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State of California  
The Resources Agency  
DEPARTMENT OF FISH AND GAME

MARINE RECREATIONAL FISHERIES STATISTICS SURVEY  
FOR NORTHERN AND CENTRAL CALIFORNIA,  
QUARTERLY REPORT NO.12,  
APRIL TO JUNE, 1982

by

Konstantin A. Karpov  
and  
Gerald S. Kwiecien

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ABSTRACT

Field intercept Marine Recreational Fisheries Statistics Survey (MRFSS) data for central and northern California, collected in April to June 1982, is presented in a data report format. Data in this quarterly report are subdivided into three categories: primarily by five geographical areas; secondarily by fishing modes and gear types within each area; and finally by catch definition for each area, mode, and gear type. Tables are presented for these categories, each with three sections: sampled effort, ranked catch, and catch-per-unit-effort (CPUE). Also, within each area, length-frequency histograms and tables are presented for select species.

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## INTRODUCTION

The California Department of Fish and Game under contract to the National Marine Fisheries Service (NMFS) has participated in the Marine Recreational Fisheries Statistics Survey (MRFSS) from mid 1979 to the present. The survey was initiated to gather catch and effort statistics for marine recreational fisheries along the Pacific west coast.

Annual summaries of these statistics are being published elsewhere on a regional basis (Current Fisheries Statistics Numbers 8321, 8323, 8325, 8328 and 8393). In these summaries, California's data is divided into two regions, Del Norte to Monterey counties (northern region) and San Luis Obispo to San Diego counties (southern region).

Quarterly Report No.12 covers the period of April to June 1982. It supplements the federal annual summary for only the north-central region of California (Del Norte to San Luis Obispo counties). This region is divided into five areas (subregions) corresponding to historical ports.

## METHODS

Catch and length data were collected by Department biologists intercepting anglers actively fishing or in the process of leaving a fishing site. Sampling methodology is described in part in Current Fisheries Statistics (8321, 8323, 8325, 8328, and 8393).

Data in this quarterly report are subdivided into three categories: primarily by five geographical areas; secondarily by fishing modes and gear types within each area; and finally by catch definition for each area, mode, and gear type. Tables are presented for these categories, each with three

sections: sampled effort, ranked catch, and catch-per-unit-effort (CPUE). Also, within each area, length-frequency histograms and tables are presented for select species.

### Study Areas

Study areas range in size from one county in Area 5 to six counties in Area 3 (Figure 1). Adjacent counties are combined whenever similarity of habitat and species composition warrants. Boat modes are segregated by county only if separate grounds were fished (i.e. Sonoma County Bodega Bay fishery, sub-area 097, from Mendocino County, sub-area 045).

Area 1, including Del Norte and Humbolt counties, extends from the Oregon border to Shelter Cove. Both counties are combined in all mode comparisons. Area 2 contains Mendocino County and that part of Sonoma County which is north of Bodega Bay. Both counties are combined for all modes except the boat modes (private/rental boat and CPFV). The San Francisco Area 3 is segregated into ocean and bay. This area includes anglers from six counties; Marin, Solano, Contra Costa, Alameda, San Francisco, and San Mateo. These counties encircle the bay and extend down to Ano Nuevo. Two sets of tables and figures were generated based on whether anglers specified having fished in the ocean or the bay. Bay anglers were predominantly from San Francisco Bay, but also included a small percentage of Halfmoon Bay anglers. Area 4 includes Santa Cruz County and that part of Monterey County which is north of Ragged Point. Area 5, San Luis Obispo County, extends down to Point Sal.

### Fishing Modes

Modes of fishing were organized into six categories: (i) pier or dock, (ii) jetty or breakwater, (iii) bridge or causeway, (iv) beach or bank, (v) private or rental boat, and (vi) commercial passenger fishing vessel (CPFV).

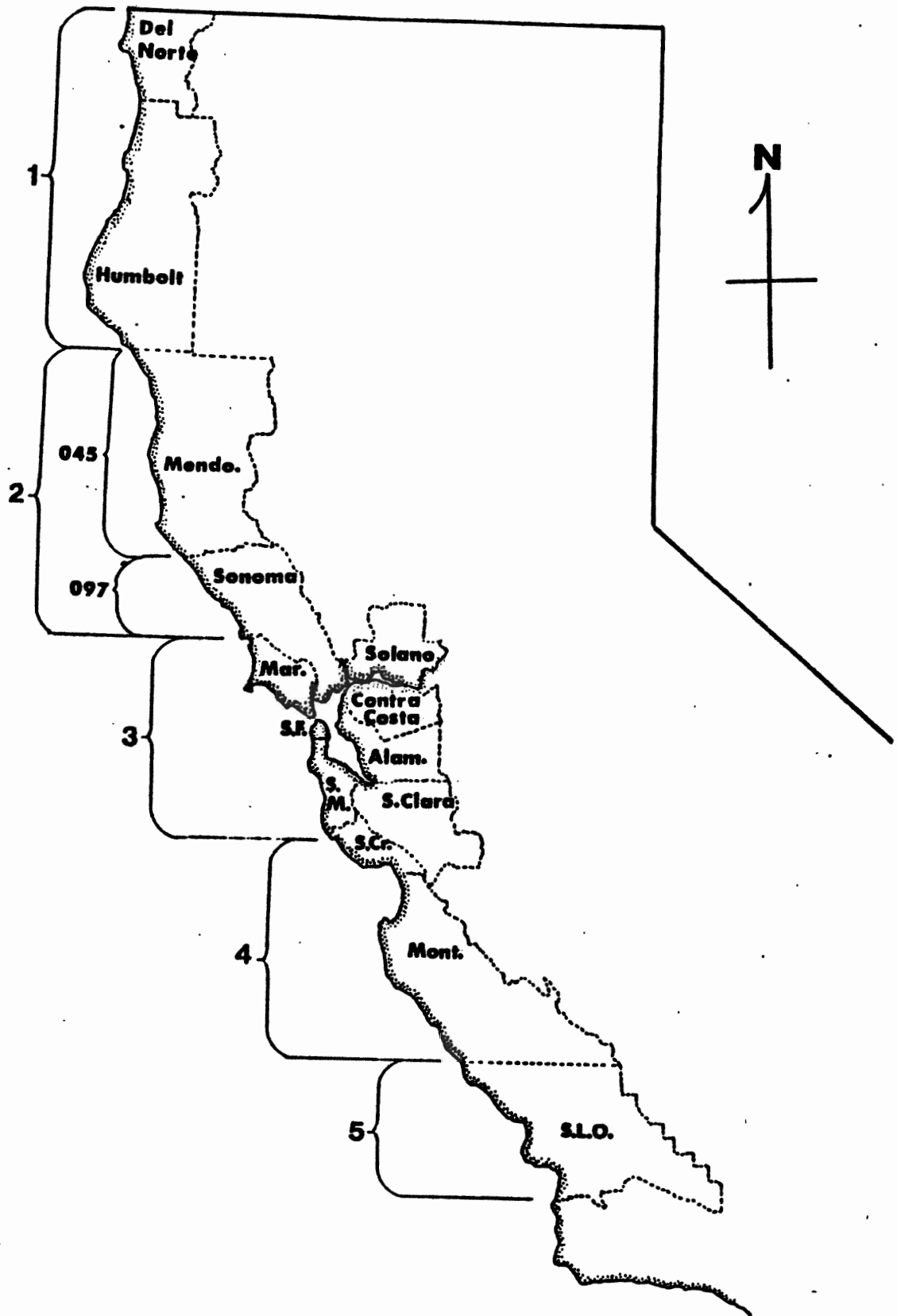


FIGURE 1. Study area counties and sub-areas in northern and central California.

## Gear Types

Three types of gear were used; (i) hook-and-line, (ii) spear, or (iii) net. Spears were used only by divers. Dipnet and castnet were the only net gears in active use in northern and central California.

## Catch Definition

Catch is defined three different ways: (i) all fish captured, including fish returned dead or alive, those not available at the sampling site (i.e. filleted or given away, etc.), and those available to measure; (ii) landed catch, not including fish returned dead or alive; and (iii) the measured catch only. Fish caught but unavailable to measure were identified to the nearest taxa using the angler's description.

## Computer-Generated Tables and Figures

The Microcomputer Program Series (MPS) was developed to generate the tables and figures used in this report. The programs were designed for flexibility and ease of use on area microcomputers. The programs allow the user to generate tables and figures for any combination of area, mode, gear, or definition of catch. Data generated by these programs include: sampled effort, ranked catch, CPUE, and length-frequency data. Documentation of logic and program listings are available (Karpov, 1984).

### Sampled Effort

Sampled effort is the same for all three catch definitions for a particular area, mode, or gear. It includes the number of anglers intercepted, the total hours fishing effort, and total hours still to be fished for incomplete trips.

### Ranked Catch

Ranked catch includes rank of species caught by number or weight, and other statistics depending on the catch definition. Fish are ranked by

number caught in two of the catch definitions: all fish caught, and landed catch. The measured catch has fish ranked by weight caught. The measured catch tables include average lengths and standard deviation, and derived average weight.

#### CPUE

CPUE is calculated using two definitions of both "catch" and "effort". Catch is either number or weight (kilograms) caught. Effort is either angler days or total hours fished. CPUE, computed using weight caught as opposed to number landed, is included only for two of the catch definitions: landed catch and measured catch. Average weights incorporated in the landed catch tables are derived either from the respective measured catch table for the same species or, for the more general species groups, by calculating a group average weight. Group average weights of constituent species were calculated from this quarter's data for the same mode, gear, and area. Angler days represent completed fishing days for most areas and modes. Occasional incomplete trips were included for all modes except boat modes.

#### Length-Frequency Data

Length-frequency histograms and tables were generated for select species. Histograms are included for highly abundant species where at least 10 measured fish occurred in the most frequent size interval. Histograms were summarized in either 5-, 10-, or 20-mm intervals. The criteria for assigning summary intervals was based on the largest recorded size for the species as reported in Miller and Lea (1972). Fish reported from 0 to 12 inches used 5-mm, greater than 12 to 24 inches used 10-mm and greater than 24 inches were assigned 20-mm intervals.

Length-frequency tables (see Appendix A) were generated for all species with at least five measured fish for any given area, mode, and gear. Tables were summarized in 5-mm intervals and include length statistics for possible use in ANOVA computations (Sokal and Rohlf, 1969).

#### Species Names and Length-Weight Parameters

Total length was recorded for all species except tuna-like fishes with rigid concave caudal fins; for these fork lengths were used. Weights were not actually measured; rather, they were determined, for all major species taken, from precalculated length-weight relationships. The exponential relationship used was  $W=aL^b$ ; where a and b are constants unique to each species (Appendix B).

Throughout this quarter, samplers working from San Mateo through Sonoma counties (area 3 and sub-area 097) inadvertently recorded fork lengths for all species measured. All species with moderately convex to concave caudal fins were converted back to total length using fork-total length relationships from several sources (Echeverria and Lenarz 1986, Karpov In press, and Van Hying 1951). The linear relationship used was  $TL=a+b(FL)$ ; where a and b are constants unique to each species (Appendix C).

Scientific and common names used were standardized using the American Fisheries Society list (1980).

Table 1. Sampled Effort, Ranked Catch and CPUE for Area 1 in 1982 for Quarter 2, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted	=	16
Total Hours Effort for Anglers Intercepted	=	49.5
Total Hours Still to Fish (Incomplete Trips)	=	0.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Seaperch, Striped	1	46	73.0
Seaperch, White	2	12	19.0
Perch, Pile	3	4	6.3
Jacksmelt	4	1	1.6
Total		63	100

C. CPUE

Catch per Angler Day = 3.94      Catch per Angler Hour = 1.27



Table 2. Sampled Effort, Ranked Catch and CPUE for Area 1 in 1982 for Quarter 2, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

## A. Sampled Effort

Number Anglers Intercepted	=	16
Total Hours Effort for Anglers Intercepted	=	49.5
Total Hours Still to Fish (Incomplete Trips)	=	0.0

## B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Seaperch, Striped	1	25	71.4	0.40	10.05
Seaperch, White	2	5	14.3	0.23	1.17
Perch, Pile	3	4	11.4	0.77	3.07
Jacksmelt	4	1	2.9	0.41	0.41
Total		35	100		14.69

## C. CPUE

Catch per Angler Day	=	2.19	Catch per Angler Hour	=	0.71
Kg per Angler Day	=	0.92	Kg per Angler Hour	=	0.30

\* Weight estimated from length-to-weight regression if available.

Table 3. Sampled Effort, Ranked Catch and CPUE for Area 1 in 1982 for Quarter 2, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 16  
 Total Hours Effort for Anglers Intercepted = 49.5  
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Seaperch, Striped	1	10.05	25	71.4	25	0.40	290	19
Perch, Pile	2	3.07	4	11.4	4	0.77	355	46
Seaperch, White	3	1.17	5	14.3	5	0.23	265	33
Jacksmelt	4	0.41	1	2.9	1	0.41	370	0
Total		14.69	35	100	35			

C. CPUE\*\*\*

Catch per Angler Day = 2.19      Catch per Angler Hour = 0.71  
 Kg per Angler Day = 0.92      Kg per Angler Hour = 0.30

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).

Table 4. Sampled Effort, Ranked Catch and CPUE for Area 1 in 1982 for Quarter 2, by Jetty or Breakwater Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted = 199  
 Total Hours Effort for Anglers Intercepted = 560.0  
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Rockfish, Black	1	57	27.9
Greenling, Kelp	2	48	23.5
Seaperch, Striped	3	44	21.6
Lingcod	4	23	11.3
Cabezon	5	11	5.4
Rockfish, Blue	6	5	2.5
Rockfish, Copper	7	4	2.0
Surfperch, Redtail	8	4	2.0
Rockfish, Grass	9	2	1.0
Thornyhead, Shortspine	10	1	0.5
Greenling, Rock	11	1	0.5
Sculpins	12	1	0.5
Perch, Pile	13	1	0.5
Surfperch, Calico	14	1	0.5
Prickleback, Monkeyface	15	1	0.5
Total		204	100

C. CPUE

Catch per Angler Day = 1.03      Catch per Angler Hour = 0.36

Table 5. Sampled Effort, Ranked Catch and CPUE for Area 1 in 1982 for Quarter 2, by Jetty or Breakwater Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

## A. Sampled Effort

Number Anglers Intercepted	=	199
Total Hours Effort for Anglers Intercepted	=	560.0
Total Hours Still to Fish (Incomplete Trips)	=	0.0

## B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Seaperch, Striped	1	37	26.4	0.37	13.69
Greenling, Kelp	2	34	24.3	0.40	13.49
Rockfish, Black	3	30	21.4	0.79	23.57
Lingcod	4	16	11.4	2.87	45.94
Cabezon	5	7	5.0	0.81	5.70
Rockfish, Blue	6	5	3.6	0.29	1.45
Rockfish, Copper	7	3	2.1	1.81	5.43
Surfperch, Redtail	8	3	2.1	0.37	1.12
Rockfish, Grass	9	2	1.4	1.51	3.02
Thornyhead, Shortspine	10	1	0.7	1.59	1.59
Perch, Pile	11	1	0.7	0.50	0.50
Surfperch, Calico	12	1	0.7	0.27	0.27
Total		140	100		115.79

## C. CPUE

Catch per Angler Day	=	0.70	Catch per Angler Hour	=	0.25
Kg per Angler Day	=	0.58	Kg per Angler Hour	=	0.21

\* Weight estimated from length-to-weight regression if available.

Table 6. Sampled Effort, Ranked Catch and CPUE for Area 1 in 1982 for Quarter 2, by Jetty or Breakwater Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

## A. Sampled Effort

Number Anglers Intercepted = 199  
 Total Hours Effort for Anglers Intercepted = 560.0  
 Total Hours Still to Fish (Incomplete Trips) = 0.0

## B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Lingcod	1	45.94	16	12.4	16	2.87	636	64
Rockfish, Black	2	23.57	30	23.3	30	0.79	358	78
Seaperch, Striped	3	13.32	36	27.9	36	0.37	280	32
Greenling, Kelp	4	9.92	25	19.4	25	0.40	296	52
Rockfish, Copper	5	5.43	3	2.3	3	1.81	456	64
Cabazon	6	4.89	6	4.7	6	0.81	359	50
Rockfish, Grass	7	3.02	2	1.6	2	1.51	394	68
Thornyhead, Shortspine	8	1.59	1	0.8	1	1.59	426	0
Rockfish, Blue	9	1.45	5	3.9	5	0.29	265	28
Surfperch, Redtail	10	1.12	3	2.3	3	0.37	280	20
Perch, Pile	11	0.50	1	0.8	1	0.50	312	0
Surfperch, Calico	12	0.27	1	0.8	1	0.27	255	0
Total		111.03	129	100	129			

## C. CPUE\*\*\*

Catch per Angler Day = 0.65      Catch per Angler Hour = 0.23  
 Kg per Angler Day = 0.56      Kg per Angler Hour = 0.20

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).

Table 7. Sampled Effort, Ranked Catch and CPUE for Area 1 in 1982 for Quarter 2, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted = 208  
 Total Hours Effort for Anglers Intercepted = 549.0  
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Surfperch, Redtail	1	72	32.0
Rockfish, Black	2	34	15.1
Prickleback, Monkeyface	3	26	11.6
Lingcod	4	21	9.3
Cabazon	5	21	9.3
Greenling, Kelp	6	16	7.1
Seaperch, Striped	7	16	7.1
Sculpins	8	7	3.1
Prickleback, Rock	9	5	2.2
Greenling, Rock	10	4	1.8
Smelt, Surf	11	1	0.4
Tomcod, Pacific	12	1	0.4
Rockfish, Grass	13	1	0.4
Total		225	100

C. CPUE

Catch per Angler Day = 1.08      Catch per Angler Hour = 0.41

Table 8. Sampled Effort, Ranked Catch and GPUE for Area 1 in 1982 for Quarter 2, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

#### A. Sampled Effort

Number Anglers Intercepted	=	208
Total Hours Effort for Anglers Intercepted	=	549.0
Total Hours Still to Fish (Incomplete Trips)	=	0.0

#### B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Surfperch, Redtail	1	62	36.3	0.55	34.24
Rockfish, Black	2	34	19.9	1.26	42.89
Prickleback, Monkeyface	3	25	14.6	0.00**	0.00
Seaperch, Striped	4	15	8.8	0.51	7.63
Lingcod	5	14	8.2	4.13	57.78
Greenling, Kelp	6	10	5.8	0.51	5.10
Cabezon	7	8	4.7	1.11	8.89
Smelt, Surf	8	1	0.6	0.06	0.06
Tomcod, Pacific	9	1	0.6	0.13	0.13
Prickleback, Rock	10	1	0.6	0.00**	0.00
Total		171	100		156.72

#### C. CPUE

Catch per Angler Day	=	0.82	Catch per Angler Hour	=	0.31
Kg per Angler Day	=	0.75	Kg per Angler Hour	=	0.29

\* Weight estimated from length-to-weight regression if available.

\*\* Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 9. Sampled Effort, Ranked Catch and CPUE for Area 1 in 1982 for Quarter 2, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

## A. Sampled Effort

Number Anglers Intercepted = 208  
 Total Hours Effort for Anglers Intercepted = 549.0  
 Total Hours Still to Fish (Incomplete Trips) = 0.0

## B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Lingcod	1	57.78	14	8.2	14	4.13	718	73
Rockfish, Black	2	42.89	34	20.0	34	1.26	431	62
Surfperch, Redtail	3	34.24	62	36.5	62	0.55	309	47
Cabazon	4	8.89	8	4.7	8	1.11	368	138
Seaperch, Striped	5	7.63	15	8.8	15	0.51	313	26
Greenling, Kelp	6	4.59	9	5.3	9	0.51	320	67
Tomcod, Pacific	7	0.13	1	0.6	1	0.13	252	0
Smelt, Surf	8	0.06	1	0.6	1	0.06	203	0
Prickleback, Rock	9	0.00	1	0.6	1	0.00	415	0
Prickleback, Monkeyface	10	0.00	25	14.7	25	0.00	484	87
Total		156.21	170	100	170			

## C. CPUE\*\*\*

Catch per Angler Day = 0.82      Catch per Angler Hour = 0.31  
 Kg per Angler Day = 0.75      Kg per Angler Hour = 0.28

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).



Table 10. Sampled Effort, Ranked Catch and CPUE for Area 1 in 1982 for Quarter 2, by Beach or Bank Anglers Using Shore Net Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted = 25  
 Total Hours Effort for Anglers Intercepted = 39.1  
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Smelt, Surf	1	1571	%100.0
Total		1571	100

C. CPUE

Catch per Angler Day = 62.84      Catch per Angler Hour = 40.22

Table 11. Sampled Effort, Ranked Catch and CPUE for Area 1 in 1982 for Quarter 2, by Beach or Bank Anglers Using Shore Net Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 25  
 Total Hours Effort for Anglers Intercepted = 39.1  
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Smelt, Surf	1	1571	%100.0	0.04	58.94
Total		1571	100		58.94

C. CPUE

Catch per Angler Day = 62.84      Catch per Angler Hour = 40.22  
 Kg per Angler Day = 2.36      Kg per Angler Hour = 1.51

\* Weight estimated from length-to-weight regression if available.

Table 12. Sampled Effort, Ranked Catch and CPUE for Area 1 in 1982 for Quarter 2, by Beach or Bank Anglers Using Shore Net Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 25  
 Total Hours Effort for Anglers Intercepted = 39.1  
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Smelt, Surf	1	58.94	1571	%100.0	50	0.04	179	10
Total		58.94	1571	100	50			

C. CPUE\*\*\*

Catch per Angler Day = 62.84      Catch per Angler Hour = 40.22  
 Kg per Angler Day = 2.36      Kg per Angler Hour = 1.51

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).

Table 13. Sampled Effort, Ranked Catch and CPUE for Area 1  
in 1982 for Quarter 2, by Private or Rental Boat Anglers Using  
Hook-and-Line Gear. Catch Represents All Fish Captured,  
Both Kept and Returned.

## A. Sampled Effort

Number Anglers Intercepted	=	60
Total Hours Effort for Anglers Intercepted	=	255.0
Total Hours Still to Fish (Incomplete Trips)	=	0.0

## B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Rockfish, Black	1	172	61.4
Rockfish, Canary	2	28	10.0
Lingcod	3	17	6.1
Rockfish, Blue	4	16	5.7
Seaperch, White	5	12	4.3
Sanddab, Pacific	6	12	4.3
Rockfish, Copper	7	6	2.1
Greenling, Kelp	8	4	1.4
Rockfish, Yellowtail	9	2	0.7
Irish Lord, Red	10	2	0.7
Skates	11	1	0.4
Rockfish, Vermilion	12	1	0.4
Rockfish, China	13	1	0.4
Rockfish, Yelloweye	14	1	0.4
Rockfish, Grass	15	1	0.4
Cabazon	16	1	0.4
Perch, Pile	17	1	0.4
Flounders, Righteye	18	1	0.4
Sole, Rex	19	1	0.4
Total		280	100

## C. CPUE

Catch per Angler Day = 4.67      Catch per Angler Hour = 1.10

Table 14. Sampled Effort, Ranked Catch and CPUE for Area 1 in 1982 for Quarter 2, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

#### A. Sampled Effort

Number Anglers Intercepted	=	60
Total Hours Effort for Anglers Intercepted	=	255.0
Total Hours Still to Fish (Incomplete Trips)	=	0.0

#### B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Rockfish, Black	1	152	61.0	1.31	199.45
Rockfish, Canary	2	24	9.6	0.71	17.13
Rockfish, Blue	3	16	6.4	0.82	13.19
Lingcod	4	13	5.2	3.87	50.33
Seaperch, White	5	12	4.8	0.28	3.32
Sanddab, Pacific	6	11	4.4	0.14	1.49
Rockfish, Copper	7	6	2.4	2.53	15.17
Greenling, Kelp	8	4	1.6	0.77	3.10
Rockfish, Yellowtail	9	2	0.8	0.69	1.38
Irish Lord, Red	10	2	0.8	0.00**	0.00
Rockfish, Vermilion	11	1	0.4	4.02	4.02
Rockfish, China	12	1	0.4	0.73	0.73
Rockfish, Yelloweye	13	1	0.4	1.91	1.91
Rockfish, Grass	14	1	0.4	1.76	1.76
Cabazon	15	1	0.4	1.92	1.92
Perch, Pile	16	1	0.4	0.74	0.74
Sole, Rex	17	1	0.4	0.33	0.33
Total		249	100		315.97

#### C. CPUE

Catch per Angler Day	=	4.15	Catch per Angler Hour	=	0.98
Kg per Angler Day	=	5.27	Kg per Angler Hour	=	1.24

\* Weight estimated from length-to-weight regression if available.

