DIVISION OF FISH AND GAME OF CALIFORNIA
BUREAU OF COMMERCIAL FISHERIES
FISH BULLETIN No. 44
The Commercial Fish Catch of California for the Years 1930–1934, Inclusive

By
the Staff of the
BUREAU OF COMMERCIAL FISHERIES

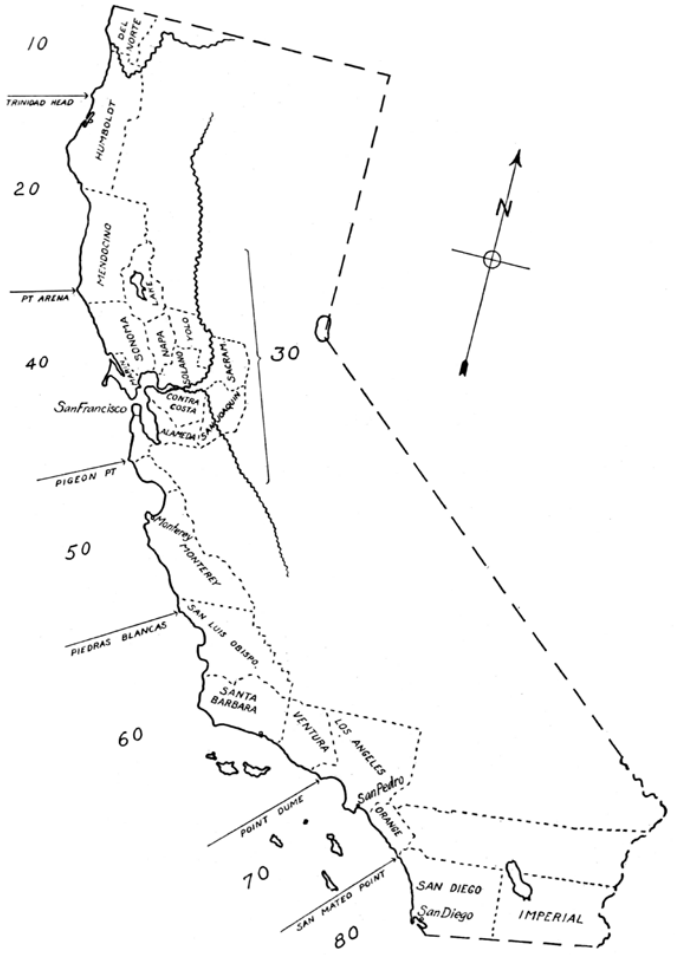

FIG. 1. Map of California, showing the eight regions of the state where commercial fisheries products are marketed. (See pp. 21, 47.)

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CONTENTS

FOREWORD

This bulletin is the fourth of a series designed to give detailed records of the catch of commercial species of fish landed in California ports. The articles are contributed by members of the staff of the Bureau of Commercial Fisheries of the California Division of Fish and Game, who have had from seven to twenty years' experience in the administrative or research work of the bureau and of the California State Fisheries Laboratory. The statistical tables were compiled from records gathered under the state's statistical system, every member of the staff of the bureau cooperating in this program.

March, 1935.

1. FISHERIES STATISTICS: ACHIEVEMENTS THROUGH FLEXIBILITY

By W. L. SCOFIELD

The development of fisheries statistics in most countries or states falls into three stages, determined by the intended use of the figures. At first, there is a desire to know the magnitude of the fisheries, usually a gross annual figure of volume or value of business for comparison with other industries of the country.

In the second stage, the importance of fisheries is recognized and there is created an administrative body charged with the management of the fisheries. This body desires to know for administrative purposes the business transacted in each locality for each season of the year so that tax or revenue may be collected with a knowledge of the seasonal character of the fisheries. This need for figures to show seasonal fluctuations is usually met by requiring a monthly report of volume of business transacted by the fish dealers. Such monthly reports supply the information for general administration of the fisheries, tax collection, and a fair idea of the seasonal runs of different species of fish. There is frequently, however, no very clearly defined future program for the administrative body, and therefore no particular need for additional statistical information.

The third and important stage arrives when the administrators begin to apply conservation practice in their management of fisheries. The greatest return from a fisheries resource may be enjoyed only by maintaining continuously a high annual yield. This involves questions of supply of fish, degree of utilization and the many problems in connection with overfishing and possible depletion of the supply. The need for more complete information is at once apparent and the old figures of monthly totals of fish landed are inadequate. At this point is needed a new system of statistics planned for the purpose of furnishing data that may be used in furthering a knowledge of the fish supply.

California's fisheries administration and statistical system have passed through the first two phases and are now well advanced into the third stage, in which conservation practice is being applied in the fisheries. In looking back over the accomplishments of the last sixteen years, we feel we have made great advances, but when looking ahead we realize we have just started and that our conservation methods and statistical system will probably undergo in the future even more radical changes and developments. Past changes in our statistics have been in response to a definite need for more complete and different kinds of statistical information. As we advance our studies of fish supply and of the yields to be expected from it, we hope to alter and enlarge our statistical system correspondingly and to avoid the misconception that a showy statistical report is an end in itself rather than merely a tool to be used as an aid in understanding fish supply and yields.

Purposeless change is undesirable in that any radical departure may cause a break in continuity so that present figures will not be directly comparable with those of the past. If the real purpose of the figures and their application in conservation practice are held clearly in mind, the true continuity need not be broken by a new development. The essential features will be carried over into the future.

Some of the more important changes in California's fishery statistics of the past few years are described in other portions of this bulletin, and a few developments of the immediate future are mentioned, but before taking up these more detailed accounts, the relationship between them may be more clear to the reader if we point out why conservation studies required such enlargements of our statistical system with the consequent additional costs in time and money.

In attempting to administer a fisheries resource on conservation principles, the object is to so manage that the return derived from the resource will be the greatest possible over a period of years. The goal is a high annual return repeated year after year, indefinitely into the future. The all important essential is a knowledge of the supply drawn upon because the yield depends on the extent of the supply, its capacity to yield and the degree of utilization of the supply.

Fish catch totals alone give only hints as to the supply unless we have knowledge of the amount of fishing effort expended. In California, the need to know something of the supply was the direct reason for abandoning our dependence upon dealers' monthly reports and for adopting new catch record system, by which the daily deliveries of each individual fishing boat would be recorded. This new system gave not only detailed catch records but also the number of deliveries for each boat, which was a big step toward measuring the fishing effort expended in making the catch. The daily catch records were supplemented by a boat and gear registration so that we would know the size and kind of boats and fishing gear in use. Licensing of fishermen gave a knowledge of the number of men employed. The chief essentials of fishing effort therefore were known: number and size of boats, amount and kind of gear, and number of men engaged. Much needed information as to fishing effort was still lacking. The various methods and practices of the fishermen in operating the gear, the localities fished and the prices paid by buyers for different species of fish, all have an effect upon the catch of a given boat. We are attempting to supplement the above mentioned records with additional notes and special studies, so that our measures of fishing effort may be as complete as possible.

The smooth operation of the daily catch record system raised a number of questions difficult of solution. One of the most difficult of adjustment was the wide discrepancy in the use of common names for fishes. The tabulation and reporting of such a volume of records raised another host of problems. Boat and gear registration was successful only after long continued striving, and finally required a new system of boat designation by serial numbers. The vexing question of catch locality has led to the installation of ships' logs in certain fisheries and the adoption of a simpler system of designating ocean localities by numbered areas. All of these developments, however, were toward a definite goal; that of contributing to our understanding

of the supply of fish and the possible changes occurring in the supply. Each step was for the purpose of perfecting the basic information, which was to serve in biological studies of the various species and in population studies to determine the extent of utilization possible in each fishery.

As illustrative of the direct application of fisheries statistics to conservation practice, we may cite our analyses of boat catches, which have been published as special bulletins during recent years. A full analysis of individual boat catches is made for one fishery at a time for the purpose of measuring possible changes in the supply of fish which may have occurred during the period of years covered by the analysis. The operation of a given fishing boat or of a certain type of net for one day or one trip, or the average operation per month of such gear may be accepted as a unit of fishing effort. The catch of fish made by such a unit of gear operated for a given time is the return or yield per unit of fishing effort. Provided the fishing locality, gear and methods of operation do not change from year to year, the yield per unit of fishing effort may be determined for each of a series of years and the trend of catch per unit of effort over a period of years is accepted as indicating whether the supply of fish available to the fishermen is remaining constant, is increasing or is becoming less year after year. Such studies of boat catches lead to a knowledge of the abundance of the supply of fish. This is the most important knowledge needed for the proper management of a fishery resource and such information justifies the cost of collecting the catch statistics in great detail.

The development of boat catch studies to detect possible changes in the abundance of fish is one of the outstanding accomplishments of the commercial fisheries work in California, but such results are possible only where detailed data are collected with this final result as a goal constantly in mind when the statistical system is put into operation. In order to select a comparable unit of fishing gear for a series of years, one must have an accumulation of exact knowledge as to size and kind of boats and fishing gear used through the years as well as the methods employed by the fishermen in operating the gear. Accumulated data, such as the amount of gear used each year, the number of trips made by boats, the number of hauls made with the net each day, and the length of time the gear is operated are all necessary in determining the total fishing effort. The total catch figures usually are a composite of catches taken by different sized fishing boats, using different kinds of gear operated in various ways in different localities. If catches are to be used as the return in fish for a given fishing effort, the catch data must show details as to gear, number of fishing trips, and type of boat used in the effort. It is for this reason that the system of catch statistics should be planned in advance so that detailed catch figures may be used as return per unit of fishing effort. Gross figures of total catch alone do not measure the supply of fish in the ocean, if we make an exception in the case of the final chapter in the sad history of a mismanaged resource when complete and disastrous exhaustion of the supply has been reached.

Although total catch figures must be used with great caution when considering abundance of fish, they do fill an important

place in conservation work and their fuller application in the understanding of our fisheries is one of the future developments contemplated in California. Primarily, catch totals represent sales or volume of business transacted by men ashore rather than picturing conditions in the sea. In the past when small boats made short trips from port, the data on fish landed were also records of locality of fishing, within the narrow limits of a one-day cruising radius of the boats, but now long cruises are made so that point of unloading sometimes gives no indication of where the fish were caught. Trawlers unloading in San Francisco may have fished at such widely separated localities as Eureka and Monterey Bay. It is of prime importance that locality of catch be known in order that we may determine how much fish is being taken from each body of water. Maintaining a high yield from each area is the essence of conservation management. In developing maximum production from each fishing area, it makes little difference where the product is marketed. This viewpoint requires that we be water-minded and think in terms of yield from water areas rather than of volume of business transacted at shore ports.

Ordinarily, catch totals represent volume of landings at each port with but little regard to where the fish came from, whereas conservation management should be more concerned with the amount of fish being produced by each section of the ocean. The chamber of commerce at each port is interested in the business transacted in the city but the managers of the resource are interested in the yield from each water area. The two viewpoints may be expressed as "landings" versus "yield." Our California catch data are still compiled as tables of landings at each port, and published summaries give total landings in each marketing region of the state. A start has been made toward compiling production data for ocean areas and special yield tables are being used in the study of two or three of our more important fisheries. It is probable that a future development will be an extended use of yield tables.

2. MODERNIZING COMMERCIAL FISHERIES STATISTICS

By GERALDINE CONNER

Built around the statistics of the catch is California's program for affording the best possible protection for her commercial fisheries with a high degree of production. Biological research, hand in hand with these statistics, provides a means for diagnosing the condition of each species. The administrator may thus base upon fact the regulations for the specific needs of each locality and type of fishery. This program has long been the prototype for other states and nations.

Because of the bulk of the data, the preliminary steps and the preparation of useful summaries have presented a difficult problem. A recent innovation on the part of the Division of Fish and Game for making the facts and figures more speedily available was the introduction of electrically operated Hollerith tabulating equipment in the offices and laboratory of the Bureau of Commercial Fisheries.

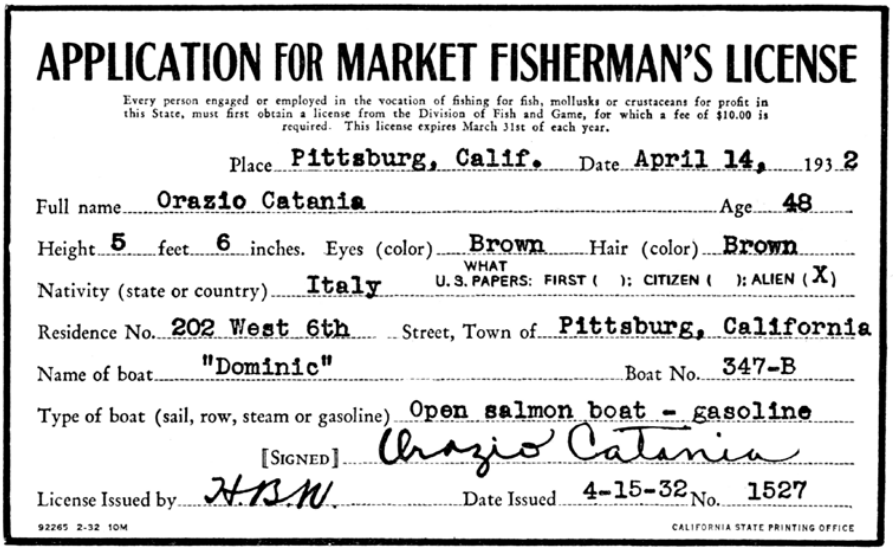
This improved method after four years of operation has proven its worth in speeding up the work. of greater importance, it has made available for practical use summaries of data which lay dormant under the slow hand method of tabulation. It has brought to light shortcomings in the statistical system. It has made possible and practicable improvement and expansion of the statistical work because of the ease and speed with which bulky material may be handled. It is sufficiently elastic to provide for the ever changing conditions in the fisheries. All of this is accomplished at a minimum expenditure of time and effort.

This issue of the "Catch Bulletin",[1] covers the transitional period from 1930, when the records were last tabulated by hand, through 1931, 1932, 1933, and 1934, when the mechanical method was being whipped into smooth running order. It seems timely, therefore, to present some of the high lights in the history of the commercial fisheries statistics of the state and the present working plan. This is also done in response to inquiries regarding the application of mechanical methods to fisheries statistics. Accompanying articles by members of the bureau will outline changes subsequent to the introduction of the electrical tabulating equipment and the expansion of the work.

In 1887 when the first license fee was collected from market fishermen, salmon was of prime importance and the funds were used chiefly for the "maintenance of hatcheries." A few figures had been gathered from time to time, chiefly salmon statistics. In the Report of the Commissioners of Fisheries of the State of California, published in 1872, is given the salmon catch for the ten-year period from 1853 to 1864, with a total of 1603 pounds for the first year and an increase to 20,512 pounds for the last. Two other commercial fisheries had been given

some thought from a conservation standpoint—sturgeon, which was showing decided signs of depletion, and shrimp, because of the attention directed to Chinese shrimp nets, which destroyed quantities of young fish. Published records show that the salt-water fish delivered at the San Francisco markets during 1885 and 1886 were listed in pounds by months and markets, with an estimate of what was probably taken at Los Angeles and San Diego. In 1894, the "Location of the fisheries of California" is given in a survey of the various coastal counties of the State with an estimate of the value of the catch for 1888. But it was not until 1909 that the fish and game laws showed signs of becoming markedly commercial fish conscious.

The yarns of the old timers along the waterfront concerning the abundance of fish and conditions on the fishing grounds were used as bases for the establishment of many of the earlier regulatory laws. This was especially true of the ocean fisheries. This was the best information available and was more colorful than modern statistics,



APPLICATION FOR MARKET FISHERMAN'S LICENSE

Every person engaged or employed in the vocation of fishing for fish, mollusks or crustaceans for profit in this State, must first obtain a license from the Division of Fish and Game, for which a fee of $10.00 is required. This license expires March 31st of each year.

Place Pittsburg, Calif. Date April 14, 1932

Full name Orazio Catania Age 48

Height 5 feet 6 inches. Eyes (color) Brown Hair (color) Brown

Nativity (state or country) Italy WHAT U. S. PAPERS: FIRST ( ); CITIZEN ( ); ALIEN (X)

Residence No. 202 West 6th Street, Town of Pittsburg, California

Name of boat "Dominic" Boat No. 347-B

Type of boat (sail, row, steam or gasoline) Open salmon boat - gasoline

[SIGNED] Orazio Catania

License Issued by H.B.W. Date Issued 4-15-32 No. 1527

92265 2-32 10M CALIFORNIA STATE PRINTING OFFICE

FIG. 2. Form of application for market fisherman's license used from 1909 until March 31, 1933.

FIG. 2. Form of application for market fisherman's license used from 1909 until March 31, 1933

but the hopes and prejudices of the fishermen were reflected rather than the facts. The earlier conservationists may have recognized the need of more tangible evidence, but there was no practical program for commercial fisheries conservation or the systematic collection of statistics, and no pressing necessity for the establishment of one until 1915.

In 1909, a new market fishermen's license law was passed which licensed the individuals rather than the boat or crew. The license application (see Fig. 2; for new combination of license and boat registration form, see Fig. 11) gave a record of the residence, nativity, age, general description of the applicant, name of his boat, and the U. S. Custom House number of his boat. In the event he was a free lance fisherman, the type of fishing in which he was engaged was required. The full value of such data from a statistical viewpoint was not appreciated until 1921, and unfortunately the early applications were not

saved. With them was destroyed a check on the man-power or effort that went into the fisheries of various localities, although the total license sales for these earlier years are available and give a state-wide index to the number of men who followed the vocation of commercial fishing. The law which gave birth to our present statistical system was passed in 1911. It was a provision made to regulate the business of wholesale fish and game dealers.[2] It required each wholesale fish dealer in the state to "* * * enter at the time of the transaction, in a register kept by him for that purpose, in the English language, the date, the kind and weight of fish so received or bought * * * the name and the residence of the person or persons from whom the same was received or purchased," and "* * * to produce for inspection his register to any Fish and Game Commissioner of this state, or any duly appointed, qualified, and acting assistant thereof * * *." A penalty was provided for failure to comply. It was an important step. Although the law lacked definite provisions covering the time element, and it did not impose upon the state the duty of compiling and preserving the record so that permanency might be assured, it opened the way for the future.

This law first made the record of transactions available, but in order that they might be collected it was necessary for deputies to call personally on each dealer in the state. The dealers were scattered and were not operating on a very large scale. They were negligent in their bookkeeping, many could not even write the English language. Further, they resented the inquiry into their business secrets which they guarded jealously from their competitors. Fearing the imposition of a privilege tax, many understated their volume while others exaggerated with the mistaken idea that in so doing they might prevent restrictions being placed on profitable species.

The deputies were tolerant in an effort to hold the good will of the industry and get voluntary rather than forced, inaccurate records. It was difficult to check the individual returns, and a conviction for misstatement would have aroused sufficient antagonism to have defeated the introduction of the project. In many cases, estimates were made of the transactions of a dealer over a period of from three to six months when definite details had been forgotten. These estimates were better than no record at all, for they gave an index to the approximate importance of the various species which made up the commercial catch. Such information had not previously been available. The weights were biased, perhaps, by the temperament of the deputy or dealer on the day the record was collected, but the first returns brought interesting facts to light. The commercial fisheries proved to be of greater volume and importance than had been realized.

During the next four years there was a decided change in fishing activities. This was chiefly due to the development of the tuna and sardine canning operations in southern California, to which the wartime plea for foodstuffs had given an impetus. The commercial fisheries developed with such rapidity and volume that by 1915 they had taken a place among the foremost industries of the state. Public interest, the desire of the canners for facts, and the increasing demands of the

[2] State of California fish and game laws, 1911–1912, Penal Code 630a and 630b, pp. 60–61.

legislators brought home the necessity for biological and statistical data concerning the marine life on the continental shelf off the coast of California. The important species of former years had run up rivers or were taken in bays, making them easily available for observation. The catch of ocean varieties did not readily attract the attention of the general public. The conservationists let them, rest in peace because of their inaccessibility and due to the fact that they had not developed to a point of noticeable commercial importance. The new developments made deep sea varieties of prime importance. The old theory that the ocean fisheries are inexhaustible was questioned by even the most optimistic when intensive fishing began. The industry had grown up suddenly and the future showed possibilities too great to be endangered by fairy tales.

The Bureau of Commercial Fisheries, through necessity, came into being in the spring of 1915 and before August of that year several important laws had been presented to and passed by the State Legislature in the interest of the market and cannery varieties of fish. Among these was an amendment, requiring a monthly report from the wholesale fish dealers to the Fish and Game Commission, giving the quantities of each species of fish purchased from the fishermen. To facilitate this record a blank form was provided by the state. (See Fig. 3.) However, it required more than a law and a nicely printed form to get results.

One of the peculiarities of our statistical system, which has continued to the present day, is the fact that we are dependent for our original record not on paid employees of the state, who may be discharged for neglect of duty or lack of cooperation, but upon the people of the industry. Since 1918, they have been required to make out receipts of all transactions with one copy for state files and fish packers have been taxed for the support of the work on the volume of their business. For years they had nothing more than a gentlemen's agreement as assurance that their trade secrets would not be divulged. The good will of the fishermen, dealers and canners plays a far more important part in our operations than any fines or penalties, which may be imposed for their lack of cooperation, as provided in the later laws.

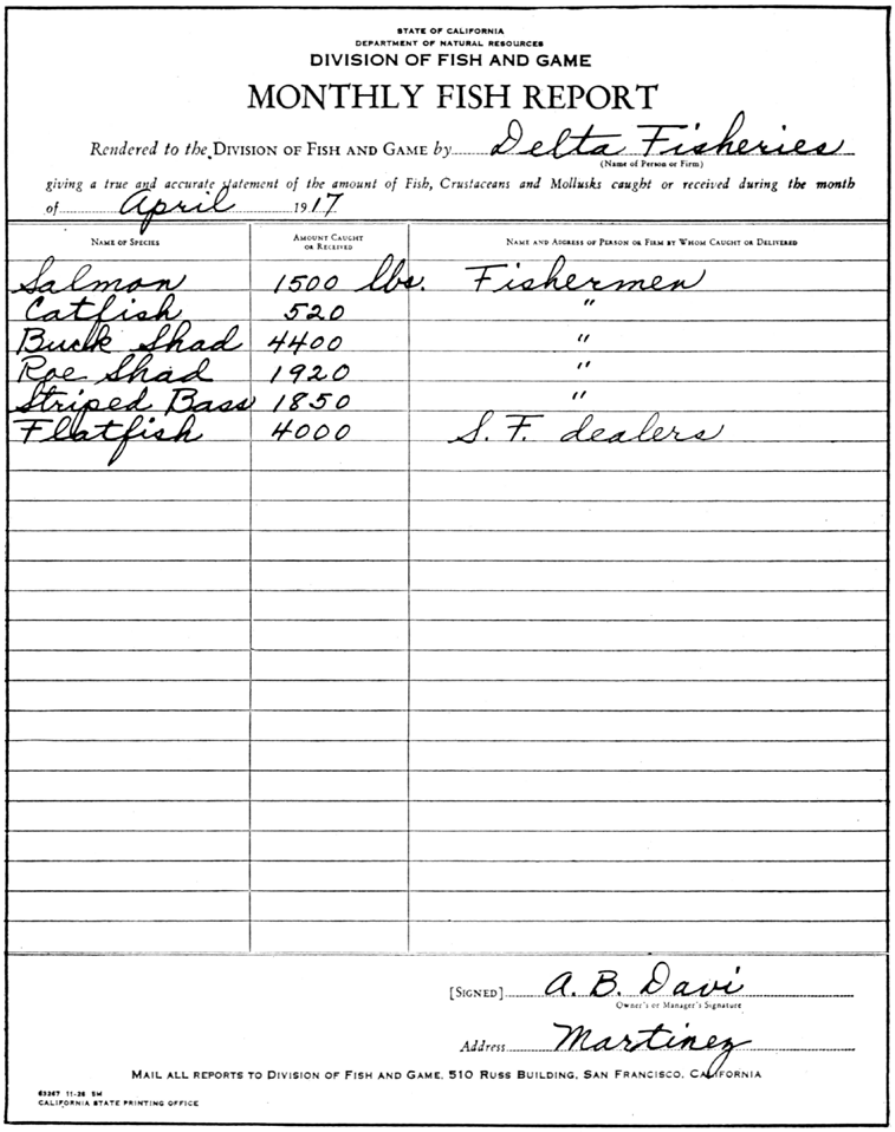
Since in its development the success of our elaborate statistical system has depended largely on the field contacts, we gain in appreciation, as time goes on, of the character and efforts of the men who pioneered in its introduction. It was necessary for them to impose a new and bothersome chore on men who were not accustomed to keeping records and who were suspicious of the object in view. The far-sighted executives,[3] who made operative the laws for collecting statistical facts of the commercial fisheries, are to be commended. But first honors go to the men in the field who actually got results in the face of hostility and without teeth in the law to back them up. They brought back facts as well as common sense suggestions for simplifying the task and educating the skeptical. Among the Italians, Chinese, Greeks and Norwegians to the north, a good natured deputy[4] dispelled suspicion, laughed away complaints and was given the best record to be obtained from rather poor attempts at bookkeeping. In the belligerent south, a stalwart seafaring man,[5] who was among the first to appreciate the

[3] Norman B. Scofield, Carl Westerfeld, E. L. Bosqui, and F. M. Newbert.

[4] Earle Downing.

[5] H. B. Nidever.

value of a commercial fisheries statistical system, won the confidence of the Slavs, Portuguese and Japanese and sold the idea of the canners and larger dealers on its merit as good business insurance for the future. This job was so well done that later when a privilege tax was imposed and increased bookkeeping was required with the introduction of forms



STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FISH AND GAME

MONTHLY FISH REPORT

Rendered to the DIVISION OF FISH AND GAME by Delta Fisheries (Name of Person or Firm)

giving a true and accurate statement of the amount of Fish, Crustaceans and Mollusks caught or received during the month of April 1917

NAME OF SPECIES	AMOUNT CAUGHT OR RECEIVED	NAME AND ADDRESS OF PERSON OR FIRM BY WHOM CAUGHT OR DELIVERED
Salmon	1500 lbs.	Fishermen
Catfish	520	"
Buckk Shad	4400	"
Roe Shad	1920	"
Striped Bass	1850	"
Flatfish	4000	S. F. dealers

[SIGNED] A. B. Davi (Owner's or Manager's Signature)

Address Martinez

MAIL ALL REPORTS TO DIVISION OF FISH AND GAME, 510 RUSS BUILDING, SAN FRANCISCO, CALIFORNIA

63247, 11-38, 5M
CALIFORNIA STATE PRINTING OFFICE

FIG. 3. Facsimile of dealer's monthly fish report used prior to 1918.

FIG. 3. Facsimile of dealer's monthly fish report used prior to 1918

for a more complete record, these measures went into effect automatically and were accepted with but an occasional grumble.

By 1917 the task of regulating the commercial fisheries had increased to such an extent that it had been necessary to open patrol offices at the three canning centers—Monterey, San Pedro and San Diego—and to establish a laboratory for research and statistical work.

A new law, imposing a privilege tax of fifty cents per ton on all fish packed or preserved as well as upon shellfish, was made effective in July of that year. This provided funds for the added activities of the Bureau of Commercial Fisheries and placed the burden of protecting a natural resource on the people who derived benefit therefrom through exploitation. The canners supported this move, appreciating the fact that state regulation is necessary for the health and perpetuation of their business.

Incorporated in the law on "fisheries tax and regulations" was a section, quoted below, concerning the collection of detailed statistical data. This was recognized by the director[6] of the program of scientific investigations as one of the prime requisites for the work.

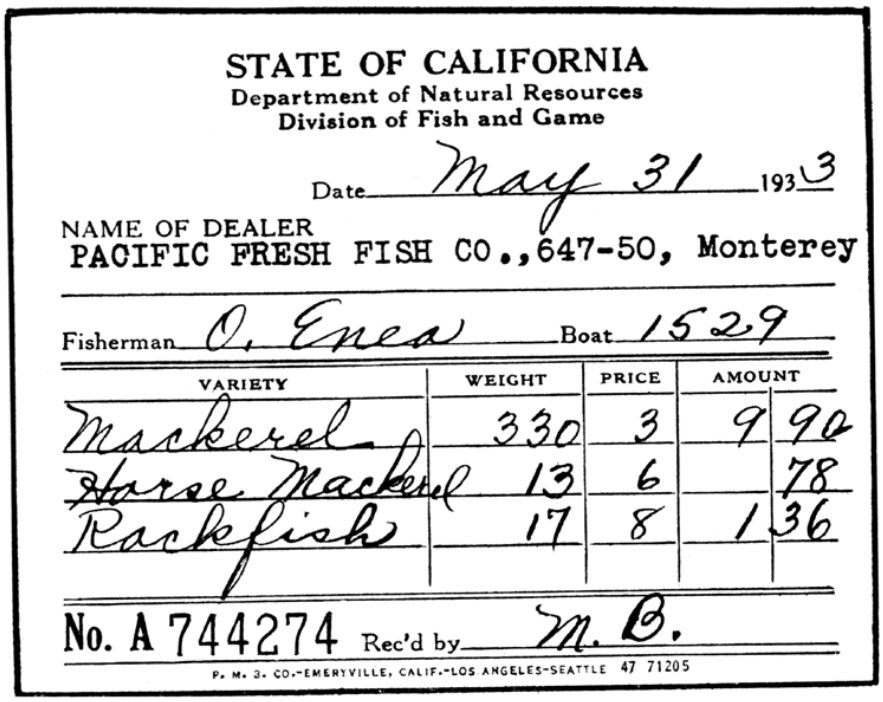
“"Sec. 6. Every person operating under a license as provided in section 1 of this act, and every person dealing in fish who receives fish from fishermen shall issue receipts to the fishermen from whom fish are received and shall give in such receipt the date of issuance, the name of the fisherman or fishermen to whom issued, the weight in pounds of each variety of fish received, the price per pound paid to the fishermen, and the signature of the dealer who issued the receipt. A duplicate manifold copy of this receipt shall be kept on file by the dealer issuing the same, for a period of six months and the said duplicate copy shall be available for inspection at any time within six months, upon demand of the Fish and Game Commission, or any duly authorized assistant thereof."”

From the field men came the suggestion of the possibility of the receipt book method of securing the more detailed record desired. The canners and dealers, under a law having to do with merchandising within the state, issued receipts to the fishermen when the fish were landed at the dock or on a barge. This receipt was used in the company bookkeeping systems and the fisherman retained his copy to present for the collection of the money due him. often the transaction was not completed immediately as purchase of the boats and gear was financed by the dealers. Because financial transactions between the fisherman and dealer depended upon these receipts, they offered the best possibilities for accurate records for the state's statistical system. Furthermore, their use was accepted procedure with the industry, and the new project would not be hampered by objections to a radical departure.

In order to have the record uniform and to get the specific data desirable, the state printed and supplied to the industry, without cost, receipt books similar to those already in use. These receipts carried serial numbers and were printed on carbon backed paper so that three copies could be made at one time. The white original receipt was for the fisherman, the yellow carbon copy for the dealer, and the third ("pink ticket") was collected by the Division of Fish and Game. To meet the particular bookkeeping requirements of the dealers and because of the various types of fishing activities, several different forms of receipt books were issued, but the returns on all forms provided the same fundamental data for statistical purposes.

The form for use in the fresh fish markets is a small ticket, 3½ x 4½ inches, printed three on a perforated page which calls for the date, dealer, fisherman, boat, variety of fish, weight and price. (See Fig. 4.)

[6] William F. Thompson.



STATE OF CALIFORNIA
Department of Natural Resources
Division of Fish and Game

Date May 31 1933

NAME OF DEALER
PACIFIC FRESH FISH CO.,647-50, Monterey

Fisherman O. Enea Boat 1529

VARIETY	WEIGHT	PRICE	AMOUNT
Mackerel	330	3	9 90
~~Horse Mackerel~~	13	6	78
Rockfish	17	8	1 36

No. A 744274 Rec'd by M. B.

P. M. 3. CO.-EMERYVILLE, CALIF.-LOS ANGELES-SEATTLE 47 71205

FIG. 4. Wholesale fresh fish market receipt form, in use since 1918.

FIG. 4. Wholesale fresh fish market receipt form, in use since 1918

Those companies operating trawlers required a special triplicate receipt form, 4 x 8 inches in size. (See Fig. 5.) This form has been superseded by the trawler log and ticket form. (See Fig. 17.) Their boats are larger and travel greater distances, so it was necessary to provide space to show the point of origin of the catch. This particular type of gear is limited in variety of fish it takes, the catch being composed chiefly of flatfish, so the names of the fishes were printed on the receipt. Space was provided for the number of boxes as well as the weight in pounds, as the catch is delivered in uniform boxes and recorded on the docks by boxes. No price is given as the companies operate their own boats and the price is not determined until the fish are sold in the wholesale markets.

The large loads delivered to the canneries are composed of one or two varieties of fish. A separate ticket is made out for each species taken. (See Fig. 6.) The price is uniform for the load and species. Added items of interest, for which space is provided on the 4 x 8-inch cannery receipt, are the size of the fish composing the load, and the use to which the fish is put, whether canned, salted, smoked or run through the reduction plant.

CALIFORNIA FISH & GAME COMMISSION

(THIS COPY FOR FISH & GAME COMMISSION)

Daily Report of TRAWLER CATCH

Place Eureka Date 6/1 19 32

S. F. INTERNATIONAL FISH CO.

Name of Company 40-523 SAN FRANCISCO

Name of Boats Regal #1 and Pearl

SPECIE OF FISH	NO. OF BOXES	WEIGHT
Boccacio		
Codfish	1X	150
Flounders	5X	750
Hake		
Halibut		
Rock Cod		
Sandabs	2X	300
Sharks		
Skates		
Sole (Large)	6X	900
Sole (Small)		
Sole (Rex)	3X	450
Mixed Fish	2 1/2X	425

This report must show entire catch landed by each boat (if otter board,) or pair of boats (if paranzella.) Show weights if possible. If Catch shown by Boxes, average

weight per box 150 lbs.

No. T26717 Rec'd by J. R.

MANUFACTURED BY PACIFIC MANIFOLDING BOOK CO., EMERYVILLE, CAL. 8 5563

FIG. 5. Facsimile of receipt form used by trawlers prior to 1934.

FIG. 5. Facsimile of receipt form used by trawlers prior to 1934

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FISH AND GAME

Name of Packer or Dealer
SOUTHWEST CANNING CORPORATION
041-70 San Pedro
Issued at Terminal Island
Date July 16 1934 Time 1 30 P. M.
Boat Sea Breeze No. 3418
Fisherman L. Mione
Variety Bluefin Price 90 00

Denote if Small, Medium or Large (S, (M) or L)

GROSS	TARE	NET
		875
		879
		950
		915
		874
		200

To be used for Canning
Total net weight 4693 lbs.
No. D 497269 Weighed by C. M. J.

PACIFIC MANIFOLDING BOOK CO.-EMERYVILLE, CALIF.-LOS ANGELES-SEATTLE (2367)

FIG. 6. Cannery receipt form in use since 1918.

FIG. 6. Cannery receipt form in use since 1918

Although the law was enacted in 1917, it was not until the fall of 1918 that details were completed and it was put into actual operation. The receipt system was first introduced in southern California, but by 1919 it was functioning throughout the state. This gave the state a most complete and unusual check on her fish crop. It included not only the species of fish which were of greatest importance in the catch at that time, but also those species of comparative insignificance, some of which were to rise in importance with the coming years of intensive fishing.

The total landing figures were not sufficient in themselves to show whether or not a species was holding its own against the inroads of improved gear and added effort. In 1919 it was found necessary to require that every boat be registered[7] to show its size, the number in its crew and the amount and type of gear it carries; the information derived from such a registration to be used as a measure of the effort necessary to catch the quantities landed. Summaries of such data show the changes through the years in types and size of boats and gear. (See also "Commercial fishing boat numbering system," by H. B. Nidever, pp. 29–36.

The results from this combination of records were most gratifying. But it was not long before serious problems arose in connection with the handling of the great mass of material which was rapidly collecting. It was a long, slow, inaccurate process of tabulating by hand the summaries required. Several types of information were to be derived. For administrative purposes there were required general summaries by species, or geographic units—city, county, harbor or river; the individual dealer's record to be used for the collection of tax. These tabulations were made by clerks in the patrol offices. The research staff desired greater detail for the boat catch analyses and life-history work, and as the receipts were to be held as permanent records they were shipped to the laboratory for further tabulation and final filing.

At the laboratory it was decided that trained research workers only were qualified to put the receipts in order for use in the scientific work. The bulk of the data soon discouraged this plan and a corps of clerks was engaged to do the hack work. Lack of knowledge of the fisheries and proper training for the work disqualified this group. It was finally ncessary to select for detailed analyses the receipts, covering a few of the more important species which were under observation at the time, and file the balance for use in the event attention was directed to these other species later. The folly of this was brought to light when an attempt was made several years later to use some of these back records. Essential information was lacking and it was too late to secure the facts to complete these records. Because of an insufficient field force in the outlying districts, the collection of receipts lagged and discrepancies increased. In the offices great quantities of fish were being listed under "miscellaneous" because of the use of colloquial or foreign names on the receipts for species delivered in the markets.

Despite these difficulties, the record was better than had ever been obtained before. The quarterly and yearly catch tables were available for comparative purposes and through it all the record of

[7] Conner, Geraldine. California's fishing boat census. Calif. Div. Fish Game, Fish Bull., No. 30, pp. 72–107, 1931.

cannery fishes was splendid. A great deal of constructive work had been made possible for several of the important fishes but the results obtained were only about half of what the system was capable of producing.

It was almost ten years after the introduction of the receipt system that sufficient funds were raised and interest aroused to permit it to function properly. The routine statistical work was organized under an experienced hand and the clerks in the offices and at the laboratory were given a course of instruction. Concentrating on the current work, through the concerted effort of all staff members, the record for the years 1926 and 1927 showed such marked improvement that it was possible to publish a special bulletin,[8] giving in detail catch figures which had not hitherto been available for publication. Three such publications[9] have been issued and their value to the administrative and research staff is acknowledged by their constant use.

Prior to this time quarterly tables, arranged in county groupings, had been printed in the Division's quarterly magazine, California Fish and Game. The grouping by three months had no particular significance except that the magazine was printed and taxes collected quarterly. The catch bulletin gave monthly figures and yearly summaries. Individual species were singled out for special articles of current interest. The fisheries were rapidly changing, conditions in one were entirely different from another, and each species was treated in a manner peculiarly suited to itself. For a time element, seasons were given first consideration.

By 1930 a change of administration had brought officers[10] to the head of the Division whose appreciation of statistics and experience with them directed attention particularly to this work. At their instigation, a survey was made of the most modern machinery for handling bulk statistics, and the following year saw the introduction of punched card tabulating equipment into the bureau. This move was questioned for several reasons; the cost was considerable, furthermore the research advisors doubted the possibility of coding, punching, and electrically preparing material for the foundation of a biological program. It was not an easy task but after four years the success is beyond question.

Under the present statistical system the receipts are collected or mailed to the district offices at least twice a month. It is necessary to transfer the entire record to cards by punching holes in numerical order. (See Figs. 7 and 8.) The card must show by the use of code numbers every item that appears on a fish receipt, and allowance is made for future changes or additions. The code must be arranged to suit the mechanical peculiarities of the tabulating equipment in order to minimize the amount of work. The code must cover all points required in the various types of work for which the final reports would be used. The building of this code was one of the major pieces of work in installing the system.

The state was divided into eight natural geographical areas and the fisheries in each one was treated as a separate unit, these units were called "regions." (See Fig. 1.) This simplified the handling of the

[8] The commercial catch of California for the years 1926 and 1927. Calif. Div. Fish Game, Fish Bull., No. 15, 1929.

[9] Instigated by W. L. Scofield.

[10] I. Zellerbach and John L. Farley.

original material since the preliminary work of checking and punching is done in the field offices in the immediate vicinity of the fishing activities. Any discrepancies found in the receipts are adjusted immediately

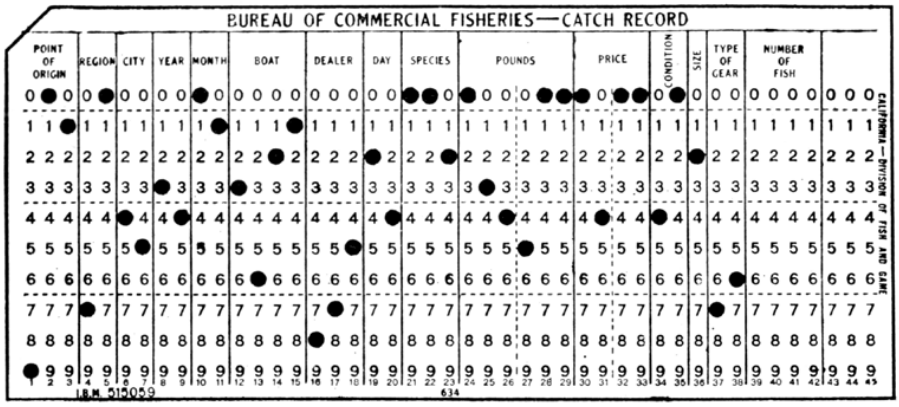


FIG. 7. Facsimile of punched card used in compiling California's commercial fisheries statistics.

FIG. 7. Facsimile of punched card used in compiling California's commercial fisheries statistics

FIG. 8. Electric key punch used in transferring original records to punched cards.

FIG. 8. Electric key punch used in transferring original records to punched cards

at the base where first hand information is available. Any desirable combination of these regions may be made mechanically later

The punched cards and original receipts are then shipped to the California State Fisheries Laboratory, where the permanent files are maintained and the sorting and tabulating equipment is installed for the final running of reports. (See Figs. 9 and 10.) Here a corps of trained workers once again check the original receipts and the punched cards are verified, following a process similar to the original punching. Phenomena of an unusual character appearing on the receipts or in

FIG. 9. Electric horizontal sorting machine used to arrange punched cards in proper groupings for tabulating

the final reports are referred to the research staff or the law-enforcement officers for investigation. Thus, considerable error is eliminated and organization members are kept in touch with current changes in fishing activities.

No special code was needed for such items as the date, pounds, price or number of fish. All weights are converted to pounds and the price is shown in cents and fractions of a cent per pound. Cities, dealers, condition and size of fish, and type of gear offered few difficulties in the code. The eight regions were numbered from 10 to 80 and by skipping nine digits in between, these areas can be subdivided into

smaller units without disrupting the major code if desirable. The point of origin of the catches, the species of fish and boat identification presented the chief difficulties.

For general administrative purposes the place where the business is transacted and the fish landed makes a satisfactory point around which the poundage might be calculated. In our records the region and the city are used for this purpose. For life-history work and studies of fish population to determine if depletion is imminent the point of origin of the catches is of most importance, and the place of landing less significant. Originally the code for the point of origin was built around landmarks. A point of origin would indicate vaguely that that particular catch of fish had been made in waters off a given headland or near a certain city. This gave an indefinite picture of the actual fishing grounds.

