lost salmon, dog salmon, haddo, holia, gorbuscha Calico salmon, dog salmon, keta, lekai salmon, hayho Silversides, coho salmon, dog salmon, hookbill, medium red salmon, tschaviche, jack salmon, hooped, kisutch, showitz, quisutsch, bielaya ryba

Kokanee, Fraser River salmon, nerka, sukkegh salmon, blueback salmon, red salmon, redfish, sawqui salmon, Krasnaya ryba, benimasu Chinook salmon, Sacramento River salmon, quinnat salmon, spring salmon, tyree salmon, black salmon,

Columbia River salmon, tchaviche, tshawytscha

Blackspotted trout, coastal cutthroat trout, blueback, sea trout

Steelhead (a sea-run rainbow trout), steelhead trout, salmon trout, half-pounder, hardhead, summer salmon Frittura, small fry, perlin Surf fish, nightfish, perlin, silver smelt, dayfish

Whitebait, sand smelt, nightfish Sacramento smelt, delta smelt

Candlefish, ulchen

Barreleye

Stout blacksmelt Eared blacksmelt Slender blacksmelt Southern blacksmelt

Slender hatchetfish Spurred hatchetfish Silver hatchetfish Silvery hatchetfish Highfin dragonfish Pacific viperfish California lizardfish Slender barracudina Longnose lancetfish

Daggertooth^{*} Northern pearleye^{*} California headlightfish^{*}

Broadfin lampfish^{*} California flashlightfish^{*} Northern lampfish^{*}

California lanternfish*

Blue lanternfish^{*} Mexican lampfish^{*} Chihuil^{*} Specklefin midshipman Plainfin midshipman

Argyropelecus affinis Garman Argyropelecus hemigymnus Cocco Argyropelecus lychnus Garman Argyropelecus sladeni Regan Bathophilus flemingi Aron and McCrery Tactostoma macropus Bolin Chauliodus macouni Bean Synodus lucioceps (Ayres) Lestidium ringens (Jordan and Gilbert) Alepisaurus ferox Lowe Pacific lancetfish, Alepisaurus richardsoni, listed by Roedel (1962) is now considered synonymous with A. ferox. Anotopterus pharao Zugmayer Benthalbella dentata (Chapman) Diaphus theta Eigenmann and Eigenmann

Lampanyctus ritteri Gilbert Protomyctophum crockeri (Bolin) Stenobrachius leucopsarus (Eigenmann and Eigenmann) Symbolophorus californiensis (Eigenmann and Eigenmann) Tarltonbeania crenularis (Jordan and Gilbert) Triphoturus mexicanus (Gilbert) Bagre panamensis (Gill) Porichthys myriaster Hubbs and Schultz Porichthys notatus Girard

We designate these more descriptive names as proposed by Roedel (1962).

Silvery hatchfish

Arrow dragonfish Fanged viperfish Candlefish, lizardfish

Handsaw fish, Pacific lancetfish, wolffish, subotka

Pearleye Theta lanternfish, whitespotted lanternfish, headlightfish Broadfin lanternfish Flashlightfish Smallfin lanternfish

Slim midshipman, bullhead, singing fish, toad fish Northern midshipman, bullhead, singing fish, toad fish, grunter Designated common name Lined clingfish * Northern clingfish * California clingfish * Southern clingfish * Slender clingfish * Kelp clingfish * Roughjaw frogfish * Spotted batfish * Warted seadevil * Finescale codling

Hundred-fathom codling Pacific cod Pacific tomcod Walleye pollock

Pacific hake

Spotted cusk-eel^{*} Basketweave cusk-eel^{*} Red brotula^{*} Bigfin eelpout^{*} Twoline eelpout^{*} Scientific name Gobiesox eugrammus Briggs Gobiesox maeandricus (Girard) Gobiesox papillifer Gilbert Gobiesox rhessodon Smith Rimicola dimorpha Briggs Rimicola eigenmanni (Gilbert) Rimicola muscarum (Meek and Pierson) Antennarius avalonis Jordan and Starks Zalieutes elator (Jordan and Gilbert) Cryptopsaras couesii Gill Antimora microlepis Bean

Physiculus rastrelliger Gilbert Gadus macrocephalus Tilesius Microgadus proximus (Girard) Theragra chalcogramma (Pallas)

Merluccius products (Ayres)

Chilara taylori (Girard) Otophidium scrippsi Hubbs Brosmophycis marginata (Ayres) Aprodon corteziamus Gilbert Bothrocara brunneum (Bean) Other common names

Common clingfish, flathead clingfish, suckfish

Frogfish, California frogfish Batfish Triplewart seadevil Finescale flatnose codling, Pacific flatnose, longfin cod

Plain cod, gray cod, true cod, Alaska cod, cod Tomcod, piciata, California tomcod Whiting, bigeye, Alaska pollock, southern walleye pollock Hake, white fish, haddock, butterfish, mellusa, meluzette, California hake, ocean whitefish, popeye, silver hake

California cusk-eel Purple brotula Smoothgum eelpout

Oligopus diagrammus (He

Soft eelpout^{*} Flatcheek eelpout^{*} Blackmouth eelpout^{*} Pallid eelpout^{*} Black eelpout^{*} Blackbelly eelpout^{*} Bearded eelpout^{*} Midwater eelpout^{*} Pacific grenadier^{*}

California grenadier*

California flyingfish Blotchwing flyingfish Sharpchin flyingfish Blackwing flyingfish Ribbon halfbeak Longfin halfbeak California halfbeak Silverstripe halfbeak

California needlefish Pacific saury California killifish Topsmelt

Jacksmelt

California grunion

Bothrocara molle Bean Embryx crotalina (Gilbert) Lycodapus fierasfer Gilbert Lycodapus mandibularis Gilbert Lycodes diapterus Gilbert Lycodopsis pacifica (Collett) Lyconema barbatum Gilbert Melanostigma pammelas Gilbert Coryphaenoides acrolepis (Bean)

Nezumia stelgidolepis (Gilbert) We apply the AFS (1970) common family designation to the common name of the species. The term rattail was used by Miller and Lea (1972). Cypselurus californicus (Cooper) Cypselurus heterurus (Rafinesque) Fodiator acutus (Valenciennes) Hirundichthys rondeletii (Valenciennes) Euleptorhamphus longirostris (Cuvier) Hemiramphus saltator Gilbert and Starks Hyporhamphus rosae (Jordan and Gilbert) Hyporhamphus unifasciatus (Ranzani) Halfbeak in AFS (1970). We follow Miller and Lea (1972) and add the attributive "silverstripe" since three other halfbeaks occur in California waters. Strongylura exilis (Girard) Cololabis saira (Brevoort) Fundulus parvipinnis Girard Atherinops affinis (Ayres)

Atherinopsis californiensis Girard

Leuresthes tenuis (Ayres)

Pighead eelpout Snakehead eelpout Pearly eelpout Pale eelpout Blackfinned eelpout

Pacific softpout, black eelpout Pacific rattail, roughscale rattail, rhoughscale grenadier California rattail

Volator, great flyingfish Single-bearded flyingfish Sharpnose flyingfish

Halfbeak Halfbeak, common halfbeak, escribano, pajarito

Garfish, billfish, needlefish, California garfish Skipper, garfish, sourbelly, sourfish, saury Killifish

Bay smelt, rainbow smelt, panzarotto, little smelt, least smelt, silverside, capron, jack, pescadillo Silverside, California smelt, horse smelt, blue smelt, pescado del rey, Peixe rey, Pesce rey Smelt, little smelt, least smelt, grunion

Designated common name Crested bigscale Twospine bigscale Mirror dory* Oxeye oreo* Opah Highbrow crestfish* Polkadot ribbonfish King-of-the-salmon Tapertail ribbonfish Scalloped ribbonfish Oarfish Tubesnout Threespine stickleback Slender snipefish Pacific seahorse* Snubnose pipefish* Barred pipefish* Kelp pipefish Bay pipefish

Scientific name Poromitra crassiceps (Gunther) Scopelogadus mizolepis (Gilbert) Zenopsis nebulosa (Temminck and Schlegel) Allocyttus verrucosus (Gilchrist) Lampris regius (Bonnaterre) Lophotus cristatus Johnson Desmodema polysticta (Ogilby) Trachipterus altivelis Kner Trachipterus fukuzakii Fitch Zu cristatus (Bonelli) Regalecus glesne (Ascanius) Aulorhynchus flavidus Gill Gasterosteus aculeatus Linnaeus Macrorhamphosus gracilis (Lowe) Hippocampus ingens Girard Syngnathus arctus (Jenkins and Evermann) Syngnathus auliscus (Swain) Syngnathus californiensis Storer Syngnathus leptorhynchus Girard This species is conspecific with Syngnathus griseolin-eatus listed by Roedel (1962).