\*\* Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 15. Sampled Effort, Ranked Catch and CPUE for Area 1 in 1982 for Quarter 2, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

## A. Sampled Effort

Number Anglers Intercepted = 60  
 Total Hours Effort for Anglers Intercepted = 255.0  
 Total Hours Still to Fish (Incomplete Trips) = 0.0

## B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Rockfish, Black	1	198.13	151	61.4	77	1.31	435	69
Lingcod	2	50.33	13	5.3	13	3.87	699	92
Rockfish, Canary	3	17.13	24	9.8	20	0.71	360	47
Rockfish, Copper	4	15.17	6	2.4	6	2.53	514	30
Rockfish, Blue	5	13.19	16	6.5	16	0.82	370	61
Rockfish, Vermilion	6	4.02	1	0.4	1	4.02	636	0
Seaperch, White	7	3.32	12	4.9	10	0.28	278	47
Greenling, Kelp	8	3.10	4	1.6	4	0.77	382	25
Cabezón	9	1.92	1	0.4	1	1.92	498	0
Rockfish, Yelloweye	10	1.91	1	0.4	1	1.91	469	0
Rockfish, Grass	11	1.76	1	0.4	1	1.76	420	0
Sanddab, Pacific	12	1.49	11	4.5	10	0.14	227	33
Rockfish, Yellowtail	13	1.38	2	0.8	2	0.69	354	87
Perch, Pile	14	0.74	1	0.4	1	0.74	355	0
Rockfish, China	15	0.73	1	0.4	1	0.73	340	0
Sole, Rex	16	0.33	1	0.4	1	0.33	372	0
Total		314.65	246	100	165			

## C. CPUE\*\*\*

Catch per Angler Day = 4.10      Catch per Angler Hour = 0.96  
 Kg per Angler Day = 5.24      Kg per Angler Hour = 1.23

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).

Table 16. Sampled Effort, Ranked Catch and CPUE for Area 1 in 1982 for Quarter 2, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted = 11  
 Total Hours Effort for Anglers Intercepted = 88.0  
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Rockfish, Black	1	6	85.7
Lingcod	2	1	14.3
Total		7	100

C. CPUE

Catch per Angler Day = 0.64      Catch per Angler Hour = 0.08

Table 17. Sampled Effort, Ranked Catch and CPUE for Area 1 in 1982 for Quarter 2, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 11  
 Total Hours Effort for Anglers Intercepted = 88.0  
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Rockfish, Black	1	6	85.7	1.16	6.97
Lingcod	2	1	14.3	2.88	2.88
Total		7	100		9.86

C. CPUE

Catch per Angler Day = 0.64      Catch per Angler Hour = 0.08  
 Kg per Angler Day = 0.90      Kg per Angler Hour = 0.11

\* Weight estimated from length-to-weight regression if available.



Table 18. Sampled Effort, Ranked Catch and CPUE for Area 1 in 1982 for Quarter 2, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

## A. Sampled Effort

Number Anglers Intercepted = 11  
 Total Hours Effort for Anglers Intercepted = 88.0  
 Total Hours Still to Fish (Incomplete Trips) = 0.0

## B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Rockfish, Black	1	5.81	5	83.3	5	1.16	419	63
Lingcod	2	2.88	1	16.7	1	2.88	643	0
Total		8.69	6	100	6			

## C. CPUE\*\*\*

Catch per Angler Day = 0.55      Catch per Angler Hour = 0.07  
 Kg per Angler Day = 0.79      Kg per Angler Hour = 0.10

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).

Figure 2. Length-Frequency Histogram for Surf Smelt  
 Taken by Beach and Bank Anglers Using Shore Net Gear.  
 Area 1, Quarter 2, 1982.

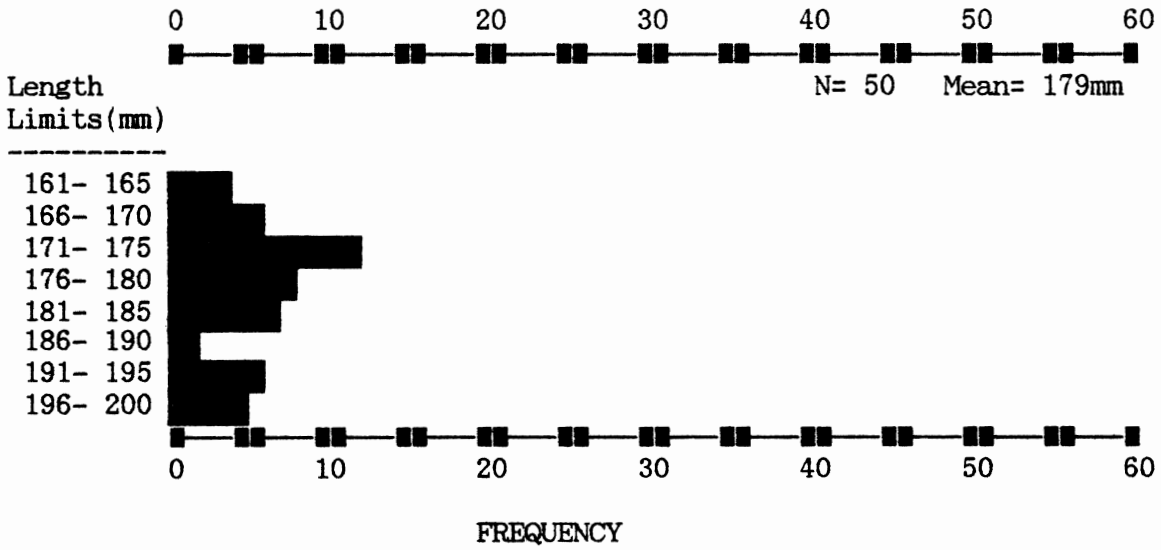


Table 19. Sampled Effort, Ranked Catch and CPUE for Area 2 in 1982 for Quarter 2, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted	=	31
Total Hours Effort for Anglers Intercepted	=	72.0
Total Hours Still to Fish (Incomplete Trips)	=	4.5

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Herring, Pacific	1	244	87.1
Trouts	2	13	4.6
Surfperch, Walleye	3	11	3.9
Surfperches	4	4	1.4
Perch, Shiner	5	3	1.1
Jacksmelt	6	1	0.4
Rockfish, Grass	7	1	0.4
Sculpin, Pacific Staghorn	8	1	0.4
Seaperch, Sharpnose	9	1	0.4
Sanddab, Pacific	10	1	0.4
Total		280	100

C. CPUE

Catch per Angler Day = 9.03      Catch per Angler Hour = 3.89

Table 20. Sampled Effort, Ranked Catch and CPUE for Area 2 in 1982 for Quarter 2, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted	=	31
Total Hours Effort for Anglers Intercepted	=	72.0
Total Hours Still to Fish (Incomplete Trips)	=	4.5

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Herring, Pacific	1	244	93.8	0.12	28.30
Surfperch, Walleye	2	11	4.2	0.21	2.35
Trouts	3	1	0.4	0.00**	0.00
Rockfish, Grass	4	1	0.4	0.82	0.82
Perch, Shiner	5	1	0.4	0.04	0.04
Seaperch, Sharpnose	6	1	0.4	0.35	0.35
Sanddab, Pacific	7	1	0.4	0.00**	0.00
Total		260	100		31.86

C. CPUE

Catch per Angler Day	=	8.39	Catch per Angler Hour	=	3.61
Kg per Angler Day	=	1.03	Kg per Angler Hour	=	0.44

\* Weight estimated from length-to-weight regression if available.

\*\* Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 21. Sampled Effort, Ranked Catch and CPUE for Area 2 in 1982 for Quarter 2, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

## A. Sampled Effort

Number Anglers Intercepted	=	31
Total Hours Effort for Anglers Intercepted	=	72.0
Total Hours Still to Fish (Incomplete Trips)	=	4.5

## B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Herring, Pacific	1	28.30	244	94.2	108	0.12	215	28
Surfperch, Walleye	2	2.35	11	4.2	5	0.21	227	25
Rockfish, Grass	3	0.82	1	0.4	1	0.82	331	0
Seaperch, Sharpnose	4	0.35	1	0.4	1	0.35	306	0
Perch, Shiner	5	0.04	1	0.4	1	0.04	142	0
Trouts	6	0.00	1	0.4	0	0.00	0	0
Total		31.86	259	100	116			

## C. CPUE\*\*\*

Catch per Angler Day	=	8.35	Catch per Angler Hour	=	3.60
Kg per Angler Day	=	1.03	Kg per Angler Hour	=	0.44

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).

Table 22. Sampled Effort, Ranked Catch and CPUE for Area 2 in 1982 for Quarter 2, by Jetty or Breakwater Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted	=	50
Total Hours Effort for Anglers Intercepted	=	115.5
Total Hours Still to Fish (Incomplete Trips)	=	20.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Rockfish, Grass	1	8	19.5
Surfperch, Redtail	2	7	17.1
Surfperches	3	6	14.6
Rockfishes (unidentified)	4	4	9.8
Sole, Sand	5	4	9.8
Lingcod	6	2	4.9
Sculpin, Pacific Staghorn	7	2	4.9
Seaperch, Striped	8	2	4.9
Sole, Rock	9	2	4.9
Sculpins	10	1	2.4
Cabezon	11	1	2.4
Seaperch, White	12	1	2.4
Flounder, Starry	13	1	2.4
Total		41	100

C. CPUE

Catch per Angler Day = 0.82      Catch per Angler Hour = 0.35

Table 23. Sampled Effort, Ranked Catch and CPUE for Area 2 in 1982 for Quarter 2, by Jetty or Breakwater Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

#### A. Sampled Effort

Number Anglers Intercepted	=	50
Total Hours Effort for Anglers Intercepted	=	115.5
Total Hours Still to Fish (Incomplete Trips)	=	20.0

#### B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Rockfish, Grass	1	8	32.0	0.63	5.06
Surfperch, Redtail	2	5	20.0	0.62	3.09
Sole, Sand	3	4	16.0	0.05	0.20
Seaperch, Striped	4	2	8.0	0.32	0.65
Sole, Rock	5	2	8.0	0.05	0.11
Lingcod	6	1	4.0	1.38	1.38
Sculpin, Pacific Staghorn	7	1	4.0	0.00**	0.00
Seaperch, White	8	1	4.0	0.20	0.20
Flounder, Starry	9	1	4.0	0.22	0.22
Total		25	100		10.89

#### C. CPUE

Catch per Angler Day	=	0.50	Catch per Angler Hour	=	0.22
Kg per Angler Day	=	0.22	Kg per Angler Hour	=	0.09

\* Weight estimated from length-to-weight regression if available.

\*\* Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 24. Sampled Effort, Ranked Catch and CPUE for Area 2 in 1982 for Quarter 2, by Jetty or Breakwater Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

## A. Sampled Effort

Number Anglers Intercepted = 50  
 Total Hours Effort for Anglers Intercepted = 115.5  
 Total Hours Still to Fish (Incomplete Trips) = 20.0

## B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Rockfish, Grass	1	5.06	8	34.8	8	0.63	292	68
Surfperch, Redtail	2	3.09	5	21.7	5	0.62	324	36
Lingcod	3	1.38	1	4.3	1	1.38	502	0
Seaperch, Striped	4	0.65	2	8.7	2	0.32	266	51
Flounder, Starry	5	0.22	1	4.3	1	0.22	271	0
Seaperch, White	6	0.20	1	4.3	1	0.20	253	0
Sole, Sand	7	0.15	3	13.0	3	0.05	166	19
Sole, Rock	8	0.11	2	8.7	2	0.05	163	18
Total		10.84	23	100	23			

## C. CPUE\*\*\*

Catch per Angler Day = 0.46      Catch per Angler Hour = 0.20  
 Kg per Angler Day = 0.22      Kg per Angler Hour = 0.09

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).



Table 25. Sampled Effort, Ranked Catch and CPUE for Area 2 in 1982 for Quarter 2, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

## A. Sampled Effort

Number Anglers Intercepted	=	114
Total Hours Effort for Anglers Intercepted	=	295.2
Total Hours Still to Fish (Incomplete Trips)	=	29.5

## B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Herring, Pacific	1	17	16.3
Greenling, Kelp	2	15	14.4
Seaperch, Striped	3	14	13.5
Rockfishes (unidentified)	4	11	10.6
Cabezon	5	10	9.6
Surfperch, Redtail	6	8	7.7
Greenling, Rock	7	6	5.8
Perch, Shiner	8	6	5.8
Rockfish, Blue	9	4	3.8
Unidentified Fishes	10	2	1.9
Greenlings (unidentified)	11	2	1.9
Lingcod	12	2	1.9
Surfperch, Silver	13	2	1.9
Sculpins	14	1	1.0
Sculpin, Buffalo	15	1	1.0
Seaperch, White	16	1	1.0
Prickleback, Monkeyface	17	1	1.0
Sanddab, Speckled	18	1	1.0
Total		104	100

## C. CPUE

Catch per Angler Day = 0.91      Catch per Angler Hour = 0.35

Table 26. Sampled Effort, Ranked Catch and CPUE for Area 2 in 1982 for Quarter 2, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

#### A. Sampled Effort

Number Anglers Intercepted = 114  
 Total Hours Effort for Anglers Intercepted = 295.2  
 Total Hours Still to Fish (Incomplete Trips) = 29.5

#### B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Herring, Pacific	1	17	18.9	0.12	2.08
Greenling, Kelp	2	14	15.6	0.43	5.98
Seaperch, Striped	3	14	15.6	0.45	6.27
Rockfishes (unidentified)	4	10	11.1	0.43**	4.30
Cabezon	5	10	11.1	1.53	15.29
Surfperch, Redtail	6	8	8.9	0.31	2.45
Greenling, Rock	7	6	6.7	0.30	1.83
Rockfish, Blue	8	4	4.4	0.43	1.70
Surfperch, Silver	9	2	2.2	0.08	0.16
Greenlings (unidentified)	10	1	1.1	0.39**	0.39
Lingcod	11	1	1.1	0.00**	0.00
Sculpin, Buffalo	12	1	1.1	0.28	0.28
Seaperch, White	13	1	1.1	0.33	0.33
Sanddab, Speckled	14	1	1.1	0.05	0.05
Total		90	100		41.10

#### C. CPUE

Catch per Angler Day = 0.79      Catch per Angler Hour = 0.30  
 Kg per Angler Day = 0.36      Kg per Angler Hour = 0.14

\* Weight estimated from length-to-weight regression if available.

\*\* Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 27. Sampled Effort, Ranked Catch and CPUE for Area 2 in 1982 for Quarter 2, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

### A. Sampled Effort

Number Anglers Intercepted = 114  
 Total Hours Effort for Anglers Intercepted = 295.2  
 Total Hours Still to Fish (Incomplete Trips) = 29.5

### B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Cabezon	1	12.23	8	11.6	8	1.53	429	130
Seaperch, Striped	2	6.27	14	20.3	14	0.45	298	36
Greenling, Kelp	3	5.55	13	18.8	13	0.43	296	73
Herring, Pacific	4	2.08	17	24.6	10	0.12	220	25
Greenling, Rock	5	1.83	6	8.7	6	0.30	270	50
Surfperch, Redtail	6	1.22	4	5.8	4	0.31	261	28
Rockfish, Blue	7	0.85	2	2.9	2	0.43	304	1
Seaperch, White	8	0.33	1	1.4	1	0.33	302	0
Sculpin, Buffalo	9	0.28	1	1.4	1	0.28	303	0
Surfperch, Silver	10	0.16	2	2.9	2	0.08	174	3
Sanddab, Speckled	11	0.05	1	1.4	1	0.05	159	0
Total		30.85	69	100	62			

### C. CPUE\*\*\*

Catch per Angler Day = 0.61      Catch per Angler Hour = 0.23  
 Kg per Angler Day = 0.27      Kg per Angler Hour = 0.10

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).

Table 28. Sampled Effort, Ranked Catch and CPUE for Area 2 in 1982 for Quarter 2, by Beach or Bank Anglers Using Shore Net Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted = 20  
 Total Hours Effort for Anglers Intercepted = 95.0  
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Smelt, Surf	1	1011	%100.0
Total		1011	100

C. CPUE

Catch per Angler Day = 50.55      Catch per Angler Hour = 10.64

Table 29. Sampled Effort, Ranked Catch and CPUE for Area 2 in 1982 for Quarter 2, by Beach or Bank Anglers Using Shore Net Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 20  
 Total Hours Effort for Anglers Intercepted = 95.0  
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Smelt, Surf	1	1011	%100.0	0.04	41.03
Total		1011	100		41.03

C. CPUE

Catch per Angler Day = 50.55      Catch per Angler Hour = 10.64  
 Kg per Angler Day = 2.05      Kg per Angler Hour = 0.43

\* Weight estimated from length-to-weight regression if available.

Table 30. Sampled Effort, Ranked Catch and CPUE for Area 2 in 1982 for Quarter 2, by Beach or Bank Anglers Using Shore Net Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted	=	20
Total Hours Effort for Anglers Intercepted	=	95.0
Total Hours Still to Fish (Incomplete Trips)	=	0.0

B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	!---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Smelt, Surf	1	33.48	825	%100.0	109	0.04	183	10
Total		33.48	825	100	109			

C. CPUE\*\*\*

Catch per Angler Day	=	41.25	Catch per Angler Hour	=	8.68
Kg per Angler Day	=	1.67	Kg per Angler Hour	=	0.35

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).

Table 31. Sampled Effort, Ranked Catch and CPUE for Area 2 in 1982 for Quarter 2, by Beach or Bank Anglers Using Spear Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted	=	43
Total Hours Effort for Anglers Intercepted	=	60.5
Total Hours Still to Fish (Incomplete Trips)	=	0.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Seaperch, Striped	1	25	29.8
Rockfish, Blue	2	23	27.4
Rockfish, Black	3	6	7.1
Cabazon	4	6	7.1
Greenling, Kelp	5	5	6.0
Perch, Pile	6	4	4.8
Rockfishes (unidentified)	7	3	3.6
Lingcod	8	3	3.6
Seaperch, Rubberlip	9	3	3.6
Rockfish, Grass	10	2	2.4
Greenlings (unidentified)	11	2	2.4
Greenling, Rock	12	2	2.4
Total		84	100

C. CPUE

Catch per Angler Day = 1.95      Catch per Angler Hour = 1.39

Table 32. Sampled Effort, Ranked Catch and CPUE for Area 2 in 1982 for Quarter 2, by Beach or Bank Anglers Using Spear Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted	=	43
Total Hours Effort for Anglers Intercepted	=	60.5
Total Hours Still to Fish (Incomplete Trips)	=	0.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Seaperch, Striped	1	25	30.1	0.47	11.63
Rockfish, Blue	2	23	27.7	0.48	11.10
Rockfish, Black	3	6	7.2	0.63	3.80
Cabazon	4	6	7.2	1.23	7.39
Greenling, Kelp	5	5	6.0	0.53	2.64
Perch, Pile	6	4	4.8	0.74	2.97
Rockfishes (unidentified)	7	3	3.6	0.56**	1.68
Seaperch, Rubberlip	8	3	3.6	0.96	2.89
Rockfish, Grass	9	2	2.4	1.29	2.59
Greenlings (unidentified)	10	2	2.4	0.77**	1.54
Greenling, Rock	11	2	2.4	0.53	1.05
Lingcod	12	2	2.4	1.64	3.28
Total		83	100		52.55

C. CPUE

Catch per Angler Day	=	1.93	Catch per Angler Hour	=	1.37
Kg per Angler Day	=	1.22	Kg per Angler Hour	=	0.87

\* Weight estimated from length-to-weight regression if available.

\*\* Mean weight for this group was not calculated or was estimated from other sources (see text).



Table 33. Sampled Effort, Ranked Catch and CPUE for Area 2 in 1982 for Quarter 2, by Beach or Bank Anglers Using Spear Gear. Catch Represents Only the Fish Examined by the Sampler.

## A. Sampled Effort

Number Anglers Intercepted = 43  
 Total Hours Effort for Anglers Intercepted = 60.5  
 Total Hours Still to Fish (Incomplete Trips) = 0.0

## B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Seaperch, Striped	1	11.63	25	42.4	21	0.47	304	19
Cabezon	2	6.16	5	8.5	5	1.23	420	43
Rockfish, Black	3	3.80	6	10.2	6	0.63	344	38
Lingcod	4	3.28	2	3.4	2	1.64	533	1
Perch, Pile	5	2.97	4	6.8	4	0.74	348	58
Seaperch, Rubberlip	6	2.89	3	5.1	3	0.96	372	2
Greenling, Kelp	7	2.64	5	8.5	5	0.53	334	31
Rockfish, Grass	8	2.59	2	3.4	2	1.29	368	98
Rockfish, Blue	9	1.45	3	5.1	3	0.48	312	46
Greenling, Rock	10	1.05	2	3.4	2	0.53	330	59
Greenlings (unidentified)	11	0.00	2	3.4	0	0.00	0	0
Total		38.45	59	100	53			

## C. CPUE\*\*\*

Catch per Angler Day = 1.37      Catch per Angler Hour = 0.98  
 Kg per Angler Day = 0.89      Kg per Angler Hour = 0.64

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).

Figure 3. Length-Frequency Histogram for Pacific Herring  
 Taken by Pier or Dock Anglers Using Hook-and-Line Gear.  
 Area 2, Quarter 2, 1982.