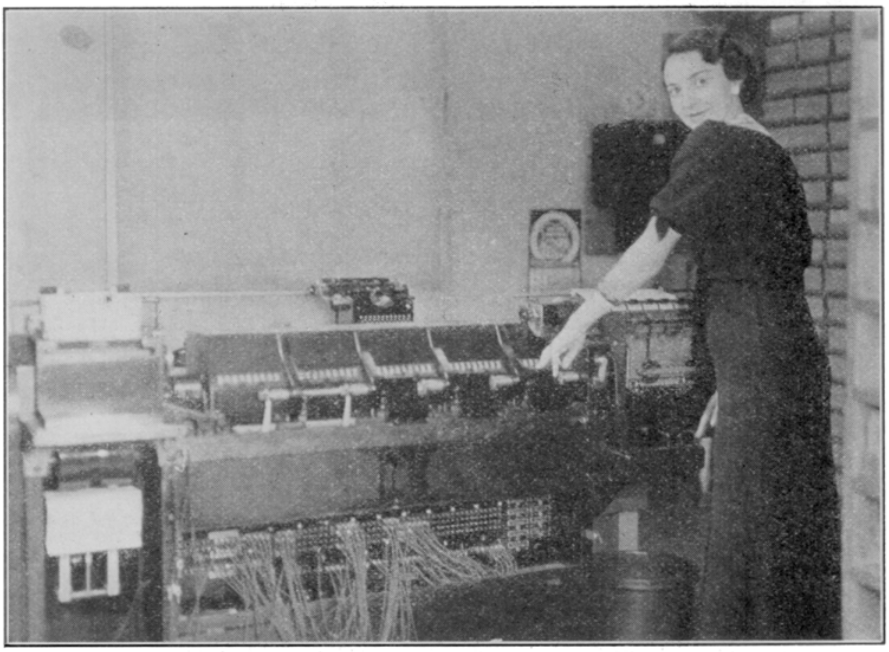


FIG. 10. Electrically operated five-bank tabulator with automatic printer, through which punched cards are run in preparing statistical reports.

FIG. 10. Electrically operated five-bank tabulator with automatic printer, through which punched cards are run in preparing statistical reports

As an experiment, in 1933 the ocean waters were blocked off into numbered squares on charts. These charts and boat log forms were supplied to the captains of the trawler fleet fishing out of San Francisco. (See "Logs on California Trawlers," by G. H. Clark, pp. 37–40. The returns from these logs pinned the flatfish catches down to definite fishing grounds. The success of this experiment was far beyond expectations and during the current year (1934) the locality of catch or point of origin was definitely established on all trawler catches. Similar charts, supplied to selected groups of boats in the tuna fleet fishing down the coasts of Mexico and Central America, have netted returns which give us a more definite idea of the actual tuna fishing grounds. (See "Locality Records and the Tuna Fishery," by H. C. Godsil, pp. 41–43.) Field workers have been getting from boat captains and

crews definite information concerning the points of origin of sardine catches for some years past, and we are now tying this into the numbered square plan. Gradually, it is hoped, through series of logs and charts supplied to all boats in the fishing fleet, that a complete record of points of origin will be obtained. The start has been encouraging.

The species were grouped in numerical series, keeping the families and types of fishes together. For example, the tunas were run in a series of from 001 to 007, and the mackerels and mackerel-like fishes all coded in this series below 099. River fishes ran in the 300 series, and mollusks and crustaceans were grouped in the 800 series. Thus, if a report on tunas alone was needed, that group of cards could easily be separated from the mass of material on hand. This grouping of fishes also makes the code easier to use and remember. The chief trouble with species arose through the use of incorrect or colloquial names by the market men for various fishes. In the case of rockfish, there were thirty different names appearing on the receipts, which upon investigation proved to be just plain "rockfish" masquerading under various cognomens. For the code then it was necessary to develop a numerical list for all the commercial species, listing after each number the common name of the fish which it represented and all of its misnomers. It was also necessary to develop a cross index alphabetically arranged to show every name given a fish on the receipts and the official common name and number by which it should be known. This question of common names had long been troubling the law enforcement and research staffs and through the combined efforts of both branches of the service, there was under way an intensive campaign to educate the dealers in the use of one desirable common name for each species of fish. In conjunction with this program in 1931, there was published a handbook[11] designed to further the work. It gives a picture of each fish found in the commercial catch, its scientific name and the preferred common name by which it should be known. A short outline of its habitat and many of its misnomers are listed. The improvement in our present records commends this program.

In the case of the boats, it took an amendment to the Fish and Game Code and a great deal of field work to get every boat properly numbered. (See "Commercial fishing boat numbering system," by H. B. Nidever, pp. 29–36.) Prior to 1931 confusion in the identification of the boats came through the fact that so many commercial fishermen were partial to the name of *Mary*. Forty boats of that name are still operating. *Josie, Johnnie* and the *Saints* are numerous. Over twenty-five fishermen with the surname of Bruno owned boats and fished regularly, and the Russo, Canepa and other families were well represented. The individual catches in such cases in some localities were impossible to separate when full identification was not given on the receipts. All of the powered boats carried U. S. Custom House numbers, but the numerical series ran with an alphabetical prefix or suffix, which was often interchanged. The greatest drawback to the use of these numbers was the fact that they were constantly changing. The sale of a boat or its removal to a different district would mean a change of number and the old number would often be issued to another boat

[11] Walford, Lionel A. Handbook of common commercial and game fishes of California. Calif. Div. Fish Game, Fish Bull., No. 28, 181 pp., 137 figs.

immediately. Therefore, in order to follow a boat over a period of years, as a definite measure of fishing effort, it was necessary to number all of the commercial fishing craft in the state. Division of Fish and Game number plates were issued free of cost; the numbers are from one to four digits. Each commercial fishing boat is required to retain the one number for purposes of identification during its life. This state boat number is used as the identifying code in the statistical system.

With the details of the code ironed out to complete the inauguration of the system, it was necessary to plan final summaries to be turned out by the tabulating equipment to fulfill all of the needs of the Division along the lines of commercial fisheries statistics. In other words, the purpose was to get everything into the reports which had formerly been turned out laboriously by hand. It was desirable to make available sufficient additional information to offset the added cost of rental on the equipment, and to pay for the effort subsequent to its installation. However, it was a very short time before the equipment proved that it was able to pay high dividends in results.

The preliminary preparation of the data and the punched cards is an arduous task. Once this is done, on very short notice any summary or combination of the information desired can be turned out by one operator working at the tabulating equipment. An electrically operated horizontal sorter is used to arrange the cards quickly in proper order to give the particular type of information for each report. The tabulating printer used is the equivalent of a five-bank adding machine with a printer attached, electrically operated. Two banks are used for indicating, by code number, the particular classifications being tabulated. In the other three banks, three separate accumulative totals may be taken. For example, the catch of any particular boat or the deliveries to one port may be shown with one operation of the machine, giving one total for the day, a second total for the month and the third for the year.

Special continuous fan-fold paper, 8½x10 inches in size, is used for the printed reports, which allows for filing finished summaries in regulation letter sized files. The final reports run each month for all regions in the state give the necessary totals for the regular administrative work, and provide an excellent cross-check for the final goal of accuracy. A synopsis of this monthly routine follows: “Report I. Species.” “Lists the species taken in any particular region, arranged by point of origin and price. Provides a price fluctuation index, indicates the seasons, the particular areas being fished, and finally gives a total catch figure for the month.” “Report II. Dealer.” “Lists the canners and dealers. Shows the number of pounds of each species delivered to each firm, and the total for the month of all species. Indicates the source of the dealers' supply, whether locally caught fish, fish from distant grounds or foreign waters. Provides a check on the volume of business of canners and fresh fish dealers, and a means for ascertaining the tonnage tax due on taxable species.”

“Report III. Daily Boat Catch.” “Gives a detailed record of the daily deliveries of every boat in the commercial fishing fleet. Shows where the fish is caught, to what city and dealer it is delivered and the amount of each species and the price for each day, with a total by boat for the month. This provides a detailed check on the activities of the fishing fleet for use in boat catch analyses by the research department. It is the basic record.” “Report IV. Summary of Boat Catches.” “(For study or reference.) Because of the volume of Report III, which gives the daily catches, this report is designed to simplify the work of selecting definite types of boats from the fleet. Gives the total by species for each boat, with a total of all species by the month.” “Report V. City.” “Gives the species of fish delivered at each port in pounds, with a total for the amount from each point of origin and a grand total of all deliveries during the month to any one city.”

These five reports give the fundamental information. For particular regions or fisheries, special reports are run to fulfill certain demands. For southern California where the chambers of commerce are particularly interested in the fish deliveries at Los Angeles Harbor, special monthly runs are made of individual cities in the harbor area and for special collective groupings to satisfy their demand. For San Francisco region, where a scientific study of the flatfishes is under way and the interest of the people in the industry has been aroused to the value of catch statistics, special reports of the flatfish taken by the boats operating trawls are run monthly for the use of the industry and the state's investigators. One week after the close of each month, there is run a cannery check which gives the amount of fish delivered to the canneries of the state and provides a current measure of the volume of the industry.

A recent law has increased the confidence of the industry in the safety of their individual trade secrets. It provides for the confidential maintenance of these records, along the lines of the former gentlemen's agreement to which the state had adhered. Summaries only may be published which do not divulge the business of any individual, firm, boat, or fisherman.

We have, ready for use, a current detailed record of the output of the entire fishery, including the unimportant as well as the species delivered in greatest quantities. We can show over a period of years the species which are ascending in total catch and those which are descending. Through a tabulated report taken from the boat registration and license applications, a correllation can be determined between the catch and the amount of effort in equipment and man-power used to produce a given amount of fish. Through the price trend information and the volume of business transacted by various types of firms, we have the key for an economic study of the industry. We can trace the activities of the individual boats or groups of boats engaged in a specific type of fishing. We can tell where the intensive fishing is

centered and in some cases how far the boats must go for their catch. We can follow the shifts in locality, in types of gear and size of boat. We have a complete record of the fish taken by the California fishing fleet in foreign waters and landed in the home ports, as well as the amounts of frozen fish imported from foreign countries and canned in southern California. We have the means of detecting when a fishery is on the decline, which is of prime importance in endeavoring to prevent depletion.

During the year 1934 the special work, which has been carried on in connection with the statistical system, gives a good idea of the diversified fields the organization and equipment are capable of entering. For the laboratory staff in conjunction with special studies, we have covered the Pacific mackerel, five species of tuna, sardines, flatfish, yellowtail, catfish, salmon and shad. The boat registrations have been tabulated by size, kinds of power, nationality of owner, and fishing operations. The fishermen's licenses have been summarized by ports, age, nativity, and fishing activities.

As basic material for government investigations, we have been called upon for tabulations to be used by the U. S. Bureau of Fisheries, the International Fisheries Commission (United States and Canada), and other federal agencies. Local fishermen's organizations, harbor departments, chambers of commerce, newspapers, and fisheries trade journals are constantly calling upon us for summaries.

The Bureau of Game Refuge is the first of other branches of the division to take advantage of the mechanical statistical equipment with its trained staff. Each fall since 1931, the record of the deer kill in the state has been handled by the fisheries statistical staff, producing over ten reports a season on approximately 20,000 successful hunters.

For the future, plans are in process of formulation for similar statistical records of both the salt and fresh water sport catches. The volume of catch of commercial as well as sport species taken by sportsmen fishing from the southern California party and charter boats, barges, and pleasure piers, is mounting yearly. The sport catch of striped bass and trout from the fresh-water streams and lakes offers a fertile field for statistical investigation.

3. COMMERCIAL FISHING BOAT NUMBERING SYSTEM

By H. B. NIDEVER

It has long been recognized that no measures for the conservation of fish could be effective unless accurate information concerning the distribution and relative abundance of the various species was available. It is equally important that accurate records be obtained concerning the method of capture and the improvement or changes in method. Guesswork should be discarded. It must be definitely determined what the fish supply is, if the distribution of any particular species is widespread, and whether the methods of capture are unduly destructive or wasteful. New methods must be studied to determine if they may safely be put into general use.

For a number of years the Bureau of Commercial Fisheries has endeavored to develop and put into operation measures, calculated to give dependable advice to those interested in the maintenance of a permanent fish supply. Statistics relative to the state's fisheries have included a detailed record of the fish landed and a yearly census of the fishing fleet and gear.

The Bureau of Commercial Fisheries recognizes the fishing boat as a most important factor in the fisheries, as practically all fish taken for the markets and canneries are caught by crews of the commercial fishing craft. For this reason, in determining the abundance of any species of fish or in attempting to determine the reasons for fluctuations in the supply, the boat is used as one of the "units" of fishing effort. An accurate description of every boat in the fishing fleet, current knowledge of its operations, the gear, and number of men it carries are vital parts of the statistical record. It is also necessary to know the number and the type of new boats coming into the fisheries and to get a similar record of boats which have discontinued operations.

The fishing boats vary greatly in type and size; they range all the way from flat-bottomed skiffs or dories, 16 feet long, used in the rivers and lagoons, to the large tuna vessels, 139 feet long, which travel thousands of miles from their home ports. Each boat carries some sort of fishing gear, such as nets, traps, lines, and in a few cases harpoons. The gear varies not only in type and size on the various boats, but from year to year the operator of one boat will change his particular method of fishing with a resultant shift to another type of gear. Whether or not a boat is equipped with refrigeration apparatus makes a difference in the distance it may carry the catch and the kind of fishing in which it may engage.

In order to keep a check on all boats or vessels plying in the state's fisheries, since 1919 the state law has provided that such boats shall be registered each year. Each owner is required to file with the Division of Fish and Game a statement, giving a full description of his boat as well as an account of the amount and kind of fishing gear used and the waters in which the boat was operated during the preceding year. In

earlier years, forms were supplied to the fishermen for this registration, but it was found that many fishermen took out commercial fishing licenses but neglected to register their boats.[1] As a result of this, considerable patrol work was necessary to get a complete registration. In 1933 a new combination license and boat registration form was introduced. (See Figs. 11 and 12) The fact that the record of the boat is made a part of the required information in obtaining a commercial fishing license has simplified the work and enabled us to get a more complete registration.

CALIFORNIA COMMERCIAL FISHING FLEET, 1934

Regions of home ports	Number of boats grouped by length in feet					Total number of boats in each region
	Up to 24′	25′ to 39′	40′ to 64′	65′ to 84′	85′ and over	
Oregon, Washington and Alaska boats fishing in California	0	13	38	41	0	92
Del Norte	1	9	1	0	0	11
Eureka	7	144	18	0	0	169
Sacramento	87	148	0	0	0	235
San Francisco	43	343	36	8	0	430
Monterey	67	155	43	16	0	281
Santa Barbara	35	36	14	0	0	85
Los Angeles	124	244	158	65	28	619
San Diego	24	90	47	11	29	201
Total number of boats in each length group	388	1,182	355	141	57	2,123

A further requirement for purposes of identification is that every commercial fishing boat shall carry a pair of California Division of Fish and Game number plates. For the records of the Bureau of Commercial Fisheries, the state number takes the place of the boat name or the U. S. Custom House number, which were former means of identification. Before this distinctive numbering system was adopted, considerable difficulty was experienced in getting accurate boat records. These difficulties were chiefly due to the fact that through the years, numbers had been issued to the fishermen from several sources—state, federal and fraternal. The numbers were frequently changed. There was also considerable confusion in the boat names. Prior to 1909, the state's market fishermen's licensing law, which licensed a boat according to the number of men in the crew rather than the individual fisherman, required that the license number be displayed on either side of the bow of the boat. This license number was painted on a tin plate, 12 inches square, with figures 4 inches high. Two different colors were used, one for boats with a crew of one or two men, where a license fee of $5 was charged, and the second color was given to boats carrying more than two men, for which there was an increase in license fee. The number and colors changed each year. In March, 1909, a new paper license system went into effect. Under this system, individuals were licensed and for the first time a description of each fisherman was required. Each license was numbered but the number plate was no longer required on the boat. The federal government required that the larger boats be documented, that is, all boats

[1] For obsolete form, see pages 75–76 of: Conner, Geraldine. California's fishing boat census. Calif. Div. Fish Game, Fish Bull. No. 30, pp. 72–107, 1931.

over five net tons were recorded with the U. S. Custom House and assigned a permanent number, which ran into six figures and was carved into one of the deck beams of the vessel. These boats were also required to have an official name; and although several large boats might carry the same name it was a simple matter, through the names

STATE OF CALIFORNIA

DIVISION OF FISH AND GAME—BUREAU OF COMMERCIAL FISHERIES

APPLICATION FOR MARKET FISHERMAN'S LICENSE AND COMMERCIAL FISHING BOAT REGISTRATION

Every person engaged or employed in the vocation of fishing for fish, mollusks or crustaceans for profit in this State, must first obtain a license from the Division of Fish and Game, for which a fee of $10.00 is required. This license expires March 31st of each year.

U. S. Custom Number A 567 Home Port San Pedro Boat Name Napoleon Fish and Game Number 1234

Full Name Sam Snider (License Applicant) Address 421 - 22nd Street (Street), San Pedro (City)

Height 5 Ft. 8 In. Age 42 Hair Brown (Color) Eyes Grey (Color)

Nativity Austria (State or Country) First Papers Yes Full Papers Yes

If License Applicant Operates a Commercial Fishing Boat, Barge or Vessel, the Following Questions Shall Be Answered Before License Is Issued:

Every person owning or operating any fishing boat or other vessel engaged in commercial fisheries shall on or before the first day of April of each calendar year file with the Division of Fish and Game on a form to be provided by the Division a statement giving the general dimensions and description of such boat or other vessel so used or operated. The owner or operator shall also give a complete description of fishing gear and equipment used or carried on such boat or vessel and in what waters so used.

Name Sam Snider (Boat Owner) Address 421 - 22nd St., (Street) San Pedro (City)

Name Vince Marinkovich (Captain or Operator) Address 121 Cannery St., (Street) Terminal Island (City)

Type of Boat or Vessel Purse Seiner Length 70 Ft. In. Beam 17 Ft. 6 In.

Net Tonnage 27 Horsepower 100 Is vessel equipped with Power Gurdies or Winch? 1 winch

Is vessel equipped with cold storage plant? No

Capacity of hold for fish stowed below decks, tons iced tons uniced

Kind of Fishing Engaged in During Past Year	Waters Fished	Show Months Operating	Number in Crew, Including Captain	Number of Nets, Lines or Traps	Kind of Nets, Lines or Traps	Size Mesh	Fathoms Long	Fathoms Deep
Sardines	Monterey	Aug. to Nov.	10	1	Purse Seine	1¼"	140	21
Sardines	San Pedro	Nov. to April	"	"	"			
		to						
		to						
		to						
		to						
		to						

[Signed] Sam Snider (Captain-Owner or License Applicant)

Application taken by V.V. Date 4-30-34

License issued by " Date 4-30-34

License Number 5164

Space below to be used only in case of change of ownership or change of boat name or Custom House number during current license year.

Sold by Sam Snider of San Pedro Sold to Paul Hill of Newport Beach

Custom House Number changed to Same Date

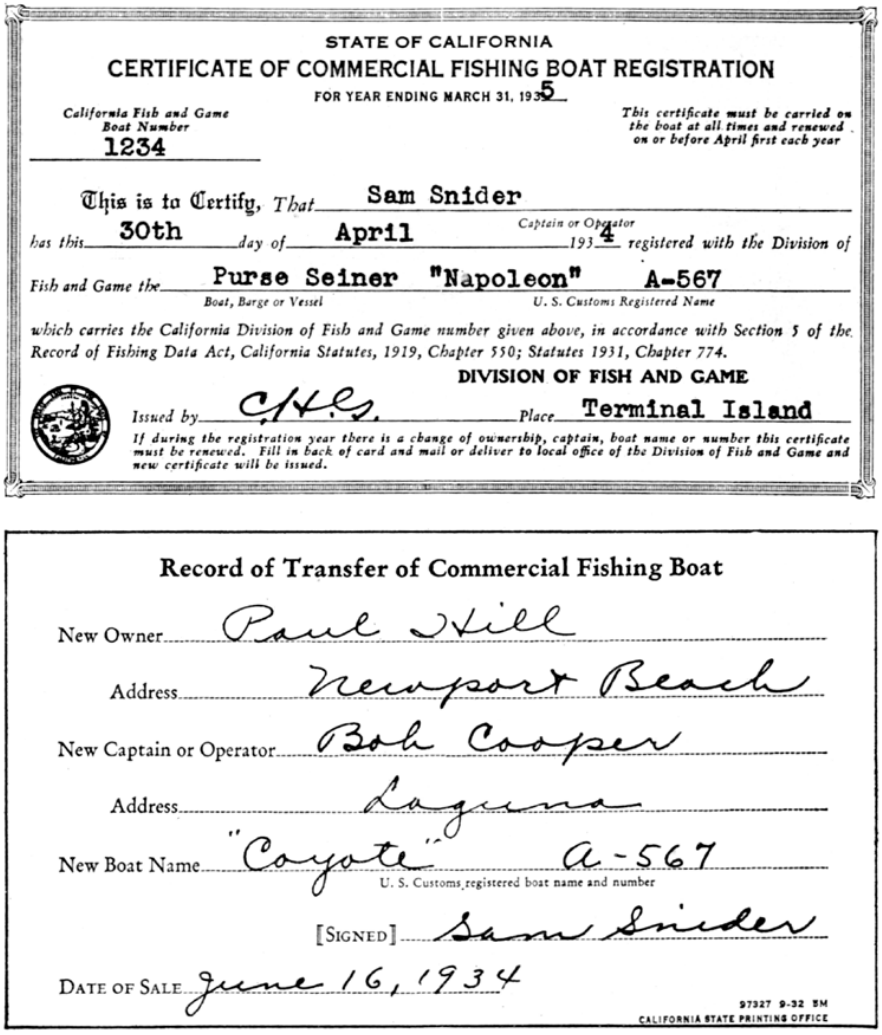
Boat name changed to "Coyote" Date 6-16-34

FIG. 11. Combination form of boat registration and fisherman's license application, initiated April 1, 1933.

FIG. 11. Combination form of boat registration and fisherman's license application, initiated April 1, 1933

of the owner and captain, to establish specific identities. During and since the World War, the undertonnage or undocumented boats have also been required to carry a federal identification number. A large portion of the boats in the fishing fleet are under five tons net, and it was with these undocumented boats we were most concerned.

There are two U. S. Custom House districts in California—the San Francisco district, which extends from the Oregon line to San Luis Obispo County; and the Los Angeles district, which includes San Luis Obispo County and extends to the southern boundary of the state. The federal number is issued by the local Custom House office to boats making home ports in their respective districts. In numbering the



STATE OF CALIFORNIA
CERTIFICATE OF COMMERCIAL FISHING BOAT REGISTRATION
FOR YEAR ENDING MARCH 31, 1935

California Fish and Game Boat Number: 1234

This certificate must be carried on the boat at all times and renewed on or before April first each year

This is to Certify, That Sam Snider (Captain or Operator)
has this 30th day of April 1934 registered with the Division of
Fish and Game the Purse Seiner "Napoleon" A-567
(Boat, Barge or Vessel) (U. S. Customs Registered Name)
which carries the California Division of Fish and Game number given above, in accordance with Section 5 of the Record of Fishing Data Act, California Statutes, 1919, Chapter 550; Statutes 1931, Chapter 774.

DIVISION OF FISH AND GAME

Issued by C.H.G. Place Terminal Island

If during the registration year there is a change of ownership, captain, boat name or number this certificate must be renewed. Fill in back of card and mail or deliver to local office of the Division of Fish and Game and new certificate will be issued.

Record of Transfer of Commercial Fishing Boat

New Owner Paul Hill

Address Newport Beach

New Captain or Operator Bob Cooper

Address Laguna

New Boat Name "Coyote" A-567
U. S. Customs registered boat name and number

[SIGNED] Sam Snider

DATE OF SALE June 16, 1934

97327 9-32 5M
CALIFORNIA STATE PRINTING OFFICE

FIG. 12 *A.* Certificate of commercial fishing boat registration issued to boat owner or captain and retained on the boat. *B.* Reverse side of certificate used by owner when slip is returned to Division of Fish and Game to report a change of ownership.

FIG. 12 A. Certificate of commercial fishing boat registration issued to boat owner or captain and retained on the boat. B. Reverse side of certificate used by owner when slip is returned to Division of Fish and Game to report a change of ownership

smaller craft, the federal government uses several series of numbers: four figures in some cases but more often three figures with a letter as a prefix or suffix, B and C in the northern half of the state and C and V in the southern. These numbers did not remain permanently with the boat; they changed when the boat moved from one district to another or when the boat changed ownership. There was endless confusion

with this system of numbering. Although many of the boats in this class had names, the duplications were so numerous that the names were of little use as means of identification.

To add to the difficulty at San Francisco, the Crab Fishermen's Protective Association, for the purpose of simplifying its bookkeeping, issued numbers to its members and these were often substituted for the Custom House numbers. In order to keep an accurate record of the individual boats, it was necessary to carry on a continuous "check-up" with the Custom House offices and the dealers. A permanent number for the boats under five tons was early recognized as a necessary improvement in the state's statistical system.

A state number system had been planned for some time, and in 1931 when the "punch card" system was introduced as an improved method of compiling fishery statistics, it became necessary to have our own means of keeping check on the boats operating in the state. As all data transferred from written records to the cards are punched in numerical code, it was necessary to devise some means of codifying the individual boats. The U. S. Custom officials were consulted to determine whether the state might place its own series of numbers on the boats or other floating equipment used in connection with the fisheries without conflicting in any way with the United States marine regulations. No objection was found and the Bureau of Commercial Fisheries proceeded with the plan. The next question was just what kind of a number plate would be best for the purpose. Size and durability seemed to be the most important consideration. It was planned that the plates when once placed on a boat should remain there as a permanent fixture as long as that boat was operated in connection with the fisheries. The code numbers were to be in series of not more than four digits.

After consulting with the manufacturers and examining several different designs and material, it was decided to have the numbers stamped on metal plates, 3¼x9 inches, and the numbers to be of block type, two inches in height, black on white back ground. Twenty-size gauge non-corrosive metal was used for the plates, with 6 holes punched through the edges for the purpose of fastening the plates to the boat. Copper brads were used for fastening. The plates were made in pairs, one to be fastened on each side of the pilot house or in a conspicuous place well forward on the superstructure of the vessel. (See Fig. 13.)

In 1931, when this system was installed, there were approximately 2500 active boats to be numbered in the state. Four thousand pairs of plates were ordered, as it was contemplated this amount would be needed within the following years for numbering new boats and boats from other states entering our commercial fisheries. Lost or disfigured plates have to be replaced through reorders of the original number assigned to the particular boat, at the expense of the owner. There is no charge for the first pair of number plates issued to a fishing boat.

The plates were delivered in February, 1931, and the placing of the plates on the boats was begun immediately thereafter. The numbers are in pairs, ranging from 1 to 4000, and were assigned by the Bureau of Commercial Fisheries to its administrative districts as follows: The 1 to 1500 series was assigned to the San Francisco

office for distribution to boat owners from the Oregon line to and including San Mateo County on the coast, including the boats of inland waters in the Sacramento and San Joaquin river deltas. For the Monterey region, the series ran from 1500 to 1999; 2000 to 3499 for the Los Angeles and Santa Barbara regions, including San Luis Obispo County south through Orange County; and 3500 to 4000 for San Diego.

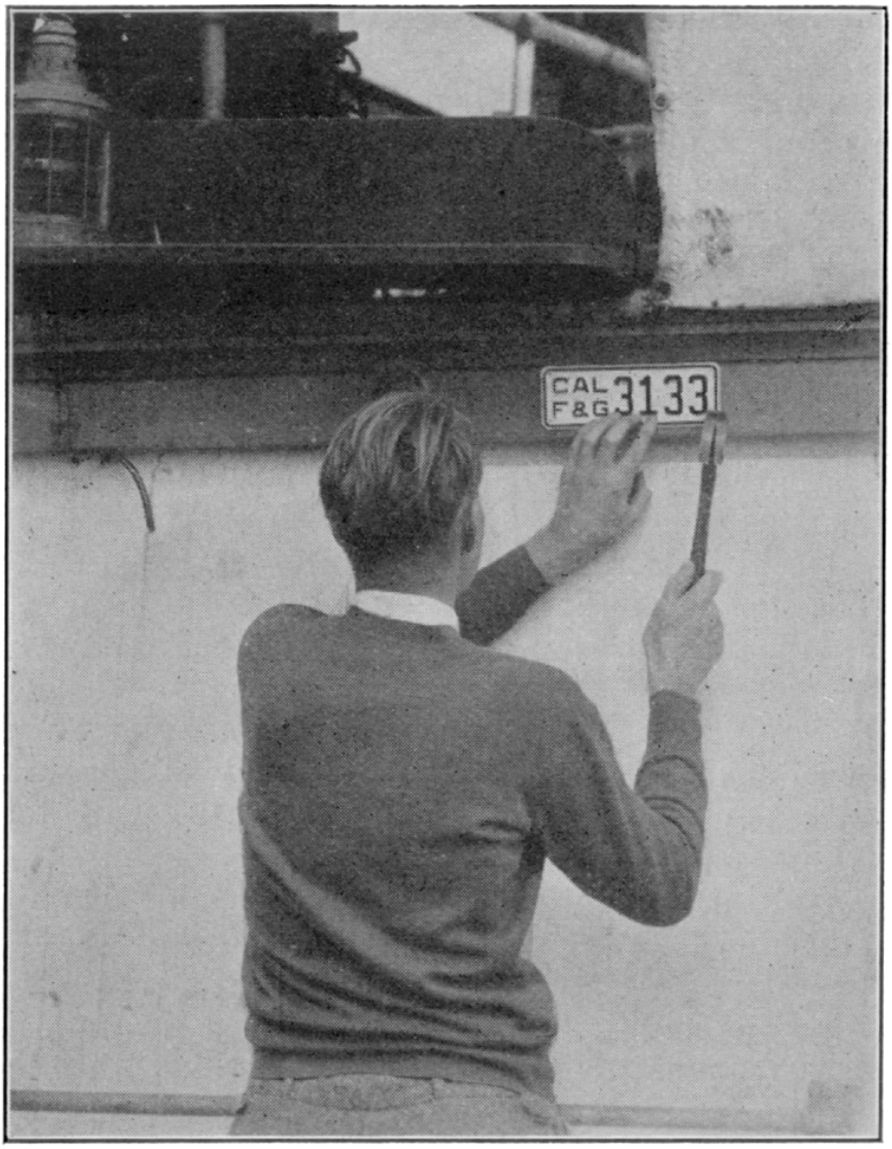


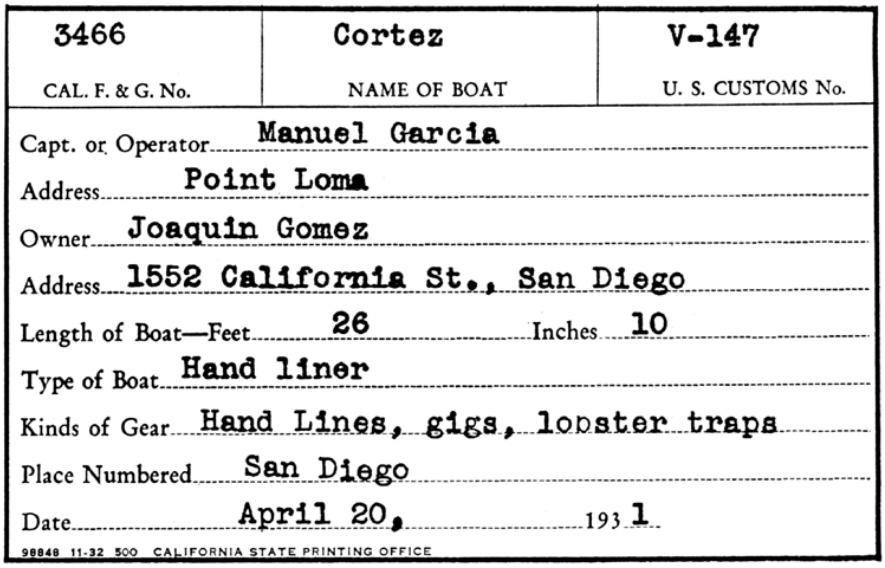
FIG. 13. Fastening Division of Fish and Game number plates to superstructure of a commercial fishing boat.

FIG. 13. Fastening Division of Fish and Game number plates to superstructure of a commercial fishing boat

As a matter of record a special form card (see Fig. 14) was printed for the purpose of obtaining required data on the boats at the time numbers were installed. On this card were recorded the state number assigned to the boat, the Custom House number, the boat name, and both the owner's and operator's name and address. The length, type of boat, the kind of fishing gear used, the place where the boat was numbered, and the date were included. This card remains permanently on file at the statistical headquarters at the California State Fisheries Laboratory as long as the boat remains in service. Changes in ownership, name or Custom House number are recorded on the back of the card as an historical record.

The boat numbering was practically finished by the fall of 1931, only a few small boats in the delta region of the Sacramento and San Joaquin rivers remaining unnumbered. By the following license year (April 1, 1932) each of the fishing boats in the state had an identifying number and carried a state certificate of registration. (See Fig. 12.)

A "chaindex" cross catalog system, for keeping a check on the boats by four identifying features, is installed in each of the district offices at the fishing centers of San Francisco, Monterey, Los Angeles Harbor, and San Diego. The cross catalog for each office includes a list of boats operating in the vicinity of the office, either permanently or for a short period only. A master "chaindex" catalog of all boats operating in state waters is installed at the California State Fisheries



3466	Cortez	V-147
CAL. F. & G. No.	NAME OF BOAT	U. S. CUSTOMS No.

Capt. or Operator Manuel Garcia

Address Point Loma

Owner Joaquin Gomez

Address 1552 California St., San Diego

Length of Boat—Feet 26 Inches 10

Type of Boat Hand liner

Kinds of Gear Hand Lines, gigs, lobster traps

Place Numbered San Diego

Date April 20, 1931

98848 11-32 500 CALIFORNIA STATE PRINTING OFFICE

FIG. 14. Facsimile of form showing information requested at time Division of Fish and Game number plates are assigned to fishing boats.

FIG. 14. Facsimile of form showing information requested at time Division of Fish and Game number plates are assigned to fishing boats

Laboratory at Terminal Island, where the final check and tabulation of the records are made. The four-feature cross-reference gives the Division of Fish and Game number, the U. S. Custom House number, the boat name, and the names of the owner and operator. When the original fish receipts are incomplete, if any one of these items is given, the boat can be traced, and a combination of several assures its identification. Changes of owner, operator, boat name, or Customs House number, and records of new boats or those no longer engaged in fishing are noted by all staff members. Reports are made to the laboratory, which acts as a clearing house for this information and advises any of the offices that may need the particular record. We have had excellent cooperation from the Custom House officials in this state in untangling some of the knots occasionally encountered in straightening out boat records.

It was planned at first to reserve the small numbers from 1 to 50 and issue them to the fishermen who had operated for the longest period of years. This was to stimulate interest among the fishermen in the numbering system and its purpose. It was found, however, that it would be so difficult to ascertain who really were the "old timers" in the fleet that the scheme was abandoned. Another one of the original plans was to give particular series of numbers to certain types of boats, but this also brought about complications. The trawler boats at San Francisco were assigned numbers in the series from 50 to 99, and the unused plates in this series were to be held expressly for trawlers. However, a few other boats received these low numbers, and it was decided because of the difficulties in the field work to issue the numbers to boats as they came, regardless of type and size.

Boats are continually coming to our fisheries from Oregon, Washington, and Alaska; some stay permanently and others come just for the season, returning to their home ports for the remainder of the year. New boats are being built, a few entering the fisheries each year. Occasionally, pleasure boats are converted into commercial fishing boats. The law now provides that any person operating a fishing vessel for profit in this state shall, for the purpose of identification and registration, carry in plain sight on each side of said vessel a registration number. Therefore, a constant check-up is necessary to see that all boats, migrant as well as native, old boats and new boats coming into operation, are properly numbered and registered. Those fishing boats which have not received a number are easily traced in the records through the monthly report of the daily boat catch of each boat. The field men are immediately notified. The new boat is located and numbered.

The statistical system, in which the census of the boats and gear plays such an important part, is the basis for the protection of a food supply for the public in general and for the safety of the millions of dollars invested in the fishing industry. The boat numbering system in particular has proven its worth in the short time since its installation. Instead of taking a census of the boats and gear every decade, the Bureau of Commercial Fisheries is continuously engaged in keeping this record up to date. The unlimited store of facts concerning the fisheries which is being accumulated will increase in value with the passing of years.

4. LOGS ON CALIFORNIA TRAWLERS

By G. H. CLARK

A ship's log is the official daily record of the movements of the vessel and of the happenings aboard. It includes notes about the weather, the cargo, the crew and the business transactions. Any log is an important document but a fishing vessel's log may mean the difference between a profit and a loss. It enables the fishermen to use their former records to determine the positions of fishing banks; kinds of fish and amounts taken at various times and in specific localities; character of the bottoms; effect of seas, currents and weather on the fishing; the efficiency of various types of fishing gear; and many other items which might aid in making a good catch.

The value of fishing boat logs to a conservation agency is readily seen. The research worker needs all of the detail available to the fishermen as outlined above. He also wants to know the kind and amount of gear used over a definite period of time, the time spent in running to and from port to the fishing grounds, and the effects of the various types of gear on the different species of fish. These data make the collections and samplings of biological material much more definite as to the locality and the conditions under which the fish are taken. It is realized, of course, that if an investigator has access to boat logs for past years, useful information is available which would take years to accumulate and which aids tremendously in the solution of current problems. It gives him accurate knowledge of what has taken place in the fishery before beginning his own observation. This important source of information has long been utilized by investigators of the various countries bordering the North Sea, particularly in the important cod, haddock and plaice fisheries. To a lesser extent log books have been used on our continent. The logs kept by the halibut schooners in the north Pacific are outstanding and constitute the foundation for the statistical research work of the International Fisheries Commission (United States and Canada) besides aiding materially in their biological work. Log records of a selected group of tuna boats (see "Locality Records and the Tuna Fishery," by H. C. Godsil, pp. 41–43) working out of southern California ports have quite recently been made available to an investigator of that fishery, and for the past year daily log records have been received by the Bureau of Commercial Fisheries from the California trawl boats.

The adaptation of logs on all fishing vessels is the next step in the development of the fisheries statistics in California, so that there may be complete and very detailed information on the major fisheries. The fishing industry and fishermen have not felt, until quite recently, the need of detailed records of fishing localities and operations, because most of the early fishing craft were small boats which operated close to shore on an abundant fish population, so that accurate navigation and records of fishing grounds were not a necessity. However, in the more recent years many of our fishes have become less abundant, necessitating

the use of larger boats for operations on more distant grounds so that realization of the value of records of their fishing activities has become apparent.

The introduction of the log system has been handicapped on the western coast of the United States by the character and nationality of the fishermen. California has just such a handicap, in that for many years most of the fishermen have been foreigners by birth, chiefly Italians, Portuguese, Slavs, and Japanese. Many do not write our language and others, although educated in their own language, lack the appreciation of a log. The majority of the small boat fishermen operate "by the land" and not "by the box (compass)," so that it is difficult to obtain accurate descriptions of fishing localities. But more recently, there has been a gradual shift in the personnel. The younger men, American born or schooled, have ascended to captaincies, and many of them keep a good log. There is now scarcely a boat of any size which does not have at least one member of its crew capable of keeping simple notes of events and fishing localities.

The thought of utilizing the ships' logs for fishing data is not new in California. About ten years ago, H. B. Nidever of the Bureau of Commercial Fisheries suggested furnishing to fishing vessels a log book designed to give information and be useful to both the fishermen and the Division of Fish and Game. This log would be uniform for all boats, with the printed form broad enough in scope to cover all classes of fishing. At about the same time, the idea of blocking off the coastal waters of the state into fishing areas, to be used in conjunction with the ships' logs, was discussed. These fishing areas were to be designated on the log as the fishing locality of the day's catch and used in the Division of Fish and Game statistical system to show the catch by water areas.

Early in 1933 when the program for intensive work on the trawl fishery was inaugurated, the log book plan was developed and applied to the boats operating trawls out of San Francisco.[1] This particular fishery afforded a wonderful opportunity to install uniform ships' logs because all the boats are owned and operated by the wholesale fish dealers (unusual in California where the majority of the fishing boats are owned by the fishermen). These dealers were already using a log on their boats, as the operators were interested in knowing the daily movements of their producing crafts. So, in general, the introduction of the state's system merely meant a substitution of the state's form of log for the company's and providing enough copies so that the dealer, the boat, and the Division would each receive the record.

During the fall of 1933, special trips were made on the trawl boats to observe operations and to determine if our ideas for the logs were applicable. At the same time, we were careful to note what information the captains were in the habit of recording and to observe the forms of log in use.

Concurrently with designing the ships' logs for the trawl boats, the plan for charting the coastal waters of the state into blocked fishing

FIG. 15. Chart of northern California fishing grounds, showing the numbered areas

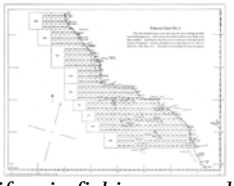


FIG. 16. Chart of southern California fishing grounds, showing the numbered areas

[1] Throughout the work, Mr. H. B. Nidever with his knowledge of the fisheries, boats, logs, and navigation has been a constant advisor, suggesting a large part of the ideas adopted in the trawl boat log form. Likewise, the members of the staff of the California State Fisheries Laboratory and of the Bureau of Commercial Fisheries of the Division have given freely suggestions and encouragement.

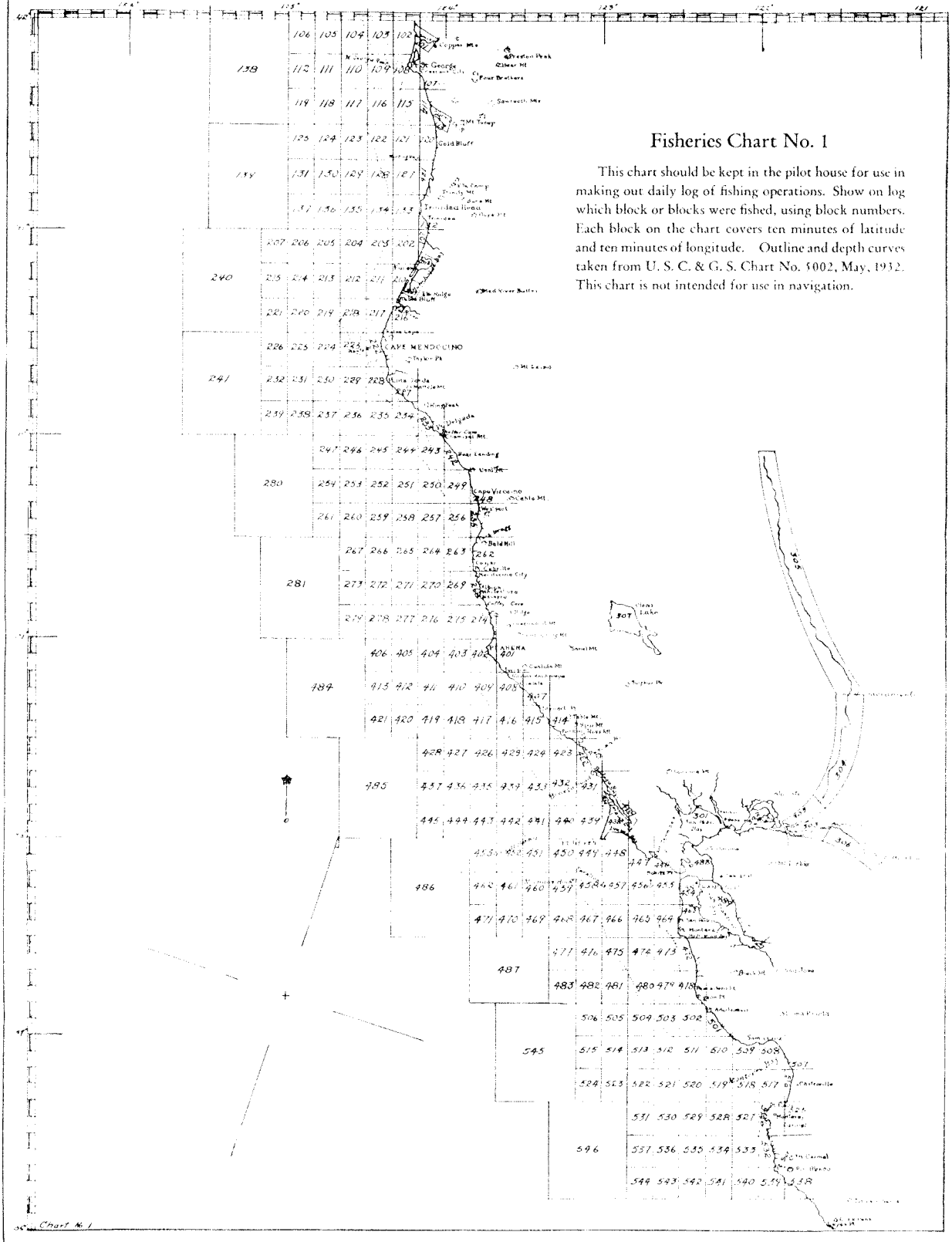


FIG. 15. Chart of northern California fishing grounds, showing the numbered areas.