Other common names

Coster dory, oreo Poisson lune, moonfish Crestfish, oarfish, sea serpent

California ribbonfish

King-of-the-herrings

Common stickleback Snipefish Caballito del mar

Great pipefish

Sculpin

Rainbow scorpionfish

Rougheye rockfish Pacific ocean perch Kelp rockfish Brown rockfish Aurora rockfish Redbanded rockfish Shortraker rockfish Silvergray rockfish Gopher rockfish

Copper rockfish

Greenspotted rockfish

Black-and-yellow rockfish

Starry rockfish

Darkblotched rockfish Calico rockfish Splitnose rockfish Greenstriped rockfish

Swordspine rockfish

Widow rockfish Pink rockfish Yellowtail rockfish

Bronzespotted rockfish Chilipepper Rosethorn rockfish

Squarespot rockfish Shortbelly rockfish Freckled rockfish Cowcod

Mexican rockfish

Scorpaena guttata Girard California scorpionfish, spotted scorpionfish, scorpionfish, scorpion, bullhead, scorpene AFS (1970) uses "California scorpionfish." We follow Roedel (1962) and designate the name "sculpin" since it is so firmly implanted in the vernacular of both sport and commercial fishermen. Scorpaenodes xyris (Jordan and Gilbert) Members of the genus Sebastes have been referred to as rockfish or rockcod since the mid-1800's. We feel rockfish is the more appropriate name so we follow AFS (1970) and Roedel (1962). We do not list the term rockcod as another common name; however all the species in this genus have been referrence to as rockcod. Sebastes aleutianus (Jordan and Evermann) Sebastes alutus (Gilbert) Sebastes atrovirens (Jordan and Gilbert) Sebastes auriculatus Girard Sebastes aurora (Gilbert) Sebastes babcocki (Thompson) Sebastes borealis Barsukov Sebastes brevispinis (Bean) Shortspine rockfish Sebastes carnatus (Jordan and Gilbert) Sebastes caurinus Richardson Sebastes chlorostictus (Jordan and Gilbert) Sebastes chrysomelas (Jordan and Gilbert) Sebastes constellatus (Jordan and Gilbert) Sebastes crameri (Jordan) Sebastes dalli (Eigenmann and Beeson) Sebastes diploproa (Gilbert) Sebastes elongatus Ayres Sebastes ensifer Chen Flyfish This species was listed as Sebastodes rhodochloris by Roedel (1962). Chen (1971) synonymized S. rhodochloris with S. helvomaculatus and described S. ensifer. Sebastes entomelas (Jordan and Gilbert)

Sebastes eos (Eigenmann and Eigenmann) Sebastes flavidus (Ayres)

Sebastes gilli (Eigenmann) Sebastes goodei (Eigenmann and Eigenmann) Sebastes helvomaculatus Ayres

Sebastes hopkinsi (Cramer) Sebastes jordani (Gilbert) Sebastes lentiginosus Chen Sebastes levis (Eigenmann and Eigenmann)

Roedel (1962) and AFS assigned the common name cow rockfish to this species; however, we follow Miller and Lea (1972) since the term cowcod is so firmly implanted in the vernacular of both sport and commercial fishermen Sebastes macdonaldi (Eigenmann and Beeson)

Blackthroated rockfish, blacktip rockfish Longjaw rockfish, rose fish Gopher rockfish, garrupa, green garrupa Blina, sand bass

Flesh-colored rockfish, flesh-colored garrupa, butterball, butter bass Whitebelly rockfish, white gopher, barriga, gopher, blanca, palermotano, northern rockfish Chucklehead, Santa Maria, red rock cod, bolina, cernie, pesce vermiglia, chinafish Gopher rockfish, black and yellow garrupa, cifulatano, sand bass Spotted corsair, spotted rockfish, chinafish, red rock cod, scacciatale Blackmouth rockfish, blackblotched rockfish Pretty rock cod, brown rockfish Rosefish, lobe-jawed rockfish Red rock cod, strawberry rockfish, serena, reina, poinsetta, striped rockfish

Red snapper,[†] viuva, widowfish, beccafico Chucklehead, dawn rockfish, Santa Maria Red snapper,[†] rock cod, yellowtail, gialota, giola, cherne, green snapper Catalina, Catalina bass, Catalina salmon Red snapper,[†] red rock cod, johnnies, johnny cod Deep-water scacciatale, deep-water scratch-tail, orange-red rockfish Smallmouth rockfish, widow rock cod Slim rockfish, slender rockfish, steamer rockfish

Red snapper,[†] cow rockfish, roosterfish, gallo, chefra, cowfish, cow

Black-and-red rockfish, dark-chili, coral-red rockfish

[†] These species of rockfish have been marketed in the filleted condition as red snapper since the late 1800s. Since the true red snapper, Lutjanus campechanus (Poey), belongs to the family Lutjanidae which is not represented on the Pacific coast of the United States, and since the name "red snapper" is firmly implanted in the vernacular of the commercial fishermen, we suggest the term "Pacific red snapper" be used when marketing these species in a filleted condition. On March 8, 1974, the California Fish and Game Commission adopted Section 103, Title 14, California Administrative Code, which states the term Pacific red snapper may be used as an alternate common name for these species. 67

Designated common name Quillback rockfish

Black rockfish

Blackgill rockfish Vermilion rockfish

Blue rockfish

China rockfish

Tiger rockfish

Speckled rockfish

Bocaccio

Chameleon rockfish Canary rockfish

Redstripe rockfish Grass rockfish

Yellowmouth rockfish Rosy rockfish Greenblotched rockfish Yelloweye rockfish

Flag rockfish

Dwarf-red rockfish * Bank rockfish * Stripetail rockfish Halfbanded rockfish Olive rockfish

Treefish Pinkrose rockfish Honeycomb rockfish Whitebelly rockfish Pygmy rockfish Sharpchin rockfish Shortspine thornyhead

Longspine thornyhead

Scientific name Sebastes maliger (Jordan and Gilbert)

Sebastes melanops (Girard)

Sebastes melanostomus (Eigenmann and Eigenmann) Sebastes miniatus (Jordan and Gilbert)

Sebastes mystinus (Jordan and Gilbert)

Sebastes nebulosus Ayres

Sebastes nigrocinctus Ayres

Sebastes ovalis (Ayres)

Sebastes paucispinis Ayres

Sebastes phillipsi (Fitch) Sebastes pinniger (Gill)

Sebastes proriger (Jordan and Gilbert) Sebastes rastrelliger (Jordan and Gilbert)

Sebastes reedi (Westrheim and Tsuyuki) Sebastes rosaceus Girard Sebastes rosenblatti Chen Sebastes ruberrimus (Cramer)

Sebastes rubrivinctus (Jordan and Gilbert)

Sebastes rufinanus Lea and Fitch Sebastes rufus (Eigenmann and Eigenmann) Sebastes saxicola (Gilbert) Sebastes semicinctus (Gilbert) Sebastes serranoides (Eigenmann and Eigenmann)

Sebastes serriceps (Jordan and Gilbert) Sebastes simulator Chen Sebastes umbrosus (Jordan and Gilbert) Sebastes vexillaris (Jordan and Gilbert) Sebastes wilsoni (Gilbert) Sebastes zacentrus (Gilbert) Sebastolobus alascanus Bean

Sebastolobus altivelis Gilbert

Thornyhead replaces channel rockfish since this name is more appropriate for a species that is not confined to channels. We follow AFS (1970) in this change.

Other common names Orange-spotted rockfish, yellow-backed rockfish, brown rockfish, speckled rockfish Red snapper, [†] black snapper, black bass, bass rockfish, nero, cherna, pesce pretre, gray rockfish, black sea bass, sea bass, black rock Blackmouth rockfish, deepsea rockfish Red snapper,[†] red rock cod, rasher, borracho, genuine red, salmon grouper, borrachon Bluefish, blue perch, priestfish, black rockfish, black bass, nervi, neri, black snapper Cefalutano, black and yellow rockfish, yellow-spotted rockfish, cerod, yellow rockfish, gopher, pelican, yellowstripe rockfish, speckled garrupa, chinafish Banded rockfish, blackbanded rockfish, barred rockfish Red snapper, † widow rockfish, zipola, brownfish,

beccafico, viuva Red snapper † , rock cod, grouper, salmon grouper, tomcod (young), boccac, merou

Red snapper,[†] orange rockfish, codalarga, yellow snapper, filione, fantail, red rock cod, canary, bosco Red rockfish of Alaska, little red rock cod Kelp rockfish, scomoda, green garrupa, green rockfish, lingcod, schmo

Corsair, dude, scacciatale, scratch-tail

Red snapper,[†] turkey-red rockfish, potbelly, drum, tambor, vecchia, red rock cod, yellowbelly, rasphead, golden eye, turkey rock Spanish flag, barberpole, Hollywood, convict fish,

shoflies, tiger, barberpole snapper

Red snapper[⊤] Popeye rockfish, bigeye rockfish, oliveback rockfish Inspector Red snapper,[†] kelp yellowtail, kelp salmon, bass rockfish, sugar bass, sugarfish Convictfish, barberpole, garrupa

Shaded rockfish, dusky rockfish Sailfin rockfish, barriga blanca, Palermotana Wilson's rockfish, slender rockfish, dwarf rockfish Bigeyed rockfish Shortspine channel rockfish, idiot, hooligan, thornhead, lobe-finned rockfish, spiney-cheeked rockfish, bonehead, scorpion, fagiano, slim thornhead, gurnard, gurnet, channel cod Longspine channel rockfish, idiot, hooligan, thornhead, lobe-finned rockfish, spiny-cheeked rock-

thornhead, tobe-finned rockfish, spiny-checked rockfish, bonehead, scorpion, anglefin rockfish, deep-water rockfish, crimson thornhead Splitnose searobin^{*} Lumptail searobin Kelp greenling

Whitespotted greenling

Rock greenling

Lingcod

Painted greenling * Atka-mackerel Sablefish

Skilfish

Shortspine combfish Longspine combfish Coralline sculpin* Roughcheek sculpin* Padded sculpin Scalyhead sculpin Smoothhead sculpin Puget Sound sculpin* Bonyhead sculpin Rosylip sculpin Silverspotted sculpin Roughback sculpin Sharpnose sculpin Wooly sculpin Calico sculpin Mosshead sculpin* Bald sculpin

Bellator xenisma (Jordan and Bollman) Prionotus stephanophrys Lockington Hexagrammos decagrammus (Pallas)