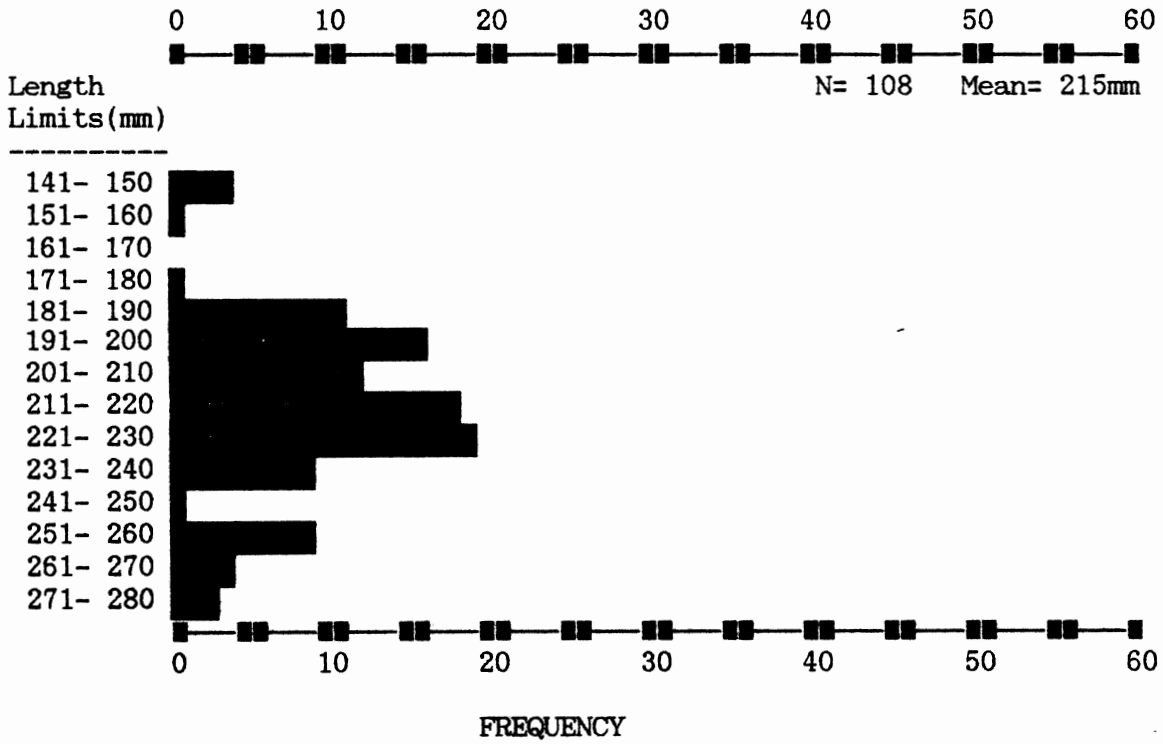


Figure 4. Length-Frequency Histogram for Surf Smelt  
 Taken by Beach and Bank Anglers Using Shore Net Gear.  
 Area 2, Quarter 2, 1982.

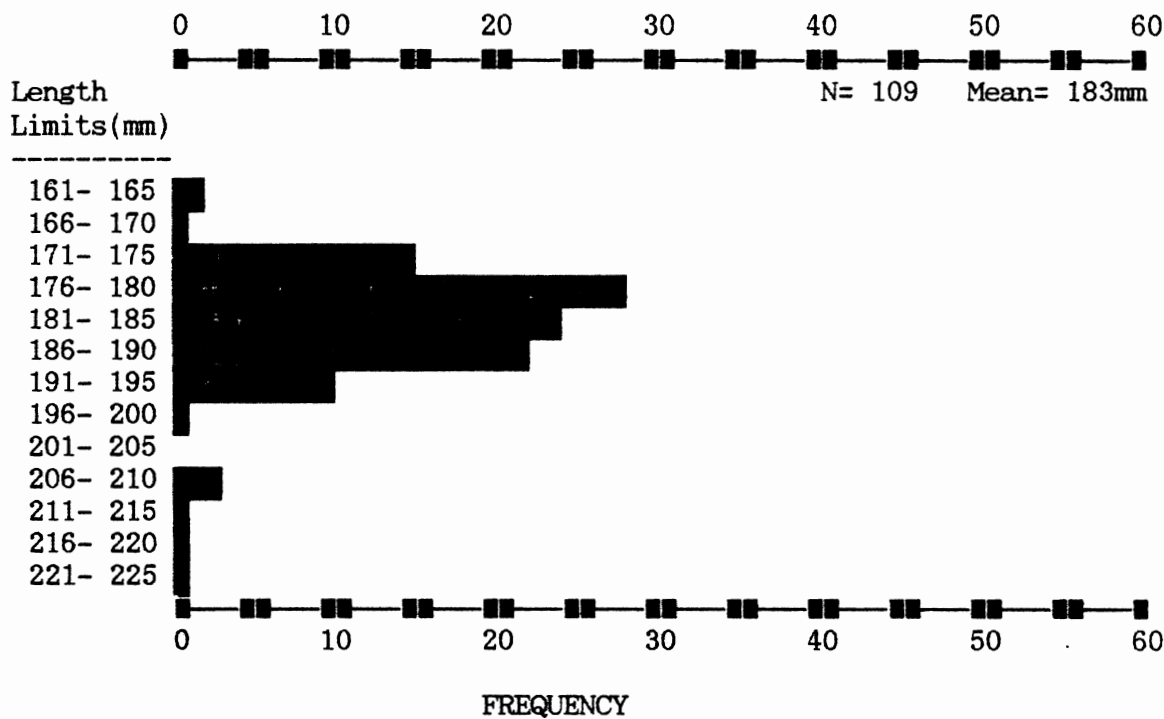


Table 34. Sampled Effort, Ranked Catch and CPUE for Area 045 in 1982 for Quarter 2, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

## A. Sampled Effort

Number Anglers Intercepted	=	50
Total Hours Effort for Anglers Intercepted	=	206.0
Total Hours Still to Fish (Incomplete Trips)	=	0.0

## B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Rockfish, Blue	1	23	21.9
Perch, Pile	2	21	20.0
Rockfish, Black	3	13	12.4
Rockfish, Canary	4	10	9.5
Lingcod	5	10	9.5
Perch, Shiner	6	8	7.6
Salmon, Chinook (King)	7	5	4.8
Greenling, Kelp	8	4	3.8
Rockfish, China	9	3	2.9
Salmon	10	2	1.9
Rockfish, Copper	11	1	1.0
Rockfish, Vermilion	12	1	1.0
Rockfish, Rosy	13	1	1.0
Rockfish, Gopher	14	1	1.0
Cabezon	15	1	1.0
Sanddab, Pacific	16	1	1.0
Total		105	100

## C. CPUE

Catch per Angler Day = 2.10      Catch per Angler Hour = 0.51

Table 35. Sampled Effort, Ranked Catch and CPUE for Area 045 in 1982 for Quarter 2, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

## A. Sampled Effort

Number Anglers Intercepted	=	50
Total Hours Effort for Anglers Intercepted	=	206.0
Total Hours Still to Fish (Incomplete Trips)	=	0.0

## B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Rockfish, Blue	1	23	29.5	0.69	15.92
Rockfish, Black	2	13	16.7	0.88	11.50
Rockfish, Canary	3	10	12.8	0.59	5.90
Perch, Shiner	4	8	10.3	0.03	0.25
Lingcod	5	6	7.7	3.97	23.84
Salmon, Chinook (King)	6	5	6.4	4.87	24.37
Greenling, Kelp	7	4	5.1	0.67	2.67
Rockfish, China	8	3	3.8	0.75	2.24
Rockfish, Copper	9	1	1.3	2.48	2.48
Rockfish, Vermilion	10	1	1.3	3.12	3.12
Rockfish, Rosy	11	1	1.3	0.37	0.37
Rockfish, Gopher	12	1	1.3	0.68	0.68
Cabezon	13	1	1.3	1.25	1.25
Sanddab, Pacific	14	1	1.3	0.00**	0.00
Total		78	100		94.57

## C. CPUE

Catch per Angler Day	=	1.56	Catch per Angler Hour	=	0.38
Kg per Angler Day	=	1.89	Kg per Angler Hour	=	0.46

\* Weight estimated from length-to-weight regression if available.

\*\* Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 36. Sampled Effort, Ranked Catch and CPUE for Area 045 in 1982 for Quarter 2, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

## A. Sampled Effort

Number Anglers Intercepted	=	50
Total Hours Effort for Anglers Intercepted	=	206.0
Total Hours Still to Fish (Incomplete Trips)	=	0.0

## B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Lingcod	1	23.84	6	7.9	6	3.97	701	113
Salmon, Chinook (King)	2	19.50	4	5.3	4	4.87	801	33
Rockfish, Blue	3	15.92	23	30.3	14	0.69	349	57
Rockfish, Black	4	11.50	13	17.1	13	0.88	375	78
Rockfish, Canary	5	5.90	10	13.2	10	0.59	334	58
Rockfish, Vermilion	6	3.12	1	1.3	1	3.12	583	0
Greenling, Kelp	7	2.67	4	5.3	4	0.67	361	40
Rockfish, Copper	8	2.48	1	1.3	1	2.48	512	0
Rockfish, China	9	2.24	3	3.9	3	0.75	337	51
Cabezon	10	1.25	1	1.3	1	1.25	425	0
Rockfish, Gopher	11	0.68	1	1.3	1	0.68	350	0
Rockfish, Rosy	12	0.37	1	1.3	1	0.37	282	0
Perch, Shiner	13	0.25	8	10.5	8	0.03	132	12
Total		89.70	76	100	67			

## C. CPUE\*\*\*

Catch per Angler Day	=	1.52	Catch per Angler Hour	=	0.37
Kg per Angler Day	=	1.79	Kg per Angler Hour	=	0.44

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).

Table 37. Sampled Effort, Ranked Catch and CPUE for Area 045 in 1982 for Quarter 2, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

#### A. Sampled Effort

Number Anglers Intercepted	=	22
Total Hours Effort for Anglers Intercepted	=	106.5
Total Hours Still to Fish (Incomplete Trips)	=	0.0

#### B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Rockfish, Yellowtail	1	104	53.3
Bocaccio	2	39	20.0
Rockfish, Canary	3	10	5.1
Rockfish, Yelloweye	4	9	4.6
Rockfish, Black	5	8	4.1
Rockfish, Greenspotted	6	8	4.1
Rockfish, Copper	7	3	1.5
Rockfish, Vermilion	8	3	1.5
Lingcod	9	3	1.5
Rockfish, Quillback	10	2	1.0
Rockfish, Rosy	11	2	1.0
Rockfishes (unidentified)	12	1	0.5
Rockfish, Greenstriped	13	1	0.5
Rockfish, Rosethorn	14	1	0.5
Rockfish, Blue	15	1	0.5
Total		195	100

#### C. CPUE

Catch per Angler Day = 8.86      Catch per Angler Hour = 1.83

Table 38. Sampled Effort, Ranked Catch and CPUE for Area 045 in 1982 for Quarter 2, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

## A. Sampled Effort

Number Anglers Intercepted	=	22
Total Hours Effort for Anglers Intercepted	=	106.5
Total Hours Still to Fish (Incomplete Trips)	=	0.0

## B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Rockfish, Yellowtail	1	104	53.6	1.57	163.75
Bocaccio	2	39	20.1	1.74	68.05
Rockfish, Canary	3	10	5.2	1.07	10.73
Rockfish, Yelloweye	4	9	4.6	3.79	34.09
Rockfish, Black	5	8	4.1	1.11	8.89
Rockfish, Greenspotted	6	8	4.1	1.10	8.77
Rockfish, Copper	7	3	1.5	2.35	7.06
Rockfish, Vermilion	8	3	1.5	2.48	7.43
Lingcod	9	3	1.5	4.60	13.81
Rockfish, Quillback	10	2	1.0	1.87	3.74
Rockfish, Rosy	11	2	1.0	0.38	0.76
Rockfish, Greenstriped	12	1	0.5	0.35	0.35
Rockfish, Rosethorn	13	1	0.5	0.00**	0.00
Rockfish, Blue	14	1	0.5	1.48	1.48
Total		194	100		328.90

## C. CPUE

Catch per Angler Day	=	8.82	Catch per Angler Hour	=	1.82
Kg per Angler Day	=	14.95	Kg per Angler Hour	=	3.09

\* Weight estimated from length-to-weight regression if available.

\*\* Mean weight for this group was not calculated or was estimated from other sources (see text).



Table 39. Sampled Effort; Ranked Catch and CPUE for Area 045 in 1982 for Quarter 2, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

## A. Sampled Effort

Number Anglers Intercepted	=	22
Total Hours Effort for Anglers Intercepted	=	106.5
Total Hours Still to Fish (Incomplete Trips)	=	0.0

## B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Rockfish, Yellowtail	1	163.75	104	53.9	94	1.57	475	36
Bocaccio	2	68.05	39	20.2	39	1.74	543	56
Rockfish, Yelloweye	3	34.09	9	4.7	9	3.79	577	80
Lingcod	4	13.81	3	1.6	3	4.60	742	107
Rockfish, Canary	5	10.73	10	5.2	10	1.07	414	43
Rockfish, Black	6	8.89	8	4.1	8	1.11	416	45
Rockfish, Greenspotted	7	8.77	8	4.1	8	1.10	407	43
Rockfish, Vermilion	8	7.43	3	1.6	3	2.48	536	44
Rockfish, Copper	9	7.06	3	1.6	3	2.35	503	20
Rockfish, Quillback	10	3.74	2	1.0	2	1.87	456	34
Rockfish, Blue	11	1.48	1	0.5	1	1.48	461	0
Rockfish, Rosy	12	0.76	2	1.0	2	0.38	285	18
Rockfish, Greenstriped	13	0.35	1	0.5	1	0.35	311	0
Total		328.90	193	100	183			

## C. CPUE\*\*\*

Catch per Angler Day =	8.77	Catch per Angler Hour =	1.81
Kg per Angler Day =	14.95	Kg per Angler Hour =	3.09

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).

Figure 5. Length-Frequency Histogram for Yellowtail Rockfish Taken by All CPFV Anglers Using Hook-and-Line Gear. Area 045, Quarter 2, 1982.

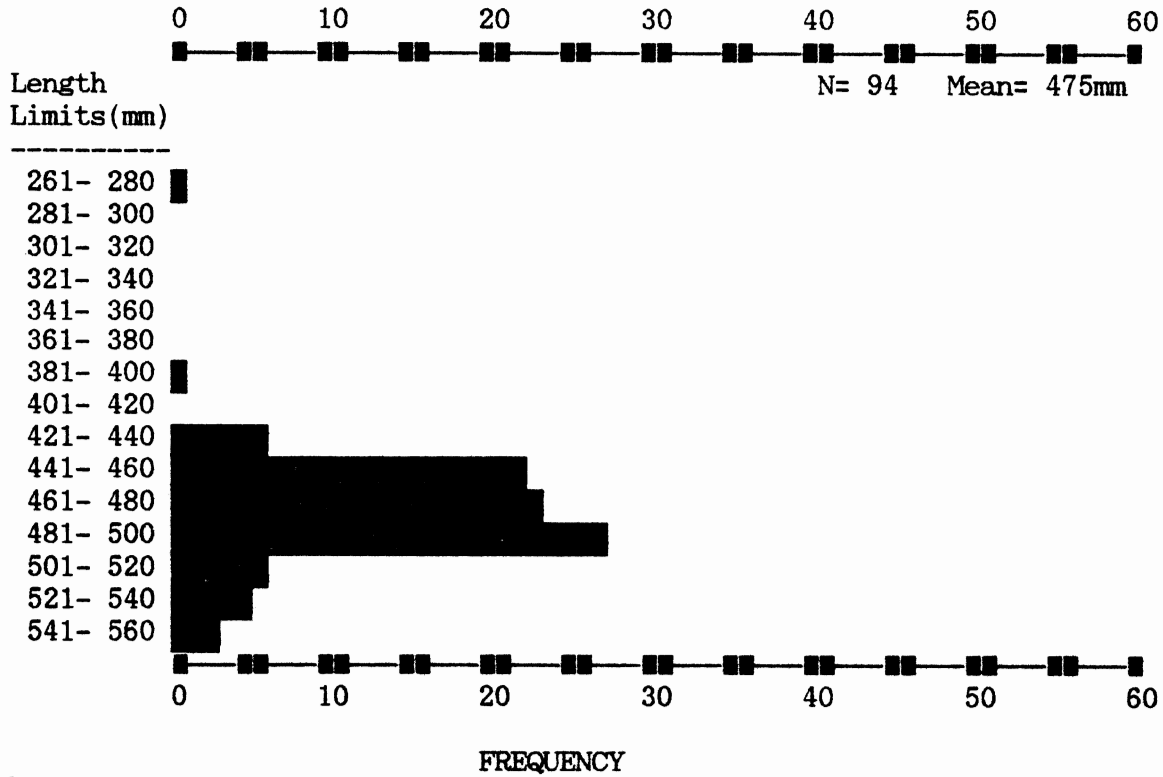


Table 40. Sampled Effort, Ranked Catch and CPUE for Area 097 in 1982 for Quarter 2, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted	=	12
Total Hours Effort for Anglers Intercepted	=	54.5
Total Hours Still to Fish (Incomplete Trips)	=	0.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Rockfishes (unidentified)	1	25	71.4
Lingcod	2	4	11.4
Salmon	3	2	5.7
Salmon, Chinook (King)	4	2	5.7
Sharks	5	1	2.9
Flounder, Starry	6	1	2.9
Total		35	100

C. CPUE

Catch per Angler Day = 2.92      Catch per Angler Hour = 0.64

Table 41. Sampled Effort, Ranked Catch and CPUE for Area 097 in 1982 for Quarter 2, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted	=	12
Total Hours Effort for Anglers Intercepted	=	54.5
Total Hours Still to Fish (Incomplete Trips)	=	0.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt.(kg)*	Weight Caught
Rockfishes (unidentified)	1	25	92.6	0.00**	0.00
Salmon, Chinook (King)	2	2	7.4	3.90	7.80
Total		27	100		7.80

C. CPUE

Catch per Angler Day	=	2.25	Catch per Angler Hour	=	0.50
Kg per Angler Day	=	0.65	Kg per Angler Hour	=	0.14

\* Weight estimated from length-to-weight regression if available.

\*\* Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 42. Sampled Effort, Ranked Catch and CPUE for Area 097 in 1982 for Quarter 2, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 12  
 Total Hours Effort for Anglers Intercepted = 54.5  
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Salmon, Chinook (King)	1	7.80	2	%100.0	2	3.90	744	35
Total		7.80	2	100	2			

C. CPUE\*\*\*

Catch per Angler Day = 0.17      Catch per Angler Hour = 0.04  
 Kg per Angler Day = 0.65      Kg per Angler Hour = 0.14

\* Weight estimated from length-to-weight regression if available.  
 \*\* Total length except for species with tuna-like caudal fins (see text).  
 \*\*\* CPUE is underestimated if all fish taken were not examined (see text).

Table 43. Sampled Effort, Ranked Catch and CPUE for Area 097 in 1982 for Quarter 2, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted = 7  
 Total Hours Effort for Anglers Intercepted = 45.5  
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Rockfish, Canary	1	47	44.8
Unidentified Fishes	2	29	27.6
Rockfish, Copper	3	11	10.5
Rockfishes (unidentified)	4	8	7.6
Rockfish, Brown	5	4	3.8
Lingcod	6	4	3.8
Rockfish, Vermilion	7	1	1.0
Rockfish, Blue	8	1	1.0
Total		105	100

C. CPUE

Catch per Angler Day = 15.00      Catch per Angler Hour = 2.31

Table 44. Sampled Effort, Ranked Catch and CPUE for Area 097 in 1982 for Quarter 2, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

## A. Sampled Effort

Number Anglers Intercepted	=	7
Total Hours Effort for Anglers Intercepted	=	45.5
Total Hours Still to Fish (Incomplete Trips)	=	0.0

## B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Rockfish, Canary	1	47	49.5	0.60	28.26
Unidentified Fishes	2	29	30.5	0.00**	0.00
Rockfish, Copper	3	11	11.6	1.19	13.04
Rockfish, Brown	4	4	4.2	0.63	2.52
Lingcod	5	2	2.1	1.74	3.48
Rockfish, Vermilion	6	1	1.1	1.54	1.54
Rockfish, Blue	7	1	1.1	0.45	0.45
Total		95	100		49.29

## C. CPUE

Catch per Angler Day	=	13.57	Catch per Angler Hour	=	2.09
Kg per Angler Day	=	7.04	Kg per Angler Hour	=	1.08

\* Weight estimated from length-to-weight regression if available.

\*\* Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 45. Sampled Effort, Ranked Catch and CPUE for Area 097 in 1982 for Quarter 2, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

## A. Sampled Effort

Number Anglers Intercepted = 7  
 Total Hours Effort for Anglers Intercepted = 45.5  
 Total Hours Still to Fish (Incomplete Trips) = 0.0

## B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	!---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Rockfish, Canary	1	28.26	47	49.5	39	0.60	343	31
Rockfish, Copper	2	13.04	11	11.6	10	1.19	393	59
Lingcod	3	3.48	2	2.1	2	1.74	534	99
Rockfish, Brown	4	2.52	4	4.2	4	0.63	325	46
Rockfish, Vermilion	5	1.54	1	1.1	1	1.54	458	0
Rockfish, Blue	6	0.45	1	1.1	1	0.45	309	0
Unidentified Fishes	7	0.00	29	30.5	0	0.00	0	0
Total		49.29	95	100	57			

## C. CPUE\*\*\*

Catch per Angler Day = 13.57      Catch per Angler Hour = 2.09  
 Kg per Angler Day = 7.04      Kg per Angler Hour = 1.08

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).



Figure 6. Length-Frequency Histogram for Canary Rockfish  
 Taken by All CPFV Anglers Using Hook-and-Line Gear.  
 Area 097, Quarter 2, 1982.

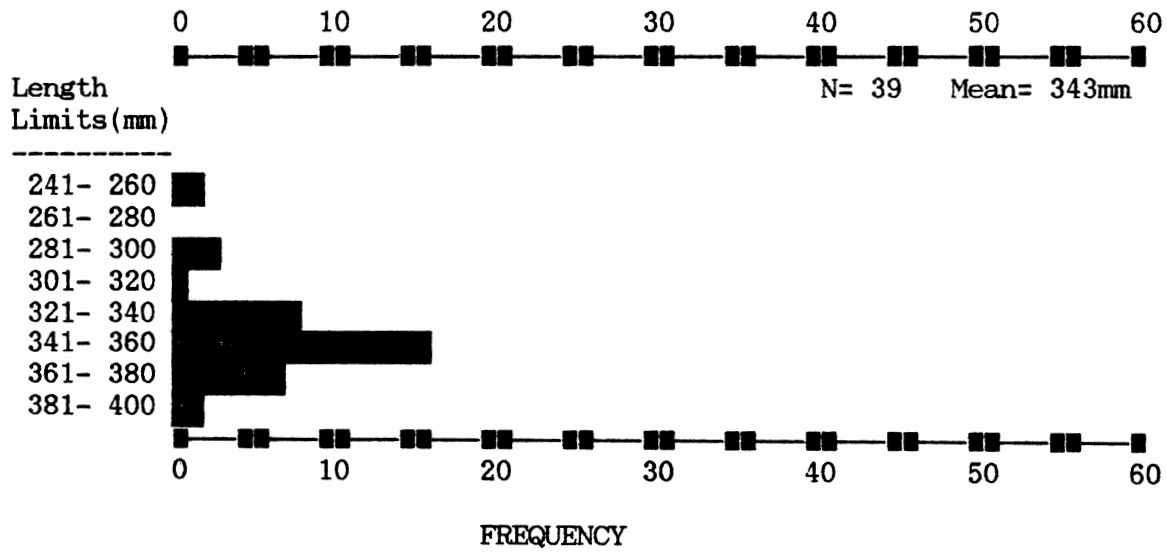


Table 46. Sampled Effort, Ranked Catch and CPUE for Area 3 (Ocean) in 1982 for Quarter 2, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted	=	23
Total Hours Effort for Anglers Intercepted	=	76.3
Total Hours Still to Fish (Incomplete Trips)	=	1.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Croaker, White	1	18	40.9
Sculpin, Pacific Staghorn	2	9	20.5
Jacksmelt	3	8	18.2
Surfperch, Walleye	4	8	18.2
Bass, Striped	5	1	2.3
Total		44	100

C. CPUE

Catch per Angler Day = 1.91      Catch per Angler Hour = 0.58

Table 47. Sampled Effort, Ranked Catch and CPUE for Area 3 (Ocean) in 1982 for Quarter 2, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

#### A. Sampled Effort

Number Anglers Intercepted	=	23
Total Hours Effort for Anglers Intercepted	=	76.3
Total Hours Still to Fish (Incomplete Trips)	=	1.0

#### B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Jacksmelt	1	8	34.8	0.22	1.78
Surfperch, Walleye	2	8	34.8	0.32	2.56
Croaker, White	3	5	21.7	0.13	0.64
Sculpin, Pacific Staghorn	4	2	8.7	0.00**	0.00
Total		23	100		4.97

#### C. CPUE

Catch per Angler Day	=	1.00	Catch per Angler Hour	=	0.30
Kg per Angler Day	=	0.22	Kg per Angler Hour	=	0.07

\* Weight estimated from length-to-weight regression if available.