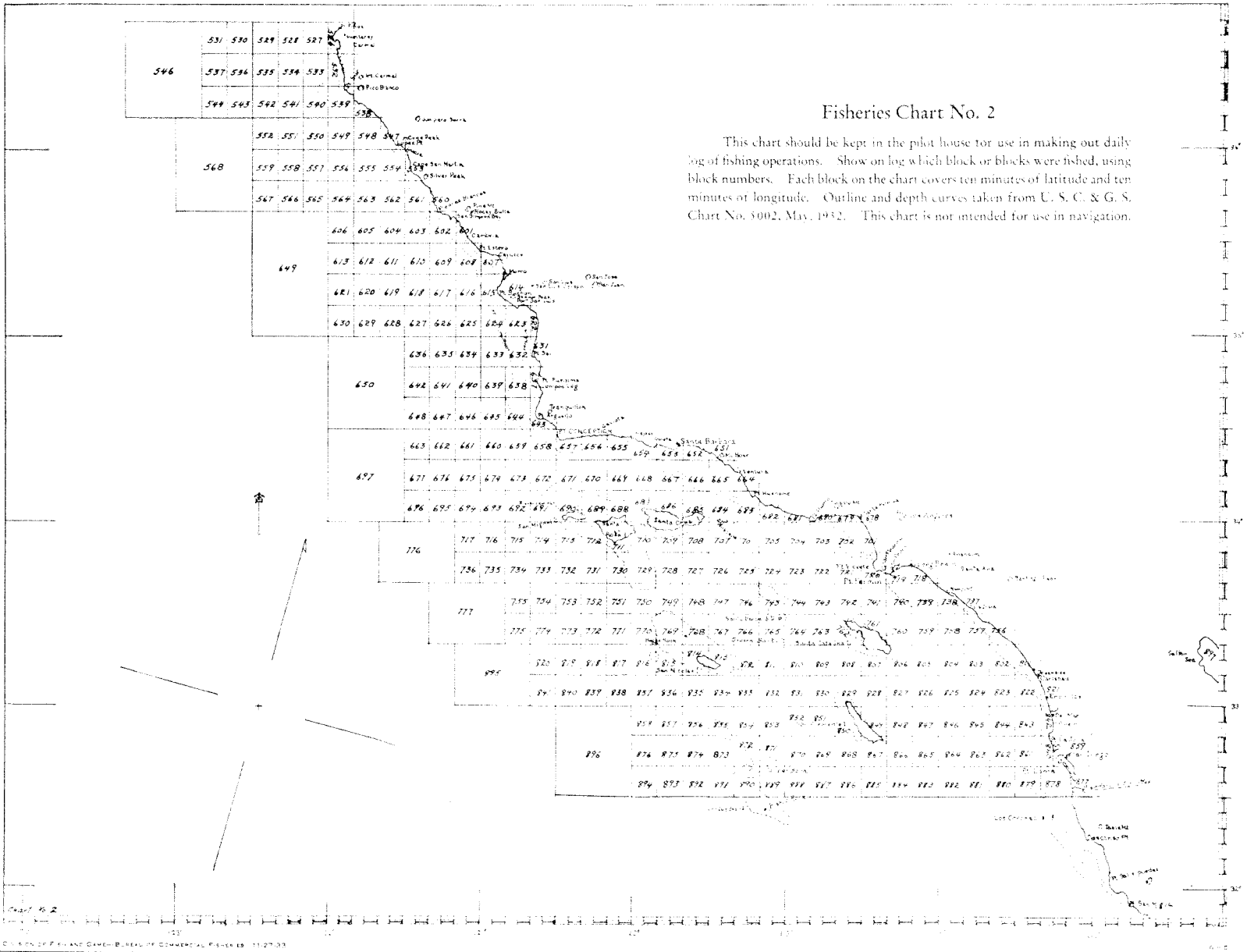
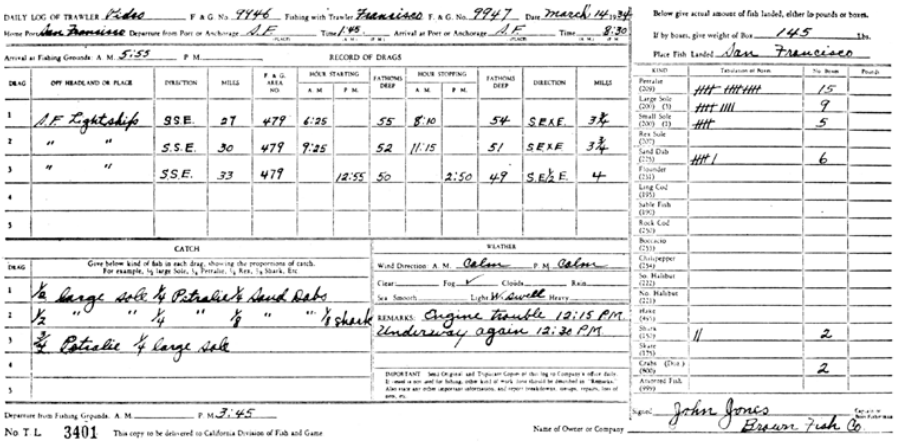


FIG. 15. Chart of southern California fishing grounds, showing the numbered areas.

areas was perfected. The ocean waters of the state were blocked off into sections, approximately ten miles square, using the longitude and latitude lines so that each block was ten minutes of longitude and ten minutes of latitude. This system was carried out to about fifty miles from shore. Beyond this was constructed one row of blocks thirty minutes of longitude and thirty minutes of latitude to take care of any extension of fishing grounds. These blocks were numbered in series corresponding to the statistical region in which they fall. The inland bays and rivers, in which commercial fishing is carried on, were blocked in natural geographical areas and numbered also according to the statistical regions. The trawler logs are designed so that these charts of numbered fishing areas can be used to designate the area or areas fished each day. Small scale charts were printed, one for northern California from Point Sur to the Oregon line (see Fig. 15), and the other for southern California from Point Sur to the Mexican boundary line (see Fig. 16).

On the first day of January, 1934, the Division of Fish and Game installed on the trawlers its system of ships' logs and the new fishing area charts for location or "point of origin" of catch.

The log books are furnished by the Division to the boats without cost. The books consist of fifty sets of logs, each set including one white sheet with carbon back, which is used by the company; one yellow sheet with carbon back, which is kept by the boat; and one pink sheet (the third copy), which is for the Division. Each set of logs is serially numbered, and each log sheet of the set has space for the same information. Figure 17 is a facsimile of a typical log sheet used by paranzella or trawl boats.[2]



DAILY LOG OF TRAWLER Pilot F. & G. No. 9946 Fishing with Trawler Francisco F. & G. No. 9947 Date March 14 1934

Home Port San Francisco Departure from Port or Anchorage SF Time 1:45 Arrival at Port or Anchorage SF Time 8:30

Arrival at Fishing Grounds A. M. 5:55 P. M.

RECORD OF DRAGS

DRAG	OFF HEADLAND OR PLACE	DIRECTION	MILES	F. & G. AREA NO.	HOUR STARTING A. M.	HOUR STARTING P. M.	FATHOMS DEEP	HOUR STOPPING A. M.	HOUR STOPPING P. M.	FATHOMS DEEP	DIRECTION	MILES
1	SF Lightship	SSE.	27	479	6:25		55	8:10		54	SEXE.	3¾
2	" "	S.S.E.	30	479	9:25		52	11:15		51	SEXE	3¾
3	" "	SSE.	33	479		12:55	50		2:50	49	S.E½E.	4
4												
5												

CATCH

DRAG	Give below kind of fish in each drag, showing the proportions of catch. For example, ½ large Sole, ¼ Petrale, ¼ Rex, ¼ Shark, Etc.
1	½ Large Sole ¼ Petrale ¼ Sand Dabs
2	½ " " ¼ " ¼ " " ¼ Shark
3	¾ Petrale ¼ Large Sole
4	
5	

WEATHER

Wind Direction A. M. Calm P. M. Calm

Clear ___ Fog ✓ Cloudy ___ Rain ___

Sea Smooth ___ Light W Swell Heavy ___

REMARKS: Engine trouble 12:15 PM. Underway again 12:30 PM

IMPORTANT Send Original and Triplicate Copies of this log to Company's office daily. If vessel is not used for fishing, other kind of work done should be described in "Remarks." Also state any other important information, such as repairs, loss of gear, etc.

Departure from Fishing Grounds A. M. ___ P. M. 3:45

No T L 3401 This copy to be delivered to California Division of Fish and Game

Name of Owner or Company

Below give actual amount of fish landed, either in pounds or boxes.

If by boxes, give weight of Box 145 lbs.

Place Fish Landed San Francisco

KIND	Tabulation of Boxes	No. Boxes	Pounds
Petrale (209)	HH HH HH	15	
Large Sole (205) (1)	HH III	9	
Small Sole (205) (2)	HH	5	
Rex Sole (207)			
Sand Dab (275)	HH I	6	
Flounder (231)			
Ling Cod (195)			
Sable Fish (190)			
Rock Cod (250)			
Barracuda (233)			
Chub Pepper (234)			
No. Halibut (222)			
No. Halibut (221)			
Hake (261)			
Shark (252)	II	2	
Skate (276)			
Crabs (Dead) (900)		2	
Assorted Fish (999)			

Signed: John Jones

Brown Fish Co

FIG. 17. Facsimile of log of San Francisco trawler.

FIG. 17. Facsimile of log of San Francisco trawler

In addition to furnishing the log books to these boats, the Division also furnishes regular large scale United States coast and geodetic navigation charts, with the fishing area numbers superimposed on them. These large charts are used, as similar charts have been used for years, by the fishermen for navigation purposes and for determining

[2] The paranzella trawl is employed on these boats. It is a bottom net dragged behind and between two boats to keep it open.

the character of the bottoms at various depths. Therefore, it is an easy matter for them to record in the log the area fished by the numbers assigned by the Division of Fish and Game.

We now have these log records for twelve months, and we believe that the installation of the system has been worth while. The wholesale fish dealers who own and operate the boats and their fishermen who make out the logs have given us splendid cooperation from the very beginning, for which we are grateful.

The first year's records (January-December, 1934) have been prepared from punched card tabulations of the data recorded on the logs in summaries for use by the research and administrative personnel of the division. The preparation of these records in this mechanical manner makes it possible to supply special detailed trawler reports each month to the trawler companies. The secretary of the Central Pacific Wholesale Dealers' Association, through the figures supplied in these reports, keeps a monthly area map record of the size and kind of catch taken from each locality for the benefit of the operators. This map record shows at a glance from month to month the areas where most of the fishing was carried on as well as the actual poundage of each species taken. The summarized data provides the statistical basis for the wise administration of the trawl fishery by the state.

5. LOCALITY RECORDS AND THE TUNA FISHERY

By H. C. GODSIL

The history and development of the statistical system used by the Bureau of Commercial Fisheries for recording the commercial catch of marine and fresh-water fishes in California has been outlined in the preceding pages. The system adopted originally was conceived as the best practical method of collecting the desired information. The subsequent story is one of constant striving to increase the reliability of the records, and to make up those deficiencies manifested in the course of time and by experience.

In this work the research staff of the California State Fisheries Laboratory has played its part. As the scope of the biological work increased, a greater number of species came under observation. Experience showed that the worker engaged upon the study of a given species gained a familiarity with that fishery hitherto unknown. Thus, one came to know intimately the boats and crews engaged and the methods and types of gear used by them. Extensive field work upon the commercial boats yielded a detailed knowledge of the fishing areas in which these boats habitually worked. The knowledge thus gained has been incorporated in one way or another into the statistical system, thereby making the figures more reliable and the records of infinitely greater value. This suggests that the ideal method of supplementing any statistical system would be to have a field worker assigned to each species or each fishery.

Due to a limited personnel this goal has not been practical, and to date many of our commercial species have been inadequately studied. Thus, it was not until 1932 that a systematic study of the skipjack and yellowfin tuna was begun. This fishery differs from almost all others, inasmuch as the entire catch is taken in foreign or international waters. Defects in the statistical system, which are frequently revealed when a local fishery comes under state regulation, in this case remained obscure because the tuna and skipjack fisheries are beyond both state and federal jurisdiction. Hence, it was not until the biological work progressed that the shortcomings in the collected data became apparent.

A factor of prime importance is the area or locality in which the tuna are caught, and for several reasons this became increasingly difficult to obtain. The area fished was rapidly expanding. The length of individual trips increased from two to eight or ten weeks, in which time the boats traversed the intervening coastline to the equator. Costa Rica, Panama and the Galapagos Islands became the common fishing grounds. These new grounds were not well known or delimited; hence they were not amenable to arbitrary code numbers, designating fishing areas. Competition between the boats was keen, and a great deal of secrecy was maintained regarding the origin of the fish. In fact, false locality records were frequently and deliberately given in an attempt to conceal the real source of supply.

Moreover, as the range of the vessels increased, they often fished in several of the areas to which code numbers had been assigned, and this was rarely if ever shown in the records. Because the true origin of the tunas is an essential fact needed in the biological studies, although the fishery is beyond our jurisdiction, it became imperative to devise some method of obtaining dependable information on this point.

All possible alternatives are fundamentally governed by one requirement, namely, gaining the friendship, confidence and cooperation of the boat captains. With this asset, the actual method used in collecting the data is immaterial. The solution adopted in this case was to print outline charts of the fishing areas (see Figs. 18 and 19) with the request for the following information:

Bait: Localities where bait was taken; amounts and kind taken; relative abundance of bait present; areas visited when scouting for bait, where no bait was seen or taken.

Yellowfin, Tuna and Skipjack: Place or places where fish were caught; kind and approximate size of fish taken each day; amount of each kind taken each day; places or banks visited where no fish were seen or taken.

General Information: Water temperatures, when available; general course of the voyage; number and names of vessels on grounds visited; general remarks concerning particular conditions on voyage; all entries or remarks to be dated. In addition the date of departure from, and arrival at, home port is recorded, and the length of the trip thus obtained.

Charts were then distributed gradually to a selected list of boat captains, whose friendship and cooperation had by this time been obtained. In asking for this information, each captain was assured that it would be confidential and used only in a study of the fishery. However, to recompense the individuals for this service, each captain was promised a summary of all available data collected by this means from all sources in the calendar year, providing that such a summary did not violate the confidential nature of the data requested. This end was secured by omitting all boat names, any secret grounds, and all such information which might be considered the exclusive possession of a particular crew. The resultant summary was intended to assist the captains in determining the productivity of the different grounds in different seasons of the year.

In distributing the charts, the attempt was made to include a representation of all types of boats engaged in this fishery, because the size and nature of the vessel determines in part the grounds upon which it habitually fishes. Through a process of trial and error, this goal is being gradually achieved. Captains who furnish unreliable or inadequate information are eliminated from the list, and the cooperation of others enlisted. Fortunately, the system affords a very satisfactory check upon the movements of vessels, for each chart compiled reports the position of the various boats seen or "spoken" on the trip. Thus a representative group of boats furnishes information regarding the entire fleet.

The system has been tried experimentally, and with slight modifications has proven successful. It was found that the majority of the

FIG. 18

FIG. 19. Figs 18 and 19 together, depicting the charts issued to tuna boats, cover the present fishing areas for yellowfin tuna. The numbered areas represent distinct fishing grounds as determined by studies to date. The numbers are those used in our statistical code, which is flexible, permitting change as the studies progress

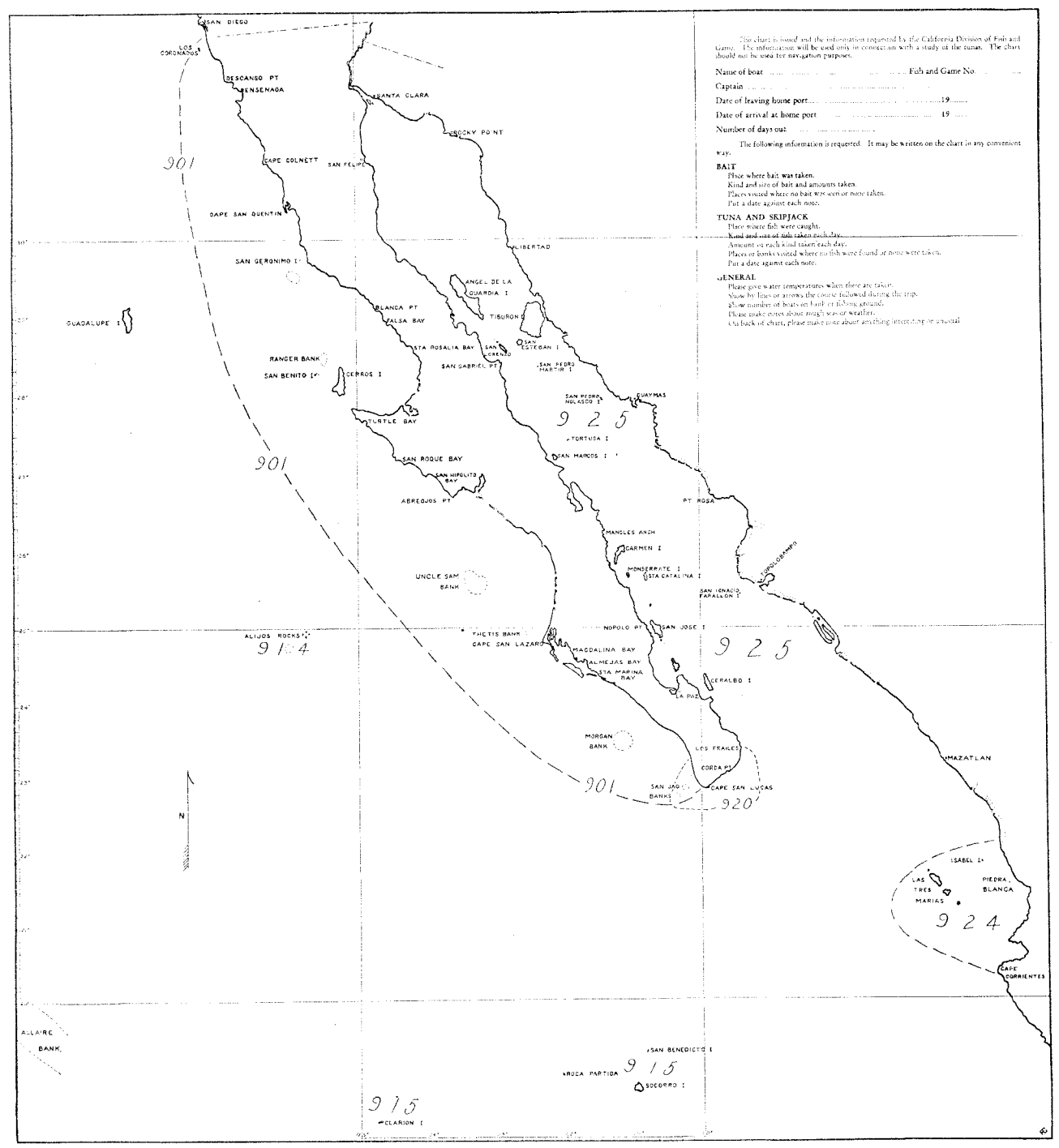

This chart is issued and the information requested by the California Division of Fish and Game. The information will be used only in connection with a study of the tunas. The chart should not be used for navigation purposes.
Name of boat ..... Fish and Game No. .....
Captain .....
Date of leaving home port..... 19.....
Date of arrival at home port ..... 19.....
Number of days out .....
The following information is requested. It may be written on the chart in any convenient way.
BAIT
Place where bait was taken.
Kind and size of bait and amounts taken.
Places visited where no bait was seen or none taken.
Put a date against each note.
TUNA AND SKIPJACK
Place where fish were caught.
Kind and size of fish taken each day.
Amount of each kind taken each day.
Places or banks visited where no fish were found or none were taken.
Put a date against each note.
GENERAL
Please give water temperatures when these are taken.
Show by lines or arrows the course followed during the trip.
Show number of hours on bait or fishing ground.
Please make notes about rough seas or weather.
On back of chart, please make note about anything interesting or unusual.
SAN DIEGO
LOS CORONADOS
DESCANSO PT
ENSENADA
SANTA CLARA
ROCKY POINT
CAPE COLNETT
SAN FELIPE
CAPE SAN QUENTIN
LIBERTAD
SAN GERONIMO I.
ANGEL DE LA GUARDIA I
BLANCA PT
FALSA BAY
TIBURON I
GUADALUPE I
STA ROSALIA BAY
SAN LORENZO
SAN ESTEBAN I
SAN GABRIEL PT
SAN PEDRO MARTIR I
RANGER BANK
SAN BENITO I.
CERROS I
SAN PEDRO NOLASCO I
GUAYMAS
TURTLE BAY
TORTUGA I
SAN MARCOS I
SAN ROQUE BAY
SAN HIPOLITO BAY
ABREOJOS PT
PT ROSA
MANGLES ANCH
CARMEN I
MONSERRATE I
STA CATALINA I
LORETO
SAN IGNACIO
PAPALLON I
UNCLE SAM BANK
ALIJOS ROCKS
THETIS BANK
CAPE SAN LAZARO
NOPOLO PT
SAN JOSE I
MAGDALINA BAY
ALMEJAS BAY
STA MARINA BAY
CERALBO I
LA PAZ
MORGAN BANK
LOS FRAILES
CORDA MT
MAZATLAN
SAN JACO BANKS
CAPE SAN LUCAS
ISABEL I.
LAS TRES MARIAS
PIEDRA BLANCA
CAPE CORRIENTES
ALIJARE BANK
SAN BENEDICTO I
ROCA PARTIDA
SOCORRO I
CLARION I
N
901
925
914
920
915
924

FIG. 18.

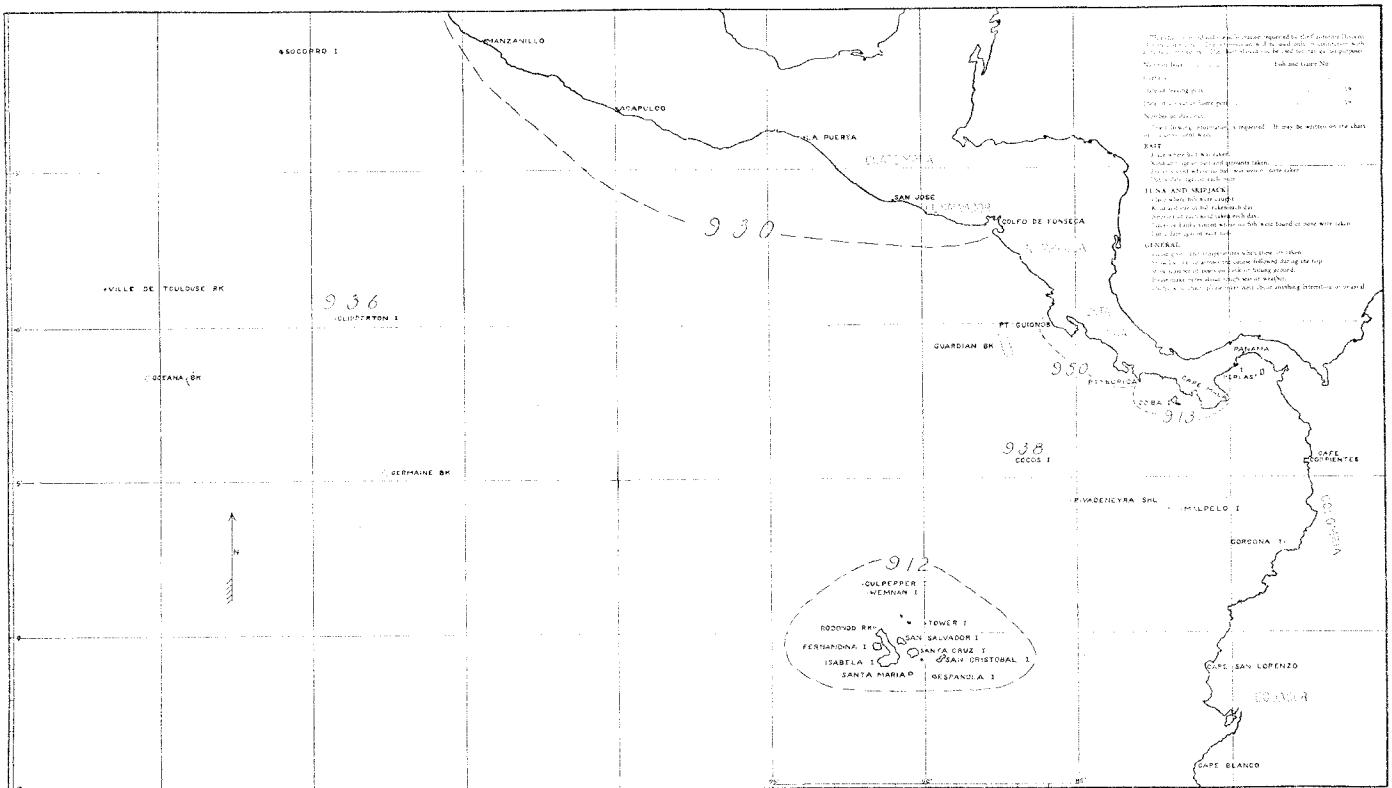


FIG. 19. Figs 18 and 19 together, depicting the charts issued to tuna boats, cover the present fishing areas for yellowfin tuna. The numbered areas represent distinct fishing grounds as determined by studies to date. The numbers are those used in our statistical code, which is flexible, permitting change as the studies progress.

men would not actually compile the charts themselves, but were perfectly willing to supply the desired information. It is therefore necessary to interview each captain upon his return and obtain from him directly, supplemented by the vessel's official log, the data required. The time thus consumed has been fully justified, for a wealth of information is flowing steadily into this laboratory, which is proving of tremendous value in supplementing the statistical system. Code numbers pertaining to fishing areas are now being revised and supplemented, and the data from now on will be far more reliable and complete.

APPENDIX
COMMON AND SCIENTIFIC NAMES OF FISHES, CRUSTACEANS AND MOLLUSKS

Compiled by FRANCES N. CLARK

Common name	Scientific name
Anchovy	Anchoviella compressa
	Anchoviella delicatissima
	Engraulis mordax
Barracuda	Sphyraena argentea
Cabezone	Scorpaenichthys marmoratus
Cabrilla	Epinephelus analogus
	Various species of Mycteroperca
Carp	Cyprinus carpio
Catfish	Ameiurus catus
	Ameiurus nebulosus
Corbina, Mexican	Cynoscion othonopterus
	Cynoscion xanthulus
	Micropogon ectenes
	Other members of the Sciaenidae
Cultus, Pacific	Ophiodon elongatus
Dolphin	Coryphaena hippurus
Eel, Blenny	Cebidichthys violaceus
	Xiphister mucosus
	Other stichaeids and blenniids
Eel, Moray	Gymnothorax mordax
Flounder, Starry	Platichthys stellatus
Flying Fish	Cypselurus californicus
Grouper	Various species of Mycteroperca
Hake	Merluccius productus
Halibut, California	Paralichthys californicus
Halibut, Northern	Hippoglossus hippoglossus
Hardhead	Orthodon microlepidotus
	Mylopharodon conocephalus
Herring, Pacific	Clupea pallasii
Kingfish	Genyonemus lineatus
Small percentage of queen fish.	Seriphus politus
Mackerel, Horse	Trachurus symmetricus
Mackerel, Pacific	Pneumatophorus japonicus diego
Mackerel, Spanish	Scomberomorus sierra
Mullet	Mugil cephalus
Perch:	
Halfmoon	Medialuna californiensis
Opal-eye	Girella nigricans
Salt-water	Various members of the Embiotocidae
Sargo	Anisotremus davidsoni
Pike	Ptychocheilus grandis
Pompano, California	Palometa simillima
Pompano, Mexican	Various species of Trachinotus, and possibly other carangids
Rock Bass	Paralabrax clathratus
	Paralabrax nebulifer
Rockfish	All species of Sebastodes and Sebastolobus found in California waters
Sablefish	Anoplopoma fimbria
Salmon	Oncorhynchus tschawytscha
	Oncorhynchus kisutch
Sand Dab	Orthopsetta sordida
Sardine	Sardina caerulea
Saury	Cololabis brevirostris
Sculpin	Scorpaena guttata
Sea-bass, Black	Stereolepis gigas
Sea-bass, Shortfin	Cynoscion parvipinnis
Sea-bass, Totuava	Cynoscion macdonaldi
Sea-bass, White	Cynoscion nobilis
Shad	Alosa sapidissima
Shark	Alopis vulpes
	Isurus glaucus
	Mustelus californicus
	Rhinotriacis henlei
	Squalus suckleyi
	Triakis semifasciata
	Small percentage of other species
Sheepshead	Pimelometopon pulcher
Skate	Raja binoculata

	Raja inornata
	Urolophus halleri
	And other species
Smelt	Atherinops affinis
	Atherinopsis californiensis
	Hypomesus pretiosus
	Leuresthes tenuis
	Small percentage of other Osmeridae
Sole	Eopsetta jordani
	Errex zachirus
	Parophrys vetulus
	Several other pleuronectids
Split-tail	Pogonichthys macrolepidotus
Striped Bass	Roccus lineatus
Sucker	Catostomus occidentalis
Swordfish, Broadbill	Xiphias gladius
Swordfish, Marlin	Makaira mitsukurii
Tomcod	Microgadus proximus
Tuna, Albacore	Germo alalunga
Tuna, Bluefin	Thunnus thynnus
Tuna, Bonito	Sarda chiliensis
Tuna, Oriental	Thunnus orientalis
Tuna, Skipjack	Katsuwonus pelamis
Tuna, Yellowfin	Neothunnus macropterus
Turbot	Hypsopsetta guttulata
	Pleuronichthys decurrens
	Pleuronichthys verticalis
	Possibly a small percentage of other pleuronectids
Whitebait	Allosmerus attenuatus
	Spirinchus starksi
	Young of several species of fishes
Whitefish	Caulolatilus princeps
Yellowtail	Seriola dorsalis
Crab	Cancer magister
Crab, Rock	Cancer antennarius
	Cancer anthonyi
	Cancer productus
Lobster, Spiny	Panulirus interruptus
Prawn	Pandalus platyceros
Shrimp	Crago franciscorum and C. nigricauda from California waters
	Other species from Mexican waters

Abalone	Haliotis fulgens
	Haliotis rufescens
Clam, Cockle	Paphia staminea
	Species of Chione
Clam, Gaper	Schizothaerus nuttalli
Clam, Jackknife	Tagelus californianus
Clam, Pismo	Tivela stultorum
Clam, Soft-shell	Mya arenaria
Clam, Washington	Saxidomus giganteus
	Saxidomus nuttalli
Mussell	Mytilus californianus
	Mytilus edulis
Octopus	Polypus hongkongensis
	Polypus bimaculatus
Oyster, Eastern	Ostrea virginica
Oyster, Japanese	Ostrea gigas
Oyster, Native	Ostrea lurida
Squid	Loligo opalescens
	Small percentage of other species

NOTES ON TABLES OF FISH LANDINGS

Regions. (See Fig. 1.)

The California fish catch statistics were segregated into areas of the state as determined by county lines. This was not the best possible method and it seemed more logical to divide the state into eight regions, each one of which would be a geographical unit determined so far as possible by uniformity in fishing and marketing conditions. Beginning with 1931, the catch records have been handled on this basis of eight geographical marketing regions. These represent land areas where fish are delivered and sold. For this reason, the tables are called "tables of landings." The eight geographical regions of the state are as follows:

Region 10. Del Norte. The coast line from the Oregon-California boundary line southward to Trinidad Head (Humboldt County).
Region 20. Eureka. From Trinidad Head to Point Arena.
Region 30. Sacramento. The Sacramento and San Joaquin river systems with the delta areas, including San Pablo and Suisun bays above Carquinez Straits. Lake County is also included.
Region 40. San Francisco. The coast from Point Arena to Pigeon Point and the San Francisco Bay area up to Carquinez Straits.
Region 50. Monterey. From Pigeon Point to Point Piedras Blancas (San Luis Obispo County).
Region 60. Santa Barbara. From Point Piedras Blancas to Point Dume (Los Angeles County).
Region 70. Los Angeles. From Point Dume to San Mateo Point.
Region 80. San Diego. From San Mateo Point to the boundary line of Mexico, including Salton Sea.

Conversion Factors

In those cases where our records show a count or measure of volume, the following factors are used in converting the number or volume to pounds wet weight:

Abalones, one dozen	50 pounds
Crabs, one dozen	24 pounds
Eastern oysters, one hundred	22 pounds

DEL NORTE AND HUMBOLDT COUNTIES, 1930

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Cultus, Pacific	271	7,370	9,761	7,856	6,775	23,743	27,025	10,292	2,918	97,300	66,306	83,342	343,049
Flounder, Starry	908	1,108	1,387	474	14		5			1,300		29	5,225
Halibut, Northern		3,263	20,011	28,063	26,086	51,881	46,367	83,216	39,948	47,840	24,339	12	393,030
Herring, Pacific	47,627	11,144	8,270	2,153	1,805							550	71,639
Perch	2,102	5,029	10,538	3,245			2,758	402	2,401	3,529	1,558	459	32,061
Rockfish	719	4,578	13,420	13,724	14,828	14,100	19,664	10,297	814	28,749	15,080	27,988	173,970
Sablefish	2,442	6,798	81,321	42,721	34,581	43,800	96,414	81,188	113,267	26,101	20,560	2,171	551,564
Salmon		73	4,213	121,766	217,215	462,182	420,571	976,741	130,507	52,091	2,448		2,387,307
Sand Dab										13,852	4,020	11,892	29,764
Sea-bass, White					20						119		139
Shad								3					3
Shark												2,345	2,345
Skate												3,030	3,030
Smelt	8,547	6,244	15,619	7,097	3,250	1,370	1,403	5,603	1,237	4,239	4,148	6,240	65,198
Sole				17	200	1,370	1,536	416		871,356	227,115	402,459	1,503,139
Tomcod										712			712
Whitebait	4,976	17,435	15,585	27,660	20,256	6,922	8,267	3,357	614	190	506		106,768
Miscellaneous Fish		255	880	507	30	422	42	23,605	10,158	12,528	16,940	2,249	67,706
Crustacean:													
Crab	18,816	11,368	24,672	7,776	14,392	8,376	2,928	288				3,432	92,448
Mollusk:													
Clam, Miscellaneous	953	2,002	2,804	3,356	40				506	2,300	2,356	1,980	16,386
Total pounds	87,360	72,059	218,681	276,417	339,972	614,366	627,080	1,197,588	302,010	1,172,368	385,564	548,198	5,841,663

MENDOCINO, SONOMA AND LAKE COUNTIES, 1930

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Cabezone	60	123	41		5								229
Catfish	1,633	14,440	18,266	456					771	2,109	3,337	2,271	43,343
Cultus, Pacific	38,033	22,452	32,503	24,396	4,585	1,911	8,615	11,428	5,102	6,791	5,415	1,808	163,459
Flounder, Starry	780	1,050	1,010	10,800	2,470	4,280				2,470	1,300	1,170	27,010
Halibut, Northern		2,134	3,803	1,575	338	877	4,311	7,413	114	53			20,908
Hardhead	27												27
Herring, Pacific	100			130									230
Kingfish					9								9
Rockfish	8,909	9,752	14,273	21,403	11,256	559	1,307	1,636	1,426	2,434	2,361	1,782	76,998
Sablefish	3,824	6,437	23,802	5,861	1,637	184	21		2,254	8,035	8,211	2,724	73,200
Salmon				218		130,113	607,804	363,118	10,779				1,114,032
Sand Dab	2,470	2,600	3,350	4,680	390	390				910	1,560	3,770	20,150
Sea-bass, White		77											77
Smelt				2,623	837		1,127		38				4,625
Sole	7,020	9,230	8,000	13,100	4,430	5,980				4,680	5,720	6,090	64,240
Whitebait				7,723	8,297	13,307	9,326	767					29,320
Miscellaneous Fish	113	632	604	333	147	115			279	234	50		2,538
Mollusk:													
Clam, Cockle										30			30
Octopus		123	564	1,961	2,493								5,141
Total pounds	62,989	69,970	117,506	93,379	37,004	157,816	632,611	386,362	20,754	27,806	28,054	19,615	1,655,766

MARIN COUNTY, 1930

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Cultus, Pacific				50									50
Eel										10			10
Halibut, California				11		14				16			41
Herring, Pacific	137,670	65,670									250		282,990
Perch	7,556	8,514	21,526	10,002			1,420	2,204	402	1,702	2,853	5,663	61,932
Rockfish	145												145
Salmon		9											9
Sea-bass, White		130					2,447	2,285	434	6,708			12,004
Smelt	1,115	3,003	3,888	2,162	2,866	4,089	2,123	2,052	3,279	4,825	413	1,461	31,366
Striped Bass	160	388	43	332	865								1,788
Turbot	120	134	40	10	66	129		134	24	9	203	29	918
Whitebait		163	745	17									925
Miscellaneous Fish	208	60	65		195								528
Crustacean:													
Crab					48						6,744	4,272	11,064
Shrimp	103,400	63,211	13,037	6,482	36,671	97,712	168,278	287,766	270,064	227,464	70,807	37,382	1,201,584
Mollusk:													
Clam, Cockle	7,174	8,681	8,364	9,627	11,146	8,810	5,245	470	2,755	5,815	10,149	11,407	89,723
Clam, Miscellaneous		175		216	240	49	200						880
Clam, Soft-shell	6,994	7,470	6,726	6,215	6,240	6,022	5,145	5,586	5,140	6,269	7,486	6,933	76,226
Oyster, Eastern	15,002	14,828	12,332	14,223	10,303	6,446	4,534	7,044	15,418	21,738	22,627	26,712	171,407
Oyster, Native	782	1,583	2,231	2,788	3,476	2,104	1,744	1,348	65	28	194	304	16,647
Total pounds	279,816	174,109	69,017	52,335	72,206	125,455	191,156	308,909	297,581	274,674	130,816	94,363	2,070,437

SOLANO AND YOLO COUNTIES, 1930

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Carp	543	1,964	3,546	4,811	1,053	6	.....	1,782	.....	59	41	599	14,395
Catfish	157	179	665	1,078	582	.....	.....	540	549	693	180	317	4,940
Flounder, Starry	.....	.....	.....	25	.....	.....	.....	.....	.....	.....	.....	.....	25
Pike	128	32	29	16	.....	.....	.....	.....	.....	.....	10	34	279
Salmon	354	341	3,260	22,196	39,381	6,600	.....	32,699	59,329	.....	951	583	185,694
Shad	.....	151	22,193	69,808	85,335	.....	.....	47	.....	.....	1,794	989	180,317
Striped Bass	5,363	7,461	4,878	7,748	5,472	.....	.....	17,285	5,098	.....	25,788	21,042	100,153
Miscellaneous Fish	.....	.....	.....	122	123	.....	.....	.....	.....	.....	.....	.....	245
Total pounds	6,545	10,128	34,581	105,804	131,946	6,606	.....	72,353	64,976	743	28,764	23,584	486,030

SACRAMENTO AND SAN JOAQUIN COUNTIES, 1930

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Carp	3,272	3,696	2,921	566	222	113	170	746	173	1,700	3,649	8,254	24,882
Catfish	12,921	15,017	38,349	41,308	26,195	.....	.....	20,233	30,551	36,239	28,479	21,936	270,348
Hardhead	6,307	4,048	709	2,323	.....	.....	.....	.....	.....	1,839	12,910	9,721	38,857
Pike	122	645	1,965	324	57	19	10	41	3	25	102	138	3,451
Salmon	141	1,874	6,323	23,634	80,752	13,382	.....	74,643	133,627	.....	245	26	333,688
Shad	.....	8	6,601	38,016	27,156	.....	.....	106	3	.....	893	123	72,996
Split-tail	2,869	2,051	2,430	221	.....	.....	200	55	.....	.....	580	250	8,656
Striped Bass	14,124	14,440	5,305	51,121	9,524	.....	.....	9,599	893	.....	27,304	29,087	161,403
Sucker	983	534	1,077	.....	.....	.....	.....	.....	.....	.....	.....	4	1,938
Miscellaneous Fish	238	.....	44	120	28	.....	.....	.....	15	.....	.....	.....	445
Reptile: Terrapin	.....	.....	.....	.....	.....	.....	58	.....	.....	.....	.....	.....	58
Total pounds	39,457	42,299	65,214	157,633	143,934	13,514	438	105,422	167,267	39,823	74,202	69,541	918,744

ALAMEDA AND CONTRA COSTA COUNTIES, 1930

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Carp	1,266	2,900	3,824	6,081	1,882	185	.....	3,367	2,669	87	341	141	22,743
Catfish	4,112	3,413	12,614	14,170	11,785	.....	.....	15,648	18,664	14,241	13,245	6,668	114,560
Flounder, Starry	162	25	44	295	.....	.....	.....	.....	.....	.....	.....	.....	526
Perch	.....	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10
Pike	384	197	193	91	12	.....	.....	36	46	72	77	249	1,477
Salmon	375	433	6,391	97,239	224,177	35,027	.....	41,800	285,703	.....	502	250	692,316
Shad	126	516	35,630	374,467	487,978	.....	.....	2,950	429	.....	1,829	946	904,871
Smelt	.....	.....	930	100	1,431	737	527	71	.....	.....	.....	.....	3,796
Split-tail	.....	.....	.....	.....	466	.....	.....	425	2,421	5,153	1,408	.....	9,872
Striped Bass	21,797	38,849	66,915	113,912	23,404	.....	.....	115,358	47,429	.....	51,111	65,855	544,630
Sucker	14	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	32
Tomcod	.....	138	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	138
Miscellaneous Fish	.....	.....	.....	463	248	.....	.....	121	.....	.....	30	7	869
Mollusk:													
Clam, Soft-shell	1,840	2,000	2,265	2,115	1,235	1,530	1,190	1,270	1,645	1,683	1,445	1,250	19,498
Total pounds	30,074	48,529	128,806	608,924	752,618	37,479	1,717	181,066	359,006	21,235	70,078	75,806	2,315,338