Hexagrammos stelleri Tilesius

Hexagrammos superciliosus (Pallas)

Ophiodon elongatus Girard

Oxylebius pictus Gill Pleurogrammus monopterygius (Pallas) Anoplopoma fimbria (Pallas)

Erilepis zonifer (Lockington) Zaniolepis frenata Eigenmann and Eigenmann Zaniolepis latipinnis Girard Artedius corallinus (Hubbs) Artedius creaseri (Hubbs) Artedius fenestralis Jordan and Gilbert Artedius harringtoni Starks Artedius lateralis (Girard) Artedius meanyi (Jordan and Starks) Artedius notospilotus Girard Ascelichthys rhodorus Jordan and Gilbert Blepsias cirrhosus (Pallas) Chitonotus pugetensis (Steindachner) Clinocottus acuticeps (Gilbert) Clinocottus analis (Girard) Clinocottus embryum (Jordan and Starks) Clinocottus globiceps (Girard) Clinocottus recalvus (Greeley)

Smoothhead searobin California seatrout, greenling, seatrout, rock trout, kelp, kelp greenling, rockfish, bluefish, spotted rock trout, bodieron, boregat, greenling, kelp trout, kelp cod Boregata, starling, Tommy cod, atka mackerel, sea trout, greenling Fringed greenling, Pacific red rock trout, red greenling, sea trout, kelp cod Pacific cultus, cultus cod, ling, greenling, cod, blue cod, bluefish, white cod, buffalo cod, leopard cod, codfish, green cod, bocalao, card, testoni, cultus, skilfish, buffalo Convict fish, kelp fish Atka greenling, atkafish, yellowfish [‡] Butterfish, coalfish, candlefish, skilfish, blackcod, coal cod, blue-cod, bluefish, deepsea trout, black candlefish, skill Aburabozu, fat priest

Longspine greenling

Plumose sculpin^{*} Roundnosed sculpin

Bonehead sculpin Rubber sculpin Silverspot, nee-kaio-kaiung

Mossy sculpin Globeheaded sculpin Tide pool johnny

[‡] Filleted sablefish have been marketed as "butterfish" in California for many years. On March 8, 1974, the California Fish and Game Commission adopted Section 103, Title 14, California Administrative Code, which states the term butterfish may be used as an alternate for the designated name, sablefish.

Designated common name Buffalo sculpin Bull sculpin Red Irish lord Brown Irish lord Dusky sculpin* Pithead sculpin Threadfin sculpin Fringed sculpin^{*} Frogmouth sculpin Yellowchin sculpin Spotfin sculpin Longfin sculpin Lavender sculpin Pacific staghorn sculpin Sailfin sculpin * Tidepool sculpin Saddleback sculpin Rosy sculpin Fluffy sculpin Snubnose sculpin* Thornback sculpin Slim sculpin^{*}* Darter sculpin Smoothgum sculpin Grunt sculpin Cabezon Manacled sculpin Flabby sculpin Northern spearnose* Southern spearnose* Sturgeon poacher Smooth alligatorfish Spinycheek starnose Bigeye starnose Blackfin starnose

Rockhead Beardless spearnose

Warty poacher

Enophrys bison (Girard) Enophrys taurina Gilbert Hemilepidotus hemilepidotus (Tilesius) Hemilepidotus spinosus (Ayres) Icelinus burchami Evermann and Goldsborough Icelinus cavifrons Gilbert Icelinus filamentosus Gilbert Icelinus fimbriatus Gilbert Icelinus oculatus Gilbert Icelinus quadriseriatus (Lockington) Icelinus tenuis Gilbert Jordania zonope Starks Leiocottus hirundo Girard Leptocottus armatus Girard Nautichthys oculofasciatus (Girard) Oligocottus maculosus Girard Oligocottus rimensis (Greeley) Oligocottus rubellio (Greeley) Oligocottus snyderi Greeley Orthonopias triacis Starks and Mann Paricelinus hopliticus Eigenmann and Eigenmann Radulinus asprellus Gilbert Darter sculpin Radulinus boleoides Gilbert Radulinus vinculus Bolin Rhamphocottus richardsonii Gunther Gruntfish Scorpaenichthys marmoratus (Ayres) Synchirus gilli Bean Zesticelus profundorum (Gilbert) Agonopsis emmelane (Jordan and Starks) Northern spearnose poacher in AFS (1970). We follow Miller and Lea (1972) and drop the term poacher since it only generates confusion. The term spearnose refers to the two spines on the rostral plate at the tip of the snout which project forward. Agonopsis sterletus (Gilbert) Southern spearnose poacher in AFS (1970). See comments under northern spearnose. Agonus acipenserinus Tilesius Anoplagonus inermis (Gunther) Asterotheca infraspinata (Gilbert) Asterotheca pentacantha (Gilbert) Bigeye poacher in AFS (1970). We follow Miller and Lea (1972) since starnose refers to the three upright rostral spines at the tip of the snout, and is a descriptive term Bathyagonus nigripinnis Gilbert Blackfin poacher in AFS (1970). See comments under

Scientific name

bigeye poacher. Bothragonus swanii (Steindachner) Ganoideus vulsus (Jordan and Gilbert) Beardless poacher in AFS (1970). See comments under northern spearnose. Occella verrucosa (Lockington)

Other common names

Spotted Irish lord, bullhead, red sculpin Reef Irish lord

Filamented sculpin

Lesser filamented sculpin Bandeye sculpin

Bullhead, staghorn sculpin, cabezon, buffalo sculpin, smooth cabezon Johnny, sailorfish Sculpin, tidepool johnny, johnny Prickly sculpin

Bullhead, blue cod, sculpin, giant marbled sculpin, giant sculpin, marble sculpin, bull cod, salpa, scorpion, biggyhead, scaleless sculpin

Northern spearnose poacher, windowtail poacher, mottled poacher

Southern spearnose poacher, snubnose poacher

Sturgeonlike seapoacher, common alligatorfish Smooth seapoacher, smooth poacher

Bigeye poacher

Blackfin poacher

Deep-pitted seapoacher Beardless poacher

Warty seapoacher

Pygmy poacher^{*} Tubenose poacher^{*} Pricklebreast poacher^{*} Blackedge poacher^{*}

Smootheye poacher*

Bluespotted poacher Blacktail snailfish Tidepool snailfish Slipskin snailfish Slimy snailfish Showy snailfish Ringtail snailfish Spotted cabrilla Snowy grouper Splittail bass Gulf grouper Broomtail grouper

Kelp bass

Spotted sand bass

Barred sand bass

Striped bass

Giant sea bass

Popeye catalufa^{**} Guadalupe cardinalfish^{**} Ocean whitefish

Odontopyxis trispinosa Lockington Pallasina barbata (Steindachner) Stellerina xyosterna (Jordan and Gilbert) Xeneretmus latifrons (Gilbert) Blacktip poacher in AFS (1970). We follow Miller and Lea (1972) and use the more descriptive at-tributive "blackedge." Xeneretmus leiops Gilbert Xeneretmus ritteri Gilbert Stripefin poacher in AFS (1970). We feel the attributive "flagfin" more appropriate and follow Miller and Lea (1972). Xeneretmus triacanthus (Gilbert) Careproctus melanurus Gilbert Liparis florae (Jordan and Starks) Liparis fucensis Gilbert Liparis mucosus Ayres Liparis pulchellus Ayres Liparis rutteri (Gilbert and Snyder) Epinephelus analogus Gill Epinephelus niveatus (Valenciennes) Hemanthias peruanus (Steindachner) Mycteroperca jordani (Jenkins and Evermann) Mycteroperca xenarcha Jordan Paralabrax clathratus (Girard) Paralabrax maculatofasciatus (Steindachner)

Paralabrax nebulifer (Girard)

We follow AFS (1970) and add the modifier to contrast with spotted sand bass. Roccus saxatilis (Walbaum)

Stereolepis gigas Ayres

Pseudopriacanthus serrula (Gilbert) Apogon guadalupensis (Osburn and Nichols) Caulolatilus princeps (Jenyns) Pithead poacher Tubesnout poacher

Blacktip poacher

Cutfin poacher Stripefin poacher, spiny poacher

Bluespotted starnose Blacktailed liparid Shore liparid

Shorttail snailfish Ringtailed liparid, bandtail snailfish Cabrilla pinto

Rose threadfin bass Cabrilla de astillero, baja, baya, garuppe de baya Spikedtailed grouper, garuppa, pinto broomtail, spotted broomtail Rock bass, sand bass, cabrilla, calico bass, bull bass, kelp salmon, lockee cod, California kelp bass Spotted bass, rock bass, cabrilla, red spotted rock bass, spotted, spotted cabrilla, pinta cabrilla Rock bass, Johnny verde, kelp bass, sand bass, ground bass, sugar bass, cabrilla, California sand bass, California rock bass

Striper, streaked bass, squidhound, rock, rock bass, rock fish

Black sea bass, jewfish, giant bass, California jewfish, California black sea bass Catalufa

Blanquillo, whitefish, blanka

Designated common name Sharksucker

Slender suckerfish Whalesucker Gray marlinsucker

Remora * White suckerfish * Hardfin marlinsucker

Green jack Crevalle jack Pacific bumper Mexican scad

Pilotfish Leatherjacket^{*} Pacific amberjack Yellowtail

Palo pompano^{*} Gafftopsail pompano^{*} Jack mackerel

Cottonmouth jack^{*} Pacific moonfish^{*}

Roosterfish Dolphinfish

Pacific pomfret

Fanfish^{*} Bigscale pomfret^{*} Silver mojarra^{*}

Pacific flagfin mojarra*

Scientific name Echeneis naucrates Linnaeus

Phtheirichthys lineatus (Menzies) Remilegia australis (Bennett) Remora brachyptera (Lowe) Spearfish remora in AFS (1970). We follow Miller and Lea (1972) and reserve the term remora for the species Remora remora. Remora remora (Linnaeus) Remorina albescens (Temminck and Schlegel) Rhombochirus osteochir (Cuvier) Marlinsucker in AFS (1970). We follow Miller and Lea (1972) and add the descriptive attributive "hardfin." Caranx caballus Gunther Caranx hippos (Linnaeus)