\*\* Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 48. Sampled Effort, Ranked Catch and CPUE for Area 3 (Ocean) in 1982 for Quarter 2, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted	=	23
Total Hours Effort for Anglers Intercepted	=	76.3
Total Hours Still to Fish (Incomplete Trips)	=	1.0

B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Surfperch, Walleye	1	2.56	8	42.1	8	0.32	241	56
Jacksmelt	2	1.78	8	42.1	8	0.22	309	11
Croaker, White	3	0.39	3	15.8	3	0.13	221	40
Total		4.72	19	100	19			

C. CPUE\*\*\*

Catch per Angler Day	=	0.83	Catch per Angler Hour	=	0.25
Kg per Angler Day	=	0.21	Kg per Angler Hour	=	0.06

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).

Table 49. Sampled Effort, Ranked Catch and CPUE for Area 3 (Ocean) in 1982 for Quarter 2, by Jetty or Breakwater Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted	=	28
Total Hours Effort for Anglers Intercepted	=	151.0
Total Hours Still to Fish (Incomplete Trips)	=	0.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Sculpin, Pacific Staghorn	1	6	28.6
Rockfishes (unidentified)	2	5	23.8
Rockfish, Brown	3	2	9.5
Rockfish, Kelp	4	2	9.5
Sharks	5	1	4.8
Rockfish, Blue	6	1	4.8
Cabezon	7	1	4.8
Croaker, White	8	1	4.8
Surfperch, Redtail	9	1	4.8
Flounder, Starry	10	1	4.8
Total		21	100

C. CPUE

Catch per Angler Day	=	0.75	Catch per Angler Hour	=	0.14
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Table 50. Sampled Effort, Ranked Catch and CPUE for Area 3 (Ocean) in 1982 for Quarter 2, by Jetty or Breakwater Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted	=	28
Total Hours Effort for Anglers Intercepted	=	151.0
Total Hours Still to Fish (Incomplete Trips)	=	0.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Rockfishes (unidentified)	1	3	27.3	0.25**	0.75
Rockfish, Brown	2	2	18.2	0.14	0.27
Rockfish, Kelp	3	2	18.2	0.30	0.61
Rockfish, Blue	4	1	9.1	0.36	0.36
Cabazon	5	1	9.1	0.41	0.41
Surfperch, Redtail	6	1	9.1	0.44	0.44
Flounder, Starry	7	1	9.1	1.72	1.72
Total		11	100		4.56

C. CPUE

Catch per Angler Day =	0.39	Catch per Angler Hour =	0.07
Kg per Angler Day =	0.16	Kg per Angler Hour =	0.03

\* Weight estimated from length-to-weight regression if available.

\*\* Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 51. Sampled Effort, Ranked Catch and CPUE for Area 3 (Ocean) in 1982 for Quarter 2, by Jetty or Breakwater Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

## A. Sampled Effort

Number Anglers Intercepted = 28  
 Total Hours Effort for Anglers Intercepted = 151.0  
 Total Hours Still to Fish (Incomplete Trips) = 0.0

## B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Flounder, Starry	1	1.72	1	12.5	1	1.72	503	0
Rockfish, Kelp	2	0.61	2	25.0	2	0.30	272	12
Surfperch, Redtail	3	0.44	1	12.5	1	0.44	295	0
Cabezon	4	0.41	1	12.5	1	0.41	282	0
Rockfish, Blue	5	0.36	1	12.5	1	0.36	287	0
Rockfish, Brown	6	0.27	2	25.0	2	0.14	194	24
Total		3.81	8	100	8			

## C. CPUE\*\*\*

Catch per Angler Day = 0.29      Catch per Angler Hour = 0.05  
 Kg per Angler Day = 0.14      Kg per Angler Hour = 0.03

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).

Table 52. Sampled Effort, Ranked Catch and CPUE for Area 3 (Ocean) in 1982 for Quarter 2, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted	=	31
Total Hours Effort for Anglers Intercepted	=	140.0
Total Hours Still to Fish (Incomplete Trips)	=	3.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Surfperch, Walleye	1	23	30.7
Seaperch, Striped	2	16	21.3
Surfperch, Silver	3	13	17.3
Surfperches	4	9	12.0
Seaperch, Rainbow	5	3	4.0
Croaker, White	6	2	2.7
Surfperch, Barred	7	2	2.7
Prickleback, Monkeyface	8	2	2.7
Sharks	9	1	1.3
Rockfish, Kelp	10	1	1.3
Cabazon	11	1	1.3
Seaperch, Rubberlip	12	1	1.3
Surfperch, Redtail	13	1	1.3
Total		75	100

C. CPUE

Catch per Angler Day = 2.42      Catch per Angler Hour = 0.54



Table 53. Sampled Effort, Ranked Catch and CPUE for Area 3 (Ocean) in 1982 for Quarter 2, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 31  
 Total Hours Effort for Anglers Intercepted = 140.0  
 Total Hours Still to Fish (Incomplete Trips) = 3.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Surfperch, Walleye	1	23	37.1	0.23	5.31
Seaperch, Striped	2	16	25.8	0.46	7.33
Surfperch, Silver	3	13	21.0	0.09	1.12
Seaperch, Rainbow	4	3	4.8	0.16	0.49
Croaker, White	5	2	3.2	0.28	0.56
Surfperch, Barred	6	2	3.2	0.40	0.80
Rockfish, Kelp	7	1	1.6	0.52	0.52
Seaperch, Rubberlip	8	1	1.6	0.89	0.89
Surfperch, Redtail	9	1	1.6	0.10	0.10
Total		62	100		17.13

C. CPUE

Catch per Angler Day = 2.00      Catch per Angler Hour = 0.44  
 Kg per Angler Day = 0.55      Kg per Angler Hour = 0.12

\* Weight estimated from length-to-weight regression if available.

Table 54. Sampled Effort, Ranked Catch and CPUE for Area 3 (Ocean) in 1982 for Quarter 2, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 31  
 Total Hours Effort for Anglers Intercepted = 140.0  
 Total Hours Still to Fish (Incomplete Trips) = 3.0

B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Seaperch, Striped	1	7.33	16	25.8	11	0.46	303	21
Surfperch, Walleye	2	5.31	23	37.1	16	0.23	230	28
Surfperch, Silver	3	1.12	13	21.0	13	0.09	177	13
Seaperch, Rubberlip	4	0.89	1	1.6	1	0.89	362	0
Surfperch, Barred	5	0.80	2	3.2	1	0.40	276	0
Croaker, White	6	0.56	2	3.2	2	0.28	283	68
Rockfish, Kelp	7	0.52	1	1.6	1	0.52	329	0
Seaperch, Rainbow	8	0.49	3	4.8	3	0.16	218	9
Surfperch, Redtail	9	0.10	1	1.6	1	0.10	189	0
Total		17.13	62	100	49			

C. CPUE\*\*\*

Catch per Angler Day = 2.00      Catch per Angler Hour = 0.44  
 Kg per Angler Day = 0.55      Kg per Angler Hour = 0.12

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).

Table 55. Sampled Effort, Ranked Catch and CPUE for Area 3 (Ocean) in 1982 for Quarter 2, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted = 22  
 Total Hours Effort for Anglers Intercepted = 108.0  
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Rockfishes (unidentified)	1	32	39.5
Jacksmelt	2	30	37.0
Stingrays	3	10	12.3
Rockfish, Rosy	4	3	3.7
Lingcod	5	2	2.5
Bass, Striped	6	2	2.5
Rockfish, Brown	7	1	1.2
Cabazon	8	1	1.2
Total		81	100

C. CPUE

Catch per Angler Day = 3.68      Catch per Angler Hour = 0.75

Table 56. Sampled Effort, Ranked Catch and CPUE for Area 3 (Ocean) in 1982 for Quarter 2, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 22  
 Total Hours Effort for Anglers Intercepted = 108.0  
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Rockfishes (unidentified)	1	32	82.1	0.33**	10.56
Rockfish, Rosy	2	3	7.7	0.33	1.00
Lingcod	3	2	5.1	1.67	3.34
Rockfish, Brown	4	1	2.6	0.00**	0.00
Cabezon	5	1	2.6	1.61	1.61
Total		39	100		16.51

C. CPUE

Catch per Angler Day = 1.77      Catch per Angler Hour = 0.36  
 Kg per Angler Day = 0.75      Kg per Angler Hour = 0.15

\* Weight estimated from length-to-weight regression if available.

\*\* Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 57. Sampled Effort, Ranked Catch and CPUE for Area 3 (Ocean) in 1982 for Quarter 2, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

### A. Sampled Effort

Number Anglers Intercepted = 22  
 Total Hours Effort for Anglers Intercepted = 108.0  
 Total Hours Still to Fish (Incomplete Trips) = 0.0

### B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Lingcod	1	3.34	2	11.1	2	1.67	531	69
Cabezon	2	1.61	1	5.6	1	1.61	467	0
Rockfish, Rosy	3	1.00	3	16.7	3	0.33	273	17
Rockfishes (unidentified)	4	0.00	12	66.7	0	0.00	0	0
Total		5.95	18	100	6			

### C. CPUE\*\*\*

Catch per Angler Day = 0.82      Catch per Angler Hour = 0.17  
 Kg per Angler Day = 0.27      Kg per Angler Hour = 0.06

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).

Table 58. Sampled Effort, Ranked Catch and CPUE for Area 3 (Ocean) in 1982 for Quarter 2, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted	=	13
Total Hours Effort for Anglers Intercepted	=	95.0
Total Hours Still to Fish (Incomplete Trips)	=	0.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Rockfishes (unidentified)	1	50	48.5
Rockfish, Yellowtail	2	9	8.7
Bocaccio	3	9	8.7
Rockfish, Copper	4	8	7.8
Lingcod	5	6	5.8
Rockfish, Blue	6	4	3.9
Rockfish, Canary	7	4	3.9
Rockfish, Greenspotted	8	4	3.9
Unidentified Fishes	9	3	2.9
Rockfish, Vermilion	10	2	1.9
Rockfish, Brown	11	1	1.0
Rockfish, China	12	1	1.0
Rockfish, Starry	13	1	1.0
Rockfish, Flag	14	1	1.0
Total		103	100

C. CPUE

Catch per Angler Day = 7.92      Catch per Angler Hour = 1.08

Table 59. Sampled Effort, Ranked Catch and CPUE for Area 3 (Ocean) in 1982 for Quarter 2, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

#### A. Sampled Effort

Number Anglers Intercepted	=	13
Total Hours Effort for Anglers Intercepted	=	95.0
Total Hours Still to Fish (Incomplete Trips)	=	0.0

#### B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Rockfishes (unidentified)	1	48	47.5	1.35**	64.80
Rockfish, Yellowtail	2	9	8.9	1.15	10.31
Bocaccio	3	9	8.9	1.66	14.97
Rockfish, Copper	4	8	7.9	1.96	15.69
Lingcod	5	6	5.9	4.74	28.43
Rockfish, Blue	6	4	4.0	0.70	2.80
Rockfish, Canary	7	4	4.0	0.96	3.83
Rockfish, Greenspotted	8	4	4.0	0.82	3.29
Unidentified Fishes	9	3	3.0	0.00**	0.00
Rockfish, Vermilion	10	2	2.0	2.34	4.67
Rockfish, Brown	11	1	1.0	0.85	0.85
Rockfish, China	12	1	1.0	1.10	1.10
Rockfish, Starry	13	1	1.0	1.23	1.23
Rockfish, Flag	14	1	1.0	0.66	0.66
Total		101	100		152.62

#### C. CPUE

Catch per Angler Day	=	7.77	Catch per Angler Hour	=	1.06
Kg per Angler Day	=	11.74	Kg per Angler Hour	=	1.61

\* Weight estimated from length-to-weight regression if available.

\*\* Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 60. Sampled Effort, Ranked Catch and CPUE for Area 3 (Ocean) in 1982 for Quarter 2, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

## A. Sampled Effort

Number Anglers Intercepted = 13  
 Total Hours Effort for Anglers Intercepted = 95.0  
 Total Hours Still to Fish (Incomplete Trips) = 0.0

## B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Lingcod	1	28.43	6	11.3	6	4.74	743	118
Rockfish, Copper	2	15.69	8	15.1	7	1.96	469	54
Bocaccio	3	14.97	9	17.0	9	1.66	538	33
Rockfish, Yellowtail	4	10.31	9	17.0	8	1.15	428	28
Rockfish, Vermilion	5	4.67	2	3.8	2	2.34	514	124
Rockfish, Canary	6	3.83	4	7.5	4	0.96	371	122
Rockfish, Greenspotted	7	3.29	4	7.5	4	0.82	365	61
Rockfish, Blue	8	2.80	4	7.5	4	0.70	351	61
Rockfish, Starry	9	1.23	1	1.9	1	1.23	415	0
Rockfish, China	10	1.10	1	1.9	1	1.10	386	0
Rockfish, Brown	11	0.85	1	1.9	1	0.85	364	0
Rockfish, Flag	12	0.66	1	1.9	1	0.66	339	0
Unidentified Fishes	13	0.00	3	5.7	0	0.00	0	0
Total		87.82	53	100	48			

## C. CPUE\*\*\*

Catch per Angler Day = 4.08      Catch per Angler Hour = 0.56  
 Kg per Angler Day = 6.76      Kg per Angler Hour = 0.92

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).



Table 61. Sampled Effort, Ranked Catch and CPUE for Area 3 (Bay) in 1982 for Quarter 2, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

## A. Sampled Effort

Number Anglers Intercepted	=	231
Total Hours Effort for Anglers Intercepted	=	732.0
Total Hours Still to Fish (Incomplete Trips)	=	7.0

## B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Surfperches	1	907	48.8
Jacksmelt	2	472	25.4
Sculpin, Pacific Staghorn	3	201	10.8
Perch, Shiner	4	108	5.8
Croaker, White	5	51	2.7
Flounder, Starry	6	30	1.6
Surfperch, Walleye	7	16	0.9
Rockfish, Brown	8	11	0.6
Thornyhead, Shortspine	9	10	0.5
Sculpin, Rosylip	10	10	0.5
Sculpin, Coastrange	11	10	0.5
Seaperch, White	12	7	0.4
Rockfishes (unidentified)	13	6	0.3
Bass, Striped	14	6	0.3
Sturgeons (unidentified)	15	3	0.2
Perch, Black	16	3	0.2
Seaperch, Rubberlip	17	3	0.2
Skates	18	1	0.1
Stingrays	19	1	0.1
Lingcod	20	1	0.1
Perch, Kelp	21	1	0.1
Seaperch, Striped	22	1	0.1
Blenny, Bay	23	1	0.1
<b>Total</b>		<b>1860</b>	<b>100</b>

## C. CPUE

Catch per Angler Day = 8.05      Catch per Angler Hour = 2.54

Table 62. Sampled Effort, Ranked Catch and CPUE for Area 3 (Bay) in 1982 for Quarter 2, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 231  
 Total Hours Effort for Anglers Intercepted = 732.0  
 Total Hours Still to Fish (Incomplete Trips) = 7.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Jacksmelt	1	471	69.0	0.19	89.27
Perch, Shiner	2	56	8.2	0.03	1.82
Croaker, White	3	51	7.5	0.27	13.61
Flounder, Starry	4	27	4.0	0.17	4.50
Surfperch, Walleye	5	16	2.3	0.20	3.13
Sculpin, Pacific Staghorn	6	14	2.0	0.01	0.20
Surfperches	7	11	1.6	0.11**	1.21
Sculpin, Rosylip	8	10	1.5	0.00**	0.00
Rockfish, Brown	9	8	1.2	0.06	0.47
Seaperch, White	10	7	1.0	0.36	2.50
Thornyhead, Shortspine	11	4	0.6	0.00**	0.00
Perch, Black	12	3	0.4	0.08	0.23
Seaperch, Rubberlip	13	3	0.4	0.57	1.71
Seaperch, Striped	14	1	0.1	0.20	0.20
Blenny, Bay	15	1	0.1	0.00**	0.00
Total		683	100		118.83

C. CPUE

Catch per Angler Day = 2.96      Catch per Angler Hour = 0.93  
 Kg per Angler Day = 0.51      Kg per Angler Hour = 0.16

\* Weight estimated from length-to-weight regression if available.

\*\* Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 63. Sampled Effort, Ranked Catch and CPUE for Area 3 (Bay) in 1982 for Quarter 2, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

## A. Sampled Effort

Number Anglers Intercepted = 231  
 Total Hours Effort for Anglers Intercepted = 732.0  
 Total Hours Still to Fish (Incomplete Trips) = 7.0

## B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Jacksmelt	1	58.19	307	63.3	72	0.19	290	36
Croaker, White	2	13.34	50	10.3	23	0.27	284	27
Flounder, Starry	3	4.50	27	5.6	9	0.17	242	44
Surfperch, Walleye	4	2.93	15	3.1	15	0.20	214	42
Seaperch, White	5	2.50	7	1.4	2	0.36	309	16
Perch, Shiner	6	1.82	56	11.5	28	0.03	133	14
Seaperch, Rubberlip	7	1.71	3	0.6	3	0.57	272	132
Perch, Black	8	0.23	3	0.6	3	0.08	147	22
Seaperch, Striped	9	0.20	1	0.2	1	0.20	230	0
Rockfish, Brown	10	0.18	3	0.6	3	0.06	142	31
Sculpin, Pacific Staghorn	11	0.01	1	0.2	1	0.01	108	0
Surfperches	12	0.00	11	2.3	0	0.00	0	0
Blenny, Bay	13	0.00	1	0.2	1	0.00	155	0
Total		85.60	485	100	161			

## C. CPUE\*\*\*

Catch per Angler Day = 2.10      Catch per Angler Hour = 0.66  
 Kg per Angler Day = 0.37      Kg per Angler Hour = 0.12

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).

Table 64. Sampled Effort, Ranked Catch and CPUE for Area 3 (Bay) in 1982 for Quarter 2, by Jetty or Breakwater Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted = 8  
 Total Hours Effort for Anglers Intercepted = 18.5  
 Total Hours Still to Fish (Incomplete Trips) = 2.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Perch, Shiner	1	3	42.9
Surfperch, Walleye	2	2	28.6
Jacksmelt	3	1	14.3
Perch, Black	4	1	14.3
Total		7	100

C. CPUE

Catch per Angler Day = 0.88      Catch per Angler Hour = 0.38

Table 65. Sampled Effort, Ranked Catch and CPUE for Area 3 (Bay) in 1982 for Quarter 2, by Jetty or Breakwater Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

#### A. Sampled Effort

Number Anglers Intercepted	=	8
Total Hours Effort for Anglers Intercepted	=	18.5
Total Hours Still to Fish (Incomplete Trips)	=	2.0

#### B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Perch, Shiner	1	3	42.9	0.03	0.08
Surfperch, Walleye	2	2	28.6	0.02	0.03
Jacksmelt	3	1	14.3	0.07	0.07
Perch, Black	4	1	14.3	0.06	0.06
Total		7	100		0.24

#### C. CPUE

Catch per Angler Day	=	0.88	Catch per Angler Hour	=	0.38
Kg per Angler Day	=	0.03	Kg per Angler Hour	=	0.01

\* Weight estimated from length-to-weight regression if available.

Table 66. Sampled Effort, Ranked Catch and CPUE for Area 3 (Bay) in 1982 for Quarter 2, by Jetty or Breakwater Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 8  
 Total Hours Effort for Anglers Intercepted = 18.5  
 Total Hours Still to Fish (Incomplete Trips) = 2.0

B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Perch, Shiner	1	0.08	3	42.9	3	0.03	128	9
Jacksmelt	2	0.07	1	14.3	1	0.07	218	0
Perch, Black	3	0.06	1	14.3	1	0.06	135	0
Surfperch, Walleye	4	0.03	2	28.6	2	0.02	113	2
Total		0.24	7	100	7			

C. CPUE\*\*\*

Catch per Angler Day = 0.88      Catch per Angler Hour = 0.38  
 Kg per Angler Day = 0.03      Kg per Angler Hour = 0.01

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).

Table 67. Sampled Effort, Ranked Catch and CPUE for Area 3 (Bay) in 1982 for Quarter 2, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

## A. Sampled Effort

Number Anglers Intercepted	=	86
Total Hours Effort for Anglers Intercepted	=	303.5
Total Hours Still to Fish (Incomplete Trips)	=	7.5

## B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Jacksmelt	1	111	37.6
Sculpin, Pacific Staghorn	2	69	23.4
Topsmelt	3	43	14.6
Flounder, Starry	4	33	11.2
Croaker, White	5	11	3.7
Surfperches	6	10	3.4
Surfperch, Walleye	7	4	1.4
Sanddab, Speckled	8	3	1.0
Unidentified Fishes	9	2	0.7
Perch, Black	10	2	0.7
Sharks	11	1	0.3
Eagle Rays	12	1	0.3
Sturgeon, White	13	1	0.3
Rockfish, Brown	14	1	0.3
Cabezon	15	1	0.3
Bass, Striped	16	1	0.3
Perch, Shiner	17	1	0.3
Total		295	100

## C. CPUE

Catch per Angler Day = 3.43      Catch per Angler Hour = 0.97

Table 68. Sampled Effort, Ranked Catch and CPUE for Area 3 (Bay) in 1982 for Quarter 2, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 86  
 Total Hours Effort for Anglers Intercepted = 303.5  
 Total Hours Still to Fish (Incomplete Trips) = 7.5

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Jacksmelt	1	111	49.1	0.22	24.65
Topsmelt	2	43	19.0	0.28	12.21
Flounder, Starry	3	32	14.2	0.38	12.26
Croaker, White	4	11	4.9	0.29	3.21
Sculpin, Pacific Staghorn	5	8	3.5	0.00**	0.00
Surfperches	6	8	3.5	0.14**	1.12
Surfperch, Walleye	7	4	1.8	0.12	0.47
Perch, Black	8	2	0.9	0.26	0.51
Unidentified Fishes	9	1	0.4	0.00**	0.00
Eagle Rays	10	1	0.4	0.00**	0.00
Sturgeon, White	11	1	0.4	8.31	8.31
Rockfish, Brown	12	1	0.4	0.04	0.04
Bass, Striped	13	1	0.4	2.32	2.32
Perch, Shiner	14	1	0.4	0.03	0.03
Sanddab, Speckled	15	1	0.4	0.00**	0.00
Total		226	100		65.13

C. CPUE

Catch per Angler Day = 2.63      Catch per Angler Hour = 0.74  
 Kg per Angler Day = 0.76      Kg per Angler Hour = 0.21

\* Weight estimated from length-to-weight regression if available.