SAN FRANCISCO AND SAN MATEO COUNTIES, 1930

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Anchovy	....	....	150	4,900	47,995	35,035	65,640	59,250	36,480	12,400	....	....	261,850
Carp	4,235	600	113	44	....	....	....	....	....	....	....	....	4,992
Cultus, Pacific	26,021	46,192	83,839	73,725	37,921	10,466	36,528	61,559	61,561	58,532	46,729	38,779	581,852
Flounder, Starry	10,202	25,515	50,182	17,808	60,005	68,605	23,774	16,262	8,048	47,631	1,100	135	329,267
Hake	750	540	1,288	9,140	11,235	14,455	5,712	5,825	1,400	300	135	203	50,983
Halibut, California	695	1,006	4,322	4,102	2,498	1,436	1,054	4,510	7,568	3,121	766	....	31,078
Herring, Pacific	137,300	111,850	119,380	712	1,880	300	119	225	....	....	170	27,001	398,937
Kingfish	....	340	500	325	9,720	8,796	3,307	2,965	12,795	390	406	793	40,337
Mackerel, Pacific	....	66	....	20	150	745	311	....	3,771	4,607	1,712	980	12,362
Perch	4,566	1,940	4,011	2,378	....	....	6,685	9,954	6,504	3,585	4,292	6,235	50,240
Rockfish	75,909	64,040	74,898	90,114	79,766	57,136	91,474	56,704	176,037	86,690	100,798	73,785	1,027,351
Sablefish	8,305	15,759	53,419	76,001	71,222	52,199	45,605	48,679	72,600	3,308	12,460	1,791	461,348
Salmon	....	....	6,800	38,673	5,968	147,599	420,707	105,925	282,561	....	....	....	1,008,233
Sand Dab	36,787	34,010	19,835	29,168	62,178	62,350	58,157	81,611	39,120	22,362	22,954	9,755	478,287
Sardine	5,369,924	2,521,169	90,750	193,220	113,430	158,525	307,570	2,836,661	9,298,756	14,638,960	10,281,411	2,660,581	48,468,957
Sea-bass, White	....	1,450	....	....	....	30	423	346	13,358	20,349	157	217	36,330
Shad	....	....	504	17,914	22,799	....	....	35	....	....	....	23	41,275
Shark	42,857	35,427	31,062	13,030	6,710	1,280	6,741	19,990	17,774	5,680	18,113	23,008	221,672
Skate	16,282	13,522	20,662	14,122	24,915	17,243	10,963	29,237	30,460	7,984	19,462	16,472	221,324
Smelt	1,550	21,940	38,427	21,414	19,143	14,798	15,149	5,113	11,696	9,024	4,380	610	163,244
Sole	1,085,495	990,057	1,401,494	1,015,734	607,638	438,595	579,487	636,651	613,959	186,190	325,597	178,774	8,059,671
Striped Bass	....	2,036	16,870	14,658	3,804	....	....	15,406	5,824	....	52	....	58,650
Tomcod	2,164	1,526	522	2,270	1,821	2,583	6,106	2,728	427	870	1,171	134	22,322
Turbot	....	....	250	250	310	....	625	250	4,270	67	405	....	6,427
Whitebait	30	....	41	842	12,182	7,948	4,013	2,325	596	2,146	585	....	30,708
Miscellaneous Fish	750	2,224	2,291	842	901	400	778	1,485	50	368	....	284	10,373
Crustacean:													
Crab	174,984	269,592	147,072	150,000	374,160	73,272	89,208	....	....	....	230,784	369,696	1,887,768
Shrimp	48,205	52,630	44,750	81,960	47,550	174,240	336,344	232,962	105,740	37,980	51,580	82,306	1,296,247
Mollusk:													
Clam, Soft-shell	1,842	2,990	5,069	3,729	2,051	1,462	1,223	774	874	145	....	688	20,847
Mussel	....	25	....	....	....	....	....	....	....	....	....	....	25
Octopus	50	947	1,422	967	1,613	1,118	1,877	267	83	45	86	103	8,578
Oyster, Eastern	51,390	36,025	29,150	31,460	21,065	17,105	17,325	18,810	34,045	34,485	45,650	74,250	410,960
Oyster, Native	1,047	1,116	304	....	....	....	2,000	3,000	3,000	4,501	5,383	4,245	24,596
Total pounds	7,101,540	4,254,534	2,249,377	1,918,522	1,650,630	1,367,721	2,138,905	4,259,509	10,847,447	15,191,720	11,176,338	3,570,848	65,727,091

SANTA CRUZ COUNTY, 1930

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Anchovy									400				400
Barracuda									30				30
Cabezone		24	236	205									465
Cultus, Pacific	1,568	1,740	12,936	6,567	3,943	24,675	8,432	4,396	1,331	6,771	1,291	1,343	74,483
Flounder, Starry	8			2,369	9,745	13,145	631	2,775			21		28,894
Hake					3,399	965	759						5,105
Halibut, California			11	328	29	2,783	1,979	1,302			47		6,481
Kingfish	895	4,805	5,789	2,330	5,262	8,010	1,352	1,685	626	4,671	11,832	5,109	52,296
Mackerel, Horse										30			30
Mackerel, Pacific	4		1,568	72	9	655	5,128	2,974	2,321	1,990	19	79	14,819
Perch			189	664			128	229	14				1,224
Pompano, California			101	15	10				43				169
Rockfish	105,580	73,128	83,644	117,400	139,519	94,608	130,731	89,203	95,113	143,901	46,323	112,905	1,236,167
Sablefish	12,304	30,516	50,140	48,882	15,499	7,452	9,151	4,631	14,481	23,320	8,259	8,443	233,138
Salmon				2,729	40,304	11,753	11,076	7,451	53				73,366
Sand Dab		5,320	4,550	1,990	10,670	11,557	16,525	3,163	1,180			6,244	60,799
Sardine			40,885	4,729	9,631	110	40	25				383	55,803
Sea-bass, White		16		28		48	553	21,093	22,219				43,957
Shark		2,100	1,400	373	280	545	125			40		3,780	8,645
Skate		560	840	250	1,435	7,880	4,200	700	280			608	16,753
Smelt	1,240	654	82	7,151	15,650	18,277	11,147	11,255	22,118	18,343	3,584	1,976	111,477
Sole	6	73,920	64,183	9,064	100,474	208,534	126,833	34,705	29,552	3,054	203	67,229	807,547
Tuna, Albacore									346				346
Tuna, Bonito									447				447
Whitebait			31										31
Miscellaneous Fish		1,110	12	1,448	1,500	1,600	1,350			1,181		203	8,394
Crustacean:													
Crab	264		288	96		144	96				120		1,008
Mollusk:													
Clam, Pismo	24										24	24	72
Octopus	165	196	154	321	482	264	34	16		37		7	1,696
Squid			585		10,900								10,585
Total pounds	122,110	194,089	268,724	207,303	367,732	460 097	335,081	182,603	190,558	203,358	71,723	208,333	2,854,803

MONTEREY COUNTY, 1930

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Anchovy	.....	.....	120	8,960	9,360	9,620	1,900	4,700	.....	.....	8,380	60	43,100
Cabezone	.....	.....	192	.....	150	10	.....	.....	.....	.....	.....	.....	352
Caltus, Pacific	12,347	7,707	16,228	11,470	7,125	4,043	4,282	4,178	1,942	6,721	16,225	29,501	121,869
Flounder, Starry	.....	.....	.....	.....	.....	.....	24	44	.....	.....	.....	30	98
Halibut, California	1,344	2,056	5,008	455	568	1,328	641	955	63	44	970	4,211	17,631
Kingfish	7,553	19,551	4,482	1,415	5,142	1,621	106	1,289	174	2,194	8,567	20,247	72,341
Mackerel, Horse	136	.....	159	969	2,555	318	750	515	38,229	4,424	46,326	250	93,241
Mackerel, Pacific	130,014	130,144	144,854	69,804	23,652	120,317	113,295	110,564	146,303	133,522	94,432	129,446	1,348,287
Perch	1,963	796	303	6,316	.....	.....	2,684	332	99	201	606	422	13,733
Pompano, California	.....	.....	.....	4	310	31	.....	.....	.....	.....	3	79	347
Rock Bass	.....	.....	.....	.....	16	.....	.....	.....	.....	.....	.....	.....	16
Rockfish	113,577	113,632	239,744	184,566	139,070	75,586	89,635	107,603	190,162	128,941	80,171	127,116	1,589,803
Sablefish	9,029	5,741	3,060	8,648	603	340	243	95	2,194	1,923	1,877	666	34,451
Salmon	.....	.....	.....	.....	.....	180,347	25,685	109	.....	.....	.....	.....	206,141
Sand Dab	804	1,323	943	3,084	1,917	1,347	778	1,133	270	229	490	227	14,945
Sardine	53,240,166	42,303,945	730,614	77,221	29,081	79,290	90,301	27,397,400	34,402,830	53,440,000	37,855,310	10,363,860	355,042,128
Sea-bass, White	.....	30	305	18	228	16	49	413	53	12	305	202	1,720
Shark	.....	280	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	280
Skate	1,634	1,673	2,865	455	300	2,515	632	136	20	282	185	1,291	12,118
Smelt	895	1,343	1,274	7,641	23,500	13,937	36,531	43,776	39,500	18,906	18,313	22,780	228,486
Sole	990	930	10,697	19,184	12,927	21,614	13,904	8,188	1,763	3,360	1,350	1,145	96,272
Tuna, Albacore	.....	.....	.....	.....	.....	.....	.....	.....	60,646	111,970	.....	.....	172,616
Tuna, Bonito	149	.....	94	393	28	.....	.....	.....	.....	105	50	.....	719
Whitebait	.....	.....	16	183	444	2,298	24	.....	.....	.....	.....	.....	2,965
Miscellaneous Fish	2,178	1,452	26	204	102	112	.....	30	.....	40	193	.....	4,337
Crustaceans:													
Crab	.....	.....	.....	96	.....	.....	.....	.....	.....	.....	.....	.....	96
Shrimp	.....	.....	.....	.....	.....	.....	.....	27	1,203	1,951	1,782	3,773	8,736
Mollusk:													
Abalone	7,500	.....	370,350	297,375	248,375	462,320	351,150	344,500	277,455	333,050	302,925	164,075	3,158,975
Clam, Pismo	1,998	1,796	2,407	1,432	.....	.....	.....	.....	605	672	1,200	2,224	11,972
Mussel	.....	.....	.....	300	.....	.....	.....	.....	.....	.....	.....	.....	300
Octopus	2,412	2,598	6,070	8,632	8,547	8,100	10,416	8,884	1,203	439	1,472	2,435	61,307
Squid	62	103,000	14,450	3,748,036	6,807,761	55,575	1,523	.....	.....	.....	40,945	155,808	10,927,389
Total pounds	53,534,009	42,700,318	1,554,720	4,458,399	7,321,641	1,041,105	744,453	28,035,153	35,165,593	54,191,468	28,482,147	20,060,068	277,289,074

SAN LUIS OBISPO, SANTA BARBARA AND VENTURA COUNTIES, 1930

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Barracuda			179	106				556	1,263	100			2,204
Cultus, Pacific		127			1,065	1,016	153	91	21				2,473
Flounder, Starry										36		15	51
Halibut, California	24,200	18,598	26,849	22,635	20,518	37,549	24,679	26,794	30,376	28,208	17,918	35,613	312,247
Herring, Pacific	225	30		4									259
Kingfish												40	40
Mackerel, Pacific		36				32	146	522	36		30		822
Perch	710		430	638			1,126	485	112	110		193	3,251
Rock Bass	764	2,311	4,354	3,429	633	441	255	771	853	645	1,017	1,503	16,976
Rockfish	4,674	3,253	5,945	5,773	4,335	3,351	2,907	5,142	2,262	1,001	933	1,057	46,633
Sardine	1,450,260	3,117,458	2,594,480			120					481,630	321,140	7,965,088
Sculpin							17					88	105
Sea-bass, Black						605	40				253	238	1,136
Sea-bass, White		135	105	98	493	7,168	19,166	18,677	2,788	798	12,671	1,337	63,636
Shark	588	327	933	865	6,578	1,677			30				11,018
Sheepshead	2,604	4,386	79		207	66	27	140			1,394	2,133	11,216
Skate		640	1,185	300	165								2,290
Smelt	3,418	9,998	8,826	7,672	3,474	4,505	1,501	465	1,352	5,483	1,242	1,234	49,058
Sole	8,260	10,239	22,340	29,700	49,435	20,948	34,021	50,118	43,344	27,769	19,348	14,133	331,875
Tuna, Bonito							7	493					470
Whitefish	135			33				17		641			846
Yellowtail		84											84
Miscellaneous Fish					73	10	121	19	37				260
Crustacean:													
Lobster, Spiny	4,648	9,591								8,521	13,963	23,175	59,898
Mollusk:													
Abalone				1,854	4,863	3,725	1,815	715	3,820		21	666	17,538
Clam, Pismo	5,362	10,064	7,356	6,357	7,529	8,784	11,708	12,204	8,607	2,774	5,205	4,886	96,816
Total pounds	1,505,438	3,191,587	2,673,071	80,194	99,477	90,115	97,479	117,569	97,041	81,086	555,925	407,508	8,996,380

LOS ANGELES COUNTY*, 1930

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Anchovy	35	195	367	1,210	3,285	2,475	1,270	145	.....	640	406	.....	10,028
Barracuda	43,629	87,644	103,244	433,136	320,477	404,433	395,525	391,283	209,080	239,015	373,851	203,870	3,427,292
Calelia	97,405	83,638	40,417	48,965	.....	315	.....	.....	.....	39,311	21,873	61,936	399,932
Carp	.....	.....	.....	.....	300	.....	.....	.....	.....	.....	.....	2,075	2,375
Corbina, Mexican	13,539	13,326	80,625	1,210	15,622	71	.....	.....	.....	9,365	.....	5,815	139,573
Cultus, Pacific	.....	.....	.....	.....	.....	522	.....	.....	330	.....	20	.....	872
Eel	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10	.....	10
Flying Fish	.....	.....	82	15,182	18,065	4,786	1,971	4,444	3,460	391	.....	.....	48,351
Halibut, California	17,007	74,472	76,843	55,535	29,066	18,241	16,599	12,599	25,557	22,806	17,024	20,986	397,635
Kingfish	26,038	34,169	38,670	22,837	21,947	22,189	10,737	16,961	22,964	24,326	28,660	18,197	288,255
Mackerel, Horse	48,185	26,312	7,675	1,754	3,349	38,123	33,845	11,150	16,784	77,366	9,269	245	273,557
Mackerel, Pacific	1,450,618	1,038,202	841,380	340,101	750,841	1,089,750	913,018	263,073	398,847	4,256,297	1,281,097	203,485	12,826,709
Mackerel, Spanish	4,278	530	632	5,234	.....	220	.....	.....	.....	.....	1,309	7,417	19,620
Mullet	.....	474	.....	.....	384	.....	.....	985	1,424	710	.....	.....	3,977
Perch	17,265	13,568	12,347	13,068	2,465	2,193	12,069	18,939	12,456	10,122	11,909	11,562	137,963
Pompano, California	10	28	105	96	47	305	22	266	25	23	.....	297	1,308
Rock Bass	11,020	16,281	7,939	9,007	16,262	39,021	50,705	26,032	14,395	9,759	5,512	8,658	214,591
Rockfish	106,941	163,896	277,167	245,283	204,279	143,974	90,648	113,047	87,966	179,185	126,270	227,431	1,966,087
Sablefish	.....	38	1,278	1,718	.....	.....	.....	.....	1,044	.....	462	.....	4,540
Salmon	.....	.....	.....	.....	6	.....	.....	.....	.....	.....	.....	.....	6
Sand Dab	908	1,233	1,345	1,280	1,137	1,015	1,273	1,242	1,032	777	434	503	12,321
Sardine	44,740,293	53,665,861	60,558,386	13,147	20,535	5,184	6,756	6,456	10,312	17,308	11,154,588	4,847,351	174,746,267
Sculpin	1,576	4,017	2,843	3,304	2,123	4,093	7,653	8,021	6,704	5,070	4,759	9,073	59,036
Sea-bass, Black	6,910	9,670	2,438	20,576	2,247	11,346	9,151	12,693	21,840	17,759	12,429	17,720	145,182
Sea-bass, Totuava	530,774	403,810	273,725	210,851	36,533	22,435	.....	.....	1,463	14,080	68,812	216,402	1,778,885
Sea-bass, White	7,814	7,504	18,517	53,702	131,288	146,691	166,744	277,928	54,194	47,778	24,825	5,443	942,549
Shark	8,463	12,706	13,317	18,792	34,221	27,712	23,010	13,761	30,344	14,686	12,989	7,689	219,890
Sheepshead	34,123	31,826	11,889	2,043	1,146	2,203	1,587	12,152	26,503	19,638	17,581	20,078	180,659
Skate	1,977	4,131	2,488	3,280	849	725	1,243	156	2,282	2,175	1,727	2,328	24,461
Smelt	25,285	24,118	31,002	32,943	20,303	28,344	21,059	15,539	26,304	27,859	36,385	29,884	318,925
Sole	1,780	5,737	3,591	4,584	5,718	4,571	9,149	195	4,451	4,207	993	2,686	48,153
Swordfish	227	.....	.....	.....	1,266	4,492	37,373	48,512	44,588	41,700	13,976	3,511	195,745
Tuna, Albacore	5,426	251,400	485,375	575,722	501,893	878,777	1,710,775	1,564,031	13,441	316,625	662,758	87,332	7,113,555
Tuna, Bluefin	434	.....	.....	.....	144,824	8,314,604	11,466,414	1,205,099	178,149	274,385	9,388	.....	21,593,288

Tuna, Bonito	9,994	27,810	25,823	35,892	69,879	34,999	57,019	1,313,653	1,706,786	485,972	50,423	1,988	3,820,238
Tuna, Skipjack	21,051	8,565	36,744	7,645	58,082	30,634	100,052	510,415	1,422,237	2,262,237	1,249,984	1,135,548	6,844,084
Tuna, Yellowfin	507,028	300,212	976,312	778,331	476,014	435,930	1,600,767	3,134,586	1,568,932	1,453,540	660,491	571,569	12,553,922
Whitefish	17,383	13,199	15,682	15,662	1,569	2,283	3,203	5,268	5,610	13,570	9,368	10,464	113,261
Yellowtail	74,652	51,450	103,150	222,531	413,803	116,838	3,581	677,100	807,446	57,760	24,978	97,805	2,651,094
Miscellaneous Fish	2,116	2,123	4,485	2,215	2,366	2,696	1,164	3,652	2,199	5,579	2,530	2,557	35,682
Crustacean:													
Crab, Rock				12									12
Lobster, Spiny	16,140	14,967								48,767	52,125	56,838	188,837
Shrimp	24,151	7,954											32,105
Mollusk:													
Clam, Cockle	2,300	2,865	1,988	2,500	2,300	1,325	1,750	3,930	3,738	2,950	4,350	3,268	33,264
Octopus	2	52										73	127
Squid			30,376										30,376
Total pounds	47,879,387	56,403,991	63,705,717	3,202,868	3,384,611	11,843,505	16,756,043	9,874,507	6,747,448	10,024,338	15,053,684	7,902,119	253,854,618

* Importations of fresh fish from foreign countries included. See importation tables.

ORANGE COUNTY, 1930

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Anchovy							283						283
Barracuda			295	7,901	25,386	5,688	20,432	3,151	7	186	48		63,094
Cultus, Pacific	63												63
Flying Fish							72	35			4		107
Halibut, California	6,027	7,087	6,483	5,720	3,600	1,041	989	866	58	149	531	1,175	33,746
Kingfish	16	45	128	32	240	261	145	7	46	62	144	232	1,448
Mackerel, Pacific	159,147	581,050	640,174	185,842	12,044	9,900	4,710	4,956	11,753	191,160	24,570	20,485	1,645,821
Mullet						156		500	3,447	1,353	1,894	323	7,673
Perch			85	7	219	30	108		20	29	5	49	643
Pompano, California					43								43
Rock Bass	5,010	4,580	5,109	7,141	8,373	15,053	23,409	28,425	11,016	9,900	6,489	3,589	129,095
Rockfish	10,880	8,821	6,407	4,717	2,612	3,064	330	1,830	1,488	2,345	1,927	1,380	46,201
Sablefish	103	120			453						290		966
Sand Dab	14	31									4	31	80
Sardine				250			70		200				520
Sculpin	159	194	622	208	282	487	40	322	131	203	1,330	1,968	6,426
Sea-bass, Black	901		709	622	946	2,586	4,072	6,260	3,614	1,445	5,034	1,901	28,080
Sea-bass, White	197	281	1,305	926	414	437	766	1,461	1,303	680	231	603	8,404
Shark	2,325	489	764	896	4,764	10,200	11,407	8,526	3,133	8,806	5,320	2,204	58,814
Sheepshead	74	10	44	24	51	236	173	288	155	115	488	427	2,095
Skate	297	123	21	55	29	3,141		6	18	9	372	486	4,569
Smelt	22	205	232	101	18		2		5,771	16,915	22,410	17,883	63,481
Sole	288	133	200	318	2,191	264	83	471	68	5	89	208	4,327
Swordfish						440			240				680
Tuna, Bluefin								58					58
Tuna, Bonito	71		67	843	3,908	476	8,124	3,076	1,002	829	128	47	18,501
Tuna, Skipjack									2,278		158		2,436
Whitefish	828	18	21			401		231		20	13		1,552
Yellowtail					44	33	24	285	4,567	707			5,662
Miscellaneous Fish	486	187	586	66	245	37	258	547	63	147	273	27	2,922
Crustacean:													
Lobster, Spiny	1,511	1,944								4,914	5,408	5,158	18,935
Mollusk:													
Clam, Cockle	825	950	421							19	27	37	2,196
Octopus	13	5						30					131
Total pounds	189,157	406,414	663,952	215,939	65,992	54,123	75,767	61,361	51,848	239,988	77,183	58,025	2,159,749

SAN DIEGO COUNTY*, 1930

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Anchovy						3,900							3,900
Barracuda	8,078	22,197	30,693	57,062	172,236	281,603	155,619	171,135	144,844	127,792	78,455	21,432	1,271,146
Cabrilla	22,453	18,283	2,095	1,248	1,150	2,501		471	1,858		19,643	52,464	122,145
Halibut, California	29,651	47,460	44,182	10,182	18,370	27,073	41,067	58,627	18,456	1,663	1,295	2,575	298,601
Herring, Pacific											18,395	25,184	43,579
Kingfish	119	321	294	651	201	45			131	198	122	392	2,471
Mackerel, Pacific	266,026	10,382	35,684	88,982	17,453	10,966	73,667	18,771	25,141	21,016	15,927	21,329	582,544
Mackerel, Spanish		1,085		3,748	359	1,888	472				9,584	6,209	23,345
Mullet			86	184	1,600	2,302	3,113	1,873	481		19		9,657
Perch		21	307	39			1,057	50	1,883		40		3,577
Pompano, California					9	107		43	176	21			356
Rock Bass	5,555	1,532	518	7,783	24,654	35,776	30,562	10,807	10,296	10,644	5,938	4,384	148,559
Rockfish	94,747	94,922	194,909	128,460	129,675	102,371	81,767	42,302	54,903	39,477	39,736	58,740	1,062,009
Sardine	297,576	1,304,798	1,506,372	743,321	136,803	88,993	17,429	8,190	3,355	3,111	1,234		4,171,982
Sculpin	4,113	3,262	3,159	3,502	133	14			38	222	3,027	3,573	23,043
Sea-bass, Black	7,881	19,294	6,968	24,802	29,264	17,861	11,217	7,286	23,142	28,612	19,808	23,296	219,611
Sea-bass, Totuava	6,851	5,569	5,185	9,032						2,110			29,647
Sea-bass, White	171	3,369	5,578	9,388	16,453	31,545	105,041	139,945	120,041	46,912	21,265	17,660	517,317
Shark	11,123	8,757	12,588	9,099	3,743	17,063	22,380	12,991	8,865	1,866	7,366	8,792	124,633
Sheepshead	6,406	1,055	25	782	248	229	14		3,674	5,777	9,486	8,023	39,719
Skate	223	579	782	135								45	1,755
Smelt	3,768	4,361	1,340	1,048	145	1,251	144	20	235	40	366	1,419	13,009
Sole	2,021	1,253	2,081	440	163	87	255	52	22		54	153	6,541
Swordfish					10,519	39,984	90,537	63,435	86,831	58,616	16,299	173	366,394
Tuna, Albacore							78	703	1,236	67	24		2,108
Tuna, Bluefin						202,736	25,051			55	94		327,936
Tuna, Bonito	7,487	3,138	5,022	12,308	85,786	132,947	727,152	118,120	176,739	38,508	12,432	3,816	1,323,855
Tuna, Skipjack	414,102	664,412	290,219	164,354	472,273	493,210	845,199	2,196,174	2,650,467	2,521,848	1,810,764	1,261,485	13,838,567
Tuna, Yellowfin	1,364,971	3,883,304	2,689,727	2,457,531	2,484,929	1,309,565	5,899,606	8,567,417	4,333,562	3,892,705	4,295,098	2,923,291	44,103,846
Whitefish	10,900	3,118	10,437	19,036	10,175	1,501	3,251	3,869	7,893	11,200	12,312	15,235	109,443
Yellowtail	31,572	35,447	16,515	32,414	249,081	140,207	290,380	468,185	447,883	232,327	50,789	119,116	2,113,916
Crustacean:													
Lobster, Spiny	166,551	276,225	244,500	92,524						23,038	82,229	241,402	1,126,469
Mollusk:													
Squid			1,112										1,112
Reptile:													
Turtle											580		580
Total pounds	2,759,405	6,404,224	5,112,784	3,879,645	3,865,472	2,955,725	8,423,018	11,887,556	8,130,272	7,072,728	6,532,386	4,821,937	71,935,152

* Importations of fresh fish from foreign countries included. See importation tables.

STATE OF CALIFORNIA*, 1930

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Anchovy	35	195	627	15,070	60,640	51,020	69,093	64,015	26,880	13,040	8,786	60	319,561
Barracuda	51,707	109,841	134,411	500,205	518,099	691,724	571,376	766,125	333,224	387,093	452,434	225,307	4,763,766
Cabezone	60	147	469	265	155	10							1,046
Cabrilla	119,948	101,920	48,312	50,212	1,150	2,816		471	1,838	20,311	41,518	114,400	322,097
Carp	9,316	9,160	9,804	11,502	3,457	304	170	5,895	2,842	1,837	4,031	11,069	69,387
Catfish	17,923	33,049	69,804	57,012	38,562			36,421	50,535	53,362	45,241	31,192	433,191
Corbina, Mexican	13,539	13,326	90,625	1,219	15,622	71				9,265		5,815	139,578
Croaker, Pacific	78,315	85,588	154,767	124,464	61,414	66,376	85,035	91,944	73,205	176,205	133,986	154,873	1,288,172
Eel										10	10		20
Flounder, Starry	12,060	28,308	33,303	31,971	72,234	86,120	24,434	19,081	8,018	31,437	2,421	1,379	291,096
Flying Fish			62	15,182	18,065	4,786	2,043	4,479	3,460	381			48,458
Hake	750	540	1,288	9,140	14,635	15,420	6,462	5,825	1,400	300	135	203	56,098
Halibut, California	76,824	148,089	163,788	98,966	84,649	89,667	86,988	105,653	82,118	56,007	38,551	65,560	1,097,760
Halibut, Northern		5,399	33,904	39,640	26,424	52,758	50,878	92,629	40,662	47,893	24,350	12	413,958
Hardhead	6,334	4,948	709	3,323						1,839	12,910	9,721	39,884
Herring, Pacific	322,322	188,694	127,650	2,999	3,775	300	119	225			18,815	52,735	717,634
Kingfish	35,541	20,231	40,912	27,630	42,521	40,922	15,567	22,567	36,726	31,838	49,731	45,030	457,167
Mackerel, Horse	48,321	26,312	7,824	2,423	3,884	28,441	34,205	11,693	35,213	81,820	35,705	495	268,828
Mackerel, Pacific	2,005,806	1,630,910	1,663,660	684,821	804,149	1,232,385	1,110,275	397,800	388,172	4,610,302	1,417,787	376,604	16,531,364
Mackerel, Spanish	4,378	1,615	632	8,982	359	2,108	472				10,893	13,626	42,965
Mullet		474	86	184	1,684	2,458	3,113	3,357	5,352	2,063	1,913	323	21,307
Perch	33,262	29,878	49,926	36,377	2,684	2,225	28,115	32,815	23,972	19,368	21,303	24,510	304,435
Pike	634	874	2,197	431	69	19	10	97	49	97	189	541	5,207
Pompano, California	10	28	296	115	319	463	22	393	244	44	3	376	2,223
Rock Bass	22,349	24,713	17,920	27,360	49,958	90,291	104,911	66,125	37,460	30,948	18,956	18,134	509,125
Rockfish	522,081	342,022	912,407	811,330	725,349	494,749	313,382	424,764	610,173	622,923	413,608	622,184	7,215,364
Sablefish	56,067	63,409	222,540	183,831	124,015	103,975	151,434	134,503	205,780	62,689	52,316	15,795	1,370,147
Salmon	868	2,730	26,987	305,446	607,703	987,003	1,453,845	1,624,485	904,361	52,091	4,276	1,301	6,002,894
Sand Dab	41,043	44,721	30,053	41,902	76,312	76,859	76,733	87,151	41,611	38,130	20,413	32,422	616,349
Sardine	105,066,219	102,915,251	65,281,687	1,031,038	309,750	332,222	422,066	30,248,822	43,714,053	68,099,559	49,774,173	27,223,347	494,450,747
Sculpin	5,648	7,473	8,624	7,514	2,518	4,594	7,710	8,343	6,873	5,495	9,116	14,702	88,610
Sea-bass, Black	15,592	28,970	10,115	46,490	32,457	32,398	24,480	20,239	48,596	47,816	37,611	43,245	394,009
Sea-bass, Tetaura	537,625	409,379	278,910	220,783	36,533	32,435			1,463	16,190	68,817	216,402	1,808,332
Sea-bass, White	8,182	12,992	25,990	64,160	148,996	185,935	205,189	402,148	214,389	123,257	59,272	25,611	1,626,422
Shad	134	475	45,018	500,265	622,364			3,141	432		4,516	2,041	1,199,463
Shark	65,356	60,066	60,384	45,057	56,296	58,667	63,663	57,268	60,146	30,868	43,788	47,818	647,297
Sheepshead	43,297	37,277	12,037	2,549	1,742	2,734	1,601	12,590	39,822	29,539	28,949	31,261	243,599
Skate	20,413	21,221	29,553	18,717	27,693	31,504	17,158	30,235	33,060	10,550	21,746	24,200	286,300
Smelt	45,840	72,156	101,946	90,552	90,517	87,396	90,513	83,984	111,690	105,631	91,241	83,209	1,054,665
Sole	1,103,890	1,091,319	1,512,395	1,092,141	783,336	792,163	765,339	730,886	660,139	1,101,521	380,049	672,897	10,924,095
Split-tail	2,859	2,051	2,430	221	466		200	480	2,421	3,152	1,988	250	18,528

Striped Bass	41,444	63,180	94,011	187,971	43,069	----	----	157,648	59,246	----	104,255	115,984	866,808
Sucker	377	332	1,077	----	----	----	----	----	----	----	----	4	1,990
Swordfish	227	----	----	----	11,885	44,916	127,910	111,947	131,659	100,316	30,185	3,684	562,729
Tomcod	2,164	1,664	822	2,276	1,821	2,583	6,106	2,728	417	1,582	1,171	154	23,172
Tuna, Albacore	5,426	251,400	485,375	575,722	561,803	878,777	1,710,853	1,564,734	75,729	428,662	662,782	87,332	7,288,685
Tuna, Bluefin	434	----	----	----	144,824	8,617,340	11,491,465	1,205,157	178,149	274,440	9,482	----	21,921,282
Tuna, Bonito	17,701	30,948	31,006	49,246	159,561	168,422	792,302	1,435,322	1,885,024	525,904	63,033	5,851	5,164,260
Tuna, Skipjack	436,113	672,977	266,963	171,999	530,355	432,844	943,251	2,706,589	4,081,472	4,784,085	3,069,906	2,397,033	20,485,587
Tuna, Yellowfin	1,871,999	4,272,606	3,666,239	3,233,862	2,960,993	1,743,483	7,900,373	11,702,003	3,904,484	3,346,243	4,953,389	3,494,809	36,657,768
Turbot	126	134	290	260	376	129	635	404	4,294	76	608	29	7,345
Whitebait	5,006	12,508	16,418	36,425	41,279	30,475	21,620	6,449	1,210	2,336	1,091	----	174,917
Whitefish	29,346	16,335	26,140	34,751	11,744	4,185	6,454	9,306	13,503	25,931	21,718	25,699	225,102
Yellowtail	106,224	86,581	119,665	254,945	662,928	257,080	293,985	1,145,570	1,259,896	290,794	75,767	216,921	4,770,756
Miscellaneous Fish	6,089	8,063	8,993	7,340	5,958	5,482	3,613	29,549	13,792	20,077	20,016	5,327	134,299
Crustacean:													
Crab	194,064	281,160	172,032	166,968	388,800	81,792	92,232	288	----	----	237,648	377,400	1,992,384
Crab, Rock	----	----	----	12	----	----	----	----	----	----	----	----	12
Lobster, Spiny	188,850	302,727	244,500	92,524	----	----	----	----	----	85,240	153,725	326,573	1,394,139
Shrimp	175,756	123,795	57,807	88,442	84,221	271,952	504,622	520,755	377,007	267,305	133,259	123,661	2,728,672
Mollusk:													
Abalone	7,500	----	370,350	299,229	253,237	466,055	352,965	343,215	281,323	333,050	302,846	164,741	3,176,513
Clam, Cockle	10,299	12,496	10,773	12,127	13,446	10,215	6,905	4,400	6,493	8,765	14,499	14,675	125,213
Clam, Miscellaneous	952	2,267	2,804	3,572	280	49	200	----	508	2,200	2,356	1,980	17,266
Clam, Pismo	6,982	11,860	9,763	8,380	7,529	8,784	11,708	12,204	9,302	8,446	6,569	7,134	108,860
Clam, Soft-shell	10,676	12,490	14,060	12,059	9,526	9,014	7,558	7,630	7,659	8,097	8,931	8,871	116,571
Mussel	----	25	----	300	----	----	----	----	----	----	----	----	325
Octopus	2,642	3,921	8,219	11,881	13,135	9,482	12,327	9,197	1,376	360	1,585	2,655	76,980
Oyster, Eastern	66,682	50,853	41,482	45,683	31,458	23,551	21,879	25,854	49,443	56,223	68,277	100,962	582,367
Oyster, Native	1,829	2,699	2,333	2,788	3,476	2,104	3,744	4,248	3,095	4,329	3,577	4,349	41,243
Squid	62	103,099	46,563	3,748,036	6,817,761	53,575	1,323	----	----	----	40,945	153,898	10,969,462
Reptile:													
Terrapin	----	----	----	----	----	----	58	----	----	----	----	----	58
Turtle	----	----	----	----	----	----	----	----	----	----	580	----	580
Total pounds	113,597,287	114,152,251	76,152,150	15,259,262	18,233,275	18,810,627	30,023,748	56,670,248	62,437,801	88,541,335	63,566,864	37,860,037	696,104,945

* Importations of fresh fish from foreign countries included. See importation tables.

LANDINGS—REGION 10, DEL NORTE*, 1931

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Cultus, Pacific	2,478	2,391	2,919	4,311	1,983	2,311	2,220	3,559	3,457	6,122	6,144	961	38,856
Flounder, Starry	876	194	687	205			1,325	859				85	4,231
Halibut, Northern			44	150	2,978	5,729	957	2,269	1,530	2,267	29		15,953
Perch	519	183	125	567									1,394
Rockfish	5,630	7,573	4,843	7,930	1,710	1,317	1,040	1,601	2,709	1,991	909	1,414	39,667
Sablefish				75	17	21	375		148	2,501	920		4,147
Salmon			40	1,757	13,770	27,502	80,653	550,209	26,097	2,335			704,563
Sea-bass, White						454	252	130					836
Smelt	309	26			1,139	1,979	1,218	744					4,555
Sole						5		25					30
Striped Bass					203								203
Whitebait	1,942	5,570	9,574	3,963	1,482	2,237	1,106						27,074
Miscellaneous Fish	283			15		1,304	310	1,152					3,066
Crustacean:													
Crab	18	24		102	102	580						420	1,436
Mollusk:													
Clam, Miscellaneous		60	60										120
Total pounds	12,147	17,021	18,492	19,145	23,554	42,489	90,356	560,548	33,941	15,506	8,002	2,880	846,081

*Oregon-California boundary to Trinidad Head.

LANDINGS—REGION 20, EUREKA*, 1931

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Cultus, Pacific	338	2,033	8,476	10,424	12,910	19,794	15,732	22,684	61,087	45,503	2,703	302	201,986
Flounder, Starry	1,828	1,830	571	205	----------	----------	----------	----------	----------	----------	----------	----------	4,434
Halibut, Northern	----------	1,060	19,761	45,079	85,395	121,427	127,527	92,741	165,987	57,617	2,511	----------	719,105
Herring, Pacific	403	17,243	----------	----------	----------	----------	----------	----------	----------	----------	67	106	17,819
Perch	1,110	1,825	1,650	1,511	----------	----------	----------	----------	648	1,312	----------	55	8,111
Rockfish	----------	481	7,521	10,615	10,253	10,016	10,910	5,242	4,949	4,292	1,158	866	66,303
Sablefish	1,955	4,815	39,689	43,935	41,656	35,039	43,538	25,950	111,756	182,393	43,242	26,427	600,395
Salmon	----------	338	3,091	172,614	326,737	518,604	943,384	1,042,515	81,211	19,969	260	104	3,108,847
Smelt	4,534	5,171	7,004	5,283	1,729	2,035	1,407	3,158	6,003	4,464	11,371	8,034	60,393
Sole	----------	----------	75	58	----------	4	----------	78	----------	----------	----------	----------	215
Whitebait	943	2,291	13,603	15,082	19,579	27,629	14,630	8,119	247	----------	----------	----------	102,213
Miscellaneous Fish	----------	----------	----------	----------	282	52	2,367	705	212	----------	----------	----------	3,618
Crustacean:													
Crab	3,660	7,416	19,898	16,988	15,468	15,068	16,704	11,256	----------	----------	----------	4,056	110,514
Mollusk:													
Clam, Cockle	----------	----------	180	----------	----------	----------	----------	----------	63	112	100	77	532
Clam, Soft-shell	----------	----------	----------	----------	----------	----------	----------	----------	----------	165	30	----------	195
Clam, Washington	----------	----------	----------	----------	----------	----------	----------	----------	1,272	3,588	3,844	1,738	10,442
Clam, Miscellaneous	5,057	2,960	2,500	1,894	48	----------	----------	208	948	1,281	1,749	2,478	19,123
Mussel	----------	----------	1,250	----------	----------	----------	----------	----------	----------	200	200	----------	1,650
Total pounds	19,828	47,463	125,359	323,688	514,077	749,668	1,176,199	1,212,656	434,383	320,896	67,435	44,243	5,035,895

* Trinidad Head to Point Arena.

5—21708

LANDINGS—REGION 30, SACRAMENTO*, 1931

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Cabezone					39								39
Carp	8,141	3,848	10,546	9,224	323	28		605	388	69	536	334	36,934
Catfish	12,508	16,061	51,344	48,407	36,735			368	72,352	56,700	47,041	22,320	364,826
Flounder, Starry			227									6	233
Hardhead	12,061	8,485	15,697					65	35	1,855	4,423	3,321	45,942
Pike	804	584	600	129	3			12	37	10	26	199	2,301
Rockfish					26								26
Salmon	2,037	10,538	26,432	55,227	266,268	102,630		139,264	318,661		276	222	941,665
Sardine	8,720,335	2,025,241						775,335	6,350,811	6,027,949	11,168,374	8,258,150	47,154,105
Shad	364	414	54,988	349,557	345,752			2,831	76				754,582
Smelt				88	303								490
Split-tail	2,076	2,510	795	416	324	111			4	10	391	2,498	9,136
Striped Bass	165,507	90,197	109,230	208,211	54,515			21,183	13,206	60,956	50,692	61,540	775,637
Sucker	200	180		81					3	31		64	649
Whitebait				427									427
Miscellaneous Fish	15	24	155	132	21								347
Reptile:													
Terrapin	12												12
Total pounds	8,883,550	2,160,982	270,035	672,389	704,602	102,769		959,803	6,664,573	10,047,665	11,271,769	8,349,234	50,087,371

NOTE.—Between February 15 and December 31, 1931, 424,946 pounds of Hardhead, Carp, Split-tail and Sucker were taken from Clear Lake, Lake County, which should be included in the record for this inland water area. We have only the total and not the monthly detail.

* Sacramento and San Joaquin River systems, San Pablo and Suisun bays, and Lake County.