Chloroscombrus orqueta Jordan and Gilbert Decapterus hypodus Gill

Naucrates ductor (Linnaeus) Oligoplites saurus (Bloch and Schneider) Seriola colburni Evermann and Clark Seriola dorsalis (Gill)

We follow AFS (1970) and drop attributive "California" as listed by Roedel (1962) since this species occurs from Chile to southern Washington. Trachinotus paitensis Cuvier Trachinotus rhodopus (Gill) Trachurus symmetricus (Ayres)

Uraspis secunda (Poey) Vomer declivifrons Meek and Hildebrand

Nematistius pectoralis Gill Coryphaena hippurus Linnaeus

We prefer "dolphinfish" to AFS's "dolphin" since there is otherwise possible confusion as to whether one is speaking of the fish or the mammal. Brama japonica Hilgendorf Roedel (1962) listed Pomfret, Brama rayi; however, this species subsequently has been synonymized with Brama brama, an Atlantic species, and the Pacific pomfret has been recognized as a distinct species. Pteraclis aesticola (Jordan and Synder) Taractichthys steindachneri (Doderlein) Eucinostomus argenteus Baird and Girard Spotfin mojarra in AFS (1970). We follow Miller and Lea (1972) since the dorsal fin of the Pacific flagfin mojarra has a black tip above a silver spot on the dorsal fin while the silver mojarra has a clear fin with fine speckling. Eucinostomus gracilis (Gill)

Other common names Pega, pegador, sucking fish, white tail remora, Indian remora

Spearfish remora, swordfish sucker

Sucker, pega, common remora White marlinsucker Spearfish sucker, marlinsucker

Common green jack, cocinero, jurel, cocinero dorado Crevalle, toro, cavally, jiguagua, horse crevalle, jack Orqueta, Xurel de Castilla, yellowtail jack Mackerel scad, scad, round robin, cigarfish, antonino, quiaquia Romero

Skipjack, jurel, monda, yellowtailed leatherjacket Bull yellowtail, turel, cohalla, toro, turel de Castilla California yellowtail, amberjack, amberfish, white salmon, cavasina, jack

Pompanito

Horse mackerel, spanish mackerel, saurel, agii, jackfish, mackereljack, California horse mackerel, mackerel jack, Pacific jack mackerel

Horsefish, moonfish, jorobado, bluntnose shiner, pugnosed shiner

Papagallo, gallo, pez de gallo Common dolphinfish, mahi-mahi, dolphin, dorado, dourade, common dolphin, small dolphin

Pomfret, smallscaled pomfret, castagnole, rondanin

Benten-uwo

Manzai-uwo, ebosh idai, hiredjiro-manzaiuo Spotfin mojarra

Sargo

Salema Pacific porgy Bairdiella

Black croaker

White seabass

Shortfin corvina Orangemouth corvina

White croaker

California corbina

Spotfin croaker Queenfish

Yellowfin croaker

Mexican goatfish^{*} Opaleye

Halfmoon

Zebraperch Blue-bronze chub^{*} Pacific spadefish

Anisotremus davidsonii (Steindachner)

Xenistius californiensis (Steindachner) Calamus brachysomus (Lockington) Bairdiella icistia (Jordan and Gilbert) This is a Gulf of California species introduced and established in the Salton Sea. Cheilotrema saturnum (Girard)

Cynoscion nobilis (Ayres)

Cynoscion parvipinnis Ayres Cynoscion xanthulus Jordan and Gilbert This is a Gulf of California species introduced and established in the Salton Sea. Genyonemus lineatus (Ayres)

Menticirrhus undulatus (Girard)

Roncador stearnsii (Steindachner) Seriphus politus Ayres

Umbrina roncador Jordan and Gilbert

Mulloidichthys dentatus (Gill) Girella nigricans (Ayres)

Medialuna californiensis (Steindachner)

Hermosilla azurea Jenkins and Evermann Kyphosus analogus (Gill) Chaetodipterus zonatus (Girard) Perch, blue bass, black croaker, china croaker, Cali fornia sargo, sargo raiado Bigeye bass, California salema, striped bass Mojarra garabata, porgy Gulf croaker

Chinese croaker, black perch, blue bass, black bass, surf fish, red roncador, chinafin croaker California white seabass, young sometimes called sea trout, weakfish, king croaker, white croaker Caravina, corvina, shortfin seabass Yellowmouth, corvina de las aletas amarillas

Tomcod, kingfish, shiner, chenfish, herring, Pasadena trout, carbinette, carbinette, roncador, tommy, cognard, little bass, little roncador, tommy croaker California whiting, corvina, surf fish, bagre, sucker, corbina

Spot, golden croaker, surf fish, roncador Kingfish, tomcod, sea trout, shiner, herring, white croaker, herring croaker

Surf fish, yellowfinned roncador, Catalina croaker, yellowtailed croaker, golden croaker Goatfish

Green perch, black perch, blue-eyed perch, bluefish, Catalina perch, button perch, greenfish, blue bass, blue-eye, blue perch, Jack Benny, California opaleye Blue perch, blue bass, medialuna, Catalina perch, California half-moon, Catalina blue perch, black perch

Convict fish, perch Salmena Spadefish Designated common name Scythemarked butterflyfish

Three-banded butterflyfish^{*} Pelagic armorhead^{*} Barred surfperch

Calico surfperch Redtail surfperch Kelp surfperch[†] Shiner surfperch[†]

Island surfperch^{\dagger} Pile surfperch^{\dagger}

Black surfperch[†]

Striped surfperch[†]

Spotfin surfperch Walleye surfperch

Silver surfperch Rainbow surfperch[†]

Reef surfperch[†] Dwarf surfperch[†] Sharpnose surfperch[†] White surfperch[†]

Rubberlip surfperch[†]

Pink surfperch[†] Blacksmith Garibaldi Striped mullet California barracuda Scientific name

Chaetodon falcifer Hubbs and Rechnitzer Scythe butterflyfish in AFS (1970). We follow Miller and Lea (1972) since scythemarked is more descriptive of the fish. Chaetodon humeralis Gunther Pentaceros richardsoni Smith

Amphistichus argenteus Agassiz

Amphistichus koelzi (Hubbs) Amphistichus rhodoterus (Agassiz) Brachyistius frenatus Gill Cymatogaster aggregata Gibbons

Cymatogaster gracilis Tarp Damalichthys vacca Girard

Embiotoca jacksoni Agassiz

Embiotoca lateralis Agassiz

Hyperprosopon anale Agassiz Hyperprosopon argenteum Gibbons

Hyperprosopon ellipticum (Gibbons) Hypsurus caryi (Agassiz)

Micrometrus aurora (Jordan and Gilbert) Micrometrus minimus (Gibbons) Phanerodon atripes (Jordan and Gilbert) Phanerodon furcatus Girard

Rhacochilus toxotes (Agassiz)

Zalembius rosaceus (Jordan and Gilbert) Chromis punctipinnis (Cooper) Hypsypops rubicundus (Girard) Mugil cephalus Linnaeus Sphyraena argentea Girard

Listed as Pacific barracuda in AFS (1970). The occurrence of this species is primarily restricted to the Californias (Alta and Baja) north of Cape San Lucas, with another species occurring in the Gulf of California. We follow Roedel (1962) and use the attributive "California."

Other common names Scythe butterflyfish

Doll fish. muñeca Boarfish Barred perch, silver perch, surf perch, sand perch, silver surf fish California porgie, humpback perch Rosy surf fish, redtail seaperch, porgy, Oregon porgie Kelp perch, kelp seaperch, brown seaperch Shiner perch, shiner, sparada, minny, shiner seaperch, yellow shiner, bay perch, seven-eleven perch Island seaperch Pile perch, forktail perch, porgee, white perch, splittail perch, pile seaperch, dusky seaperch, porgee, silver perch Black perch, common surf fish, bay perch, porgy, blue perch, bay blackperch Striped seaperch, striped perch, blue perch, rainbow perch, squawfish, crugnoli, blue surf fish, striped surf fish, blue seaperch Surf fish, silver perch, walleye surf fish, walleye seaperch, china pompano, white perch Silver perch, shiner Rainbow seaperch, rainbow perch, striped perch, bugara, moharra Reef perch Dwarf perch, shiner Sharpnose seaperch White seaperch, Pacific white perch, split-tail perch, forktail perch, white surf fish, white perch, shiner Rubberlip seaperch, rubberlip perch, porgee, alfione, pile perch, niggerlip, sprat, liverlip, buttermouth Pink seaperch Perch, blue perch, kelp perch, rock bass, black perch Ocean goldfish, garibaldi perch, golden perch

Mullet

Pacific barracuda, scoots, scooters, snake, barracuda, log barracuda, barry

 † A rule-of-thumb was applied in 1953 in naming embiotocids which called for using "surfperch" for those species which typically are surf dwellers, "seaperch" for those associated with the ocean but not primarily with the surf, and "perch" alone for those of varying habitat. This has led to some confusion at times, so we follow Miller and Lea (1972) and apply the term "surfperch" to all members of the family except the tule-perch, Hysterocarpus traskii, the only freshwater representative of the group. Those species names followed by a † were listed in Roedel (1962) and AFS (1970) following the above rule of thumb.