\*\* Mean weight for this group was not calculated or was estimated from other sources (see text).



Table 69. Sampled Effort, Ranked Catch and CPUE for Area 3 (Bay) in 1982 for Quarter 2, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

## A. Sampled Effort

Number Anglers Intercepted = 86  
 Total Hours Effort for Anglers Intercepted = 303.5  
 Total Hours Still to Fish (Incomplete Trips) = 7.5

## B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Jacksmelt	1	23.76	107	54.0	33	0.22	302	44
Topsmelt	2	12.21	43	21.7	1	0.28	389	0
Flounder, Starry	3	10.34	27	13.6	23	0.38	314	42
Sturgeon, White	4	8.31	1	0.5	1	8.31	1109	0
Croaker, White	5	2.63	9	4.5	9	0.29	289	44
Bass, Striped	6	2.32	1	0.5	1	2.32	738	0
Perch, Black	7	0.51	2	1.0	2	0.26	241	18
Surfperch, Walleye	8	0.47	4	2.0	4	0.12	167	77
Rockfish, Brown	9	0.04	1	0.5	1	0.04	133	0
Perch, Shiner	10	0.03	1	0.5	1	0.03	137	0
Unidentified Fishes	11	0.00	1	0.5	0	0.00	0	0
Sanddab, Speckled	12	0.00	1	0.5	0	0.00	0	0
Total		60.63	198	100	76			

## C. CPUE\*\*\*

Catch per Angler Day = 2.30      Catch per Angler Hour = 0.65  
 Kg per Angler Day = 0.70      Kg per Angler Hour = 0.20

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).

Table 70. Sampled Effort, Ranked Catch and CPUE for Area 3 (Bay) in 1982 for Quarter 2, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted = 123  
 Total Hours Effort for Anglers Intercepted = 790.5  
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Sculpin, Pacific Staghorn	1	44	14.1
Flounder, Starry	2	38	12.1
Bass, Striped	3	30	9.6
Rockfishes (unidentified)	4	24	7.7
Surfperch, Walleye	5	21	6.7
Sharks	6	20	6.4
Sharks, Mackerel	7	20	6.4
Sturgeons (unidentified)	8	17	5.4
Jacksmelt	9	17	5.4
Perch, Shiner	10	14	4.5
Halibut, California	11	12	3.8
Sturgeon, White	12	10	3.2
Unidentified Fishes	13	9	2.9
Smoothhound, Brown	14	9	2.9
Perch, Black	15	5	1.6
Seaperch, Rubberlip	16	5	1.6
Skates	17	4	1.3
Shark, Leopard	18	3	1.0
Perch, Pile	19	3	1.0
Stingrays	20	2	0.6
Surfperches	21	2	0.6
Skate, Big	22	1	0.3
Sturgeon, Green	23	1	0.3
Lingcod	24	1	0.3
Croaker, White	25	1	0.3
Total		313	100

C. CPUE

Catch per Angler Day = 2.54      Catch per Angler Hour = 0.40

Table 71. Sampled Effort, Ranked Catch and CPUE for Area 3 (Bay) in 1982 for Quarter 2, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

## A. Sampled Effort

Number Anglers Intercepted	=	123
Total Hours Effort for Anglers Intercepted	=	790.5
Total Hours Still to Fish (Incomplete Trips)	=	0.0

## B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Rockfishes (unidentified)	1	24	16.6	0.00**	0.00
Surfperch, Walleye	2	21	14.5	0.25	5.28
Sharks, Mackerel	3	14	9.7	0.00**	0.00
Halibut, California	4	12	8.3	4.91	58.88
Sturgeons (unidentified)	5	11	7.6	17.58**	193.38
Flounder, Starry	6	10	6.9	0.40	4.01
Unidentified Fishes	7	9	6.2	0.00**	0.00
Perch, Shiner	8	8	5.5	0.03	0.21
Bass, Striped	9	7	4.8	1.97	13.81
Sturgeon, White	10	5	3.4	17.58	87.88
Jacksmelt	11	5	3.4	0.00**	0.00
Perch, Black	12	5	3.4	0.18	0.88
Seaperch, Rubberlip	13	5	3.4	0.55	2.76
Sculpin, Pacific Staghorn	14	4	2.8	0.00**	0.00
Perch, Pile	15	3	2.1	0.26	0.78
Skates	16	1	0.7	0.00**	0.00
Lingcod	17	1	0.7	0.00**	0.00
Total		145	100		367.87

## C. CPUE

Catch per Angler Day	=	1.18	Catch per Angler Hour	=	0.18
Kg per Angler Day	=	2.99	Kg per Angler Hour	=	0.47

\* Weight estimated from length-to-weight regression if available.

\*\* Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 72. Sampled Effort, Ranked Catch and CPUE for Area 3 (Bay) in 1982 for Quarter 2, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

## A. Sampled Effort

Number Anglers Intercepted = 123  
 Total Hours Effort for Anglers Intercepted = 790.5  
 Total Hours Still to Fish (Incomplete Trips) = 0.0

## B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Sturgeon, White	1	87.88	5	6.5	5	17.58	1374	138
Halibut, California	2	58.88	12	15.6	12	4.91	756	123
Bass, Striped	3	7.89	4	5.2	4	1.97	687	104
Surfperch, Walleye	4	5.28	21	27.3	10	0.25	235	31
Seaperch, Rubberlip	5	2.76	5	6.5	2	0.55	304	47
Flounder, Starry	6	2.01	5	6.5	5	0.40	324	23
Perch, Black	7	0.88	5	6.5	5	0.18	207	13
Perch, Pile	8	0.78	3	3.9	3	0.26	246	51
Perch, Shiner	9	0.05	2	2.6	2	0.03	125	18
Rockfishes (unidentified)	10	0.00	15	19.5	0	0.00	0	0
Total		166.41	77	100	48			

## C. CPUE\*\*\*

Catch per Angler Day = 0.63      Catch per Angler Hour = 0.10  
 Kg per Angler Day = 1.35      Kg per Angler Hour = 0.21

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).

Table 73. Sampled Effort, Ranked Catch and CPUE for Area 3 (Bay) in 1982 for Quarter 2, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

#### A. Sampled Effort

Number Anglers Intercepted	=	34
Total Hours Effort for Anglers Intercepted	=	278.5
Total Hours Still to Fish (Incomplete Trips)	=	0.0

#### B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Sturgeon, White	1	9	21.4
Sturgeons (unidentified)	2	6	14.3
Flounder, Starry	3	6	14.3
Skates	4	5	11.9
Bass, Striped	5	5	11.9
Shark, Leopard	6	4	9.5
Rockfish, Blue	7	2	4.8
Rockfish, Canary	8	2	4.8
Rockfish, Brown	9	1	2.4
Lingcod	10	1	2.4
Sculpin, Pacific Staghorn	11	1	2.4
Total		42	100

#### C. CPUE

Catch per Angler Day = 1.24      Catch per Angler Hour = 0.15

Table 74. Sampled Effort, Ranked Catch and CPUE for Area 3 (Bay) in 1982 for Quarter 2, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 34  
 Total Hours Effort for Anglers Intercepted = 278.5  
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Sturgeon, White	1	7	31.8	12.71	88.99
Flounder, Starry	2	6	27.3	0.34	2.04
Bass, Striped	3	3	13.6	1.31	3.92
Rockfish, Blue	4	2	9.1	0.96	1.92
Rockfish, Canary	5	2	9.1	0.61	1.21
Rockfish, Brown	6	1	4.5	0.62	0.62
Lingcod	7	1	4.5	2.16	2.16
Total		22	100		100.87

C. CPUE

Catch per Angler Day = 0.65      Catch per Angler Hour = 0.08  
 Kg per Angler Day = 2.97      Kg per Angler Hour = 0.36

\* Weight estimated from length-to-weight regression if available.

Table 75. Sampled Effort, Ranked Catch and CPUE for Area 3 (Bay) in 1982 for Quarter 2, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

## A. Sampled Effort

Number Anglers Intercepted = 34  
 Total Hours Effort for Anglers Intercepted = 278.5  
 Total Hours Still to Fish (Incomplete Trips) = 0.0

## B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Sturgeon, White	1	88.99	7	38.9	7	12.71	1233	180
Bass, Striped	2	3.92	3	16.7	3	1.31	602	60
Lingcod	3	2.16	1	5.6	1	2.16	584	0
Rockfish, Blue	4	1.92	2	11.1	2	0.96	385	105
Rockfish, Canary	5	1.21	2	11.1	2	0.61	347	2
Flounder, Starry	6	0.68	2	11.1	2	0.34	286	114
Rockfish, Brown	7	0.62	1	5.6	1	0.62	327	0
Total		99.50	18	100	18			

## C. CPUE\*\*\*

Catch per Angler Day = 0.53      Catch per Angler Hour = 0.06  
 Kg per Angler Day = 2.93      Kg per Angler Hour = 0.36

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).

Figure 7. Length-Frequency Histogram for Jacksmelt  
 Taken by Pier or Dock Anglers Using Hook-and-Line Gear.  
 Area 3 (Bay), Quarter 2, 1982.

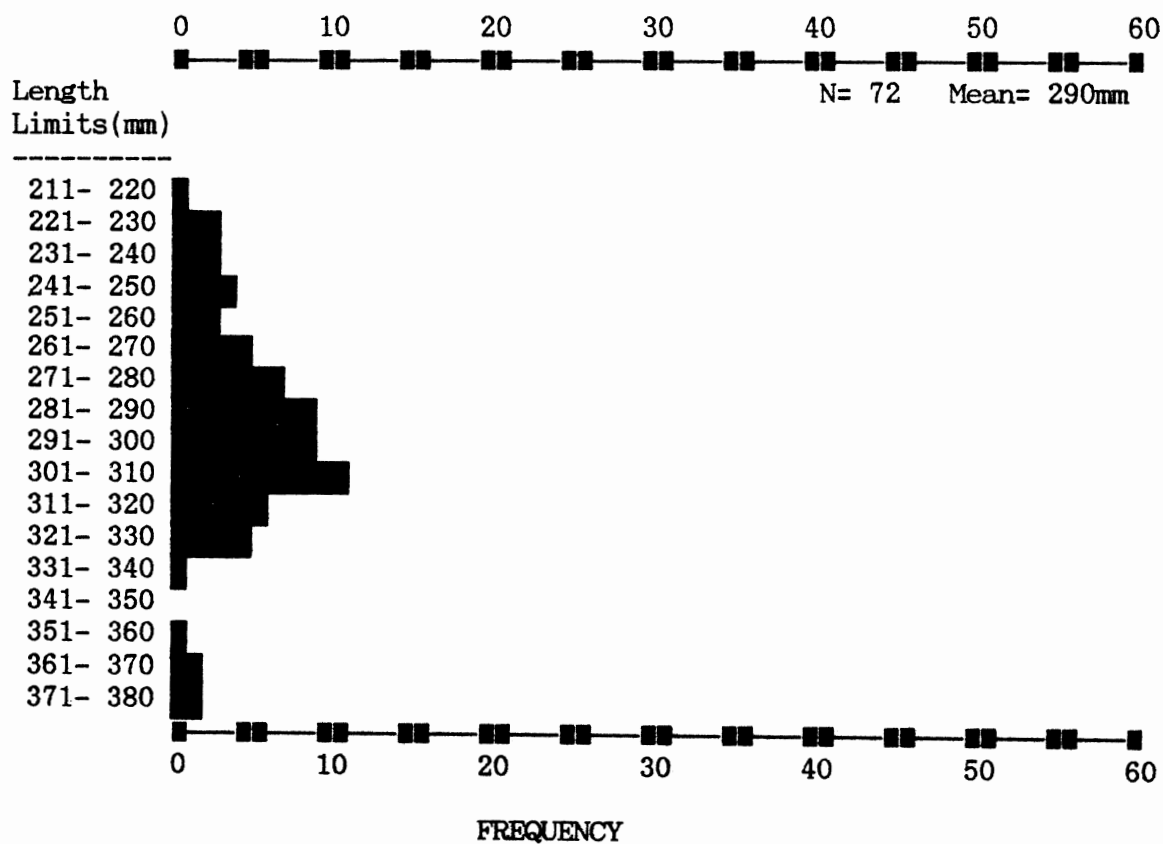




Table 76. Sampled Effort, Ranked Catch and CPUE for Area 4 in 1982 for Quarter 2, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted	=	117
Total Hours Effort for Anglers Intercepted	=	390.0
Total Hours Still to Fish (Incomplete Trips)	=	21.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Surfperches	1	136	60.7
Perch, Shiner	2	35	15.6
Croaker, White	3	17	7.6
Seaperch, White	4	10	4.5
Sole, Sand	5	10	4.5
Surfperch, Walleye	6	7	3.1
Sole, English	7	3	1.3
Flounders, Righteye	8	2	0.9
Seaperch, Rubberlip	9	1	0.4
Surfperch, Barred	10	1	0.4
Mackerel, Pacific (Chub)	11	1	0.4
Flounder, Starry	12	1	0.4
Total		224	100

C. CPUE

Catch per Angler Day = 1.91      Catch per Angler Hour = 0.57

Table 77. Sampled Effort, Ranked Catch and CPUE for Area 4 in 1982 for Quarter 2, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 117  
 Total Hours Effort for Anglers Intercepted = 390.0  
 Total Hours Still to Fish (Incomplete Trips) = 21.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Surfperches	1	54	45.4	0.13**	7.02
Perch, Shiner	2	33	27.7	0.00**	0.00
Seaperch, White	3	10	8.4	0.12	1.22
Croaker, White	4	8	6.7	0.00**	0.00
Surfperch, Walleye	5	7	5.9	0.00**	0.00
Sole, English	6	3	2.5	0.21	0.63
Flounders, Righteye	7	2	1.7	0.22**	0.00
Surfperch, Barred	8	1	0.8	0.20	0.20
Flounder, Starry	9	1	0.8	0.26	0.26
Total		119	100		9.33

C. CPUE

Catch per Angler Day = 1.02      Catch per Angler Hour = 0.31  
 Kg per Angler Day = 0.08      Kg per Angler Hour = 0.02

\* Weight estimated from length-to-weight regression if available.

\*\* Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 78. Sampled Effort, Ranked Catch and CPUE for Area 4 in 1982 for Quarter 2, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

### A. Sampled Effort

Number Anglers Intercepted = 117  
 Total Hours Effort for Anglers Intercepted = 390.0  
 Total Hours Still to Fish (Incomplete Trips) = 21.0

### B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Seaperch, White	1	1.22	10	66.7	10	0.12	215	14
Sole, English	2	0.63	3	20.0	3	0.21	277	53
Flounder, Starry	3	0.26	1	6.7	1	0.26	286	0
Surfperch, Barred	4	0.20	1	6.7	1	0.20	220	0
Total		2.31	15	100	15			

### C. CPUE\*\*\*

Catch per Angler Day = 0.13      Catch per Angler Hour = 0.04  
 Kg per Angler Day = 0.02      Kg per Angler Hour = 0.01

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).

Table 79. Sampled Effort, Ranked Catch and CPUE for Area 4 in 1982 for Quarter 2, by Jetty or Breakwater Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted = 44  
 Total Hours Effort for Anglers Intercepted = 111.5  
 Total Hours Still to Fish (Incomplete Trips) = 4.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Surfperch, Walleye	1	8	34.8
Seaperch, White	2	4	17.4
Perch, Pile	3	4	17.4
Flounder, Starry	4	4	17.4
Jacksmelt	5	2	8.7
Stingrays	6	1	4.3
Total		23	100

C. CPUE

Catch per Angler Day = 0.52      Catch per Angler Hour = 0.21

Table 80. Sampled Effort, Ranked Catch and CPUE for Area 4 in 1982 for Quarter 2, by Jetty or Breakwater Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 44  
 Total Hours Effort for Anglers Intercepted = 111.5  
 Total Hours Still to Fish (Incomplete Trips) = 4.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Surfperch, Walleye	1	8	44.4	0.14	1.15
Seaperch, White	2	4	22.2	0.17	0.69
Flounder, Starry	3	4	22.2	0.37	1.49
Jacksmelt	4	2	11.1	0.38	0.77
Total		18	100		4.10

C. CPUE

Catch per Angler Day = 0.41      Catch per Angler Hour = 0.16  
 Kg per Angler Day = 0.09      Kg per Angler Hour = 0.04

\* Weight estimated from length-to-weight regression if available.

Table 81. Sampled Effort, Ranked Catch and CPUE for Area 4 in 1982 for Quarter 2, by Jetty or Breakwater Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 44  
 Total Hours Effort for Anglers Intercepted = 111.5  
 Total Hours Still to Fish (Incomplete Trips) = 4.0

B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Flounder, Starry	1	1.49	4	22.2	4	0.37	316	27
Surfperch, Walleye	2	1.15	8	44.4	8	0.14	205	18
Jacksmelt	3	0.77	2	11.1	2	0.38	364	13
Seaperch, White	4	0.69	4	22.2	4	0.17	241	24
Total		4.10	18	100	18			

C. CPUE\*\*\*

Catch per Angler Day = 0.41      Catch per Angler Hour = 0.16  
 Kg per Angler Day = 0.09      Kg per Angler Hour = 0.04

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).

Table 82. Sampled Effort, Ranked Catch and CPUE for Area 4 in 1982 for Quarter 2, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

## A. Sampled Effort

Number Anglers Intercepted	=	179
Total Hours Effort for Anglers Intercepted	=	479.3
Total Hours Still to Fish (Incomplete Trips)	=	45.0

## B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Surfperch, Barred	1	186	59.8
Surfperches	2	34	10.9
Seaperch, Striped	3	16	5.1
Surfperch, Silver	4	13	4.2
Sculpin, Pacific Staghorn	5	9	2.9
Surfperch, Walleye	6	8	2.6
Perch, Black	7	6	1.9
Seaperch, White	8	6	1.9
Bass, Striped	9	5	1.6
Perch, Pile	10	4	1.3
Seaperch, Rainbow	11	4	1.3
Surfperch, Calico	12	3	1.0
Cabazon	13	2	0.6
Sea Basses	14	2	0.6
Bass, Kelp	15	2	0.6
Garibaldi	16	2	0.6
Flounder, Starry	17	2	0.6
Sharks	18	1	0.3
Rockfishes (unidentified)	19	1	0.3
Rockfish, Brown	20	1	0.3
Rockfish, Kelp	21	1	0.3
Seaperch, Rubberlip	22	1	0.3
Surfperch, Redtail	23	1	0.3
Sole, Sand	24	1	0.3
Total		311	100

## C. CPUE

Catch per Angler Day = 1.74      Catch per Angler Hour = 0.65

Table 83. Sampled Effort, Ranked Catch and CPUE for Area 4 in 1982 for Quarter 2, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted	=	179
Total Hours Effort for Anglers Intercepted	=	479.3
Total Hours Still to Fish (Incomplete Trips)	=	45.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Surfperch, Barred	1	162	62.8	0.41	67.15
Seaperch, Striped	2	16	6.2	0.44	7.10
Surfperch, Silver	3	13	5.0	0.11	1.37
Surfperches	4	12	4.7	0.38**	4.56
Surfperch, Walleye	5	8	3.1	0.19	1.54
Perch, Black	6	6	2.3	0.28	1.68
Seaperch, White	7	6	2.3	0.12	0.74
Sculpin, Pacific Staghorn	8	5	1.9	0.00**	0.00
Bass, Striped	9	5	1.9	0.10	0.50
Perch, Pile	10	4	1.6	0.62	2.48
Seaperch, Rainbow	11	4	1.6	0.21	0.83
Surfperch, Calico	12	3	1.2	0.23	0.68
Cabezon	13	2	0.8	0.77	1.54
Bass, Kelp	14	2	0.8	0.00**	0.00
Garibaldi	15	2	0.8	0.00**	0.00
Flounder, Starry	16	2	0.8	0.51	1.02
Sharks	17	1	0.4	0.00**	0.00
Rockfish, Brown	18	1	0.4	0.00**	0.00
Rockfish, Kelp	19	1	0.4	0.31	0.31
Seaperch, Rubberlip	20	1	0.4	1.32	1.32
Surfperch, Redtail	21	1	0.4	0.63	0.63
Sole, Sand	22	1	0.4	0.10	0.10
<b>Total</b>		<b>258</b>	<b>100</b>		<b>93.55</b>

C. CPUE

Catch per Angler Day	=	1.44	Catch per Angler Hour	=	0.54
Kg per Angler Day	=	0.52	Kg per Angler Hour	=	0.20

\* Weight estimated from length-to-weight regression if available.

\*\* Mean weight for this group was not calculated or was estimated from other sources (see text).



Table 84. Sampled Effort, Ranked Catch and CPUE for Area 4 in 1982 for Quarter 2, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

## A. Sampled Effort

Number Anglers Intercepted	=	179
Total Hours Effort for Anglers Intercepted	=	479.3
Total Hours Still to Fish (Incomplete Trips)	=	45.0

## B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Surfperch, Barred	1	58.03	140	65.4	127	0.41	270	50
Seaperch, Striped	2	7.10	16	7.5	16	0.44	298	30
Perch, Pile	3	2.48	4	1.9	4	0.62	329	54
Perch, Black	4	1.68	6	2.8	6	0.28	248	17
Surfperch, Walleye	5	1.54	8	3.7	8	0.19	220	27
Seaperch, Rubberlip	6	1.32	1	0.5	1	1.32	414	0
Surfperch, Silver	7	1.27	12	5.6	12	0.11	187	24
Flounder, Starry	8	1.02	2	0.9	2	0.51	339	78
Seaperch, Rainbow	9	0.83	4	1.9	4	0.21	233	26
Cabazon	10	0.77	1	0.5	1	0.77	356	0
Seaperch, White	11	0.74	6	2.8	6	0.12	216	20
Surfperch, Calico	12	0.68	3	1.4	3	0.23	240	7
Surfperch, Redtail	13	0.63	1	0.5	1	0.63	330	0
Bass, Striped	14	0.50	5	2.3	5	0.10	243	47
Rockfish, Kelp	15	0.31	1	0.5	1	0.31	274	0
Sole, Sand	16	0.10	1	0.5	1	0.10	208	0
Surfperches	17	0.00	1	0.5	0	0.00	0	0
Garibaldi	18	0.00	2	0.9	2	0.00	278	16
Total		79.00	214	100	200			

## C. CPUE\*\*\*

Catch per Angler Day	=	1.20	Catch per Angler Hour	=	0.45
Kg per Angler Day	=	0.44	Kg per Angler Hour	=	0.16

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).