LANDINGS—REGION 40, SAN FRANCISCO*, 1931

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Anchovy				2,655	29,950	23,450	37,770	30,000	8,167	21,535	850		164,457
Barracuda					149	36	241		6,766	1,358			8,750
Cabezone								15	150		20	400	585
Carp	55		16		50								121
Catfish	1,314	1,560	2,580										5,854
Cultus, Pacific	80,970	85,752	73,467	83,976	113,288	73,018	57,137	113,225	40,491	37,715	51,240	39,904	850,183
Eel, Blenny			46	15	10	15							86
Flounder, Starry	34	3,849	5,383	2,261	7,157	8,074	7,964	8,130	53,023	39,008	16,013	8,230	159,307
Flying Fish						52	120	65					237
Hake	455			2,970	1,755					2,021	1,100	3,365	12,216
Halibut, California		110	354	282	1,351	104	1,305	408	271	2,044	60	1,088	7,267
Halibut, Northern	12	520	4,050	3,827	6,641	5,574	8,744	15,305	3,105	6,258	710		55,346
Herring, Pacific	223,105	122,030	85,770	2,285						150	3,602	196,980	634,012
Kingfish		405	287	1,702	493	427	203	988	15			126	4,646
Mackerel, Pacific		115	65	75					703	335	1,201		2,544
Perch	8,683	6,359	20,343	12,653			7,805	13,802	4,763	7,526	6,370	4,372	92,826
Pompano, California				20									20
Rock Bass			88		126	216	711	10					1,151
Rockfish	74,379	113,018	132,330	116,203	86,647	80,978	79,193	100,109	48,801	77,292	78,083	56,061	1,043,258
Sablefish	5,350	18,197	24,851	20,099	24,416	37,365	11,252	5,368	2,550	375	4,411	5,316	159,750
Salmon			15,389	473	5,629	6,533	141,159	198,149	79,345				446,677
Sand Dab	79,260	63,345	31,654	3,653	63,178	30,575	30,556	33,180	43,015	25,383	30,180	16,635	454,714
Surfine	180,800	180,425	152,475	172,800	292,905	309,420	236,250	320,585	270,684	327,525	604,990	248,800	3,507,339
Sea-bass, Black				159									159
Sea-bass, White			428	855	23	1,115	12,196	3,429	3,995	5,608	376	119	28,234
Shad		13	441	34,551	62,167								97,572
Shark	25,100	13,947	3,382	163	243	420	683	2,039	1,902	6,474	19,993	43,439	121,902
Sheepshead					24				15				39
Skate	30,750	9,923	9,179	2,965	11,679	3,307	6,412	7,144	6,187	10,133	10,346	24,324	132,349
Smelt	8,650	30,106	38,630	30,844	30,329	33,981	16,530	16,947	12,114	10,547	5,693	8,718	243,129
Sole	643,513	549,822	1,110,268	638,945	738,674	819,904	783,133	827,670	847,419	737,450	748,671	499,541	8,359,810
Striped Bass	1,100	39,225	53,408	60,340	26,195				16,381	1,735	1,696		200,170
Tomcod	35	519	202	137		5	9	54	492	402	963	981	3,799
Tuna, Albacore								7					7
Turbot	25	64	106	66	13,027	2,836	969	65	7	999	53	67	18,284
Whitebait		52	230	831	728	2,222	1,817	1,709	774	644	806	170	9,983
Yellowtail									66				66
Miscellaneous Fish	4,720	4,940	7,827	3,497	368	236	283	390	1,331	1,	10,142	5,618	41,312

LANDINGS—REGION 40, SAN FRANCISCO*, 1931

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Anchovy				2,655	29,950	23,450	37,770	30,000	8,167	21,535	850		164,457
Barracuda					149	36	241		6,766	1,308			8,730
Cabezone								15	150		20	400	585
Carp	55		16		50								121
Catfish	1,314	1,560	2,580										5,854
Cultus, Pacific	80,970	85,752	73,467	83,976	113,288	73,018	57,137	113,225	40,491	37,715	51,240	39,904	850,183
Eel, Blenny			46	15	10	15							86
Flounder, Starry	34	3,849	5,383	2,261	7,157	8,074	7,964	8,130	53,023	39,008	16,013	8,230	159,307
Flying Fish						52	120	65					237
Hake	455			2,970	1,755					2,021	1,100	3,365	12,216
Halibut, California		110	354	282	1,351	104	1,305	408	271	2,044	60	1,088	7,367
Halibut, Northern	12	520	4,050	3,827	6,641	5,574	8,744	15,305	3,105	6,258	710		55,346
Herring, Pacific	223,105	122,030	85,770	2,285						150	3,602	196,980	634,012
Kingfish		405	287	1,702	493	427	203	988	15			126	4,646
Mackerel, Pacific		115	65	75					703	335	1,201		2,544
Perch	8,683	6,359	20,343	12,653			7,805	13,802	4,763	7,526	6,370	4,372	92,826
Pompano, California				20									20
Rock Bass			88		126	216	711	10					1,151
Rockfish	74,379	113,018	132,330	116,203	86,647	80,978	79,193	100,109	48,801	77,292	78,083	56,061	1,043,258
Sablefish	5,350	18,197	24,851	20,099	24,416	37,365	11,252	5,268	2,550	375	4,411	5,316	159,750
Salmon			15,389	473	5,629	6,533	141,159	198,149	79,345				446,677
Sand Dab	79,250	63,245	31,154	3,653	63,178	30,575	30,556	33,180	43,015	25,383	30,180	16,635	454,714
Sardine	180,800	180,425	152,475	172,800	292,905	309,420	230,250	320,585	270,684	327,525	604,990	248,800	3,501,339
Sea-bass, Black				159									159
Sea-bass, White			428	855	23	1,115	12,196	3,429	3,995	5,608	376	119	28,234
Shad		13	441	34,851	62,167								97,572
Shark	25,100	13,947	3,382	163	243	420	683	2,039	1,902	6,474	19,993	43,439	121,902
Sheepshead					24				15				39
Skate	30,750	9,923	9,179	2,965	11,679	3,307	6,412	7,144	6,187	10,133	10,346	24,324	132,349
Smelt	8,650	30,106	38,630	30,844	30,329	33,981	16,530	16,947	12,114	10,547	5,693	8,718	243,129
Sole	643,513	549,822	1,110,268	638,945	738,674	819,904	783,133	827,670	847,419	737,450	748,671	499,541	8,359,810
Striped Bass	1,100	39,225	53,408	60,340	26,195				16,381	1,735	1,696		200,170
Tomcod	35	519	202	137		5	9	54	492	402	963	981	3,799
Tuna, Albacore								7					7
Turbot	25	64	106	66	13,027	2,836	969	65	7	999	53	67	18,284
Whitebait		52	230	831	728	2,222	1,817	1,709	774	644	806	170	9,983
Yellowtail									66				66
Miscellaneous Fish	4,720	4,940	7,827	3,497	368	236	283	390	1,331	1,	10,142	5,618	41,312

LANDINGS—REGION 50, MONTEREY*, 1931

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Anchovy		1,449	21,100	12,870	2,550	50	25,434	4,692	1,315	14,855	17,375	3,080	104,810
Barracuda	12		2,271	73	246		247	67,209	58,434	11,243			139,835
Cabezone				26		86	20			155	20	115	422
Cultus, Pacific	12,513	7,983	17,257	10,914	7,802	8,242	6,444	8,041	3,884	5,455	12,165	32,908	133,608
Flounder, Starry	40		10	856	152	45	64				314	91	1,572
Halibut, California	2,430	1,708	1,765	1,353	883	1,201	2,665	703	802	184	1,032	1,405	16,221
Herring, Pacific			250						15,986				16,236
Kingfish	18,115	24,239	4,920	19,834	4,347	299	5,438	1,338	10,314	13,708	9,149	29,781	141,502
Mackerel, Horse	152	63	2,230	1,227	4,655	4,266	9,823	8,497	87,391	87,220	12,376	30,591	248,491
Mackerel, Pacific	153,687	126,563	159,746	110,499	125,501	144,196	88,202	138,472	100,453	91,006	21,873	5,389	1,265,587
Perch	904	1,037	5,130	17,909	49		3,309	929	1,274	4,996	230	439	36,096
Pompano, California		73	120	164				16	42	275	22		731
Rockfish	311,599	278,130	386,973	251,359	178,242	207,682	145,067	151,480	179,635	156,811	141,719	172,997	2,561,804
Sablefish	735	779	17,071	7,856	11,664	15,902	18,179	20,888	24,778	39,983	45,335	34,262	237,422
Salmon		324	42	18,885	5,501	6,351	36,977	24,701	38				92,819
Sand Dab	1,112	593	641	1,196	1,003	1,436	1,228	698	17	46	22	102	8,254
Sardine	21,920,145	34,403,270	88,100	112,905	51,345	79,600	167,355	7,439,544	26,409,796	22,031,571	23,518,095	17,210,000	153,431,686
Saury									1,200				1,200
Sea-bass, Black				30							23		53
Sea-bass, White	34		66	139	361	323	19,151	12,563	2,222	399	4,338	91	40,087
Shark								637				510	1,147
Skate	731	1,010	427	280	572	198	1,243	483	255	357	314	591	6,461
Smelt	9,849	5,211	11,415	23,912	28,504	35,293	44,085	57,739	44,541	39,234	42,575	24,365	367,703
Sole	11,120	7,899	15,624	27,009	12,417	4,976	3,567	1,869	798	2,703	654	836	88,282
Tuna, Albacore									19,162	10,918			30,080
Tuna, Bonito	140	383	60	204	70		157	9,319	1,040	471	164	85	12,093
Whitefish			23	15		49	35				993	699	1,798
Miscellaneous Fish	170	470	948	307	59			32			34	885	3,076
Crustacean:													
Crab	108	36	24	15	152	60					1,174	1,274	2,843
Shrimp	963	363	434					412	216	432	459	835	4,114
Mollusk:													
Abalone	3,350		281,125	504,100	389,450	208,800	326,950	535,050	319,500	157,500	204,100	280,000	3,210,825
Clam, Gaper				60									60
Clam, Pismo	1,645	2,112	2,455	970					76	3,046	4,139	2,067	16,510
Mussel					190								190
Octopus	2,070	3,483	5,871	6,195	9,365	12,699	10,100	5,650	1,397	468	262	722	58,412
Squid	61,905	68,514	38,509	43,637	898,061	92,613	275,396	21,350	18,986	6,087	37,057	144,556	1,706,671
Total pounds	22,493,449	34,945,732	1,004,646	1,174,699	1,733,292	823,448	1,191,346	8,513,242	27,303,652	22,679,923	24,076,682	17,978,922	163,979,033

* Pigeon Point to Piedras Blancas.

LANDINGS—REGION 60, SANTA BARBARA*, 1931

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Barracuda				110	723	489	784	416	119	35			2,676
Cabezone				50		6		3		10			69
Cultus, Pacific		128				14	323	23	16				502
Flounder, Starry							15				14		29
Halibut, California	29,197	22,413	28,579	30,439	34,999	30,598	30,318	42,452	27,862	29,588	24,278	24,120	354,653
Herring, Pacific	17	58	4										79
Kingfish			180										180
Mackerel, Pacific	55	134		18	36,014	30	2	255	304	487		548	37,917
Perch	28	47	876	2,600			481	200		30	25	119	4,406
Rock Bass	3,978	4,954	4,757	784	2,824	1,946	273	531	20		608	1,192	21,967
Rockfish	2,879	1,891	8,673	10,826	6,538	1,538	9,199	5,334	5,744	3,603	1,679	3,900	68,126
Sablefish							16						16
Sardine	266,100	300,570	180,040	55						130		710,810	1,437,605
Sculpin	30												30
Sea-bass, Black		616	358	107	170	648	698	235	245	185	25		2,967
Sea-bass, White	611	7,238	7,355	602	1,552	6,222	13,588	3,828	2,810	526	689		45,891
Shark			205			55					215	30	505
Sheepshead	921	504	83		118					55	3,040	6,775	11,854
Smelt	445	810	276	416	1,900	1,587	2,710	3,820	5,199	3,093	10		20,842
Sole	7,970	10,505	18,100	18,800	38,780	15,317	17,329	53,159	59,744	39,359	7,717	6,295	293,565
Tuna, Bonito						27		113,985	22,325				136,317
Tuna, Skipjack								4	16			2,815	2,835
Whitefish			10										10
Yellowtail				110	110	28		1,328	332	285	15		2,218
Miscellaneous Fish		1,662	199		50	15	19						1,915
Crustaceans:													
Lobster, Spiny	16,509	8,427								9,728	10,528	9,471	54,663
Mollusk:													
Abalone	588		1,977	1,908	2,757	2,802	6,728	5,488	5,107	5,599	3,847	14,450	51,341
Clam, Pismo	4,426	4,950	6,317	3,809	8,312	10,013	11,749	11,831	7,854	7,333	4,891	4,527	88,162
Squid												70	70
Total pounds	333,720	365,343	258,333	72,764	135,357	71,365	94,634	247,658	137,787	102,646	57,581	784,722	2,641,940

* Piedras Blancas to Point Dume.

LANDINGS*—REGION 70, LOS ANGELES**, 1931

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Anchovy	139	1,820	5,007	3,535	9,117	6,103	4,828	4,012	2,078	330	728	100	37,787
Barracuda	169,888	43,131	162,829	608,579	257,631	424,927	233,220	160,998	213,039	266,573	185,127	35,451	2,743,294
Cabrilla	32,993	24,932	17,571	1,772	17,632	3,013				5,920	11,379	18,469	132,665
Carp	2,310		3,642	3,769	548	1,852	1,077	23,587	2,376	1,260			40,521
Corbina, Mexican	20,342	30,190	29,263	11,797	2,898					6,208	1,844	1,921	104,573
Croker, Pacific	135	844	2,462	57	18				326	24			3,933
Dolphin							87						498
Eel, Moray						100	462	36				40	140
Flying Fish				14,325	7,166	6,179	3,243	6,535	7,280	1,309			46,028
Grouper	452												452
Hake						283							283
Halibut, California	36,832	77,521	83,313	44,706	29,805	34,541	26,254	33,497	29,421	17,779	16,366	37,461	464,466
Kingfish	35,220	30,714	28,644	25,622	28,194	20,327	6,230	21,573	16,809	13,133	17,084	20,649	266,241
Mackerel, Horse	2,402	14,630	5,440	612	1,618	14,600	40,602	72,405	47,079	39,068	40,476	35,883	314,617
Mackerel, Pacific	644,001	458,408	367,675	157,769	507,907	1,369,474	905,611	1,729,116	1,084,793	1,992,997	878,040	2,649,726	12,744,917
Mackerel, Spanish	3,990	6,243	3,030						3,768	415	218	1,094	18,780
Mullet	70		825	3,565	820	1,395	227		2,499	3,164			12,565
Perch	22,670	8,578	12,851	11,445	1,342	1,359	6,431	15,410	13,013	7,979	11,264	10,197	122,539
Pompano, California	197	331	311	329	173	341	491	320	722	167	120	294	3,996
Rock Bass	9,022	22,884	19,492	24,912	45,138	45,374	46,420	41,205	30,988	23,097	15,903	12,644	337,139
Rockfish	271,349	240,407	429,348	335,207	284,579	260,396	124,469	109,019	82,357	95,766	138,199	236,302	2,607,458
Sablefish	158	1,563	2,359	899	294	1,240	1,474	2,328	1,359	2,323	1,656	3,492	19,485
Sand Dab	596	774	1,196	1,073	1,037	813	836	1,043	826	526	381	736	9,837
Sardine	12,983,044	35,958,925	30,426,464	10,508	11,875	8,480	8,022	5,200	10,903	10,940	8,133,900	28,064,549	93,644,810
Sculpin	5,645	9,115	6,895	6,384	5,321	10,750	7,191	7,543	6,585	4,562	3,866	5,306	79,143
Sea-bass, Black	16,855	3,232	30,046	15,328	10,488	26,431	13,254	16,277	17,108	36,209	12,945	26,855	225,008
Sea-bass, Totuava	390,351	216,495	227,653	94,453	22,720	1,225					55,150	153,357	1,151,312
Sea-bass, White	6,345	9,680	27,328	35,901	26,616	77,677	210,389	81,999	128,295	39,500	33,363	193,878	870,974
Shad		20											20
Shark	13,226	9,618	20,360	26,265	34,323	27,243	20,373	20,183	20,163	21,345	26,282	15,174	299,159
Sheepshead	25,533	16,258	13,568	9,482	8,860	11,987	10,933	7,700	15,317	11,630	10,226	18,001	159,515
Skate	3,441	3,332	4,942	1,662	2,110	3,903	1,618	3,463	2,945	2,100	1,714	3,192	34,426
Smelt	58,205	36,817	31,302	25,191	21,766	22,849	13,358	13,787	23,659	32,630	45,045	34,399	361,308
Sole	2,308	2,350	6,056	2,360	5,266	6,716	5,393	9,581	11,005	7,661	5,246	4,647	68,522
Swordfish, Broadbill						26,553	39,524	22,037	44,160	49,110	27,966	1,570	211,320
Swordfish, Marlin						479	2,839	4,368	9,712	5,976	1,058	214	24,646
Tuna, Albacore	186,054	83,883		262,588	197,838	1,271,079	913,508	925,442	1,401,214	892,326	171,615	170,767	6,946,314
Tuna, Bluefin			174,722	364,981	337,227	1,288,621	1,203,199	148,008		5,593			3,523,351
Tuna, Bonito	2,928	786	3,486	14,346	27,719	47,466	150,940	1,160,403	587,112	680,561	6,754	21,009	2,705,483
Tuna, Skipjack			38,430	111,882	98,276	45,163	1,408,549	6,302,936	288,289	488,484	442,202	184,976	9,709,277
Tuna, Yellowfin			257,006	741,863	544,713	379,094	1,036,007	4,103,086	3,762,174	711,024	386,819	971,823	13,093,609
Whitefish	18,456	19,516	16,612	7,203	3,696	4,988	1,215	2,477	6,235	12,004	6,397	10,420	109,219
Yellowtail	30,675	22,991	93,899	97,415	186,390	99,239	43,742	143,663	163,753	173,365	52,488	52,756	1,191,576
Miscellaneous Fish	1,777	762	742	893	1,028	3,065	777	173	1,409	789	681	280	12,376

LANDINGS*—REGION 70, LOS ANGELES**, 1931—Continued

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Crustacean:													
Crab, Rock			6								50		56
Lobster, Spiny	22,682	19,656	272	1,722	2,925					44,325	51,716	50,938	194,236
Prawn		450											450
Shrimp		1,536											1,536
Mollusk:													
Clam, Cockle	4,000	3,215	3,695	2,400	2,526	1,345	2,642	3,229	2,260	3,715	3,530	2,741	35,918
Clam, Jackknife					1,268	1,870	1,996	2,253	850	280	392		8,909
Octopus	54	10	2	67		4	47	4		39		98	325
Squid		31,623		180	40		37						31,880
Total pounds	15,046,265	27,423,382	22,562,795	3,193,247	2,633,810	6,958,952	6,501,757	15,550,700	8,158,907	3,625,426	10,998,540	33,051,741	156,907,522

* Importations of fresh fish from foreign countries included. See importation tables.
** Point Dume to San Mateo Point.

LANDINGS*—Region 80, SAN DIEGO**, 1931

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Anchovy								240					240
Barracuda	20,330	10,040	39,261	74,689	190,878	208,225	247,911	173,052	166,185	69,405	13,818	9,313	1,283,013
Cabrilla	9,614	1,398	6,661	4,186	330		210	1,112	21,035	12,528	40,858	29,268	127,200
Corbina, Mexican		3,557											3,557
Dolphin								20					20
Grouper						425	2,817	222		833	1,194	20,907	26,518
Halibut, California	11,124	24,632	28,778	15,490	10,789	11,402	10,215	4,357	3,273	1,405	1,700	3,935	127,156
Herring, Pacific	2,273										3,759	11,561	17,593
Kingfish	319	172	150	441	181			43	75	43	12	29	1,465
Mackerel, Pacific	29,634	26,446	22,406	21,841	20,445	7,319	26,376	9,319	9,884	10,268	13,601	15,983	213,524
Mackerel, Spanish	3,058	161	1,118							85	165	335	4,922
Mullet	29	2,565	160	560	1,311	709	1,612	697	216	722	1,006	1,875	11,462
Perch	9		12	290			22						333
Pompano, California				93	207		27						326
Pompano, Mexican		283										455	738
Rock Bass	2,829	3,723	12,610	17,551	24,267	31,990	17,163	34,000	10,541	3,941	11,652	14,800	184,867
Rockfish	107,362	113,482	120,654	119,055	87,263	66,262	46,819	54,294	59,242	53,125	37,355	60,842	885,695
Sardine		1,159	19,618	17,554	5,929	5,284	75,559	2,420	1,623	1,616	1,413		132,166
Scalpin	1,784	500	2,770	1,123	392			694	1,385	523	1,373	1,909	12,515
Sea-bass, Black	47,628	14,523	20,253	26,578	48,490	8,472	17,564	9,354	29,173	15,550	13,410	11,498	272,975
Sea-bass, Totuava	13,720	1,850	2,133	400									18,155
Sea-bass, White	6,899	4,376	9,023	17,667	9,782	38,553	145,998	83,863	87,553	6,018	2,354	1,749	413,033
Shark	5,615	7,322	15,939	17,011	19,542	20,347	21,799	27,497	21,809	18,610	5,350	3,599	183,521
Sheepshead	5,916	1,934	3,329	572	309	370	67	369	557	3,060	5,567	4,398	26,939
Skate	175	866	508										1,549
Smelt	722	3,078	1,471	2,209	3,167	2,209	478	60		814	1,185	1,497	16,890
Sole	461	1,062	217	8	11			38		13	29	219	2,058
Swordfish, Broadbill		415			6,918	23,575	13,098	17,676	38,168	21,971	5,009	119	126,349
Swordfish, Marlin					182	1,050	1,002	7,814	4,397	1,126	633		16,434
Tuna, Bluefin					59	7,220	3,049	371					10,679
Tuna, Bonito	503	1,228	3,650	4,374	13,350	5,402	53,742	129,364	3,331	4,640	3,833	63	225,780
Tuna, Skipjack	87,583	46,674	160,526	84,743	170,942	36,795	3,320,191	1,468,174	390,833	310,645	329,989	93,354	6,704,549
Tuna, Yellowfin	790,000	178,936	3,770,286	3,453,909	3,391,324	394,056	13,974	4,994,047	3,495,626	1,343,557	941,224	814,758	23,487,677
Whitefish	12,653	19,093	31,465	14,743	5,212	3,679	3,456	2,094	2,986	4,508	4,437	7,045	111,971
Yellowtail	34,630	21,709	80,489	152,732	252,880	157,620	78,175	256,170	127,860	72,563	51,309	26,036	1,332,193
Miscellaneous Fish	1,165										125	208	1,498
Crustacean:													
Lobster, Spiny	203,290	140,334	245,887	51,729						152,689	99,267	196,697	1,089,893
Reptile:													
Turtle		2,726		3,151	610	170							6,657
Total pounds	1,335,278	635,197	4,608,347	4,102,698	4,203,750	1,084,053	4,101,329	7,277,060	4,461,754	2,092,184	1,791,639	1,332,231	37,085,520

* Importations of fresh fish from foreign countries included. See importation tables.
** San Mateo Point to the Mexican boundary, including Salton Sea.

LANDINGS*—STATE OF CALIFORNIA, 1931

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Anchovy	139	3,269	26,107	19,330	41,657	39,603	68,032	38,944	11,560	36,720	18,953	3,180	307,494
Barracuda	190,130	53,171	204,352	683,451	429,627	693,577	484,403	401,675	444,546	348,897	198,945	44,764	4,177,538
Cabazone				76	39	92	20	18	150	165	40	515	1,115
Cabrilla	41,617	26,330	24,232	5,958	17,962	3,015	210	1,112	21,035	18,448	52,237	47,737	259,893
Carp	10,506	5,848	14,204	12,993	1,123	1,980	1,077	24,282	2,764	1,329	536	934	77,576
Catfish	13,822	18,921	53,924	48,497	36,735			368	72,352	56,700	47,041	22,320	370,680
Corbina, Mexican	20,542	34,047	29,263	11,707	2,898					6,208	1,844	1,921	108,430
Cultus, Pacific	96,434	99,127	104,581	109,682	136,001	103,379	81,945	147,532	109,261	94,819	72,252	74,075	1,229,088
Dolphin							462	56					518
Eel			46	15	10	115						40	226
Flounder, Starry	2,778	5,864	6,878	3,627	7,309	8,119	9,368	8,989	53,023	39,098	16,341	8,412	169,806
Grouper	452					425	2,817	322		853	1,194	20,907	26,970
Hake	405			2,970	1,755	285				2,621	1,100	3,365	12,501
Halibut, California	79,493	126,384	142,689	92,360	74,737	77,846	70,640	81,507	61,629	51,093	43,426	67,969	969,773
Halibut, Northern	12	1,890	23,855	49,046	95,014	132,730	137,228	110,315	170,322	66,422	3,250		790,384
Hardhead	12,061	8,485	15,697	1				65	35	1,855	4,423	3,321	45,943
Herring, Pacific	225,798	139,321	86,024	2,385	20				15,986	150	7,428	208,647	685,759
Kingfish	53,654	55,550	34,181	61,924	40,381	27,275	15,254	30,544	34,493	30,213	26,245	50,585	460,299
Mackerel, Horse	2,554	14,693	7,870	1,839	5,673	19,066	50,425	80,902	134,470	126,288	52,852	66,476	563,108
Mackerel, Pacific	807,377	621,666	549,322	290,222	689,867	1,521,019	1,020,193	1,877,142	1,196,227	2,095,093	914,715	2,671,646	14,254,489
Mackerel, Spanish	7,048	6,406	4,168						3,768	500	383	1,429	23,702
Mullet	99	2,565	985	4,425	2,131	2,104	1,839	697	2,715	3,886	1,005	1,875	24,327
Perch	33,923	18,049	41,007	46,575	1,391	1,359	18,338	30,401	19,698	21,843	17,889	15,202	265,675
Pike	804	584	600	129	5			12	37	95	36	199	2,501
Pompano, California	107	404	650	615	380	541	428	336	764	442	142	264	5,073
Pompano, Mexican		283										455	738
Rock Bass	15,829	31,561	36,947	43,247	72,355	79,526	64,567	75,846	41,349	27,038	28,223	28,636	545,124
Rockfish	773,108	754,982	1,090,314	851,587	655,758	628,149	417,597	431,279	363,437	374,970	399,104	532,042	7,272,327
Sablefish	8,238	25,154	84,010	72,864	78,047	89,567	74,914	54,534	141,091	227,665	95,554	69,577	1,021,215
Salmon	2,037	11,200	45,014	248,956	619,925	661,620	1,202,173	1,974,868	505,352	22,504	536	326	5,294,511
Sand Dab	80,998	66,612	33,791	5,922	65,308	32,824	32,630	36,921	43,858	25,825	30,583	17,533	472,805
Sardine	44,091,514	62,888,581	20,846,597	313,702	362,144	402,784	487,686	8,543,104	32,952,817	32,499,731	43,426,772	54,492,349	301,307,801
Saury									1,300				1,300
Sculpin	7,459	9,675	9,665	7,507	5,713	10,730	7,191	8,237	7,970	5,085	5,241	7,215	91,688
Sea-bass, Black	64,463	18,371	60,837	42,202	59,148	35,551	31,516	26,966	46,526	51,744	26,380	38,360	502,064
Sea-bass, Totuava	394,121	218,255	229,788	94,853	22,720	1,223					55,150	153,357	1,169,467
Sea-bass, White	13,889	21,296	44,199	55,164	38,714	124,343	401,974	184,811	224,877	52,341	41,520	195,837	1,398,965
Shad	364	447	55,429	384,908	407,919			2,831	76				851,974
Shark	45,944	32,887	41,167	53,441	54,312	48,065	42,859	56,347	59,874	46,629	51,840	62,769	596,134
Sheepshead	32,246	18,696	17,473	10,054	9,611	12,357	11,000	8,069	16,089	14,745	18,833	29,174	198,347
Skate	35,097	15,131	15,056	4,907	14,361	7,410	9,273	11,092	9,387	12,590	12,374	28,107	174,785
Smelt	82,844	81,219	90,098	87,943	88,616	98,973	81,786	96,261	91,816	91,852	106,479	76,923	1,074,810
Sole	665,182	572,068	1,150,430	687,180	795,148	846,022	809,622	892,220	913,969	807,186	762,317	511,538	9,412,882
Split-tail	2,076	2,510	796	416	324	111			4	10	391	2,498	9,136

Striped Bass	107,007	129,422	162,728	268,551	80,913			37,564	14,941	62,652	50,692	61,540	976,010
Sucker	290	180		81					3	31		64	949
Swordfish, Broadbill		415			6,918	50,128	52,622	39,713	82,328	73,061	33,375	1,989	340,769
Swordfish, Marlin					182	1,529	3,841	12,182	14,309	7,112	1,711	214	41,080
Tomcod	25	519	202	137		5	9	54	402	402	963	981	3,700
Tuna, Albacore	186,054	83,883		262,588	107,538	1,771,079	913,505	975,449	1,420,376	813,244	171,615	170,767	6,976,401
Tuna, Bluefin			174,722	264,981	337,266	1,295,841	1,206,248	148,379		6,563			3,534,030
Tuna, Bonito	3,571	2,597	5,566	18,524	41,039	55,928	204,879	1,413,051	913,808	685,672	10,751	21,157	3,079,673
Tuna, Skipjack	87,583	46,674	159,956	196,625	268,318	81,958	4,728,140	8,061,114	785,138	799,129	971,381	281,145	16,500,761
Tuna, Yellowfin	706,000	178,936	4,027,292	4,195,772	3,936,037	763,130	1,050,071	9,097,133	7,257,800	2,054,581	1,528,043	1,786,581	36,581,376
Turbot	25	64	106	66	13,627	2,836	969	65	7	999	53	67	18,284
Whitebait	2,885	8,913	23,720	20,318	21,789	32,128	17,588	9,838	1,021	644	1,801	866	141,495
Whitefish	31,109	39,209	48,087	21,946	8,908	8,667	4,671	4,571	9,221	15,512	10,834	17,465	221,200
Yellowtail	114,305	44,700	179,388	250,357	439,340	256,867	121,917	401,161	292,011	246,213	103,512	78,812	2,525,553
Miscellaneous Fish	8,132	7,855	9,841	5,043	1,759	4,672	3,758	2,452	3,152	2,547	10,982	6,991	67,187
Crustaceans:													
Crab	190,726	279,620	264,510	337,855	285,576	202,624	97,205	11,256			192,318	369,694	2,231,384
Crab, Rock			6								50		56
Lobster, Spiny	243,577	170,265	246,159	33,451	2,925					206,742	164,898	259,030	1,347,047
Shrimp	112,289	132,066	103,512	123,085	112,883	238,887	233,419	281,785	72,445	186,985	47,426	44,451	1,691,263
Mollusk:													
Abalone	3,638		283,102	506,068	392,207	211,602	333,678	541,438	324,607	163,099	207,047	294,450	3,262,166
Clam, Cockle	5,177	5,569	7,394	3,951	3,358	2,742	5,274	9,728	8,998	14,096	13,964	11,999	92,250
Clam, Gaper				60						120	80		260
Clam, Miscellaneous	5,514	3,288	3,237	1,992	418	126		208	997	1,243	1,809	2,570	21,624
Clam, Pismo	6,071	7,102	8,972	6,869	8,212	10,013	11,749	11,531	7,930	10,299	5,030	6,594	104,672
Clam, Jackknife					1,268	1,870	1,995	2,253	550	250	232		8,909
Clam, Soft-shell	6,065	6,143	6,434	6,450	5,563	6,289	6,142	6,728	10,607	13,002	14,850	13,135	101,738
Clam, Washington									1,272	3,588	3,544	1,738	10,442
Mussel			1,250		150					200	200		1,800
Octopus	2,200	3,955	8,130	7,290	9,375	13,613	10,807	5,867	1,397	376	419	520	64,601
Oyster, Eastern	268,680	239,720	255,660	235,500	106,500	76,900	15,452	17,783	37,162	38,841	38,342	20,704	1,351,334
Oyster, Native	8,329	4,586	8,852	12,618	11,270	9,350	11,917	9,254	12,268	23,301	16,679	12,093	142,577
Squid	61,905	100,137	38,506	43,817	858,101	92,613	273,453	21,350	18,986	6,087	37,057	144,626	1,758,021
Reptile:													
Terrapin	12											612	624
Turtle		2,726		3,151	610	170						36	6,693
Total pounds	50,076,673	67,509,799	31,288,661	11,459,856	12,037,248	10,903,684	14,953,560	36,360,802	48,767,133	42,703,846	50,189,093	63,173,604	439,421,809

* Importations of fresh fish from foreign countries included. See importation tables.
424,946 lbs. of Hardhead, Carp, Split-tail and Sucker not included. We have total for year but do not have monthly or species detail.

LANDINGS—REGION 10, DEL NORTE*, 1932

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Cultus, Pacific	604	2,647	131	876	589	493	401	896	889	494	420	387	9,227
Flounder, Starry	30	225	288										543
Halibut, Northern			60	50	660	828	666	556	302	89			3,152
Perch	106	7											113
Rockfish	333	3,702	1,268	1,060	1,026	836	830	1,083	798	668	70	208	12,134
Sablefish			113		80	116	323	75	236	48		245	1,236
Salmon					50	3,274	23,579	403,187	48,342	24,107			502,539
Smelt			48										48
Sole				75									75
Whitebait	154	245			50								449
Crustacean:													
Crab	636	1,346	420	756	2,480	1,860	96						8,594
Total pounds	2,063	8,172	2,328	2,817	6,325	7,427	25,915	405,799	50,568	25,406	490	840	538,150

* Oregon-California boundary to Trinidad Head.

LANDINGS—REGION 20, EUREKA*, 1932

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Cabezone			46										46
Cultus, Pacific	82	34,464	3,023	5,503	5,212	14,569	16,534	15,827	21,566	12,044	89		129,303
Flounder, Starry	4,910	4,224	1,470								229	991	11,824
Hake						250							250
Halibut, Northern		2,128	5,413	32,783	62,638	121,876	85,689	110,719	64,331	24,093	23		518,893
Herring, Pacific	2,134	3,137		3,011								417	8,699
Perch	1,973	6,910	4,451	2,109				267	1,800	381	197	262	18,350
Rockfish	27	11,790	3,785	10,963	7,857	17,610	5,055	14,323	3,819	1,686	73		77,008
Sablefish	338	7,629	17,621	49,234	64,613	102,589	97,905	23,533	108,025	94,551	8,508		574,945
Salmon				3,070	434,269	430,746	880,603	717,409	54,194	15,512	30	7	2,544,861
Sardine						140							140
Smelt	7,845	7,272	8,975	3,375	1,122	1,202	4,638	8,971	8,935	4,084	4,691	4,155	65,505
Sole				30									30
Tomcod									28				28
Tuna, Albacore									21				21
Whitebait	597	14,779	10,600	10,686	17,408	14,995	11,356	8,686	1,099	16			90,112
Miscellaneous Fish			1,117	2,473	4,884	4,845	6,774	4,535	7,722	9,677			42,027
Crustaceans:													
Crab	11,066	12,114	13,672	11,282	11,732	11,808	15,760	13,184				7,056	107,864
Mollusk:													
Clam, Cockle	241	32	36										309
Clam, Soft-shell										690			690
Clam, Washington	2,707	3,265	3,919	3,241				39	2,800	1,438	2,822	1,621	21,552
Clam, Miscellaneous	1,647	949											2,596
Mussel				180									180
Octopus					53	348							401
Total pounds	33,567	108,693	74,128	138,070	609,868	730,728	1,124,404	926,483	274,630	164,172	16,662	14,509	4,215,724

* Trinidad Head to Point Arena.

LANDINGS—REGION 20, SACRAMENTO*, 1922

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Carp	8,034	6,287	4,968	5,602	14,222	21	.....	284	346	1,052	3,548	868	45,262
Catfish	8,632	11,313	44,765	29,025	1,268	.....	.....	26	56,293	45,682	32,674	23,318	252,996
Flounder, Starry	.....	.....	.....	.....	.....	.....	.....	.....	.....	230	.....	.....	230
Hardhead	28,154	23,248	79,750	47,553	51,250	176,500	.....	18	70	2,347	16,739	12,043	431,372
Pike	619	347	305	416	53	.....	.....	.....	21	28	16	99	2,004
Salmon	1,228	4,243	39,704	156,442	221,187	32,307	.....	169,102	648,234	1,172	470	.....	1,294,987
Sardine	3,433,130	.....	.....	.....	.....	.....	.....	2,750	2,880,893	8,100,100	6,003,899	5,982,926	26,505,788
Shad	.....	3	129,033	552,412	407,241	.....	.....	.....	.....	.....	9	19	1,088,739
Split-tail	6,388	3,382	2,350	2,063	3,063	79	.....	2,815	2,178	1,518	1,039	73	27,943
Striped Bass	66,820	19,931	105,322	150,037	57	.....	.....	21,807	36,164	56,294	32,485	34,906	533,823
Sucker	2,027	4,966	700	1,750	3,200	.....	.....	.....	.....	.....	3,785	147	16,575
Whitefish	.....	.....	.....	.....	312	822	.....	.....	.....	120	.....	.....	954
Miscellaneous Fish	.....	.....	.....	334	2,000	.....	.....	.....	.....	.....	.....	.....	2,334
Total pounds	3,554,532	75,724	407,237	945,334	704,752	209,229	.....	197,800	3,633,329	8,208,542	6,090,670	6,055,395	30,163,038

* Sacramento and San Joaquin River systems, San Pablo and Suisun bays, and Lake County.

LANDINGS—REGION 43, SAN FRANCISCO*, 1932

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Anchovy			500	13,800	28,050	19,325	30,750	16,232	20,925	12,850		3,105	147,637
Barracuda				3		41							44
Cabezone			338	358	910	130	230	870	65		460		3,361
Carp		153											153
Catfish			180	347					29		396	113	1,060
Cultus, Pacific	30,144	75,518	46,744	70,943	66,822	50,669	73,251	66,834	41,051	34,277	43,374	23,332	647,159
Eel, Blenny			10	5		15	10	55	86			27	208
Flounder, Starry	37,725	212,563	41,207	15,421	49,700	40,320	16,263	14,600	21,228	7,789	41,253	5,975	514,144
Halibut	2,230	2,849	4,073	3,758	500	2,235	5,430	438	430	5,158	375		26,327
Halibut, California	290	396	10,884	2,624	287	342	1,432	807	140	980	1,035	377	19,794
Halibut, Northern		325	3,828	19,446	16,330	12,860	21,348	31,148	14,550	3,908			123,743
Herring, Pacific	298,675	151,630	61,400								16,553	198,667	726,925
Kingfish	250			2,504	160	1,308	2,001	2,745	373	570	488		10,529
Mackerel, Pacific				525	8	27		11	1,400	1,085			3,056
Perch	7,718	6,302	8,841	3,304			7,283	11,931	9,253	9,687	6,374	6,331	76,664
Rock Bass				6	98	1,078	980	195					2,357
Rockfish	96,732	108,137	93,833	104,616	79,200	76,767	93,748	63,812	34,737	84,787	94,091	58,048	994,408
Sablefish	4,747	21,366	2,896	4,819	6,655	14,717	5,537	9,785	700	19,441	4,405	4,259	98,527
Salmon		60			4,357	4,802	78,265	132,807	57,085				227,406
Sand Dab	64,159	65,339	84,222	49,964	43,100	67,010	62,459	47,144	32,705	45,784	40,323	28,565	640,885
Sardine	228,050	87,900	176,640	73,700	390,000	393,675	313,710	228,075	321,475	311,245	365,810	75,700	2,851,980
Sea-bass, White				120			2,759	410	3,434	4,144	58	464	11,389
Shad			1,913	58,468	24,233								84,616
Shark	54,764	85,310	38,105	1,215	1,925	755	2,610	2,510	2,710	4,504	12,853	16,633	225,604
Sheepshead								33					33
Skate	38,328	63,006	52,688	11,180	5,560	6,665	18,109	4,965	4,513	12,086	17,035	14,810	249,045
Smelt	6,440	33,353	37,618	24,739	32,048	35,637	37,950	30,253	24,181	15,725	8,389	13,090	299,423
Sole	644,091	592,451	714,155	916,442	877,894	696,231	732,069	676,344	740,163	661,812	599,912	662,255	8,522,609
Striped Bass	60		3,930	9,285				97			32	200	13,604
Tomcod	332	1,102	260	140		26			259			2,138	4,243
Turbot	361	149	7,736	22	363	647	3,801	1,163	967	1,232	6,301	234	23,380
Whitebait	1,334	1,979	150	2,557	2,941	1,242	2,384	1,766	1,099	5,035	4,431	2,006	27,921
Miscellaneous Fish	6,637	4,732	3,151	6,570	8,050	8,490	5,287	12,760	14,174	10,610	7,337	8,544	96,532
Crustacean:													
Crab	316,833	334,716	224,286	225,610	245,336	193,062	132,100				213,456	402,732	2,290,131
Lobster, Spiny	240	591								121	120		1,072
Shrimp	73,308	70,420	127,444	182,960	214,624	253,538	484,494	567,752	350,259	170,011	128,443	58,614	2,681,897
Mollusk:													
Abalone				26						42	55		123
Clam, Cockle	12,931	16,692	19,000	15,329	17,416	14,134	1,732	2,925	3,599	5,151	9,404	5,922	124,335
Clam, Gaper		60	288	80		4			30	766	110	20	1,362
Clam, Soft-shell	13,322	16,930	19,471	14,120	11,515	12,199	12,222	13,798	11,561	12,418	11,823	12,995	164,351
Clam, Washington		78	230	188	226	64	16	71	139	118	132	88	1,350
Clam, Miscellaneous	236	119		48	25	12	110						550
Octopus	31	740	265	162	158	183		74	13	343	112	873	2,980
Oyster, Eastern	36,108	34,702	27,305	18,541	13,763	7,741	8,781	9,352	17,475	35,830	39,122	50,413	290,571
Oyster, Native	15,801	8,963	7,886	6,802	7,415	9,853	11,314	11,967	4,689	2,602	1,945	3,751	91,078
Total pounds	1,993,929	1,998,822	1,824,625	1,853,948	2,064,981	1,895,814	2,121,213	1,965,731	1,754,750	1,499,298	1,677,597	1,674,094	22,324,802

* San Francisco Bay and coast from Point Arena to Pigeon Point.

LANDINGS—REGION 80, MONTEREY*, 1932

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Anchovy		8,670	28,605	22,960	15,055	27,581	7,817	2,750	1,420	4,080	900	175	120,043
Barracuda		9					9		2,910	25	15		2,968
Cabezone	13	364	241	176		40						78	912
Cultus, Pacific	9,801	11,079	10,062	6,108	6,256	7,205	6,242	8,764	11,754	9,584	11,905	13,456	112,396
Flounder, Starry		5,285	5,036	329	956	331	1,929	217	621	203	126	1,146	16,799
Halibut, California	1,462	13,328	9,287	2,127	2,039	5,376	6,622	2,068	1,612	1,178	732	1,050	46,881
Herring, Pacific	9,345	7,636	1,100		100	200		355					18,136
Kingfish	27,216	12,264	20,862	15,101	12,396	4,085	4,508	2,782	3,874	6,064	2,470	13,264	133,785
Mackerel, Horse	9,419	272	9,098	1,629	21,884	10,542	6,673	6,189	30,233	19,390	3,208	131	119,268
Mackerel, Pacific	2,125	3,910	14,992	57,378	40,785	88,927	109,259	120,667	90,930	101,828	21,571	13,547	665,919
Perch	3,613	11,371	24,720	9,209			6,209	1,305	179	608	431	306	58,782
Pompano, California	20	26	115	55	11	10		3	20				240
Rockfish	143,551	196,824	247,568	198,774	187,657	157,056	143,677	164,400	168,016	100,853	123,839	154,397	2,049,282
Sablefish	30,855	23,357	31,299	23,556	12,554	6,344	3,156	1,458	7,241	15,135	40,991	23,027	218,833
Salmon				16,601	9,127	55,156							80,884
Sand Dab	126	91	613	1,147	1,203	4,326	3,530	3,229	1,810	654	346	632	17,797
Sardine	29,961,800	11,013,325	100,669	174,419	49,820	69,132	64,475	2,334,125	25,526,300	40,012,309	23,940,035	31,037,545	168,284,301
Sea-bass, Black		23					28		28				81
Sea-bass, White		450	306	1,142			5,854	12,465	2,264	311	2,580	150	25,622
Shad		26	3										29
Shark	703		5,000								140	100	5,943
Skate	662	3,072	1,580	730	1,333	923	619	604		150	1,042	1,383	12,311
Smelt	8,845	14,914	5,046	7,229	15,433	17,518	20,162	15,257	26,356	22,729	25,940	9,557	188,461
Sole	359	4,379	8,276	7,174	5,268	11,311	12,504	5,757	3,393	551	2,447	4,726	66,235
Tuna, Albacore									193,296	413,017			606,313
Tuna, Bluefin									38				38
Tuna, Bonito	10							21					31
Turbot	33												33
Whitebait	554	1,387	2,217	1,803	2,106	3,647	1,725	40	130	405			14,104
Miscellaneous Fish		325	180	44			154	479	1,262	169	138	220	3,271
Crustacean:													
Crab	358	470	1,382	448	420	18	166				8,760	15,376	27,398
Shrimp	51	278	56			3	4		13	230	282	65	982
Mollusk:													
Abalone	14,800		147,000	324,200	230,625	306,550	152,200	238,950	346,050	155,950	170,000	40,050	2,135,375
Clam, Cockle												34	34
Clam, Pismo	3,783	2,227	3,221	1,613					3,831	3,443	4,999	2,940	25,157
Clam, Miscellaneous			16										16
Octopus	259	639	772	1,656	2,602	3,985	4,328	1,436	1,583	49	85	160	17,554
Oyster, Native											2,692	6,450	9,142
Squid	289	15,894	30,001	82,870	2,457,106	971,765	122,853	241,750	25,460	25,825	58,957	54,851	4,087,621
Total pounds	30,229,451	11,351,727	720,482	958,678	3,074,828	1,752,841	684,274	3,165,201	30,450,884	40,956,517	24,435,631	31,394,703	179,175,217

* Pigeon Point to Piedras Blancas.