Blue bobo^{*} Yellow bobo^{*} Rock wrasse Señorita California sheephead

Pacific sandfish* Smooth ronquil Northern ronquil* Smooth stargazer Bay blenny Rockpool blenny Mussel blenny Wolf-eel Island kelpfish Orangethroat pikeblenny Deepwater blenny Spotted kelpfish Scarlet kelpfish Striped kelpfish Crevice kelpfish Giant kelpfish Sarcastic fringehead Yellowfin fringehead* Onespot fringehead Reef finspot Giant wrymouth* Dwarf wrymouth*

Polydactylus approximans (Lay and Bennett) Polydactylus opercularis (Linnaeus) Halichoeres semicinctus (Ayres) Oxyjulis californica (Gunther) Pimelometopon pulchrum (Ayres)

Trichodon trichodon (Tilesius) Rathbunella hypoplecta (Gilbert) Ronquilus jordani (Gilbert) Kathetostoma averruncus Jordan and Bollman Hypsoblennius gentilis (Girard) Hypsoblennius gilberti (Jordan) Hypsoblennius jenkinsi Jordan and Evermann Anarrhichthys ocellatus Ayres Alloclinus holderi (Lauderbach) Chaenopsis alepidota (Gilbert) Cryptotrema corallinum Gilbert Gibbonsia elegans (Cooper) Gibbonsia erythra Hubbs Gibbonsia metzi Hubbs Gibbonsia montereyensis Hubbs Heterostichus rostratus Girard Neoclinus blanchardi Girard Neoclinus stephensae Hubbs Neoclinus uninotatus Hubbs Paraclinus integripinnis (Smith) Deloepis gigantea Kittlitz Lyconectes aleutensis Gilbert

Blue threadfin, Pacific threadfin, threadfin Yellow threadfin California wrasse, parrot fish, wrasse Kelpfish, pescerey, kelp wrasse, butterfish Sheephead, California redfish, fathead, humpy, redfish Sandfish

Ronquil

Crevice blenny

Island klipfish Pacific pikeblenny, pikeblenny Deepwater klipfish Oscellated klipfish Scarlet klipfish Seaweed kelpfish, weed klipfish Spotted kelpfish, crevice klipfish Kelpfish, eel, kelp blenny, butterfish Kelp fish

Congo eel Red devil Designated common name Monkeyface-eel

Slender cockscomb^{*} High cockscomb^{*}

Mosshead warbonnet Snake prickleback Ribbon prickleback Crisscross prickleback Bluebarred prickleback Whitebarred prickleback Black prickleback Rock prickleback

Penpoint gunnel^{*} Longfin gunnel^{*} Crescent gunnel^{*} Saddleback gunnel^{*} Red gunnel^{*} Kelp gunnel^{*} Rockweed gunnel^{*} Graveldiver^{*} Prowfish^{*} Ragfish^{*} Pacific sandlance Pacific fat sleeper^{*} Scientific name Cebidichthys violaceus (Girard)

Monkeyface prickleback in AFS (1970). The term "eel" is so ingrained in the vernacular of California fishermen with respect to this species, we must follow Roedel (1962) and apply the name, monkeyface-eel. This also helps reduce confusion in names of "blennylike" fishes in other families. Anoplarchus insignis Gilbert and Burke Anoplarchus purpurescens Gill

Chirolophis nugator (Jordan and Williams) Lumpenus sagitta Wilimovsky Phytichthys chirus (Jordan and Gilbert) Plagiogrammus hopkinsi Bean Plectobranchus evides Gilbert Poroclinus rothrocki Bean Xiphister atropurpureus (Kittlitz) Xiphister mucosus (Girard)

Roedel (1962) lists this species as rock-eel; however, we follow AFS (1970) since this is not an eel even though fishermen commonly refer to it as one. The use of prickle-back also helps reduce confusion in names of "blenny-like" fishes in other families. Apodichthys flavidus Girard Pholis clemensi Rosenblatt Pholis laeta (Cope) Pholis ornata (Girard) Pholis schultzi Hubbs Ulvicola sanctaerosae Gilbert and Starks Xererpes fucorum (Jordan and Gilbert) Scytalina cerdale Jordan and Gilbert Zaprora silenus Jordan Icosteus aenigmaticus Lockington Ammodytes hexapterus Pallas Dormitator latifrons (Richardson)

Other common names Monkeyface prickleback, blenny eel, monkeyface blenny, eel, giant monkeyface-eel, California monkeyface-eel

Central cockscomb, crested blenny, cockscomb prickleback, cockscomb Ornamented blenny, mosshead prickleback Eel-blenny, Pacific snake prickleback Belted blenny

Black and white prickleback Whitebanded prickleback

Blenny-eel, rock blenny, rock-eel, black eel, eel, slick eel

Penpoint blenny

Bracketed blenny Saddled blenny Slender gunnel

Fucus blenny Borrowing blenny

Brown ragfish, fantailed ragfish Inshore sandlance, sandlance Yellowfin goby^{*} Arrow goby Blackeye goby

Tidewater goby^{*} Longjaw mudsucker Longtail goby^{*} Cheekspot goby^{*} Bay goby^{*} Kelp goby^{*}

Bluebanded goby Zebra goby Shadow goby Chameleon goby

Blind goby Snake mackerel^{*} Oilfish^{*} Razorback scabbardfish^{*} Pacific scabbardfish

Pacific cutlassfish Slender tuna Bullet mackerel Frigate mackerel

Wavyback skipjack

Black skipjack Skipjack tuna

Escolar^{*} Pacific bonito

Pacific mackerel

Acanthogobius flavimanus (Temminck and Schlegel) Clevelandia ios (Jordan and Gilbert) Mud goby Large scaled goby, crested goby, bluespot goby Coryphopterus nicholsii (Bean) Listed as bluespot goby by Roedel (1962), but we follow AFS (1970) since blackeye goby is the more commonly used name. Eucyclogobius newberryi (Girard) Gillichthys mirabilis Cooper Mudsucker, longjawed goby Gobionellus longicaudus (Jenkins and Evermann) Ilypnus gilberti (Eigenmann and Eigenmann) Lepidogobius lepidus (Girard) Finescale goby Lethops connectens Hubbs Halfblind goby Halfblind goby in AFS (1970). Kelp goby seems much more appropriate so we follow Miller and Lea (1972) in designating this name. Lythrypnus dalli (Gilbert) Lythrypnus zebra (Gilbert) Quietula y-cauda (Jenkins and Evermann) Tridentiger trigonocephalus (Gill) Trident goby, specklefaced goby This species is listed as trident goby by AFS (1970); however, we follow Miller and Lea (1972) since this fish has the ability to change rapidly (within seconds) its color pattern to either stripes or bars and the term "chameleon" is more appropriate. Typhlogobius californiensis Steindachner Gempylus serpens Cuvier Ruvettus pretiosus Cocco Assurger anzac (Alexander) Lepidopus xantusi Goode and Bean Scabbardfish, black scabbardfish Scabbardfish in AFS (1970). We add the attributive "Pacific" to reduce confusion with razorback scabbardfish. Trichiurus nitens Garman Cutlassfish Allothunnus fallai Serventy Auxis rochei (Risso) Barred frigate mackerel, Pacific bullet mackerel Auxis thazard (Lacepede) Streaked frigate mackerel, wavyback frigate mackerel, Mexican skipjack, keokeo Euthynnus affinis Cantor Kawakawa, little tuna Kawakawa in AFS (1970). We follow Roedel (1962) since the term "wavyback" is more descriptive of the fish and more meaningful to California fishermen. Euthynnus lineatus Kishinouye Cross bred mackerel, Mexican little tunny Skippy, striped tuna, oceanic bonito, skipjack, water-Euthynnus pelamis (Linnaeus) melon, victor fish, oceanic skipjack, artic bonito, tuna

Lepidocybium flavobrunneum (Smith) Sarda chiliensis (Cuvier)

Scomber japonicus Houttuyn

Chub mackerel in AFS (1970). We retain the name Pacific mackerel since it currently is so well established in the laws of California as well as in the vernacular of the fishermen. Deepsea escolar Bonito, California bonito, striped tuna, ocean bonito, skipiack

Blue mackerel, chub mackerel, green mackerel, right mackerel, greenback mackerel, striped mackerel, green jack, American mackerel, zebra mackerel, mackerel Monterey spanish mackerel Sierra

Albacore

Yellowfin tuna Bigeye tuna Bluefin tuna

Swordfish Louvar Sailfish

Black marlin Blue marlin Shortbill spearfish Striped marlin Medusafish Pacific butterfish

Smalleye squaretail

Pacific sanddab

Speckled sanddab Longfin sanddab Bigmouth sole California halibut

Fantail sole

Scomberomorus concolor (Lockington) Scomberomorus sierra Jordan and Starks

Thunnus alalunga (Bonnaterre)

Thunnus albacares (Bonnaterre) Thunnus obesus Lowe Thunnus thynnus (Linnaeus)