Table 85. Sampled Effort, Ranked Catch and CPUE for Area 4 in 1982 for Quarter 2, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

## A. Sampled Effort

Number Anglers Intercepted	=	67
Total Hours Effort for Anglers Intercepted	=	328.9
Total Hours Still to Fish (Incomplete Trips)	=	0.0

## B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Rockfish, Blue	1	192	29.7
Croaker, White	2	132	20.4
Rockfishes (unidentified)	3	75	11.6
Sanddab, Pacific	4	60	9.3
Surfperches	5	30	4.6
Rockfish, Canary	6	26	4.0
Sole, Dover	7	22	3.4
Seaperch, Striped	8	20	3.1
Rockfish, Brown	9	14	2.2
Rockfish, Copper	10	12	1.9
Rockfish, Yellowtail	11	11	1.7
Hake, Pacific	12	10	1.5
Lingcod	13	8	1.2
Rockfish, Gopher	14	7	1.1
Rockfish, Greenspotted	15	5	0.8
Rockfish, Rosethorn	16	4	0.6
Cabezon	17	3	0.5
Rockfish, Vermilion	18	2	0.3
Rockfish, China	19	2	0.3
Flounder, Starry	20	2	0.3
Shark, Blue	21	1	0.2
Rockfish, Greenstriped	22	1	0.2
Rockfish, Black	23	1	0.2
Rockfish, Starry	24	1	0.2
Rockfish, Flag	25	1	0.2
Rockfish, Olive	26	1	0.2

(Table 85. - continued)

Common name	Rank by Number	Number Caught	% by Number
Greenling, Kelp	27	1	0.2
Flounders, Righteye	28	1	0.2
Sunfish, Ocean	29	1	0.2
Total		646	100

## C. CPUE

Catch per Angler Day = 9.64      Catch per Angler Hour = 1.96

Table 86. Sampled Effort, Ranked Catch and CPUE for Area 4 in 1982 for Quarter 2, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

## A. Sampled Effort

Number Anglers Intercepted	=	67
Total Hours Effort for Anglers Intercepted	=	328.9
Total Hours Still to Fish (Incomplete Trips)	=	0.0

## B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Rockfish, Blue	1	181	35.6	0.46	83.05
Croaker, White	2	92	18.1	0.22	20.21
Sanddab, Pacific	3	60	11.8	0.00**	0.00
Rockfishes (unidentified)	4	27	5.3	0.45**	12.15
Rockfish, Canary	5	26	5.1	0.31	8.17
Sole, Dover	6	22	4.3	0.00**	0.00
Seaperch, Striped	7	20	3.9	0.00**	0.00
Rockfish, Brown	8	14	2.8	0.32	4.50
Rockfish, Copper	9	12	2.4	1.00	11.96
Rockfish, Yellowtail	10	11	2.2	0.25	2.77
Rockfish, Gopher	11	7	1.4	0.31	2.20
Rockfish, Greenspotted	12	5	1.0	0.49	2.45
Lingcod	13	5	1.0	3.32	16.60
Hake, Pacific	14	4	0.8	1.33	5.31
Rockfish, Rosethorn	15	4	0.8	0.24	0.97
Cabazon	16	3	0.6	0.92	2.76
Rockfish, Vermilion	17	2	0.4	0.46	0.92
Rockfish, China	18	2	0.4	0.17	0.35
Flounder, Starry	19	2	0.4	2.69	5.39
Shark, Blue	20	1	0.2	0.00**	0.00
Rockfish, Greenstriped	21	1	0.2	0.19	0.19
Rockfish, Black	22	1	0.2	2.17	2.17
Rockfish, Starry	23	1	0.2	0.50	0.50
Rockfish, Flag	24	1	0.2	0.56	0.56
Rockfish, Olive	25	1	0.2	0.97	0.97
Greenling, Kelp	26	1	0.2	0.83	0.83
Flounders, Righteye	27	1	0.2	2.69**	2.69

(Table 86. - continued)

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Sunfish, Ocean	28	1	0.2	0.00**	0.00
Total		508	100		187.66

## C. CPUE

Catch per Angler Day = 7.58      Catch per Angler Hour = 1.54  
 Kg per Angler Day = 2.80      Kg per Angler Hour = 0.57

\* Weight estimated from length-to-weight regression if available.

\*\* Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 87. Sampled Effort, Ranked Catch and CPUE for Area 4 in 1982 for Quarter 2, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

## A. Sampled Effort

Number Anglers Intercepted	=	67
Total Hours Effort for Anglers Intercepted	=	328.9
Total Hours Still to Fish (Incomplete Trips)	=	0.0

## B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Rockfish, Blue	1	31.20	68	28.6	48	0.46	304	46
Lingcod	2	16.60	5	2.1	5	3.32	669	66
Rockfish, Copper	3	11.96	12	5.0	12	1.00	353	101
Croaker, White	4	9.23	42	17.6	22	0.22	268	19
Rockfish, Canary	5	8.17	26	10.9	24	0.31	277	27
Flounder, Starry	6	5.39	2	0.8	2	2.69	561	119
Hake, Pacific	7	5.31	4	1.7	4	1.33	550	78
Rockfish, Brown	8	4.50	14	5.9	14	0.32	258	33
Rockfish, Yellowtail	9	2.77	11	4.6	11	0.25	256	37
Rockfish, Greenspotted	10	2.45	5	2.1	5	0.49	311	28
Rockfish, Gopher	11	2.20	7	2.9	6	0.31	265	38
Rockfish, Black	12	2.17	1	0.4	1	2.17	527	0
Rockfish, Rosethorn	13	0.97	4	1.7	4	0.24	245	24
Rockfish, Olive	14	0.97	1	0.4	1	0.97	418	0
Cabazon	15	0.92	1	0.4	1	0.92	380	0
Rockfish, Vermilion	16	0.92	2	0.8	2	0.46	302	11
Greenling, Kelp	17	0.83	1	0.4	1	0.83	393	0
Rockfish, Flag	18	0.56	1	0.4	1	0.56	322	0
Rockfish, Starry	19	0.50	1	0.4	1	0.50	313	0
Rockfish, China	20	0.35	2	0.8	2	0.17	209	57
Rockfish, Greenstriped	21	0.19	1	0.4	1	0.19	259	0
Rockfishes (unidentified)	22	0.00	4	1.7	0	0.00	0	0
Sole, Dover	23	0.00	22	9.2	2	0.00	248	24
Sunfish, Ocean	24	0.00	1	0.4	1	0.00	792	0
Total		108.15	238	100	171			

## C. CPUE\*\*\*

Catch per Angler Day	=	3.55	Catch per Angler Hour	=	0.72
Kg per Angler Day	=	1.61	Kg per Angler Hour	=	0.33

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).

Table 88. Sampled Effort, Ranked Catch and CPUE for Area 4 in 1982 for Quarter 2, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

#### A. Sampled Effort

Number Anglers Intercepted	=	65
Total Hours Effort for Anglers Intercepted	=	390.5
Total Hours Still to Fish (Incomplete Trips)	=	4.0

#### B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Rockfish, Blue	1	390	35.8
Bocaccio	2	169	15.5
Chilipepper	3	168	15.4
Rockfish, Yellowtail	4	114	10.5
Rockfish, Olive	5	71	6.5
Rockfishes (unidentified)	6	64	5.9
Mackerel, Pacific (Chub)	7	23	2.1
Lingcod	8	16	1.5
Rockfish, Widow	9	13	1.2
Rockfish, Speckled	10	13	1.2
Rockfish, Starry	11	9	0.8
Rockfish, Rosethorn	12	7	0.6
Rockfish, Greenstriped	13	5	0.5
Rockfish, Greenspotted	14	4	0.4
Rockfish, Flag	15	4	0.4
Rockfish, Gopher	16	4	0.4
Rockfish, Copper	17	3	0.3
Rockfish, Vermilion	18	3	0.3
Rockfish, Rosy	19	3	0.3
Cowcod	20	2	0.2
Rockfish, Roughey	21	1	0.1
Rockfish, China	22	1	0.1
Rockfish, Canary	23	1	0.1
Cabazon	24	1	0.1
<b>Total</b>		<b>1089</b>	<b>100</b>

#### C. CPUE

Catch per Angler Day = 16.75      Catch per Angler Hour = 2.79

Table 89. Sampled Effort, Ranked Catch and CPUE for Area 4 in 1982 for Quarter 2, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

#### A. Sampled Effort

Number Anglers Intercepted	=	65
Total Hours Effort for Anglers Intercepted	=	390.5
Total Hours Still to Fish (Incomplete Trips)	=	4.0

#### B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Rockfish, Blue	1	387	36.5	0.52	201.79
Bocaccio	2	169	16.0	1.59	269.18
Chilipepper	3	168	15.9	1.15	192.55
Rockfish, Yellowtail	4	114	10.8	0.91	103.32
Rockfish, Olive	5	71	6.7	0.88	62.59
Rockfishes (unidentified)	6	40	3.8	0.90**	36.00
Mackerel, Pacific (Chub)	7	23	2.2	0.41	9.48
Lingcod	8	14	1.3	3.03	42.49
Rockfish, Widow	9	13	1.2	1.21	15.77
Rockfish, Speckled	10	13	1.2	0.49	6.36
Rockfish, Starry	11	9	0.8	0.57	5.14
Rockfish, Rosethorn	12	7	0.7	0.21	1.48
Rockfish, Greenstriped	13	5	0.5	0.40	2.01
Rockfish, Greenspotted	14	4	0.4	0.76	3.03
Rockfish, Flag	15	4	0.4	0.70	2.79
Rockfish, Gopher	16	4	0.4	0.30	1.21
Rockfish, Copper	17	3	0.3	1.48	4.45
Rockfish, Vermilion	18	3	0.3	0.92	2.77
Rockfish, Rosy	19	3	0.3	0.19	0.58
Cowcod	20	2	0.2	3.22	6.43
Rockfish, China	21	1	0.1	0.54	0.54
Rockfish, Canary	22	1	0.1	0.95	0.95
Cabazon	23	1	0.1	3.42	3.42
<b>Total</b>		<b>1059</b>	<b>100</b>		<b>974.32</b>

#### C. CPUE

Catch per Angler Day	=	16.29	Catch per Angler Hour	=	2.71
Kg per Angler Day	=	14.99	Kg per Angler Hour	=	2.50

\* Weight estimated from length-to-weight regression if available.

\*\* Mean weight for this group was not calculated or was estimated from other sources (see text).



Table 90. Sampled Effort, Ranked Catch and CPUE for Area 4 in 1982 for Quarter 2, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

## A. Sampled Effort

Number Anglers Intercepted	=	65
Total Hours Effort for Anglers Intercepted	=	390.5
Total Hours Still to Fish (Incomplete Trips)	=	4.0

## B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Bocaccio	1	269.18	169	16.7	110	1.59	524	68
Rockfish, Blue	2	201.79	387	38.2	232	0.52	320	40
Chilipepper	3	190.26	166	16.4	153	1.15	446	37
Rockfish, Yellowtail	4	103.32	114	11.3	85	0.91	387	66
Rockfish, Olive	5	62.59	71	7.0	70	0.88	401	43
Lingcod	6	42.49	14	1.4	14	3.03	629	126
Rockfish, Widow	7	15.77	13	1.3	13	1.21	437	63
Cowcod	8	6.43	2	0.2	2	3.22	580	45
Rockfish, Speckled	9	6.36	13	1.3	13	0.49	325	34
Rockfish, Starry	10	5.14	9	0.9	9	0.57	321	44
Rockfish, Copper	11	4.45	3	0.3	3	1.48	427	58
Cabezon	12	3.42	1	0.1	1	3.42	616	0
Mackerel, Pacific (Chub)	13	3.30	8	0.8	6	0.41	314	21
Rockfish, Greenspotted	14	3.03	4	0.4	4	0.76	358	47
Rockfish, Flag	15	2.79	4	0.4	4	0.70	345	19
Rockfish, Vermilion	16	2.77	3	0.3	3	0.92	379	57
Rockfish, Greenstriped	17	2.01	5	0.5	5	0.40	319	52
Rockfish, Rosethorn	18	1.48	7	0.7	7	0.21	233	23
Rockfish, Gopher	19	1.21	4	0.4	4	0.30	266	9
Rockfish, Canary	20	0.95	1	0.1	1	0.95	402	0
Rockfish, Rosy	21	0.58	3	0.3	3	0.19	228	18
Rockfish, China	22	0.54	1	0.1	1	0.54	310	0
Rockfishes (unidentified)	23	0.00	10	1.0	0	0.00	0	0
Total		929.84	1012	100	743			

## C. CPUE\*\*\*

Catch per Angler Day	=	15.57	Catch per Angler Hour	=	2.59
Kg per Angler Day	=	14.31	Kg per Angler Hour	=	2.38

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).

Figure 8. Length-Frequency Histogram for Barred Surfperch  
 Taken by Beach and Bank Anglers Using Hook-and-Line Gear.  
 Area 4, Quarter 2, 1982.

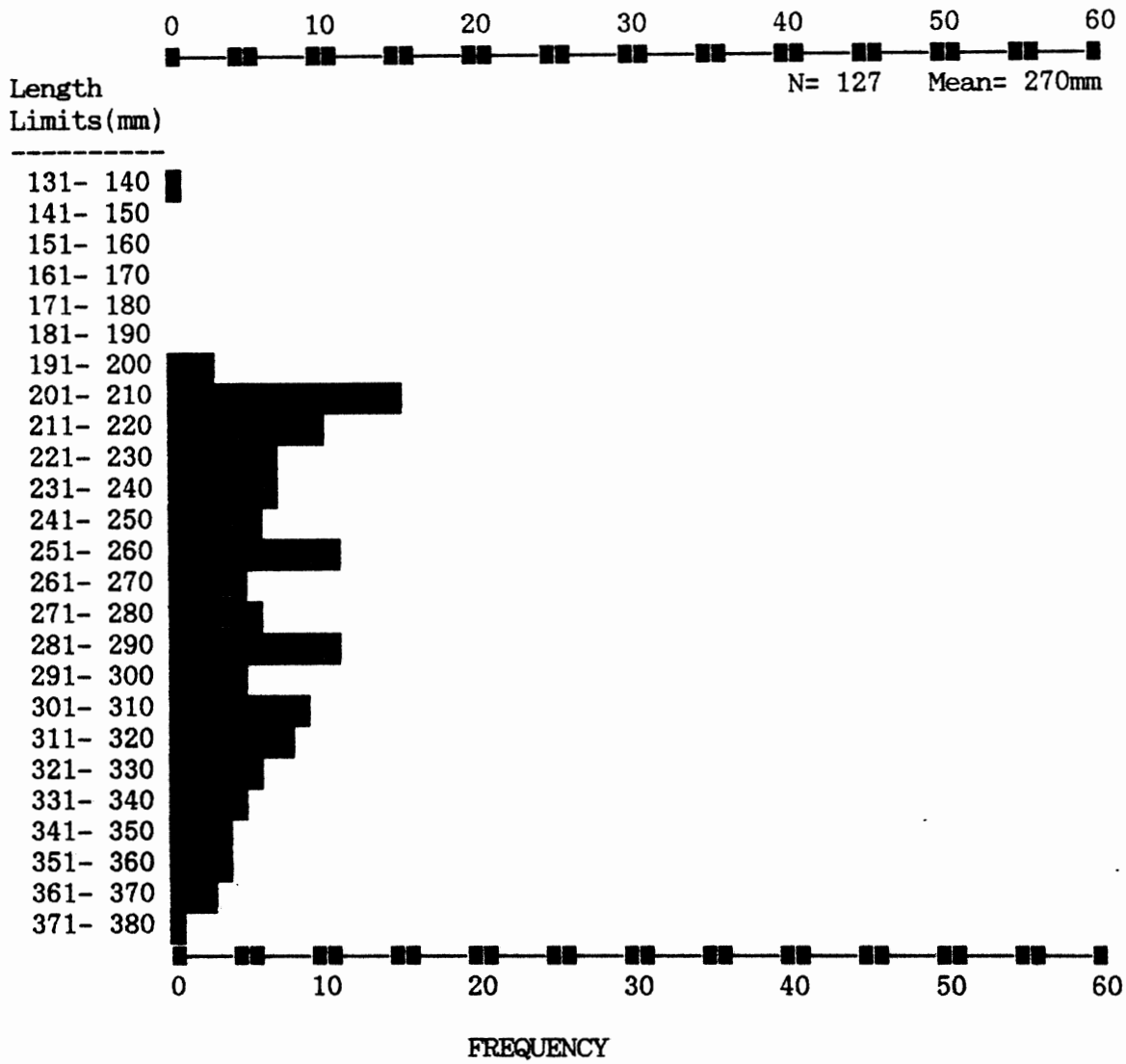


Figure 9. Length-Frequency Histogram for Bocaccio  
 Taken by All CPFV Anglers Using Hook-and-Line Gear.  
 Area 4, Quarter 2, 1982.

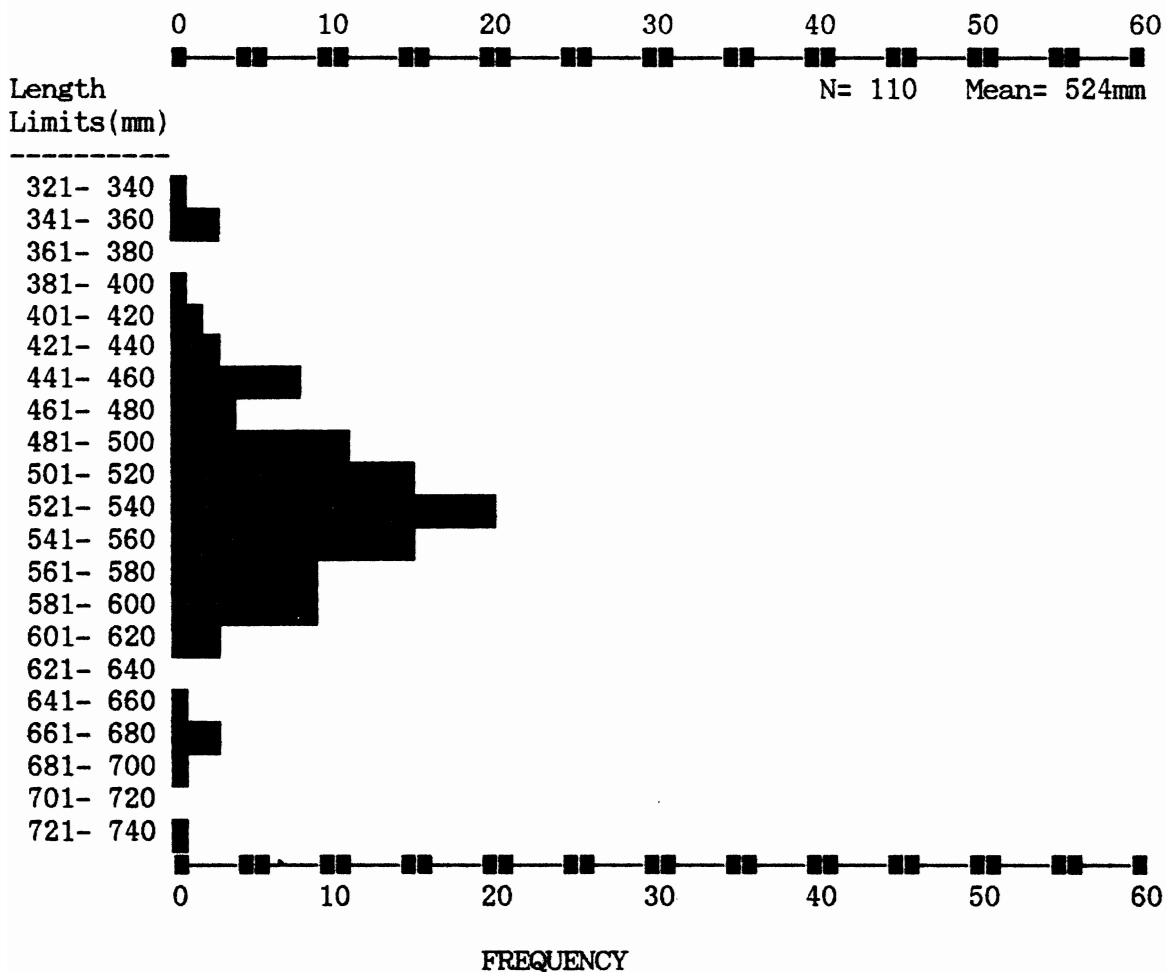


Figure 10. Length-Frequency Histogram for Chilipepper  
 Taken by All CPFV Anglers Using Hook-and-Line Gear.  
 Area 4, Quarter 2, 1982.

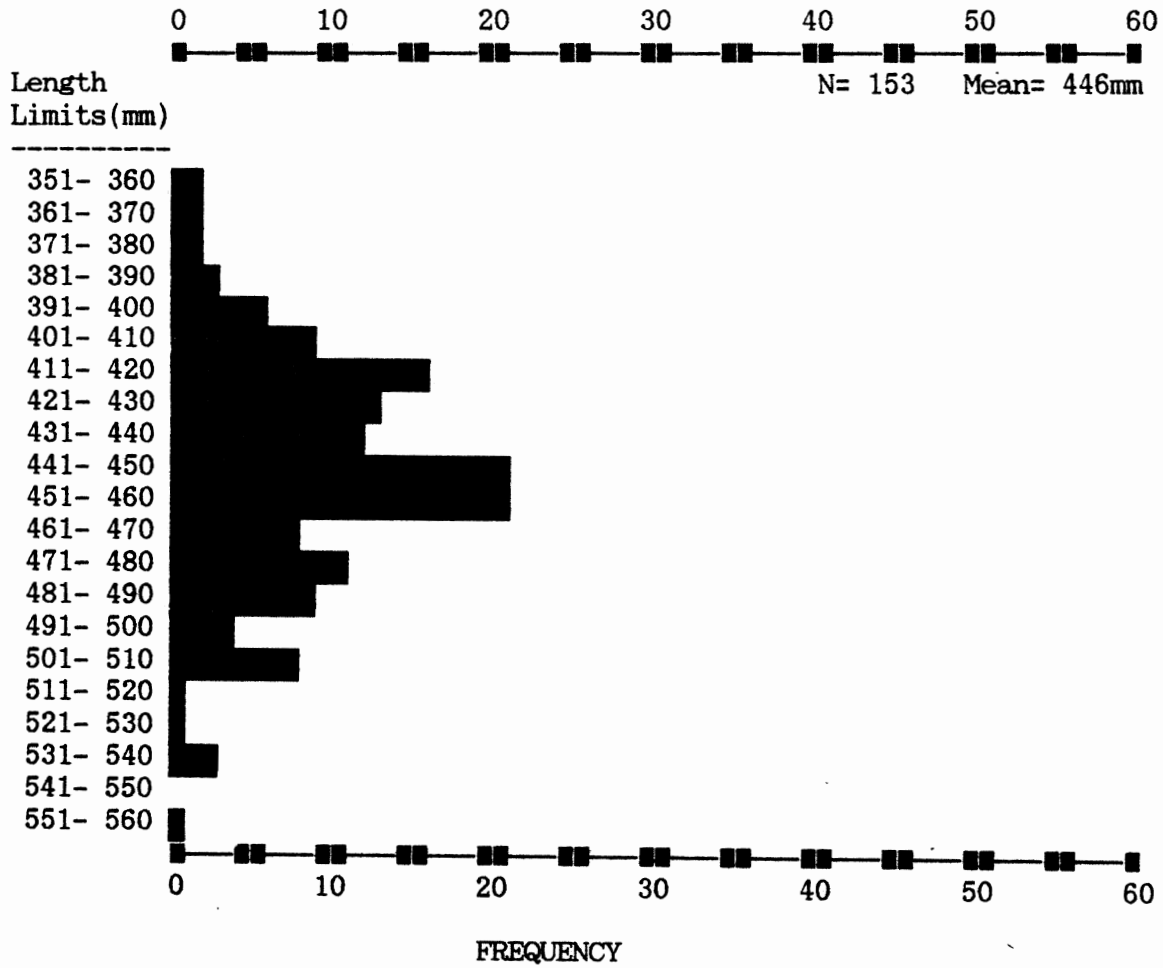


Figure 11. Length-Frequency Histogram for Blue Rockfish  
 Taken by All CPFV Anglers Using Hook-and-Line Gear.  
 Area 4, Quarter 2, 1982.