LANDINGS—REGION 60, SANTA BARBARA*, 1932

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Barracuda			504		922	2,700	2,322	2,788	1,216		1,269	1,745	13,556
Cabezone	100	9		20								30	159
Calico, Pacific							16	25	70				111
Flounder, Starry		157	39			15			17		9		237
Halibut, California	28,651	28,147	32,079	30,632	19,761	24,805	26,227	26,611	20,057	20,492	16,787	27,436	311,705
Herring, Pacific		103											103
Kingfish	105			70					15				190
Mackerel, Horse						69		50	945				1,064
Mackerel, Pacific	78		200	18	312	925	43	268	994	871	493	362	4,476
Perch		448	587	199			398	801	265	408	88	101	3,295
Rock Bass	1,018	841	173	174	189	133	202	269	13	201	1,318	100	4,920
Rockfish	4,244	7,050	7,249	5,704	6,475	6,436	8,971	8,854	7,358	4,017	3,734	6,354	76,636
Rabbitfish					88					6			94
Sand Dab										2			2
Sardine							7			335	20	45	405
Sea-bass, Black			762	666	170		740	870	4,320	842	27		8,597
Sea-bass, White		242	9,313	9,714			10,420	6,548	4,419	3,645	3,438	1,477	49,216
Shark	49	1,917	4,511	3,308	459	783	1,328	614	268	118	275	63	13,793
Sheepshead	3,010	4,805		13	125	1,355	170	140		2,388	3,861	2,742	20,791
Smelt	3,730	4,324	3,669	1,805	1,396	4,173	2,053	1,328	835	134	178	368	24,583
Sole	12,960	16,910	11,712	14,540	9,194	15,631	34,358	37,155	28,209	29,942	12,273	19,634	242,430
Swordfish, Broadbill										972			972
Swordfish, Marlin										170			170
Tuna, Bluefin						33							33
Tuna, Bonito					11	50	314	140		12	145		672
Whitefish	27	310	722				252	201	163		85	68	1,808
Yellowtail			165				40	41	61	260			567
Miscellaneous Fish				158			216	112					486
Crustaceans:													
Lobster, Spiny	6,275	4,079								12,363	41,732	30,076	94,525
Mollusk:													
Abalone	9,270		21,150	105,125	104,310	46,100	85,650	72,000	95,400	86,150	27,900	28,750	681,805
Clam, Pismo	3,515	4,546	4,704	5,387	6,380	8,402	11,729	11,959	9,704	7,228	6,264	5,240	85,148
Total pounds	73,142	73,878	98,021	177,823	149,702	111,614	193,719	170,554	174,439	170,650	124,904	124,701	1,642,727

* Piedras Blancas to Point Dume.

LANDINGS*—REGION 70, LOS ANGELES**, 1932

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Anchovy	1,267	327	2,602	2,819	10,100	8,670	770	2,597	1,885	130	.....	380	31,547
Barracuda	1,092	57,751	193,014	303,228	285,194	488,158	419,163	198,888	153,835	152,456	107,900	31,601	2,392,280
Cabrilla	1,196	8,880	134	.....	13,180	23,397	107	4,203	18,634	1,396	26,518	10,983	111,180
Carp	.....	.....	.....	.....	3,600	6,950	.....	.....	.....	.....	.....	.....	10,550
Corbina, Mexican	10,499	15,119	2,551	360	7,511	.....	.....	.....	.....	.....	2,301	1,509	39,850
Cultus, Pacific	72	383	315	86	15	35	.....	.....	100	170	.....	525	1,704
Eel, Moray	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	34	34
Flying Fish	.....	.....	55	6,797	14,671	6,016	5,402	3,406	3,796	400	.....	.....	40,593
Grouper	.....	.....	310	.....	.....	3,464	.....	.....	.....	.....	.....	.....	3,774
Hake	.....	.....	.....	.....	.....	.....	12	.....	.....	.....	.....	412	424
Halibut, California	38,039	85,600	89,920	49,663	26,165	22,300	13,462	19,619	13,124	39,381	66,823	27,324	492,620
Kingfish	31,873	31,424	26,106	24,400	24,773	20,100	18,394	17,653	21,663	23,326	26,567	31,941	298,725
Mackerel, Horse	54,434	35,783	18,284	17,005	20,384	48,094	56,094	43,277	46,510	25,901	39,043	21,365	416,077
Mackerel, Pacific	1,448,253	684,545	619,507	277,336	1,824,995	854,188	637,332	721,595	1,226,372	246,288	2,914,466	166,491	11,621,880
Mackerel, Spanish	.....	1,900	.....	.....	.....	.....	.....	.....	200	.....	244	775	3,209
Mullet	.....	385	248	190	370	838	315	505	503	103	.....	.....	3,657
Perch	7,305	4,297	9,926	22,407	706	3,794	6,994	7,012	3,891	9,180	6,344	3,796	84,692
Pompano, California	16	177	432	597	1,846	706	779	626	83	12	9	34	5,317
Pompano, Mexican	.....	.....	.....	.....	3,728	.....	.....	.....	.....	.....	.....	.....	3,728
Rock Bass	4,750	5,215	12,523	10,155	17,480	20,046	33,136	37,521	31,607	22,959	24,011	14,677	244,278
Rockfish	177,153	321,208	227,797	188,887	166,103	98,869	90,377	74,527	113,629	87,438	106,131	100,466	1,757,887
Sablefish	4,863	5,262	6,674	8,498	8,938	6,188	6,882	5,484	6,620	7,250	4,331	10,728	81,718
Salmon	.....	.....	.....	.....	10	.....	.....	.....	.....	.....	.....	.....	10
Sand Dab	648	623	561	503	497	532	538	702	641	376	546	494	6,661
Sardine	12,181,886	25,321,368	10,831,316	9,403	13,993	8,893	5,354	6,118	7,009	6,034	32,171,895	33,420,330	113,954,041
Sculpin	3,461	2,068	4,321	5,339	7,816	9,285	8,291	11,249	5,265	3,445	6,162	2,300	71,942
Sea-bass, Black	21,808	32,400	19,618	2,276	10,533	16,772	13,005	11,926	28,455	8,652	32,129	16,456	213,111
Sea-bass, Totuava	238,186	183,257	187,923	135,315	126,238	17,331	.....	.....	.....	.....	74,809	162,706	1,125,765
Sea-bass, White	10,043	44,764	59,334	46,907	.....	.....	105,756	104,006	51,625	20,553	77,059	59,756	571,703
Shad	.....	.....	.....	.....	.....	.....	.....	54	33	.....	.....	.....	87
Shark	19,569	28,246	40,389	48,992	71,394	35,809	35,227	43,740	42,591	61,815	16,074	5,137	468,983
Sheepshead	4,178	7,752	6,945	4,245	1,173	1,383	1,801	4,364	5,487	6,745	11,536	3,451	59,061
Skate	1,860	3,887	655	1,003	2,957	2,339	605	2,086	2,501	2,974	3,444	3,136	30,477
Smelt	43,154	18,324	15,346	22,060	21,843	14,730	13,864	15,687	22,575	44,911	20,477	29,113	290,324
Sole	4,394	9,479	2,288	799	7,211	2,851	1,487	6,862	2,940	8,807	6,474	3,109	57,831
Swordfish, Broadbill	100	.....	.....	.....	2,954	58,490	93,463	89,473	78,144	36,535	66,682	8,029	433,863
Swordfish, Marlin	.....	.....	.....	.....	.....	475	3,199	4,442	4,935	5,092	1,756	.....	19,901
Tuna, Albacore	57,929	99,088	.....	271,660	.....	514,329	629,854	510,056	311,892	86,073	.....	.....	2,480,881
Tuna, Bluefin	.....	.....	.....	108,183	78,339	227,099	439,811	192,324	8,937	241	.....	.....	1,045,424
Tuna, Bonito	634	3,589	25,094	59,483	31,097	68,325	183,599	597,355	571,613	414,244	115,538	31,917	2,104,490
Tuna, Oriental	.....	.....	.....	.....	.....	.....	.....	150,534	259,595	544,619	99,047	.....	1,053,795

Tuna, Skipjack				185,562	574,298	702,171	2,322,829	2,185,664	1,567,858	501,566	89,893	225,030	8,294,551
Tuna, Yellowfin	246,374	55,829	133,090	3,729,029	2,765,510	1,338,783	2,165,723	2,433,084	883,701	683,466	965,894	653,832	16,076,535
Turbot										9			9
Whitefish	6,631	9,117	5,254	3,851	6,031	2,561	3,226	4,768	6,875	4,890	6,914	2,045	62,163
Yellowtail	4,250	18,521	169,559	252,036	80,470	104,671	62,069	190,150	131,725	177,740	49,075	46,923	1,287,559
Miscellaneous Fish	409	489	760	45	280	937	666	574	652	1,220	186	427	6,475
Crustacean:													
Crab, Rock								16		60		69	145
Lobster, Spiny	20,382	34,849	13,025	716		2,416	2,821		449	35,290	47,846	26,334	184,128
Shrimp	1,460				22,525								23,985
Mollusk:													
Abalone											42		42
Clam, Cockle	4,253	3,193	3,936	1,799	3,626	2,855	420	1,288	1,699	1,948	1,666	2,012	28,745
Clam, Jackknife	226		271	559	779	1,046	594	156					3,631
Mussel										50			50
Octopus	11	24						1		17	61	69	183
Squid	32,972	98,153	10,128	170		260					320	24	142,007
Total pounds	14,667,159	27,224,656	12,738,861	5,802,365	6,262,748	4,794,899	7,413,435	7,675,334	5,583,719	3,296,685	37,197,412	35,117,916	167,794,862

* Importations of fresh fish from foreign countries included. See importation tables.
** Point Dume to San Mateo Point.

LANDINGS*—REGION 80, SAN DIEGO**, 1932

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Barracuda	4,102	11,068	47,712	63,383	102,403	53,268	68,414	121,244	23,177	10,478	8,495	4,163	517,927
Cabrilla	16,330	36,059	20,941	4,102	19,000	25,376	23,692	25,320	11,632	7,859	22,206	20,322	257,919
Cultus, Pacific			12										12
Grouper	7,270		2,100			2,990	1,940	1,085				130	14,915
Halibut, California	11,044	12,527	13,628	5,515	4,446	8,038	7,606	1,221	8,241	1,272	1,453	3,731	78,762
Herring, Pacific	2,077										6,034	3,750	11,861
Kingfish	550	314	265	105	234	113		10	115	75	121	399	2,304
Mackerel, Pacific	12,365	14,300	11,870	18,559	28,599	13,226	6,339	11,740	12,217	17,351	16,451	16,198	178,415
Mackerel, Spanish	2,240	2,460								300		2,613	7,613
Mullet	3,714	1,457	897	1,342	1,779	2,153	3,278	2,603	1,277	143	95	205	19,033
Perch						417	798	71	799				2,082
Pompano, Mexican												345	345
Rock Bass	19,164	18,796	3,765	6,998	25,430	24,548	22,205	22,514	13,426	5,733	13,074	9,084	185,020
Rockfish	75,743	87,334	81,572	63,536	57,325	45,272	31,889	44,444	42,028	51,744	41,459	46,438	668,784
Sardine			2,950	30,445	407,535	86,180	15,710	505	395	302	740	83	545,063
Sculpin	1,180	1,750	3,954	1,684	239		24	135	1,105	1,985	965	540	13,561
Sea-bass, Black	43,968	48,023	63,087	18,856	8,268	15,994	1,963	1,392	10,300	15,351	12,695	14,220	252,057
Sea-bass, Short-fin					993	677	412	66	22	197	103	17	2,487
Sea-bass, Totuava				920									920
Sea-bass, White	769	164	2,768	12,474			48,295	9,285	26,758	17,275	18,560	10,518	146,866
Shark	4,019	4,450	12,813	4,619	10,672	14,052	9,402	52,449	14,208	6,565	2,697	2,439	138,475
Sheepshead	1,760	1,267	399	56	50	10	90	188	403	1,482	3,109	982	9,796
Skate	42	200	15	62		60							379
Smelt	3,158	3,968	2,203	3,042	1,568	2,574	1,865	2,696	2,940	2,239	2,814	1,801	30,868
Sole	328	369	301	53	24		3	4			45	299	1,630
Swordfish, Broadbill				345	4,816	18,986	14,992	40,404	33,497	38,880	41,440	7,779	207,039
Swordfish, Marlin				285	644	187	579	408	1,869	904	375	185	5,436

Tuna, Bluefin					2,992	13,542	7,590	1,587					25,711
Tuna, Bonito	240	17	1,880	143	61,275	251,083	376,336	49,517	3,483	465	6,323	6,129	756,893
Tuna, Skipjack	54,565	76,224	166,939	790,476	1,028,338	1,754,258	2,904,963	2,020,748	1,512,568	413,321	335,777	1,273,549	13,341,726
Tuna, Yellowfin	529,488	20,861	261,247	2,749,391	2,484,570	1,120,729	2,283,996	2,410,471	2,207,909	2,209,050	1,108,708	2,860,554	20,846,875
Whitefish	15,758	16,874	7,868	7,751	2,707	3,290	1,460	9,046	7,613	7,931	8,000	9,758	98,056
Yellowtail	26,478	7,013	17,657	25,975	55,871	53,675	49,769	40,592	22,303	65,373	77,173	66,057	507,938
Miscellaneous Fish						22							22
Crustacean:													
Lobster, Spiny	168,077	263,003	151,188							21,584	52,370	82,694	738,922
Mollusk:													
Octopus											69		69
Squid										115			115
Reptile:													
Turtle							3,498	2,150				80	5,728
Total pounds	1,004,629	638,678	1,177,864	3,810,230	4,320,681	3,520,151	6,880,908	4,878,786	3,958,379	3,087,974	1,871,360	4,445,087	39,600,727

* Importations of fresh fish from foreign countries included. See importation tables.
** San Mateo Point to the Mexican boundary, including Salton Sea.

LANDINGS*—STATE OF CALIFORNIA, 1932

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Anchovy	1,267	8,997	31,707	41,609	58,205	55,576	39,337	21,579	24,230	17,666	600	3,750	266,217
Barracuda	5,194	68,826	241,320	366,614	388,519	544,187	489,908	322,929	181,135	162,959	117,679	37,509	2,926,775
Cabezone	113	373	825	554	910	170	230	870	65		460	108	4,678
Cabrilla	17,726	44,919	20,995	4,102	34,740	51,693	23,739	30,323	30,296	9,255	49,024	31,307	348,199
Carp	8,034	6,440	4,998	5,602	17,822	6,971		284	346	1,032	3,348	868	55,965
Catfish	8,632	11,313	44,945	29,567	1,268			26	56,322	43,682	33,070	23,431	254,656
Corbina, Mexican	10,499	15,119	2,581	360	7,511						2,301	1,529	39,899
Cultus, Pacific	40,706	124,091	60,287	83,606	79,294	73,011	96,444	92,346	75,830	76,569	57,788	39,900	809,912
Eel			10	5		15	10	55	86			61	242
Flounder, Starry	42,665	222,554	48,040	15,750	50,656	40,686	18,192	14,817	31,966	8,751	41,617	8,112	543,806
Flying Fish			55	6,797	14,671	6,019	5,402	3,408	3,736	400			40,353
Grouper	7,270		2,410			3,854	1,940	1,083				130	16,689
Hake	2,220	2,840	4,973	3,738	509	2,485	5,442	428	420	5,158	375	412	29,001
Halibut, California	79,426	140,198	152,708	90,581	52,668	60,881	67,349	50,226	45,174	63,303	86,830	60,138	949,702
Halibut, Northern		2,433	9,301	32,279	79,608	153,564	107,703	151,425	79,284	28,009	23		643,628
Hardhead	28,154	23,248	79,730	47,253	51,250	176,300		18	70	2,347	10,739	12,043	431,372
Herring, Pacific	312,251	161,566	62,500	3,011	100	200		235			22,587	202,434	765,734
Kingfish	60,033	44,032	57,253	42,270	37,563	25,600	24,903	23,460	28,243	30,938	29,646	45,604	447,531
Mackerel, Horse	63,453	26,055	27,952	18,637	42,268	58,705	62,767	49,516	77,688	45,191	42,251	21,496	536,409
Mackerel, Pacific	1,462,823	760,055	646,569	354,116	1,894,699	956,793	752,875	854,581	1,331,823	357,423	2,952,981	196,508	12,473,746
Mackerel, Spanish	2,240	4,360							290	300	244	3,388	10,822
Mullet	2,714	2,042	1,145	1,332	2,149	2,991	3,503	3,198	1,780	246	85	205	22,090
Perch	20,715	29,535	48,573	37,328	709	4,211	20,933	21,587	16,324	19,664	13,434	11,466	244,048
Pike	619	347	295	416	33				31	28	16	99	2,004
Pompano, California	36	303	547	632	1,837	716	779	629	103	12	9	34	5,557
Pompano, Mexican					3,728							348	4,076
Rock Bass	25,021	24,852	16,486	17,233	43,206	54,807	56,688	60,799	47,346	28,973	30,303	23,861	430,575
Rockfish	493,383	736,045	654,692	573,660	505,653	403,846	381,967	373,745	369,685	391,193	371,397	366,083	5,630,319
Sablefish	40,303	57,514	58,603	86,107	92,328	130,354	113,603	40,314	122,822	130,425	58,241	38,259	975,373
Salmon	1,228	4,305	39,704	176,113	668,946	533,085	932,567	1,413,580	807,855	40,791	306	7	4,620,693
Sand Dab	64,324	66,555	83,396	42,644	44,890	71,868	66,527	51,075	35,246	45,816	50,215	39,691	665,345
Sardine	45,804,866	36,422,263	11,113,683	287,972	777,651	328,020	299,432	2,371,573	32,745,132	48,320,722	62,484,399	70,317,631	312,171,716
Sculpin	4,641	3,758	8,273	7,023	8,655	9,265	8,315	11,384	6,416	7,470	7,127	3,849	85,926
Sea-bass, Black	65,057	80,448	83,467	21,898	19,271	30,766	15,676	14,188	43,303	24,245	44,851	30,676	473,846
Sea-bass, Short-fin					993	677	412	66	22	197	103	17	2,487
Sea-bass, Totuava	238,186	183,257	187,923	136,233	126,238	17,331					74,809	162,708	1,126,685
Sea-bass, White	10,812	45,620	71,721	70,257			174,084	132,714	88,600	45,928	101,005	63,365	804,796
Shad		31	130,971	610,880	431,474			54	33		9	19	1,173,471
Shark	79,104	119,923	100,818	58,224	84,450	71,399	48,577	99,313	59,867	72,802	32,039	24,372	850,888
Sheepshead	8,949	13,914	7,344	4,316	1,348	2,748	2,061	4,723	5,890	10,613	20,906	7,173	89,591
Skate	40,802	70,165	55,377	12,975	10,852	9,987	10,433	8,655	7,014	16,310	21,521	19,331	292,412
Smelt	75,172	82,155	73,245	62,338	73,460	75,826	79,736	74,372	86,822	89,822	68,489	57,779	899,216

Sole	662,102	625,788	736,732	939,113	899,601	726,024	781,251	726,043	784,705	701,202	620,256	690,023	8,890,840
Split-tail	6,288	5,382	2,550	2,063	3,962	79		2,813	2,178	1,518	1,039	73	27,945
Striped Bass	66,880	19,931	109,252	159,322	57			21,904	36,164	56,294	32,517	35,106	537,427
Sucker	2,027	4,966	700	1,750	3,200						3,785	147	16,575
Swordfish, Broadbill	103			345	7,770	77,476	108,355	135,877	111,641	96,377	108,122	15,808	661,874
Swordfish, Marlin				285	644	663	3,778	4,859	6,804	6,166	2,130	185	25,507
Tomcod	333	1,102	260	140		30			278			2,138	4,271
Tuna, Albacore	57,929	99,088		271,660		514,329	629,854	510,656	505,709	499,090			3,087,215
Tuna, Bluefin				108,183	81,331	240,644	467,401	163,911	8,995	741			1,071,206
Tuna, Bonito	884	3,606	20,974	59,628	92,383	319,438	562,449	647,033	575,098	414,721	122,006	38,046	2,862,286
Tuna, Oriental								150,534	259,595	544,619	99,047		1,053,795
Tuna, Skipjack	34,365	76,224	166,939	976,038	1,612,636	2,456,429	6,227,792	4,206,412	3,020,406	914,887	423,670	1,498,579	21,636,577
Tuna, Yellowfin	776,062	86,060	696,337	6,478,350	5,350,080	2,489,505	4,449,719	4,843,555	3,091,610	3,082,516	2,164,602	3,514,406	36,923,410
Turbot	534	149	7,756	22	365	647	3,801	1,165	967	1,261	6,501	254	23,422
Whitebait	2,439	18,360	12,967	15,046	22,907	20,506	15,465	10,492	2,448	5,543	4,431	2,906	133,549
Whitefish	22,416	26,201	13,844	11,602	8,738	5,851	5,018	14,015	14,651	12,821	14,999	11,871	162,027
Yellowtail	30,758	25,834	187,181	278,011	136,341	158,246	112,418	220,783	154,091	243,373	126,248	112,980	1,786,264
Miscellaneous Fish	7,046	5,746	3,208	9,724	15,214	14,204	13,097	18,260	23,940	21,676	7,861	9,191	151,167
Crustacean:													
Crab	330,893	348,646	239,760	238,106	260,968	306,838	148,122	13,184			222,316	425,164	2,433,997
Crab, Rock								16		60		69	145
Lobster, Spiny	194,974	302,522	164,213	716		2,416	2,921		449	69,358	142,074	139,104	1,018,647
Shrimp	74,719	70,098	127,900	182,960	237,149	253,341	494,498	507,752	350,312	170,241	128,725	58,679	2,709,774
Mollusk:													
Abalone	24,070		168,150	420,351	334,933	352,650	237,850	310,950	441,450	242,142	306,997	68,800	2,817,345
Clam, Cockle	17,425	19,917	22,972	17,128	21,042	16,989	2,152	4,213	5,298	7,999	11,160	8,938	153,433
Clam, Gaper		60	288	80		8			30	766	110	20	1,362
Clam, Miscellaneous	1,911	1,068	16	48	25	12	110						3,190
Clam, Pismo	6,270	6,773	8,115	7,000	6,380	8,402	11,729	11,959	13,535	10,671	11,263	8,180	110,277
Clam, Jackknife	229		271	359	379	1,046	394	156					3,631
Clam, Soft-shell	15,322	16,930	19,471	14,126	11,515	12,199	12,222	13,798	11,561	13,108	11,823	12,966	165,041
Clam, Washington	2,707	3,243	4,153	3,429	226	64	16	110	2,639	1,356	2,934	1,709	22,908
Mussel				180						50			230
Octopus	321	1,403	1,037	1,818	2,813	4,518	4,328	1,511	1,598	409	327	1,104	21,187
Oyster, Eastern	36,108	34,702	27,305	18,541	13,763	7,741	8,789	9,352	17,475	33,830	30,122	50,843	290,571
Oyster, Native	13,891	8,963	7,886	6,802	7,415	9,853	11,314	11,967	4,689	2,502	4,657	10,201	100,320
Squid	53,261	114,087	40,129	83,040	2,457,106	971,965	122,853	241,750	25,460	25,940	59,277	54,875	4,229,743
Reptile:													
Turtle							3,498	2,150				80	5,728
Total pounds	51,578,872	41,479,750	17,043,616	13,689,268	17,193,975	13,022,713	18,451,868	19,376,378	45,880,698	57,499,244	71,411,726	78,827,339	445,455,247

* Importations of fresh fish from foreign countries included. See importation tables.

LANDINGS—REGION 10, DEL NORTE*, 1933

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Cultus, Pacific	576	956	2,197	11,756	5,385	4,146	666	2,304	787	923	2,328	1,630	33,654
Halibut, Northern			47	13	4	195		353					612
Perch			24										24
Rockfish	52	602	530	1,424	983	4,017	1,303	369	397	287	519	840	11,123
Sablefish									550	120	107		877
Salmon					1,062	14,409	65,422	175,328	18,857	22,275			296,453
Smelt			123										123
Sole	111			200									311
Whitebait				98									98
Miscellaneous Fish				250		400		1,201	922	560	6,136	3,549	13,021
Crustacean:													
Crab	622	2,194	1,500	744	432	3,302	456						9,250
Mollusk:													
Clam, Cockle					130								130
Total pounds	1,361	3,752	4,221	14,485	7,996	26,469	65,847	179,558	21,613	24,265	9,090	6,019	364,676

* Oregon-California boundary to Trinidad Head.

LANDINGS—REGION 20, EUREKA*, 1933

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Anchovy												70	70
Cultus, Pacific		15,309	12,020	9,584	1,883	4,815	11,892	51,665	5,547	2,497	6,730	855	123,197
Flounder, Starry	1,730	1,020	756	75							10	111	3,702
Halibut, Northern		20	68	7,816	41,857	53,162	37,605	45,821	508				186,857
Perch		658	102	2,088								1,079	3,927
Rockfish		245	114	385	2,242	875	1,241	5,398	1,216	1,882	4,939	1,459	19,996
Sablefish			9	109	1,008	26,536	11,111	14,640	33,155	155,267	100,251	28,251	371,237
Salmon					332,242	875,873	769,407	907,326	158,308	1,979			3,045,225
Smelt	5,585	3,401	4,345	3,468	2,365	1,105	3,382	2,274	2,020	2,476	1,465	681	32,507
Sole							207	66	128		208		609
Whitebait	1,792	4,331	3,835	3,523	3,952	13,861	9,460	6,578					49,362
Miscellaneous Fish			435		3,121	1,260	1,414	731	704	427	852		8,944
Crustacean:													
Crab	12,018	12,240	12,024	15,384	12,160	14,040	15,708	16,548				7,352	117,474
Mollusk:													
Clam, Cockle				250								90	340
Clam, Washington	2,054	4,057	3,540	2,811					3,271	4,913	3,584	4,130	28,360
Octopus								72					72
Total pounds	23,179	41,281	37,248	45,893	403,730	991,527	861,457	1,051,119	204,947	169,441	117,979	44,078	3,991,879

* Trinidad Head to Point Arena.

LANDINGS—REGION 30, SACRAMENTO*, 1933

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Carp	6,321	5,585	8,885	6,248	2,413	5,970	4,678	1,854	40	46	3,023	12,793	57,856
Catfish	4,727	3,534	12,444	22,136	1,523			405	42,784	26,521	32,583	25,732	172,389
Flounder, Starry			35										35
Hardhead	26,393	17,535	18,701	13,392	17,975	18,700	2,735			200	10,958	30,098	156,687
Pike	92	169	297	144	21							4	727
Salmon	255	5,029	20,889	71,537	85,797	13,786		88,408	168,462				454,253
Sardine	7,938,143	4,083,849						3,536,110	5,081,337	3,452,315	15,633,961	10,561,044	50,286,759
Shad		3	105,041	508,534	395,646			44					1,009,268
Split-tail	196	70	2,032	2,343	1,201		20	376	556	220	2,435	8,060	17,509
Striped Bass	17,709	20,184	162,033	220,280	4,909			11,824					436,939
Sucker	826		1,679	350		400	655				1,800	8,477	14,187
Miscellaneous Fish	13		100	200	200		200	36			35	55	839
Total pounds	7,994,675	4,135,958	332,136	845,164	509,685	38,856	8,288	3,639,147	5,293,179	3,479,302	15,684,795	10,646,263	52,607,

* Sacramento and S an Joaquin River systems, San Pablo and Suisun bays, and Lake County.

LANDINGS—REGION 40, SAN FRANCISCO*, 1933

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Anchovy			2,300	20,000	20,110	36,675	36,100	32,800	22,180	3,350	1,900		183,015
Cabezone		115	1,209	346		286	5						1,961
Catfish										74			74
Cultus, Pacific	51,875	54,241	33,541	44,140	60,708	64,919	65,837	87,227	81,568	99,685	57,011	48,816	749,668
Eel, Blenny				10	10	10	40		10	23			103
Flounder, Starry	2,211	48,047	8,515	8,808	19,712	67,410	36,405	65,358	103,819	16,271	24,694	7,371	440,711
Hake	875	305	1,030	12,806	5,875	625	1,625		2,000	5,850	500		31,581
Halibut, California	1,431	1,225	6,133	2,173	425		1,853	353	847	2,541	2,466	4,815	24,262
Halibut, Northern		434			28,214	45,356	31,435	27,776	880				134,155
Herring, Pacific	104,455	127,760	42,610			775		1,000			33,407	144,988	544,995
Kingfish				2,108	3,332	2,842	2,004	685	180	867	2,004	813	15,735
Mackerel, Pacific					218		3						218
Perch	4,388	13,230	14,876	15,989			5,779	8,665	12,130	16,605	10,343	8,524	110,529
Pompano, California						59							59
Rock Bass							5						5
Rockfish	50,141	103,039	113,554	84,020	105,184	90,601	121,206	129,171	89,493	124,721	92,319	26,186	1,137,235
Sablefish	14,250	4,823	4,763	19,948	22,243	61,449	21,261	1,314	19,065	43,529	20,707	3,815	237,467
Salmon					418	14,083	148,718	30,301	76				193,596
Sand Dab	31,462	55,020	67,681	73,938	47,138	34,083	42,553	38,675	38,201	24,656	42,567	41,355	537,329
Sardine	31,109	20,220	40,850	28,100	43,160	152,720	200,581	173,800	268,100	2,101,100	6,700,200	2,043,200	11,527,221
Sea-bass, White	248	771					214		39	27		7	1,306
Shad			12,373	65,211	70,564			105					148,253
Shark	10,665	18,385	16,302	4,193	2,500	1,248	445	1,210	2,213	4,808	12,043	13,879	93,971
Skate	21,336	17,173	25,775	20,574	10,318	1,603	3,023	1,285	3,145	9,438	17,656	19,863	151,413
Smelt	18,356	23,807	30,579	32,321	34,535	30,037	29,819	23,000	19,915	16,405	22,356	17,304	318,844
Sole	659,764	780,806	731,833	705,136	620,535	687,581	474,442	453,508	480,753	702,766	642,098	648,589	7,587,811
Striped Bass		927	16,822	24,156	267			6,815					48,987
Tomcod					50					156	125	414	10 729
Turbot	2,407	3,706	9,149	10,967	11,484	91	169	859	2,564	1,318	813	6,088	49,611
Whitebait	10,837	4,782	734	197	8,186	13,283	436	2,632	432	633	1,146	1,329	44,682
Miscellaneous Fish	982	6,813	6,166	8,301	6,817	11,234	11,378	13,336	10,038	7,407	11,617	7,614	113,704

Crustaceans:													
Crab	200,442	293,332	310,326	292,962	267,410	278,974	396,310	.....	.....	.....	300,012	448,538	2,893,726
Shrimp	31,431	100,819	132,208	113,827	98,778	148,602	358,221	469,755	254,550	137,032	167,385	72,834	2,087,552
Mollusk:													
Clam, Cockle	9,091	11,958	8,914	10,977	8,938	4,668	2,721	4,416	358	2,027	3,319	1,455	68,842
Clam, Gaper	129	40	100	112	40	14	146	146	170	220	130	20	1,258
Clam, Soft-shell	10,839	13,218	12,700	11,926	13,400	11,558	20,886	12,829	15,215	14,837	17,853	18,558	173,039
Clam, Washington	93	103	126	120	128	154	205	152	128	152	114	34	1,560
Octopus	283	1,003	353	476	730	306	2,003	1,060	283	1,066	382	414	8,555
Oyster, Eastern	45,316	29,680	23,471	15,147	13,760	23,381	15,651	20,005	31,156	20,403	38,304	59,719	340,003
Oyster, Native	2,354	801	2,370	.....	745	678	1,919	734	648	.....	.....	.....	10,149
Total pounds	1,523,263	1,748,845	1,687,585	1,645,810	1,558,218	1,797,465	2,044,722	1,649,153	1,462,878	3,448,936	8,223,550	3,641,920	30,412,855

* San Francisco Bay and coast from Point Arena to Pigeon Point.

LANDINGS—REGION 50, MONTEREY*, 1933

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Anchovy		2,585	1,655	11,543	14,895	17,560	11,265	14,770	3,570	4,320	9,195		90,758
Barracuda	5		24										29
Cabezone				45		110	311	255	671	409	123	146	2,070
Cultus, Pacific	9,873	16,974	14,216	8,052	3,464	7,946	12,051	19,006	11,221	18,656	25,024	24,506	170,169
Flounder, Starry	4,554	4,764	2,451	316	159	394	241	205	255	29	41	147	13,556
Hake							113	379					492
Halibut, California	3,344	5,342	1,110	628	1,509	1,328	714	2,372	3,911	333	361	653	21,615
Herring, Pacific	2,083	3,310	100		100						24,800	9,000	31,393
Kingfish	6,867	6,284	19,238	14,351	8,859	14,723	9,602	14,694	19,583	18,385	28,501	25,885	186,972
Mackerel, Horse	222	967	7,125	8,024	6,387	1,097	759	163	4,614	3,804	399	8	33,479
Mackerel, Pacific	12,616	45,638	19,041	34,863	107,113	96,557	75,809	204,728	508,543	222,238	20,469	4,729	1,352,744
Perch	421	1,773	18,034	18,471			10,853	2,328	82	856	1,094	1,187	55,099
Pompano, California		10	45	3	20	5	12						95
Rock Bass							10						10
Rockfish	137,568	184,694	183,287	171,510	60,333	80,380	90,544	122,452	151,807	140,283	163,773	122,159	1,618,790
Sablefish	22,186	21,645	19,155	21,915	5,753	2,497	5,052	4,030	15,111	45,203	58,946	21,387	233,880
Salmon				3,669	394,902	163,858	7,430						569,859
Sand Dab	127	1,178	1,791	2,800	2,325	733	3,332	3,192	1,989	1,162	1,144	661	20,474
Sardine	36,952,350	14,879,509	66,273	187,878	139,742	119,361	117,999	36,620,148	24,515,446	30,048,739	60,363,625	30,313,333	254,311,904
Sea-bass, Black							30						30
Sea-bass, White	24	130	48	150			4,339	695		121	7		5,514
Shad		3											3
Shark			30						200	480	1,605		2,315
Skate	725	2,623	3,101	1,093	1,330	1,004	1,799	1,119	1,957	1,276	611	1,403	18,072
Smelt	7,280	3,415	2,039	7,953	5,465	10,435	8,830	21,609	26,672	12,873	7,650	2,834	117,054
Sole	380	1,064	6,676	7,830	2,614	2,563	3,181	3,168	8,384	4,081	2,521	1,837	43,109
Tuna, Albacore									407				407
Tuna, Bonito							10						10
Whitefish	100	10	67	615	117	109	406	185					1,609
Miscellaneous Fish	263	509	294			46		20	285				1,417
Crustacean:													
Crab	17,116	24,430	41,750	35,306	16,550	10,948	3,430				16,790	21,694	188,044
Prawn												557	557
Shrimp	88	133							2	16			241
Mollusk:													
Abalone	86,200		151,575	315,700	222,200	152,800	247,900	214,600	220,150	273,500	35,675	292,200	2,221,500
Clam, Pismo	3,980	4,651	4,270	2,016					3,715	2,858	3,000	1,607	26,097
Octopus	218	245	1,436	2,085	2,232	3,450	3,842	3,239	3,112	1,962	354	311	22,235
Oyster, Japanese	3,828	3,408	4,770	2,962	1,892	66	283	276	402	2,008	5,703	48,500	73,088
Squid	4,091	31,500	66,085	55,160	88,081	111,673	23,810	23,425	28,525	46,225	104,125	194,585	769,685
Total pounds	37,278,511	15,245,899	626,106	886,285	1,106,071	800,072	643,027	37,287,088	25,330,774	30,850,115	60,880,468	31,079,153	362,231,569

* Pigeon Point to Piedras Blancas.

LANDINGS—REGION 60, SANTA BARBARA*, 1933

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Barracuda	2,174	1,880	10,916	8,240	345	7,847	155	2,579	14,008	12,068	19,060	7,567	87,220
Cabezone									29	24		110	163
Cultus, Pacific	101	11						20		261			393
Flounder, Starry					10					4			14
Halibut, California	19,386	13,827	31,016	24,878	21,508	30,824	44,225	29,127	29,360	22,767	25,848	29,301	322,017
Herring, Pacific		45		28							21	88	182
Kingfish				163	309	38			80	37			620
Mackerel, Horse										3,357			3,357
Mackerel, Pacific	657	283	40	38	905	1,051	362	1,998	4,499	8,324	5,149	3,032	26,430
Perch	25	456	2,116	3,417	44	250	29	23		104	149	329	6,922
Rock Bass	257	1,086	644	1,060	482	818	581	524	550	2,608	699	512	9,821
Rockfish	4,093	3,416	9,409	10,821	8,743	9,553	8,116	8,349	8,919	7,946	9,204	13,001	102,694
Saltbrush				113						63			176
Salmon						33							33
Sand Dab								32					32
Sardine		171	306	20	687	10				45			1,239
Sculpin											17	44	61
Sea-bass, Black		507			205	23	55		566	44			1,490
Sea-bass, White	5,536	17,378	12,889	3,549			21,230	5,509	2,906	4,117	5,607	6,567	85,088
Shark	511	1,359	3,208	4,205	4,263	2,541	3,251	276	574	1,117	209	209	22,303
Sheepshead	1,776	1,571		377		190	42	128	403	1,417	1,937	731	8,592
Smelt	1,975	7,567	5,806	4,989	1,528	3,806	4,248	1,679	297	48	77	77	32,181
Sole	34,321	43,544	61,980	88,198	66,182	53,145	74,840	69,060	30,404	41,886	17,320	13,273	616,133
Swordfish, Broadbill								1,814	2,803	8,456	487		13,560
Tuna, Bonito		28				280		913					1,221
Whitefish						60				130	59		249
Miscellaneous Fish		20		4			22		7	27	28	2	110
Crustacean:													
Lobster, Spiny	24,171	15,611							48,820	20,966	11,263	8,791	129,622
Mollusk:													
Abalone	41,250		15,050	34,800	25,050	60,600	86,550	67,300	30,250	73,138	29,400	42,300	534,688
Clam, Pismo	4,774	5,488	5,913	7,040	6,509	7,890	9,009	10,249	6,877	6,839	5,217	4,313	80,118
Total pounds	141,549	114,418	159,573	192,132	136,763	179,011	252,715	190,572	239,352	215,793	132,041	132,433	2,086,652

* Piedras Blancas to Point Dume.

LANDINGS*—REGION 70, LOS ANGELES**, 1933

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Anchovy	285	2,000	2,418	3,003	6,869	3,608	2,751	3,630	3,953	1,853	3,670	7,239	41,309
Barracuda	59,381	90,432	126,063	755,527	226,395	401,288	240,246	340,414	70,919	92,115	58,004	12,184	2,472,968
Cabezone									62			9	71
Cabrilla	4,397	9,699	1,454	8,047	17,628	7,432			5,930	3,927	7,029	4,176	72,319
Corbina, Mexican	15,185	34,195	13,264	663	848				1,010	10,054	4,442		79,661
Cultus, Pacific	850	1,643	8,913	60			16		17	185	170	20	11,874
Flying Fish				1,708	2,279	3,716	2,716	4,405	1,482				16,306
Hake			925	2,365	1,186	36	533	194	85	10	132		5,466
Halibut, California	31,353	88,696	70,332	85,085	42,979	55,745	21,154	20,787	19,585	5,676	9,596	8,031	459,019
Kingfish	33,443	32,515	38,602	24,360	35,760	24,143	19,112	20,914	29,888	32,027	32,044	36,378	359,276
Mackerel, Horse	27,448	12,098	3,174	6,401	24,929	24,364	40,310	49,270	64,951	552,967	96,009	71,483	973,414
Mackerel, Pacific	274,490	708,733	191,282	164,710	1,228,028	8,816,550	10,457,422	7,100,309	8,546,144	15,064,447	3,247,929	3,095,103	58,896,167
Mackerel, Spanish									410		60	2,542	3,012
Mullet		423	404		462			125	19	374			1,807
Perch	6,444	8,089	10,339	8,404	504	1,135	5,399	3,071	1,000	2,340	762	2,644	50,221
Pompano, California	284	7	79	1,153	984	251	50	198	413	97	175		3,691
Rock Bass	16,097	9,402	10,746	15,433	10,059	36,934	41,667	18,591	12,696	11,446	11,774	9,194	204,039
Rockfish	129,515	168,210	171,843	187,632	71,279	76,624	80,787	47,356	53,568	129,591	93,306	94,344	1,304,085
Sablefish	12,540	22,902	26,703	43,315	45,403	45,507	40,691	29,243	50,078	63,221	52,368	55,361	487,332
Salmon							13						13
Sand Dab	433	479	508	476	558	259	849	400	562	1,264	1,926	1,845	9,559
Sardine	34,328,487	37,329,510	29,914,268	4,370	6,583	4,517	3,677	6,410	7,887	10,866	35,863,423	55,257,479	192,737,577
Sculpin	1,689	2,232	3,709	4,705	5,454	10,556	9,252	7,698	2,767	1,629	3,885	2,485	56,061
Sea-bass, Black	34,487	25,661	8,327	8,963	10,821	8,806	23,738	16,884	8,481	29,274	11,131	33,829	220,402
Sea-bass, Totuava	202,803	134,513	166,717	51,489	117,351	10,707				18,271	99,147	129,316	930,314
Sea-bass, White	3,719	15,234	37,732	50,121			121,827	229,620	57,764	48,014	20,414	11,396	586,841
Shark	11,178	11,740	26,460	44,311	64,450	35,268	30,670	28,661	20,221	10,213	7,586	4,534	296,152
Sheepshead	4,176	3,907	5,462	7,325	733	2,001	330	1,846	2,704	2,211	3,880	7,757	42,332
Skate	2,909	3,806	4,512	2,444	2,152	1,355	1,586	684	1,535	798	391	1,258	23,520
Smelt	21,770	26,768	21,220	17,178	25,337	12,864	4,319	8,335	17,706	22,294	13,678	14,538	206,007
Sole	2,978	6,804	10,270	9,047	6,342	4,884	6,719	1,641	3,618	804	1,059	1,016	57,182
Swordfish, Broadbill						15,228	85,939	124,190	100,557	152,227	71,087	4,061	562,289
Swordfish, Marlin							649	3,307	1,343	954			6,253
Tuna, Albacore		101,294	210,519	50,306		208,047	784,071	441,115	620,264	334,817	16,088	26,624	2,794,045
Tuna, Bluefin				148,319		8,492	19,503	307,336	69,540				553,190
Tuna, Bonito	914	2,005	3,874	10,506	5,763	18,536	63,265	859,706	81,129	23,287	12,474	24,108	1,105,567
Tuna, Oriental					159,332	64,325		206,945	127,154	138,611		202,969	899,336
Tuna, Skipjack	113,879	2,640	282,926	1,059,597	1,249,193	867,490	269,010	392,734	138,410	366,112	485,255	553,791	5,781,097
Tuna, Yellowfin	1,116,402	145,365	873,698	1,433,267	1,893,377	1,828,056	2,192,168	1,199,010	1,200,322	1,436,730	1,493,173	1,215,897	16,029,485
Whitefish	5,247	5,251	1,919	5,592	788	739	48	2,595	2,736	7,379	8,842	2,963	44,099
Yellowtail	13,147	14,430	76,847	87,058	32,472	43,799	79,550	36,397	93,814	22,977	13,183	163,091	676,765
Miscellaneous Fish	37	1,083	50	779	743	491	654	476	566	276	407	613	6,175

Crustacean:													
Crab, Rock	190	1,241	2,970	2,705	1,860	1,305	1,003	1,253	192	462	600	1,035	14,818
Lobster, Spiny	15,862	23,452	6,051	1,050		320		715	35,320	35,904	29,208	29,762	198,363
Shrimp				1,500						4			1,504
Mollusk:													
Clam, Cockle	2,160	1,553	1,457	138	938	1,100	1,209	1,027	1,954	2,190	2,446	1,841	18,356
Mussel						60	225	120	60				465
Octopus	10			2		22				10	15		59
Squid	17,600	28,767	8,334				34			3			54,848
Total pounds	36,512,422	39,077,299	32,346,661	4,309,554	5,299,879	12,646,880	14,653,142	11,508,614	11,460,465	18,630,931	41,778,068	61,092,116	289,354,931

* Importations of fresh fish from foreign countries included. See importation tables.
** Point Dume to San Mateo Point.