Pacific albacore, Thunnus germo; Pacific yellowtail, Neothunnus macr pterus; Pacific bigeye tuna, Parathunnus sibi: and California bluefin tuna. Thunnus saliens; in Roedel (1962). Subsequent to that time all these species have been placed in the genus Thunnus and synonymized with worldwide species; therefore, we have dropped the attributives Pacific and California as being inappropriate. Xiphias gladius Linnaeus Luvarus imperialis Rafinesque Istiophorus platypterus (Shaw and Nodder) Roedel (1962) listed Pacific sailfish, Istiophorus greyi; however, subsequently all sailfish species from all oceans have been synonymized under a single cosmopolitan species We therefore drop the attributive "Pacific" as being inappropriative. Makaira indica (Cuvier) Makaira nigricans Lacepede Tetrapturus angustirostris Tanaka Tetrapturus audax (Philippi) Icichthys lockingtoni Jordan and Gilbert Peprilus simillimus (Ayres) Pacific pompano in Roedel (1962) and AFS (1970). This name is somewhat misleading since "pompano" is most frequently used in reference to certain fishes in the family Carangidae; therefore, we follow Miller and Lea (1972) and designate the common name Pacific butterfish. Tetragonurus cuvieri Risso

Citharichthys sordidus (Girard)

Citharichthys stigmaeus Jordan and Gilbert Citharichthys xanthostigma Gillbert Hippoglossina stomata Eigenmann and Eigenmann Paralichthys californicus (Ayres)

Xystreurys liolepis Jordan and Gilbert

Monterey mackerel, spanish mackerel Sierra mackerel, spanish mackerel, cero, spotted mackerel Longfinned tuna, abrego, Pacific albacore, longfinned albacore, aliconghi, German, germo Yellowfinned albacore, Pacific yellowfin tuna, tuna Bigeyed, patudo, tuna Tunny, great tunny, leaping tuna, California bluefin

tuna, Pacific bluefin tuna, shortfin tuna, horse mackerel, ahi, great albacore, tuna

Broadbill, broadbill swordfish

Pacific sailfish

Spearfish, spikefish, sailfish Spearfish, spikefish, sailfish

Spearfish, spikefish, sailfish, Pacific marlin Brown rubberfish Pacific pompano, butterfish, California pompano, California butterfish, pompano

Squaretail, escolar de natura, courpata, sea raven, Pacific squaretail Sand dab, soft flounder, sole, mottled sanddab, megrim Sand dab Sand dab, soft flounder, Catalina sanddab Bigmouth flounder, bigmouth halibut Halibut, chicken halibut, bastard halibut, southern halibut, alabato, Monterey halibut Longfinned flounder, longfin sole, true petrale, fantail halibut, fantail flounder Arrowtooth flounder

Deepsea sole Petrale sole

Rex sole Flathead sole^{*} Pacific halibut

Diamond turbot Butter sole

Rock sole

Slender sole Dover sole

English sole

Starry flounder

C-O turbot

Curlfin turbot

Spotted turbot Hornyhead turbot Sand sole Greenland halibut*

California tonguefish Finescale triggerfish Black triggerfish

Redtail triggerfish^{*} Spiny boxfish Atheresthes stomias (Jordan and Gilbert)

Embassichthys bathybius (Gilbert) Eopsetta jordani (Lockington)

Glyptocephalus zachirus Lockington Hippoglossoides elassodon Jordan and Gilbert Hippoglossus stenolepis Schmidt

Hypsopsetta guttulata (Girard) Isopsetta isolepis (Lockington)

Scalyfin sole in Roedel (1962). We follow AFS (1970) since the name "butter sole" is so well established in the vernacular. Lepidopsetta bilineata (Ayres)

Lyopsetta exilis (Jordan and Gilbert) Microstomus pacificus (Lockington)

Parophrys vetulus Girard

Platichthys stellatus (Pallas)

Pleuronichthys coenosus Girard C-O sole in AFS (1970). Members of this genus are generally called "turbot" and lumped under that name in reporting the California commercial catch. For that reason we follow Roedel (1962). Pleuronichthys decurrens Jordan and Gilbert

Pleuronichthys ritteri Starks and Morris Pleuronichthys verticalis Jordan and Gilbert Psettichthys melanostictus Girard Reinhardtius hippoglossoides (Walbaum)

Symphurus atricauda (Jordan and Gilbert) Balistes polylepis Steindachner Melichthys niger (Bloch) Black durgon in AFS (1970). We follow Miller and Lea (1972) since we feel the term "triggerfish" is more easily identified with the family. Xanthichthys mento (Jordan and Gilbert) Ostracion diaphanum Bloch and Schneider Arrowtoothed sole, arrowtooth halibut, turbot, bastard halibut, French sole, longjawed flounder, English flounder Speckled sole, blackmouth sole Roundnosed sole, Jordan's flounder, California sole, English sole, brill, soglia Longfinned sole, witch sole

Halibut, alabato, northern halibut, right halibut, genuine halibut, real halibut Diamond flounder, turbot, halibut, sole Scalyfin sole, scalyfinned flounder, Bellingham sole, sole, rock sole

Broadfin sole, doublelined flounder, flounder, rock sole, sole, gravel sole, roughback sole Slender flounder, rough sole Slippery sole, slime sole, shortfinned sole, rubber sole, smear dab, lemon sole, Chinese sole Pointednosed sole, common sole, California sole, lemon sole, sole, sharpnose sole Rough jacket, great flounder, sole, English sole, flounder, grindstone, California flounder, emery flounder C-O sole, mottled turbot

California turbot, curlfinned flounder, curlfin sole, and dab Ritter's turbot Sharpridged turbot, sharpridged flounder, sand dab Fringe sole, spotted flounder, sand dab Halibut, right halibut, northern halibut, genuine halibut, real halibut, alabato, sole Tongue sole, tonguefish Pez puerco Black durgon Designated common name Oceanic puffer^{*} Bullseye puffer Botete^{*} Pacific burrfish^{*} Spotted porcupine fish^{*}

Common mola

Slender mola* Fingered limpet Whitecap limpet Owl limpet Threaded abalone Pink abalone Black abalone Green abalone Pinto abalone Red abalone White abalone Flat abalone Volcano limpet Giant keyhole limpet Purple ringed top shell Channeled top shell Ribbed top shell Brown turban

Scientific name Lagocephalus lagocephalus (Linnaeus) Sphoeroides annulatus (Jenyns) Sphoeroides lobatus (Steindachner) Chilomycterus affinis Gunther Diodon hystrix Linnaeus Porcupinefish in AFS (1970). We follow Miller and Lea (1972), since the attributive "spotted" helps identify the species. Mola mola (Linnaeus) We add the attributive common to name "mola" as listed by Roedel (1962) since it is by far the most common of the two molas in California waters. AFS (1970) list "ocean sunfish" which also is applied in the vernacular. Ranzania laevis (Pennant) Acmaea digitalis Eschscholtz Acmaea mitra Eschscholtz Lottia gigantea Sowerby Haliotis assimilis Dall Haliotis corrugata Gray Haliotis cracherodii Leach Haliotis fulgens Philippi Haliotis kamtschatkama Jonas Haliotis rufescens Swainson Haliotis sorenseni Bartsch Haliotis walallensis Stearns Fissurella volcano Reeve Megathura crenulata (Sowerby) Calliostoma annulatum (Lightfoot) Calliostoma canaliculatum (Lightfoot) Calliostoma ligatum Gould Tegula brunnea (Philippi)

Other common names

Globe fish, network puffer Gulf puffer Burfish Porcupinefish

Ocean sunfish, mola, sun fish, millstone, headfish

Finger limpet Whitecap, duncecap limpet Giant owl shell, owl shell

Corrugated abalone, rough abalone

Splendid abalone, splendid ear shell, blue abalone Japanese abalone

Northern green abalone Volcano keyhole limpet Black keyhole limpet

Brown tegula, brown top

Black turban Speckled turban Monterey turban Dusky turban Red top Wavy top Eroded periwinkle

Checkered periwinkle Scaled worm shell (snail) California horn shell (snail) Hoof shell (snail) Hooked slipper Onyx slipper Half slipper Spiny cup and saucer Lewis moon snail

Southern moon snail Chestnut cowry California frog shell (snail) Tegula funebralis (Adams) Tegula gallina (Forbes) Tegula montereyi Kiener Tegula pulligo Gmelim Astraea gibberosa (Dillwyn) Astraea undosa (Wood) Littorina planaxis Philippi

Littorina scutulata Gould Serpulorbis squamigerus (Carpenter) Cerithidea californica (Haldeman) Hipponix antiquatus Linnaeus Crepidula adunca Sowerby Crepidula onyx Sowerby Crepipatella lingulata (Gould) Crucibulum spinosum (Sowerby) Polinices lewisii (Gould)

Polinices reclusianus (Deshayes) Cypraea spadicea (Swainson) Bursa californica (Hinds) Black tegula, black top Speckled tegula, speckled top Monterey tegula Dusky tegula Red turban Wavy turban, wavy top turban, wavy turbine Flatbottomed periwinkle, flat periwinkle, gray littorina

Scaly worm mollusk

Ancient hoof shell, horse hoof shell Turban slipper shell

Pacific half slipper, wrinkled slipper shell Cup and saucer, cup and saucer limpet Northern moon snail, western moon shell, Lewis's bullseye Recluz's moon snail, Recluz's bullseye Nutbrown cowry California frog mollusk Designated common name Belcher's murex Lurid rock Poulson's rock Festive murex Three winged murex Kellet's whelk Beatic olive Purple olive

California cone California bubble Gould's paper bubble Green paper bubble San Diego peapod Peapod borer Ribbed horsemussel Date mussel

Fat horsemussel Straight horsemussel California seamussel Bay mussel Platform mussel Giant Pacific oyster Eastern oyster Native oyster Scientific name Forreria belcheri (Hinds) Ocenebra lurida (Middendorff) Ocenebra poulsoni (Carpenter) Pteropurpura festiva (Hinds) Pteropurpura triolata (Sowerby) Kelletia kelletii (Forbes) Olivella baetica Carpenter Olivella biplicata (Sowerby)