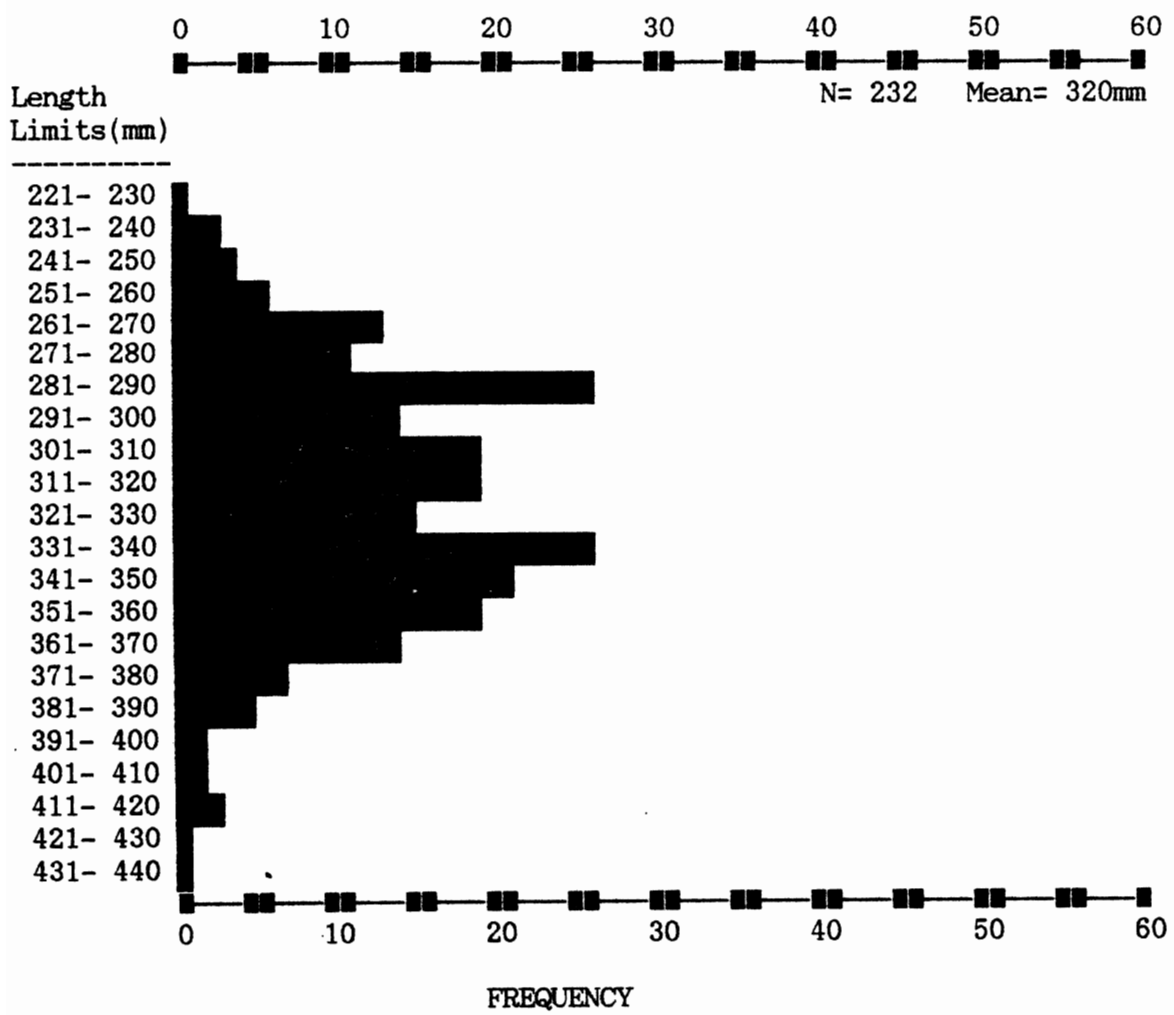


Figure 12. Length-Frequency Histogram for Olive Rockfish  
 Taken by All CPFV Anglers Using Hook-and-Line Gear.  
 Area 4, Quarter 2, 1982.

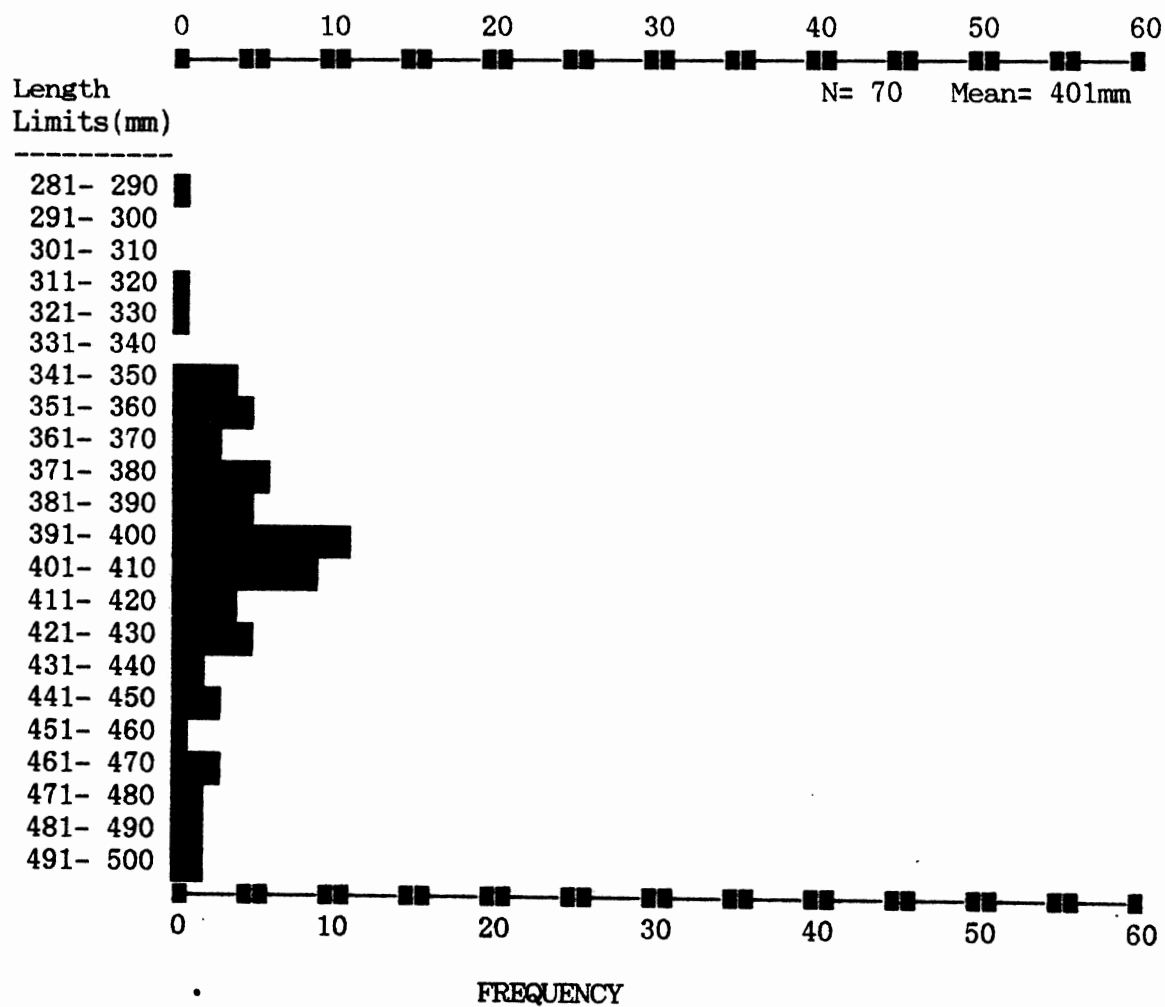


Figure 13. Length-Frequency Histogram for Yellowtail Rockfish  
 Taken by All CPFV Anglers Using Hook-and-Line Gear.  
 Area 4, Quarter 2, 1982.

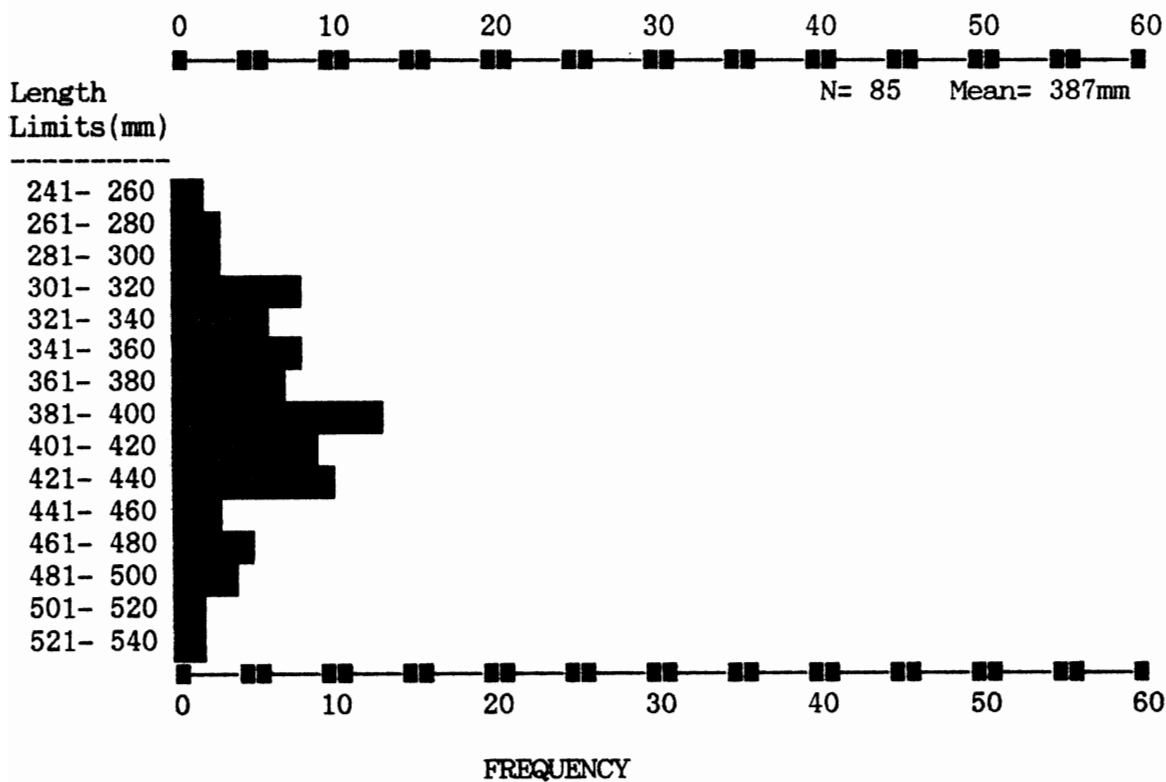


Table 91. Sampled Effort, Ranked Catch and CPUE for Area 5 in 1982 for Quarter 2, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted	=	195
Total Hours Effort for Anglers Intercepted	=	488.5
Total Hours Still to Fish (Incomplete Trips)	=	4.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Surfperches	1	86	29.6
Jacksmelt	2	61	21.0
Croaker, White	3	51	17.5
Surfperch, Silver	4	35	12.0
Surfperch, Calico	5	14	4.8
Surfperch, Walleye	6	12	4.1
Surfperch, Barred	7	12	4.1
Sculpin, Pacific Staghorn	8	11	3.8
Sharks	9	4	1.4
Skates	10	1	0.3
Spotted Ratfish	11	1	0.3
Lingcod	12	1	0.3
Surfperch, Redtail	13	1	0.3
Flounder, Starry	14	1	0.3
Total		291	100

C. CPUE

Catch per Angler Day = 1.49      Catch per Angler Hour = 0.60



Table 92. Sampled Effort, Ranked Catch and CPUE for Area 5 in 1982 for Quarter 2, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted	=	195
Total Hours Effort for Anglers Intercepted	=	488.5
Total Hours Still to Fish (Incomplete Trips)	=	4.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Jacksmelt	1	58	36.9	0.29	16.79
Surfperch, Silver	2	35	22.3	0.09	3.01
Croaker, White	3	15	9.6	0.14	2.04
Surfperch, Calico	4	14	8.9	0.08	1.12
Surfperch, Walleye	5	12	7.6	0.18	2.20
Surfperch, Barred	6	11	7.0	0.16	1.72
Surfperches	7	10	6.4	0.11**	1.10
Surfperch, Redtail	8	1	0.6	0.17	0.17
Flounder, Starry	9	1	0.6	0.00**	0.00
Total		157	100		28.14

C. CPUE

Catch per Angler Day	=	0.81	Catch per Angler Hour	=	0.32
Kg per Angler Day	=	0.14	Kg per Angler Hour	=	0.06

\* Weight estimated from length-to-weight regression if available.

\*\* Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 93. Sampled Effort, Ranked Catch and CPUE for Area 5 in 1982 for Quarter 2, by Pier or Dock Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 195  
 Total Hours Effort for Anglers Intercepted = 488.5  
 Total Hours Still to Fish (Incomplete Trips) = 4.0

B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Jacksmelt	1	11.58	40	40.8	20	0.29	326	56
Surfperch, Silver	2	2.06	24	24.5	24	0.09	172	31
Surfperch, Walleye	3	1.47	8	8.2	8	0.18	219	16
Surfperch, Barred	4	1.41	9	9.2	9	0.16	196	40
Surfperch, Calico	5	1.12	14	14.3	14	0.08	171	21
Croaker, White	6	0.27	2	2.0	2	0.14	230	0
Surfperch, Redtail	7	0.17	1	1.0	1	0.17	220	0
Total		18.07	98	100	78			

C. CPUE\*\*\*

Catch per Angler Day = 0.50      Catch per Angler Hour = 0.20  
 Kg per Angler Day = 0.09      Kg per Angler Hour = 0.04

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).

Table 94. Sampled Effort, Ranked Catch and CPUE for Area 5 in 1982 for Quarter 2, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents All Fish Captured, Both Kept and Returned.

A. Sampled Effort

Number Anglers Intercepted	=	79
Total Hours Effort for Anglers Intercepted	=	229.5
Total Hours Still to Fish (Incomplete Trips)	=	4.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Surfperch, Barred	1	77	39.9
Surfperch, Silver	2	72	37.3
Surfperch, Calico	3	23	11.9
Surfperch, Walleye	4	6	3.1
Rockfish, Grass	5	4	2.1
Surfperch, Redtail	6	4	2.1
Prickleback, Monkeyface	7	3	1.6
Lingcod	8	1	0.5
Cabazon	9	1	0.5
Bass, Kelp	10	1	0.5
Seaperch, Striped	11	1	0.5
Total		193	100

C. CPUE

Catch per Angler Day = 2.44      Catch per Angler Hour = 0.84

Table 95. Sampled Effort, Ranked Catch and CPUE for Area 5 in 1982 for Quarter 2, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

A. Sampled Effort

Number Anglers Intercepted = 79  
 Total Hours Effort for Anglers Intercepted = 229.5  
 Total Hours Still to Fish (Incomplete Trips) = 4.0

B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Surfperch, Barred	1	74	39.4	0.40	29.88
Surfperch, Silver	2	71	37.8	0.12	8.22
Surfperch, Calico	3	23	12.2	0.26	5.94
Surfperch, Walleye	4	6	3.2	0.23	1.36
Rockfish, Grass	5	4	2.1	0.68	2.70
Surfperch, Redtail	6	4	2.1	0.00**	0.00
Prickleback, Monkeyface	7	3	1.6	0.00**	0.00
Lingcod	8	1	0.5	2.46	2.46
Bass, Kelp	9	1	0.5	0.11	0.11
Seaperch, Striped	10	1	0.5	0.49	0.49
Total		188	100		51.15

C. CPUE

Catch per Angler Day = 2.38      Catch per Angler Hour = 0.82  
 Kg per Angler Day = 0.65      Kg per Angler Hour = 0.22

\* Weight estimated from length-to-weight regression if available.

\*\* Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 96. Sampled Effort, Ranked Catch and CPUE for Area 5 in 1982 for Quarter 2, by Beach or Bank Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

## A. Sampled Effort

Number Anglers Intercepted = 79  
 Total Hours Effort for Anglers Intercepted = 229.5  
 Total Hours Still to Fish (Incomplete Trips) = 4.0

## B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Surfperch, Barred	1	28.26	70	39.5	65	0.40	265	57
Surfperch, Silver	2	7.87	68	38.4	52	0.12	193	19
Surfperch, Calico	3	5.94	23	13.0	22	0.26	248	24
Rockfish, Grass	4	2.70	4	2.3	4	0.68	300	70
Lingcod	5	2.46	1	0.6	1	2.46	610	0
Surfperch, Walleye	6	1.36	6	3.4	6	0.23	233	16
Seaperch, Striped	7	0.49	1	0.6	1	0.49	310	0
Bass, Kelp	8	0.11	1	0.6	1	0.11	210	0
Prickleback, Monkeyface	9	0.00	3	1.7	3	0.00	340	53
Total		49.19	177	100	155			

## C. CPUE\*\*\*

Catch per Angler Day = 2.24      Catch per Angler Hour = 0.77  
 Kg per Angler Day = 0.62      Kg per Angler Hour = 0.21

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).

Table 97. Sampled Effort, Ranked Catch and CPUE for Area 5  
in 1982 for Quarter 2, by Private or Rental Boat Anglers Using  
Hook-and-Line Gear. Catch Represents All Fish Captured,  
Both Kept and Returned.

## A. Sampled Effort

Number Anglers Intercepted	=	64
Total Hours Effort for Anglers Intercepted	=	201.5
Total Hours Still to Fish (Incomplete Trips)	=	0.0

## B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Rockfish, Blue	1	112	30.7
Rockfish, Rosy	2	47	12.9
Rockfish, Olive	3	29	7.9
Rockfish, Gopher	4	23	6.3
Rockfish, Yellowtail	5	22	6.0
Rockfishes (unidentified)	6	20	5.5
Rockfish, Vermilion	7	18	4.9
Rockfish, Starry	8	18	4.9
Rockfish, Canary	9	15	4.1
Rockfish, Copper	10	14	3.8
Jacksmelt	11	7	1.9
Rockfish, Greenspotted	12	7	1.9
Lingcod	13	7	1.9
Sanddab, Pacific	14	5	1.4
Rockfish, China	15	4	1.1
Cabezon	16	4	1.1
Ray, Bat	17	3	0.8
Rockfish, Black-and-yellow	18	3	0.8
Sole, Petrale	19	2	0.5
Rockfish, Greenstriped	20	1	0.3
Greenlings (unidentified)	21	1	0.3
Halibut, California	22	1	0.3
Sole, Rock	23	1	0.3
Flounder, Starry	24	1	0.3
Total		365	100

## C. CPUE

Catch per Angler Day = 5.70      Catch per Angler Hour = 1.81

Table 98. Sampled Effort, Ranked Catch and CPUE for Area 5 in 1982 for Quarter 2, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

## A. Sampled Effort

Number Anglers Intercepted	=	64
Total Hours Effort for Anglers Intercepted	=	201.5
Total Hours Still to Fish (Incomplete Trips)	=	0.0

## B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Rockfish, Blue	1	110	30.7	0.52	57.61
Rockfish, Rosy	2	47	13.1	0.24	11.10
Rockfish, Olive	3	29	8.1	0.72	20.80
Rockfish, Gopher	4	23	6.4	0.49	11.18
Rockfish, Yellowtail	5	22	6.1	0.47	10.32
Rockfishes (unidentified)	6	18	5.0	0.53**	9.54
Rockfish, Vermilion	7	18	5.0	1.04	18.78
Rockfish, Starry	8	18	5.0	0.56	10.12
Rockfish, Canary	9	15	4.2	0.58	8.64
Rockfish, Copper	10	14	3.9	0.65	9.03
Jacksmelt	11	7	2.0	0.20	1.41
Rockfish, Greenspotted	12	7	2.0	0.36	2.49
Lingcod	13	7	2.0	2.63	18.38
Sanddab, Pacific	14	5	1.4	0.17	0.87
Rockfish, China	15	4	1.1	0.51	2.03
Cabezon	16	4	1.1	1.59	6.34
Rockfish, Black-and-yellow	17	3	0.8	0.48	1.45
Sole, Petrale	18	2	0.6	0.82	1.63
Rockfish, Greenstriped	19	1	0.3	0.21	0.21
Greenlings (unidentified)	20	1	0.3	2.63**	2.63
Halibut, California	21	1	0.3	1.87	1.87
Sole, Rock	22	1	0.3	0.68	0.68
Flounder, Starry	23	1	0.3	2.18	2.18
Total		358	100		209.29

## C. CPUE

Catch per Angler Day	=	5.59	Catch per Angler Hour	=	1.78
Kg per Angler Day	=	3.27	Kg per Angler Hour	=	1.04

\* Weight estimated from length-to-weight regression if available.

\*\* Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 99. Sampled Effort, Ranked Catch and CPUE for Area 5 in 1982 for Quarter 2, by Private or Rental Boat Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

A. Sampled Effort

Number Anglers Intercepted = 64  
 Total Hours Effort for Anglers Intercepted = 201.5  
 Total Hours Still to Fish (Incomplete Trips) = 0.0

B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	!---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Rockfish, Blue	1	57.61	110	33.1	77	0.52	322	32
Rockfish, Olive	2	20.80	29	8.7	29	0.72	376	39
Rockfish, Vermilion	3	18.78	18	5.4	18	1.04	378	97
Lingcod	4	15.75	6	1.8	6	2.63	615	81
Rockfish, Gopher	5	11.18	23	6.9	23	0.49	293	21
Rockfish, Rosy	6	11.10	47	14.2	31	0.24	242	21
Rockfish, Yellowtail	7	10.32	22	6.6	20	0.47	306	68
Rockfish, Starry	8	10.12	18	5.4	13	0.56	322	31
Rockfish, Copper	9	9.03	14	4.2	14	0.65	319	56
Rockfish, Canary	10	8.64	15	4.5	15	0.58	338	30
Cabezon	11	4.76	3	0.9	3	1.59	462	42
Rockfish, Greenspotted	12	2.49	7	2.1	7	0.36	260	86
Flounder, Starry	13	2.18	1	0.3	1	2.18	540	0
Rockfish, China	14	2.03	4	1.2	4	0.51	300	35
Halibut, California	15	1.87	1	0.3	1	1.87	563	0
Sole, Petrale	16	1.63	2	0.6	2	0.82	397	45
Rockfish, Black-and-yellow	17	1.45	3	0.9	3	0.48	292	27
Sanddab, Pacific	18	0.87	5	1.5	5	0.17	248	25
Sole, Rock	19	0.68	1	0.3	1	0.68	370	0
Rockfish, Greenstriped	20	0.21	1	0.3	1	0.21	265	0
Jacksmelt	21	0.20	1	0.3	1	0.20	300	0
Greenlings (unidentified)	22	0.00	1	0.3	0	0.00	0	0
Total		191.70	332	100	275			

C. CPUE\*\*\*

Catch per Angler Day = 5.19      Catch per Angler Hour = 1.65  
 Kg per Angler Day = 3.00      Kg per Angler Hour = 0.95

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).



Table 100. Sampled Effort, Ranked Catch and CPUE for Area 5  
in 1982 for Quarter 2, by All CPFV Anglers Using  
Hook-and-Line Gear. Catch Represents All Fish Captured,  
Both Kept and Returned.