LANDINGS*—REGION 80, SAN DIEGO**, 1933

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Barracuda	129	5,135	1,084	78,257	156,423	93,879	67,319	35,497	12,639	18,101	33,220	11,053	512,736
Cabrilla	10,818	30,525	24,679	10,353									76,337
Corbina, Mexican	290												290
Grouper	200								97	85		183	565
Halibut, California	24,841	20,999	21,128	12,143	750	1,492	64	13,710	19,626	22,644	12,721	12,845	162,736
Herring, Pacific	246										2,319	2,100	4,665
Kingfish	409	135	58	104	287		320	83	32	123	11	81	1,643
Mackerel, Horse									600				600
Mackerel, Pacific	22,682	16,385	27,355	24,107	85,583	715,407	2,458,650	1,810,977	1,667,107	1,810,814	691,637	7,308	9,338,261
Mackerel, Spanish			300	280							1,484		2,154
Mullet	2,861	2,351	1,928	2,153	4,094	3,351	2,477	1,160	943	785	104		22,217
Perch	30				125	149	293	11			10		688
Pompano, California							32						32
Pompano, Mexican	740												740
Rock Bass	6,841	15,776	7,720	6,380	6,535	18,839	18,518	11,785	10,510	17,514	8,404	5,506	134,517
Rockfish	80,500	66,971	65,492	92,612	44,524	38,731	26,461	31,164	28,808	30,067	24,924	33,567	503,941
Sablefish			900							689		15	1,604
Sardine	270	977	835	2,344	15,932	315,194	1,281	498	1,397	931	192,932		532,591
Sculpin	766	632	830	755	59	580	1,563	1,086	902	31		834	8,038
Sea-bass, Black	37,745	11,728	15,905	23,417	15,934	21,903	5,913	6,984	16,553	28,961	14,109	32,049	231,101
Sea-bass, White	6,587	8,323	3,288	7,896			149,685	30,686	94,275	132,194	21,019	26,797	480,740
Shark	2,942	5,930	5,559	8,945	4,741	5,373	15,497	90	403	857	1,781	4,177	56,295
Sheepshead	200	180	145	1,809	125	438			141	1,777	1,831	1,019	7,685
Skate	328	232										140	700
Smelt	1,145	2,359	4,443	817	412	323	552	2,368	3,241	4,103	2,161	971	22,986
Sole	1,368	870	609	244	383	3		25	9	25	92	310	3,938
Swordfish, Broadbill					389	15,290	35,534	48,670	63,785	64,117	47,075		274,850
Swordfish, Marlin								399			207		606
Tuna, Bluefin							187	4,204	2,911				7,302

Tuna, Bonito	147	1,041	1,600	2,741	68,015	232,887	154,380	242,657	138,484	123,183	28,363	20,555	1,145,371
Tuna, Skipjack	256,000	212,223	590,863	276,239	1,150,313	727,217	1,184,745	1,643,561	787,227	1,058,597	2,116,230	1,840,600	11,212,004
Tuna, Yellowfin	1,747,383	2,617,406	2,741,401	2,111,565	2,521,140	1,824,559	3,406,489	2,514,358	2,815,540	4,377,063	4,177,464	4,101,687	35,046,145
Whitefish	3,078	6,802	5,248	9,582	2,963	7,248	285	826	4,857	3,028	2,934	3,854	50,705
Yellowtail	49,960	13,634	39,665	83,198	104,247	305,100	322,543	892,053	868,748	394,217	163,042	73,526	3,222,123
Miscellaneous Fish					2,804	1,099							3,903
Crustacean:													
Lobster, Spiny	112,531	143,833	133,697	23,399	3,400		859	2,415	34,853	38,301	102,490	126,153	721,920
Reptile:													
Turtle					2,491	410							2,901
Total pounds	2,351,097	3,284,438	3,725,221	2,780,368	4,231,247	4,429,452	7,942,704	6,695,288	6,573,688	8,018,816	7,646,275	6,307,100	63,985,694

* Importations of fresh fish from foreign countries included.
** San Mateo Point to the Mexican boundary, including Salton Sea.

LANDINGS* STATE OF CALIFORNIA, 1933

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Anchovy	285	4,675	5,773	34,546	51,954	57,843	50,116	51,200	29,703	9,523	14,365	7,309	317,292
Barracuda	61,689	97,447	138,087	842,024	383,163	503,014	307,720	378,490	97,566	122,284	110,284	31,194	3,072,962
Cabezone		115	1,209	391		396	316	255	762	433	123	265	4,265
Cabrilla	15,815	40,224	26,093	18,402	17,628	7,432			5,930	5,927	7,029	4,176	148,656
Carp	6,321	5,585	8,885	6,248	2,413	5,970	4,678	1,854	40	46	3,023	12,793	57,856
Catfish	4,727	3,534	12,444	22,136	1,523			405	42,784	26,595	32,583	25,732	172,463
Corbina, Mexican	15,475	34,195	13,264	663	848				1,010	10,054	4,442		79,951
Cultus, Pacific	63,275	89,234	70,887	73,992	71,440	81,826	90,442	160,222	99,140	121,607	91,263	75,627	1,088,955
Eel, Blenny				10	10	10	40		10	23			103
Flounder, Starry	8,495	53,831	11,737	9,289	19,881	67,804	36,646	95,563	106,074	16,304	24,745	7,629	457,998
Grouper	200								97	85		183	565
Hake	875	305	1,955	15,171	7,061	661	2,271	573	2,175	5,860	632		37,539
Halibut, California	80,355	130,080	129,719	124,909	67,171	89,439	68,010	66,429	73,329	53,961	50,992	55,255	989,649
Halibut, Northern		454	115	7,829	70,175	98,713	69,040	73,950	1,388				321,664
Hardhead	26,393	17,535	18,701	13,392	17,975	18,700	2,735			200	10,958	30,098	156,687
Herring, Pacific	196,786	133,323	42,710	28	100	775		1,000			70,547	156,176	601,445
Kingfish	40,719	38,934	57,988	42,856	50,837	45,462	34,654	40,781	51,245	51,439	62,560	63,157	580,662
Mackerel, Horse	27,670	12,985	10,299	14,515	31,316	25,461	41,069	49,433	70,165	560,128	96,318	71,491	1,010,850
Mackerel, Pacific	310,445	771,159	237,818	223,798	1,422,213	9,629,985	12,992,226	9,118,014	10,726,293	17,105,823	3,965,184	3,110,972	69,613,930
Mackerel, Spanish			390	280					410		1,544	2,542	5,166
Mullet	2,861	2,754	2,332	2,183	4,556	3,351	2,477	1,285	962	1,159	104		24,024
Perch	11,308	24,186	45,491	48,459	673	1,534	22,423	14,098	13,212	19,905	12,358	13,763	227,410
Pike	92	169	297	144	21							4	727
Pompano, California	284	17	124	1,156	1,004	315	94	198	413	97	175	2	3,879
Pompano, Mexican	710												710
Rock Bass	23,195	26,264	19,110	22,882	17,076	56,591	60,781	30,906	23,756	31,568	20,967	15,302	348,392
Rockfish	402,861	527,177	574,029	549,004	293,290	306,781	339,658	345,259	334,238	434,807	389,174	291,556	4,787,774
Sablefish	48,976	49,370	42,530	85,400	75,407	135,989	78,115	49,427	118,059	308,092	232,379	108,829	1,332,573
Salmon	255	5,029	20,889	75,206	814,421	1,082,044	988,990	1,201,453	345,793	24,354			4,558,434
Sand Dab	32,022	56,677	64,980	77,214	50,021	35,195	47,134	42,299	40,852	27,082	45,657	43,861	562,994
Sardine	79,250,350	56,320,747	30,031,632	202,409	228,104	591,802	322,599	40,338,966	29,874,167	35,704,796	118,756,531	118,175,878	509,797,481
Sculpin	2,455	2,864	4,539	5,460	5,513	11,136	10,815	8,784	3,669	1,660	3,902	3,363	64,160
Sea-bass, Black	72,232	37,986	24,232	32,380	26,960	30,632	29,736	23,868	25,600	58,279	25,240	65,878	453,023
Sea-bass, Totuava	202,803	134,513	166,717	51,489	117,351	10,707				18,271	99,147	129,316	930,314
Sea-bass, White	16,114	41,836	53,957	61,716			297,295	257,510	154,984	184,463	47,047	44,567	1,159,489
Shad		8	117,414	573,745	466,210			149					1,157,526
Shark	31,296	37,404	52,149	61,758	75,994	44,430	49,883	30,317	23,611	17,565	23,324	23,299	471,030
Sheepshead	6,152	5,658	5,607	9,511	858	2,629	372	1,974	3,248	5,405	7,668	9,527	58,609
Skate	25,498	23,926	33,388	24,115	13,829	3,962	6,410	3,088	6,637	11,532	18,658	22,668	193,711
Smelt	56,311	69,317	74,665	66,926	69,642	64,590	51,179	70,165	69,801	58,379	47,328	31,399	729,702
Sole	698,922	833,088	811,368	810,345	696,056	748,176	559,389	518,468	554,496	750,462	663,298	667,027	8,311,095

Split-tail	196	70	2,032	2,343	1,201	.....	20	376	556	220	2,435	8,060	17,509
Striped Bass	17,709	21,111	178,855	244,426	5,176	.....	.....	18,639	.....	.....	.....	.....	485,926
Sucker	826	.....	1,679	350	.....	400	655	.....	.....	.....	1,800	8,477	14,187
Swordfish, Broadbill	.....	.....	.....	.....	389	30,508	121,473	174,674	176,145	224,800	118,649	4,061	850,699
Swordfish, Marlin	.....	.....	.....	.....	.....	.....	649	3,307	1,343	1,353	297	.....	6,859
Tomcod	.....	.....	.....	.....	30	.....	.....	.....	150	125	414	10	729
Tuna, Albacore	.....	101,294	210,519	50,306	.....	208,047	784,071	441,115	620,671	334,817	16,988	26,624	2,794,452
Tuna, Bluefin	.....	.....	.....	148,319	.....	8,492	19,890	311,340	72,431	.....	.....	.....	560,402
Tuna, Bonito	1,041	3,074	5,483	14,337	103,778	351,703	217,604	1,103,576	219,413	146,470	40,837	44,663	2,252,199
Tuna, Oriental	.....	.....	.....	.....	159,332	64,325	.....	209,945	127,154	138,611	.....	202,969	899,336
Tuna, Skipjack	340,879	314,873	873,789	1,333,817	2,408,706	1,594,707	1,452,753	1,456,205	925,437	1,404,709	2,601,483	2,304,301	17,003,041
Tuna, Yellowfin	2,863,785	2,762,771	3,617,189	3,544,832	4,414,517	3,652,615	5,688,657	3,713,568	4,015,862	5,815,813	5,670,637	5,317,584	51,975,630
Turbot	2,403	3,706	9,149	10,967	11,484	91	169	859	2,564	1,322	813	6,088	49,615
Whitebait	12,744	9,123	4,650	4,433	14,255	27,233	10,352	9,395	472	633	1,146	1,329	95,731
Whitefish	8,325	12,033	7,167	15,174	3,751	8,047	333	3,421	7,593	10,537	11,835	6,817	95,053
Yellowtail	63,107	28,084	116,432	120,226	126,719	248,189	402,093	928,690	962,562	327,294	176,223	238,617	3,898,888
Miscellaneous Fish	13,305	8,417	7,045	9,531	13,685	14,520	13,668	15,803	12,522	8,697	10,075	11,831	148,189
Crustaceans:													
Crab	330,198	332,196	365,600	349,456	296,552	307,204	415,904	16,545	.....	.....	316,802	477,974	3,208,434
Crab, Rock	190	1,241	2,970	2,705	1,809	1,305	1,002	1,255	192	462	600	1,035	14,818
Lobster, Spiny	152,564	182,996	139,748	24,449	3,409	520	859	3,130	139,512	93,171	142,991	164,886	1,049,905
Shrimp	31,519	100,954	132,208	117,327	98,778	148,692	358,221	469,755	254,952	137,048	167,385	73,411	2,090,250
Mollusk:													
Abalone	127,450	.....	166,625	350,500	247,250	213,400	334,450	281,900	288,400	346,638	65,075	334,500	2,756,188
Clam, Cockle	11,104	13,911	10,371	11,365	10,006	5,768	3,930	3,443	2,312	4,217	5,765	3,386	87,668
Clam, Gaper	120	40	100	112	40	14	146	146	176	220	130	20	1,258
Clam, Pismo	8,754	10,139	10,183	9,055	6,509	7,860	9,009	10,549	10,597	9,697	8,217	5,920	106,215
Clam, Soft-shell	10,839	13,218	12,700	11,029	13,400	11,558	20,886	12,829	15,295	14,837	17,833	18,398	173,039
Clam, Washington	2,147	4,220	3,666	2,931	128	154	205	152	3,399	5,065	3,698	4,164	29,929
Mussel	.....	.....	.....	.....	.....	60	225	120	60	.....	.....	.....	465
Octopus	511	1,248	2,011	3,463	2,962	3,877	3,847	4,391	3,397	2,138	951	725	31,521
Oyster, Eastern	43,316	29,680	23,471	13,147	13,769	23,581	13,451	26,006	31,156	20,403	38,304	59,719	340,003
Oyster, Japanese	.....	.....	4,770	3,962	1,802	66	283	276	402	2,906	5,705	45,300	68,762
Oyster, Native	8,182	4,299	2,370	.....	745	678	1,919	734	548	.....	.....	.....	19,475
Squid	21,781	60,667	74,419	55,160	88,081	111,673	23,804	23,425	28,535	46,228	106,125	184,585	824,543
Reptile:													
Turtle	.....	.....	.....	.....	2,491	410	.....	.....	.....	.....	.....	.....	2,901
Total pounds	85,826,357	63,651,896	38,918,751	10,719,771	13,253,589	20,909,762	26,471,902	62,200,339	50,825,796	64,846,599	134,481,666	132,949,682	795,655,704

* Importations of fresh fish from foreign countries included. See importation tables.

LANDINGS—REGION 10, DEL NORTE*, 1934

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Cultus, Pacific	4,789	3,674	10,962	1,299	1,225	1,193	1,704	2,029	1,282	1,090	441	680	30,368
Halibut, Northern			176	124	303	10	691	668	287	432			2,691
Perch				29									29
Rockfish	1,700	2,038	5,212	689	284	876	582	635	260	1,553	367	1,792	15,988
Sablefish							65	31	206	209	102		613
Salmon					5,403	38,533	44,390	10,273	3,651				102,250
Shark											45		45
Smelt		20	3,111		339		40		100				3,610
Whitebait	829	1,840	3,012	6,766	2,321	2,218							16,986
Miscellaneous Fish				57	18								75
Crustacean:													
Crab	624	624	2,120	1,817	72	732	18					16	6,023
Total pounds	7,942	8,196	24,593	10,781	9,965	43,562	47,490	13,636	5,786	3,284	955	2,488	178,678

* Oregon-California boundary to Trinidad Head.

LANDINGS—REGION 20, EUREKA*, 1934

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Cultus, Pacific	3,328	32,502	13,049	8,043	9,172	5,349	12,509	29,022	5,159	10,447	1,908	2,400	132,888
Flounder, Starry	4,222	1,892	274							16	97	1,791	8,292
Halibut, Northern			31,224	78,125	237,218	86,932	152,683	110,668	51,809	55,026	1,790		805,475
Herring, Pacific		3,500											3,500
Perch	510	437	2,610	1,327				156			247	253	5,539
Rockfish	11,045	24,928	11,436	7,604	3,321	7,238	13,901	12,704	2,633	8,627	2,662	5,250	111,349
Sablefish	5,482		6,649	15,044	47,183	104,511	118,701	57,670	95,512	171,399	48,051	23,238	693,440
Salmon				214,824	372,034	365,482	881,925	592,508	240,281				2,667,054
Smelt	3,385	6,818	2,218	813	1,751	4,491	1,383	2,258	50	981	534	620	25,302
Sole							12	34	10				56
Whitebait	1,424	5,844	9,405	11,339	10,471	9,022	7,457	3,956	116				59,034
Miscellaneous Fish	960	105	244	82	1,141	308	155	1,179	113			458	4,745
Crustacean:													
Crab	12,640	13,708	14,716	12,396	12,876	11,172	13,104	9,804				4,212	104,628
Mollusk:													
Clam, Gaper	888	192	936	600								672	3,288
Clam, Soft-shell					210								210
Clam, Washington	3,885	5,601	4,484	4,691	65				6,366	5,168	4,412	3,525	38,197
Octopus	106	135	34	94	30						57	152	608
Total pounds	47,875	95,662	97,279	354,982	695,472	594,505	1,291,830	819,959	402,049	251,664	59,758	42,570	4,663,605

* Trinidad Head to Point Arena.

LANDINGS—REGION 30, SACRAMENTO*, 1934

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Carp	21,616	22,419	23,929	14,341	11,016	9,459			9,169	15,650	15,966	12,834	156,399
Catfish	13,821	6,061	21,044	23,114	840	748	670	903	35,482	29,818	29,400	22,892	184,855
Flounder, Starry		78	342	119	86								625
Hardhead	32,113	31,719	21,877	14,409	9,500	6,850			50	5,347	7,092	8,224	147,262
Pike	93	400	822	109	12	7				25	98	39	1,605
Salmon	905	8,521	20,419	44,428	71,498	19,150		51,770	180,841		11	29	397,572
Sardine	10,079,980	5,952,800						3,293,600	16,892,874	27,851,591	22,003,205	20,166,355	106,240,405
Shad		2,532	44,748	364,489	460,788								872,557
Splittail	6,138	12,292	9,484	10,650	793	379			300	3,903	5,040	6,005	54,984
Striped Bass		95,319	238,805	344,740	73,530								772,394
Sucker	6,482	14,758	11,716	2,950	1,475	2,150			1,800	5,300	7,815	8,587	63,033
Miscellaneous Fish				327	550	608							1,485
Amphibia:													
Frog					60								60
Total pounds	10,161,148	6,147,099	423,186	819,757	630,085	39,351	670	3,346,365	17,120,516	27,911,634	22,068,687	20,225,028	108,893,326

* Sacramento and San Joaquin River systems, San Pablo and Suisun bays, and Lake County.

LANDINGS—REGION 40, SAN FRANCISCO*, 1934

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Anchovy				9,700	10,825	14,555	9,940	7,300	11,295	550	2,350	450	66,965
Cabezone			575	190									765
Carp									1,563				1,563
Cultus, Pacific	52,278	16,437	50,236	39,233	43,596	36,628	38,766	79,818	98,032	64,441	36,261	24,921	600,647
Eel				15	8	3							23
Flounder, Starry	4,920	27,383	67,256	60,454	66,160	18,455	11,915	132,960	111,402	11,050	1,570	2,750	516,345
Hake	938	58	345	5,454	10,113	6,096	2,761	2,071	748	9,600	10,885	6,741	55,810
Halibut, California	2,653	6,550	1,586	12,222	1,383	1,278	522	445	734	874	828	1,769	30,844
Halibut, Northern			5,525	10,790	26,276	36,955	61,615	37,560	20,485	13,345	913		213,464
Hardhead									106				106
Herring, Pacific	226,141	143,830	31,875								18,048	334,100	755,714
Kingfish	1,250		1,410	1,668	3,240	165	410	1,342	1,011	5,278	540	2,413	19,247
Mackerel, Pacific									15	1,830	1,103	675	3,703
Perch	17,004	14,350	17,802	18,304			6,317	10,653	5,519	11,082	7,048	4,717	113,405
Rock Bass				130									130
Rockfish	80,635	57,056	114,232	80,978	73,434	48,689	75,762	34,578	94,076	90,835	84,309	76,927	911,601
Sablefish	27,510	15,729	29,927	40,497	33,383	42,664	19,068	1,951	34,789	22,700	33,647	19,147	321,009
Salmon					6,506	94,635	384,382	380,502					866,516
Sand Dab	44,550	30,216	104,378	76,324	90,880	61,888	23,673	74,171	60,205	45,119	22,861	19,032	733,307
Sardine	6,480,965	142,460	125	10,700		10	15,475	1,812,600	6,450,800	8,180,668	2,042,312	4,080,450	29,237,565
Sea-bass, White							79	64	84	39	88		354
Shark	19,171	22,010	21,573	2,203	230	575	1,625	740	8,501	5,585	8,035	15,726	106,366
Skate	17,003	22,878	31,581	23,306	16,075	12,205	6,530	9,755	14,355	14,728	17,551	12,520	198,666
Smelt	24,337	42,210	35,077	28,854	30,096	23,434	15,449	16,537	17,046	13,925	7,891	9,051	264,388
Sole	886,960	656,797	834,548	535,229	715,482	682,311	722,187	626,761	624,831	651,126	500,294	825,077	8,351,633
Striped Bass		7,889	10,922	9,383	513								28,707
Tomcod	230				173	70		330	20	30			923
Turbot	3,601	11,228	6,106	16,683	12,552	3,240	1,858	1,265	260	3,060	4,186	1,615	65,802
Whitebait	177	210	17	310	1,500	3,887	2,625	902	519	756	1,869	167	12,939
Miscellaneous Fish	8,034	14,131	23,441	19,514	34,638	19,670	14,478	16,764	20,653	21,488	10,503	12,348	217,662
Crustacean:													
Crab	341,274	384,264	466,474	360,944	367,986	360,020	312,792				303,810	515,004	3,422,158
Shrimp	84,271	57,658	74,836	113,033	193,592	281,079	280,157	239,687	158,428	158,233	102,763	44,914	1,783,651
Mollusk:													
Clam, Cockle	2,629	5,238	10,148	11,319	6,573	3,650	2,999	1,552	1,075	3,784	3,694	5,171	57,832
Clam, Gaper	88	120	92	140	140	160	278	240	206	96	40	70	1,630
Clam, Soft-shell	20,685	15,977	18,400	22,247	24,099	20,740	13,742	17,850	19,668	17,804	17,449	13,070	221,801
Clam, Washington	71	128	120	96	144	104	176	144	144	104	128	64	1,423
Octopus	1,914	364	2,937	1,763	862	447	110	27	634	353	281	693	10,567
Oyster, Eastern	50,327	45,401	29,836	27,388	18,031	15,497	26,046	29,907	28,918	50,316	55,154	141,779	518,600
Oyster, Native				150	13,978	11,871	7,104	4,513	2,533	502	477	210	41,338
Total pounds	8,406,173	1,765,969	1,993,162	1,548,221	1,802,855	1,801,051	2,129,132	3,543,199	7,789,225	9,406,073	3,388,778	6,182,381	49,755,319

*San Francisco Bay and coast from Point Arena to Pigeon Point.

LANDINGS—REGION 50, MONTEREY*, 1934

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Anchovy	420		4,541	34,775	33,241	28,754	16,815	7,970	220	260			127,396
Barracuda				52					6				58
Cabezone	61	20	36	473	1,086	1,278	830	415	165				4,374
Cultus, Pacific	9,013	7,373	7,330	6,133	5,228	5,326	4,158	6,523	6,500	5,822	11,143	16,187	90,920
Flounder, Starry	39		1,15	684	2,234	925	572	1,303	2,205	943	463	212	11,847
Hake					850								850
Halibut, California	344	4,199	4,606	910	2,914	4,160	6,756	4,417	2,582	1,734	710	1,120	34,361
Herring, Pacific	2,855	2,915	215		100						5,115		11,200
Kingfish	26,129	23,128	20,464	10,043	8,039	17,075	5,353	24,210	24,412	35,315	24,423	20,529	239,030
Mackerel, Horse	66	170	1,103	1,050	500	3,298	310	27,547	31,199	35,905	16,727	1,622	138,547
Mackerel, Pacific	1,141	13,988	7,134	30,921	6,788	134,000	185,598	922,039	2,463,348	1,172,304	103,627	82,810	5,123,918
Perch	673	542	6,809	13,204			6,763	1,503		23		12	29,529
Pompano, California						42		28	35				105
Rock Bass			8	4									12
Rockfish	113,224	93,687	115,305	95,548	241,038	181,767	133,060	131,851	131,460	100,425	106,320	123,469	1,680,104
Sablefish	41,402	19,953	31,041	7,660	10,682	4,507	6,101	28,477	55,352	111,311	94,062	30,786	441,674
Salmon			71,415	75,818	42,353	51,174	45,390						286,250
Sand Dab	78	761	2,821	1,338	3,524	225	2,810	2,887	1,417	1,411	689	788	18,749
Sardine	53,460,080	48,773,600	76,051	169,380	152,145	178,220	81,092	40,076,785	70,097,705	109,404,027	69,197,108	77,937,183	478,923,420
Sea-bass, Black							10						10
Sea-bass, White			1,355	405					644		21		2,425
Shad			43		3								46
Shark				400									400
Skate	1,117	1,811	4,682	3,586	1,040	522	765	285	85	132	15	479	14,599
Smelt	1,944	599	1,358	3,239	8,180	24,708	24,179	26,628	28,138	20,219	12,410	10,570	162,671
Sole	1,131	3,217	18,427	24,653	39,362	1,765	2,569	1,188	784	1,810	504	683	96,093
Striped Bass				40									40
Tuna, Albacore									745				745
Turbot		1,964	4,351	285	31								6,731
Whitebait			317	791	6,186	9,046	516	1,510	102		13		19,781
Miscellaneous Fish			196	5					789				987
Crustacean:													
Crab	23,570	31,704	27,430	26,088	20,692	12,334	3,170				39,896	50,488	235,372
Prawn	419	241	11									239	910
Mollusk:													
Abalone	28,550		402,175	283,450	103,500	353,600	173,125	460,150	281,150	238,500	154,600	307,575	2,786,775
Clam, Pismo	2,255	2,676	1,687	441					2,310	3,220	3,275	3,204	19,118
Octopus	317	212	1,027	1,162	2,039	3,500	4,101	3,509	1,395	250	156	1,070	18,958
Oyster, Japanese	40,685	9,555											50,240
Squid	136,705	11,855	44,035	110,532	185,429	133,515	44,675	34,635	90,980	228,800	302,350	62,855	1,486,446
Total pounds	54,122,660	49,003,373	857,827	903,842	878,403	1,149,071	769,438	41,764,270	82,223,775	111,571,111	70,163,717	78,653,960	492,064,347

* Pigeon Point to Piedras Blancas.

LANDINGS—REGION 60, SANTA BARBARA*, 1934

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Barracuda	817	819	2,165	1,861	.....	.....	1,771	32	5,604	3,027	842	98	17,036
Calsoyna	.....	.....	.....	.....	81	.....	.....	.....	5	.....	.....	.....	86
Cultus, Pacific	56	.....	15	.....	.....	.....	8	.....	80	.....	30	.....	189
Flounder, Starry	.....	.....	.....	.....	.....	.....	.....	.....	.....	55	.....	.....	55
Halibut, California	13,555	15,383	14,585	10,204	15,946	26,543	16,606	19,911	15,601	17,198	23,926	31,706	221,004
Herring, Pacific	30	.....	.....	.....	.....	.....	.....	.....	.....	.....	224	136	390
Kingfish	.....	.....	.....	.....	.....	.....	.....	.....	40	50	.....	.....	90
Mackerel, Pacific	146	2,702	1,757	26	128	317	2,320	7,715	2,642	4,634	1,022	526	23,955
Perch	323	409	3,056	4,278	.....	.....	195	72	150	180	200	178	9,038
Rock Bass	408	733	1,550	745	324	153	676	445	434	438	145	331	6,672
Rockfish	12,622	18,781	34,275	41,071	31,240	26,838	25,485	10,770	19,173	22,561	12,605	25,880	281,310
Sablefish	.....	.....	395	3,302	2,310	2,865	643	386	.....	.....	.....	.....	10,101
Sardine	111	.....	50	.....	.....	.....	24	.....	.....	40	.....	.....	225
Sculpin	.....	3	.....	.....	.....	.....	.....	.....	58	535	2	.....	598
Sea-bass, Black	.....	915	3,585	1,135	114	.....	.....	876	109	.....	.....	230	6,964
Sea-bass, White	3,109	3,756	8,502	2,644	.....	.....	5,687	7,448	5,370	2,643	4,622	2,508	46,378
Shark	843	8,134	9,129	2,645	1,744	814	206	34	210	361	243	535	25,088
Sheepshead	2,297	1,088	148	20	.....	809	16	.....	575	2,604	3,020	5,843	16,395
Smelt	2,643	3,102	2,174	5,446	1,859	3,629	1,609	957	613	211	2,070	87	24,410
Sole	13,443	12,163	38,338	47,744	33,726	63,720	59,947	41,095	22,839	62,026	50,450	44,053	493,171
Swordfish, Broadbill	.....	.....	.....	.....	.....	.....	936	2,670	4,296	6,310	.....	.....	14,222
Swordfish, Marlin	.....	.....	.....	.....	.....	.....	.....	.....	122	.....	.....	.....	122
Tuna, Albacore	.....	.....	.....	.....	.....	.....	.....	330	.....	.....	.....	.....	330
Tuna, Bluefin	.....	.....	.....	.....	.....	.....	.....	.....	148	27	60	.....	235
Tuna, Bonito	.....	.....	.....	.....	.....	.....	.....	9	.....	.....	31	.....	40
Turbot	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12
Whitefish	.....	892	1,160	.....	.....	.....	.....	88	13	126	273	147	2,699
Yellowtail	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	27	27
Miscellaneous Fish	.....	.....	18	48	10	.....	84	49	.....	8	.....	.....	217
Crustacean:													
Lobster, Spiny	8,912	.....	.....	.....	.....	.....	.....	.....	40,439	25,460	17,026	12,506	104,343
Mollusk:													
Abalone	.....	.....	23,450	29,650	50,450	46,450	38,850	56,750	58,700	42,200	33,800	55,800	435,500
Clam, Pismo	4,632	4,916	7,227	5,747	9,517	14,444	20,349	19,492	10,671	9,335	7,485	7,762	121,487
Total pounds	65,939	73,795	152,239	156,062	147,858	188,591	175,022	169,039	187,912	200,108	158,076	188,358	1,862,999

* Piedras Blancas to Point Dume.

LANDINGS*—REGION 70, LOS ANGELES**, 1934

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Anchovy	9,096	10,806	9,380	7,830	12,735	6,651	2,642	2,607	317	885	175		63,144
Barracuda	17,755	83,376	64,906	340,250			600,308	178,848	106,034	40,581	60,013	9,482	1,701,753
Cabrilla	6,812	3,601	3,291	23,135	69,000	12,254	73,951	8,099		105	7,474	4,844	212,566
Carp					90	698				7,150	7,460	6,350	21,748
Corbina, Mexican	13,720	11,428	20,095	16,903		392	75			915	4,642	786	68,920
Croaker, Pacific	97	38	64	958		44		88	17	24		79	1,409
Flying Fish			120	1,051	7,319	6,600	2,119	3,281	4,455	1,262			26,432
Grouper		281			21,714	3,733	10,542	2,424				1,315	39,929
Hake	47	69							26	46		53	241
Halibut, California	28,537	34,886	79,995	59,041	47,000	31,309	23,252	22,113	8,934	8,299	26,539	42,363	412,650
Kingfish	48,459	41,250	32,505	33,645	36,445	28,375	20,280	23,949	22,069	25,329	28,201	30,878	371,365
Mackerel, Horse	33,003	99,907	33,947	150	41,230	35,894	47,484	43,630	102,886	340,249	202,242	366,585	1,441,178
Mackerel, Pacific	572,833	1,026,863	831,652	157,138	6,490,858	4,814,070	11,547,479	14,047,142	23,374,700	16,300,147	10,901,083	7,251,321	97,127,896
Mackerel, Spanish				1,331		20				202	1,144	561	3,258
Mullet	29	1,048		146	543	384	226	172	1,051	1,117			4,716
Perch	9,025	2,539	6,351	6,562	506	2,041	4,611	5,288	1,162	9,256	6,225	12,681	66,585
Pompano, California	83	235	193	207	306	1,932	155	330	241	223	373	95	4,373
Pompano, Mexican		35											35
Rock Bass	6,661	10,776	18,556	22,782	31,764	38,252	33,713	19,059	16,047	16,773	11,973	8,114	234,470
Rockfish	118,262	131,079	160,177	126,872	135,094	96,907	54,515	30,306	78,230	72,092	61,296	74,417	1,139,252
Sablefish	95,093	79,452	120,619	83,076	66,978	62,319	33,334	15,530	15,736	19,313	14,428	27,439	633,568
Sand Dab	2,550	2,150	2,798	1,409	1,000	837	647	514	477	769	789	1,058	14,969
Sardine	43,279,267	37,599,627	28,040,458	13,288	7,869	5,950	3,491	4,679	7,807	13,210	67,788,015	58,417,095	285,180,566
Sculpin	1,801	2,100	4,458	4,395	3,669	3,743	9,541	8,156	5,309	4,117	4,462	4,179	57,930
Sea-bass, Black	29,316	32,341	33,523	37,503	53,571	21,698	75,012	22,185	14,377	50,653	62,306	52,507	488,533
Sea-bass, Totuava	154,975	229,117	167,709	13,818	79,184	3,315				5,505	90,300	157,913	931,836
Sea-bass, White	2,419	4,251	29,985	228,402			55,973	50,117	63,670	21,257	10,331	6,742	477,107
Shark	13,122	10,762	24,548	41,994	52,130	58,901	45,027	13,471	31,547	26,321	28,918	14,144	360,785
Sheepshead	15,176	19,407	19,947	7,565	3,363	1,632	1,576	4,367	3,786	8,344	14,510	30,669	121,342
Skate	4,586	2,204	1,680	1,617	527	1,036	529	423	44	425	740	608	14,481
Smelt	26,638	15,195	15,422	13,973	13,458	13,557	11,919	10,338	17,950	27,570	27,959	25,741	217,720
Sole	1,224	2,158	7,171	7,943	1,399	330	273	476	504	514	1,003	573	23,681
Swordfish, Broadbill					487	10,977	41,285	31,734	52,705	39,586	962		178,836
Swordfish, Marlin						343	3,484	7,611	3,603	4,664	140		19,845
Tuna, Albacore		25,900	976,950	916,470			19,646	490,735	953,782	366,140	324,073	131,209	4,234,905
Tuna, Bluefin	15,504			78,534	529,363	2,481,615	3,663,022	8,042,515	2,947,214	279,442	19,284		17,956,493
Tuna, Bonito	13,347	1,861	1,084	405,773	915,714	583,106	32,899	40,257	5,035	18,900	11,079	5,214	2,035,269
Tuna, Skipjack	217,813	213,655	310,449	119,497	125,947	13,895	236,188	674,600	1,820,438	851,708	60,743	723,635	5,388,138
Tuna, Yellowfin	1,554,542		927,702	2,726,199	1,601,813	3,090,516	3,595,308	1,795,794	852,639	1,621,917	651,087	628,331	19,678,928
Turbot										2			2
Whitefish	5,946	11,238	7,658	2,134	2,410	2,935	330	630	436	3,460	4,350	5,302	47,156
Yellowtail	129,904	56,116	41,806	88,406	60,276	41,483	75,055	102,401	127,278	126,020	149,986	149,800	1,148,531
Miscellaneous Fish	402	300	769	1,138	520	864	903	1,000	465	1,292	1,126	873	9,652

LANDINGS*—REGION 70, LOS ANGELES**, 1934—Continued

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Crustacean:													
Crab, Rock	980	740	1,942	2,535	3,104	2,836	2,010	2,709	2,166	2,623	2,025	900	24,570
Lobster, Spiny	39,478	23,662	57,231	3,345	3,300	3,418			61,591	43,696	40,128	24,953	302,835
Prawn					12								12
Mollusk:													
Abalone									725	150	225	117	1,217
Clam, Cockle	1,646	1,747	1,987	9,339	1,540	985	1,074	1,048	725	1,652	1,273	1,679	24,715
Octopus	9	4	6	33	34				4	4	24		140
Squid		50	4,000	4,465				26,394	4,676		8		39,683
Reptile:													
Turtle		290											290
Total pounds	46,800,306	99,772,574	32,061,153	5,810,889	10,728,185	11,491,434	20,368,858	23,731,230	30,646,168	20,566,123	80,345,321	68,230,227	442,552,488

* Importations of fresh fish from foreign countries included. See importation tables.
** Point Dume to San Mateo Point.

LANDINGS*—REGION 80, SAN DIEGO**, 1934

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Barracuda	1,329	14,698	42,715	142,829			41,802	31,749	60,696	52,388	30,655	36,114	463,975
Cabrilla	395	19,655	4,383	36,729	30,246	46,934	7,227	5,100		2,664	12,209		165,533
Grouper	1,269	1,527	1,163	2,125	909	12,406		80	279		1,623	98	21,479
Halibut, California	27,610	17,079	45,085	15,186	28,901	31,120	20,909	49,505	20,146	28,178	18,802	29,686	339,207
Herring, Pacific	3,027										8,259	19,511	30,797
Kingfish	58	523	70	6			108	990	298	896	722	942	4,613
Mackerel, Horse										1,549			1,549
Mackerel, Pacific	238,668	1,231,992	154,027	533,031	2,727,279	1,430,060	2,929,718	1,186,585	657,566	224,518	61,144	195,333	11,569,030
Mackerel, Spanish		146		175		78	640	162	29	2,448		15	3,694
Mullet	20	199	480	761	1,494	2,209	3,724	2,110	3,099	262			14,339
Perch				290	120	53		30		290			783
Rock Bass	12,115	5,211	6,551	10,338	27,504	21,280	14,049	7,896	17,823	18,844	16,130	13,416	171,217
Rockfish	67,787	37,273	65,158	36,702	30,962	49,334	32,203	27,231	23,701	36,940	28,004	32,981	468,316
Sablefish	897	7	112		452				208			774	2,448
Sardine	1,170,415	1,360,010	447,210	1,700	493	1,320	47	75	679	945	245,069	825,554	4,053,817
Sculpin	1,493	1,963	1,413	451		182	1,051	18	218	264	358		7,411
Sea-bass, Black	9,333	15,153	18,171	20,171	33,660	14,522	29,990	3,477	32,734	128,886	18,167	21,787	365,971
Sea-bass, Short-fin			25	174	166	18			55				438
Sea-bass, Totuava			6,223									5,320	11,543
Sea-bass, White	6,288	2,223	3,334	19,033			74,931	93,967	105,788	9,885	3,337	557	324,943
Shark	5,741	3,031	2,084	879	595	772	10,816	2,809	833	2,377	189	1,250	33,366
Sheepshead	1,109	313	55	102	69				834	764	1,071	1,298	5,815
Skate		512	3,477		315	125							4,429
Smelt	5,010	3,992	4,620	2,274	1,845	1,695	2,392	1,203	2,673	2,255	1,483	163	29,605
Sole	444	535	920	28	15	145	62	71	8		41	100	2,369
Swordfish, Broadbill					569	3,896	13,112	35,199	17,454	660			70,890
Swordfish, Marlin							636	9,761	34,412				44,829
Tuna, Albacore								40					40
Tuna, Bluefin						5,555	238,189	90,708	35,306	14,622	16,720		401,100
Tuna, Bonito	50	10	13,605	306,138	432,549	145,701	101,003	158,750	38,199	22,227	14,225	30,948	1,167,385
Tuna, Skipjack	651,562	13,703	243,458	355,525	244,350	251,633	265,457	2,024,350	2,444,300	3,032,495	1,687,886	506,592	11,021,301
Tuna, Yellowfin	2,963,671	849,340	1,366,540	3,206,771	3,996,161	4,425,664	5,267,504	3,559,349	2,069,362	2,689,693	4,986,848	6,078,271	41,461,174
Whitefish	7,821	3,596	6,180	495	1,572	4,124	2,739	2,211	3,618	2,608	4,577	3,393	43,334
Yellowtail	12,797	38,131	28,281	95,032	221,453	110,123	91,063	158,660	176,428	116,299	105,452	44,914	1,198,633
Crustacean:													
Lobster, Spiny	144,917	146,776	154,539	18,949	4,965	4,217			35,838	29,086	104,467	131,907	775,661
Mollusk:													
Clam, Cockle	12										48		60
Squid	2,894	326	1,101										4,321
Reptile:													
Turtle		100		2,601					530		140		3,371
Total pounds	5,338,532	3,769,318	2,621,580	4,608,486	7,784,824	6,363,195	9,149,292	7,432,266	5,815,105	6,432,213	6,781,026	7,981,224	74,287,061

* Importations of fresh fish from foreign countries included. See importation tables.
** San Mateo Point to the Mexican boundary, including Salton Sea.