Conus californicus Hinds Bulla gouldiana Pilsbry Haminoea vesicula (Gould) Haminoea virescens (Sowerby) Adula diegensis (Dall) Adula falcata (Gould) Gukensia demissa (Dillwyn) Lithophaga plumula (Hanley)

Modiolus capax (Conrad) Modiolus rectus (Conrad) Mytilus californianus Conrad Mytilus edulis Linnaeus Septifer bifurcatus (Conrad) Crassostrea gigas (Thunberg) Crassostrea virginica (Gmelin) Ostrea lurida Carpenter Other common names Giant forreria, Belcher's chorus shell Lurid ocenebra, lurid murex

Festive rock shell Three-winged rock shell

Beatic olivella, beatic dwarf olive, brown olive Purple olivella, purple dwarf olive, California purple olive

Gould's bubble, cloudy bubble White bubble shell, bubble shell, blister paper bubble Green bubble shell

Falcate date mussel, peapod shell, hooked peapod Ribbed mussel Rock boring mussel, rock eating mussel, rockdwelling mussel, rock borer Capax horsemussel, horsemussel Giant horsemussel, horsemussel California mussel, horsemussel, straight mussel California mussel, mussel, sea mussel Edible mussel, black mussel Branch-ribbed mussel Japanese oyster Virginia oyster Lurid oyster, Olympia oyster, California oyster Speckled scallop Rock scallop

Weathervane scallop San Diego scallop Pearly jingle

Abalone jingle Agate chama

California reversed chama

Basket cockle Smooth giant cockle Spiny cockle

White amiantis Banded chione

Smooth chione

Wavy chione

Northern quahog Roughsided littleneck Common littleneck

Thinshelled littleneck Smooth Washington clam

Common Washington clam

Japanese littleneck Pismo clam Ford's venus California mactra Narrow dish clam Hemphill dish clam Gaper Aequipecten aequisculcatus (Carpenter) Hinnites multirugosus Gale

Pecten caurinus (Gould) Pecten diegensis Dall Anomia peruviana d'Orbigny

Pododesmus cepio (Gray) Chama pellucida Sowerby

Pseudochama exogyra (Conrad)

Clinocardium nuttalli (Conrad) Laevicardium elatum (Sowerby) Trachycardium quadragenarium (Conrad)

Amiantis callosa (Conrad) Chione californiensis (Broderip)

Chione fluctifraga (Sowerby)

Chione undatella (Sowerby)

Mercenaria mercenaria (Linnaeus) Protothaca laciniata (Carpenter) Protothaca staminea (Conrad)

Protothaca tenerrima (Carpenter) Saxidomus giganteus (Deshayes)

Saxidomus nuttalli Conrad

Ruditapes semidecussata (Reeve) Tivela stultorum (Mawe) Ventricolaria fordii (Yates) Mactra californica Conrad Spisula catilliformis (Conrad) Spisula hemphilli (Dall) Tresus nuttalli (Conrad) Bay scallops, speckled pecten Purplehinged pecten, giant rock scallop, rock pecten, purplehinged scallop

San Diego pecten Lawless shell, jingle shell, Peruvian jingle, rock oyster, lamp anomia, common jingle Blister oyster Clear jewel box, jewel box, agate jewel box, agate rock ovster Reversed chama, reversed jewel box, reversed rock oyster Nuttall's cockle Giant egg cockle, giant cockle Forty ribbed cockle, giant Pacific cockle, forty ribbed heart clam White venus, sea cockle California chione, banded cockle, California venus, hardshell cockle Smooth cockle, smooth Pacific venus, smooth California venus, hardshell cockle Wavy cockle, frilled California venus, hardshell cockle Quahog, round clam, hardshell clam Folded littleneck, netted carpet shell Littleneck clam, ribbed carpet shell, common Pacific littleneck, native littleneck, rock cockle, hardshell, Tomales Bay cockle, rock clam Finest carpet shell, thinshelled cockle Giant saxidome, giant rockdweller, big neck clam, butter clam, money shell Washington clam, Nuttall's saxidome, bigneck clam, butter clam, money shell

Great tivela, thickshell tivela

California surf clam Dish clam Hemphill's surf clam Big neck, Pacific gaper, horse clam, gaper clam, summer clam, otter shell Designated common name Yellow apolymetis Bentnose clam White sandclam Bodega tellen Wedge clam Bean clam

Sunset clam Deepwater gari Purple clam Clipped semele California jackknife clam

Northern razor clam

Rosy razor clam Sickle razor clam Softshell clam

Checked borer

Geoduck Mud piddock Scalesided piddock Flaptipped piddock Wartnecked piddock Rough piddock Giant Pacific chiton Scientific name Florimetis obesa (Deshayes) Macoma nasuta (Conrad) Macoma secta (Conrad) Tellina bodegensis Hinds Donax californicus Conrad Donax gouldii Dall

Gari californica (Conrad) Gari edentula (Gobb) Sanguinolaria nuttalli Conrad Semele decisa (Conrad) Tagelus californianus (Conrad)

Siliqua patula (Dixon)

Solen rosaceus Carpenter Solen sicarius Gould Mya arenaria Linnaeus

Platyodon cancellatus (Conrad)

Panopea generosa (Gould) Barnea subtruncata (Sowerby) Parapholas californica (Conrad) Penitella penita (Conrad) Pholadidea ovoidea (Gould) Zirfaea pilsbryi Lowe Cryptochiton stelleri (Middendorff)

Other common names

Bentnose macoma, tellens, mud clam White macoma, white sand macoma, giant macoma Tellen California wedge clam, California bean clam Common Pacific wedge shell, little bean clam, Gould's wedge shell California sunset shell Giant sunset shell, sunset clam

Flat clam, bark semele Short razor clam, California short razor, jackknife clam, razor clam Flat razor shell, Pacific razor clam, California razor fish, razor clam, sea clam Jackknife clam, razor clam Blunt razor shell, jackknife clam, razor clam Common mya, long clam, nanninose, soft clam, eastern softshell clam, mud clam Flat toothed clam, chubby mya, crossbarred broadtooth clam Giant panopaea, geoduc, gweduc Pacific piddock California piddock, borer, piddock Common piddock, rock piddock, borer Oval piddock Pilsbry's piddock, piddock, borer Gumboot, giant chiton, gumboot chiton, giant sea cradle

Conspicuous chiton Lined chiton Black chiton Mossy chiton Twospot octopus Common octopus Market squid

Sea bat Giant spined starfish

Common starfish Fragil sea urchin Giant red sea urchin Purple sea urchin Stenoplax conspicua (Pilsbry) Tonicella lineata (Wood) Katharina tunicata (Wood) Mopalia muscosa Gould Octopus bimoculatus (Verrill) Octopus punctatus (Gobb) Loligo opalescens Berry

Patiria miniata (Brandt) Pisaster giganteus (Stimpson)

Pisaster ochraceus (Brandt) Allocentrotus fragilis (Jackson) Strongylocentrotus franciscanus (Agassiz) Strongylocentrotus purpuratus (Stimpson) Showy chiton, sea cradle Redlined chiton Black Katy chiton, black Katy Moss chiton, mossy mopalia

Devilfish Common squid, sea arrow, squid, opalescent squid, inkfish, calamari Webbed starfish, webbed seastar, batstar, bat starfish Giant starfish knobby starfish, southern two-colored starfish, spiny star, contrasting colored starfish Purpole starfish, ochre starfish

Red sea urchin, giant red urchin Purple urchin Designated common name Sand dollar Heart urchin Big acorn barnacle Common acorn barnacle Large barnacle Red and white barnacle Thatched barnacle Dacific goose barnacle Driftwood goose barnacle Brine shrimp Ridgeback prawn Pacific ocean shrimp Spot prawn Scientific name Dendraster excentricus (Eschscholtz) Lovenia cordiformis Lutken Balanus cariosus (Pallas) Balanus glandula Darwin Balanus nubilus Darwin Balanus tintinnabulum (Linnaeus) Tetraclita squamosa Darwin Mitella polymerus (Sowerby) Lepas anatifera Linnaeus Artemia salina Leach Eusicyonia ingentus Burkenroad Pandalus jordani Rathbun Pandalus platyceros Brandt Other common names Common sand dollar Sea porcupine

White buckshot barnacle

Pink barnacle

Goose barnacle, gooseneck barnacle Ship goose barnacle

Ocean shrimp

Red rock shrimp

Slender green shrimp Redbanded transparent shrimp California pistol shrimp Pistol shrimp Franciscan bay shrimp Blacktailed bay shrimp Spotted bay shrimp California spiny lobster Beach ghost shrimp Bay ghost shrimp

Giant ghost shrimp Blue mud shrimp California giant hermit crab California hermit crab Compressed wrist hermit crab Hairy hermit crab Blueclawed hermit crab Box crab Pelagic red crab Spiny mole crab Sond crab Thickclawed porcelain crab Flat porcelain crab

Hippolysmata californica Stimpson

Hippolyte californiensis Holmes Spirontocaris picta (Stimpson) Crangon californiensis (Holmes) Crangon dentipes (Guerin) Crago franciscorum (Stimpson) Crago nigricauda (Stimpson) Crago nigromaculata (Lockington) Panulirus interruptus (Randall) Callianassa affinis Holmes Callianassa californiensis Dana

Callianassa gigas Dana Upogebia pugettensis (Dana) Holopagurus pilosus Holmes Pagurus californiensis (Benedict) Pagurus hemphillii (Benedict) Pagurus hirsutiusculus (Dana) Pagurus samuelis (Stimpson) Lopholithodes foraminatus (Stimpson) Pleuroncodes planipes Stimpson Blepharipoda occidentalis Randall Lepidopa myops Stimpson Emerita analoga (Stimpson) Pachycheles rudis Stimpson Petrolisthes cinctipes (Randall) Red striped shrimp, large transparent shrimp, striped tidepool shrimp