## A. Sampled Effort

Number Anglers Intercepted	=	12
Total Hours Effort for Anglers Intercepted	=	29.0
Total Hours Still to Fish (Incomplete Trips)	=	0.0

## B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number
Rockfish, Blue	1	116	64.4
Rockfishes (unidentified)	2	15	8.3
Rockfish, Rosy	3	11	6.1
Rockfish, Yellowtail	4	10	5.6
Rockfish, Starry	5	9	5.0
Rockfish, Olive	6	4	2.2
Bocaccio	7	3	1.7
Rockfish, Canary	8	3	1.7
Rockfish, Gopher	9	2	1.1
Rockfish, Copper	10	1	0.6
Rockfish, Vermilion	11	1	0.6
Rockfish, China	12	1	0.6
Rockfish, Yelloweye	13	1	0.6
Rockfish, Greenspotted	14	1	0.6
Rockfish, Flag	15	1	0.6
Lingcod	16	1	0.6
Total		180	100

## C. CPUE

Catch per Angler Day = 15.00      Catch per Angler Hour = 6.21

Table 101. Sampled Effort, Ranked Catch and CPUE for Area 5 in 1982 for Quarter 2, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents Number Landed and Does Not Include Fish Returned Dead or Alive.

## A. Sampled Effort

Number Anglers Intercepted = 12  
 Total Hours Effort for Anglers Intercepted = 29.0  
 Total Hours Still to Fish (Incomplete Trips) = 0.0

## B. Ranked Catch

Common name	Rank by Number	Number Caught	% by Number	Mean Wt. (kg)*	Weight Caught
Rockfish, Blue	1	116	64.4	0.50	57.83
Rockfishes (unidentified)	2	15	8.3	0.55**	8.25
Rockfish, Rosy	3	11	6.1	0.24	2.67
Rockfish, Yellowtail	4	10	5.6	0.85	8.45
Rockfish, Starry	5	9	5.0	0.56	5.08
Rockfish, Olive	6	4	2.2	1.32	5.30
Bocaccio	7	3	1.7	0.89	2.68
Rockfish, Canary	8	3	1.7	0.45	1.36
Rockfish, Gopher	9	2	1.1	0.59	1.18
Rockfish, Copper	10	1	0.6	0.60	0.60
Rockfish, Vermilion	11	1	0.6	1.77	1.77
Rockfish, China	12	1	0.6	0.59	0.59
Rockfish, Yelloweye	13	1	0.6	2.12	2.12
Rockfish, Greenspotted	14	1	0.6	0.44	0.44
Rockfish, Flag	15	1	0.6	0.80	0.80
Lingcod	16	1	0.6	3.38	3.38
Total		180	100		102.48

## C. CPUE

Catch per Angler Day = 15.00      Catch per Angler Hour = 6.21  
 Kg per Angler Day = 8.54      Kg per Angler Hour = 3.53

\* Weight estimated from length-to-weight regression if available.

\*\* Mean weight for this group was not calculated or was estimated from other sources (see text).

Table 102. Sampled Effort, Ranked Catch and CPUE for Area 5 in 1982 for Quarter 2, by All CPFV Anglers Using Hook-and-Line Gear. Catch Represents Only the Fish Examined by the Sampler.

## A. Sampled Effort

Number Anglers Intercepted	=	12
Total Hours Effort for Anglers Intercepted	=	29.0
Total Hours Still to Fish (Incomplete Trips)	=	0.0

## B. Ranked Catch

Common name	Rank by Wt.	Weight* Caught	Number Caught	% by No.	No. Meas.	!---Mean---		SD LN.
						Wt.* (kg)	Ln.** (mm)	
Rockfish, Blue	1	57.83	116	70.3	78	0.50	315	40
Rockfish, Yellowtail	2	8.45	10	6.1	10	0.85	373	82
Rockfish, Olive	3	5.30	4	2.4	4	1.32	460	33
Rockfish, Starry	4	5.08	9	5.5	9	0.56	322	32
Lingcod	5	3.38	1	0.6	1	3.38	678	0
Bocaccio	6	2.68	3	1.8	3	0.89	432	81
Rockfish, Rosy	7	2.67	11	6.7	11	0.24	245	13
Rockfish, Yelloweye	8	2.12	1	0.6	1	2.12	485	0
Rockfish, Vermilion	9	1.77	1	0.6	1	1.77	480	0
Rockfish, Canary	10	1.36	3	1.8	3	0.45	305	67
Rockfish, Gopher	11	1.18	2	1.2	2	0.59	310	28
Rockfish, Flag	12	0.80	1	0.6	1	0.80	362	0
Rockfish, Copper	13	0.60	1	0.6	1	0.60	320	0
Rockfish, China	14	0.59	1	0.6	1	0.59	318	0
Rockfish, Greenspotted	15	0.44	1	0.6	1	0.44	302	0
Total		94.23	165	100	127			

## C. CPUE\*\*\*

Catch per Angler Day	=	13.75	Catch per Angler Hour	=	5.69
Kg per Angler Day	=	7.85	Kg per Angler Hour	=	3.25

\* Weight estimated from length-to-weight regression if available.

\*\* Total length except for species with tuna-like caudal fins (see text).

\*\*\* CPUE is underestimated if all fish taken were not examined (see text).

Figure 14. Length-Frequency Histogram for Blue Rockfish  
 Taken by Private or Rental Boat Anglers Using Hook-and-Line Gear.  
 Area 5, Quarter 2, 1982.

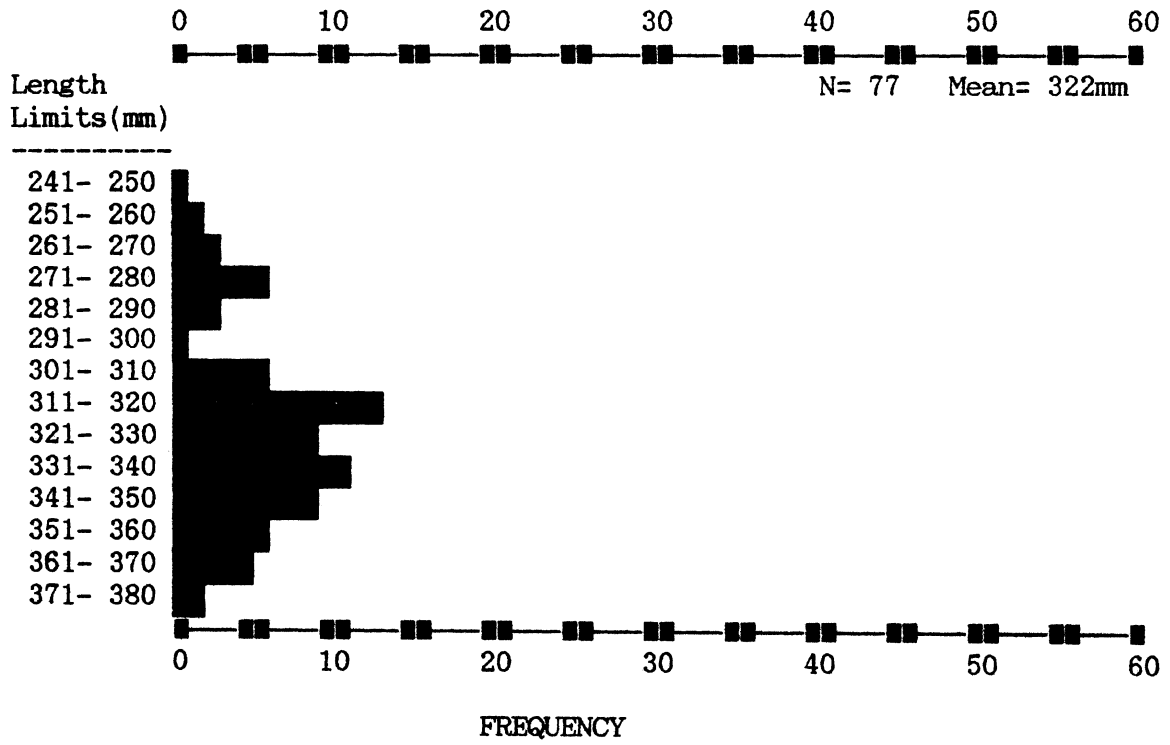
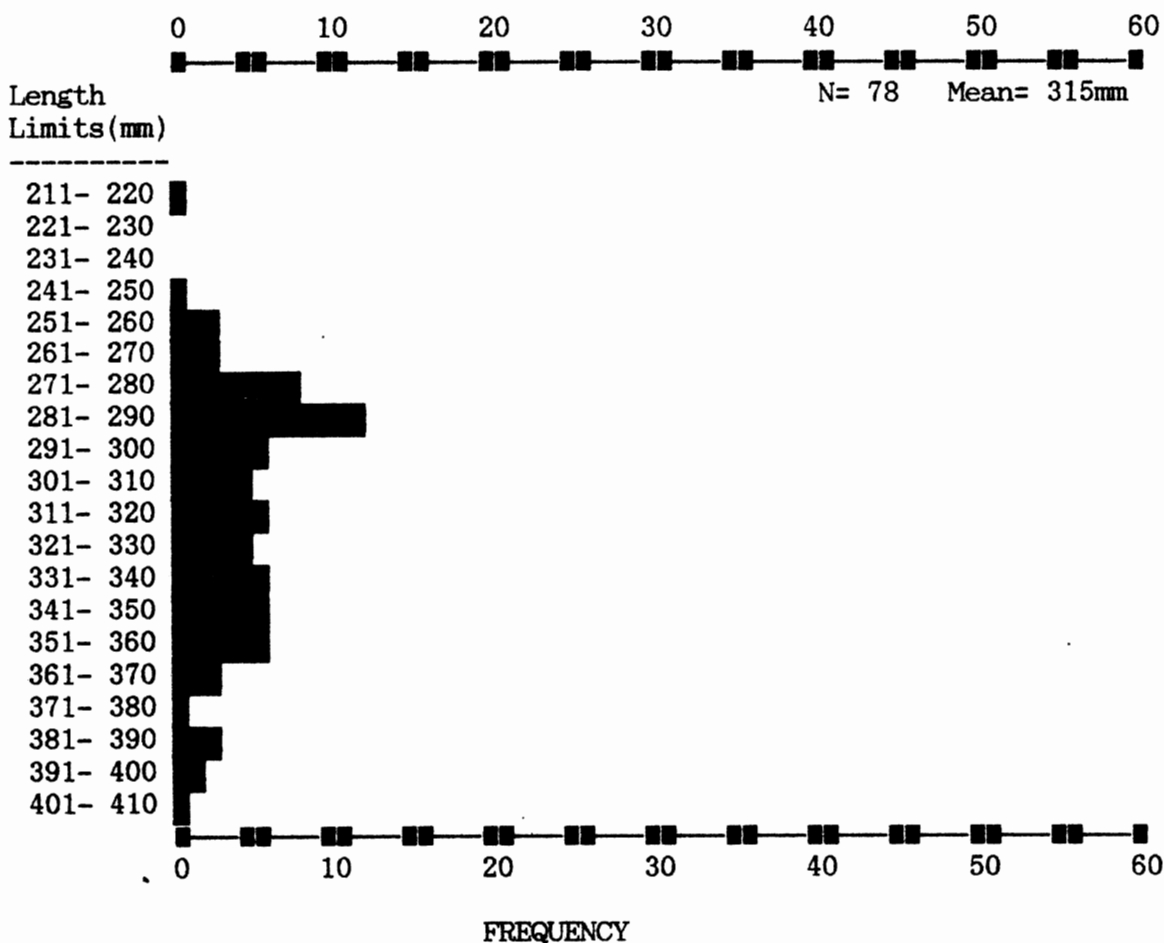


Figure 15. Length-Frequency Histogram for Blue Rockfish  
 Taken by All CPFV Anglers Using Hook-and-Line Gear.  
 Area 5, Quarter 2, 1982.



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APPENDIX A

Pages 126 to 254 are on the attached microfiche on inside of back cover.

Appendix B. List of Common Names, Scientific Names, and Length-Weight Parameters from All Areas in 1982 for Quarter 2, Taken by All Mode Anglers Using All Types of Gear.

Common Name	Scientific Name	a	b
Sturgeon, Green	<u>Acipenser medirostris</u>	0.00000053086	3.34800
Sturgeon, White	<u>Acipenser transmontanus</u>	0.00000053086	3.34800
Sturgeons (unidentified)	Acipenseridae		
Surfperch, Barred	<u>Amphistichus argenteus</u>	0.00001070000	3.10250
Surfperch, Calico	<u>Amphistichus koelzi</u>	0.00000469894	3.22700
Surfperch, Redtail	<u>Amphistichus rhodoterus</u>	0.00000469894	3.22700
Sculpin, Rosylip	<u>Ascelichthys rhodorus</u>		
Topsmelt	<u>Atherinops affinis</u>	0.00005566000	2.59000
Jacksmelt	<u>Atherinopsis californiensis</u>	0.00000098820	3.35360
Perch, Kelp	<u>Brachyistius frenatus</u>		
Prickleback, Monkeyface	<u>Cebidichthys violaceus</u>	0.00000000000	0.00000
Sharks	Chondrichthyes		
Sanddab, Pacific	<u>Citharichthys sordidus</u>	0.00000142860	3.37080
Sanddab, Speckled	<u>Citharichthys stigmaeus</u>	0.00000266000	3.29530
Herring, Pacific	<u>Clupea harengus pallasii</u>	0.00002519100	2.84900
Sculpins	Cottidae		
Sculpin, Coastrange	<u>Cottus aleuticus</u>		
Perch, Shiner	<u>Cymatogaster aggregata</u>	0.00000473500	3.21000
Stingrays	Dasyatidae		
Perch, Black	<u>Embiotoca jacksoni</u>	0.00029100000	2.49640
Seaperch, Striped	<u>Embiotoca lateralis</u>	0.00001540000	3.01000
Surfperches	Embiotocidae		
Sculpin, Buffalo	<u>Enophrys bison</u>	0.00001790000	2.89600
Sole, Petrale	<u>Eopsetta jordani</u>	0.00000305800	3.23950
Croaker, White	<u>Genyonemus lineatus</u>	0.00000708500	3.08328
Opaleye	<u>Girella nigricans</u>	0.00001448300	3.04927
Sole, Rex	<u>Glyptocephalus zachirus</u>	0.00000024090	3.55500
Irish Lord, Red	<u>Hemilepidotus hemilepidotus</u>	0.00003580000	2.89600
Greenlings (unidentified)	Hexagrammidae		
Greenling, Kelp	<u>Hexagrammos decagrammus</u>	0.00002604300	2.89280
Greenling, Rock	<u>Hexagrammos lagocephalus</u>	0.00002604300	2.89280
Spotted Ratfish	<u>Hydrolagus colliei</u>	0.00000631000	2.97000
Surfperch, Walleye	<u>Hyperprosopon argenteum</u>	0.00000035580	3.71700
Surfperch, Silver	<u>Hyperprosopon ellipticum</u>	0.00000469894	3.22700
Smelt, Surf	<u>Hypomesus pretiosus</u>	0.00000086900	3.38600
Blenny, Bay	<u>Hypsoblennius gentilis</u>	0.00000000000	0.00000
Seaperch, Rainbow	<u>Hypsurus caryi</u>	0.00001535000	3.00700
Garibaldi	<u>Hypsypops rubicundus</u>		
Sharks, Mackerel	Lamnidae		
Sole, Rock	<u>Lepidopsetta bilineata</u>	0.00000760300	3.09570
Sculpin, Pacific Staghorn	<u>Leptocottus armatus</u>	0.00001790000	2.89600
Hake, Pacific	<u>Merluccius productus</u>	0.00000633000	3.03000
Tomcod, Pacific	<u>Microgadus proximus</u>	0.00000534900	3.07000
Sole, Dover	<u>Microstomus pacificus</u>		
Sunfish, Ocean	<u>Mola mola</u>	0.00000000000	0.00000
Bass, Striped	<u>Morone saxatilis</u>	0.00001068210	2.90671
Smoothhound, Brown	<u>Mustelus henlei</u>	0.00002089000	2.88000
Eagle Rays	Myliobatidae		



APPENDIX B (continued)

Common Name	Scientific Name	a	b
Ray, Bat	<u>Myliobatis californica</u>	0.00001054400	3.09289
Salmon	<u>Oncorhynchus spp.</u>		
Salmon, Chinook (King)	<u>Oncorhynchus tshawytscha</u>	0.00000944000	3.00000
Lingcod	<u>Ophiodon elongatus</u>	0.00001157000	2.99000
Bass, Kelp	<u>Paralabrax clathratus</u>	0.00000271598	3.27000
Halibut, California	<u>Paralichthys californicus</u>	0.00000849000	3.03300
Sole, English	<u>Parophrys vetulus</u>	0.00009460000	2.58900
Seaperch, Sharpnose	<u>Phanerodon atripes</u>	0.00001370000	2.98000
Seaperch, White	<u>Phanerodon furcatus</u>	0.00001366000	2.97800
Flounder, Starry	<u>Platichthys stellatus</u>	0.00000163000	3.34000
Flounders, Righteye	<u>Pleuronectidae</u>		
Shark, Blue	<u>Prionace glauca</u>	0.00000082655	3.20000
Sole, Sand	<u>Psettichthys melanostictus</u>	0.00000277100	3.26480
Skate, Big	<u>Raja binoculata</u>	0.00002428050	2.85496
Skates	<u>Rajidae</u>		
Seaperch, Rubberlip	<u>Rhacochilus toxotes</u>	0.00003220500	2.90840
Perch, Pile	<u>Rhacochilus vacca</u>	0.00000925500	3.09900
Trouts	<u>Salmonidae</u>		
Mackerel, Pacific (Chub)	<u>Scomber japonicus</u>	0.00000136600	3.39360
Cabezon	<u>Scorpaenichthys marmoratus</u>	0.00008823220	2.72030
Rockfishes (unidentified)	<u>Scorpaenidae</u>		
Rockfish, Rougheye	<u>Sebastes aleutianus</u>		
Rockfish, Kelp	<u>Sebastes atrovirens</u>	0.00003277410	2.86200
Rockfish, Brown	<u>Sebastes auriculatus</u>	0.00002601290	2.93360
Rockfish, Gopher	<u>Sebastes carnatus</u>	0.00002047310	2.95730
Rockfish, Copper	<u>Sebastes caurinus</u>	0.00001648140	3.01800
Rockfish, Greenspotted	<u>Sebastes chlorostictus</u>	0.00002047310	2.95730
Rockfish, Black-and-yellow	<u>Sebastes chrysomelas</u>	0.00000446010	3.25650
Rockfish, Starry	<u>Sebastes constellatus</u>	0.00000531230	3.19500
Rockfish, Greenstriped	<u>Sebastes elongatus</u>	0.00000475820	3.15310
Rockfish, Widow	<u>Sebastes entomelas</u>	0.00000291200	3.25430
Rockfish, Yellowtail	<u>Sebastes flavidus</u>	0.00001130400	3.04020
Chilipepper	<u>Sebastes goodei</u>	0.00000283950	3.24380
Rockfish, Rosethorn	<u>Sebastes helvomaculatus</u>	0.00001678550	2.99430
Cowcod	<u>Sebastes levis</u>	0.00001851570	2.98070
Rockfish, Quillback	<u>Sebastes maliger</u>	0.00003000000	2.93000
Rockfish, Black	<u>Sebastes melanops</u>	0.00001965710	2.95480
Rockfish, Vermilion	<u>Sebastes miniatus</u>	0.00002677000	2.91650
Rockfish, Blue	<u>Sebastes mystinus</u>	0.00001624670	2.98849
Rockfish, China	<u>Sebastes nebulosus</u>	0.00000564040	3.20470
Rockfish, Speckled	<u>Sebastes ovalis</u>	0.00000324000	3.25050
Bocaccio	<u>Sebastes paucispinis</u>	0.00000583320	3.09410
Rockfish, Canary	<u>Sebastes pinniger</u>	0.00001051000	3.05560
Rockfish, Grass	<u>Sebastes rastrelliger</u>	0.00000575900	3.23500
Rockfish, Rosy	<u>Sebastes rosaceus</u>	0.00001678900	2.99430
Rockfish, Yelloweye	<u>Sebastes ruberrimus</u>	0.00001304370	3.05710
Rockfish, Flag	<u>Sebastes rubrivinctus</u>	0.00002346750	2.94310
Rockfish, Olive	<u>Sebastes serranoides</u>	0.00000521020	3.15410
Thornyhead, Shortspine	<u>Sebastolobus alascanus</u>	0.00001406040	3.06300

APPENDIX B (continued)

Common Name	Scientific Name	a	b
Sea Basses	Serranidae		
Shark, Leopard	<u>Triakis semifasciata</u>	0.00002089000	2.88000
Unidentified Fishes	Unidentified Pisces		
Prickleback, Rock	<u>Xiphister mucosus</u>	0.00000000000	0.00000

Appendix C. List of Common and Scientific Names for Fish from Areas 097 and 3 in 1982 for Quarter 2 Corrected from Fork to Total Length Using Linear Regressions from Echeverria and Lenarz (1984), Karpov (In Press), and Van Hying (1951).

Common Name	Scientific Name
Sturgeon, Green	<u>Acipenser medirostris</u>
Sturgeon, White	<u>Acipenser transmontanus</u>
Sturgeons (unidentified)	Acipenseridae
Surfperch, Barred	<u>Amphistichus argenteus</u>
Surfperch, Redtail	<u>Amphistichus rhodoterus</u>
Topsmelt	<u>Atherinops affinis</u>
Jacksmelt	<u>Atherinopsis californiensis</u>
Perch, Kelp	<u>Brachyistius frenatus</u>
Perch, Shiner	<u>Cymatogaster aggregata</u>
Perch, Black	<u>Embiotoca jacksoni</u>
Seaperch, Striped	<u>Embiotoca lateralis</u>
Croaker, White	<u>Genyonemus lineatus</u>
Opaleye	<u>Girella nigricans</u>
Greenling, Kelp	<u>Hexagrammos decagrammus</u>
Greenling, Rock	<u>Hexagrammos lagocephalus</u>
Surfperch, Walleye	<u>Hyperprosopon argenteum</u>
Surfperch, Silver	<u>Hyperprosopon ellipticum</u>
Smelt, Surf	<u>Hypomesus pretiosus</u>
Seaperch, Rainbow	<u>Hypsurus caryi</u>
Sculpin, Pacific Staghorn	<u>Leptocottus armatus</u>
Bass, Striped	<u>Morone saxatilis</u>
Salmon, Chinook (King)	<u>Oncorhynchus tshawytscha</u>
Lingcod	<u>Ophiodon elongatus</u>
Seaperch, White	<u>Phanerodon furcatus</u>
Seaperch, Rubberlip	<u>Rhacochilus toxotes</u>
Perch, Pile	<u>Rhacochilus vacca</u>
Rockfish, Brown	<u>Sebastes auriculatus</u>
Rockfish, Copper	<u>Sebastes caurinus</u>
Rockfish, Greenspotted	<u>Sebastes chlorostictus</u>
Rockfish, Starry	<u>Sebastes constellatus</u>
Rockfish, Yellowtail	<u>Sebastes flavidus</u>
Rockfish, Black	<u>Sebastes melanops</u>
Rockfish, Vermilion	<u>Sebastes miniatus</u>
Rockfish, Blue	<u>Sebastes mystinus</u>
Rockfish, China	<u>Sebastes nebulosus</u>
Bocaccio	<u>Sebastes paucispinis</u>
Rockfish, Canary	<u>Sebastes pinniger</u>
Rockfish, Rosy	<u>Sebastes rosaceus</u>