LANDINGS*—STATE OF CALIFORNIA, 1934

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Anchovy	9,516	10,806	14,321	52,325	56,801	49,960	29,397	17,877	11,832	1,695	2,525	450	257,505
Barracuda	19,901	99,095	109,786	684,992			643,881	210,029	172,340	95,996	100,510	45,694	2,182,822
Cabezone	61	30	611	663	1,167	1,278	820	415	170				5,225
Cabrilla	7,997	23,226	7,674	59,835	99,246	59,188	81,178	11,199		2,769	19,083	4,944	376,699
Carp	21,616	22,419	23,929	14,341	11,106	10,157			10,732	22,800	23,426	19,184	179,710
Catfish	13,821	6,061	21,044	22,114	849	748	670	995	35,482	29,818	29,660	22,892	184,835
Corbina, Mexican	13,730	11,428	20,065	16,993		392	75			915	4,642	786	68,926
Croaker, Pacific	69,563	60,024	81,856	55,668	59,221	48,340	77,125	117,480	111,070	81,824	49,785	44,267	856,421
Eel				15	5	3							23
Flounder, Starry	9,181	20,346	68,946	61,257	68,480	19,380	12,487	134,263	113,697	12,044	2,130	4,753	557,164
Flying Fish			120	1,881	7,519	6,600	2,119	3,281	4,455	1,262			26,437
Grouper	1,269	1,808	1,163	2,135	22,623	16,159	10,542	2,304	279		1,623	1,313	61,408
Hake	945	127	345	5,454	10,963	6,066	2,761	2,071	774	9,646	10,885	6,794	56,901
Halibut, California	72,779	78,097	146,317	97,655	94,146	94,476	67,425	96,391	56,997	56,223	71,195	100,663	1,035,356
Halibut, Northern			36,925	89,039	263,797	123,897	214,989	148,896	72,581	68,803	2,703		1,021,630
Hardhead	32,119	31,719	31,877	14,490	9,500	6,850			136	5,347	7,092	8,224	147,366
Herring, Pacific	232,053	150,265	32,090		100						32,546	354,547	901,601
Kingfish	73,896	64,881	54,329	45,362	47,724	45,555	26,031	30,491	47,830	67,368	53,896	54,762	634,345
Mackerel, Horse	33,069	91,077	34,950	1,849	42,230	42,192	47,794	71,177	134,685	305,694	208,969	368,197	1,381,274
Mackerel, Pacific	812,790	2,274,545	994,599	721,116	9,231,053	6,379,062	14,665,115	16,162,481	26,498,271	17,903,543	10,668,069	7,536,665	113,848,309
Mackerel, Spanish		146		1,506		98	640	162	20	2,650	1,144	576	6,942
Mullet	49	1,228	480	907	2,037	2,593	3,950	2,282	4,150	1,379			19,055
Perch	27,535	18,174	36,628	43,994	626	2,134	17,786	17,701	6,831	20,531	14,618	18,140	224,998
Pike	93	400	322	109	12	7				23	98	39	1,005
Pompano, California	85	233	103	207	306	1,074	133	358	276	223	373	93	4,430
Pompano, Mexican		35											35
Rock Bass	10,274	16,720	26,665	33,999	59,852	59,685	48,438	27,400	34,304	36,655	28,248	21,561	412,501
Rockfish	405,280	364,842	505,885	389,464	515,372	411,669	356,348	248,095	349,563	423,053	295,653	342,716	4,607,920
Sablefish	170,384	115,131	188,743	149,519	161,188	217,257	177,912	104,065	201,823	325,192	190,290	101,404	2,102,908
Salmon	905	8,521	91,914	333,059	498,194	368,974	1,336,087	1,033,144	424,773		11	29	4,319,622
Sand Dab	47,178	62,127	109,997	79,071	95,404	62,950	77,130	77,572	62,189	47,290	24,339	21,778	767,025
Sardine	114,706,818	143,828,207	28,563,894	193,068	160,307	183,330	100,129	45,182,829	102,440,865	143,346,481	161,273,209	161,433,937	903,836,094
Sculpin	3,394	4,066	5,871	4,846	3,669	3,925	10,502	8,174	5,585	4,916	4,822	4,179	65,939
Sea-bass, Black	38,649	48,409	55,278	58,871	87,365	36,220	104,912	26,536	67,420	179,541	80,473	77,824	861,498
Sea-bass, Short-fin			25	174	166	19			55				438
Sea-bass, Totuava	184,975	229,117	173,932	13,918	79,184	3,215				5,505	90,200	163,253	943,179
Sea-bass, White	11,516	10,210	43,766	250,574			134,670	153,596	178,556	33,803	24,399	9,907	851,197
Shad		2,332	44,791	264,480	460,791								872,603
Shark	38,877	45,957	57,336	48,021	54,689	61,663	57,864	17,654	41,491	34,844	37,430	31,655	526,280
Sheepshead	18,402	12,008	20,150	7,603	3,432	2,440	1,592	4,267	5,193	11,772	18,601	37,810	143,552
Skate	22,705	27,465	41,120	28,509	17,957	13,978	8,234	10,445	14,454	15,295	18,586	13,607	252,175
Smelt	63,957	70,516	63,980	54,599	57,337	71,524	56,962	57,931	66,590	65,661	52,257	46,192	727,706

Sole	905,232	674,872	899,604	615,597	789,975	750,291	785,050	669,625	648,996	715,576	642,292	870,463	5,967,603
Split-tail	6,138	12,292	9,484	10,650	730	379			300	3,903	5,040	6,068	54,984
Striped Bass		103,408	269,727	334,163	74,043								801,341
Sucker	6,482	14,758	11,716	2,950	1,475	2,150			1,809	5,300	7,815	8,587	63,033
Swordfish, Broadbill					1,036	14,823	35,333	70,603	74,343	46,366	962		243,958
Swordfish, Marlin						343	4,140	12,372	43,137	4,664	140		64,796
Tomcod	250				173	70		330	70	50			923
Tuna, Albacore		25,900	976,950	916,470			19,646	491,105	984,527	366,140	324,073	131,209	4,236,020
Tuna, Bluefin	15,504			78,534	529,363	2,467,170	3,901,211	8,133,223	2,882,668	294,091	36,064		18,357,828
Tuna, Bonito	13,397	1,871	14,689	611,911	1,348,263	728,807	134,902	198,996	43,234	41,127	29,335	26,162	3,202,694
Tuna, Skipjack	869,173	227,338	353,907	373,022	269,897	265,408	521,643	2,699,130	4,264,738	3,894,203	1,145,639	1,230,227	16,499,439
Tuna, Yellowfin	4,820,213	849,340	2,294,302	5,632,970	5,897,974	7,516,180	8,802,812	5,355,143	2,922,001	4,311,610	5,667,035	6,706,622	61,137,102
Turbot	3,621	13,192	10,457	17,068	12,583	3,280	1,858	1,365	290	3,062	4,186	1,615	72,547
Whitebait	2,430	7,894	12,751	19,206	21,278	24,173	10,598	6,368	737	756	1,882	167	108,240
Whitefish	13,507	15,726	14,998	2,629	4,052	7,059	3,069	3,119	4,067	6,194	9,509	5,932	93,191
Yellowtail	142,701	94,247	70,897	183,438	251,729	151,606	166,118	261,061	303,706	242,299	255,438	194,741	2,347,181
Miscellaneous Fish	9,396	14,536	20,668	21,171	36,877	21,430	15,620	18,992	22,017	22,788	11,629	13,679	234,823
Crustacean:													
Crab	378,608	430,300	310,740	410,243	401,636	384,158	239,084	9,804			343,706	560,810	3,768,081
Crab, Rock	980	740	1,942	2,535	3,104	2,836	2,010	2,709	2,166	2,623	2,025	900	24,570
Lobster, Spiny	193,307	170,438	211,770	22,297	8,265	7,635			137,866	100,242	161,621	169,396	1,182,839
Prawn	419	241	11		12							239	922
Shrimp	84,271	52,658	74,536	113,033	193,592	281,079	290,157	220,687	158,428	155,253	102,763	44,914	1,780,651
Mollusk:													
Abalone	28,950		423,625	312,500	153,930	400,050	211,975	516,000	340,573	280,850	188,625	363,492	3,223,492
Clam, Cockle	4,287	6,985	12,133	20,678	8,113	4,635	4,073	2,600	1,800	3,426	5,015	6,850	82,607
Clam, Gaper	976	312	1,026	740	140	160	278	240	206	56	40	742	4,916
Clam, Pismo	6,927	7,592	8,914	6,188	9,517	14,444	20,349	19,402	12,981	12,555	10,760	11,056	140,685
Clam, Soft-shell	20,685	15,977	18,400	22,247	24,309	20,740	13,742	17,990	19,608	17,894	17,449	13,070	222,011
Clam, Washington	3,956	5,729	4,604	4,787	209	104	176	144	6,510	5,272	4,540	3,580	39,020
Octopus	2,346	715	4,004	3,034	3,005	3,747	4,211	3,936	2,033	789	318	1,913	29,273
Oyster, Eastern	50,327	45,401	29,836	27,388	18,031	13,497	26,046	29,907	28,918	50,316	53,154	141,779	518,600
Oyster, Japanese	40,685	9,555											50,240
Oyster, Native				150	13,978	11,871	7,104	4,513	2,333	502	477	210	41,338
Squid	139,599	12,231	49,226	114,997	185,429	133,595	44,675	61,029	93,656	238,800	392,358	62,855	1,530,450
Amphibia and Reptile:													
Frog					60								60
Turtle		390		2,601					330		140		3,661
Total pounds	124,950,525	150,627,666	38,251,019	14,213,020	22,677,647	21,871,680	33,841,732	82,859,964	144,110,526	176,232,210	182,966,318	181,506,226	1,174,358,023

* Importations of fresh fish from foreign countries included. See importation tables.

FRESH FISH IMPORTATIONS* FROM FOREIGN COUNTRIES LANDED IN LOS ANGELES COUNTY, 1930

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Barracuda	40,964	67,892	13,905	55,427	23,175	15,195	12,000	18,578	84,454	124,492	287,685	163,948	937,715
Cabrilla	97,495	53,538	46,417	48,995		315				29,311	21,873	61,536	299,952
Corbina, Mexican	13,539	13,326	80,625	1,210	15,622	71				9,365		5,815	139,573
Halibut, California	60					4,576	2,913	4,501		512			12,562
Mackerel, Spanish	4,278	530	632	5,234		220					1,309	7,417	19,620
Mullet		474			80								554
Perch				400					260				660
Rock Bass	5,943	2,703	63	148	3,604				367		300	1,602	14,934
Rockfish										14,610			14,610
Sea-bass, Black	948	5,902	255	8,596	1,227	8,533	493	9,165	12,622	6,421	5,361	11,629	71,152
Sea-bass, Totuava	530,774	403,810	273,725	210,851	36,533	22,435			1,463	14,080	68,812	216,402	1,778,885
Sea-bass, White	200	684		110	50,733	13,062	29,258	15,306	16,169	1,555	990	126	128,193
Shark										1,555			1,555
Sheepshead			212	165									377
Sole						100							100
Tuna, Albacore	3,426	251,400	483,373	373,722	361,803	878,777	1,710,742	1,563,601		224,836	630,464	87,332	7,005,368
Tuna, Bluefin					144,824	3,839,338	2,135,462	30,356					6,150,000
Tuna, Bonito	9,706	23,425	24,766	1,220	54,052	19,455	2,400	424,360	649,987	2,862	684	1,550	1,214,567
Tuna, Skipjack	21,951	8,565	36,744	7,645	58,082	30,634	100,052	202,150	965,061	1,949,865	1,221,033	1,135,548	5,737,340
Tuna, Yellowfin	567,928	390,212	976,512	778,331	476,014	435,920	1,600,767	3,122,379	1,568,600	1,453,505	660,491	571,599	12,541,358
Whitefish		104							256				360
Yellowtail	74,652	51,450	102,878	176,473	411,826	115,173	400	646,133	694,185	21,100	23,477	97,193	2,415,002
Miscellaneous Fish	354	80		634						3,806			4,874
Crustacean: Shrimp	24,151	7,954											32,105
Total pounds	1,337,471	1,312,149	2,042,111	1,871,133	1,837,645	5,383,824	5,594,637	6,036,509	3,993,654	3,877,875	2,942,481	2,392,127	38,621,616

*These importations of fresh fish included in tables of landings.

FRESH FISH IMPORTATIONS* FROM FOREIGN COUNTRIES LANDED IN SAN DIEGO COUNTY, 1930

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Barracuda	6,933	19,696	26,122	4,233	1,687	32,583	2,206	17,639	47,965	75,819	37,123	20,417	312,443
Calcifh	22,433	18,282	2,065	1,248	1,150	2,501			1,838		19,643	52,464	121,674
Halibut, California	13,691	15,073	3,089		11,826	26,323	39,220	38,613	18,414	1,301	35	1,230	169,126
Mackerel, Spanish	545	1,085		3,748	350	1,888	472	345	374		9,584	6,209	24,609
Rock Bass	3,748	89	70	2,720	4,449	622	15		115	5,731	522	438	18,519
Rockfish	1,182	236	3,323					410	114	2,219	223	698	8,405
Sea-bass, Black	4,606	16,835	6,941	21,115	18,958	4,966	6,992	4,968	14,792	21,290	5,709	8,242	135,394
Sea-bass, Totuava	6,851	5,569	5,185	9,932						2,110			29,647
Sea-bass, White	27	1,068		8,220	7,790	19,736	55,782	39,102	48,605	32,038	14,319	12,217	238,944
Sheepshead	503									1,337	371	47	2,258
Smelt		314		75		610	83						1,082
Swordfish									1,234				1,234
Tuna, Bluefin						172,596					94		172,690
Tuna, Bonito	6,126	530	517	4	11,096	917	6,682	5,518	34,690	12,438	3,439	949	83,197
Tuna, Skipjack	414,162	864,412	230,219	164,354	472,273	403,210	943,199	842,596	2,155,041	2,500,033	1,776,274	1,261,199	11,732,972
Tuna, Yellowfin	1,364,971	3,883,394	2,680,727	2,457,531	2,484,979	1,309,565	5,892,546	8,553,936	4,333,468	3,892,705	4,294,744	2,923,291	44,080,857
Whitefish	4,481	542	158							1,158	2,772	1,065	10,176
Yellowtail	31,477	35,378	13,031	24,928	122,463	79,384	266,332	204,966	88,255	129,624	26,433	118,304	1,140,795
Crustacean:													
Lobster, Spiny	154,553	264,695	244,500	92,524							54,624	205,816	1,019,712
Reptile:													
Turtle											580		580
Total pounds	2,036,309	4,927,198	3,224,997	2,790,652	3,137,030	2,054,623	7,113,499	9,748,393	6,744,905	6,684,113	6,266,480	4,615,815	59,344,014

*These importations of fresh fish included in tables of landings.

FRESH FISH IMPORTATIONS* FROM FOREIGN COUNTRIES LANDED IN REGION 70, LOS ANGELES,** 1931

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Barracuda	154,504	43,042	120,370	62,946	11,359	3,631	.....	62,288	78,920	75,878	30,502	23,204	666,704
Cabrilla	32,003	24,932	17,571	1,772	17,632	3,015	.....	.....	.....	5,920	11,379	18,469	132,693
Corbina, Mexican	20,542	30,190	29,203	11,707	2,898	.....	.....	.....	.....	6,208	1,844	1,921	104,573
Grouper	432	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	432
Halibut, California	.....	27	.....	118	.....	.....	.....	.....	1,060	547	.....	.....	1,752
Kingfish	.....	.....	.....	.....	2,633	.....	.....	.....	.....	.....	.....	.....	2,633
Mackerel, Spanish	3,990	6,245	3,050	.....	.....	.....	.....	.....	3,768	568	218	1,094	18,933
Mullet	.....	.....	280	3,865	.....	.....	.....	.....	.....	370	.....	.....	4,515
Perch	.....	74	.....	385	.....	.....	.....	.....	.....	.....	.....	.....	459
Rock Bass	1,436	8,864	2,159	1,695	3,069	.....	655	.....	.....	937	1,451	2,121	22,417
Rockfish	.....	.....	367	.....	.....	.....	.....	.....	.....	455	.....	.....	822
Sea-bass, Black	11,106	1,104	14,335	8,389	403	19,909	6,811	11,643	743	24,330	4,341	13,032	116,806
Sea-bass, Totuava	350,351	216,405	227,653	94,453	22,720	1,223	.....	.....	.....	.....	55,150	153,357	1,151,312
Sea-bass, White	.....	183	627	953	3,201	.....	.....	13,380	114,453	3,231	1,130	28	137,600
Shark	.....	.....	.....	.....	.....	.....	.....	.....	.....	25	.....	.....	25
Smelt	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	88	.....	88
Swordfish, Marlin	.....	.....	.....	.....	.....	.....	.....	.....	365	.....	.....	.....	365
Tuna, Albacore	186,054	83,883	.....	362,588	107,838	1,771,079	911,845	975,442	1,398,348	799,620	171,615	170,767	6,939,079
Tuna, Bluefin	.....	.....	174,722	364,981	237,227	.....	258,962	33,852	.....	.....	.....	.....	1,169,744
Tuna, Bonito	2,533	280	674	173	1,358	.....	.....	.....	.....	59,354	116	.....	64,592
Tuna, Skipjack**	.....	.....	58,430	111,882	98,276	45,163	158,479	267,735	364,051	481,426	432,366	187,481	2,185,289
Tuna, Yellowfin	.....	.....	257,906	741,863	344,715	376,994	1,012,314	4,089,913	3,719,483	692,947	386,469	971,823	12,993,627
Whitefish	.....	665	245	4,444	19	700	.....	.....	.....	3,591	.....	1,006	10,670
Yellowtail	59,150	22,459	95,850	67,407	101,284	.....	.....	765	6,190	43,749	33,729	52,059	482,575
Miscellaneous Fish	.....	.....	.....	109	.....	.....	.....	.....	.....	515	.....	175	630
Crustacean:													
Lobster, Spiny	.....	.....	272	1,722	2,925	.....	.....	.....	.....	.....	1,229	1,527	7,675
Prawn	.....	450	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	450
Shrimp	.....	1,936	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,936
Total pounds	852,283	440,721	983,114	1,841,687	1,357,945	2,223,874	2,349,066	5,454,961	5,687,425	2,199,871	1,331,627	1,598,064	26,220,636

*These importations of fresh fish included in tables of landings.
**2,815 pounds of Skipjack landed in Region 60, Santa Barbara, included.

FRESH FISH IMPORTATIONS* FROM FOREIGN COUNTRIES LANDED IN REGION 80, SAN DIEGO, 1931

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Barracuda	14,192	9,957	10,555	325	3,374	23,088	9,512	34,454	30,068	19,754	11,344	8,126	174,769
Cabrilla	9,614	1,398	6,661	4,186	330	.....	210	1,112	21,635	12,528	40,858	29,268	127,200
Corbina, Mexican	.....	3,857	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,857
Grouper	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	250	20,907	21,157
Halibut, California	6,800	.....	.....	2,919	3,071	10,373	10,034	4,076	106	1,316	.....	20	38,715
Mackerel, Spanish	3,038	161	1,118	.....	253	.....	.....	.....	.....	85	165	335	5,177
Mullet	29	2,276	.....	.....	.....	.....	.....	.....	.....	.....	.....	342	2,647
Pompano, Mexican	.....	283	.....	.....	.....	.....	.....	.....	.....	.....	.....	455	738
Rock Bass	1,048	1,944	5,832	1,004	711	1,133	.....	256	636	866	80	108	13,620
Rockfish	1,014	.....	439	.....	.....	.....	.....	.....	.....	431	678	.....	3,182
Sculpin	.....	30	85	.....	.....	.....	.....	.....	.....	.....	.....	.....	115
Sea-bass, Black	13,633	2,999	7,833	14,821	26,393	955	13,768	6,808	23,962	11,843	5,475	847	131,241
Sea-bass, Totuava	13,770	1,850	2,135	400	.....	.....	.....	.....	.....	.....	.....	.....	18,155
Sea-bass, White	3,159	1,830	5,119	8,817	2,388	26,772	48,023	30,704	73,604	2,658	127	150	203,651
Shark	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,345	.....	.....	3,345
Sheepshead	175	402	608	105	.....	.....	.....	.....	.....	.....	.....	.....	1,290
Smelt	.....	.....	.....	.....	.....	.....	.....	.....	.....	9	.....	.....	9
Tuna, Bluefin	.....	.....	.....	.....	.....	7,140	.....	371	.....	.....	.....	.....	7,511
Tuna, Bonito	131	242	15	.....	270	.....	.....	288	.....	.....	.....	.....	946
Tuna, Skipjack	87,583	46,674	160,526	84,743	170,042	36,795	.....	461,055	377,315	308,689	520,699	93,554	2,355,856
Tuna, Yellowfin	700,000	178,036	2,770,286	3,453,909	3,291,324	344,036	329	4,563,790	3,444,357	1,343,557	941,224	813,268	22,431,725
Whitefish	699	316	417	602	265	.....	.....	.....	.....	320	.....	.....	2,719
Yellowtail	34,379	21,628	79,885	78,006	17,243	.....	382	1,446	21,680	12,649	40,288	24,812	332,398
Miscellaneous Fish	1,165	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,165
Crustacean:													
Lobster, Spiny	185,175	127,541	245,887	51,729	.....	.....	.....	.....	.....	114,166	65,047	166,130	955,675
Reptile:													
Turtle	.....	2,726	.....	3,151	610	170	.....	.....	.....	.....	.....	.....	6,657
Total pounds	1,104,224	405,050	4,297,423	3,704,717	3,616,418	490,462	82,658	5,504,571	4,032,983	1,832,707	1,634,625	1,158,122	27,863,760

*These importations of fresh fish included in tables of landings.

FRESH FISH IMPORTATIONS* FROM FOREIGN COUNTRIES LANDED IN REGION 70, LOS ANGELES, 1932

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Barracuda	806	14,284	76,903	53,057				24,544	130,248	67,889	4,274		372,005
Cabrilla	1,196	8,880	154		15,180	23,307	107	4,503	18,654	1,396	20,818	10,985	111,180
Corbina, Mexican	10,499	15,119	2,381	360	7,311						2,301	1,309	39,880
Grouper			310			3,464							3,774
Halibut, California	12							105	477	396	338		1,328
Mackerel, Spanish		1,000							290		244	775	3,309
Pompano, Mexican					3,728								3,728
Rock Bass	672			202	385		300		833		1,130		3,522
Sea-bass, Black	14,550	13,401	15,329	617	7,557	14,600	7,899	6,070	23,923	2,410	28,580	15,654	150,590
Sea-bass, Totuava	238,186	180,257	187,923	135,313	126,228	17,931					74,809	162,768	1,125,765
Sea-bass, White	32		39				5,733	21,285	24,374	7,665	20,231		79,401
Sheepshead				41									41
Swordfish, Broadbill					977						7,508		8,485
Tuna, Albacore	37,929	99,088		271,660		514,329	629,834	310,056	311,567	73,238			2,467,521
Tuna, Bluefin				108,153	78,339	18,770	335,172	64,255	3,451				608,170
Tuna, Bonito	88		55				125,258	371,736	519,554	156,052			1,174,743
Tuna, Oriental								150,534	259,595	544,619	99,047		1,053,795
Tuna, Skipjack				185,562	574,298	702,171	2,322,829	2,183,664	1,481,191	500,754	89,893	225,030	8,267,392
Tuna, Yellowfin	246,374	53,829	133,090	3,729,029	2,763,310	1,338,783	2,165,723	2,432,939	879,332	683,466	963,894	633,832	16,072,041
Whitefish	123	789		406		83			655		218		2,274
Yellowtail	3,590	13,083	799	62,398	67,964	3,694	996	29,206	98,623	154,048	44,021	46,223	524,645
Crustacean:													
Lobster, Spiny	650	885	13,025	716		2,416	2,821		449		3,192	912	25,066
Shrimp	1,460				22,525								23,985
Total pounds	576,367	406,515	432,228	4,547,544	3,670,212	2,655,948	5,596,694	5,800,917	3,753,016	2,194,133	1,368,518	1,117,648	32,122,740

*These importations of fresh fish included in tables of landings.

FRESH FISH IMPORTATIONS* FROM FOREIGN COUNTRIES LANDED IN REGION 80, SAN DIEGO, 1932

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Barracuda	3,173	4,358	4,053	6,353	.....	1,913	10,399	.....	7,205	7,835	917	2,473	49,669
Cabrilla	16,530	36,039	20,841	4,102	19,600	28,376	23,402	25,820	11,632	7,859	22,206	20,322	237,019
Grouper	7,279	.....	2,100	.....	.....	2,310	1,249	1,682	.....	.....	.....	130	14,913
Halibut, California	4,673	.....	33	.....	.....	.....	.....	.....	4,420	.....	83	.....	9,173
Mackerel, Spanish	2,240	2,460	.....	.....	.....	.....	.....	.....	.....	300	.....	2,613	7,613
Mullet	2,265	490	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2,755
Pompano, Mexican	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	348	348
Rock Bass	665	59	80	.....	.....	.....	.....	.....	.....	.....	270	200	1,274
Rockfish	.....	2,480	38	4,105	462	.....	.....	.....	.....	3,389	265	.....	10,769
Sardine	.....	.....	.....	.....	.....	.....	.....	.....	.....	66	.....	.....	66
Sea-bass, Black	2,963	8,408	35,387	12,077	4,219	.....	.....	525	2,163	12,674	3,511	10,036	92,053
Sea-bass, Totuava	.....	.....	.....	920	.....	.....	.....	.....	.....	.....	.....	.....	920
Sea-bass, White	35	.....	110	55	.....	.....	3,360	.....	39,417	13,797	15,123	5,123	58,021
Shark	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	118	118
Sheepshead	.....	.....	205	.....	.....	.....	.....	.....	.....	.....	.....	.....	205
Swordfish, Broadbill	.....	.....	.....	345	659	.....	.....	.....	200	.....	354	.....	1,558
Swordfish, Marlin	.....	.....	.....	285	644	.....	.....	.....	.....	.....	.....	.....	929
Tuna, Bluefin	.....	.....	.....	.....	2,992	.....	.....	.....	.....	.....	.....	.....	2,992
Tuna, Bonito	.....	.....	.....	.....	1,710	.....	.....	.....	.....	80	3,655	6,111	11,056
Tuna, Skipjack	54,565	76,224	166,920	210,476	1,038,328	1,754,258	3,904,963	2,020,748	1,166,586	411,720	335,777	1,273,549	12,904,143
Tuna, Yellowfin	529,488	30,861	561,247	2,749,301	2,484,570	1,130,667	2,787,956	2,469,973	2,047,907	2,208,684	1,198,708	2,860,554	20,680,046
Whitefish	.....	2,415	160	805	338	.....	.....	.....	85	1,652	.....	3,807	10,262
Yellowtail	22,977	3,329	12,539	13,929	22,439	.....	.....	7,855	18,402	49,581	45,702	50,680	247,633
Crustacean:													
Lobster, Spiny	157,254	251,081	151,188	.....	.....	.....	.....	.....	.....	3,204	36,525	74,832	674,274
Reptile:													
Turtle	.....	.....	.....	.....	.....	.....	3,498	2,150	.....	.....	.....	80	5,728
Total pounds	804,910	419,404	955,820	3,382,733	3,575,471	2,917,604	6,231,848	4,468,156	3,279,197	2,911,231	1,662,940	4,311,036	35,119,550

*These importations of fresh fish included in tables of landings.

FRESH FISH IMPORTATIONS* FROM FOREIGN COUNTRIES LANDED IN REGION 70, LOS ANGELES, 1933

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Barracuda	35,769	57,090	12,485		130	802	2,154	7,067	5,476		234	5,056	126,263
Cabrilla	4,997	9,699	1,454	8,047	17,628	7,432			5,930	5,927	7,029	4,176	72,319
Corbina, Mexican	15,185	34,195	13,264	663	848				1,010	10,054	4,442		79,661
Halibut, California	53	9			424				29				515
Mackerel, Spanish									410		60	2,542	3,012
Mullet		423	10									112	433
Perch			2,321	2,962	345	1,364			170	197	2,258	3,375	112
Rock Bass				240							6,859		12,992
Rockfish	20,445	22,115	1,890	5,140	8,919	8,021	21,450	15,233	383	28,546	10,400	33,303	7,099
Sea-bass, Black	202,803	134,513	166,717	51,489	117,351	10,707				18,271	99,147	129,316	175,845
Sea-bass, Totuava	298		27	1,095				5,663	305	2,169	19,244	10,589	930,314
Sea-bass, White					61								39,390
Shark		101,294	210,519	50,266		208,047	784,071	441,115	620,264	334,777	16,988	26,624	61
Tuna, Albacore				148,319		8,492		79,465					2,793,965
Tuna, Bluefin								73,680	58,587	22,164	8,280	24,108	236,276
Tuna, Bonito					159,332	64,325		206,945	127,154	138,611		202,969	186,819
Tuna, Oriental	113,879	2,640	282,926	1,059,597	1,249,193	867,490	269,010	392,734	138,410	366,102	485,255	553,791	899,336
Tuna, Skipjack	1,116,402	145,365	875,698	1,433,267	1,893,377	1,828,056	2,192,168	1,199,010	1,200,322	1,436,750	1,493,173	1,215,897	5,781,027
Tuna, Yellowfin	1,696	850	477	979		423				90	713		16,029,485
Whitefish	5,682	14,161	48,423	31,502	2,261	22,536	66,646	25,739	28,191	11,692	10,986	163,056	5,228
Yellowtail		141										138	430,875
Miscellaneous Fish													279
Crustacean:													
Lobster, Spiny	1,377	3,284	2,113	1,050		520		715		526	3,755	7,958	21,298
Shrimp				1,500									1,500
Total pounds	1,518,586	525,779	1,618,324	2,796,116	3,449,869	3,028,215	3,335,499	2,447,366	2,186,641	2,375,876	2,168,823	2,383,010	27,834,104

*These importations of fresh fish included in tables of landings.

FRESH FISH IMPORTATIONS* FROM FOREIGN COUNTRIES LANDED IN REGION 80, SAN DIEGO, 1933

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Barracuda	25	1,720	180	45	180	175	174	133	2,078	4,562	18,161	7,105	34,547
Cabrilla	10,818	30,525	24,639	10,355									76,337
Corbina, Mexican	200												200
Grouper	200								97	85		183	565
Halibut, California	7,718							13,644	19,555	22,252	12,132	9,524	84,305
Mackerel, Spanish			300	280							1,494		2,154
Mullet	2,227				163								2,390
Pompano, Mexican	710												710
Rock Bass	367	3,444						338	76			421	4,646
Rockfish	901	234	3,979	4,795				830	10,645	439	5,630	9,525	36,977
Sea-bass, Black	19,476	6,385	11,139	21,405	1,913	7,120	160	5,329	15,551	28,656	10,552	30,239	157,306
Sea-bass, White	870	160			155		10,267	21,630	89,972	130,363	19,858	22,285	295,560
Smelt									260				260
Swordfish, Broadbill								928	3,057	13,039	23,039		40,063
Tuna, Bonito			1,285				1,121	9,008	20,906	18,233	27,028	20,555	98,136
Tuna, Skipjack	236,000	312,233	500,803	276,220	1,150,513	727,217	1,183,743	1,042,561	787,227	1,038,397	2,116,230	1,840,660	11,212,004
Tuna, Yellowfin	1,747,383	2,617,406	2,741,491	2,111,563	2,321,140	1,824,492	2,493,102	2,314,338	2,812,637	4,376,533	4,177,464	4,101,687	35,039,278
Whitefish	293	1,661	900	846					2,366	179	360	1,992	8,597
Yellowtail	40,960	3,527	22,919	20,068	1,310	22,202	182,659	807,866	664,125	257,809	120,650	72,533	2,234,727
Crustacean:													
Lobster, Spiny	107,771	138,940	133,697	23,399	3,409		859	2,415	1,716	19,149	94,289	122,949	648,593
Reptile:													
Turtle					2,491	410							2,901
Total pounds	2,184,509	3,116,234	3,330,582	2,479,068	3,690,274	2,581,616	4,872,085	4,420,040	4,430,048	5,909,916	6,626,586	6,239,678	50,080,636

*These importations of fresh fish included in tables of landings.

FRESH FISH IMPORTATIONS* FROM FOREIGN COUNTRIES LANDED IN REGION 70, LOS ANGELES, 1934

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Barracuda	7,671	323	507	9,685			1,350		30,785	33,006	52,417	7,064	143,005
Cabrilla	6,812	3,601	3,291	23,135	69,000	12,254	73,951	8,069		105	7,474	4,844	212,566
Corbina, Mexican	13,720	11,428	20,065	16,503		392	75			915	4,642	780	68,926
Cultus, Pacific										24		60	84
Grouper		281			21,714	3,753	10,542	2,424				1,215	39,929
Halibut, California			17,107	5,975		17,638	18,621	10,467		2,107	4,317	25,972	102,204
Mackerel, Pacific						20							20
Mackerel, Spanish				1,331						202	1,144	561	3,238
Mullet	20	951											980
Perch										51			51
Pompano, Mexican		35											35
Rock Bass		2,741	2,682	1,536	2,861	6,031	2,965	65	1,683	4,067	279	215	25,125
Rockfish	660	632		510		11,919			255	90			14,066
Sea-bass, Black	29,114	31,596	31,804	26,652	51,681	20,502	74,102	21,882	13,700	50,126	60,949	55,349	427,887
Sea-bass, Totuava	184,975	229,117	167,709	13,818	79,184	3,215				3,505	60,300	157,913	921,636
Sea-bass, White	93	1,735	402	4,002			13,424	33,783	51,862	11,041	5,207	1,274	122,821
Shark			1,065										1,065
Sheepshead										88	58	80	226
Smelt										132			132
Swordfish, Marlin								85					85
Tuna, Albacore		25,000	976,150	916,470			19,114	373,114	983,292	365,949	324,073	131,209	4,116,191
Tuna, Bluefin	15,504								299	65	613		16,472
Tuna, Bonito	13,347	1,851	1,074		234	430	3,026	2,058	1,047	6,989	2,993	742	34,271
Tuna, Skipjack	217,813	213,655	310,449	119,497	125,547	13,865	256,188	674,600	1,820,438	851,708	60,743	723,635	5,388,138
Tuna, Yellowfin	1,834,342		927,262	2,726,199	1,901,813	3,000,316	3,305,308	1,705,714	832,629	1,021,803	681,087	628,331	19,575,736
Whitefish	2,273	7,614	3,070	173	722	2,641				977	104	544	18,118
Yellowtail	129,745	56,116	35,290	50,677	26,822	41,163	75,055	102,401	86,874	121,020	147,212	149,775	1,022,100
Miscellaneous Fish				200	160				93	146	386	82	1,067
Crustacean:													
Lobster, Spiny	21,693	22,242	57,231	3,348	3,300	3,418							111,232
Mollusk:													
Clam, Cockle				7,800									7,800
Reptile:													
Turtle		290											290
Total pounds	2,497,991	610,445	2,556,438	3,937,861	2,283,528	3,227,837	4,143,921	3,024,692	3,843,036	3,076,138	1,443,868	1,889,671	32,535,406

*These importations of fresh fish included in tables of landings.

FRESH FISH IMPORTATIONS* FROM FOREIGN COUNTRIES LANDED IN REGION 80, SAN DIEGO, 1934

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
Barracuda	95	2,459	17,401	21,405			13,431	5,476	55,287	48,956	39,186	34,767	238,553
Cabrilla	305	19,655	4,383	36,720	30,246	46,934	7,227	3,100		2,664	12,209		163,533
Grouper	1,209	1,527	1,163	2,125	909	12,400		80	279		1,623	98	21,479
Halibut, California	22,963	10,861	30,167	12,126	10,252	29,389	18,637	49,338	28,972	28,057	18,867	29,559	290,288
Herring, Pacific											2,730		2,730
Mackerel, Pacific	62		47	70,901	2,870	17,075	104,072	68,695	470		1,042	1,181	266,215
Mackerel, Spanish		146		175		78	640	162	20	2,448		15	3,684
Perch				133	120	23							278
Rock Bass	346	1,104	440	6,310	17,209	13,578	7,031	1,327	1,827	2,218	3,489	532	55,901
Rockfish	29,116	11,886	29,521	16,464	15,997	7,038	455	5,866	7,312	24,616	16,746	26,727	182,744
Sablefish	394											774	1,168
Sardine					493	120		75	229	845	743		2,505
Sea-bass, Black	8,962	15,075	6,589	19,428	26,974	14,474	14,623	2,983	51,911	128,886	18,167	21,787	329,859
Sea-bass, Totuava			6,223									5,320	11,543
Sea-bass, White	745	816	336	43			52,583	92,294	100,165	9,305	3,253	537	260,077
Shark	417	909		542		62			104	1,411		1,129	4,574
Sheepshead	106	328		102	60				160	46	362	208	1,481
Smelt	110		24				517	276	263			148	1,338
Sole		10				40						3	53
Swordfish, Broadbill								4,291	1,607	163			6,061
Swordfish, Marlin								2,028	1,404				3,432
Tuna, Bluefin							4,190	17,730	4,125	11,315	12,285		49,635
Tuna, Bonito	50		420	8,848	23,842	29,178	16,002	2,731	4,603	19,828	18,075	20,788	165,375
Tuna, Skipjack	651,262	13,703	243,458	255,525	244,330	251,633	263,457	2,024,330	2,444,300	3,032,495	1,087,896	586,502	11,021,301
Tuna, Yellowfin	2,965,671	849,340	1,366,540	3,206,771	3,996,161	4,453,564	5,267,504	3,520,349	2,050,534	2,689,693	4,986,354	6,078,271	41,441,852
Whitefish	5,989	3,206	5,913	495	1,672	105		701	14	1,426	4,114	3,393	27,418
Yellowtail	12,662	38,044	19,226	86,776	192,357	108,703	91,065	158,660	145,121	114,104	102,841	44,914	1,114,471
Crustaceans:													
Lobster, Spiny	143,273	146,723	154,539	18,949	4,965	4,217			135	12,800	93,884	125,471	704,956
Reptile:													
Turtle		100		2,601					530		140		3,371
Total pounds	3,854,987	1,116,282	1,886,309	3,766,531	4,578,486	4,958,117	5,863,412	6,000,492	4,899,372	6,131,286	6,424,026	6,912,414	56,371,795

*These importations of fresh fish included in tables of landings.

FRESH FISH IMPORTATIONS BY POINT OF ORIGIN, 1930

Species	Gulf of California	International waters south of United States boundary (definite origin unknown)	Hawaiian Islands	Japan	Total pounds
Barracuda		1,250,158			1,250,158
Cabrilla	12,558	509,068			521,626
Corbina, Mexican	139,573				139,573
Halibut, California		201,698			201,698
Mackerel, Spanish		44,229			44,229
Mullet		554			554
Perch		660			660
Rock Bass	962	32,491			33,453
Rockfish	14,610	8,405			23,015
Sea-bass, Black		206,536			206,536
Sea-bass, Totuava	1,808,532				1,808,532
Sea-bass, White		387,137			387,137
Shark		1,555			1,555
Sheepshead		2,635			2,635
Smelt		1,082			1,082
Sole		100			100
Swordfish		1,234			1,234
Tuna, Albacore			5,426	7,000,142	7,005,568
Tuna, Bluefin		6,322,390			6,322,390
Tuna, Bonito		1,297,764			1,297,764
Tuna, Skipjack		17,470,312			17,470,312
Tuna, Yellowfin		56,618,628		3,587	56,622,215
Whitefish		10,536			10,536
Yellowtail	328	3,555,469			3,555,797
Miscellaneous Fish		4,874			4,874
Crustacean:					
Lobster, Spiny		1,019,712			1,019,712
Shrimp	32,105				32,105
Reptile:					
Turtle		580			580
Total pounds	2,008,668	88,947,807	5,426	7,003,729	97,965,630

FRESH FISH IMPORTATIONS BY POINT OF ORIGIN, 1931

Species	Gulf of California	International waters south of United States boundary (definite origin unknown)	Japan	Total pounds
Barracuda		841,473		841,473
Cabrilla	30,944	228,949		259,893
Corbina, Mexican	106,346	2,084		108,430
Grouper		21,609		21,609
Halibut, California	118	40,349		40,467
Kingfish		2,633		2,633
Mackerel, Spanish		24,110		24,110
Mullet		7,162		7,162
Perch	260	199		459
Pompano, Mexican		738		738
Rock Bass	111	35,926		36,037
Rockfish		4,004		4,004
Sculpin		115		115
Sea-bass, Black	1,853	246,194		248,047
Sea-bass, Totuava	1,169,467			1,169,467
Sea-bass, White		341,251		341,251
Shark		3,370		3,370
Sheepshead		1,290		1,290
Smelt		97		97
Swordfish, Marlin		365		365
Tuna, Albacore			6,939,079	6,939,079
Tuna, Bluefin		1,177,255		1,177,255
Tuna, Bonito		65,538		65,538
Tuna, Skipjack		4,541,145		4,541,145
Tuna, Yellowfin		36,425,456	1,896	36,427,352
Whitefish		13,429		13,429
Yellowtail		835,173		835,173
Miscellaneous Fish		2,015		2,015
Crustacean:				
Lobster, Spiny	5,876	957,474		963,350
Prawn	450			450
Shrimp	1,936			1,936
Reptile:				
Turtle		6,657		6,657
Total pounds	1,317,361	45,826,060	6,940,975	54,084,396

FRESH FISH IMPORTATIONS BY POINT OF ORIGIN, 1932

Species	Gulf of California	International waters south of United States boundary (definite origin unknown)	Hawaiian Islands	Japan	Total pounds
Barracuda		421,674			421,674
Cabrilla	8,191	340,008			348,199
Corbina, Mexican	37,411	2,469			39,880
Grouper		18,689			18,689
Halibut, California		10,701			10,701
Mackerel, Spanish		10,822			10,822
Mullet		2,755			2,755
Pompano, Mexican		4,076			4,076
Rock Bass		4,796			4,796
Rockfish		10,769			10,769
Sardine		66			66
Sea-bass, Black	333	242,310			242,643
Sea-bass, Totuava	1,126,685				1,126,685
Sea-bass, White		137,433			137,433
Shark		118			118
Sheepshead		246			246
Swordfish, Broadbill		10,043			10,043
Swordfish, Marlin		929			929
Tuna, Albacore			98,720	2,368,801	2,467,521
Tuna, Bluefin		611,162			611,162
Tuna, Bonito		1,185,799			1,185,799
Tuna, Oriental				1,053,795	1,053,795
Tuna, Skipjack		21,261,535			21,261,535
Tuna, Yellowfin		36,758,087			36,758,087
Whitefish		12,536			12,536
Yellowtail		772,278			772,278
Crustacean:					
Lobster, Spiny		699,340			699,340
Shrimp	23,985				23,985
Reptile:					
Turtle		5,728			5,728
Total pounds	1,196,605	62,524,369	98,720	3,422,596	67,242,290

FRESH FISH IMPORTATIONS BY POINT OF ORIGIN, 1933

Species	Gulf of California	International waters south of United States boundary (definite origin unknown)	Hawaiian Islands	Japan	Total pounds
Barracuda		160,810			160,810
Cabrilla	64,044	84,612			148,656
Corbina, Mexican	79,661	290			79,951
Grouper		565			565
Halibut, California	424	84,396			84,820
Mackerel, Spanish		5,166			5,166
Mullet	10	2,813			2,823
Perch		112			112
Pompano, Mexican		710			710
Rock Bass		17,638			17,638
Rockfish		44,076			44,076
Sea-bass, Black	3,729	329,712			333,441
Sea-bass, Totuava	930,314				930,314
Sea-bass, White		334,950			334,950
Shark		61			61
Smelt		260			260
Swordfish, Broadbill		40,063			40,063
Tuna, Albacore			43,612	2,750,353	2,793,965
Tuna, Bluefin		236,276			236,276
Tuna, Bonito		284,955			284,955
Tuna, Oriental				899,336	899,336
Tuna, Skipjack	10,665	16,676,633		405,733	17,093,031
Tuna, Yellowfin	174,206	50,894,557			51,068,763
Whitefish		13,825			13,825
Yellowtail		2,665,602			2,665,602
Miscellaneous Fish	141	138			279
Crustacean:					
Lobster, Spiny		669,891			669,891
Shrimp	1,500				1,500
Reptile:					
Turtle		2,901			2,901
Total pounds	1,264,694	72,551,012	43,612	4,055,422	77,914,740

FRESH FISH IMPORTATIONS BY POINT OF ORIGIN, 1934

Species	Gulf of California	West Coast Lower California	International waters south U. S. boundary (definite origin unknown)	Mexican Mainland and Central America	Hawaiian Islands	Japan	Total pounds
Barracuda		41,703	~~1,136~~				~~42,839~~
Cabrilla	44,356	10,858	320,885				376,099
Corbina, Mexican	67,959		967				68,926
Cultus, Pacific			84				84
Grouper		2,424	58,984				61,408
Halibut, California			388,492				388,492
Herring, Pacific			~~344,469~~				~~341,469~~
Mackerel, Pacific			266,235				266,235
Mackerel, Spanish		1,144	5,778				6,922
Mullet	29		951				980
Perch			329				329
Pompano, Mexican			35				35
Rock Bass		1,000	79,926				80,926
Rockfish		255	196,555				196,810
Sablefish			1,168				1,168
Sardine			2,505				2,505
Sea-bass, Black	2,721	56,005	749,020				807,746
Sea-bass, Totuava	943,179						943,179
Sea-bass White		5,496	377,402				382,898
Shark			5,639				5,639
Sheepshead			1,707				1,707
Smelt			1,470				1,470
Sole			53				53
Swordfish, Broadbill			6,061				6,061
Swordfish, Marlin		85	3,432				3,517
Tuna, Albacore					25,900	4,090,291	4,116,191
Tuna, Bluefin			66,107				66,107
Tuna, Bonito		5,184	194,462				199,646
Tuna, Skipjack	187,028	2,685,539	11,653,659	303,968		1,579,245	16,409,439
Tuna, Yellowfin	504,993	1,588,023	47,789,172	11,011,458		223,942	61,117,588
Whitefish			45,536				45,536
Yellowtail	9,005	370,562	1,757,004				2,136,571
Miscellaneous Fish		100	967				1,067
Crustacean:							
Lobster, Spiny	136	816,052					816,188
Mollusk:							
Clam, Cockle	7,800						7,800
Reptile:							
Turtle			3,661				3,661
Total pounds	1,767,206	5,584,430	64,320,851	11,315,426	25,900	5,893,478	88,907,291

Previous issues are:

The commercial fish catch of California for the years 1926 and 1927. Calif. Div. Fish Game, Fish Bull., No. 15, 1929.
The commercial fish catch of California for the year 1928. Calif. Div. Fish Game; Fish Bull., No. 20, 1930.
The commercial fish catch of California for the year 1929. Calif. Div. Fish Game; Fish Bull., No. 30, 1931.