Brokenback shrimp Pistol shrimp Snapping shrimp California shrimp Blacktailed shrimp

Rock lobsters

Red ghost shrimp, California ghost shrimp, rockyshore ghost shrimp

Tuna crab, squat lobster, red crab Spiny sand crab, giant sand crab Porcelain sand crab Common sand crab Thickclawed crab Porcelain crab Designated common name Purple crab Elbow crab Shieldbacked kelp crab Graceful kelp crab Sheep crab Champion masking crab Graceful decorator crab Rock crab Yellow crab Slender crab Dungeness crab

Red crab Swimming crab Purple shore crab Yellow shore crab Striped shore crab Fiddler crab Scientific name Randallia ornata (Randall) Heterocrypta occidentalis (Dana) Pugettia producta (Randall) Pugettia gracilis Dana Loxorhynchus grandis Stimpson Coregonia gracilis Dana Cancer antennarius Stimpson Cancer anthonyi Rathbun Cancer gracilis Dana Cancer magister Dana

This species is called Dungeness crab in most areas along the Pacific coast of the United States and Canada. In California it has been called the market crab; however, to promote uniformity in the nomenclature of common names, we designate Dungeness crab as the common name in California. Cancer productus Randall Portunus xantusii (Stimpson) Hemigrapsus nudus (Dana) Hemigrapsus oregonensis (Dana) Pachygrapsus crassipes Randall Uca crenulata (Lockington) Other common names Globe crab, purple globe crab

Northern kelp crab, kelp crab

Moss covered crab, masking crab, moss crab

Spotbellied rock crab, common rock crab

Market crab, edible crab, big crab, common crab, Pacific edible crab, Pacific coast edible crab, commercial crab

Red rock crab, rock crab

Mud crab, mudflat crab, green shore crab Lined shore crab

14. REFERENCES

Abbott, R. Tucker. 1967. American seashells. Van Nostrand Co., New York. 541 p.

American Fisheries Society. 1948. A list of common and scientific names of the better known fishes of the United States and Canada. Amer. Fish. Soc., Spec. Publ., (1): 1–45.

American Fisheries Society. 1960. A list of common and scientific names of fishes from the United States and Canada. 2nd ed. Amer. Fish. Soc., Spec. Publ., (2): 1–102.

American Fisheries Society. 1970. A list of common and scientific names of fishes from the United States and Canada. 3rd ed. Amer. Fish. Soc., Spec. Publ., (6): 1–150.

Bane, Gilbert W., and Anneka W. Bane. 1971. Bay fishes of northern California. Mariscos Publ., Hampton Bays, N.Y. 143 p.

Berry, S. Stillmann. 1911. A review of the cephalopods of western North America. U.S. Bur. Fish., Bull., 30: 269-336.

California, State of. 1919. Laws relating to fish and game. 21st. ed. 1919–1921. State Print. off., Sacramento. 201 p.

Cannon, Raymond. 1953. How to fish the Pacific coast. Lane Publ. Co., Menlo Park, Calif. 337 p.

Clemens, W. A., and G. V. Wilby. 1946. Fishes of the Pacific coast of Canada. Can. Fish. Res. Bd., Bull., (68) : 1-368.

Clemens, W. A., and G. V. Wilby. 1967. Fishes of the Pacific coast of Canada. Rev. ed. Can. Fish. Res. Bd., Bull., (68) : 1-443.

Farmer, Wesley M. 1964. One hundred common marine animals of San Diego. San Diego Soc. Nat. Hist., Occ. Pap., (14): 1-45.

Fisher, Walter K. 1930. Asteroides of the North Pacific and adjacent waters. U.S. Nat. Mus., Bull., (76) pt. 3 : 1-356.

Fitch, John E. 1953. Common marine bivalves of California. Calif Dept. Fish and Game, Fish. Bull., (90) : 1-102.

Fitch, John E., and Robert J. Lavenberg. 1968. Deep-water fishes of California. Univ. Calif. Press., Berkeley. 155 p.

Fitch, John E., and Robert J. Lavenberg. 1971. Marine food and game fishes of California. Univ. Calif. Press, Berkeley. 179 p.

Goode, George Brown. 1884. The fisheries and fishery industries of the United States. U.S. Comm. of Fish and Fish., Sect. 1 : 1-895.

Greenwood, P. Humphry, Donn E. Rosen, Stanley H. Weitzman and George S. Meyers. 1966. Phyletic studies of teleostean fishes, with provisional classification of living forms. Amer. Mus. Nat. Hist., Bull., 131 (4) : 341–455.

Hart, J. L. 1973. Pacific fishes of Canada. Can. Fish. Res. Bd., Bull., (180): 1-740.

Heath, Harold. 1917. Devilfish and squid. Calif. Fish and Game, 3 (3): 103-108.

Hill, Howard R., and Pauline D. Tompkins. 1957. Common sea shells of the Los Angeles County coast. L.A. County Mus., Sci. Ser., (16), Zool. Pub., (7): 1–48.

Hinton, Sam. 1969. Seashore life of southern California. Univ. Calif. Press, Berkeley. 181 p.

Hiyama, Yosio. 1937. Marine fishes of the Pacific coast of Mexico. Nissan Fish. Inst., Odawara, Japan. 75 p.

Hyman, Libbie H. 1955. The invertebrates: Echinodermata. McGraw-Hill, New York. 763 p.

Johnson, Myrtle E., and Harry J. Snook. 1927. Seashore animals of the Pacific coast. MacMillan Co., New York. 659 p.

Kato, Susumu, Stewart Springer and Mary H. Wagner. 1967. Field guide to eastern Pacific and Hawaiian sharks. U.S. Fish and Wildl. Serv., Cir., (271): 1–47.

Keen, Mya A. 1963. Marine molluscan genera of western North American. Stanford Press. Stanford, Calif. 126 p.

Keep, Josiah. 1911. West coast shells. Whitaker and Ray Wiggin Co., San Francisco, p. 346.

La Monte, Francesca. 1945. North American game fishes. Doubleday, Doran and Co. Garden City, N.Y. 202 p.

McHugh, J. L., and John E. Fitch. 1951. An annotated list of the clupeoid fishes of the Pacific coast, from Alaska to Cape San Lucas, Baja California. Calif. Fish and Game, 37 (4): 491–496.

McLean, James H. 1969. Marine shells of southern California. Los Angeles Co. Mus. Sci. Ser., (24) Zool., (11) : 1-104.

- Miller, Daniel J., and Robert N. Lea. 1972. Guide to the coastal marine fishes of California. Calif. Dept. Fish and Game, Fish Bull., (157) : 1–235.
- Morris, Percy A. 1966. A field guide to shells of the Pacific coast and Hawaii including shells of the Gulf of California. 2nd. ed., Houghton Mifflin Co., Boston. 297 p.
- Reish, Donald J. 1972. Marine life of southern California. D. J. Reish, Los Alamitos, Calif. 164 p. (Distributed by Calif. St. Coll. Long Beach)

Rice, Tom. 1972. Marine shells of the Pacific northwest. Ellis Robinson Publ. Co. 102 p.

Ricketts, Edward F., and Jack Calvin. 1960. Between Pacific tides. 3rd ed. Revised by Joel W. Hedgpeth. Stanford Press, Stanford, Calif. 502 p.

Rodgers, Julia Ellen. 1951. The shell book. C.T. Branford Co., Boston, Mass. 503 p.

Roedel, Phil M. 1948. Common marine fishes of California. Calif. Div. Fish and Game, Fish Bull., (68) : 1–150.

Roedel, Phil M. 1949. Common names, p. 204–206. *In* The commercial fish catch of California for the year 1947 with an historical review 1916–1947. Calif. Div. Fish and Game, Fish Bull., (74) : 1–267.

Roedel, Phil M. 1953. Common ocean fishes of the California coast. Calif. Dept. Fish and Game, Fish Bull., (91): 1–184.

Roedel, Phil M. 1953. official common names of certain marine fishes of California. Calif. Fish and Game, 39 (2): 251-262.

Roedel, Phil M. 1962. The names of certain marine fishes of California. Calif. Fish and Game, 48 (1): 19–34.

Schmitt, Waldo L. 1921. The marine decapod Crustacea of California. Univ. Calif. Publ. Zool., 23: 1-470.

Shapovalov, Leo, and William A. Dill. 1950. A check list of the freshwater and anadromous fish of California. Calif. Fish and Game, 36 (4) : 382–391.

Shapovalov, Leo, William A. Dill, and Almo J. Cordone. 1959. A revised check list of the freshwater and anadromous fishes of California. Calif. Fish and Game, 45 (3) : 159–180.

Walford, Lionel A. 1931. Handbook of common commercial and game fishes of California. Calif. Div. Fish and Game, Fish Bull., (28): 1–181.

Walford, Lionel A. 1935. The sharks and rays of California. Calif. Div. Fish and Game, Fish Bull., (45): 1-66.

Walford, Lionel A. 1937. Marine game fishes of the Pacific Coast from Alaska to the equator. Univ. Calif. Press, Berkeley. 205 p.

Webb, Walter Freeman. 1936. Handbook for shell collectors. W. F. Webb, Rochester, N. Y. 291 p.

Weymouth, Frank W. 1920. The edible clams, mussels, and scallops of California. Calif. Fish and Game Comm., Fish Bull., (4): 1-72.

15.